The cushioning effect of fiscal policy in the EU during the COVID-19 pandemic

EUROMOD Research Workshop

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Outline

1. Motivation
2. Research Question
3. Method and Data
4. Results
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Motivation I

- The COVID-19 pandemic hit Europe severely in 2020
  - Households faced an increased risk of unemployment due to lockdown measures and general reduction in economic activity.

- **Automatic stabilizers** insure households against the risk of income loss **BUT** strong variation of Automatic Stabilzation across EU Member States.

- To further cushion the drop in household incomes, EU member states implemented several additional (discretionary) policy measures
  - With the support of the European instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE)

Motivation II

Rapidly increasing literature on the impact of the COVID-19 pandemic on household income

- Using **up-to-date survey data** (Clark et al. (2020); Menta (2021))
- **Nowcasting** microdata to the new labour market characteristics:
  - **Reweighting** the underlying survey data (Almeida et al. (2021))
  - Modelling **labour market transitions** (Brewer and Tasseva (2020); Bruckmeier et al. (2020); Figari and Fiorio (2020); Canto-Sanchez et al. (2021) etc.)

Research Questions and Contribution

- **Research questions:**
  1. To what extent have the tax-benefit systems of the EU Member States protected household incomes during the COVID-19 pandemic?
  2. Which policies stabilized the household income? What was the role of monetary compensation schemes (such as Short Time Work)?
- **Our contribution:**
  1. A first assessment of the impact of COVID-19 on household income for all EU Member States in a comparable manner (using modelling labour market transitions).
  2. Detailed estimation of the **cushioning effects** of taxes and social transfers during the COVID-19 pandemic for **all EU Member States**.

Methodology and Data I

What we do:

- Use EUROMOD, with data from the 2018 EU-SILC. Simulation of **2020 tax-benefit rules.**
- Adjusted micro-data to labour market conditions in 2020, simulating labour market transitions.
- **Detailed statistics** (administrative country-level data or Eurostat data):
  - transitions to unemployment or monetary compensation schemes
  - **duration** in unemployment or monetary compensation schemes
  - **hour reduction** in monetary compensation schemes
- Various levels of disaggregation (gender, sector, self-employed/ employees)

Methodology and Data II

- Comparison of two alternative scenarios for 2020:
  - **No COVID-19 labour market shock**: No transitions are simulated.
  - **COVID-19 labour market shock**: Transitions to monetary compensation schemes and unemployment are simulated.

- Holding policies constant, this comparison allows us to focus on the extent to which 2020 policies cushioned
  - the **incomes of the households** that underwent these labour market changes
  - potential **inequality** increase
  - potential **poverty** increase

Methodology and Data III

- We follow the approach of Dolls et al. (2012), who define the income stabilising coefficient (ISC) as:

$$ISC = 1 - \frac{\sum_i \Delta Y_i^D}{\sum_i \Delta Y_i^M} = \frac{\sum_i \Delta Y_i^M - \sum_i \Delta Y_i^D}{\sum_i \Delta Y_i^M}$$

  where ΔY_i^D is the change in disposable income and ΔY_i^M is the change in market income for an individual i.

- An $ISC = 0.8$ would imply that 80% of a shock to the market income is absorbed by the tax-benefit system.

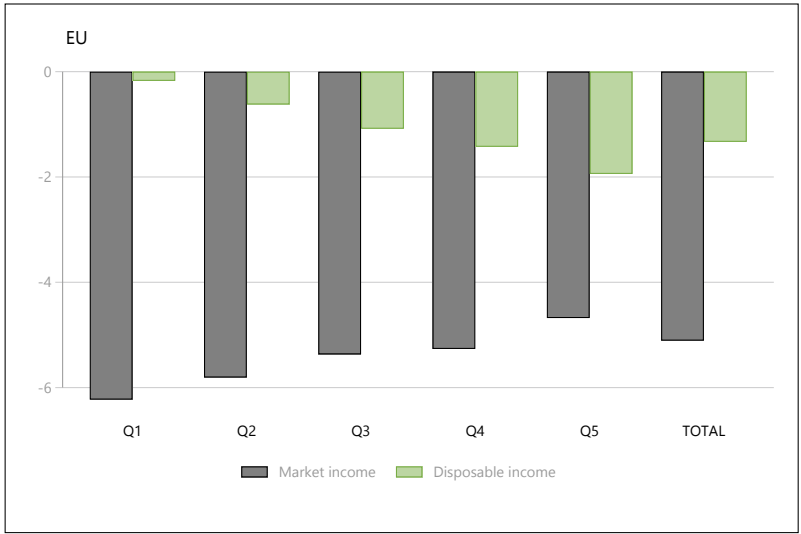
Methodology and Data IV

- We can further decompose the effect of several tax-benefit instruments:

$$ISC = \frac{\sum_i \Delta Y_i^M - \sum_i \Delta Y_i^D}{\sum_i \Delta Y_i^M} = \frac{\sum_i \Delta T_i - \sum_i \Delta UB_i - \sum_i \Delta MC_i - \sum_i \Delta OB_i}{\sum_i \Delta Y_i^M}$$

where T_i are taxes and social insurance contributions of individual i, UB_i unemployment benefits, MC_i monetary compensation schemes and OB_i other benefits and pensions.

Change in market incomes – EU



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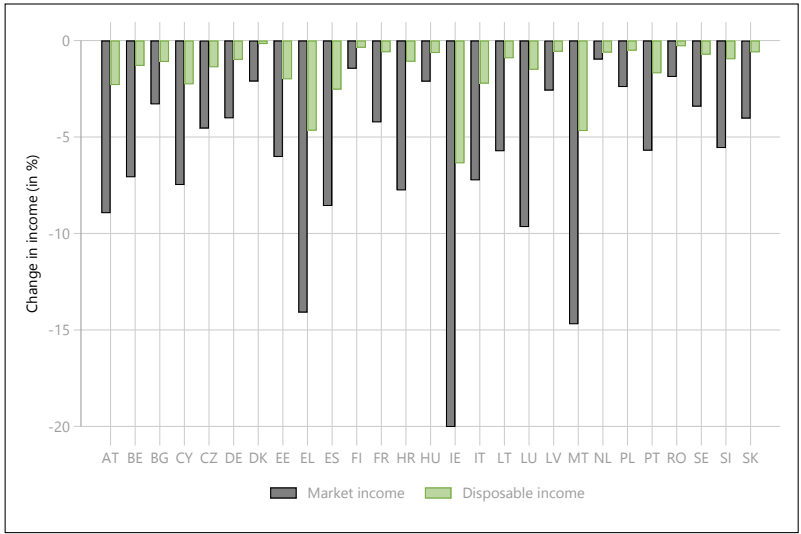
Change in incomes – Member States



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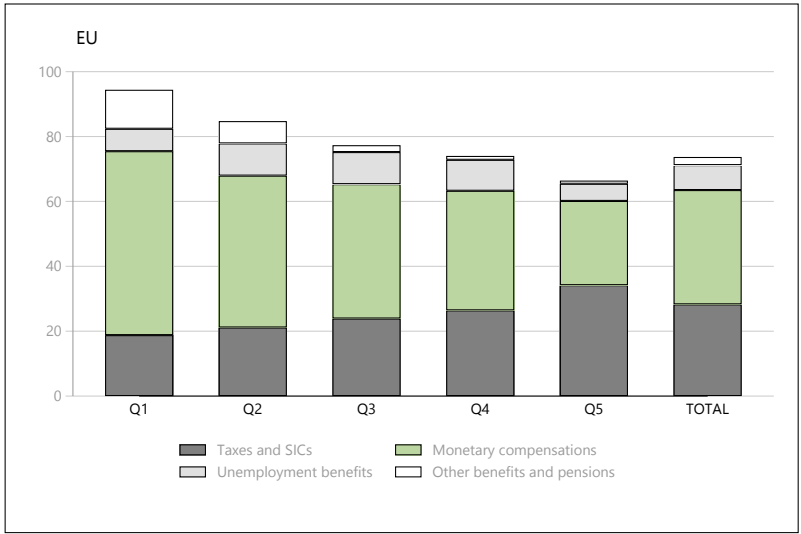
Income stabilisation coefficient - EU



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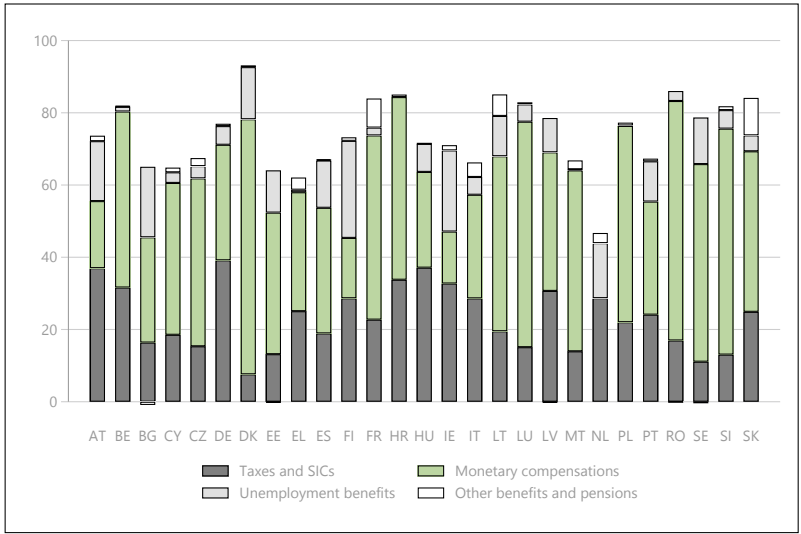
Income stabilisation coefficient - MS



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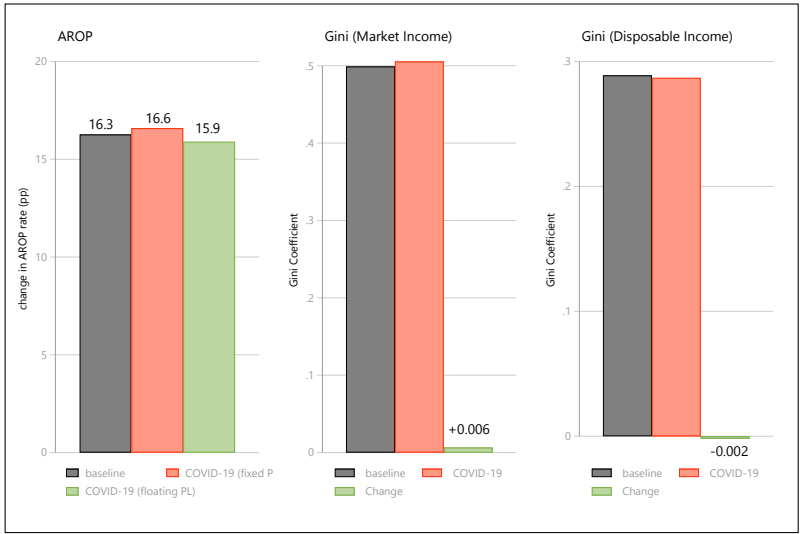
AROP rate and Income inequality - EU



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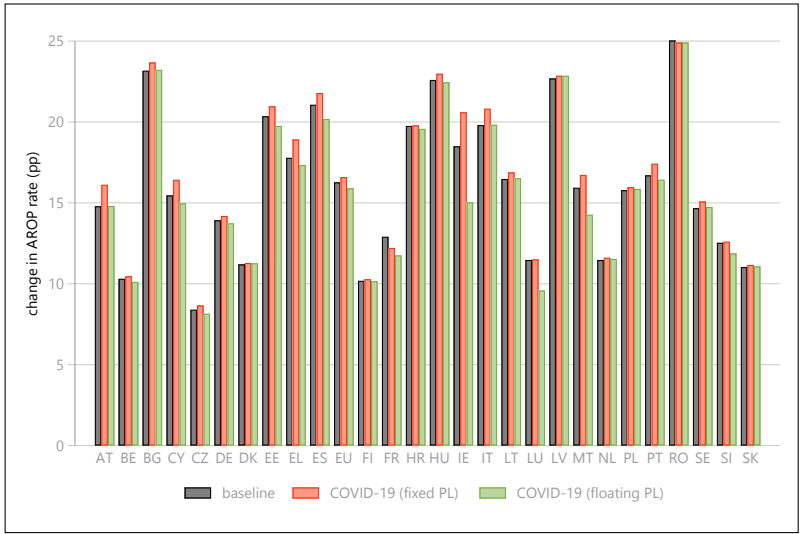
AROP rates - Member States



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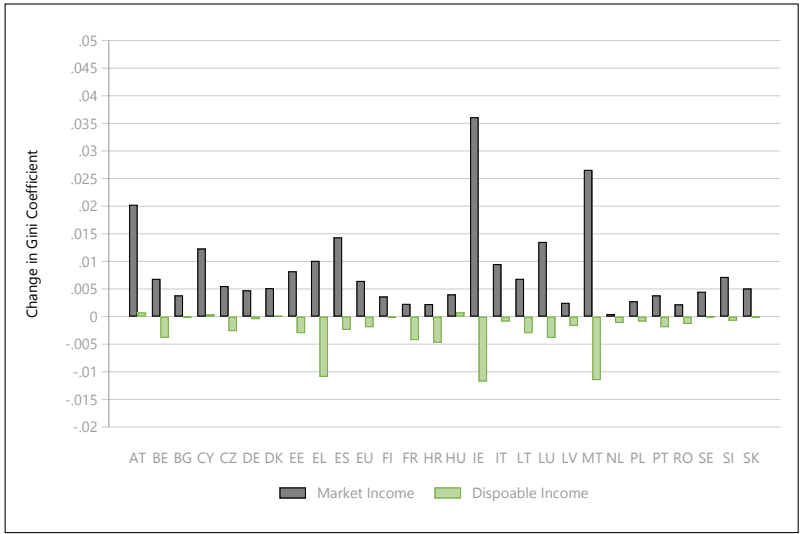
Gini Coefficient - Member States



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Conclusion I

- First attempt to **evaluate the effectiveness of the 2020 tax-benefit policies** in cushioning the impact of labour transitions in all EU countries.
- Most EU countries experienced **large drops in market incomes**.
  - Poorer households hit hardest.
- Tax-benefit systems **absorbed a significant share of the COVID-19 shock** and were able to **offset** – in most countries – **the regressive nature** of the shock on market incomes.

Conclusion II

- **Monetary compensation** schemes played a **major role in cushioning** the effect of adverse labour market transitions.
  - . . . although in aggregate terms they represent a minor component of household disposable income.
- **AROP rates:** increases if measured using a fixed poverty line / stable or slightly declining if measured using a floating poverty line.
- Evidence of stable or **slightly declining inequality** across EU Member States.

Future steps

- Update/improve statistics used to model labour market transitions.
  - Capture whole year 2020.
  - Further **homogenise sources** of information and levels of disaggregation.
- Look at effect of the COVID-19 measures on **aggregate demand** by estimating the impact of the COVID-19 crisis on liquidity constrained households.

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Thank you

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