

# “For whom the bill tolls: redistributive consequences of a monetary-fiscal stimulus”

*(Brzoza-Brzezina, Jablonska, Kolasa, Makarski)*

Discussion by Alessandro Lin (Banca d'Italia)

“Heterogenous Agents in Macroeconomic Models”

Czech National Bank – 16/17 May 2024

The views expressed herein do not necessarily reflect those of Banca d'Italia

# Research questions

- Premise:
  - Covid-19 pandemic lead to:
    - Large fiscal expansion (around 5% GDP in both 2020 and 2021)
    - Accomodative monetary policy (ELB + PEPP 1850 bn €)
- Questions:
  - Distributional effects of fiscal expansion with passive monetary policy
  - Quantify effects across age-groups
    - Direct effects of different transfers types
    - Indirect effects (mainly labor income and inflation)

# Method

- Model:
  - OLG (80 cohorts) + NK (price and wage rigidities)
  - Calibrated to EA survey data (HFCS)
  - Passive monetary policy = buys all newly issued govt debt (à la Leeper, 1991)
- Exercise 0s:
  - Increase of gov. Spending (1% GDP)
  - Increase of fiscal transfers (1% GDP)
- Main exercise:
  - Pandemic stimulus as fiscal expansion
  - 1/3 financed by increasing labor tax, rest by central bank
  - Decompose consumption and welfare gains into direct (fiscal)/indirect effect
    - As in Kaplan et al (2018)

# Method – Budget constraint

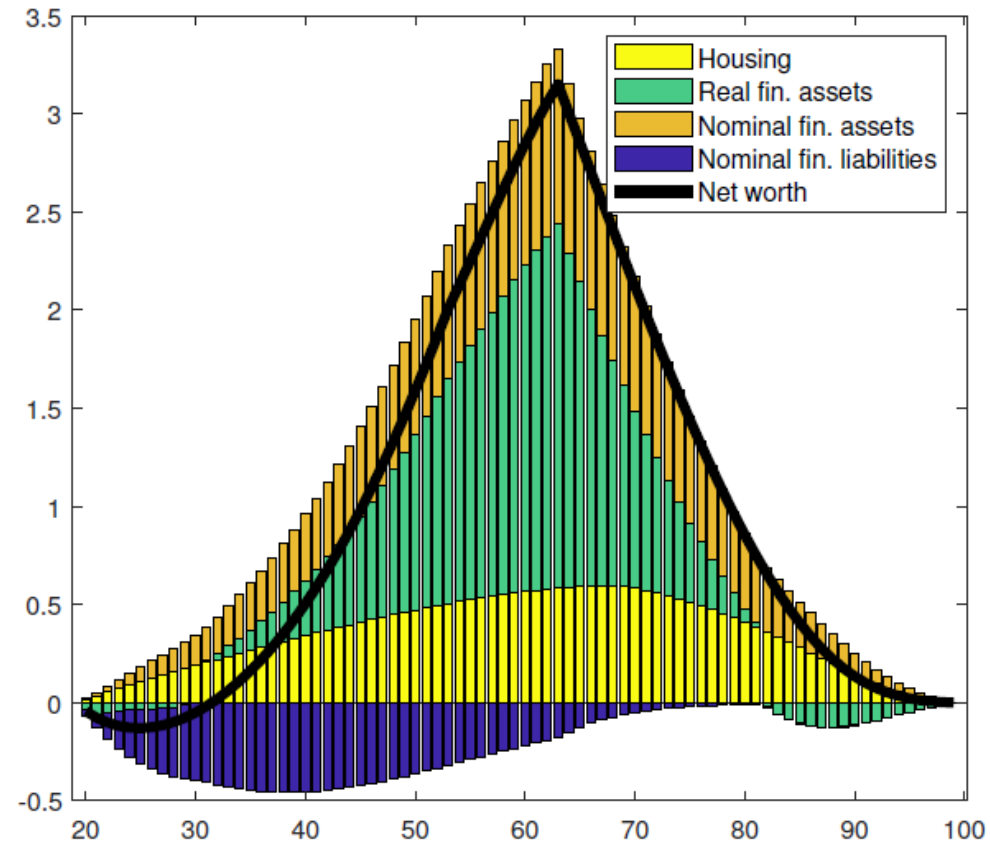
- Many agents
- Many cohorts
- Many assets
- Many kind of transfers!
- -> lot of work for calibration

$$c_{j,t} + p_{\chi,t}[\chi_{j,t} - (1 - \delta_{\chi})\chi_{j-1,t-1}] + m_{j,t} + a_{j,t} + \frac{R_{t-1}^{\ell}}{\pi_t} s_{j-1,t-1} = (1 - \tau)w_t(\iota)z_j h_{j,t}(\iota) + \\ + \frac{R_{t-1}^m}{\pi_t} m_{j-1,t-1} + \frac{R_{j,t}^a}{\pi_t} a_{j-1,t-1} + s_{j,t} + t_{j,t}^H + t_{j,t}^W + t_{j,t}^F + t_{j,t}^R + beq_{j,t} + \Xi_{j,t}(\iota) \quad (3)$$

# Method – Portfolio composition by age

Figure 3: Asset structure

- Housing: hump
- Real: hump
- Nominal assets: hump
- Nominal liab: u-shaped

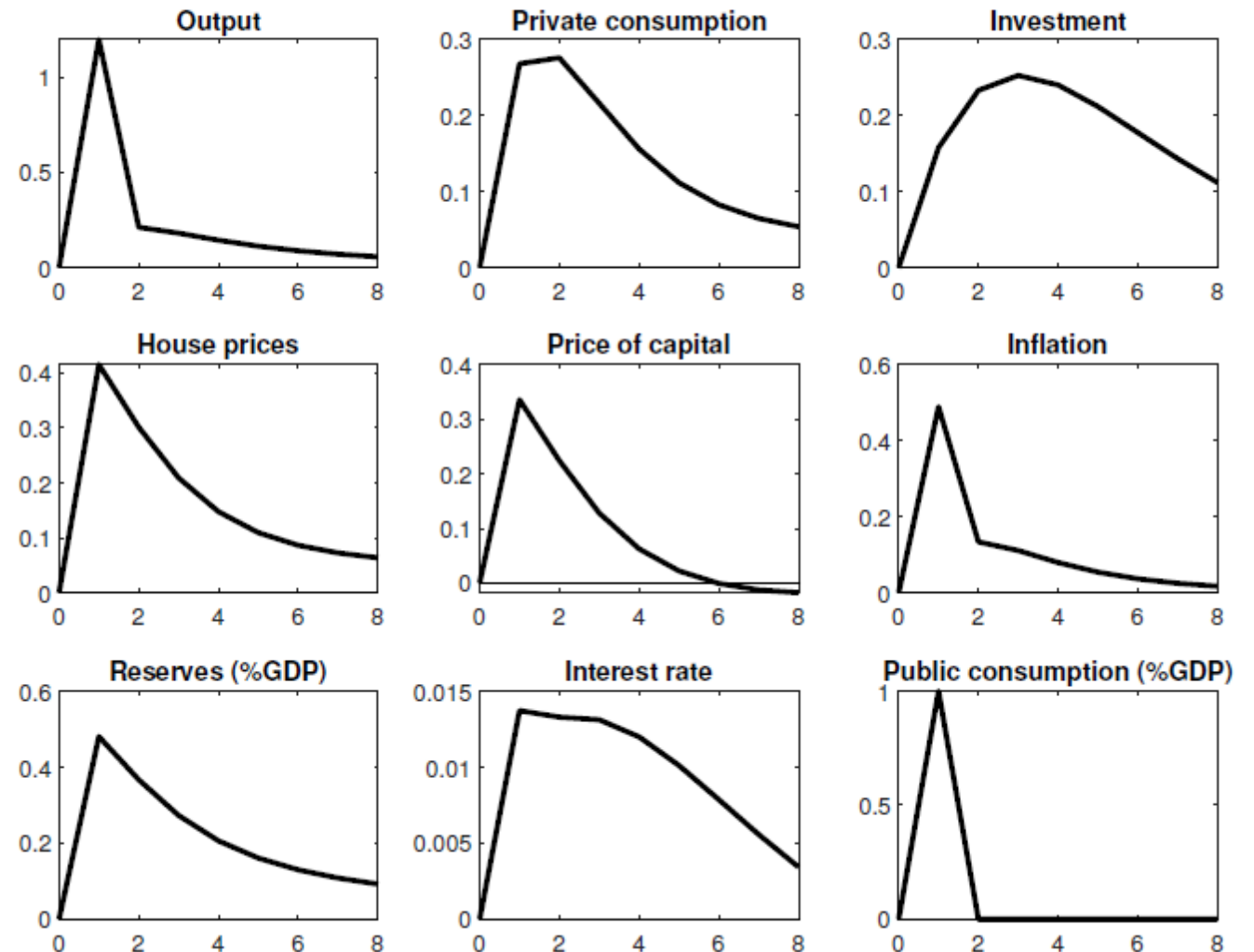


**Note:** The figure presents the distribution of assets and net worth generated by the model. The average net worth across cohorts has been normalized to unity.

# Results (0) – Homogeneous fiscal expansion

Figure 4: Impulse responses to a government consumption shock

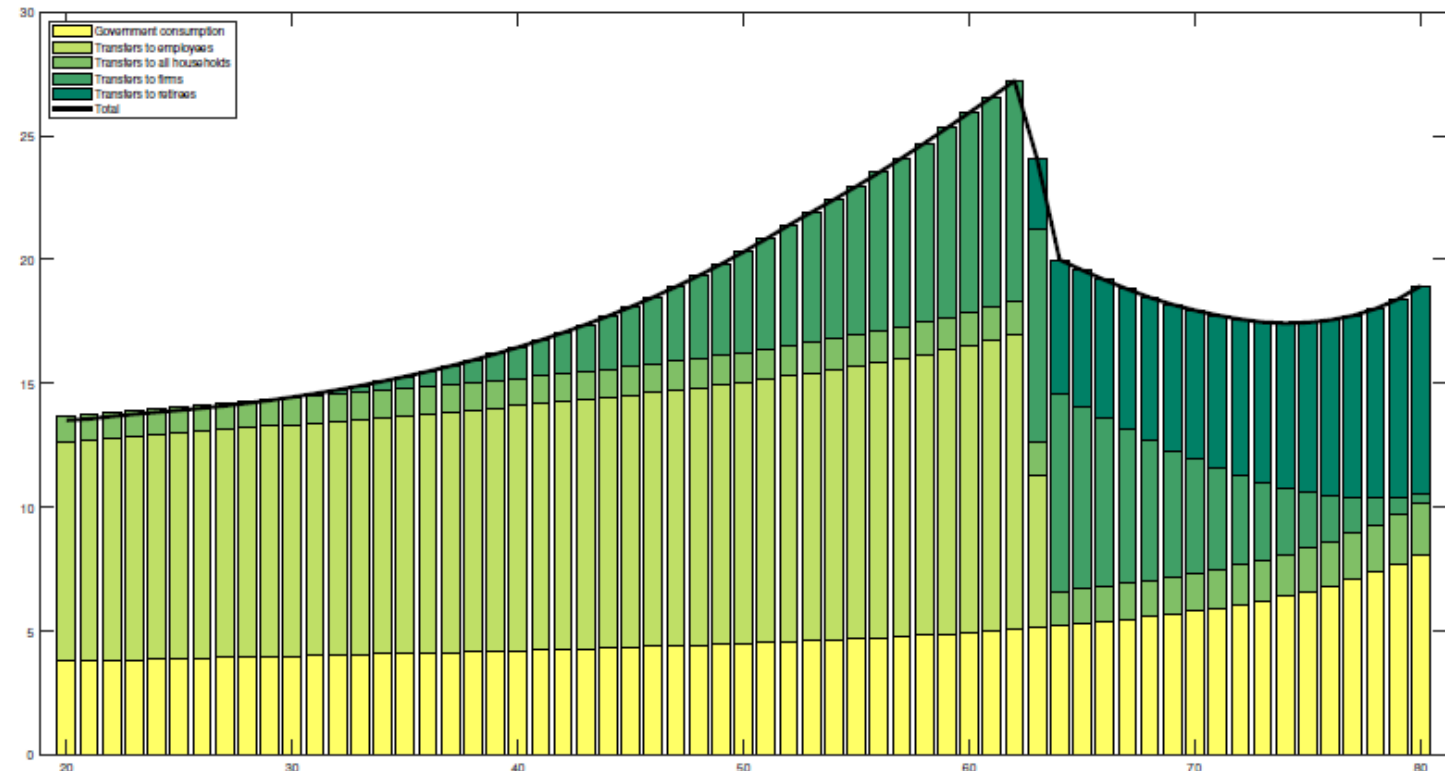
- Spending multiplier  $> 1$
- Both impact and cumulative
- No monetary stabilization!
- Real rate negative



# Results (1.1) – Transfers by cohort

- Transfers allocated by age portfolio
- Large gains for 60y-old (firms/workers subsidy)
- Partial equilibrium

Figure 8: Fiscal transfers by age cohort

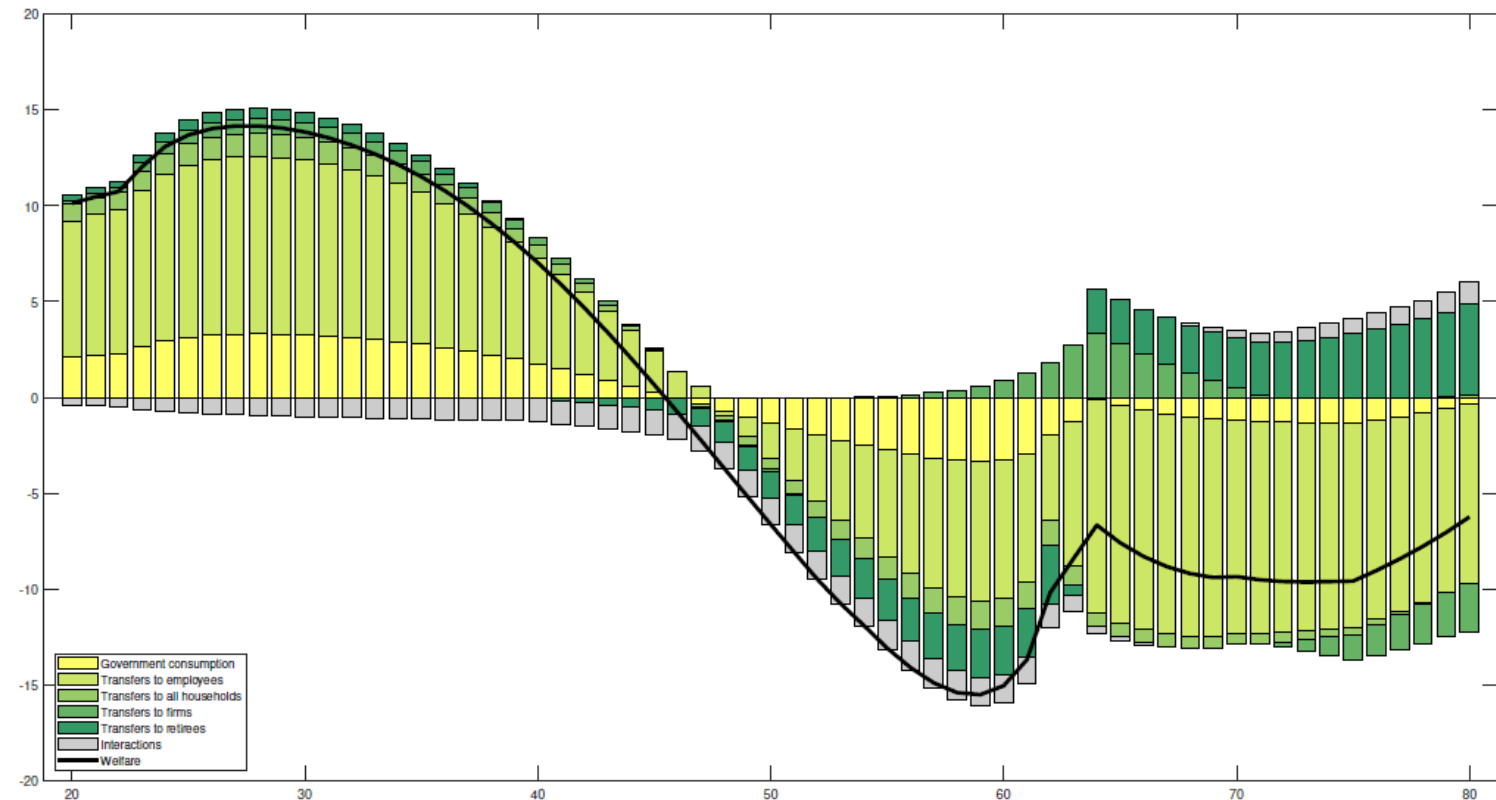


**Note:** The cohort age in 2020 is on the horizontal axis, and transfers in % of steady state consumption are on the vertical axis.

# Results (1.2) – GE effects by transfers

Figure 9: Welfare effects of the pandemic stimulus

- Full picture flipped u/d
- From -15% to +15% welfare gain
- Mostly go in the same direction:
  - Young cohorts gain (deflate debt/nominal assets)
  - Older cohorts lose

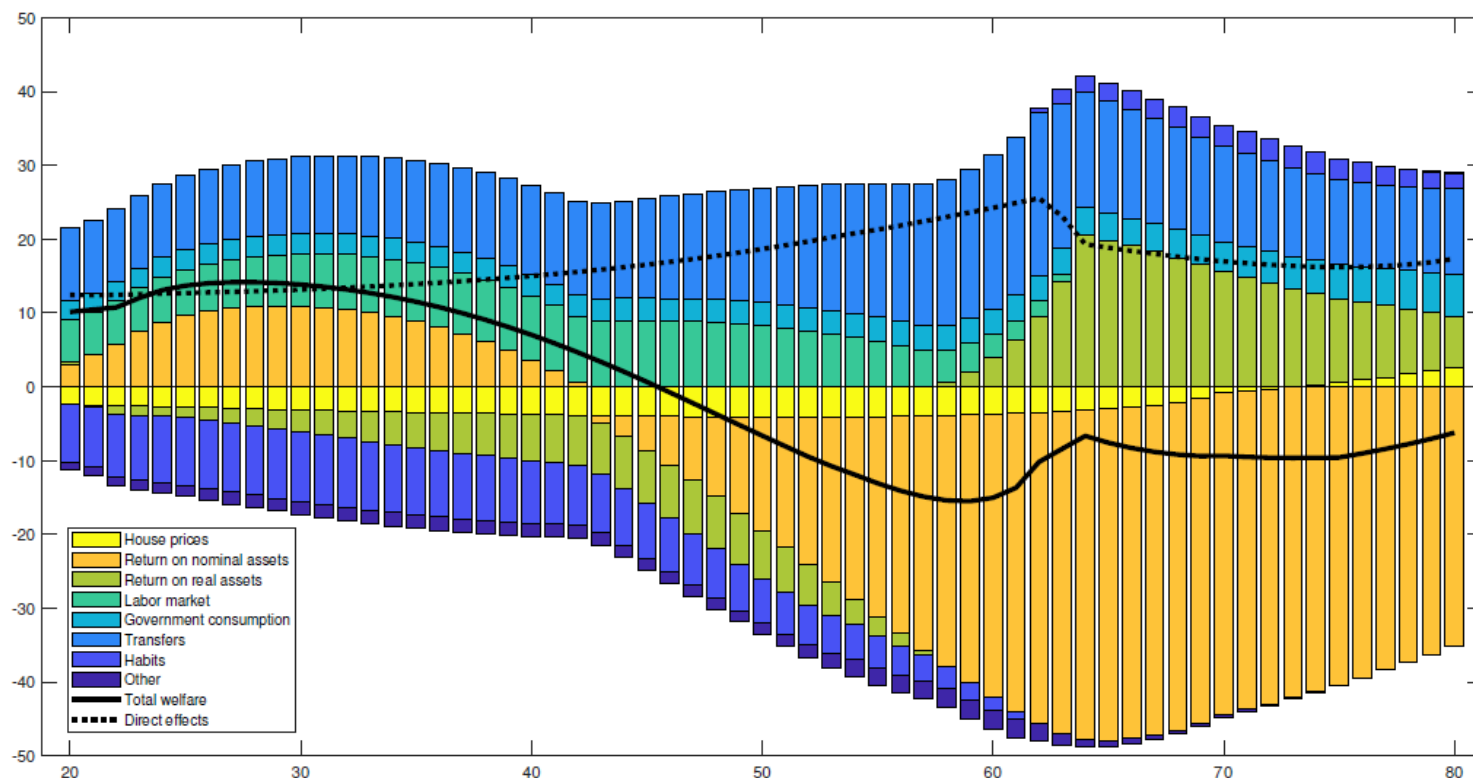


**Note:** The cohort age in 2020 is on the horizontal axis, and welfare gains in % of steady state consumption are on the vertical axis.



# Results (2) – Indirect effects

Figure 10: Welfare effects from a household perspective



**Note:** The cohort age in 2020 is on the horizontal axis, and welfare gains in % of steady state consumption are on the vertical axis.

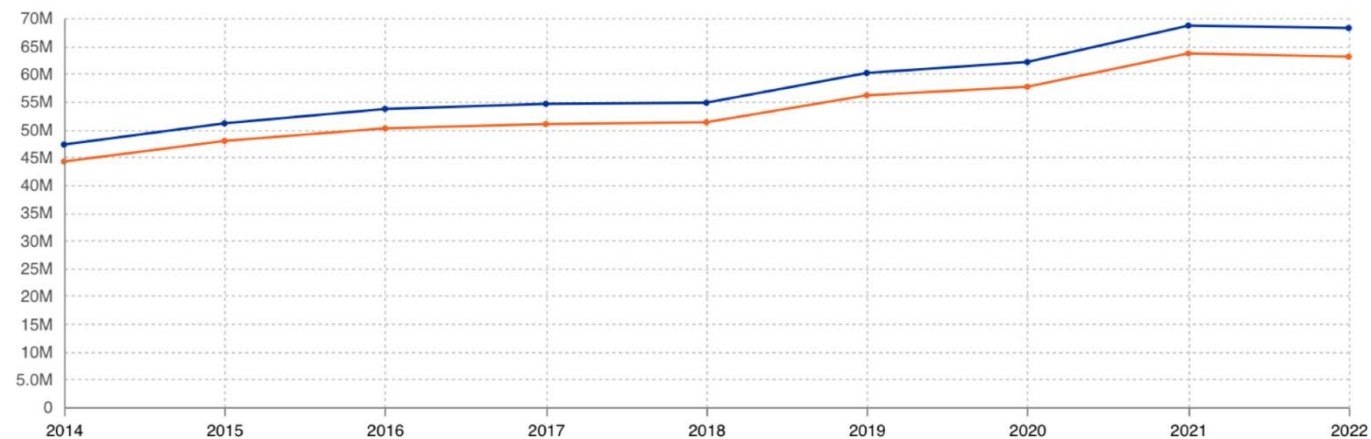
# Summary of the paper

- Provide a quantitative assessment of euro area pandemic fiscal expansion with passive monetary policy
- Wage transfers induced largest redistribution
- Indirect effects largest due to inflation tax to older households and labor income

# Comments - 1

- Very nice paper!
- Great job in matching micro + macro data
- Good alternatives to allow for active monetary policy or increase in taxes
- During pandemic, accumulated wealth, which might have cause some of the inflation. Can you speak to this?

Time frequency: **Annual** Unit of measure: **Million euro** Consolidated/Non consolidated: **Consolidated** Sector: **Total economy** Financial position: **Assets** National accounts indicator (ESA 2010): **Total financial assets/liabilities**



# Comments - 2

- Model seems a bit overcomplicated. Do you need to have:
  - Idiosyncratic risk?
  - Wage rigidity?
- Some assumptions need some backing/robustness checks:
  - Pass-through of interest rate to deposit rate
  - LTV limit on new debt as opposed to overall debt

$$s_{j,t} = l_{j,t} + \left(1 - \frac{1}{m}\right) \frac{s_{j-1,t-1}}{\pi_t}$$

$$l_{j,t} \leq LTV_j \chi_{j,t} P_{\chi,t}$$

# Comments - 3

- What is the counterfactual scenario?
- Does not seem to be mon. policy
- So if there is no intervention, what is happening?

Figure 7: Data and counterfactual scenario (w/o stimulus)

