

# Building indicators on the adequacy of unemployment benefits with EUROMOD

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# EUROMOD

- **EUROMOD is the tax-benefit microsimulation model for the EU:**
  - Available for **all EU countries**
  - **Covers 2007-2024** policy years for most countries
  - Standard analysis makes use of **survey data** (EU-SILC)
  - **Static microsimulation:** short-term budgetary, distributional and work incentive effects of policy reforms
  - Its main outputs are **macro-validated against national statistics**
  - EUROMOD can be linked with other models for second-round effects / macro effects (EUROLAB, QUEST)

# EUROMOD-HHoT

- EUROMOD-HHoT is the **hypothetical household tool** of EUROMOD
- What makes EUROMOD-HHoT special?
  - **Flexibility and user-friendliness** for specifying hypothetical households
  - **Full integration** into EUROMOD framework
  - **Consistency and complementarity** between survey-based microsimulations and hypothetical household simulations.
  - **Open-source and transparency**

# Hypothetical Household Data

- **Main advantages** of simulations based on hypothetical data
  - Independent of survey data
  - Illustrative tool
  - Simplified analysis
- **Main uses** of hypothetical households simulation models:
  - Calculate tax-benefit policy indicators
  - Understand interaction between tax-benefit policies
  - Comparability of indicators across countries (benchmarking frameworks)

# Assessment of access to social protection using HHoT

- **Exploratory research:** using hypothetical household data to measure coverage and adequacy of social benefit schemes in EU countries for workers and the self-employed.
- **Purpose:** develop indicators for the EU monitoring framework on access to social protection for employees and self-employed individuals.
  - Initial scenario: full-time employees / self-employed with varying duration in unemployment and contributory histories
  - Show the effect of tax-benefit policies on specific types of households
  - Produce comparable policy indicators, useful for benchmarking exercises

# Access to social protection indicators I

## 1. NET REPLACEMENT RATE OF UNEMPLOYMENT INSURANCE BENEFITS (NRR\_UB):

Comparison between annual **net unemployment insurance benefit** received by an individual and the annual **disposable income they would have received as employees/self-employed**

**Net** unemployment insurance benefits = after taxes and social insurance contributions are paid, where they applicable

**This indicator sheds light on the level of protection conferred by unemployment insurance benefits.**

# Access to social protection indicators II

## 1. NET REPLACEMENT RATE OF DISPOSABLE INCOME (NRR\_Y):

Comparison between annual **disposable income of an unemployed individual** and the annual **disposable income they would have received as employees/self-employed**;

**Disposable income** net of taxes and social insurance contributions, and includes all social benefits for which the individual is eligible;

**This indicator sheds light on the level of protection conferred by social protection systems as whole.**

**Caution:** NRR\_Y is most accurate when unemployment insurance benefits are received for 0 or 12 months. In other cases, EUROMOD may disregard access to social assistance.

# Case study: Access to Social Protection in Greece

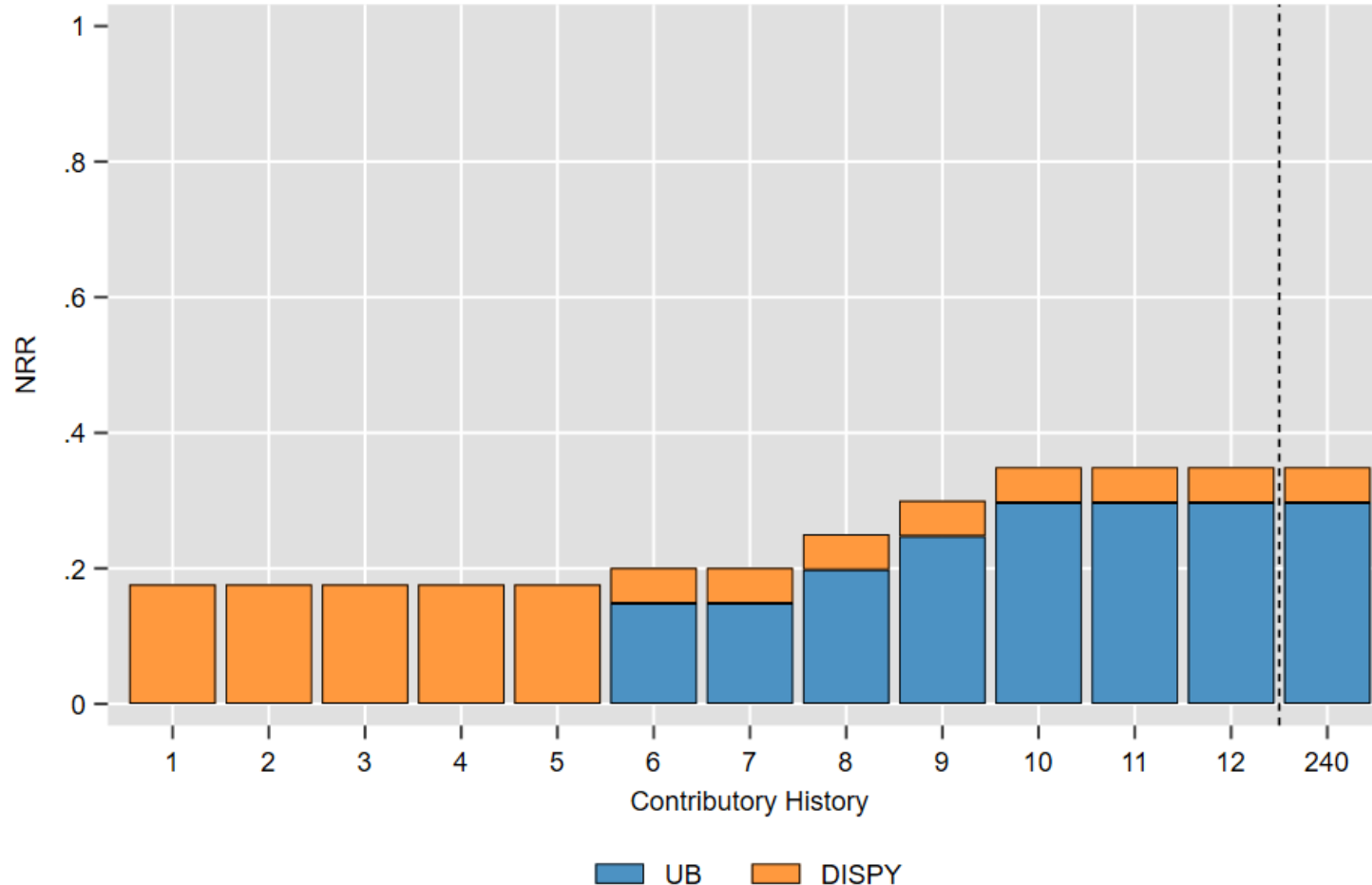
1. **Are there differences in the adequacy and coverage of unemployment insurance benefit...**
  1. ...due to contributory histories?
  2. ...between employees and self-employed?
  3. ...due to household composition?



# Case study: hypothetical households

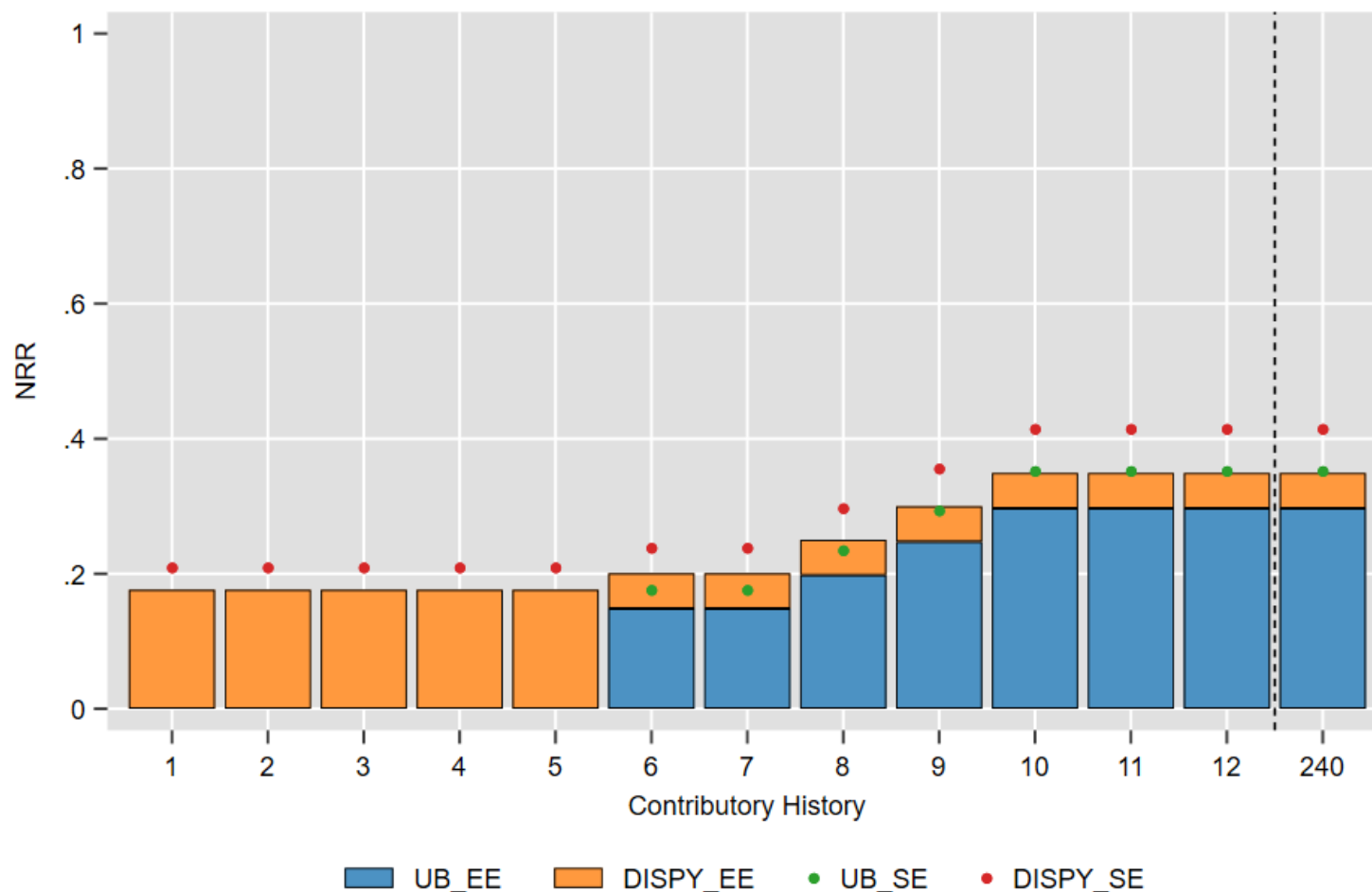
Household Type	Single	Single with 2 children
Age of adult	42	42
Age of children	-	2 & 4
Labour economic status	Unemployed	Unemployed
Previous Labour economic status	Employee / Self-employed	Employee
Previous Income	100% of EU-SILC average wage	100% of EU-SILC average wage
Duration of contributory period	1-12 months / 240 months	1-12 months / 240 months
Policy Year	2023	2023

# Long vs Short Contributory Histories



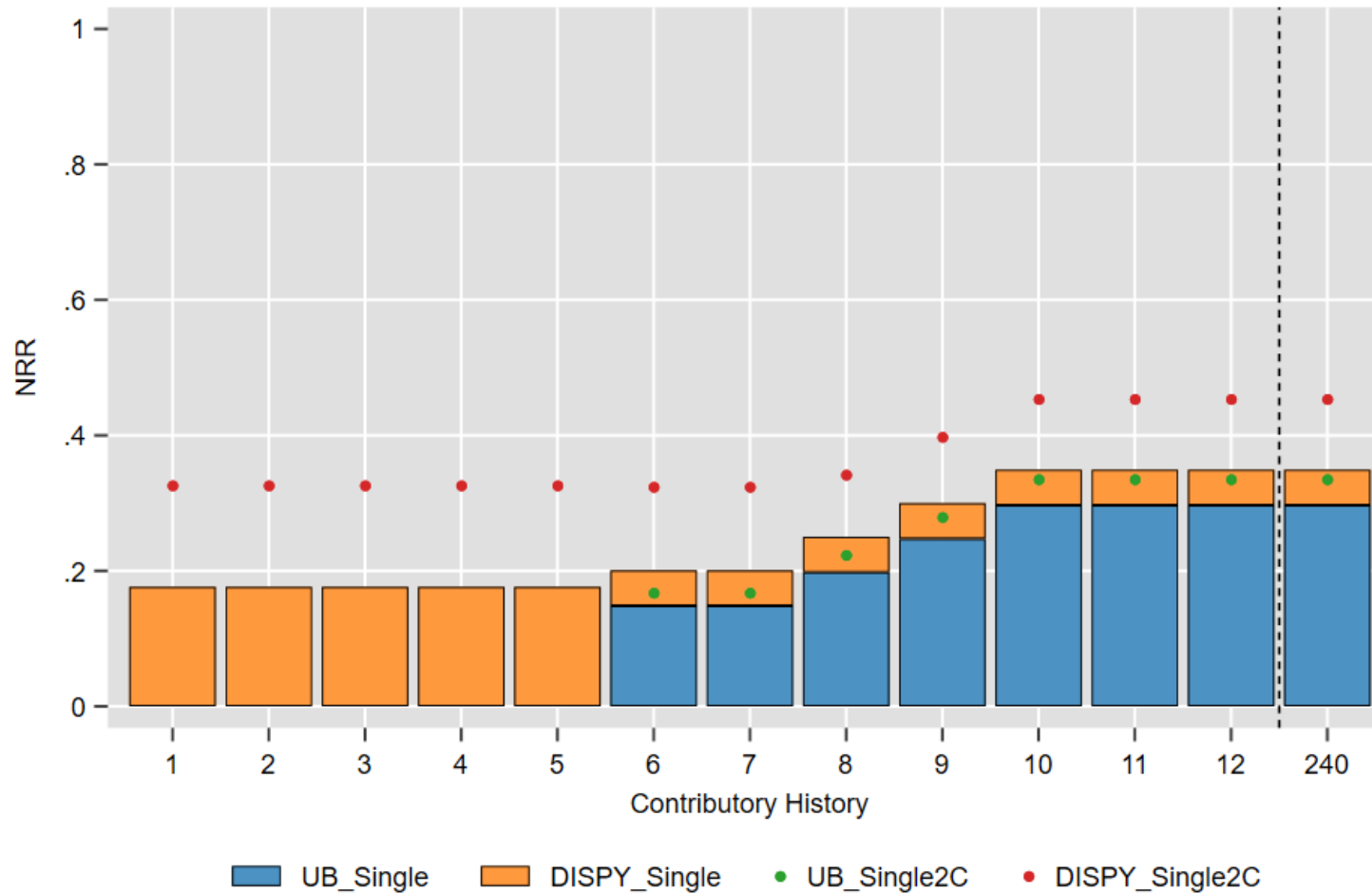
- No access up to 5 months of contributions.
- Individuals reach maximum yearly amount at 10 months of contributions.
- No difference between 12 months and 20 years of contributions.

# Employees vs Self-employed



- NRR for both UB and DISPY are higher for SE – this is due to a lower net disposable income when in-work.

# Family composition: single with and without children



- Families have a higher replacement rate for UB due to a complement received by families.
- Social assistance and family benefits, which provide a considerable increase in the NRR for disposable income.

# Conclusions

- Using EUROMOD-HHoT we were able to show that **length of contributory histories can impact access and adequacy of social protection for unemployed individuals.**
- Although benefit amounts are the same, **previous employment status** can affect income replacement in the event of unemployment.
- The extent to which unemployment benefits contribute to total disposable income varies according to **family type.**
- The final level of protection depends on the **articulation of various benefits,** made evident in the comparative analysis between family types.

# Next steps

1. Compare disposable income with **poverty thresholds**
2. Test **different types of households**
3. **Explore** how the adequacy of Unemployment Benefits for **part-time and temporary contract jobs** can be assessed
4. Move on to other branches (e.g. **sickness benefits**)

# Thank you



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