

Task 6.4

Adjusting social security systems to digitalisation and new forms of employment

Task leader: EKOF; Contributors: LISER , ZEW, KU Leuven, IBS

1. Task description

Due to megatrends, some categories of workers are more likely to be working poor and to less protected by social protection systems. This task will therefore study how the income distribution and overall welfare may evolve in different European countries under a range of potential scenarios for the future changes in job structure and policy measures, e.g. universal basic income (UBI). We will use tax-benefit microsimulation models (e.g. EUROMOD) to assess the impact of taxes and transfers scenario as well as new labour demand scenario individually and simultaneously and discuss how much tax and transfer policy would need to be reformed in the face of changes in the structure of jobs.

2. Background / Setting

Do existing tax and benefit systems throughout Europe offer adequate protection in the situation of growing inequality, increases of the new forms of employment associated with the digitalisation and the risk of job losses due to automatization? Using microsimulation and econometric tools, this task studies how income distribution and overall welfare may evolve in different European countries under a range of potential reform scenarios in the tax and social transfer systems.

3. State-of-the-art

Due to megatrends, some categories of workers are more likely to be working poor, to work lower hours or be completely out of work, and less protected by the social protection systems. Universal Basic Income (UBI) has been widely debated in recent years as a potential policy response to the challenges of income inequality, the uptick in non-traditional work arrangements facilitated by technological advancements or the looming possibility of unemployment resulting from automation. Various studies have found that UBI has the potential to reduce poverty and inequality, but its fiscal and distributional effects depend on the

design and financing options (Browne and Immervoll, 2018; Colombino, 2019; OECD, 2017a, OECD, 2017b).

4. Advancement compared to the state of the art

We will study how the income distribution may evolve in different European countries under a range of potential scenarios for future changes in job structure. Scenarios are based on the assumptions of the employment and income trends resulting from automatization/digitalisation effects. Different scenarios: current economy and hypothetical (digitalised) economy will then serve as a baseline for testing the implementation of new tax-transfer policies including different designs of universal basic income. Our main goal is to determine how taxes and transfer policy parameters should be set to optimize social welfare in case of different scenarios for future of work and what would be the labour market effects of UBI proposals.

5. Research to be done

We plan to divide the research into three phases. In the first phase, we will assume changes in employment probability/income based on the expected changes in the labour market due to automatization, following approach similar to one presented in the Colombino and Islam (2022) paper, and analyse how these changes affect income distribution and inequality indicators. We will then propose new policies (e.g. universal basic income) that can best tackle inequality and poverty consequences resulting from labour market changes assumed in the previous phase. Finally, we will analyse labour supply elasticity and the labour market response of specific income groups in the case of the introduction of UBI policy. We will then compare labour market effect of the introduced policies in the current economy and hypothetical(digitalised) economy.

6. Methodology

Tax and benefit microsimulation model for the European Union (EUROMOD)

Discrete choice model: standard labour supply model (Van Soest, 1995)/Random Utility random opportunity (RURO) model.

Numerical optimisation (optimised tax benefit parameters through maximising welfare function).

7. Data sources

- EU-SILC (available EUROMOD EMSD data from EUROSTAT)

References

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