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Teaching Secular Stagnation

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Udayan Roy

Outline

Teaching Secular Stagnation

Sebastien Buttet Udayan Roy

CUNY, Guttman CC and Long Island University

November 6th, 2015

Outline

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Background

Model

Concluding
Remarks

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2 Model

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- Lots of research and policy debate about Secular stagnation following Summers 2013 IMF speech

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- Lots of research and policy debate about Secular stagnation following Summers 2013 IMF speech
- No consensus about how to define Secular Stagnation (VOX EU collection of papers 2014)

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Remarks

- Lots of research and policy debate about Secular stagnation following Summers 2013 IMF speech
- No consensus about how to define Secular Stagnation (VOX EU collection of papers 2014)
- Summers' definition: drop in the natural interest rate.

Research Question

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How can we modify a simple Neo-Keynesian of the business cycles to teach secular stagnation in Intermediate Macroeconomics courses?

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A simple Keynesian Model of the Business Cycle

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IS-PC-MR Model

- Aggregate demand: $Y_t = \bar{Y}_t - \alpha(r_t - \rho) + \epsilon_t$

A simple Keynesian Model of the Business Cycle

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IS-PC-MR Model

- Aggregate demand: $Y_t = \bar{Y}_t - \alpha(r_t - \rho) + \epsilon_t$
- Philips curve: $\pi_t = \pi_{t-1} + \phi(Y_t - \bar{Y}_t) + \nu_t$

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IS-PC-MR Model

- Aggregate demand: $Y_t = \bar{Y}_t - \alpha(r_t - \rho) + \epsilon_t$
- Philips curve: $\pi_t = \pi_{t-1} + \phi(Y_t - \bar{Y}_t) + \nu_t$
- Taylor rule:
$$i_t = \max\{0, \pi_t + \rho + \theta_{\pi t}(\pi_t - \pi_t^*) + \theta_{Yt}(Y_t - \bar{Y}_t)\}$$

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IS-PC-MR Model

- Aggregate demand: $Y_t = \bar{Y}_t - \alpha(r_t - \rho) + \epsilon_t$
- Philips curve: $\pi_t = \pi_{t-1} + \phi(Y_t - \bar{Y}_t) + \nu_t$
- Taylor rule:
$$i_t = \max\{0, \pi_t + \rho + \theta_{\pi t}(\pi_t - \pi_t^*) + \theta_{Yt}(Y_t - \bar{Y}_t)\}$$
- Fisher equation: $r_t = i_t - \pi_t$

Equilibrium

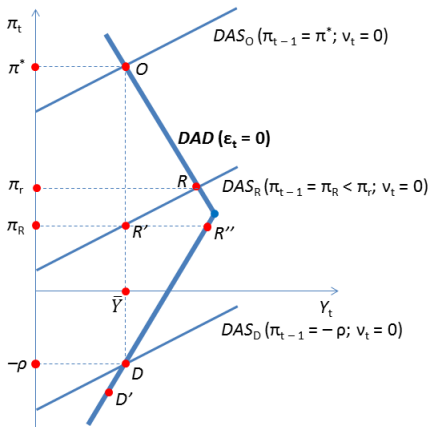
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Drop in Natural Interest rate

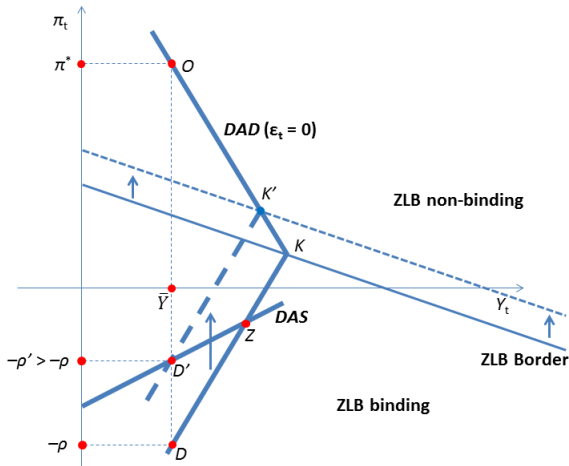
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Raise inflation target

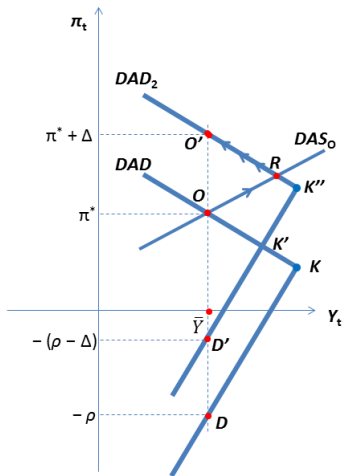
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Data

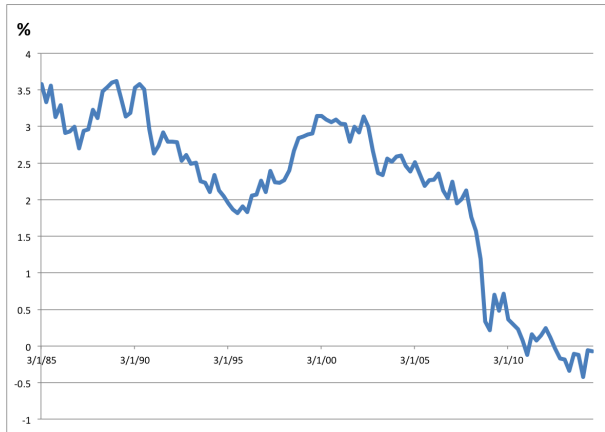
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- Modified a simple Keynesian model of the business cycle to teach secular stagnation in Intermediate Macroeconomics.

Concluding Remarks

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Remarks

- Modified a simple Keynesian model of the business cycle to teach secular stagnation in Intermediate Macroeconomics.
- Interesting result: Central bank should raise inflation target even when the ZLB is *not* binding to counter deflationary threats