Modeling the Consumption Response to the CARES Act

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The CARES Act

The CARES Act directly impacts household balance sheets:

- $1,200 to every adult (means tested)
- $600 per week *additional* unemployment benefits, for up to 13 weeks ($7,800)

Compared to 10 years ago, we now have good models of how household consumption responds

Contribution of paper:

- How is this time different?
- What does a carefully calibrated consumption model say?

What's Old - Baseline Model

We begin with a lifecycle model made up of high school dropouts, high school graduates and college graduates, matching:

- Their income profiles (trends and uncertainty)
- Liquid wealth distribution (matched using patience heterogeneity)

This model has an annual Marginal Propensity to Consume (MPC) around 0.5

Matches *both* micro and macro phenomena - e.g. **?**

What's New: (1) 'Deep' Unemployment

We want to be able to experiment with different expectations (and realities) about the length of unemployment.
Two types of unemployed:

1. 'Normal' Unemployed: 2/3 probability of finding a job each quarter - expected unemployment duration 1.5 quarters
2. 'Deep' Unemployed: 1/3 probability of returning to 'normal' unemployed state each quarter - expected unemployment duration 4.5 quarters

What's New: (2) 'Lockdown' Consumption

Consumption during the lockdown is restricted: many forms of consumption are less desirable, or illegal

- We calibrate an 11 percent reduction in spending directly (from travel, restaurants, etc)
- We model this as a reduction in the marginal utility of consumption

Households prefer to defer some of their consumption into the future

Calibrating the Pandemic

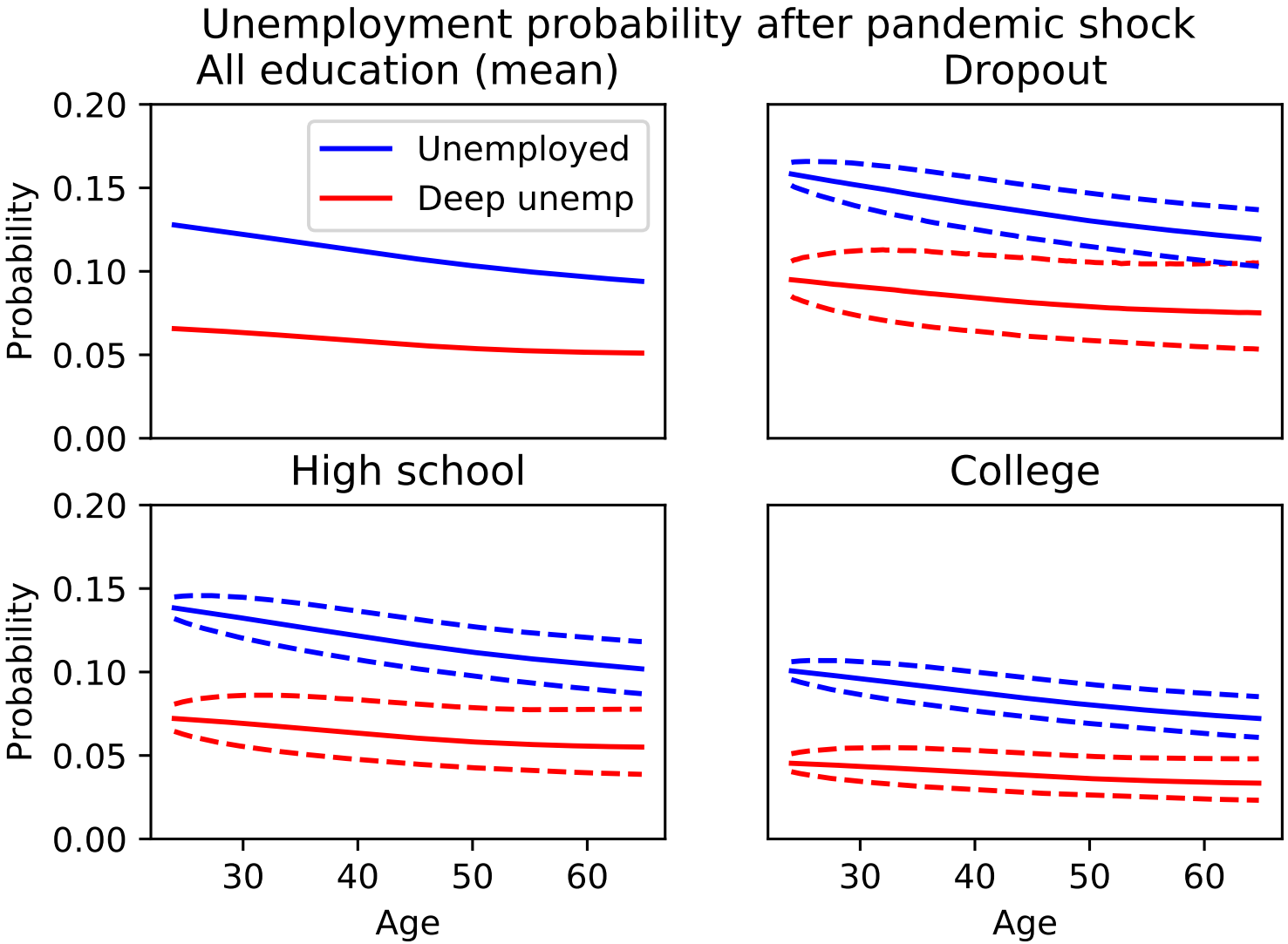
We present two scenarios

- Short-Lived: The 'lockdown' lasts two quarters on average, unemployment 15%
  One-third deep unemployment
- Long, Deep: The 'lockdown' lasts four quarters on average, unemployment 22%
  Mostly deep unemployment

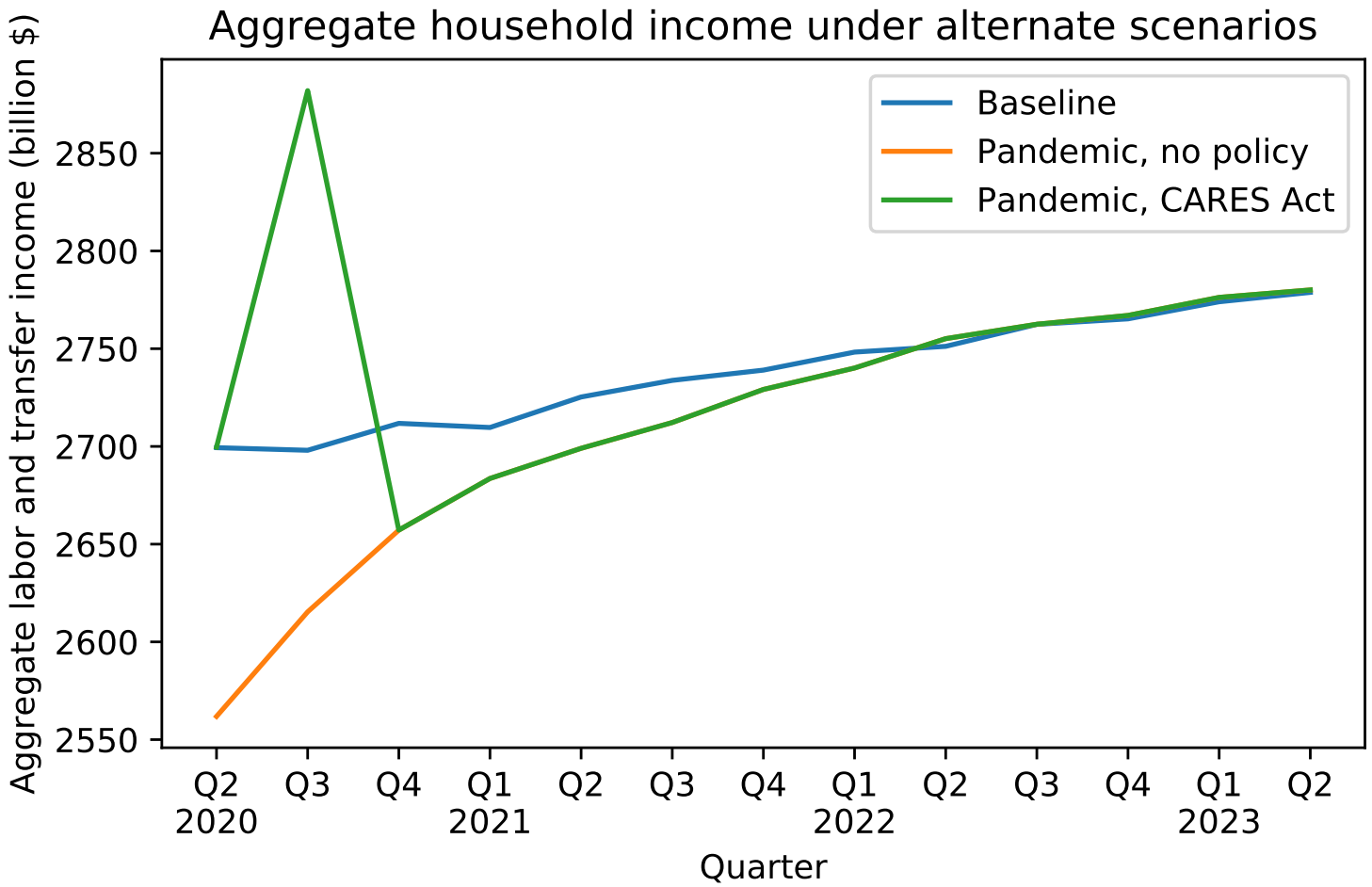
BUT these assumptions are highly contested and rapidly changing with data
We invite you to make your own assumptions:

Interactive-Jupyter-Notebook	*Allows user to modify some assumptions*
github.com/econ-ark/Pandemic	*Full codebase*

Unemployment skewed young, unskilled and low income

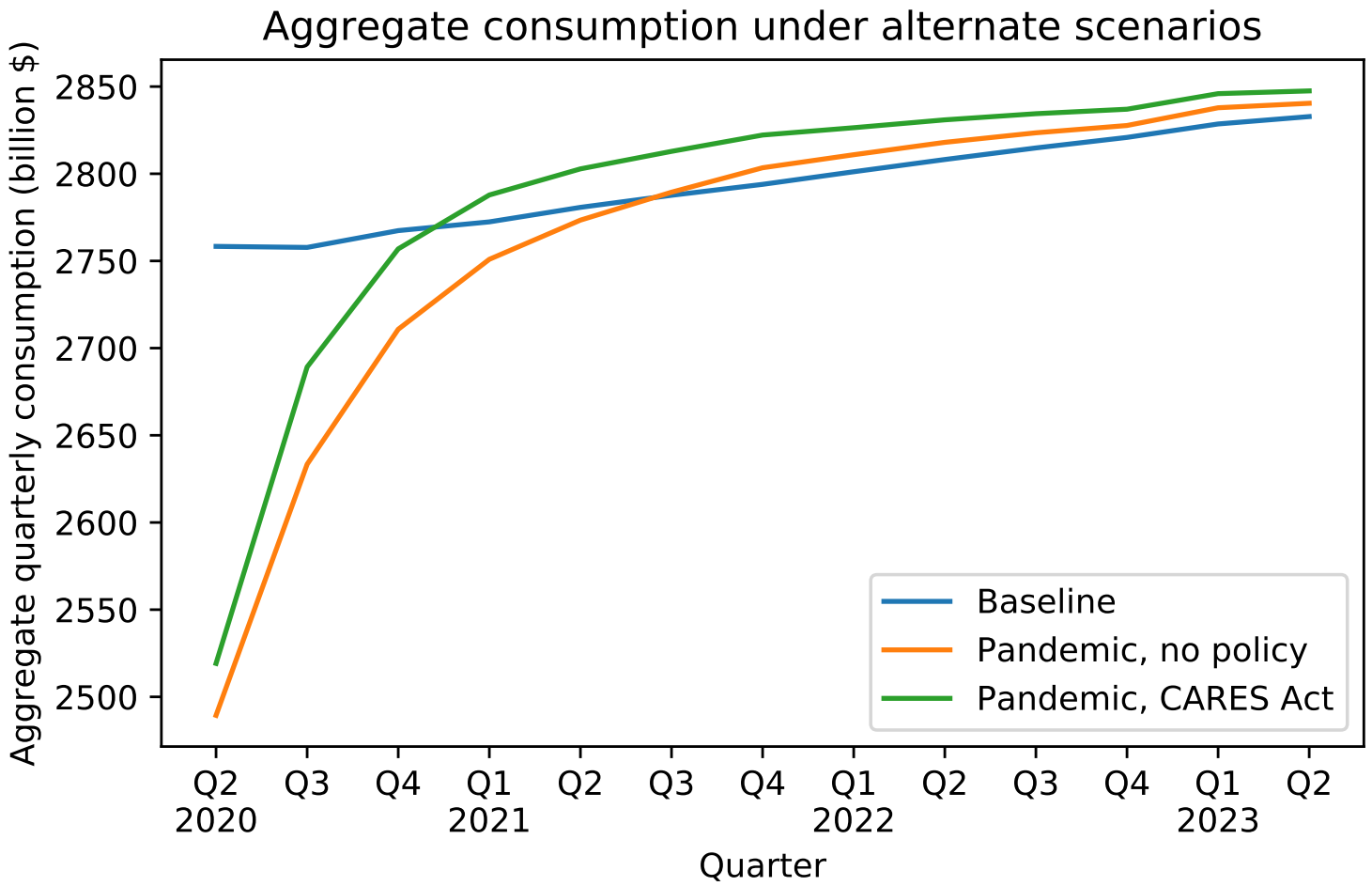


Aggregate Labor and Transfer Income

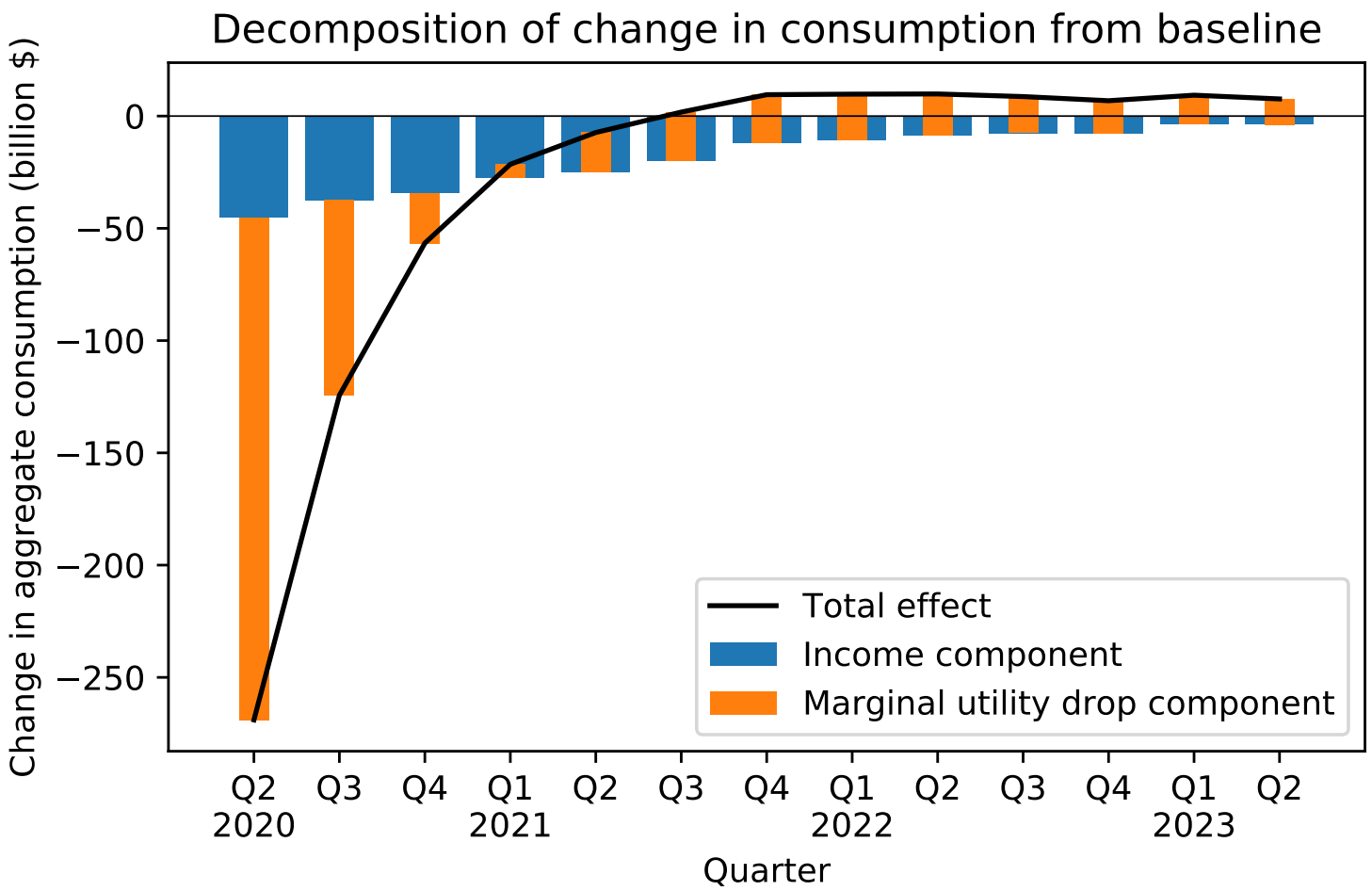


Assumption: Stimulus check delayed one quarter, 25 percent forward looking

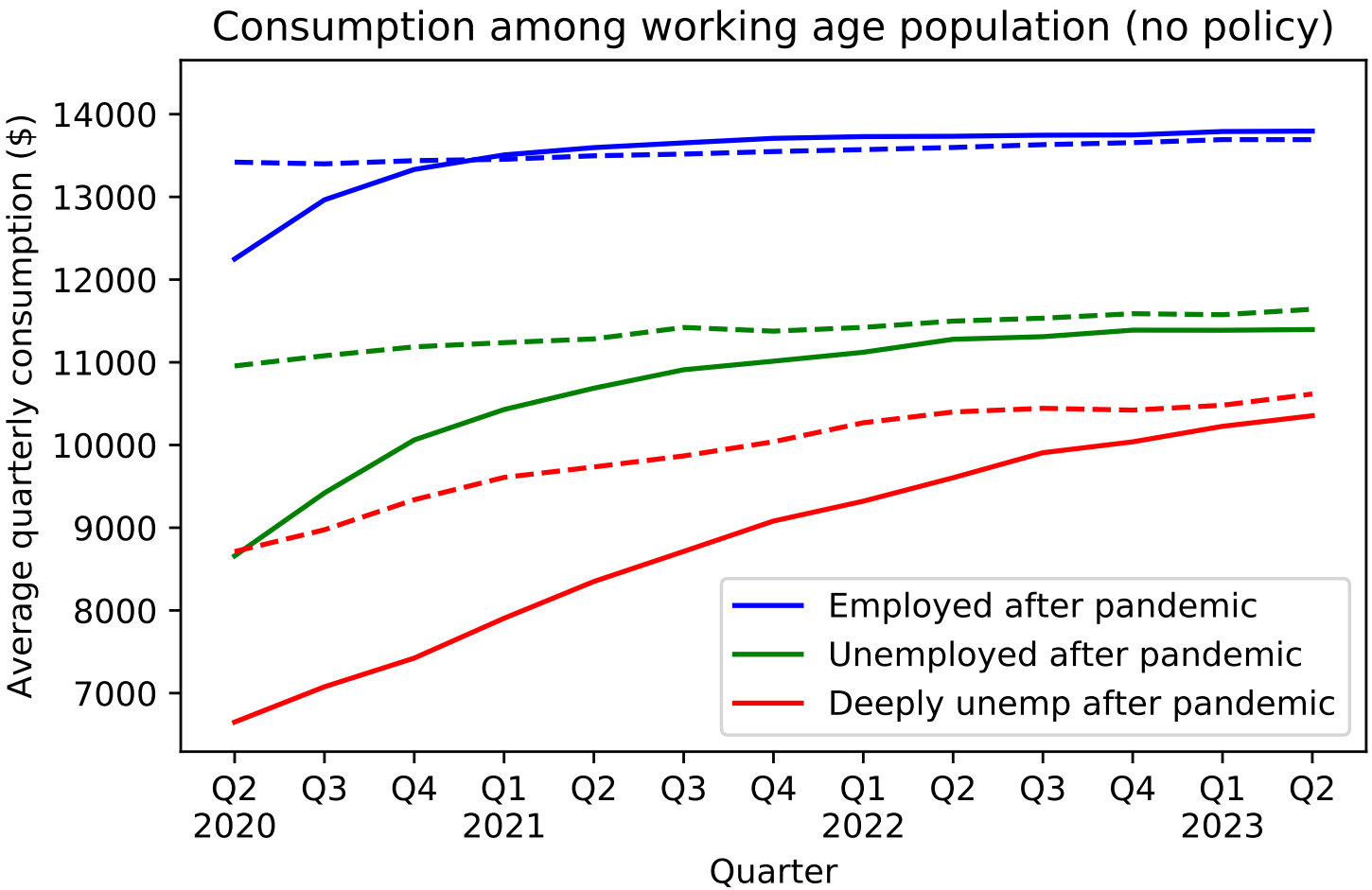
Aggregate Consumption Response



Consumption Response Decomposition



Consumption Response By Employment Type



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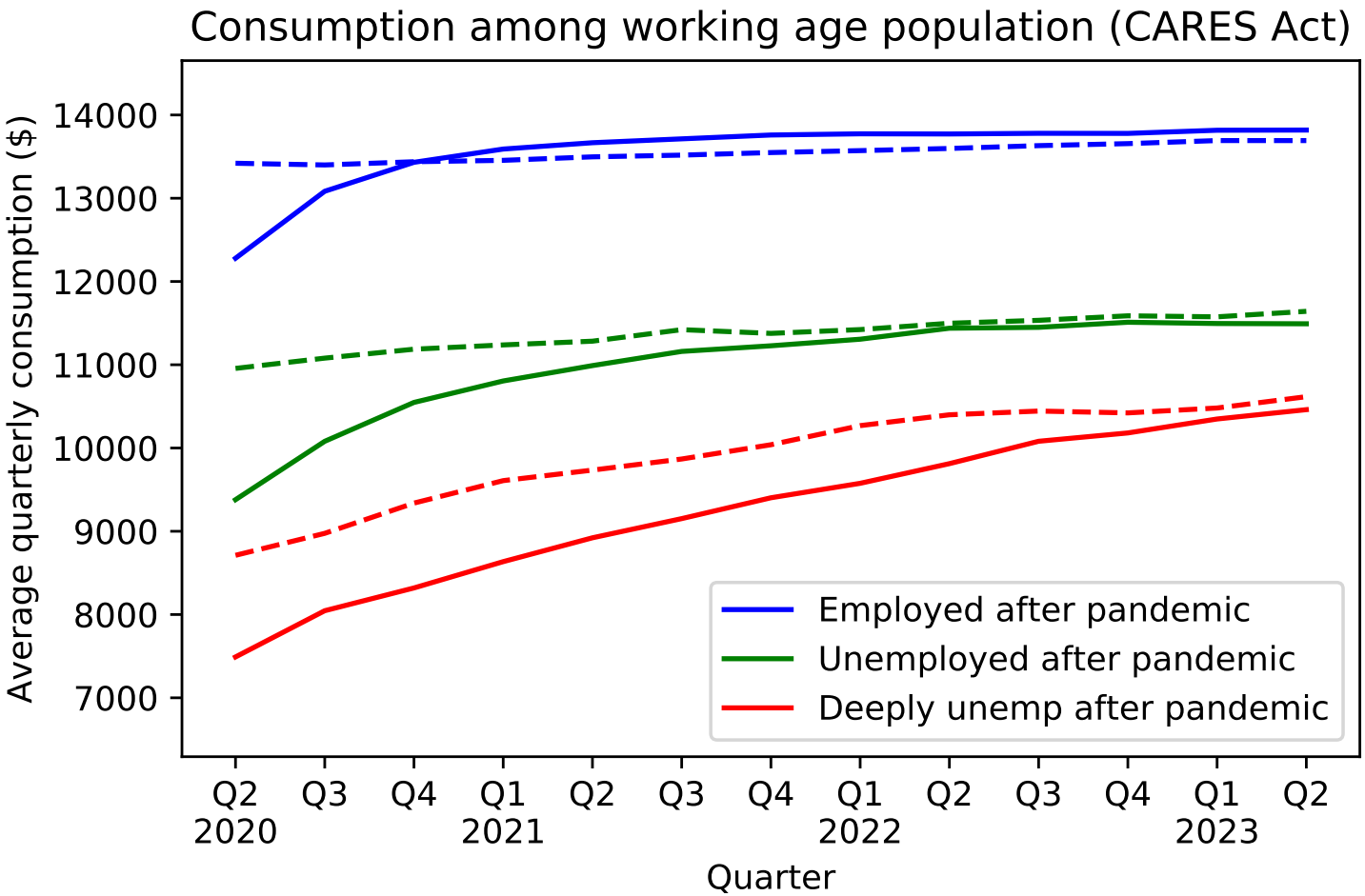

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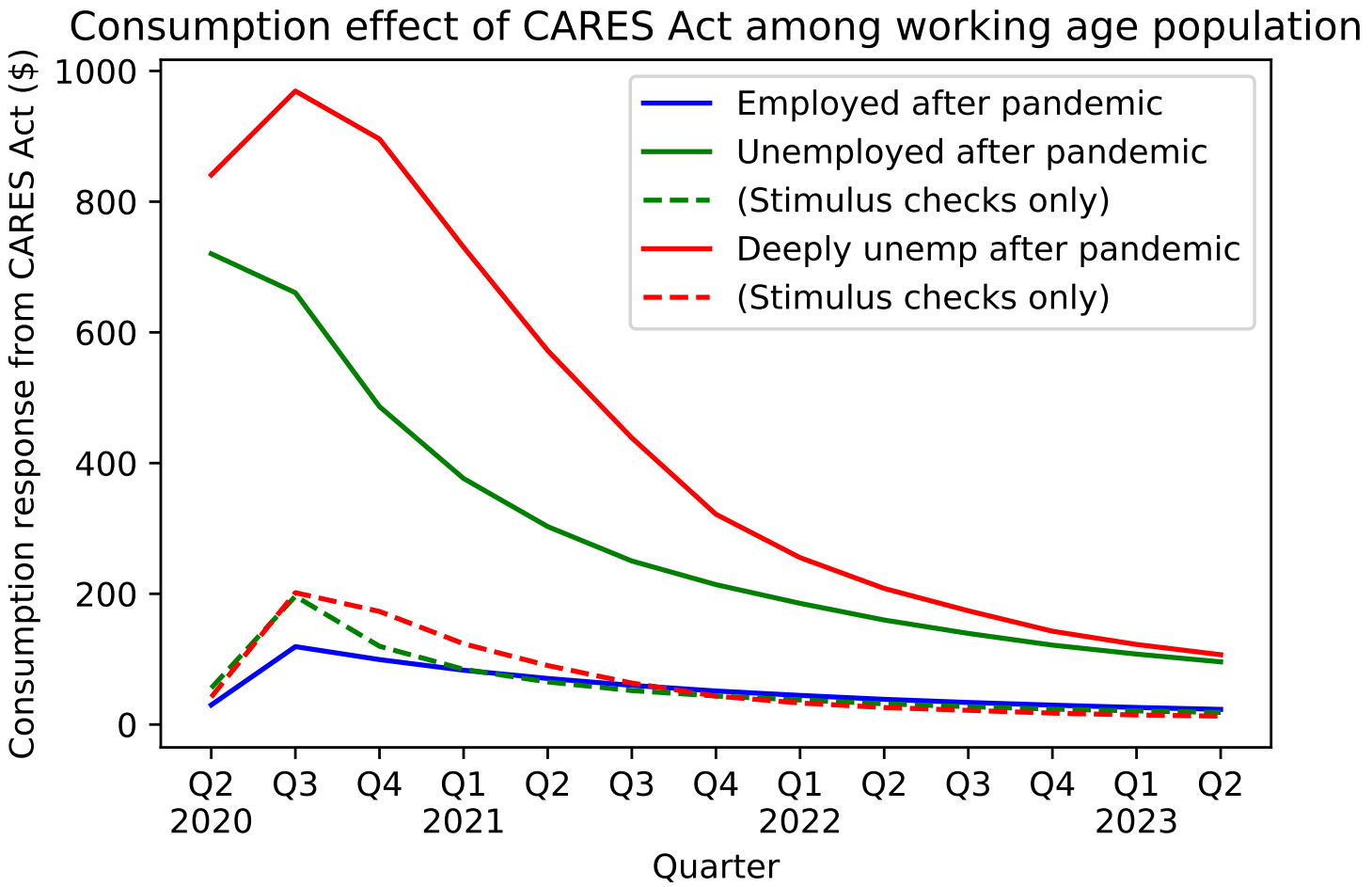
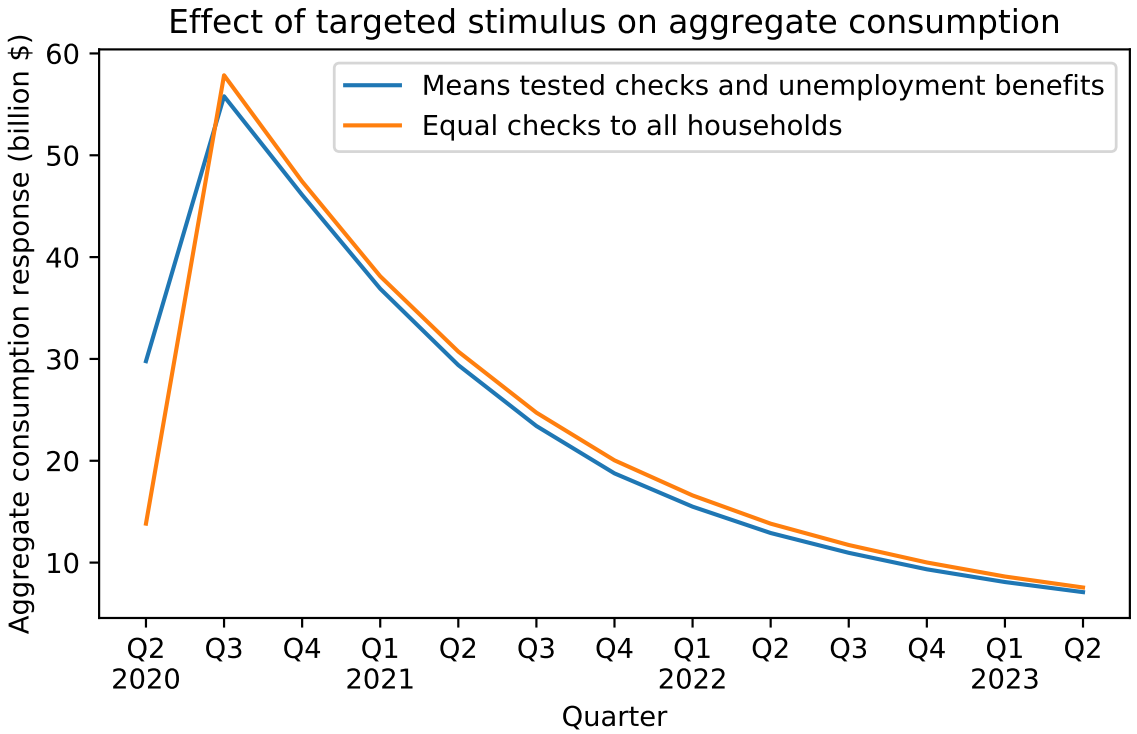
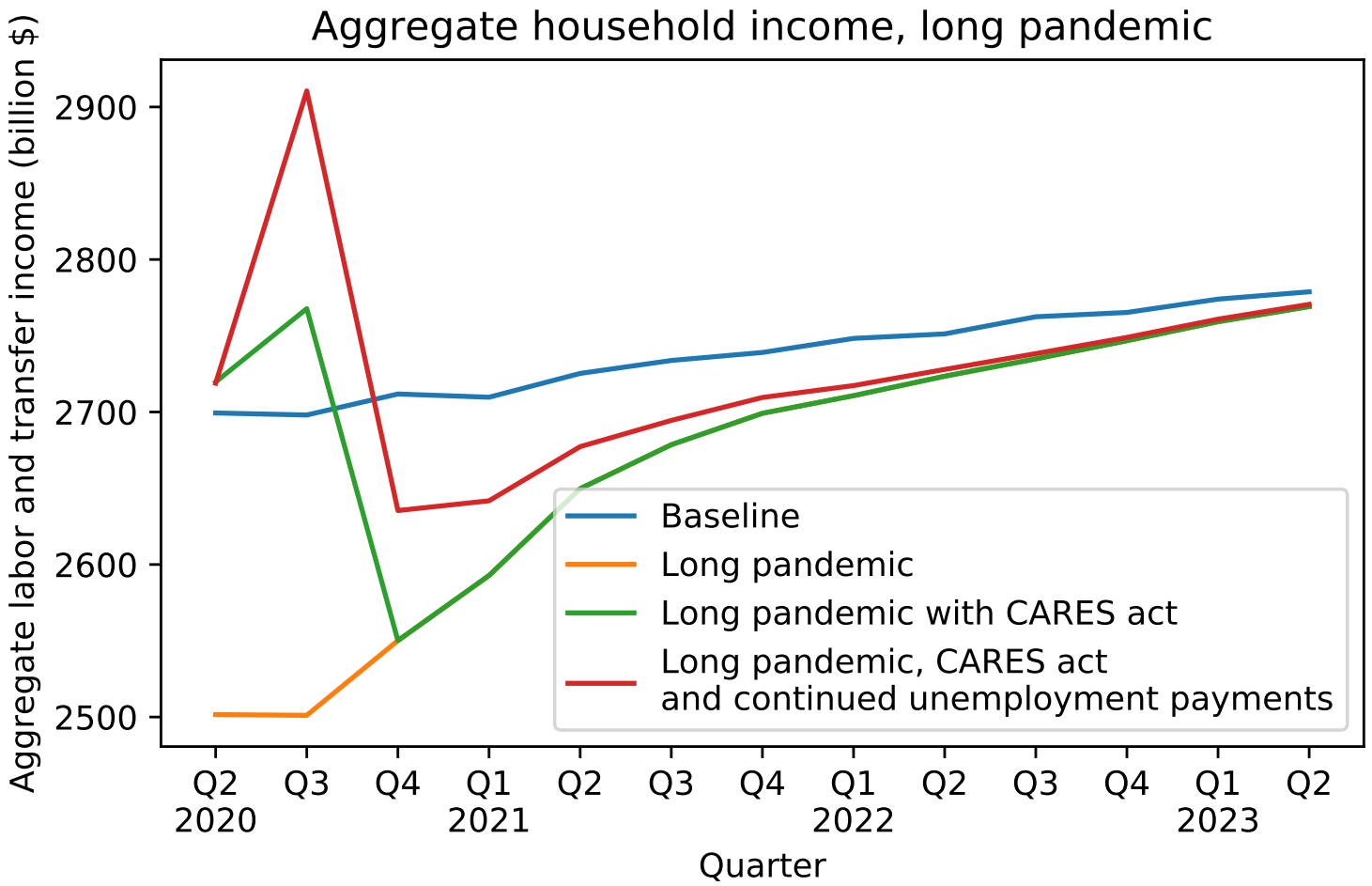


Is Targeting Useful In The Aggregate?

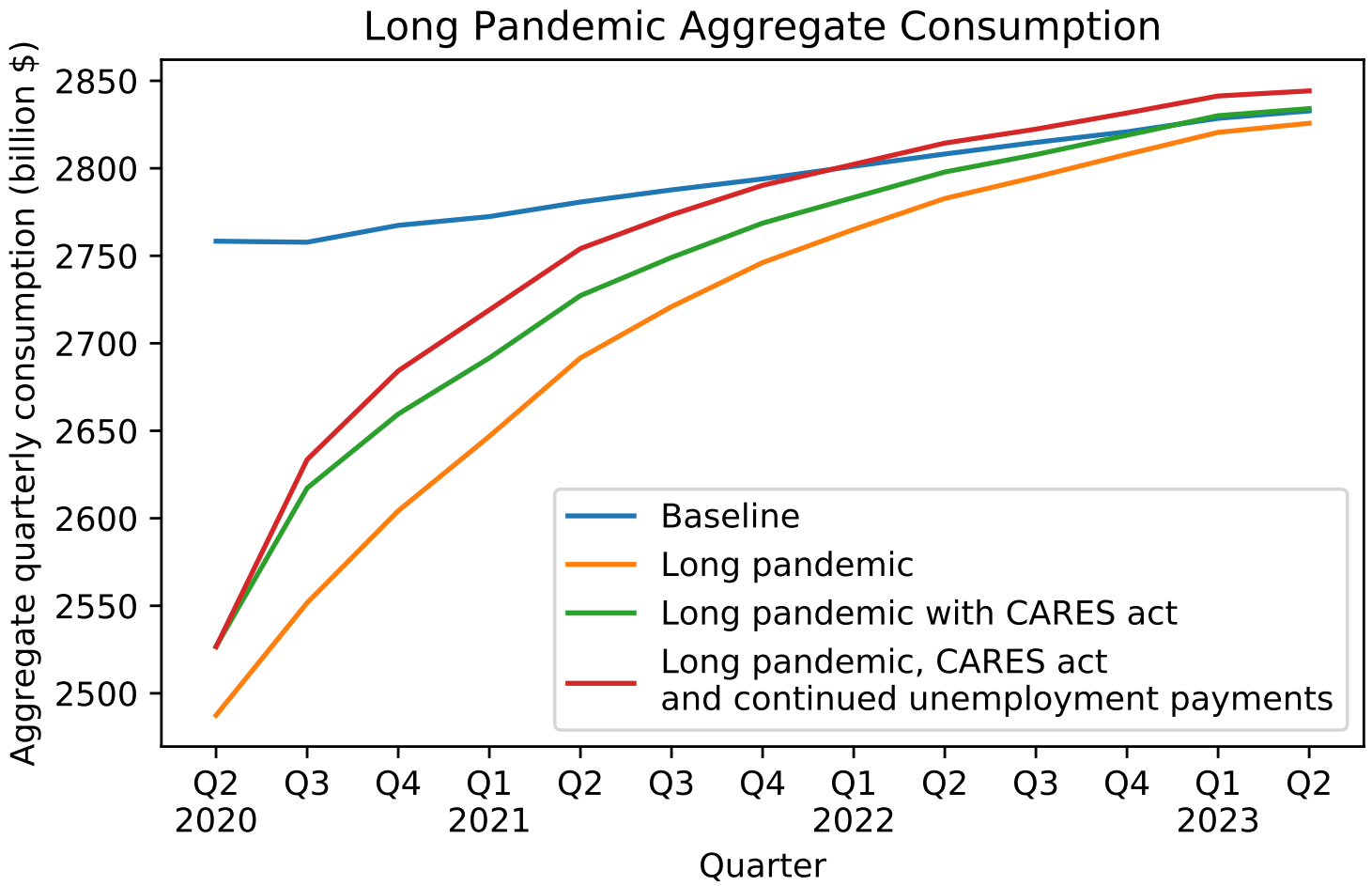


- Deep unemployed have lower MPCs
- UE benefits are generous - average MPC lower than marginal

Deep, Long Pandemic: Income



Deep, Long Pandemic: Consumption



Conclusions

Short-lived lockdown: CARES Act looks sufficient for a swift recovery

Long, deep lockdown: Increased payments required to maintain demand

Check out the dashboard
`https://econ-ark.org/pandemicdashboard`