

Discussion of “Minority Unemployment, Inflation, and Monetary Policy” by Lee, Macaluso, and Schwartzman

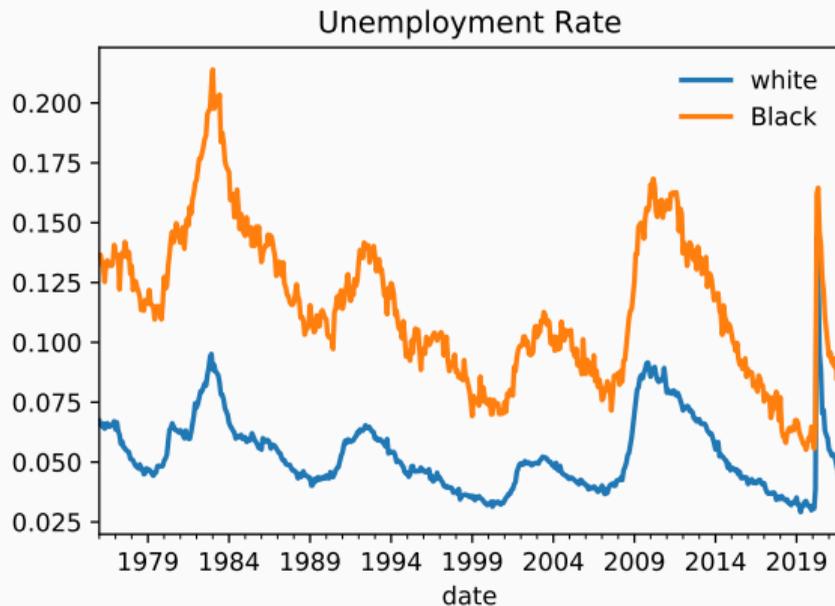
Bence Bardóczy

System Macro Meeting, November 2021

This paper

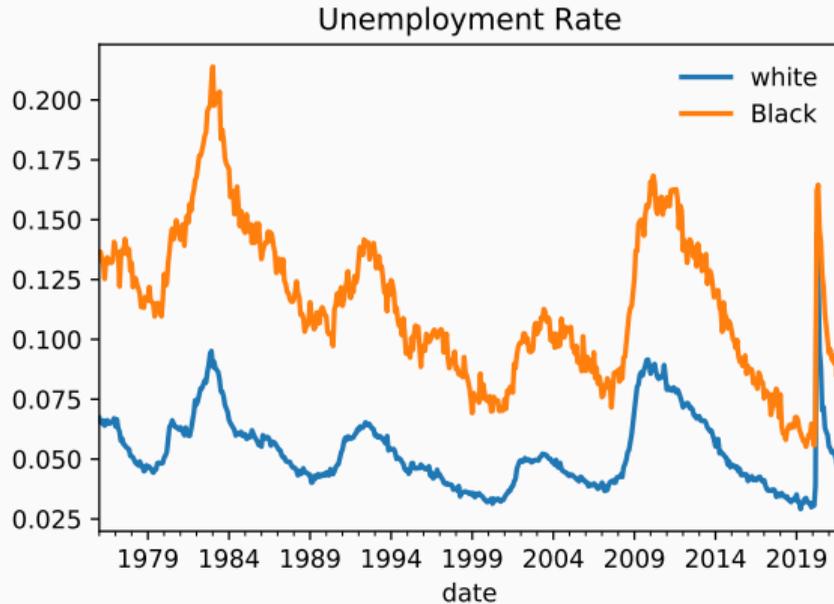
- Active policy debate on the role of monetary policy in addressing racial inequality.
 - one idea: “Fed should target the Black unemployment rate”
- Macro framework to think about what such policy could achieve.
 - does it even make a difference which unemployment rate is targeted?
 - are there indirect costs to Black and white households?
- **Takeaway 1:** targeting Black unemployment rate boils down to shifting the policy stance in aggregate unemployment-inflation space.
- **Takeaway 2:** Black households are more exposed to both, but stand to benefit from more dovish policy as long as inflation expectations remain anchored.

Black & white unemployment



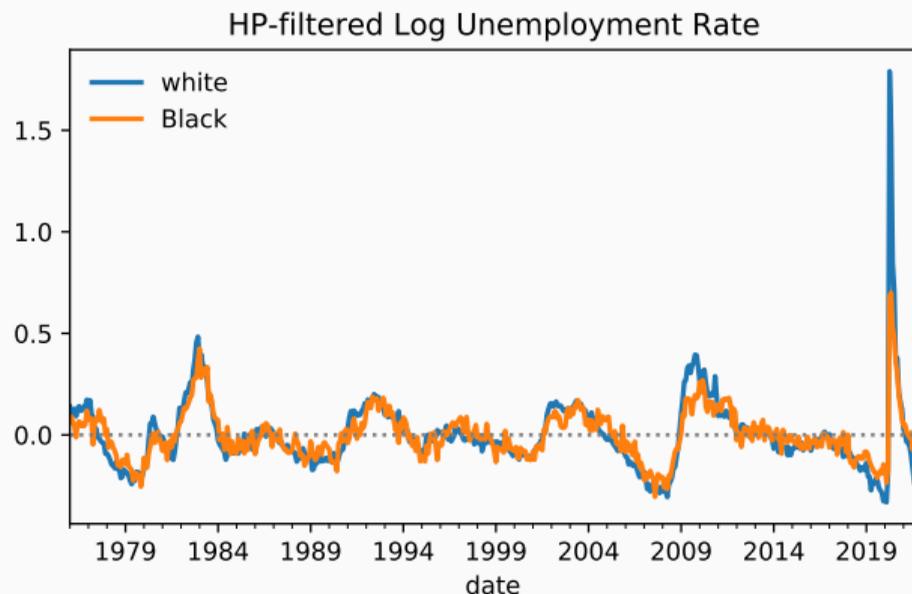
- Black unemployment rate is about 2× higher **on average**.

Black & white unemployment



- Black unemployment rate is about $2\times$ higher **on average**.
- But monetary policy deals with business cycle **fluctuations**.

Black & white unemployment



- Black unemployment rate is about $2\times$ higher **on average**.
- But monetary policy deals with business cycle **fluctuations**.
- Very **close comovement** over the business cycle.

⇒ There is **no trade-off** between stabilizing Black and white unemployment rate.

Inflation-unemployment trade-off

- The only trade-off is the usual between **unemployment & inflation**.
 - relevant question: differential exposure by race?
- Paper proceeds by proposing **two models**.
 - **model 1**: unemployment-inflation trade-off
 - **model 2**: household earnings
- Previously, the two models were tied together in a GE framework. **Not anymore.**
- **Next**: overview of two models, suggestion to exploit the flexibility.

Overview of 2 models

- **Model 1:** unemployment-inflation trade-off

- Phillips curve:
- inflation expectations:
- monetary rule:

$$\pi_t = \varphi du_t/u + \beta \mathbb{E}_t \pi_{t+1} + \eta_t$$

$$\mathbb{E}_t \pi_{t+1} = b \pi_t$$

$$\pi_t = \psi \cdot du_t$$

$$\pi_t = \Psi \eta_t$$

and

$$\frac{du_t}{u} = \frac{1 - (1 - \beta b)\Psi}{\varphi} \eta_t$$

Overview of 2 models

- **Model 1:** unemployment-inflation trade-off

- Phillips curve:
- inflation expectations:
- monetary rule:

$$\pi_t = \varphi du_t/u + \beta \mathbb{E}_t \pi_{t+1} + \eta_t$$

$$\mathbb{E}_t \pi_{t+1} = b \pi_t$$

$$\pi_t = \psi \cdot du_t$$

$$\pi_t = \Psi \eta_t$$

and

$$\frac{du_t}{u} = \frac{1 - (1 - \beta b) \Psi}{\varphi} \eta_t$$

- **Model 2:** household earnings for $k \in \{\text{Black, white}\}$

- labor income & flow value of owned housing
- perfect income pooling within race

$$Y_t^k = w_t^k (1 - u_t^k) + r_t^k H_t^k$$

Overview of 2 models

- **Model 1:** unemployment-inflation trade-off

- Phillips curve:
- inflation expectations:
- monetary rule:

$$\pi_t = \varphi du_t/u + \beta \mathbb{E}_t \pi_{t+1} + \eta_t$$

$$\mathbb{E}_t \pi_{t+1} = b \pi_t$$

$$\pi_t = \psi \cdot du_t$$

$$\pi_t = \Psi \eta_t$$

and

$$\frac{du_t}{u} = \frac{1 - (1 - \beta b) \Psi}{\varphi} \eta_t$$

- **Model 2:** household earnings for $k \in \{\text{Black, white}\}$

- labor income & flow value of owned housing
- perfect income pooling within race

$$Y_t^k = w_t^k (1 - u_t^k) + r_t^k H_t^k$$

- **Report** (up to scaling): how perturbing inflation tolerance affects the sensitivity of real income to the cost push shock

$$\frac{d}{d\psi} \left(\frac{dY_0^k}{d\eta_t} \right) = \frac{d}{d\psi} \left(\frac{dY_0^k}{d\pi_t} \frac{d\pi_t}{d\eta_t} + \frac{dY_0^k}{du_t} \frac{du_t}{d\eta_t} \right)$$

My suggestions

- **Object of interest:** why focus on small variation in ψ ? You could plot $\frac{dY_0^k(\psi)}{d\eta_0}$ on an interval and compare **optimal monetary policy** from Black and white perspectives.

My suggestions

- **Object of interest:** why focus on small variation in ψ ? You could plot $\frac{dY_0^k(\psi)}{d\eta_0}$ on an interval and compare **optimal monetary policy** from Black and white perspectives.
- Notice the roles of **model 1** and **model 2** in deriving the result

$$\frac{dY_0^k}{d\eta_0} = \frac{dY_0^k}{d\pi_0} \frac{d\pi_0}{d\eta_0} + \frac{dY_0^k}{du_0} \frac{du_0}{d\eta_0}$$

- **Main point:** $\frac{dY_0^k}{d\pi_0}$ and $\frac{dY_0^k}{du_0}$ admit sharp characterization at **individual household level**.
 - project $du_t, d\pi_t$ onto income and wealth via microsimulation (Lenza and Slacalek 2021)
 - plug $du_t, d\pi_t$ into formulae for income/cons/welfare (Auclert 2019)

Sketch sufficient statistics approach

- Consider a single household (Black or white)
 - holds **real long-term assets** $\{b_t\}_{t \geq 0}$, **nominal long-term assets** $\{B_t\}_{t \geq 0}$
 - faces **real term structure** $\{q_t\}_{t \geq 1}$, price level $\{P_t\}_{t \geq 0}$
- Basically, I just generalized the balance sheet of **model 2**.

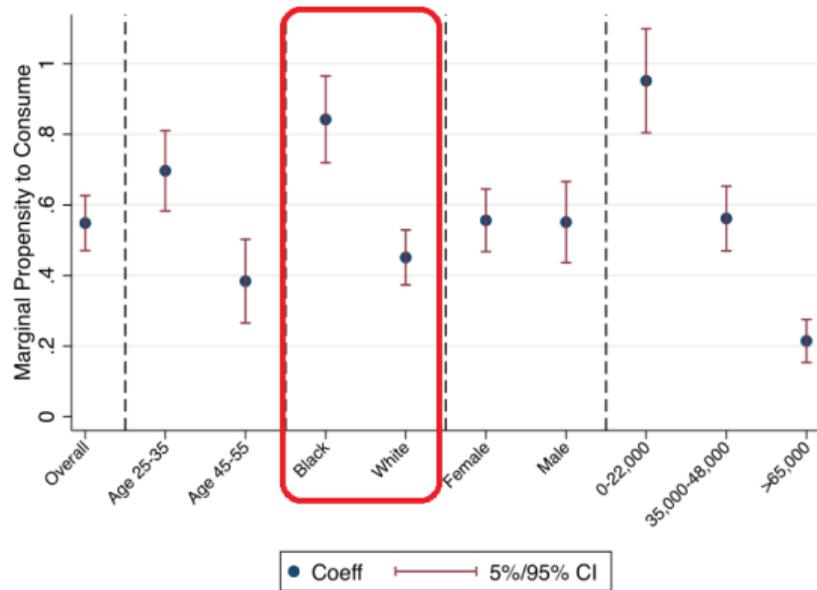
Sketch sufficient statistics approach

- Consider a single household (Black or white)
 - holds **real long-term assets** $\{b_t\}_{t \geq 0}$, **nominal long-term assets** $\{B_t\}_{t \geq 0}$
 - faces **real term structure** $\{q_t\}_{t \geq 1}$, price level $\{P_t\}_{t \geq 0}$
- Basically, I just generalized the balance sheet of **model 2**.
- First-order change in period-0 income and wealth:

$$dY = \underbrace{(1-u)dw - wdu}_{\text{earnings}} - \underbrace{\sum_{t \geq 0} Q_t \left(\frac{B_t}{P_0} \right)}_{\text{net nominal position}} \frac{dP}{P} + \underbrace{\left((1-u)w + \frac{B_0}{P_0} + b_0 - c \right)}_{\text{unhedged interest rate exposure}} \frac{dR}{R}$$

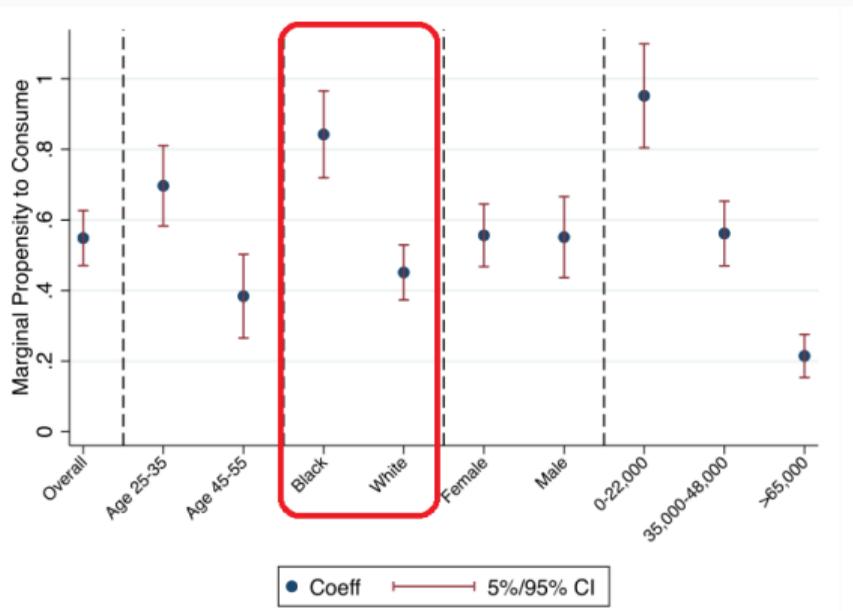
- Three **sufficient statistics** are **measurable** in PSID, SCF.

Figure 1: MPC estimates from Patterson (2021)



- **Black consumption** is much more exposed to income shocks.

Figure 1: MPC estimates from Patterson (2021)



- **Black consumption** is much more exposed to income shocks.
- Mapping according to the model:

$$dC = \text{MPC} \cdot dY - \text{EIS} \cdot C \cdot (1 - \text{MPC}) \frac{dR}{R}$$

$$dU = U'(C) \cdot dC$$

Conclusion

- Nice paper that brings clarity to a highly topical question.
- Abandoning the DSGE approach created flexibility. That should be exploited.
- Room to refine quantitative results substantially.
 - use **publicly-available micro data** on incomes and **balance sheets**
 - consider model-consistent leap from income to **consumption & welfare**

References

Auclert, Adrien, “Monetary Policy and the Redistribution Channel,” *American Economic Review*, 2019, 109 (6), 2333–67.

Lenza, Michele and Jirka Slacalek, “How Does Monetary Policy Affect Income and Wealth Inequality? Evidence from Quantitative Easing in the Euro Area,” ECB Working Paper 2021.

Patterson, Christina, “The Matching Multiplier and the Amplification of Recessions,” Manuscript 2021.