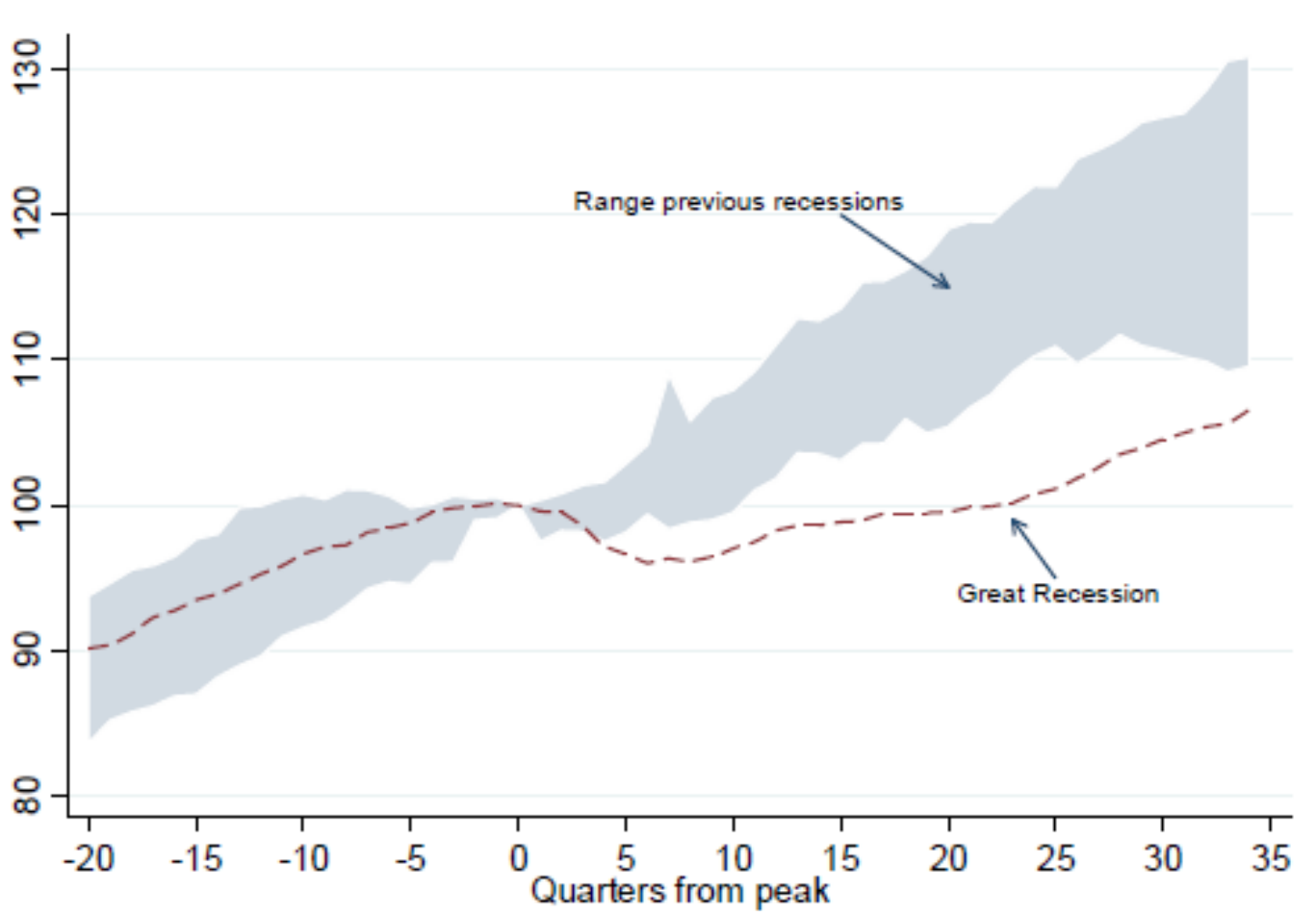


Discussion of “Why Has Consumption  
Remained Moderate after the Great  
Recession?”  
by Luigi Pistaferri

Atif Mian  
Princeton University

- Why consumption growth has been slow?
  - Great paper.
  - Informative, comprehensive and provides a number of interesting facts to think about.
- Comments
  - Why has consumption growth conditional on income growth slowed?
    - Less surprising, given where we were in 2007Q4.
  - Why has income growth slowed?
    - The long shadow of HH leverage growth

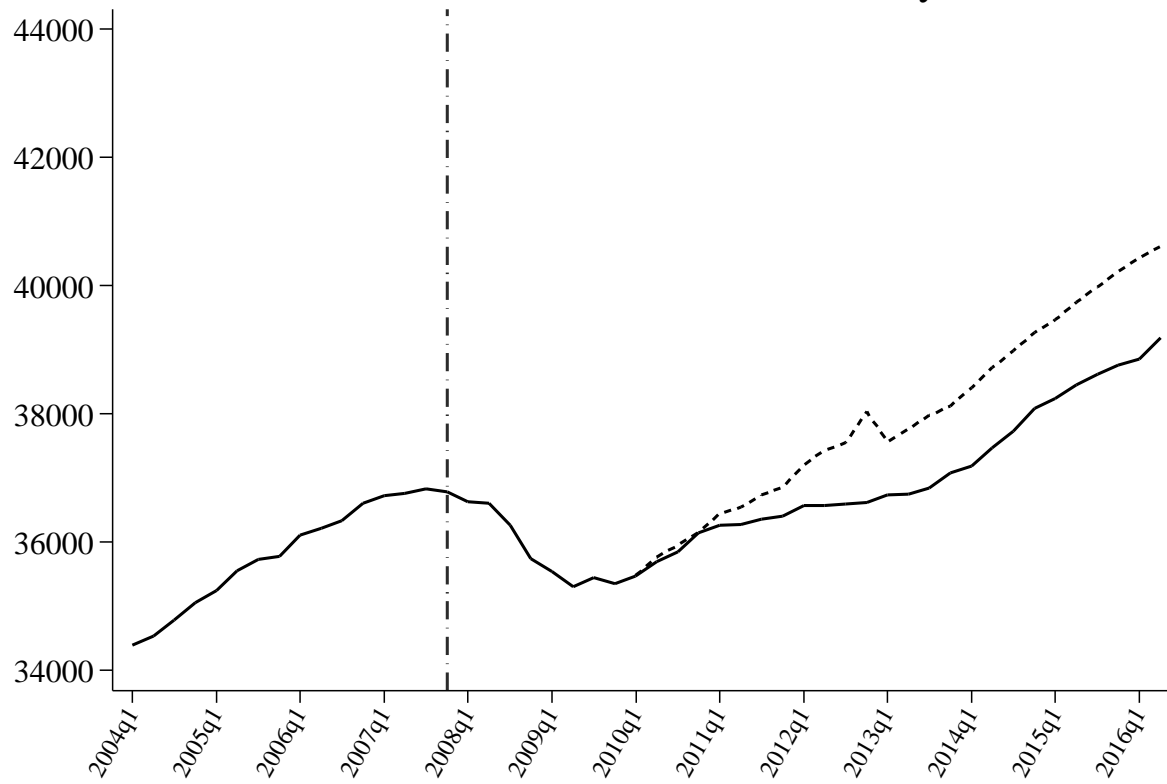
# Why consumption growth so low?



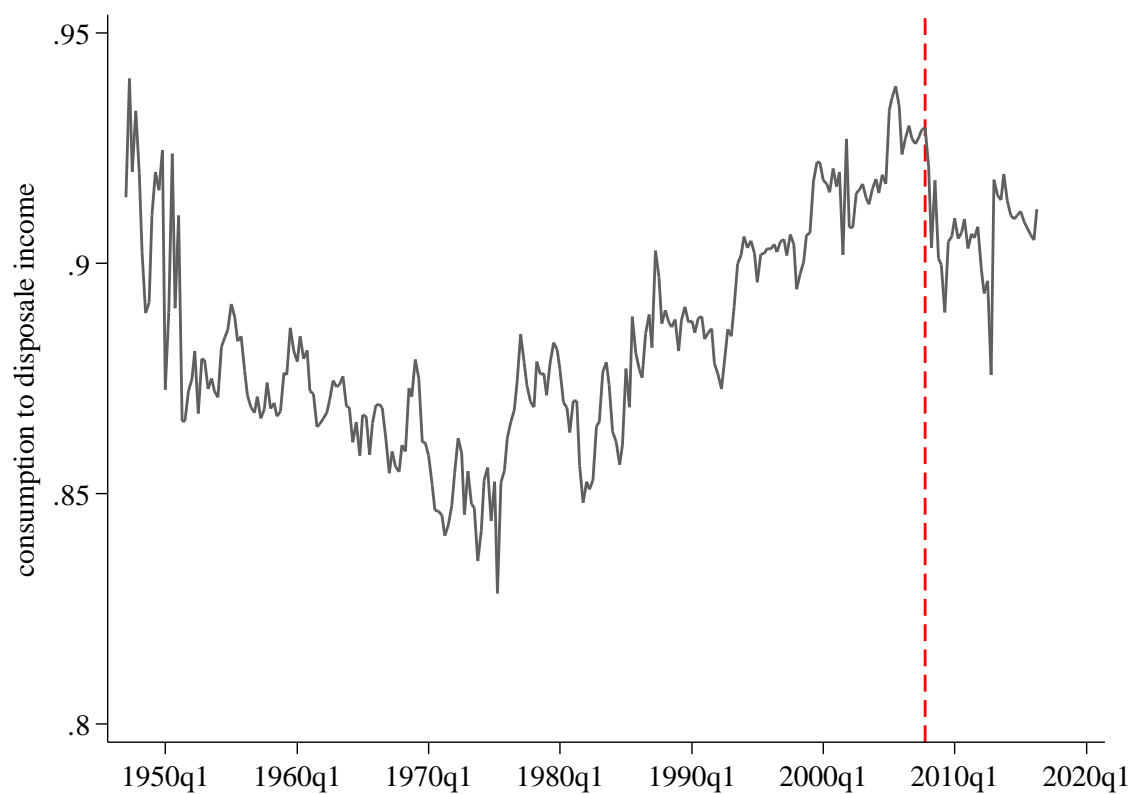
# Is consumption growth low even adjusting for income?

- I focus on just disposable income, and from 2010Q1 onwards to focus squarely on “recovery” phase. (disposable income during recession has counter-cyclical transfers, and hence different fundamentally)
- Estimate  $\Delta \log C_t = \alpha + \beta \Delta \log Y_t^d + \epsilon_t$  in pre-2007Q4 period and use estimated coefficient to predict counter-factual consumption post-2010Q.
- Yes, consumption growth slower than historical relationship conditional on disposable income growth.

### Counterfactual with income only

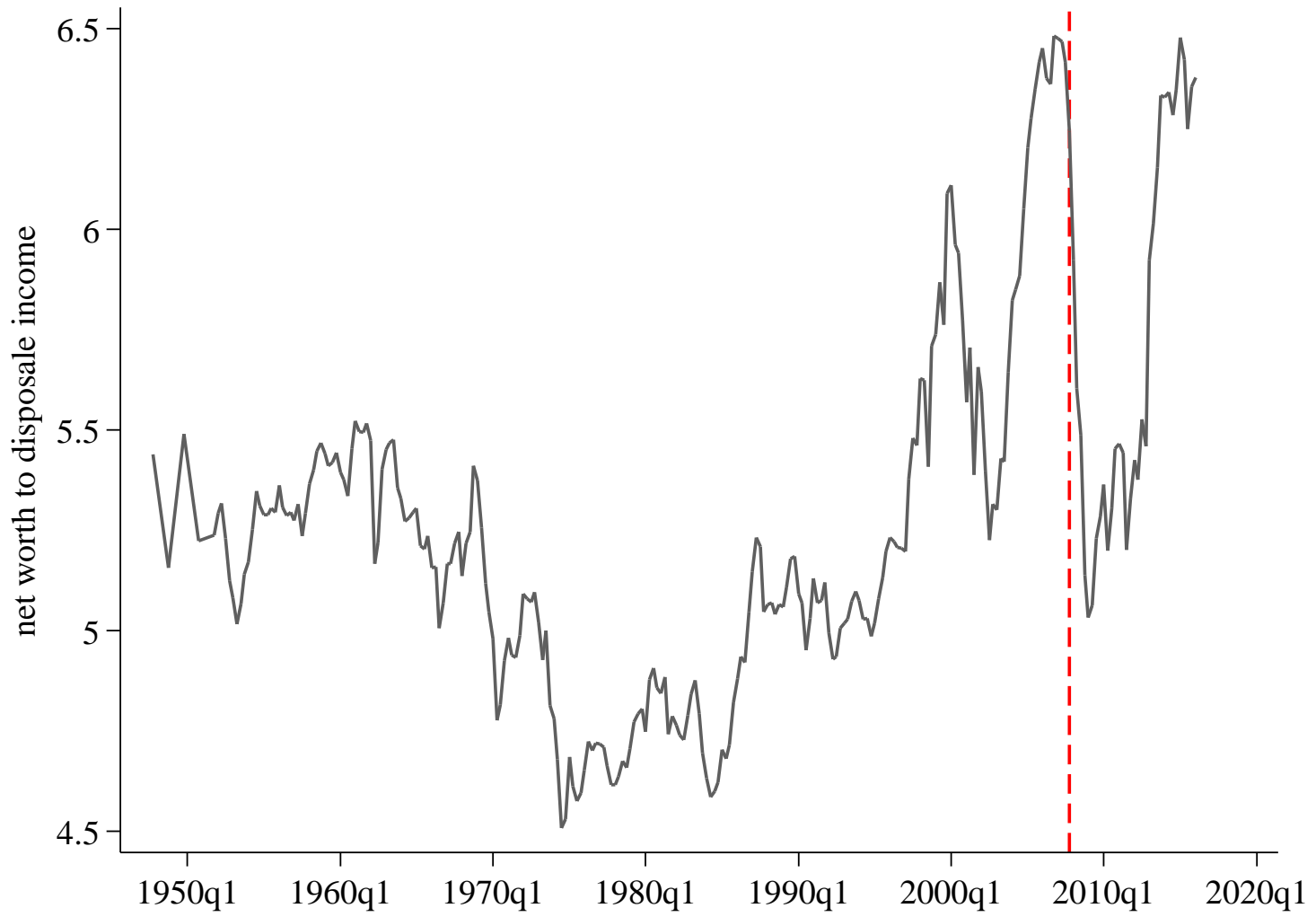


But consumption-income ratio was at historic high in 2007Q4.



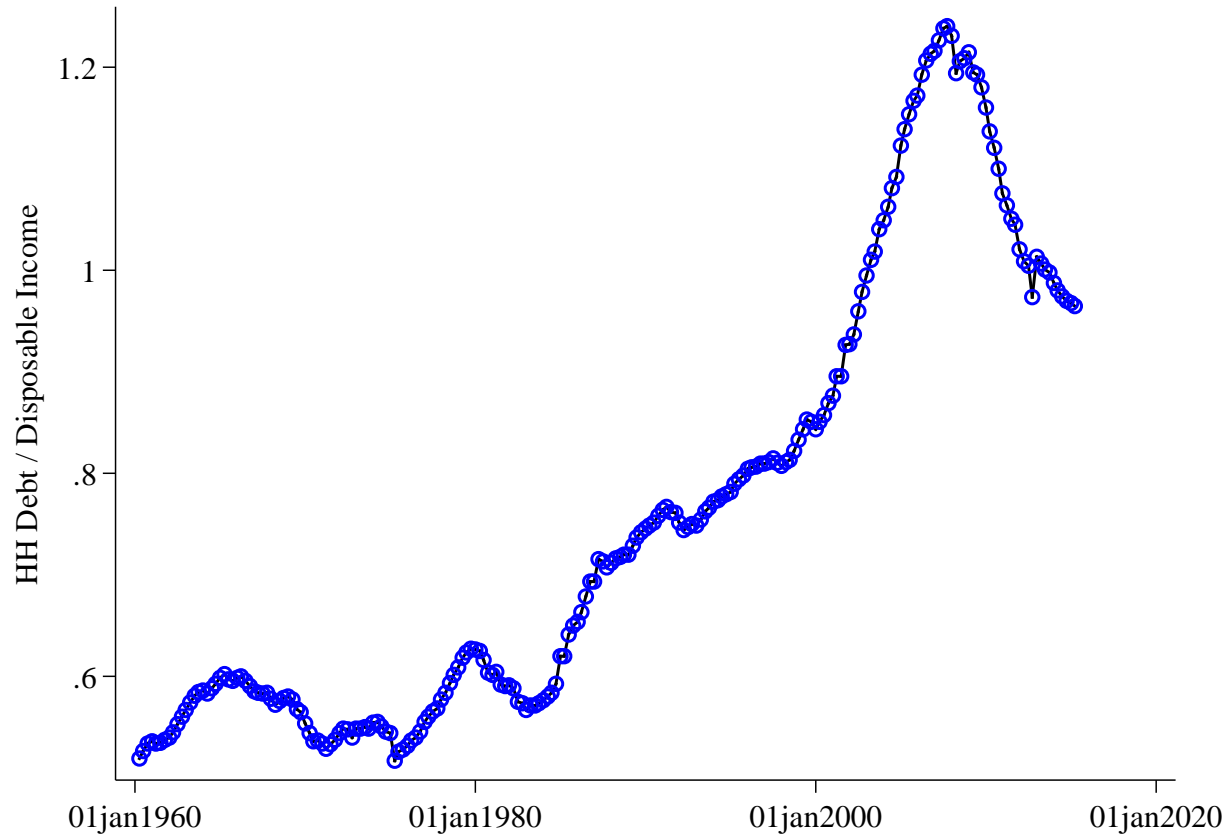
Possible drivers of high consumption growth relative to income in pre-2007 period

- Rising net worth to disposable income
- Rising household leverage
- Rising inequality, but partly muted due to stronger leverage growth for bottom 90.
- Falling long-term rates



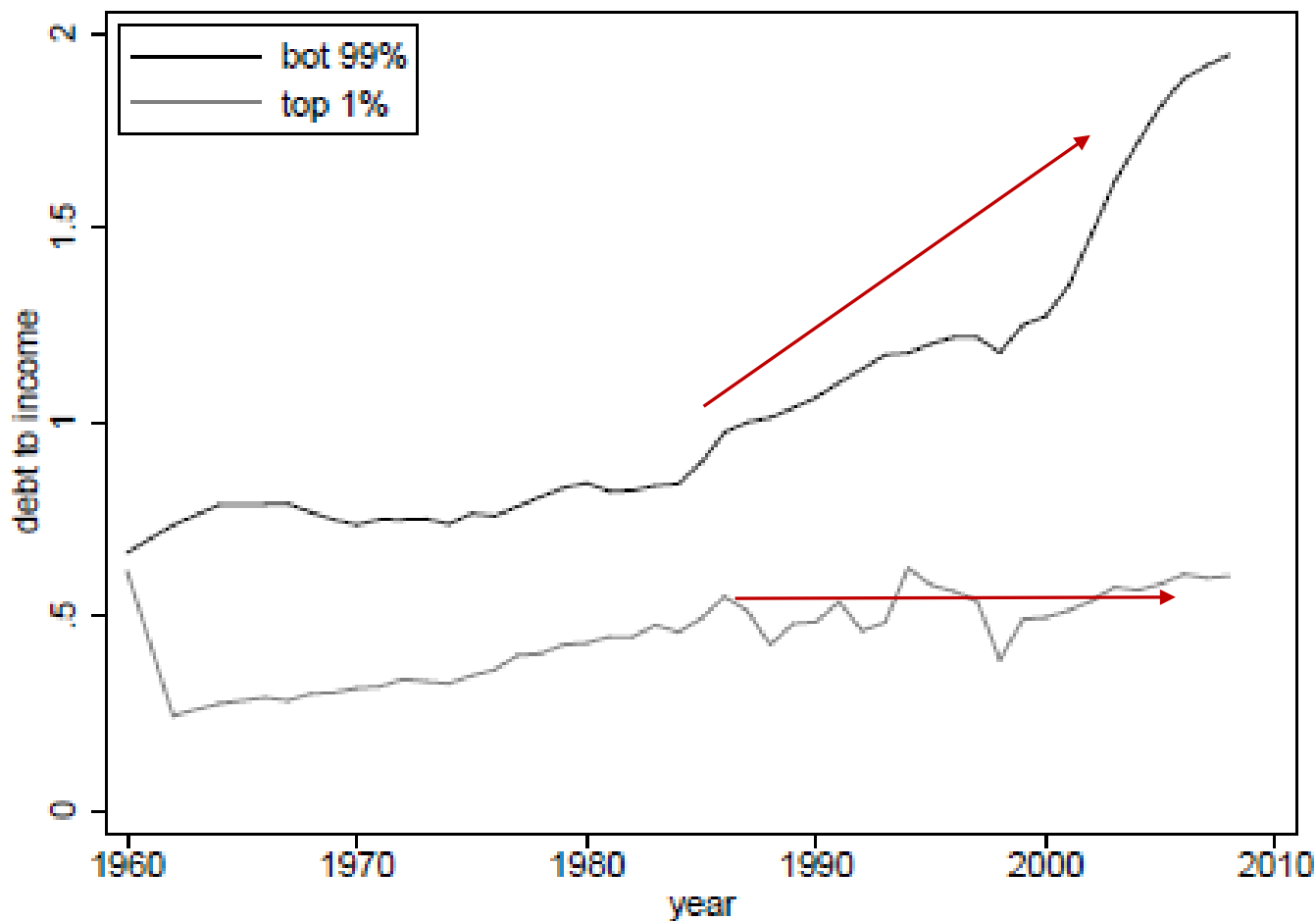


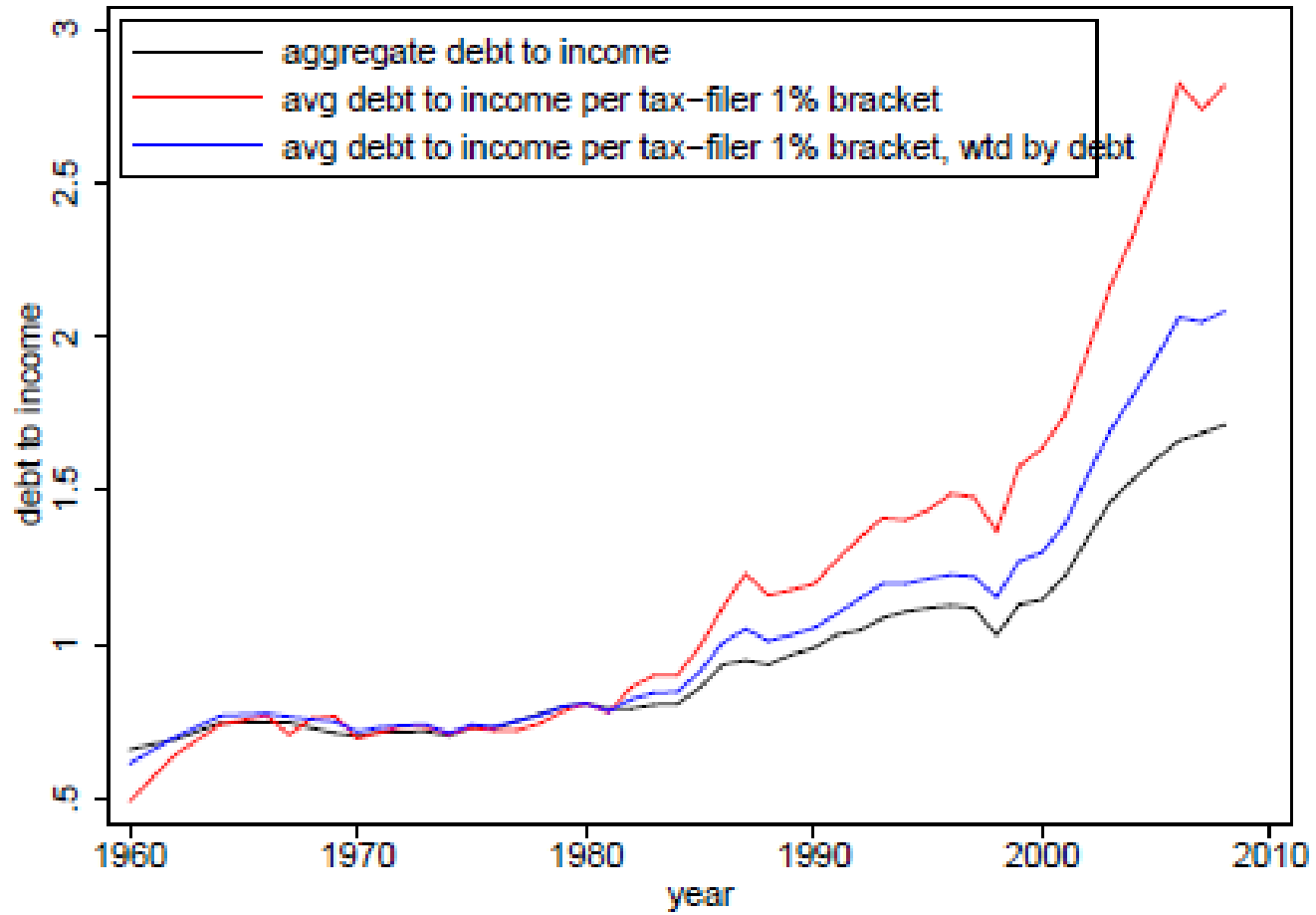
# Rising leverage



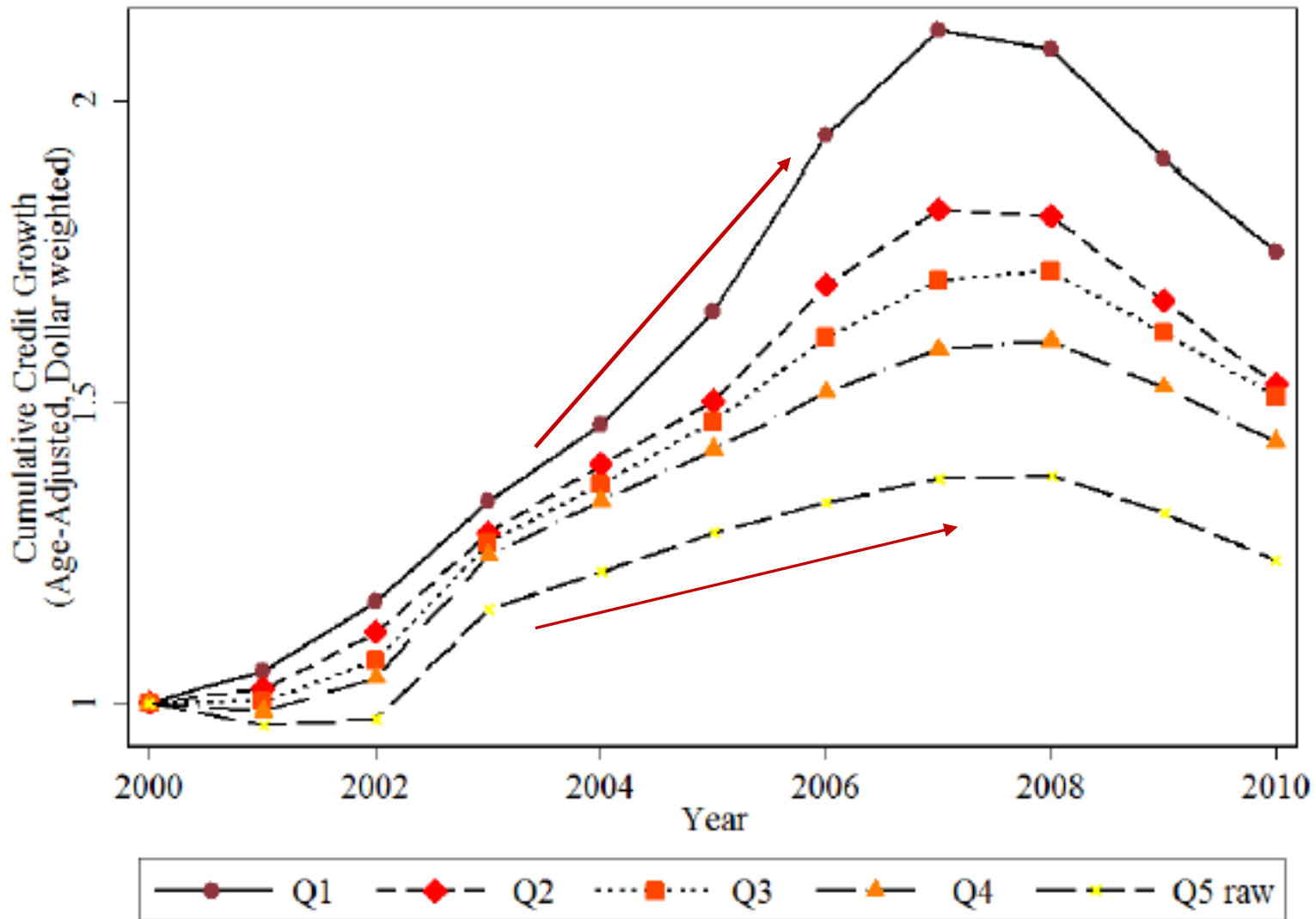
# Leverage growth concentrated in bottom-90 (Mian and Sufi 2016)

Figure 1: 1% vs. 99%

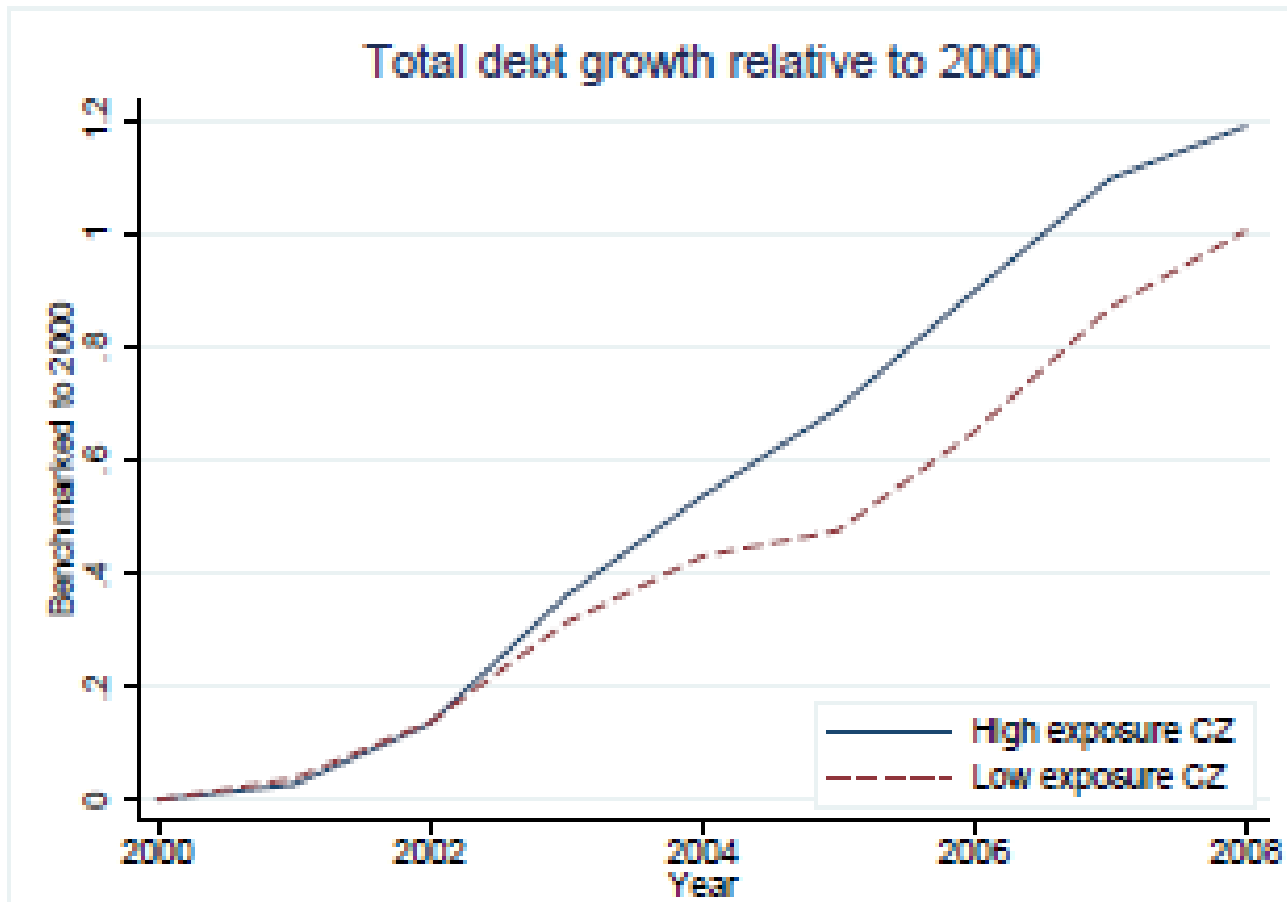




# Age-adjusted credit growth by credit score quintile



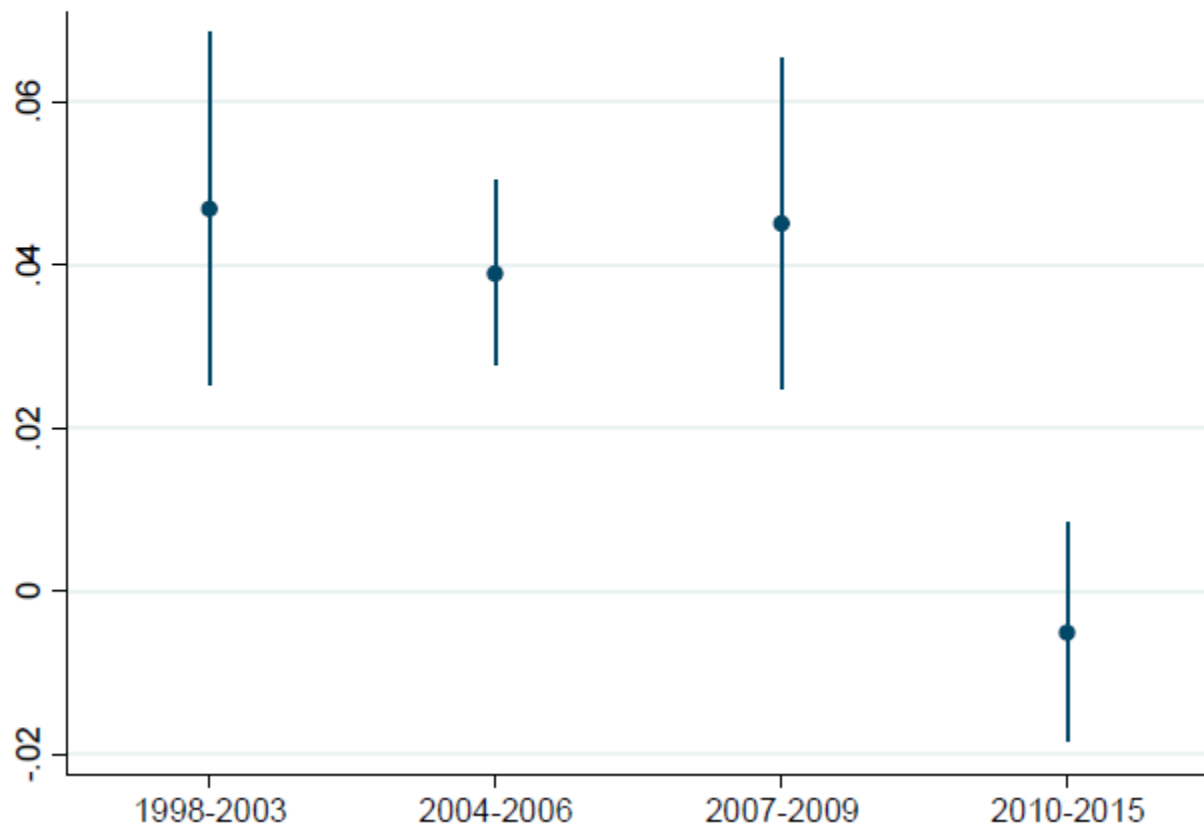
# Debt growth in China-exposed CZ's - Barrot et al (2016)



Possible drivers of high consumption growth relative to income in ~~pre~~-2007 period  
~~pre~~ **post**

- Rising net worth to disposable income ✓
- ~~Rising household leverage~~
- ~~Rising inequality, but partly muted due to stronger leverage growth for bottom 90.~~
- ~~Falling long term rates~~
- Monetary Policy?

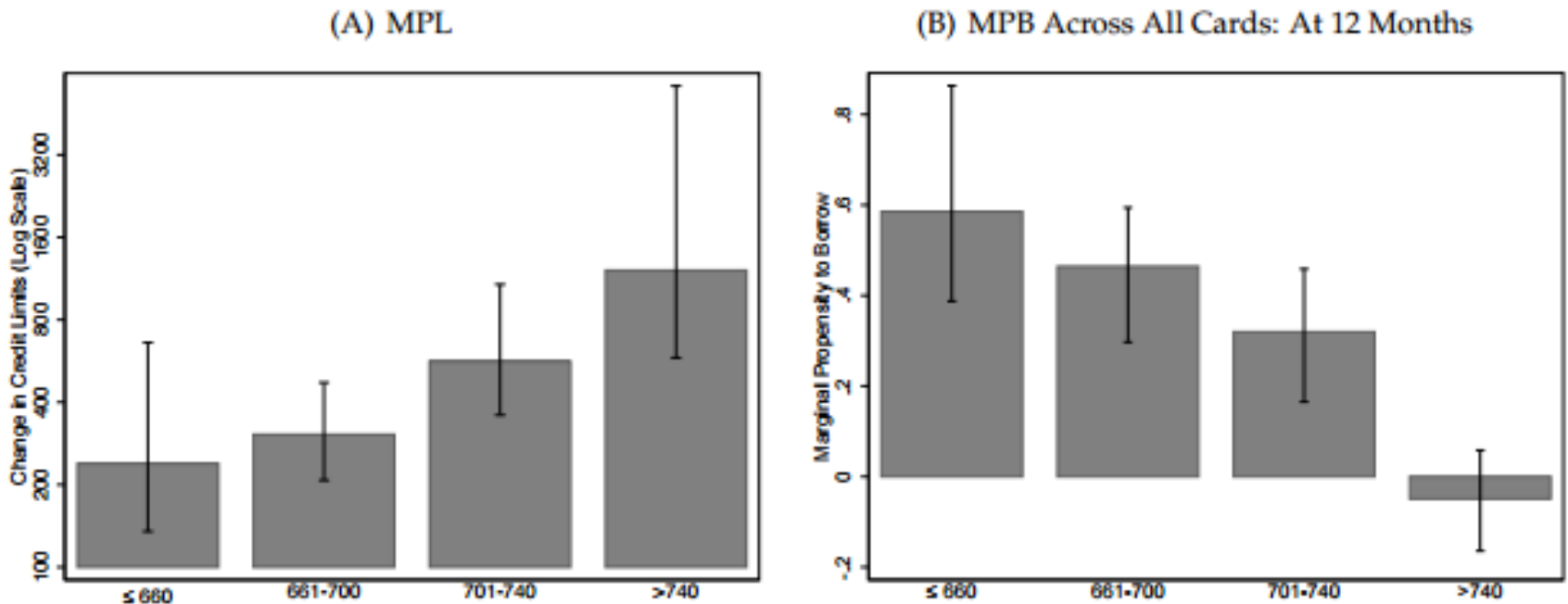
# Estimated wealth effects shrink considerably post-recession



Source: BEA, NIPA PCE by state

# Monetary Policy pass-through - Agarwal et al (2016)

**Figure 11: Correlation between MPL and MPB**





# The long shadow of HH leverage growth (Mian, Sufi and Verner 2016)

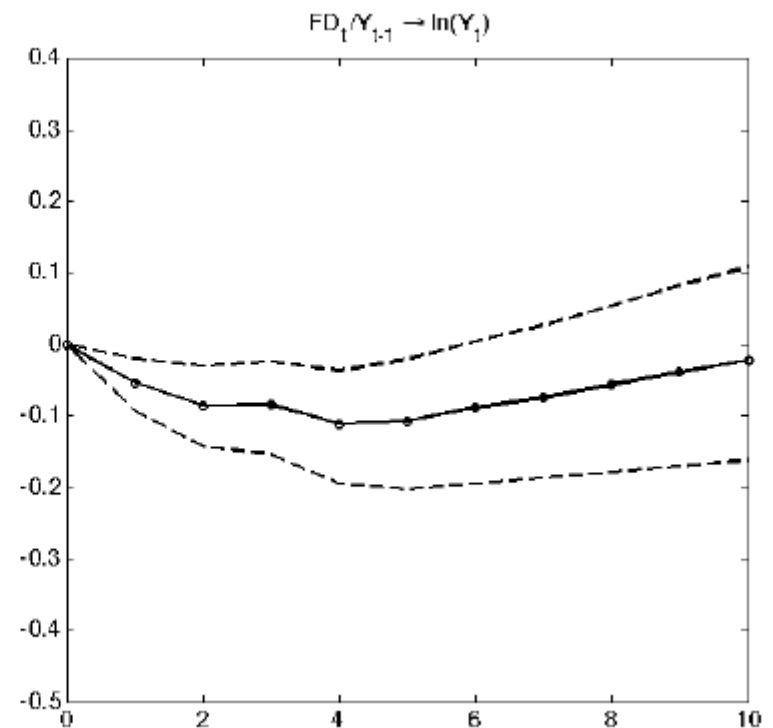
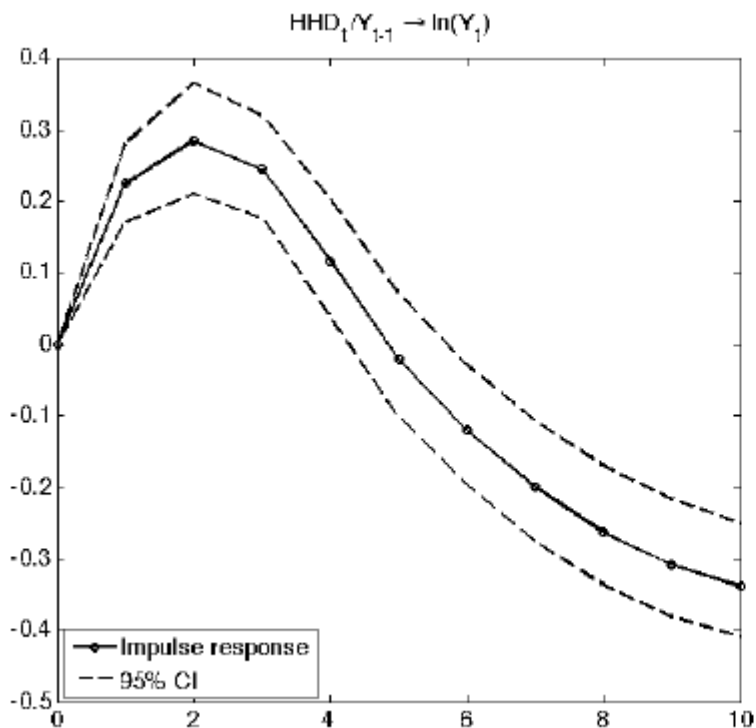


Table 2: Credit Expansion and Contemporaneous and Future Three-Year GDP Growth

	Dependent variable: $\Delta_3 y_{it+k}, k = 0, \dots, 6$						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	$\Delta_3 y_{it}$	$\Delta_3 y_{it+1}$	$\Delta_3 y_{it+2}$	$\Delta_3 y_{it+3}$	$\Delta_3 y_{it+4}$	$\Delta_3 y_{it+5}$	$\Delta_3 y_{it+6}$
$\Delta_3 d_{it}^{HH}$	0.176* (0.0793)	0.121 (0.0810)	-0.0136 (0.0680)	-0.178** (0.0629)	-0.337** (0.0779)	-0.410** (0.0905)	-0.405** (0.102)
$\Delta_3 d_{it}^F$	-0.0430 (0.0556)	-0.140* (0.0550)	-0.159** (0.0437)	-0.108** (0.0362)	-0.0411 (0.0349)	0.0327 (0.0395)	0.0876* (0.0373)
$R^2$	0.026	0.063	0.100	0.103	0.128	0.138	0.128
Country fixed effects	✓	✓	✓	✓	✓	✓	✓
Observations	815	785	755	725	695	665	635

# Summary

- Why has consumption growth conditional on income growth slowed?
  - Less surprising, given where we were in 2007Q4.
  - The household debt drivers are not operating thus far.
- Why has income growth slowed?
  - The long shadow of HH leverage growth
  - A statistical result. Need to incorporate in theory.