Who Pays Attention to Euler?

Edmund Crawley and Fabian Winkler

Mortgages and monetary policy transmission

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This tension in the literature has to do with intertemporal substitution.

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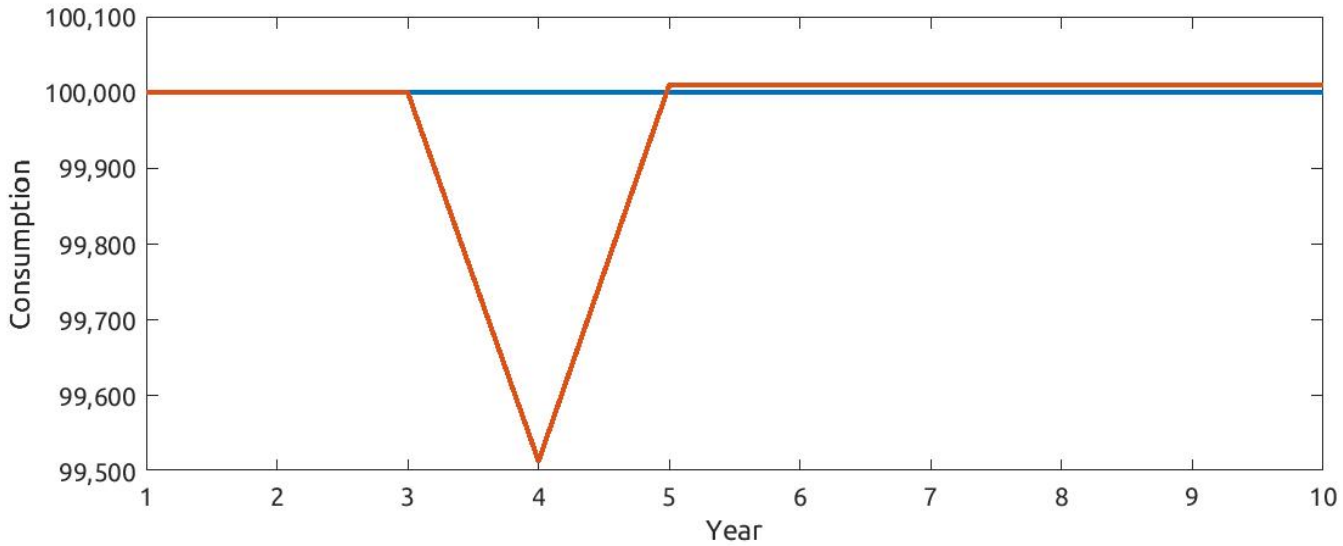
Partial equilibrium example: Real rate goes up 1% for one year



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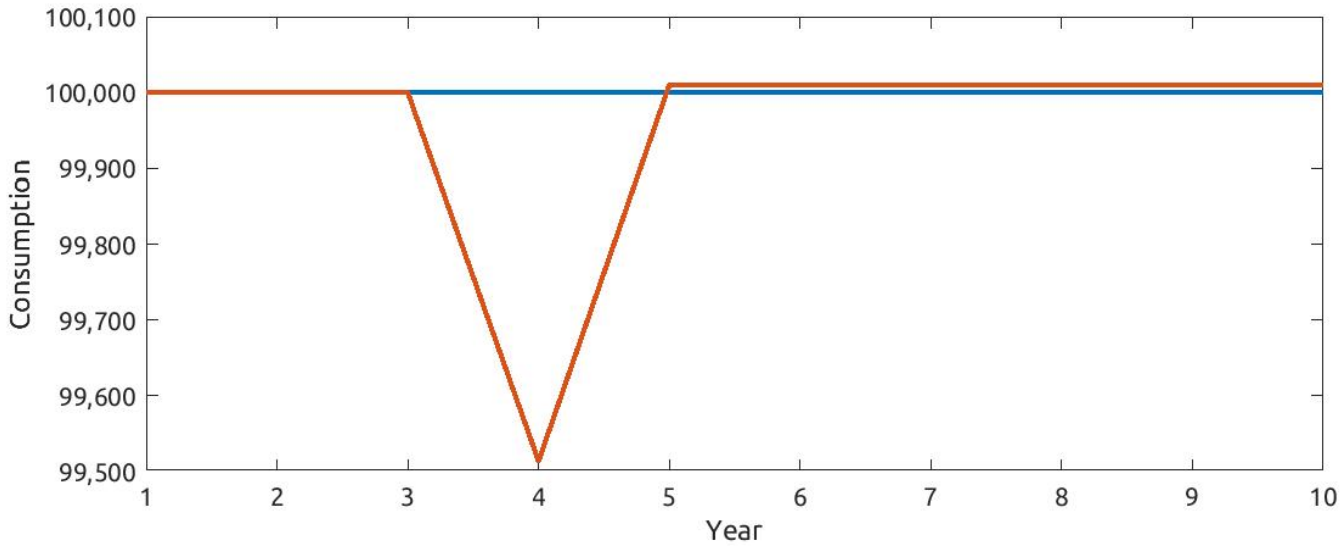

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BUT: This change in behavior is worth just \$2.50 to the household

Canonical monetary policy models work via an incentive that is worth less than a cup of coffee

Evidence for Intertemporal Substitution

- Macro: Complete failure of relation between real rates and consumption growth
- Micro: No convincing evidence interest rate incentives incite intertemporal substitution
- 30-year treasury down almost 2 percentage points since Nov 2018 $\implies$ I should increase consumption by over 10% today (all else equal)
- When I ask financial advisors how interest rates change their saving advice, they look at me like I'm crazy!
- Evidence from default pension saving: people really don't pay attention to this decision - Madrian and Shea (2001)

Interest Rates: For Whom is Inattention Costly?

Main Idea:

- Entirely rational for unconstrained households to ignore interest rates
- Constrained agents *cannot* ignore interest rates: they directly determine constraints
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We examine a Two Agent New Keynesian (TANK) model in which

- Unconstrained agents are inattentive
- Constrained agents are attentive
- Refinancing decisions are made à la Greenwald (2018)

Implications

Puzzles resolved:

- Monetary policy affects long term real rates
- Mortgages matter for policy transmission
- Forward Guidance puzzle disappears ($\approx$ Euler eq. discounting)

Policy Implications:

- Monetary Policy acts through redistribution (and investment)
- Much closer relation to fiscal policy

Costs of Inattention: A Numerical Example

Model:

- 40 years of life
- Consumption and Income constant in baseline ($\beta = 1/R$)
- Consumer has a mortgage, face value one year of income, fixed installments for 20 years.
- Experiment: Shock real rate - exponentially decaying shock with half life 2.5 years (5 year rates moves 0.5x size of shock

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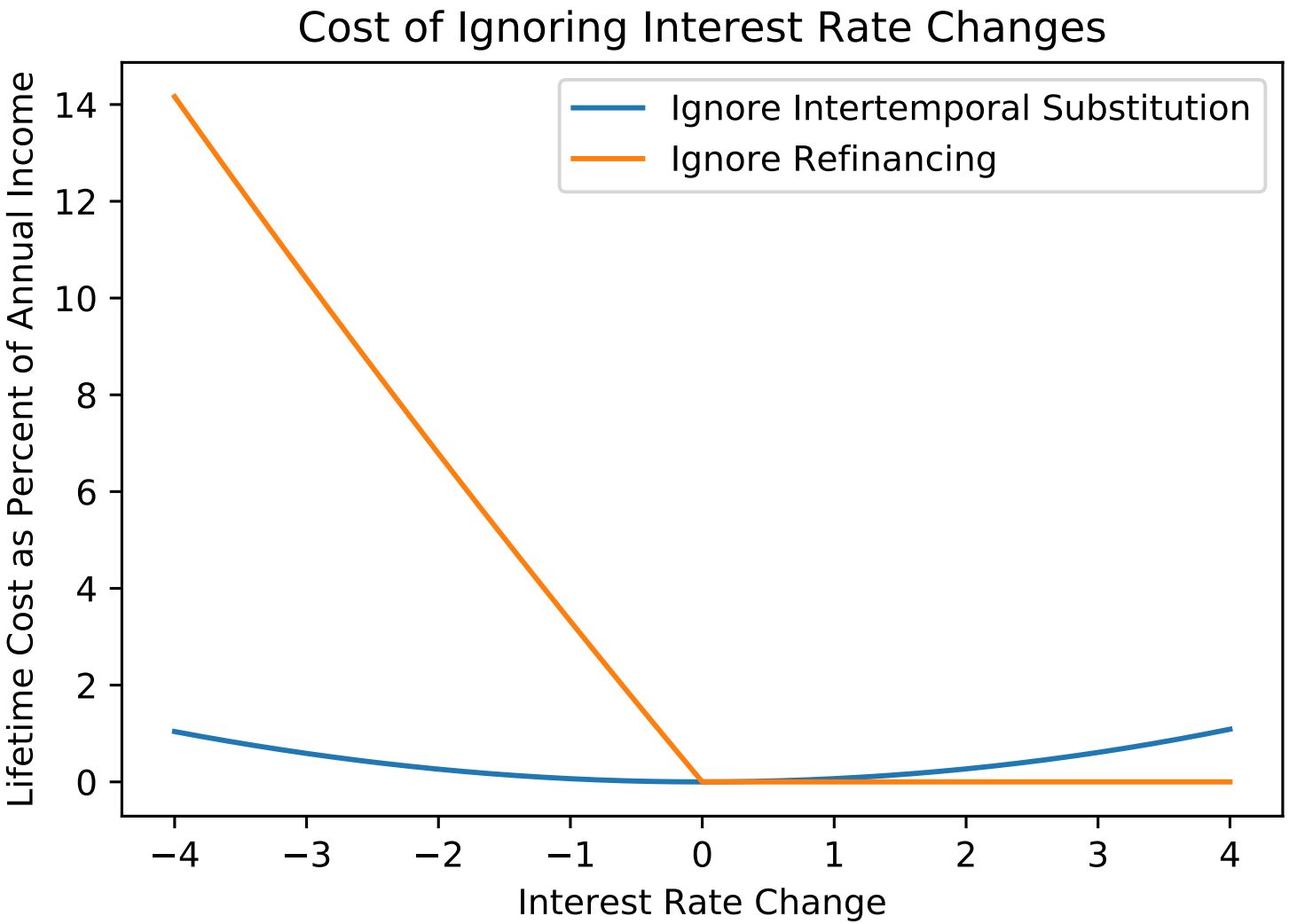
What are the costs of in inattention to the interest rate shock with regards to:

- Intertemporal Substitution
- Mortgage Refinancing

Costs of Inattention: Intertemporal vs Refiancing



A Two-Agent NK model with Debt

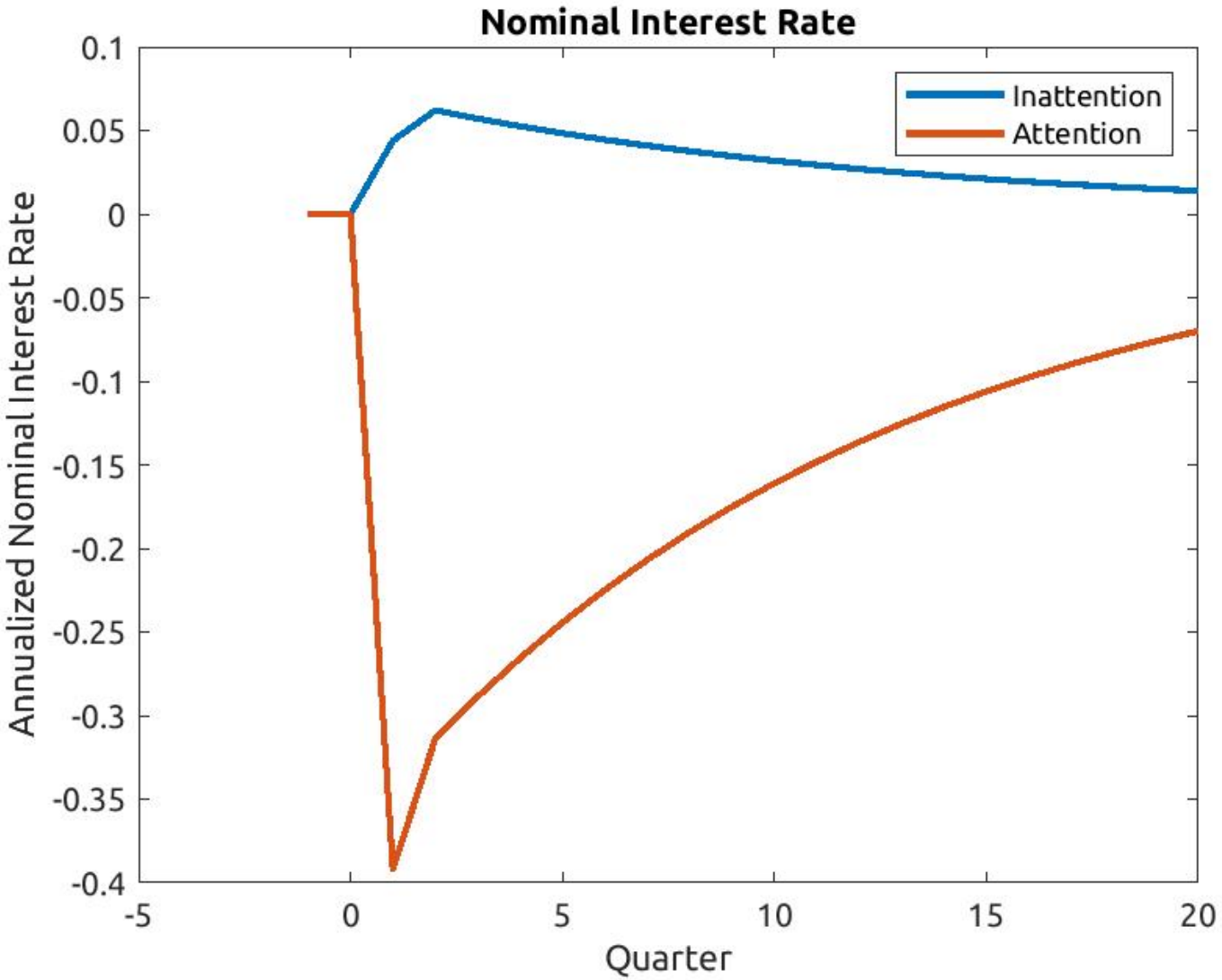
Two agents:

1. Standard unconstrained, forward-looking agent
2. Hand-to-mouth agent, able to borrow, subject to borrowing constraint on income

Shock to Taylor Rule is VERY persistent

Impulse Responses to Persistent Monetary Shock

Nominal Rate Moves in Opposite Directions



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