Discussion of "HANK & SAM: An Analytical Approach" by Morten Ravn & Vincent Sterk

Kurt Mitman

Institute for International Economic Studies, Stockholm University, CEPR

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HANK + SAM: An Overview

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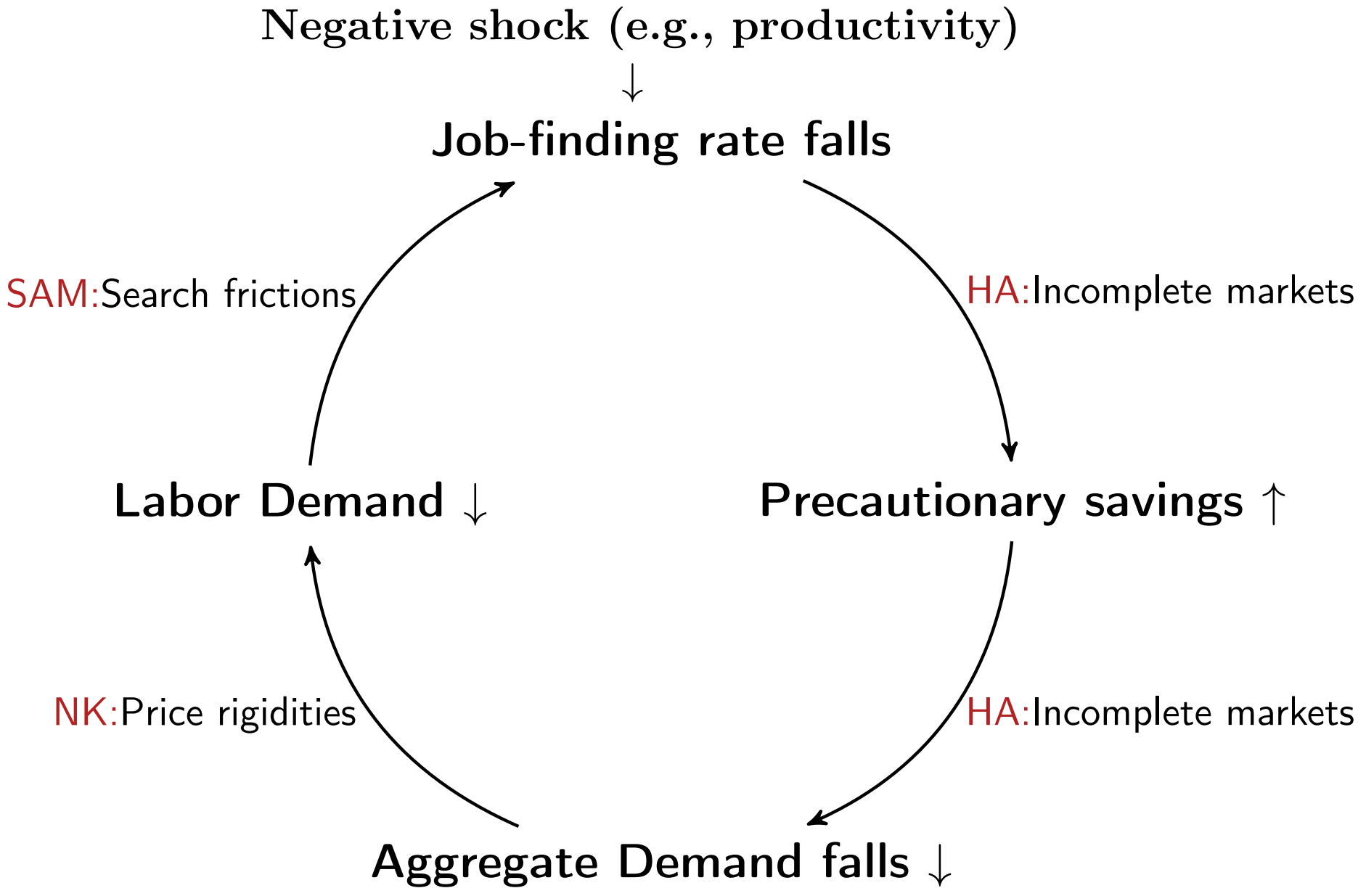
- Borrow a trick from Krusell, Mukoyama and Smith (2010) to maintain analytical tractability
- Explore whether insights from HANK + SAM $>$ sum of the parts (i.e., HANK + SAM = SHANK?)

Endogenous Feedback and Amplification



Key Mechanism

$$u'(c_e) \quad = \quad \mathbb{E}\left[\frac{R}{\Pi'}\left(u'(c'_e) + \underbrace{\omega}_{\text{Job loss}} \overbrace{(1-\eta')}^{\text{Not finding job}} \underbrace{\left(u'(c'_u) - u'(c'_e)\right)}_{\text{Pain of unemployment}}\right)\right]$$

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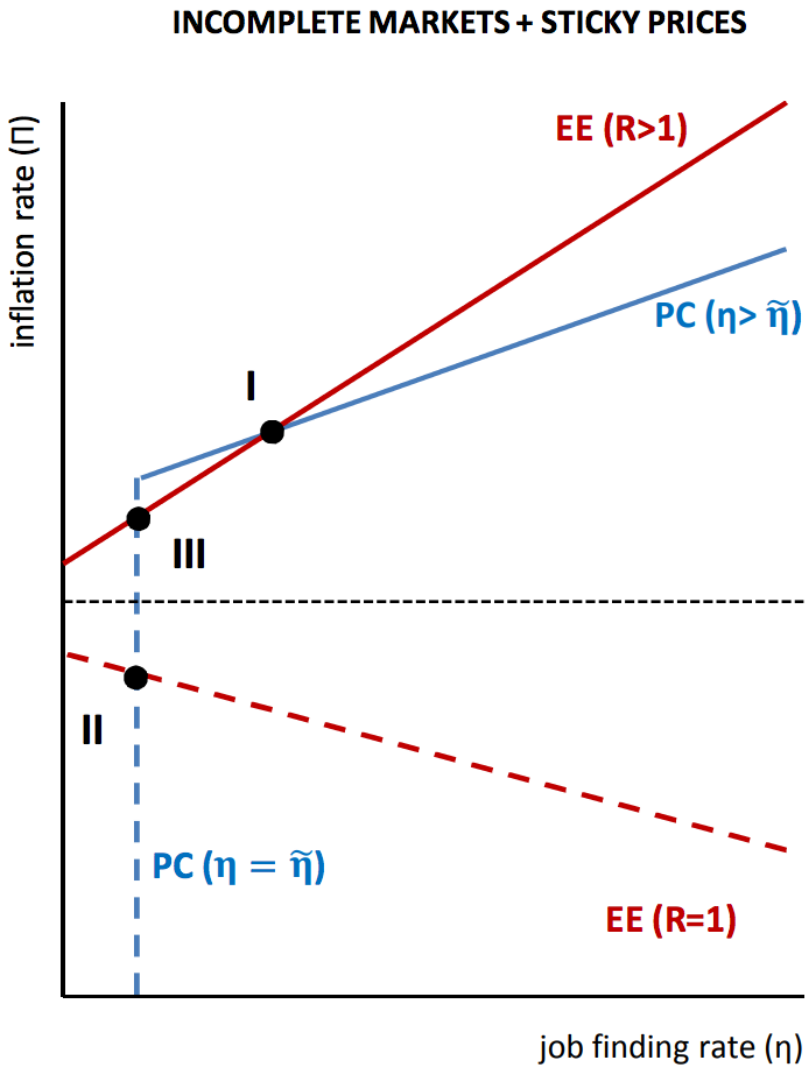
- Real rate pinned down by employed EE
- Fluctuations in η translate into (potentially) large movements in r
- Movements in ω and gap b/w c_e and c_u would operate the same way
- Gives rise to "Incomplete Markets Wedge", Θ, to standard CM EE

Unemployment Trap



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$$R = \bar{R}\left(\frac{\Pi}{\bar{\Pi}}\right)^{\delta_\pi}\left(\frac{\theta}{\bar{\theta}}\right)^{\delta_\theta}$$

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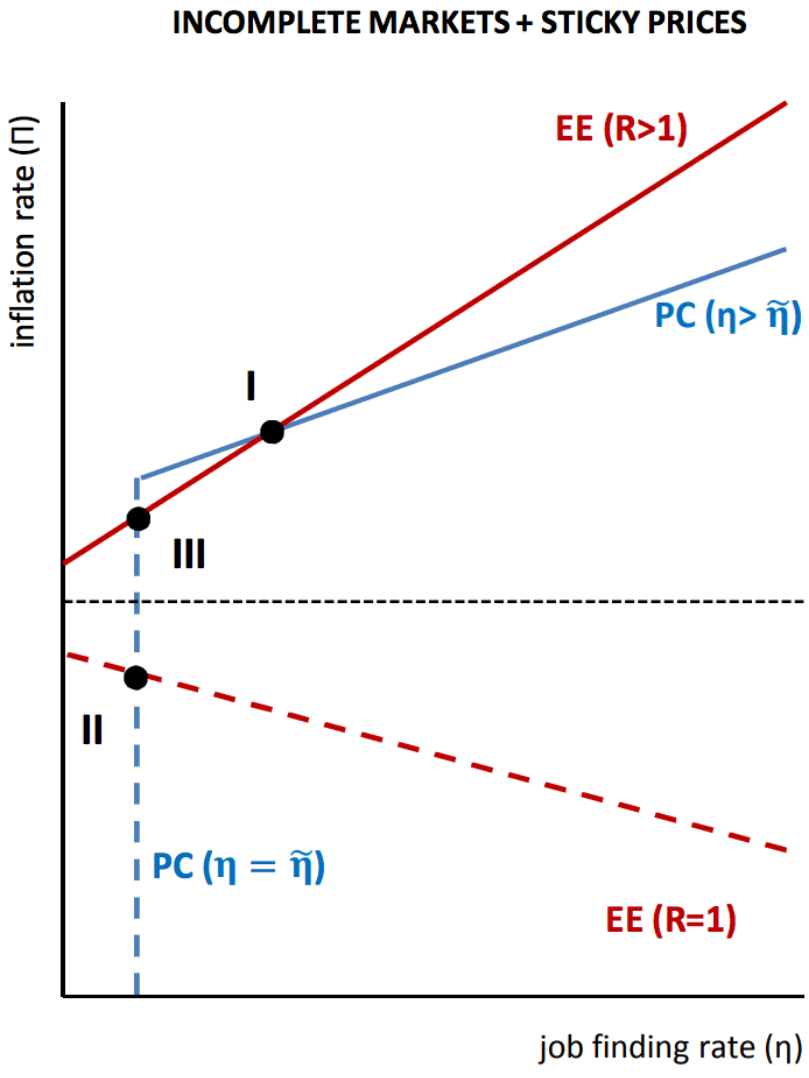

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Unemployment trap could be ruled out with sufficiently high δ_θ

Rationale for the dual mandate of the FED?

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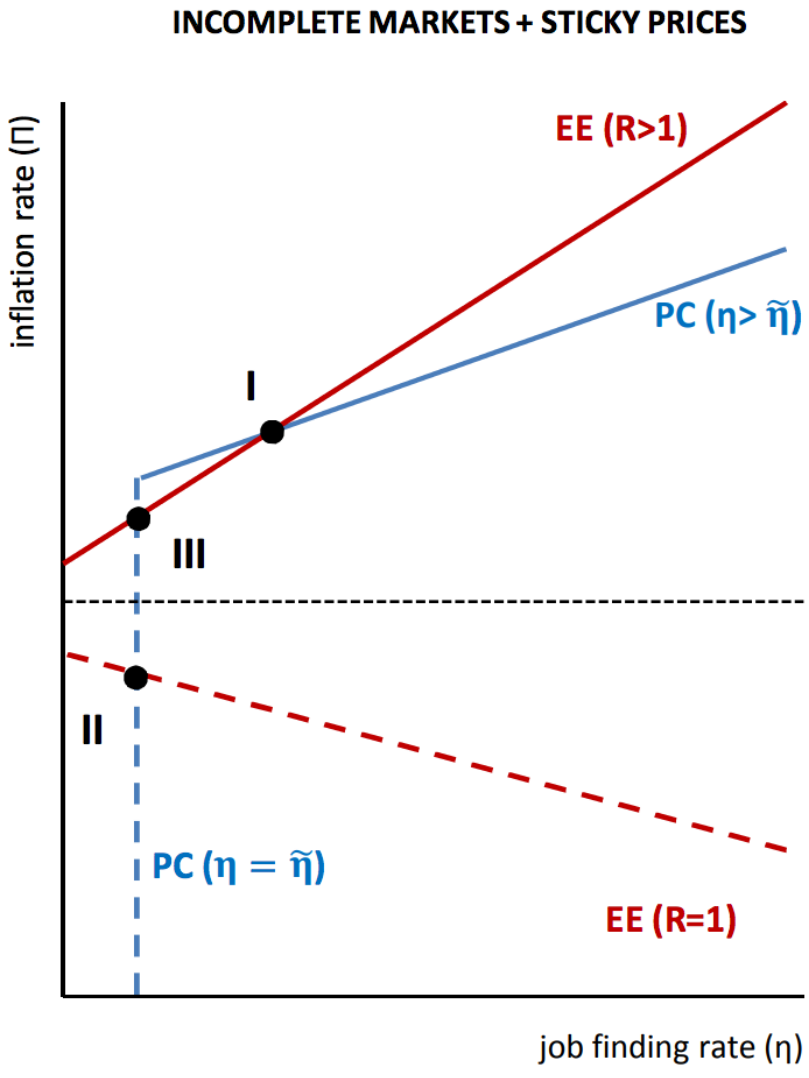

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Unemployment trap could be ruled out by setting $\delta_\pi = \delta_\theta = 0$

HANK+SAM alone do not generate unemployment trap

$EE(R > 1)$ upward sloping because $\delta_\pi > 1$

$\Rightarrow$ Active MP+HANK+SAM generate unemployment trap

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- Gives unique steady state, but what about away from SS?
- Can use new theory of price level determinacy for HA models from Hagedorn (2016)
- Basic idea, nominally specified Ricardian government budget combined with IM leads to global determinacy because asset market clearing provides "missing equation"

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- Straightforward to show in the HANK version with exogenous risk that this gives a unique price level
- Should go through to HANK+SAM
- Bonus: policy has automatic stabilizer effect

$$\Theta(\eta) = 1 + \omega(1-\eta)\left[\left(\frac{b}{Pw - (1-n)b/n}\right)^{-\mu} - 1\right] \qquad (1)$$

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- Households here actually take no decisions, but are only a device to pin down the real rate
- How should we think about implementation of MP here? The bondless-limit of the cashless limit?

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- Ultimately, the importance of the interaction is a quantitative question
- Strength of precautionary channel depends on endgenous wealth distribution and vice versa
- To answer that, allowing for actual precautionary savings probably first order
- Luckily, in Ravn and Sterk (2017b) they make progress on this front!

Summary

- Very nice paper
- Helps make clear important feedback mechanism b/w precautionary savings and labor marker in a tractable way
- This paper + Werning (2015) should be required reading for people interested in HANK-models (I teach them both in my PhD course!)
- Will provide guidance for future quantative work