Between a risk society and a welfare state: vulnerability to poverty in Lithuania

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Outline

‣ Aim

‣ Theoretical background

‣ Measuring vulnerability using microsimulation

‣ Results for Lithuania: unemployment and childbirth

Aim

▸ **Analysis of the role tax-benefit system plays in mitigating the effects of wide spread socio-economic risks:**

  ▸ links between risk, welfare state development, vulnerability

  ▸ measures focusing on vulnerability and social protection

Risk society, welfare state & vulnerability

▸ Risk society thesis (Beck 1992, 2009, etc.)

▸ 'Democratic' risks

▸ Individualisation & responsibilisation in social protection

▸ Welfare state's role: re-distribution of risk rather than resources

Through risk society lenses retrenchment of welfare provisions can be interpreted as a shift towards individualisation and promotion of more active, flexible and adaptive engagement with risk and individual responsibility (Kemshall 2002)

▸ Concerns:

▸ partial/biased knowledge & uncertainty

▸ 'democratisation' of risks is questionable

▸ multiple and cumulative effects of poverty and disadvantage

Implications

‣ Weakening of the protective / re-distributive function of the welfare state

‣ Increasing individual vulnerability to poverty

   ‣ Did the weakening of social protection go unnoticed during economic boom?

   ‣ Ways of timely monitoring of the resilience of tax-benefit system?

Measuring vulnerability

- Vulnerability analysis:
  - the magnitude of risk measured ex-ante
  - centrality of social protection
  - vulnerability viewed as welfare-reducing

- Macro and micro level measures (& mixed):
  - Macro: country's proneness to shocks, ability to recover
  - Micro: individual vulnerability
    - as exposure to risk
    - as income volatility
    - as expected poverty

Atkinson (2009) on vulnerability analysis:

▸ Performance of tax-benefit systems ex-ante: 'stress-testing'

▸ Usefulness of microsimulation techniques

▸ Focus on acute income shocks rather than volatility

  ▸ Followed up by Figari et al. (2011), Fernandez Salgado et al. (2013) on the welfare compensation for unemployment.

Application

▸ Vulnerability as expected poverty

▸ Stress testing – simulating income loss due unemployment & childbirth:
   ▸ Microsimulation model EUROMOD (version G1.0)
   ▸ EU-SILC 2008 and 2010 data
   ▸ Lithuanian policies of 2007-2012 (before, during and after crisis)

▸ Indicators of vulnerability reflect expected incidence and intensity of poverty risk within one year after the income loss

▸ Scope: population of insured individuals and household members

▸ Simulated income shock: one household member at a time, all possible combinations within the household

▸ Standard Foster-Greer-Thorbecke (FGT) poverty measures with a probabilistic term :

$$V_\alpha = \frac{1}{N} \sum_{h=1}^{Q_s} \frac{1}{S_h} \left[\frac{(z - y_s^h)}{z} \right]^\alpha$$

Lithuanian context:

- 2007-2008 rapid economic growth, financial recession of 2009-2010 and first signs of recovery since 2011

- Changes to major cash benefits: generous child/family protection 2007-2009, temporary cuts to social benefits in 2010-2011, some restored

- Unemployment, child and family benefits subject to cuts within the period

Table 1 Poverty risk rate at 60 percent of median equivalised income after social transfers, %
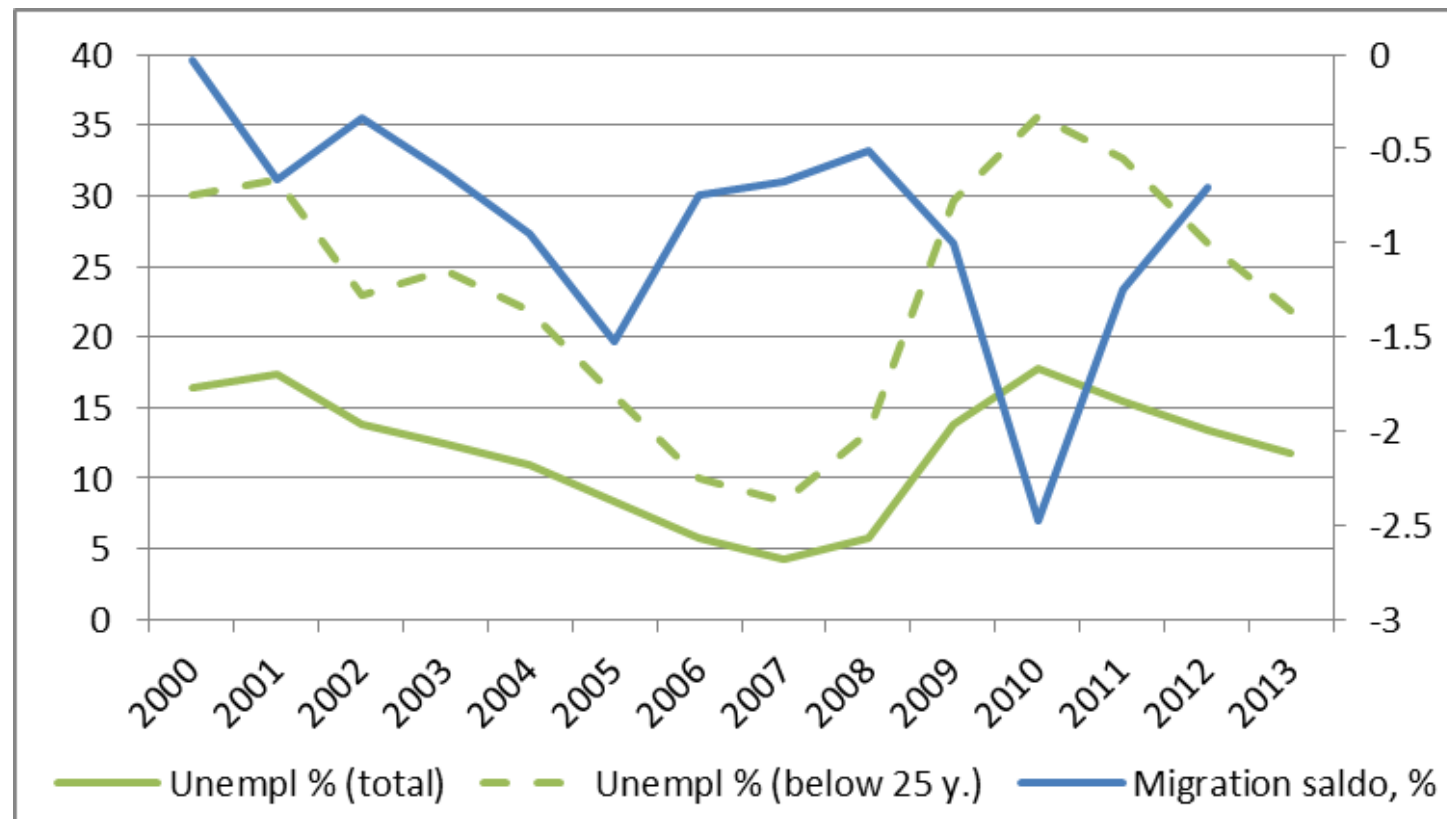
	2007	2008	2009	2010	2011	2012	2013
Total population	19.1	20.0	20.6	20.2	19.2	18.6	20.6
Prime age (18-64):	15.6	16.8	18.4	22.2	20.2	17.9	19.0
males	15.1	16.0	18.5	22.9	19.8	18.2	19.1
females	16.1	17.4	18.4	21.6	20.5	17.7	19.0

Context: unemployment & fertility
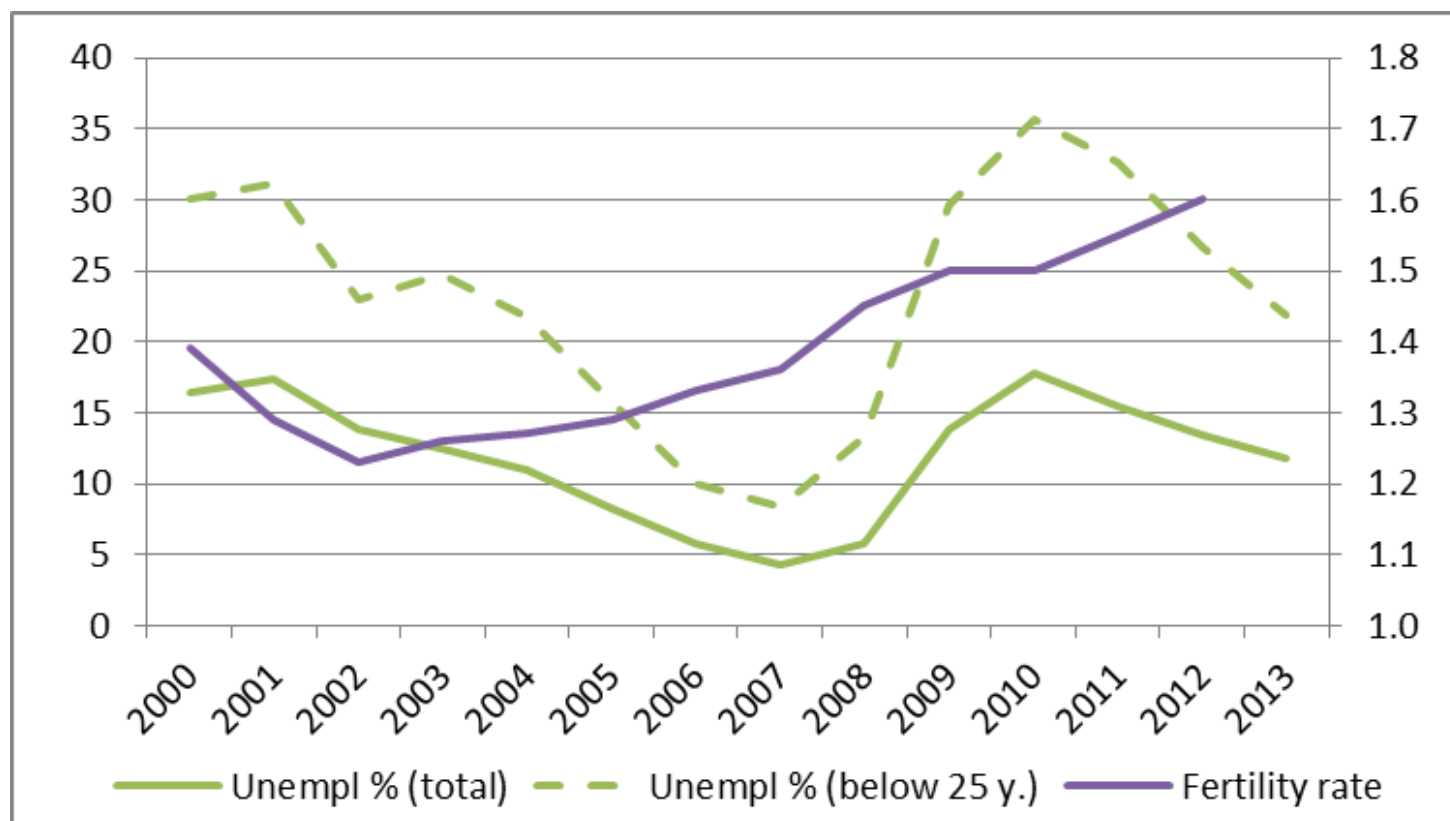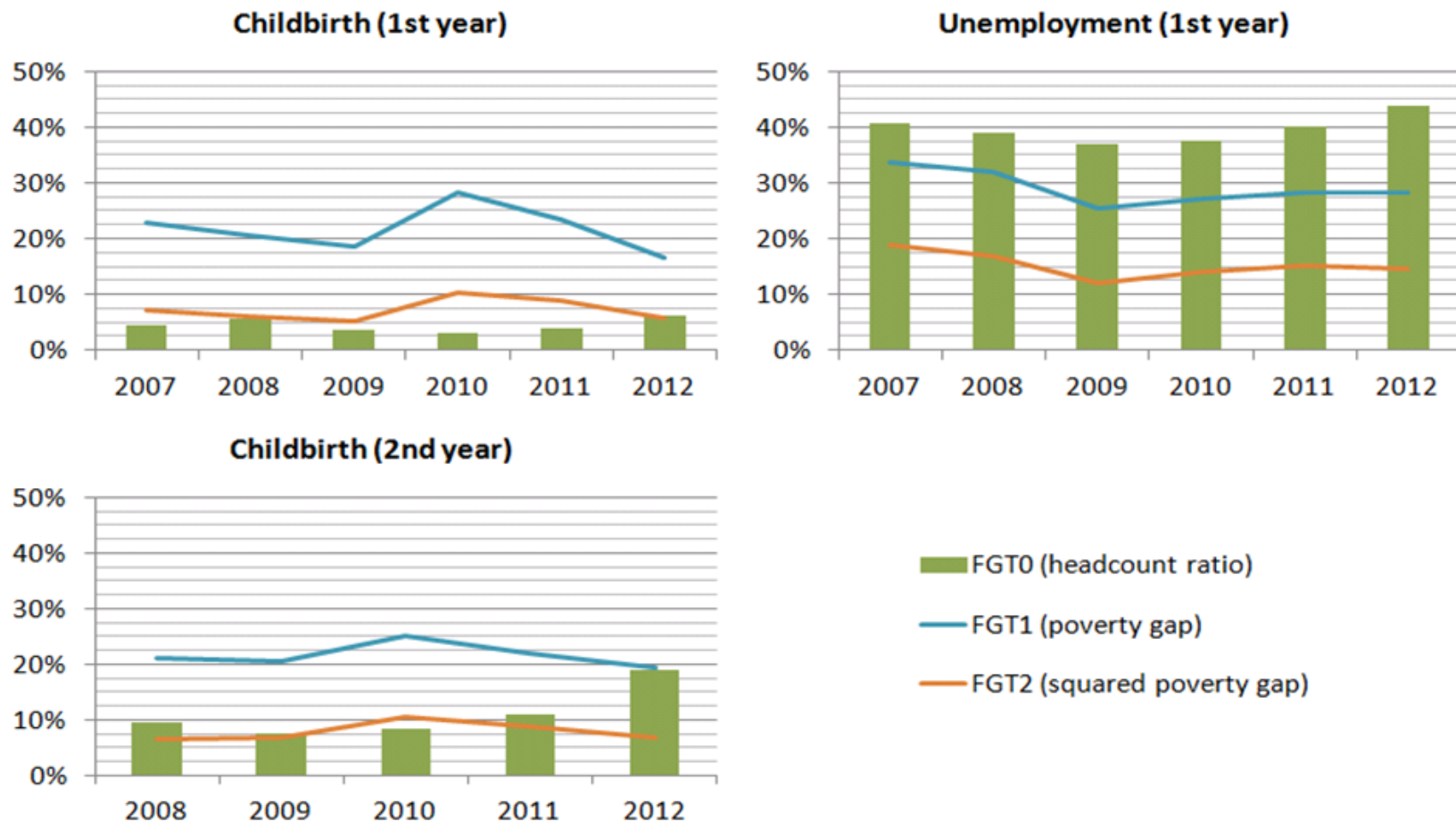
Context: unemployment & migration

Results (I)

Fig 1 Vulnerability to poverty in the event of childbirth or unemployment measured using FGT class poverty measures

Note: poverty line at 60% of the median is fixed at the level before simulation of the income loss
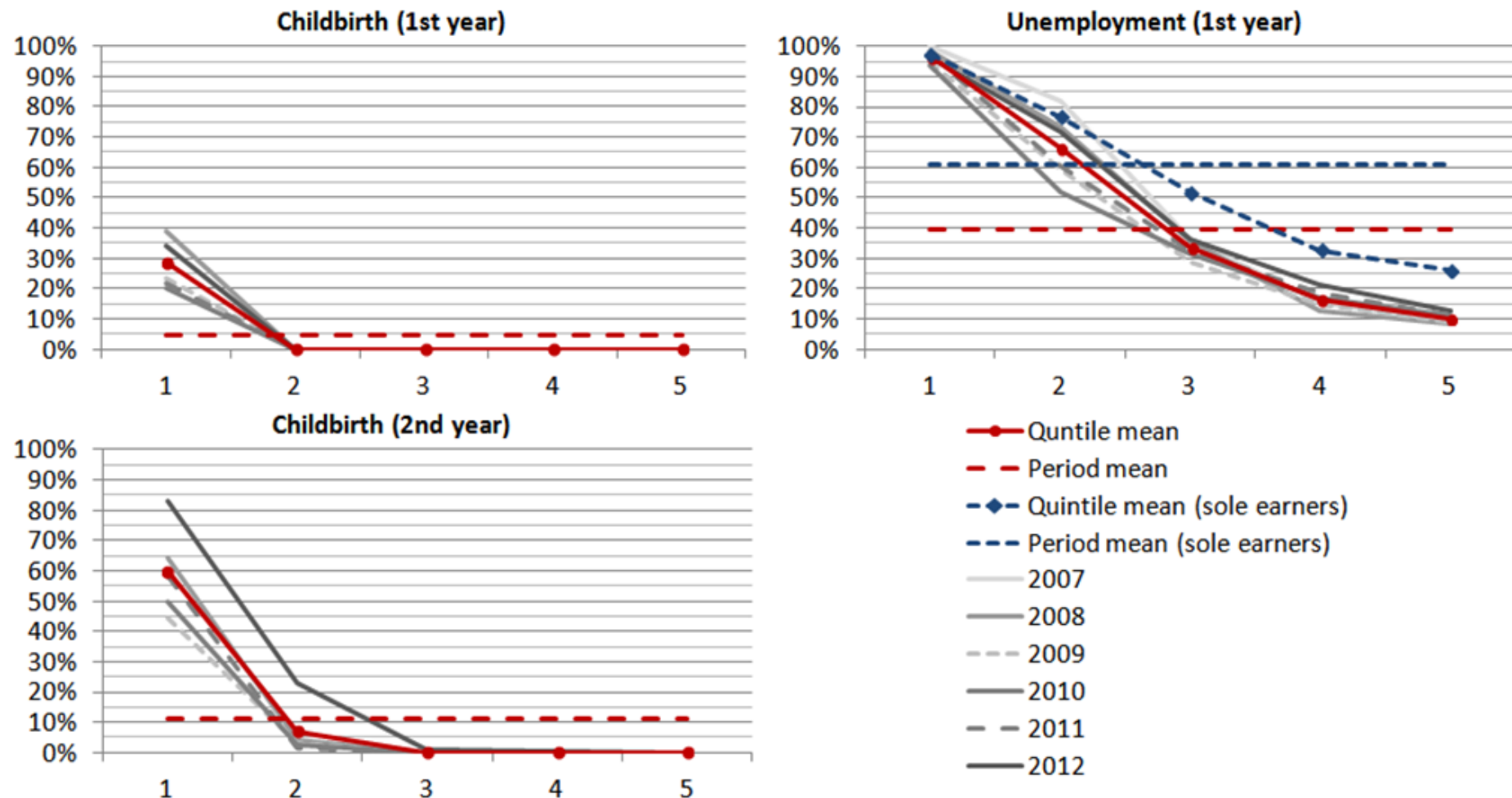
Results (II)

Fig 2 Vulnerability to poverty in the event of childbirth or unemployment by income quintiles
Notes: equivalent income, quintiles fixed before the income shock, threshold of 60% median

Results (III)

Table 2 Decomposition of poverty risk (FGT0) by income components using the Shapley value, %

Contribution by source:	Absolute contribution						Relative contribution					
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
Unemployment (1st year)												
Original income	-48.9	-48.8	-42.6	-43.2	-43.3	-43.7	82.6	80.0	67.5	69.3	72.4	77.8
Unemployment b.	-6.2	-6.1	-7.5	-6.9	-6.2	-5.5	10.5	10.0	11.9	11.0	10.4	9.9
Other benefits	-8.7	-10.3	-16.2	-15.9	-14.1	-10.4	14.6	16.9	25.7	25.5	23.5	18.6
Tax & SIC	4.6	4.2	3.2	3.6	3.7	3.5	-7.7	-7.0	-5.0	-5.8	-6.3	-6.2
Total reduction	-59.2	-61.0	-63.1	-62.4	-59.9	-56.2	100.0	100.0	100.0	100.0	100.0	100.0
Total FGT0	40.8	39.0	36.9	37.6	40.1	43.8						
Childbirth (1st year)												
Original income	-77.0	-71.2	-62.1	-63.2	-66.4	-70.3	80.6	75.3	64.5	65.2	69.1	74.8
Child / family b.	-25.4	-29.5	-34.7	-32.8	-29.7	-25.8	26.5	31.2	36.0	33.8	31.0	27.5
Other benefits	-3.3	-3.9	-6.6	-8.0	-7.1	-5.8	3.4	4.1	6.9	8.3	7.4	6.2
Tax & SIC	10.1	10.0	7.1	7.1	7.2	8.1	-10.5	-10.6	-7.4	-7.3	-7.5	-8.6
Total reduction	-95.6	-94.5	-96.3	-96.9	-96.0	-93.9	100.0	100.0	100.0	100.0	100.0	100.0
Total FGT0	4.4	5.5	3.7	3.1	4.0	6.1						
Childbirth (2nd year)												
Original income	:	-68.2	-58.2	-58.5	-62.0	-66.5	:	75.4	63.0	63.9	69.6	82.1
Child / family b.	:	-26.1	-31.2	-29.3	-24.5	-10.8	:	28.9	33.8	31.9	27.5	13.4
Other benefits	:	-4.8	-8.9	-10.4	-9.2	-7.7	:	5.3	9.6	11.4	10.3	9.5
Tax & SIC	:	8.6	5.9	6.6	6.5	4.0	:	-9.6	-6.4	-7.2	-7.3	-5.0
Total reduction	:	-90.4	-92.4	-91.7	-89.1	-81.0	:	100.0	100.0	100.0	100.0	100.0
Total FGT0	:	9.6	7.6	8.3	10.9	19.0	:					

Note: Category child/family benefits include all contributory maternity and paternity benefits, child benefit, birth grant; unemployment benefit includes unemployment social insurance benefit.
Source: own calculations using DASP module in Stata

To sum up: no need to wait for a new crisis

▸ Welfare state's role: towards promotion of individual responsibility for risk management; protection/re-distribution need to stay in focus.

▸ Using vulnerability measures for monitoring: focus on social protection, on expected poverty rather than volatility, ex-ante measures.

▸ 'Stress-testing' using microsimulation for vulnerability analysis.

▸ In Lithuania for unemployment and childbirth:

  ▸ imbalances in vulnerability levels produced by the welfare state policies

  ▸ lack of the counter-cyclical social protection

  ▸ traditional mutual support among the household members plays a major role, despite of the diminishing importance noted in the literature

▸ Potential for using stress testing:

  ▸ scope for improvement measures: more risks and more elaborate measures

  ▸ comparative vulnerability analysis – EUROMOD model covers EU27

▸

Thank you!

‣ Navicke, J. (2014) Paper: Between a risk society and a welfare state: social risk resilience and vulnerability to poverty in Lithuania. EUROMOD Working Paper No. EM 4/14: https://www.iser.essex.ac.uk/research/publications/working-papers/euromod/em4-14.pdf

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Using stress testing to measure vulnerability

‣ Advantages and limitations of using microsimulation:

- ‣ complex evaluation of the functioning of the tax-benefit system
- ‣ socio-demographic structure of the population
- ‣ ex-ante analysis of the latest policy changes
- ‣ reliability of data in the small population sub-groups
- ‣ static simulation – first round effects
- ‣ assumption of full benefit take-up and compliance to tax rules
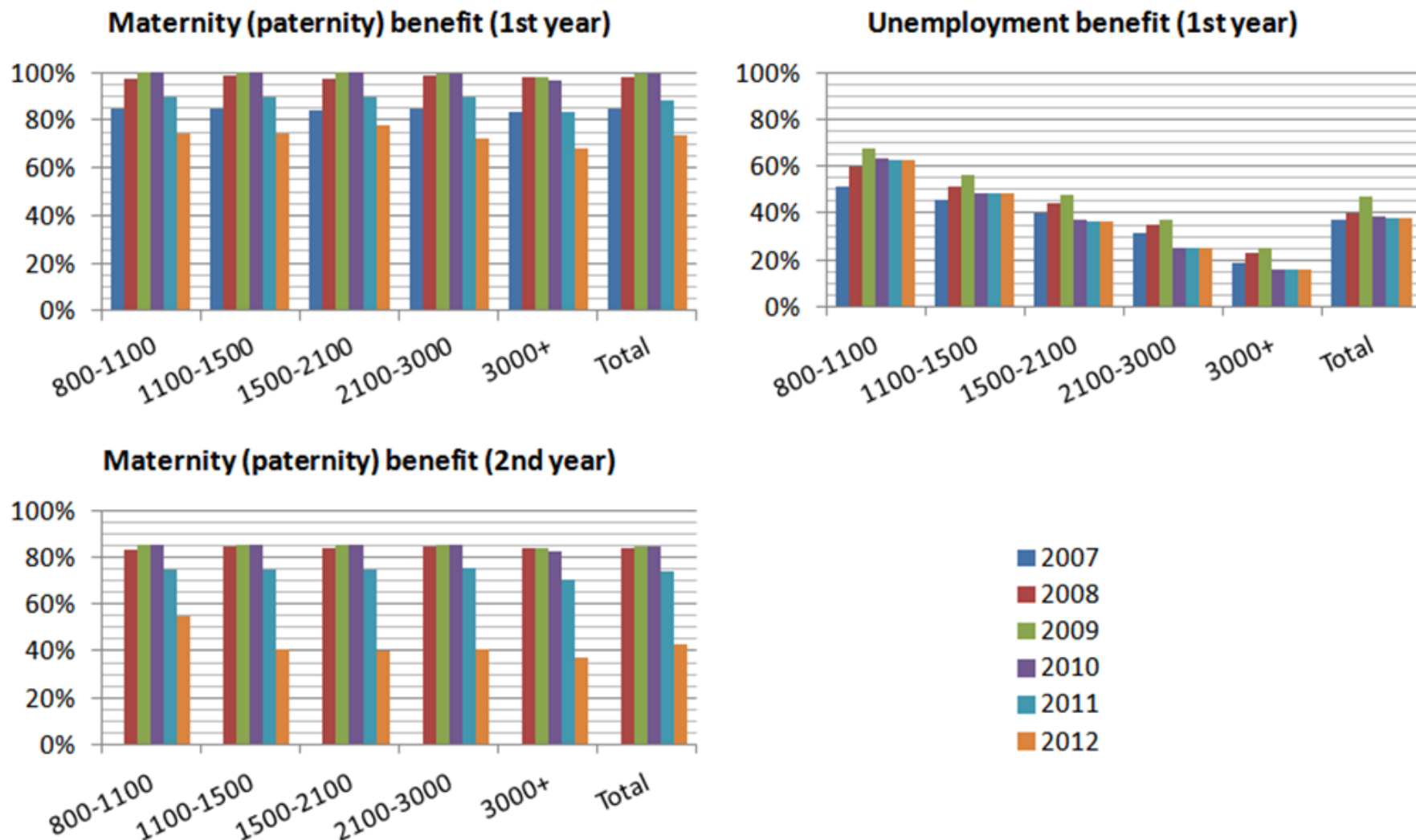
Results (III)

Fig 3 Gross annual benefit replacement rate by income group and total