Asset Pricing with the Awareness of New Risks

Heyerdahl-Larsen, Illeditsch & Sinagl (2026)

Discussion by Aditya Chaudhry

The Ohio State University Fisher College of Business

Context: Asset Prices Around Recessions

FIRE models: Prices drop, expected returns rise immediately when risk (aversion) rises

- Habit, long-run risk, time-varying disaster risk, intermediary constraints, etc.

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Empirically: Expected returns fall initially before later rising

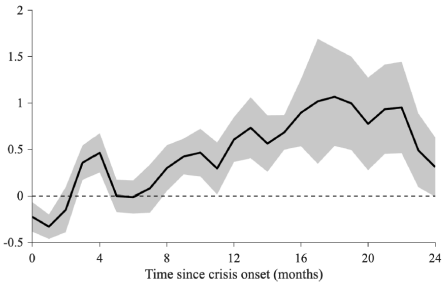

Figure 4d: Risk premium (Marfé & Pénasse, 2024)

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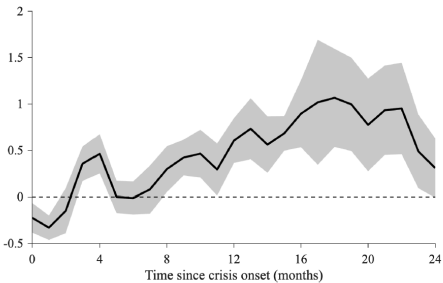
This paper: Investors gradually learn about crisis severity (~~FIRE~~)

- Initial over-optimism is predictably disappointed → predictable forecast errors



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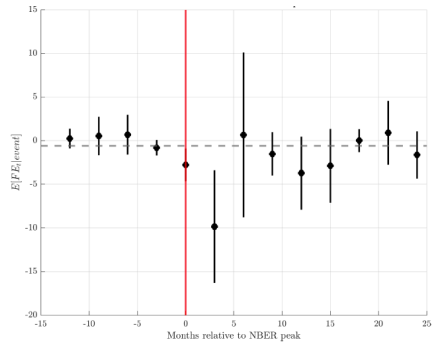

Figure 5e: 4-Quarter GDP Forecast Error

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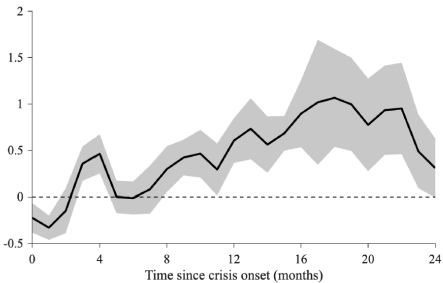
Main point: Learning can explain delayed asset price dynamics in recessions



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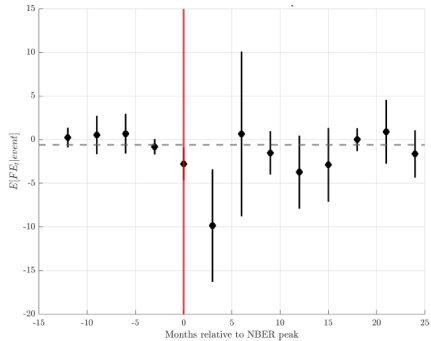

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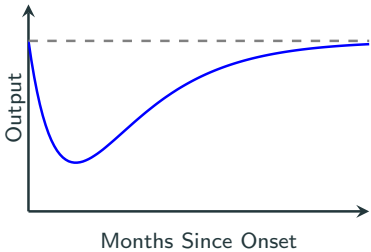
Model Overview

Technology: Output is subject to occasional, exogenous, U-shaped crises

- Length + depth of crisis controlled by random shape parameter



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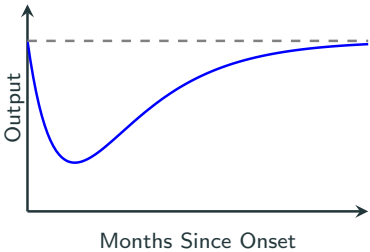

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Agents: Rational investors learn about crisis severity + have endogenous risk aversion

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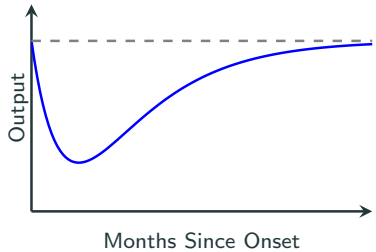

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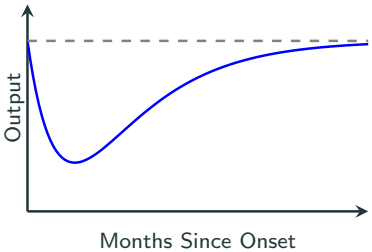

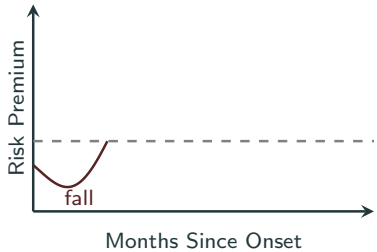

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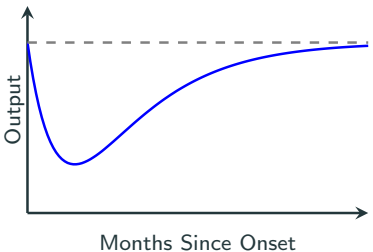

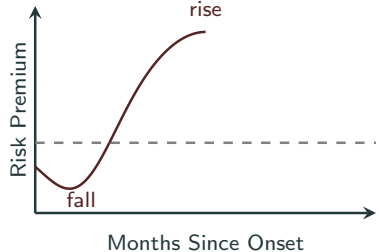

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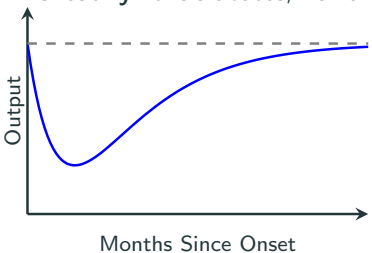
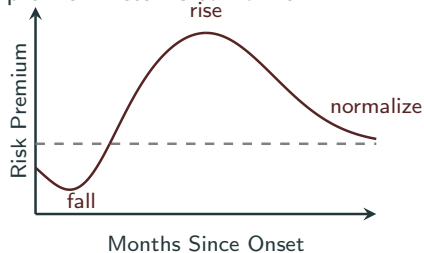
- **Eventually**: crisis abates, risk aversion falls, risk premium returns to normal





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Useful framework for studying equilibrium interactions between beliefs and preferences

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Useful framework for studying equilibrium interactions between beliefs and preferences

1. What do we get from endogenous risk aversion?

- Beliefs literature: Replace "dark matter" with observable beliefs
- Do we need to add endogenous risk aversion to the model?

2. How can paper further exploit beliefs data?

- Model features rich belief dynamics that are currently not targeted
- How can beliefs data discipline model?

1. What Do We Get From Endogenous Risk Aversion?

Modern Subjective Beliefs Literature: Moving Away from "Dark Matter"

Traditional approach: Find preference, technology specifications to match asset prices

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This paper: Generates rich dynamics through interaction of beliefs and preferences

- Unexpectedly bad consumption growth (negative forecast errors) raises risk aversion
- Asset pricing dynamics arise from two mechanisms: learning & endogenous risk aversion

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This paper: Generates rich dynamics through interaction of beliefs and preferences

- Unexpectedly bad consumption growth (negative forecast errors) raises risk aversion
- Asset pricing dynamics arise from two mechanisms: learning & endogenous risk aversion

But do we need endogenous risk aversion?

- Or could a simpler model generate the same dynamics with only one mechanism: learning?

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- **Hump-shaped P/D:** Does not survive
  - With constant risk aversion, model collapses to log utility
  - P/D is constant: Changes in risk premium, risk-free rate cancel out (EIS $= 1$)

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  - With EIS > 1, P/D falls with bad news (negative forecast errors)

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Suggestion: A simpler model with constant risk aversion would highlight role of learning

- Equilibrium feedback between beliefs and preferences in paper is interesting
- A simpler model may generate qualitatively similar dynamics, without dark matter

2. How Can Paper Further Exploit Beliefs Data?

Learning Generates Rich Belief Dynamics — Currently Underused

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Suggestion: Target term structure of forecast errors

- Force model to have realistic forecast error dynamics
- Does model still generate hump-shaped risk premium?
- Would empirically discipline the belief-preference interaction

Conclusion

Very interesting paper

- Explains asset pricing dynamics during crises
- Core mechanism: Interaction of subjective beliefs & endogenous risk aversion

1. What do we get from endogenous risk aversion?

- Unclear if need dark matter from complex preference dynamics after abandoning FIRE

2. How can paper further exploit beliefs data?

- Can empirically discipline belief-preference interaction by targeting forecast error dynamics