

# Introduction

- In HANK models changes in the wealth distribution have macro implications.
- Role of capital gains and equity prices in the transmission of monetary policy.
- Connect the HANK literature with recent and growing empirical literature.

# Empirical Analysis

## Overview

- Consumption and wealth from the Consumption Expenditure Survey (CE).
- Berger, Bocola, and DAVIS (2023). (QJE)
- Nondurable consumption and services.
- Liquid financial wealth (deposits, bonds, stocks).
- Combine quarterly consumption time series for different wealth groups.
- Jarociński and Karadi (2020), C. Romer and D. Romer (2004).

# Data

Sample restrictions:

- The CE has a rotating panel structure.
- Use the assigned survey sample weights.
- Use CPI to express all variables in constant 2000 dollars.
- Household's head between 22 and 64 years old.
- I exclude incomplete income reporters, households with negative earnings and with zero or negative consumption.
- Average 4,518 households per year and period is 1991Q2-2016Q4.

## Data

	Mean	Std. Deviation	10th P.	Median	90th P.
Age	44	11	29	44	59
Family size	2.8	1.5	1	2	5
Consumption	22,306	14,842	8,623	19,198	38,811
Cons. per person	9,501	6,984	3,374	7,864	17,152
Liquid assets	27,956	154,484	0	1,234	46,479
Earnings	51,755	48,021	1,478	41,600	105,748
Liquid assets (CE)	34,081	184,548	0	1,323	53,791
Liquid assets (SCF)	172,313	1,044,840	23	14,931	353,976

Note: Annual consumption shown. The last two rows report statistics for 2004 across surveys.

# Data

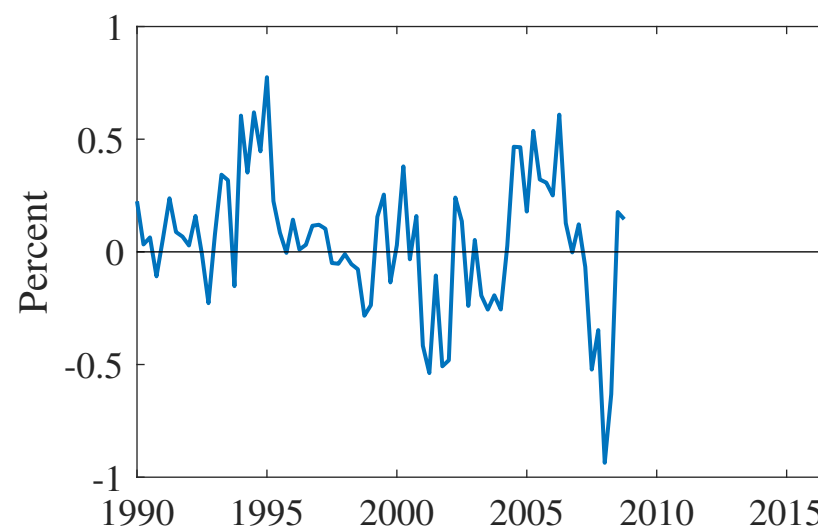
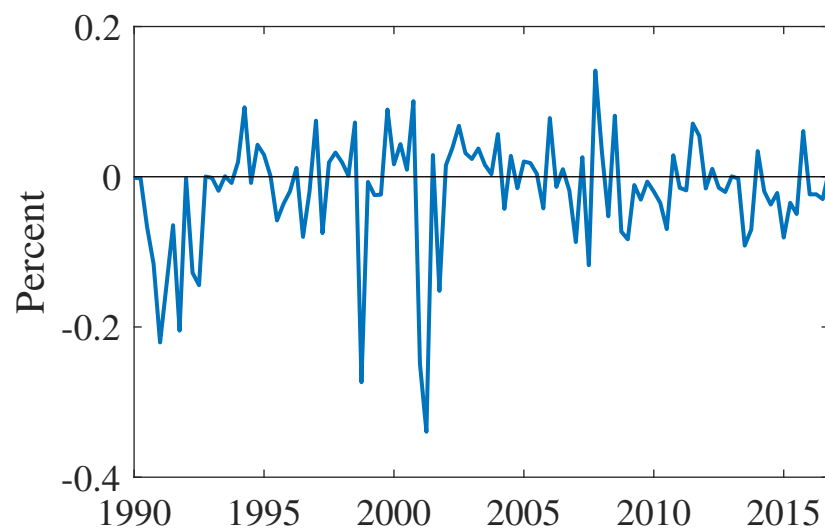
Cross-sectional time series:

- Use information on wealth in the previous 12 months.
- Household  $i$  in quarter  $t$  is assigned to a group  $g = 1, 2, \dots, G$ .
- Compute quarterly series of total consumption for each group.

Measurement errors, noise, and outliers:

- Winsorize consumption series at the top and bottom 1% in each quarter.
- Same for dependent variable used in the regressions.
- Smooth consumption with a moving average.

# Data



- JK (left) proxy SVAR with high-frequency instruments cleaned for info shocks.
- RR (right) regression of FFR on bank's forecasts of its targets.

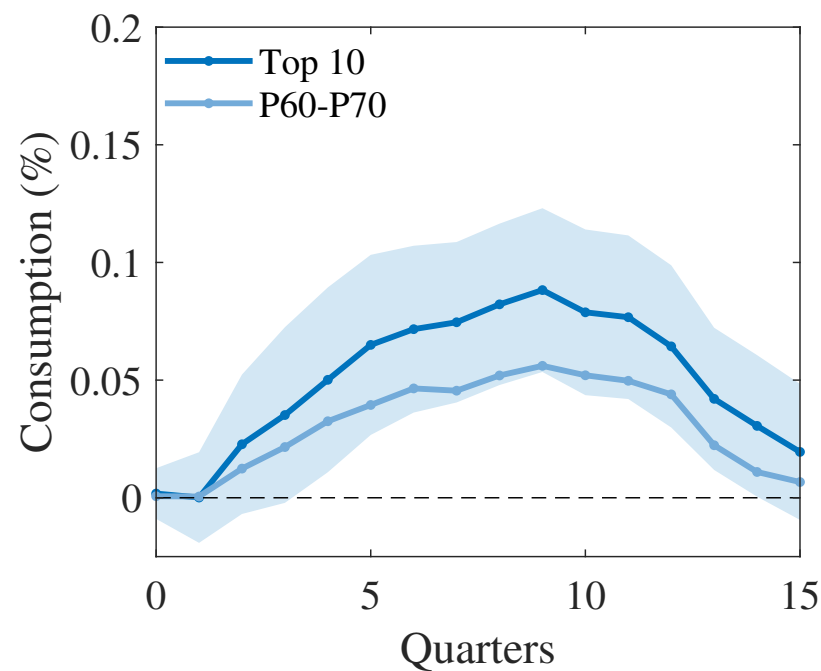
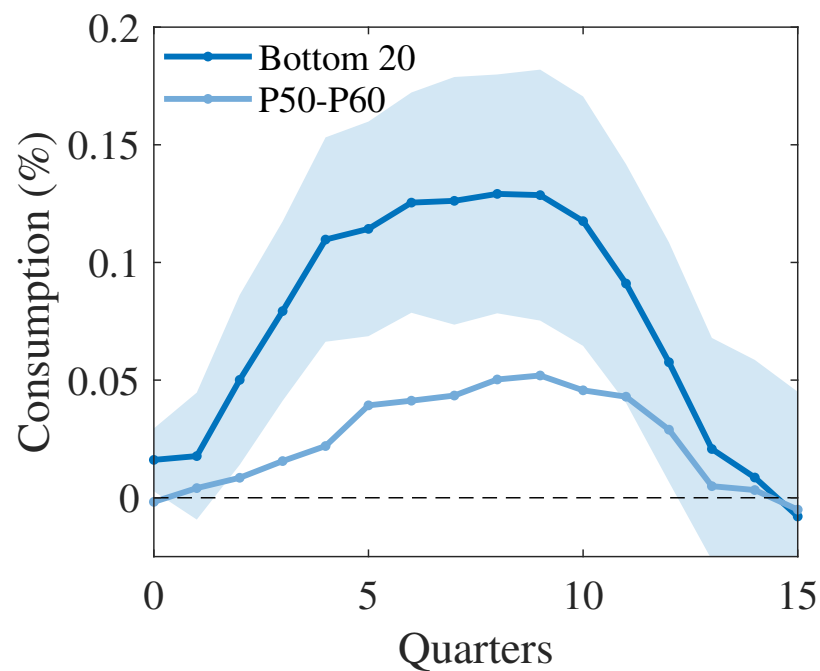
## Model

$$\frac{y_{g,t+h} - y_{g,t-1}}{y_{t-1}} = \alpha_{g,h} + \beta_{g,h}v_t + \sum_{p=1}^L \delta'_p x_{g,t-p} + u_{g,t}, \quad (1)$$

- Dep. variable: Quarterly consumption changes.
- $v_t$  is a monetary policy shock.
- Control for lags of the level  $y_{g,t}$  and shocks  $v_t$ .
- $y_t$  is the CE aggregate consumption.

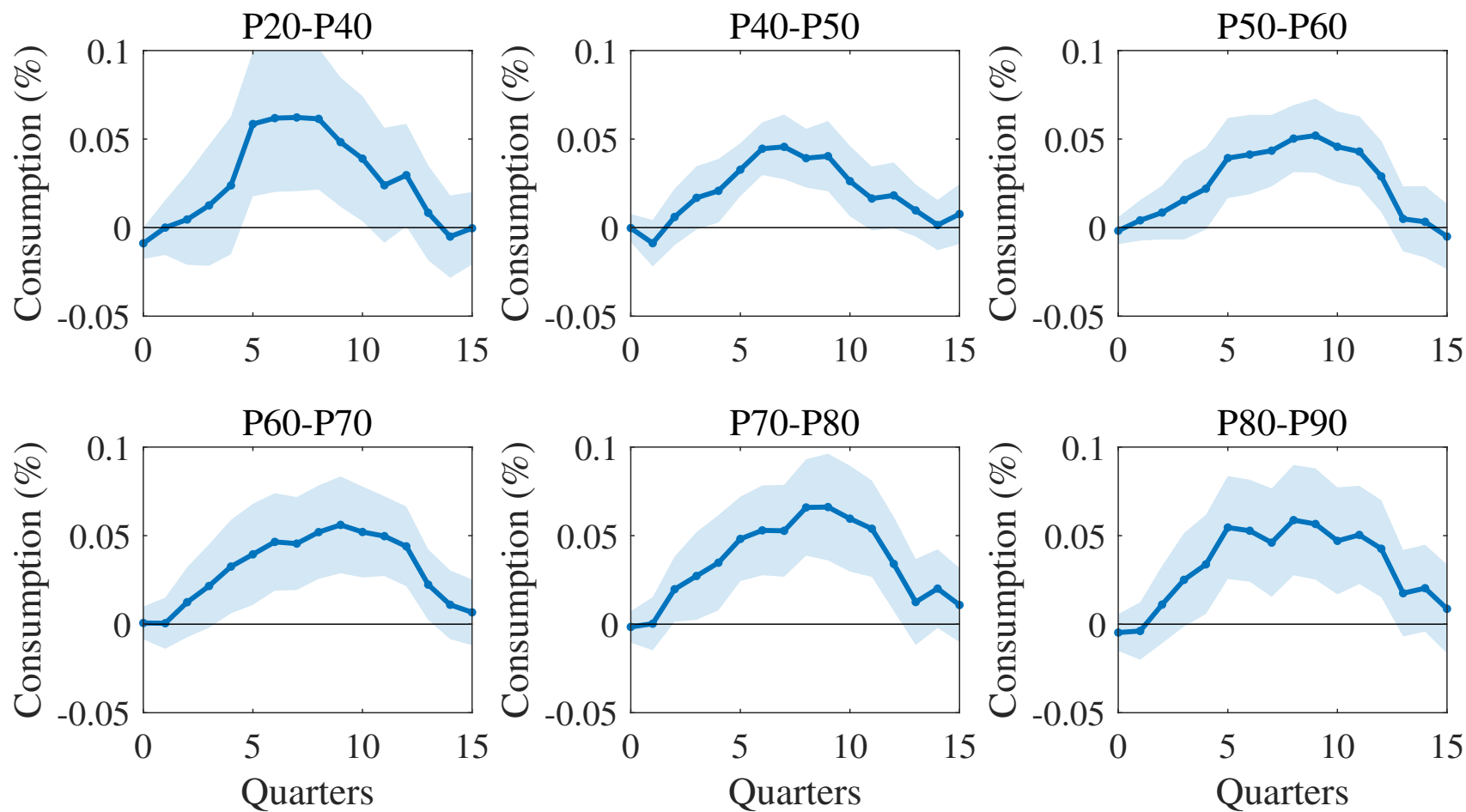


## Results

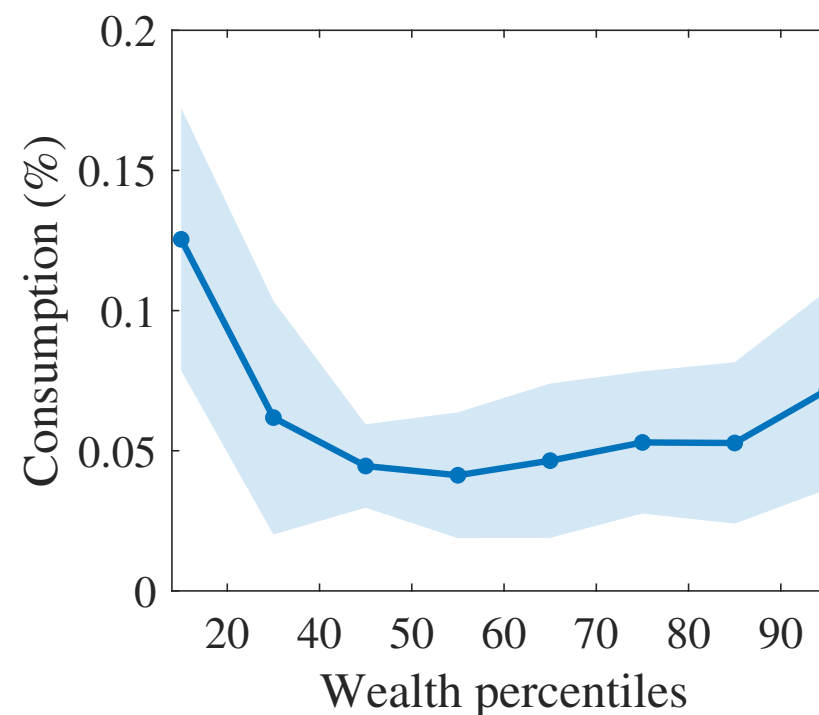
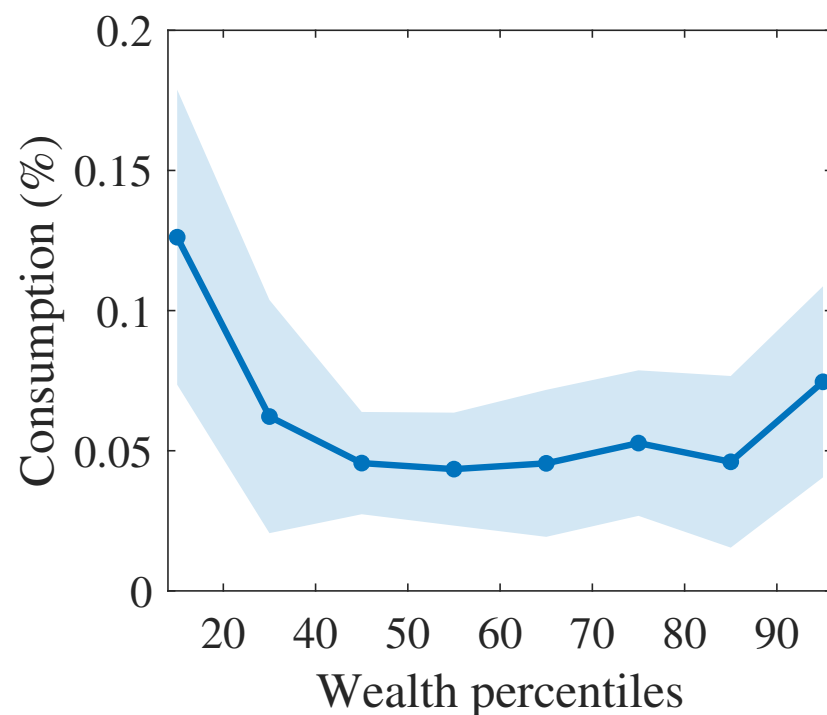


- Responses to an interest rate cut of 100 basis points.
- 68% HAC confidence bands.

# Results

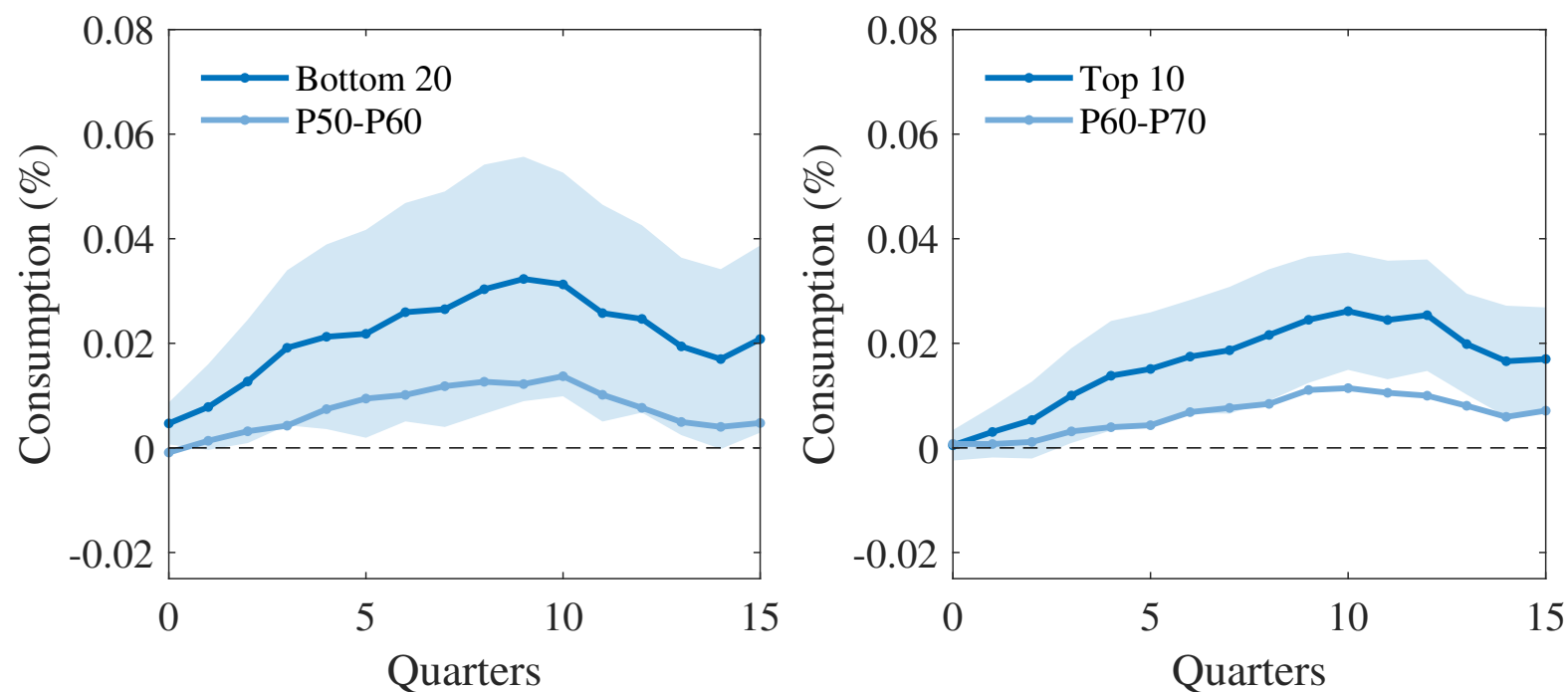


## Results



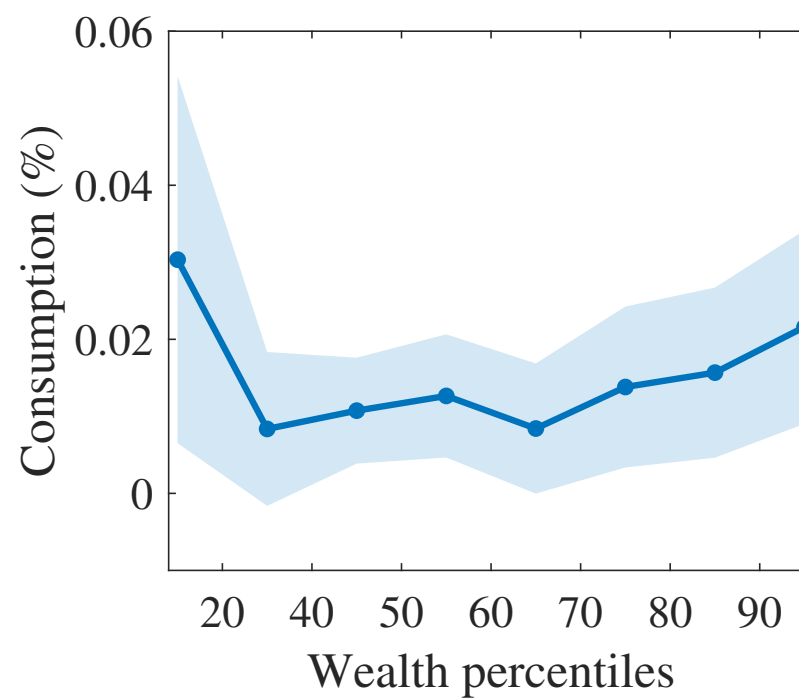
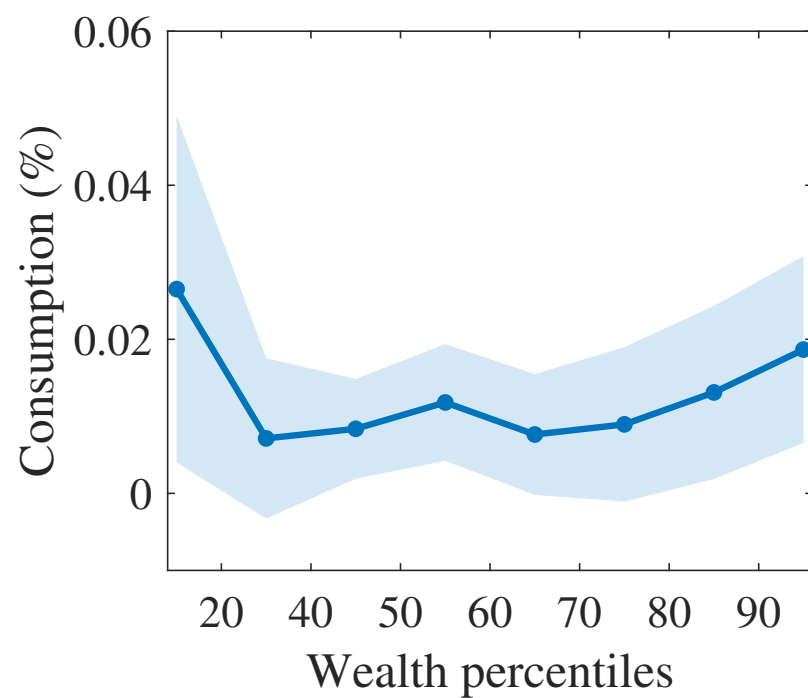
- Cross-sectional effects between 1 and 2 years after the shock.
- The response at the top 10%  $> 1.5$  times the response of any other group.

## Robustness check - RR shocks

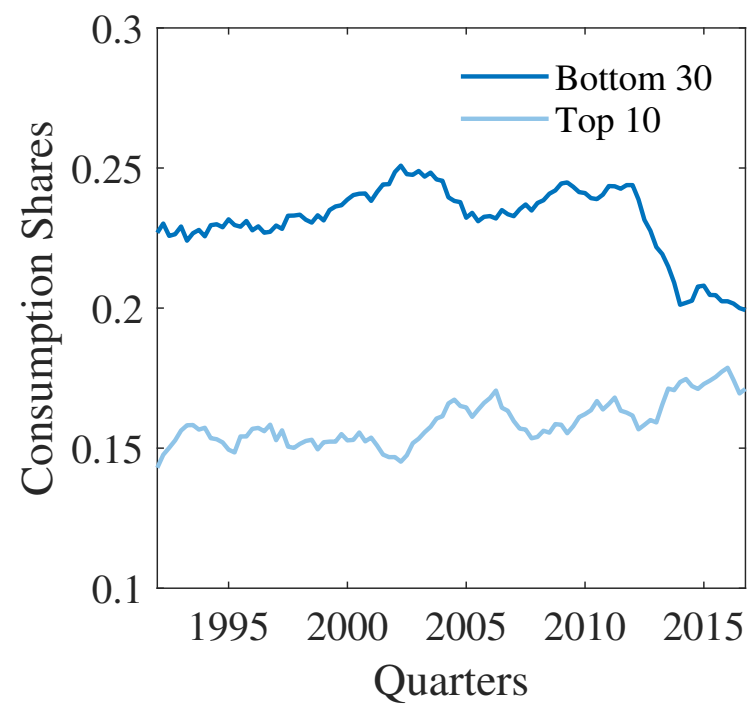
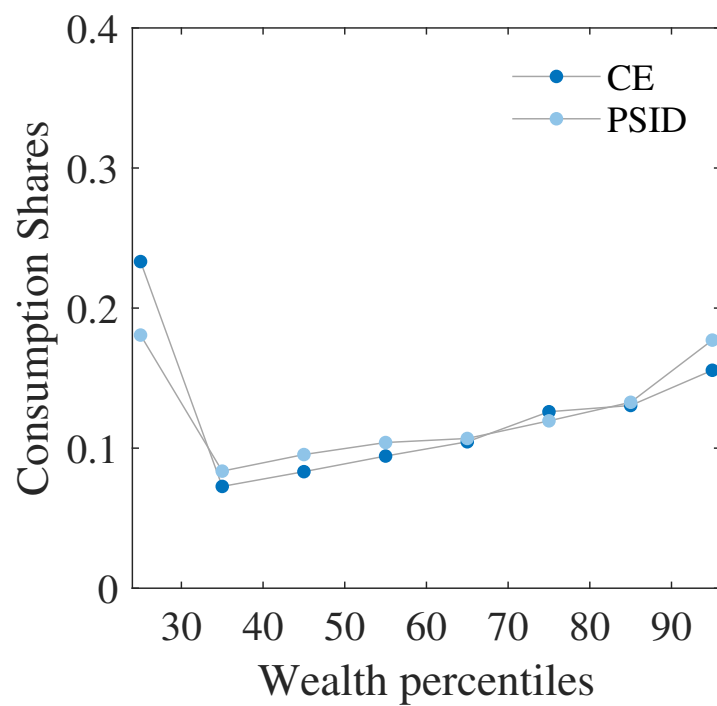


- 100 bp interest rate cut with RR series.
- The absolute size of the effects is lower (RR series has larger shocks).
- Same dynamics same cross-sectional pattern.

## Robustness check - RR shocks



# Consumption shares



# References

- Berger, David, Luigi Bocola, and Alessandro Dovis (2023). “Imperfect Risk Sharing and the Business Cycle”. Working Paper.
- Jarociński, Marek and Peter Karadi (2020). “Deconstructing Monetary Policy Surprises—The Role of Information Shocks”. In: *American Economic Journal: Macroeconomics* 12 (2), pp. 1–43.
- Romer, Christina and David Romer (2004). “A New Measure of Monetary Shocks: Derivation and Implications”. In: *American Economic Review* 94 (4), pp. 1055–1084.