Cyclical Attention to Saving

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Households can increase the **interest rate** on their savings if they shop around more for their savings products – if they **pay more attention** (e.g. FCA, 2015). How does saver attention vary over the business cycle? How do banks respond? And what effect does that have on the business cycle?

Answer: Attention is **countercyclical**. When attention rises in a recession, banks offer higher rates relative to the policy rate. This **amplifies** shocks to consumption.

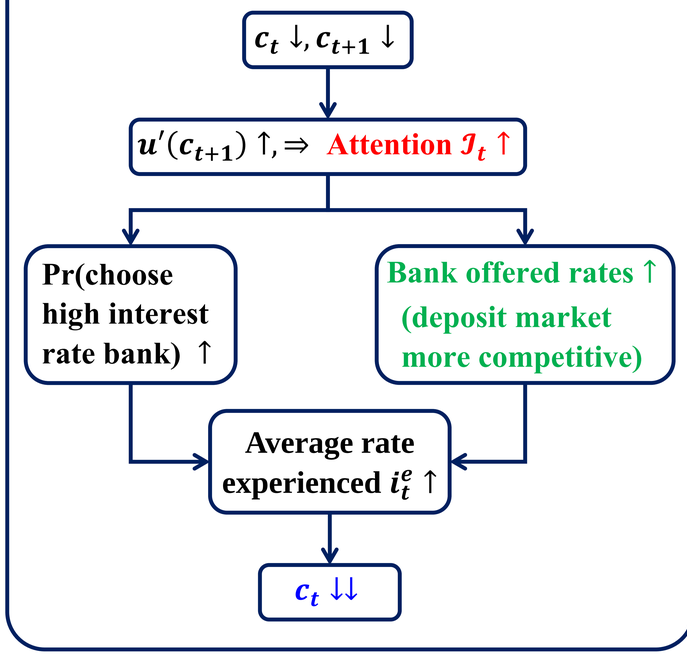
Simple Theory

Setting:
- Savers face profit-maximising banks with heterogeneous costs χ_t^n.
- Paying more attention $\mathcal{I}_t \Rightarrow$ higher Pr(choose high interest rate bank), but is costly - marginal cost μ.

Gives **3 equations**: **attention FOC, consumption Euler, bank FOC**

$$\boldsymbol{\beta b_t \mathbb{E}_t u'(c_{t+1}) = \mu \mathcal{I}'(i_t^e)}$$
$$\boldsymbol{u'(c_t) = \beta(1 + i_t^e)\mathbb{E}_t u'(c_{t+1})}$$
$$\boldsymbol{(1 - Pr(n|i_t^n, i_t^{-n}))\left(i_t^{CB} - i_t^n - \chi_t^n\right) = (\mathcal{I}'(i_t^e))^{-1}}$$

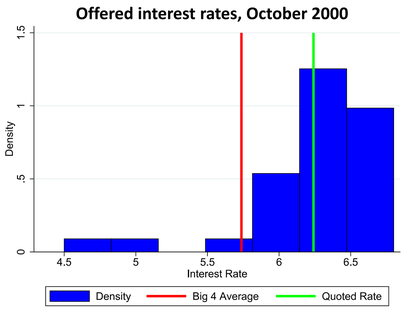
Amplification:
Suppose a shock causes consumption to fall for ≥ 2 periods:



Empirical Evidence

UK Data: monthly 1996-2009
1. Moneyfacts: interest rate + product features, all retail savings products.
2. Quoted Household Interest Rate (BoE): average interest rate on newly-opened products with particular characteristics.

Identify products in Moneyfacts that qualify for inclusion in the Quoted Rate.
⇒ gives **menu** of close substitutes, and **average price paid**.



Products are 1-year fixed interest rate bonds with £5000 investment and annual interest payment.

Result 1: interest rates are very dispersed, even among similar products.
- Not explained by bank risk (deposit insurance is strong).
- Plausibly due to information friction.

⇒ attention could affect experienced rate.

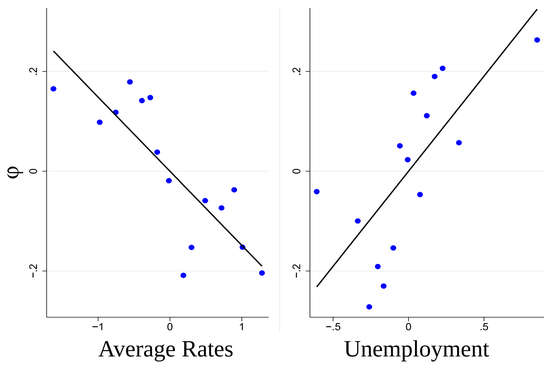
Exercise: compare rate achieved with 'no-attention' benchmark rate (average over big 4 banks):

$$\varphi_t = \frac{\mathbb{E}_h i_t^h - i_t^b}{\sigma(i_t)}$$

φ_t is closely related to attention $\mathcal{I}_t$ in the model:
- Attention ↑ ⇒ rate achieved ↑ *relative to* rate achieved with no attention.

Result 2: φ_t is countercyclical.
Consistent with model:
- In contraction $u'(c) \uparrow \Rightarrow \mathcal{I} \uparrow, \varphi \uparrow$
- $Corr\left(i, \sigma(i)\right) < 0$, so rates $\downarrow \Rightarrow$ dispersion $\uparrow \Rightarrow \mathcal{I} \uparrow, \varphi \uparrow$

Not explained by Δ market size/composition.



Binned scatters of phi against average rates and unemployment rate, all HP-filtered. $Corr(\varphi, \bar{\imath}) = -0.38^{***}$, $Corr(\varphi, u) = 0.41^{***}$

Quantitative Model

- Medium-scale DSGE model of the UK with household/bank interaction from simple theory.
- Estimate using standard macro series + data from empirical section.

Amplification from countercyclical attention is large: Var(c) is 17% larger than if fix attention at steady state.

Policy that reduces cost of information (e.g. financial education) weakens attention amplification, reduces business cycle volatility. 50% $\mu \downarrow \Rightarrow$ 10% Var(c)↓.

Shock	Consumption response (cum. 1yr): fixed attention, relative to variable attention benchmark
Govt spending	0.699
TFP	0.783
Markup	1.042
Risk premium	0.949
Foreign demand	0.744

References

Financial Conduct Authority (2015) Cash savings market study report: Part I: Final findings, Part II: Proposed remedies.