Perceived Unemployment Risks Over Business Cycles

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Biased Beliefs and Macro

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  1. It's wrong—and can matter for model predictions
  2. It complicates solving heterogeneous agent models (Moll, 2024)

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  - And how to best model departures from FIRE

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- Important to know **when** biased beliefs significantly alter behavior
  - And a good way to model departures from FIRE

- **This paper:** how do biased job loss/finding beliefs affect the precautionary savings motive over the business cycle?

Paper in a Nutshell

- **Measure** beliefs (subjective and "objective"/FIRE) and realized risk
  - Specifically, wrt Pr(lose job) and Pr(find job)

- **Model:** Bewley model, features job loss and productivity shocks

- **Findings:** beliefs are **biased** and **sluggish**
  - Workers are slow to update beliefs about job risk at the start of a recession
  - **Weakens the savings motive** in recessions
  - **Slower recovery** ensues

Empirical Contributions to the Literature

- Measure **SE** using SCE (2013+); imputed using MSC (1980s—2013)
- Impute **FIRE** using LASSO model with 600 macro and expectation time series

- Findings are consistent w/ prior work on biases about **subjective beliefs**
  - Stephens (2004), Dickerson Green (2012), Arni (2013), Conlon et al. (2018), Mueller et al. (2021), Balleer et al. (2023), Mueller Spinnewijn (2023)
  - Paper extends SCE aggregates backwards by imputing from MSC (+3 recessions)
  - **Emphasis on (limited) comovement over the business cycle**

- Impute **objective beliefs** using method from Bianchi Ludvigson Ma (2022)
  - **Q:** does this series pass FIRE tests? E.g., no serial correlation of forecast errors?

Applied Theory Contributions

- Large scope for important + new insights from model-based analysis

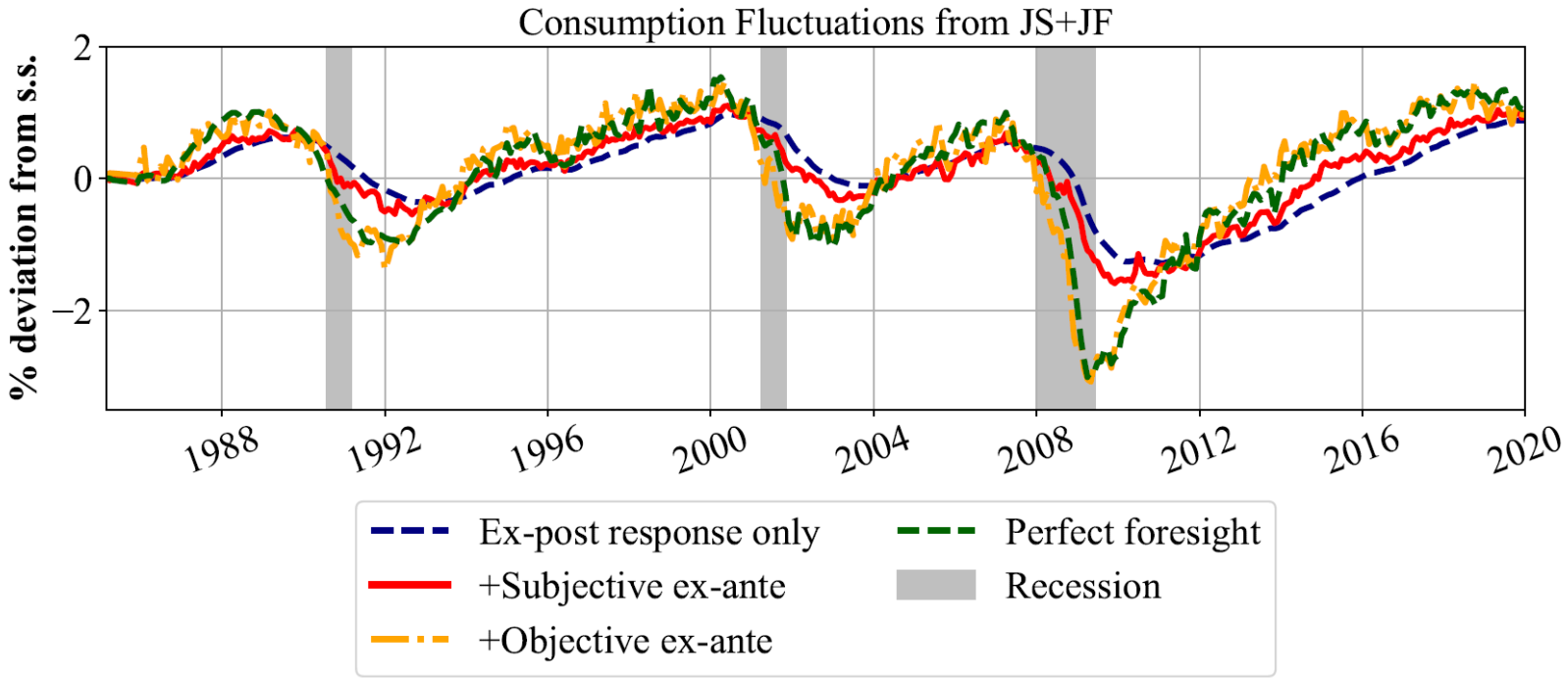
- How job/income expectations over the **business cycle** affect saving
  - D'Acunto Weber Yin (2025): how income expectations affect the **financial cycle**

- Frontier: different but related analyses in contemporaneous work
  - Agg. and distrib. effects of over-optimism about job finding(Balleer et al, 2024)
  - Biased firm beliefs wrt **job filling** rate (Lee, 2025)
  - Biased beliefs about **productivity/wages** can prolong recessions (Mitra, 2025)

Comment 1:
Normative and Positive Effects of Biased Labor Market Beliefs

Normative Implications of Biased Beliefs

Consumption is much smoother under SE!



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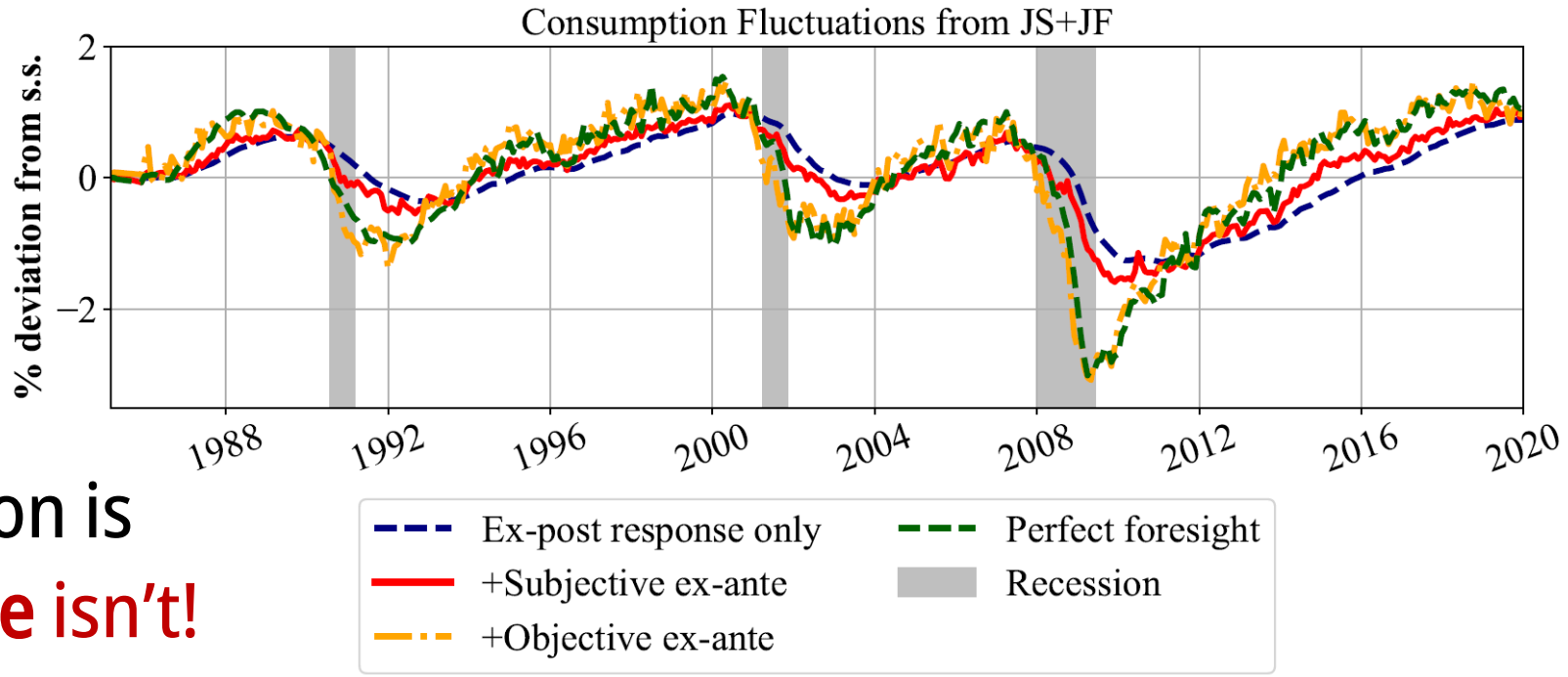

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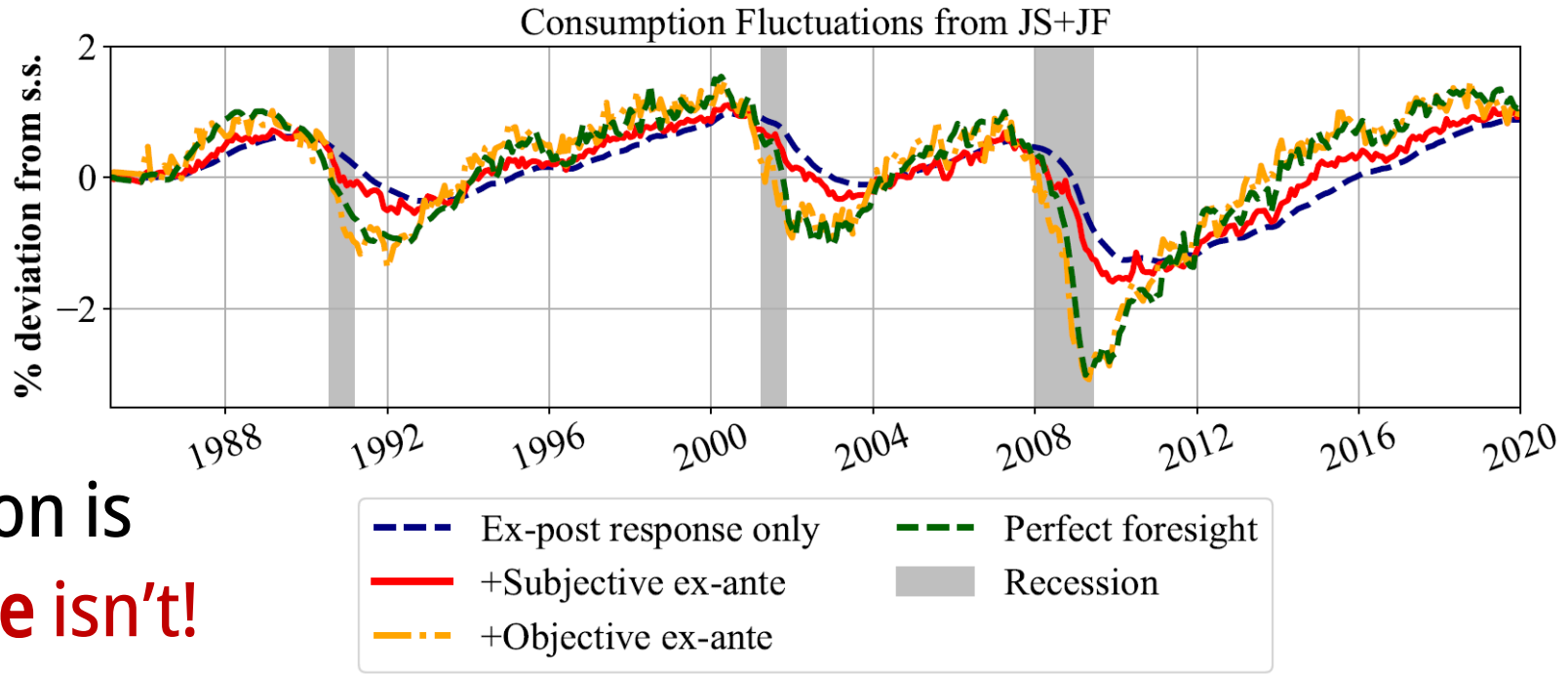


While average consumption is smoother, average **welfare** isn't!

- Most people do not lose jobs ➔ they're happier if they don't cut consumption
- But those who do (high MU) suffer more if they were over-optimistic
- **Advice:** examine welfare and incidence of recessions—how do biased beliefs alter the welfare costs of business cycles?

Positive & Normative Effects: General Equilibrium (GE)

- Opportunity to further innovate on literature: incorporate GE
  - Specifically, feedback between consumption and income

- Smoother aggregate consumption ➔ milder amplification of shocks
  - Sluggish beliefs could make recessions less severe by sustaining optimism
  - There can be a welfare benefit from biased beliefs

- **Advice:** incorporate GE

Implications for Unemployment Insurance

- Spinnewijn (2015) extends Baily Chetty optimal UI formula to allow biased beliefs
  - Punchline: over-optimism strengthens case for generous UI, especially in recessions

- In GE, case for generous UI may be **even stronger**
  - If income falls less because of higher demand in the recession, there is a larger tax base available to finance UI

- **Advice:** adding GE (on top of biased beliefs) could deepen our understanding of the welfare costs of business cycles and role of UI

Comment 2:
Calibration & Model Specification

Choice of Discount Factor (β)

- Calibration uses a relatively low β
  - Monthly = 0.988 ➔ annual β = 0.865 ➔ annual discount rate = 15.6%
- Annual interest rate is r = 5%
- Together, this means that households are **eager to borrow/dissave**
  - Huge preference for borrowing/dissaving!
- **Advice:** calibrate β (indirect inference targeting wealth distribution?), and model a more realistic credit market (next ➔)

No Borrowing in Equilibrium

- The model features a strict no-borrowing constraint
- Unsecured debt is an important part of how households smooth shocks (Bornstein Indarte, 2023; Herkenhoff, 2019)
- Households in the model would **love to borrow**, but they can't
- This strict constraint may dampen effects of biased beliefs on dissaving

Costly Credit

- Precautionary motive is very weak with β^{annual} = 0.865 and r = 5%

- Consider adding a "soft" borrowing constraint (e.g., Maxted Lee 2024)
  - $r_t = r^F 1[A_t > 0] + r^{CC} 1[A_t \leq 0]$, where $r^{CC} \gg r^F$

- Or risk-based pricing of credit (e.g., Bornstein Indarte, 2023)
  - Even better: in a recession, price of credit rises deterring over-borrowing but making it more costly too

Calibration of Subjective Belief Process

- Model calibration assumes steady state subjective beliefs = objective
  - Level differences in SE vs FIRE beliefs are important for interpretation

- Workers are pessimistic in booms and optimistic in busts
  - Workers may have a *too strong* precautionary savings motive in booms
  - These excess savings could offset the effect of a too weak motive in busts
  - Biases may ➔ too much saving overall

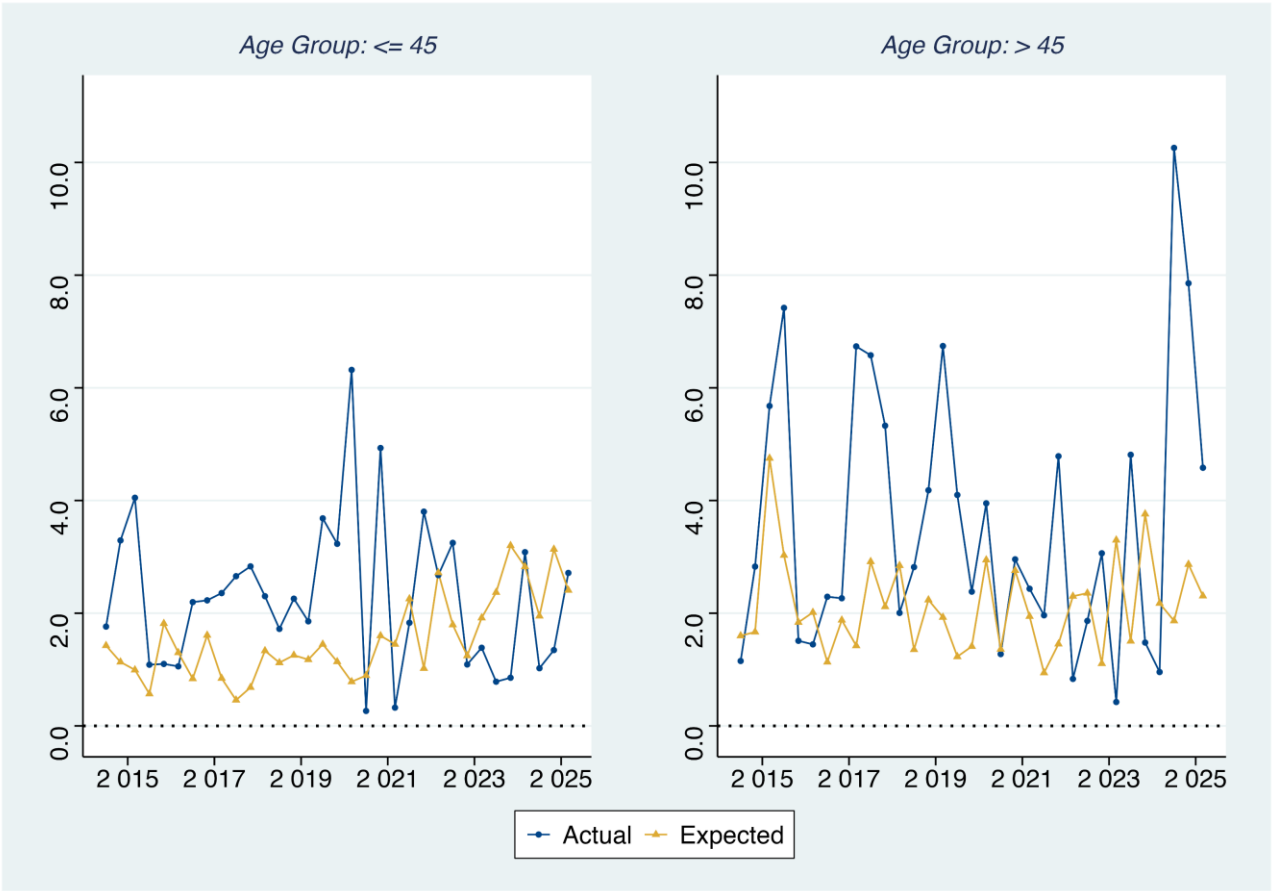
Lifecycle & Experience Effects

- Germans exhibit similar belief patterns, but East Germans are more pessimistic (Balleer et al., 2023)

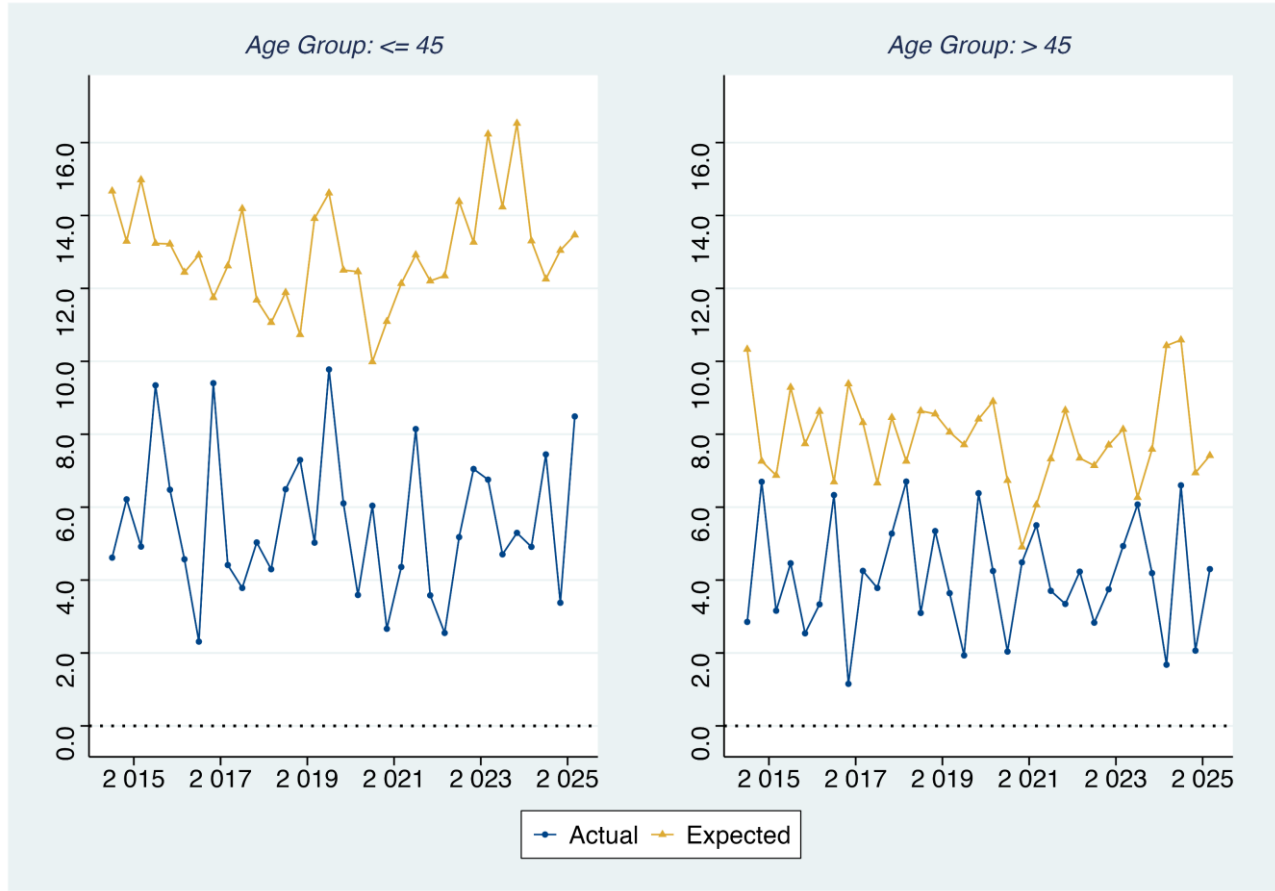
- Older and younger workers' biases differ—perhaps shaped by different experience effects (a la Malmendier Nagel, 2011)
  - Lifecycle differences could help us better understand incidence of recessions
  - Different biases may contribute to severity of recessions on younger workers

Lifecycle & Experience Effects

Realized vs Expected Labor Force Exit



Realized vs Expected New Job



(calculations using realized and subjective expected job finding rates in SCE)

Wrap Up

Misc. Comments

- Bootstrap regs to account for sampling uncertainty in imputations

- Replacement rate of 50%---why?
  - COVID recession had replacement rate over 100% of income for median worker
  - There was a lot of heterogeneity correlated with income (Ganong et al., 2024)
  - Important because other sources of insurance affect the precautionary motive

- If beliefs can be wrong about part of the labor market, why not the rest?
  - Why not allow biased beliefs related to the wage/productivity?

In Conclusion...

- Very interesting paper!
- Important question: how do biased beliefs affect saving behavior over the business cycle?
- This discussion: opportunities to deepen the paper by speaking to welfare and incorporating interactions w/ other important channels