The impact of changes in employment and social transfers on poverty trends in the European Union in times of economic recovery

7th European User Conference for EU-Microdata
Mannheim/online, March 25.-26.

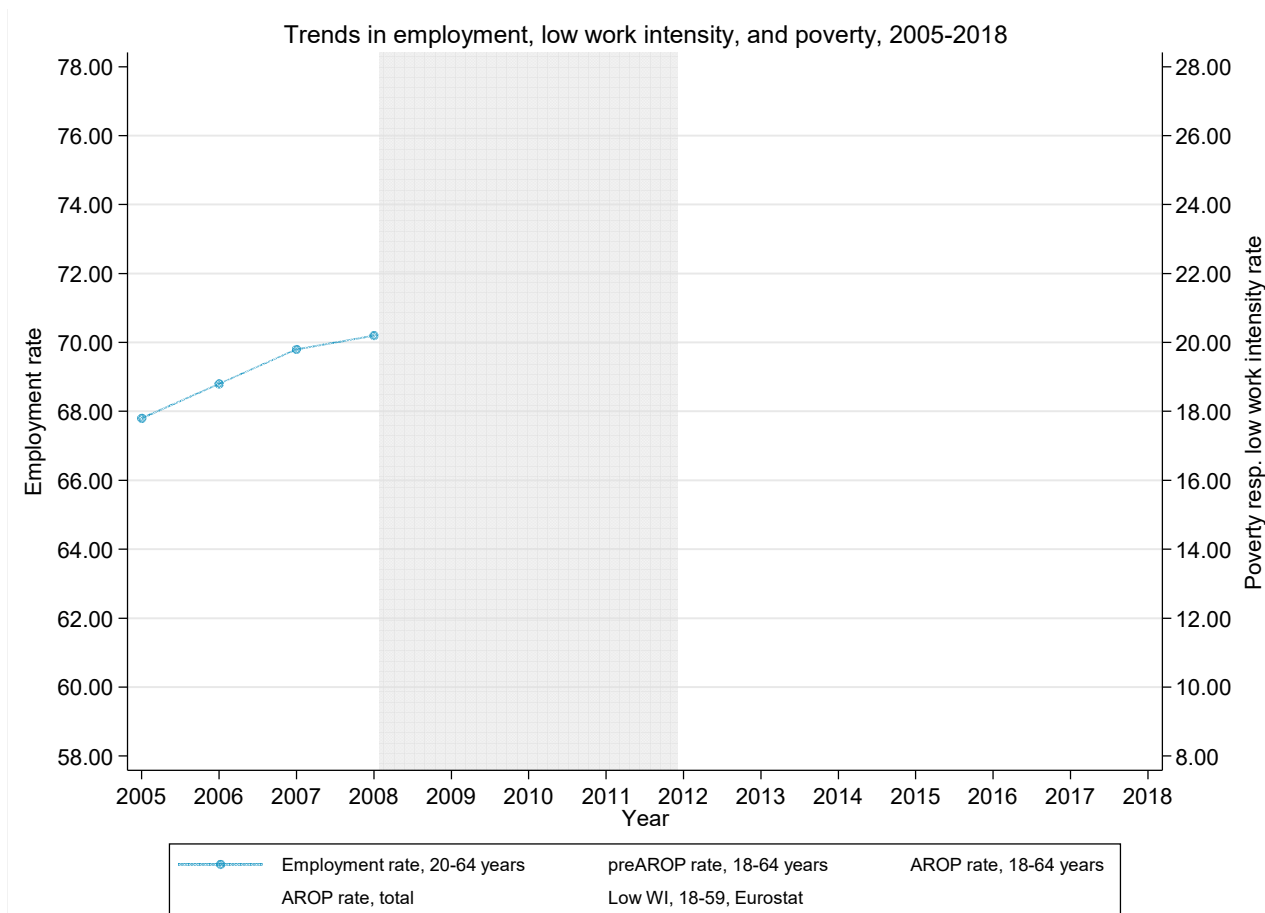András Gábos[a], Barbara Binder[b], Réka Branyiczki[a], István György Tóth[a]

[a] TÁRKI Social Research Institute, Budapest, Hungary
[b] Karlsruhe Institute of Technology, Karlsruhe, Germany

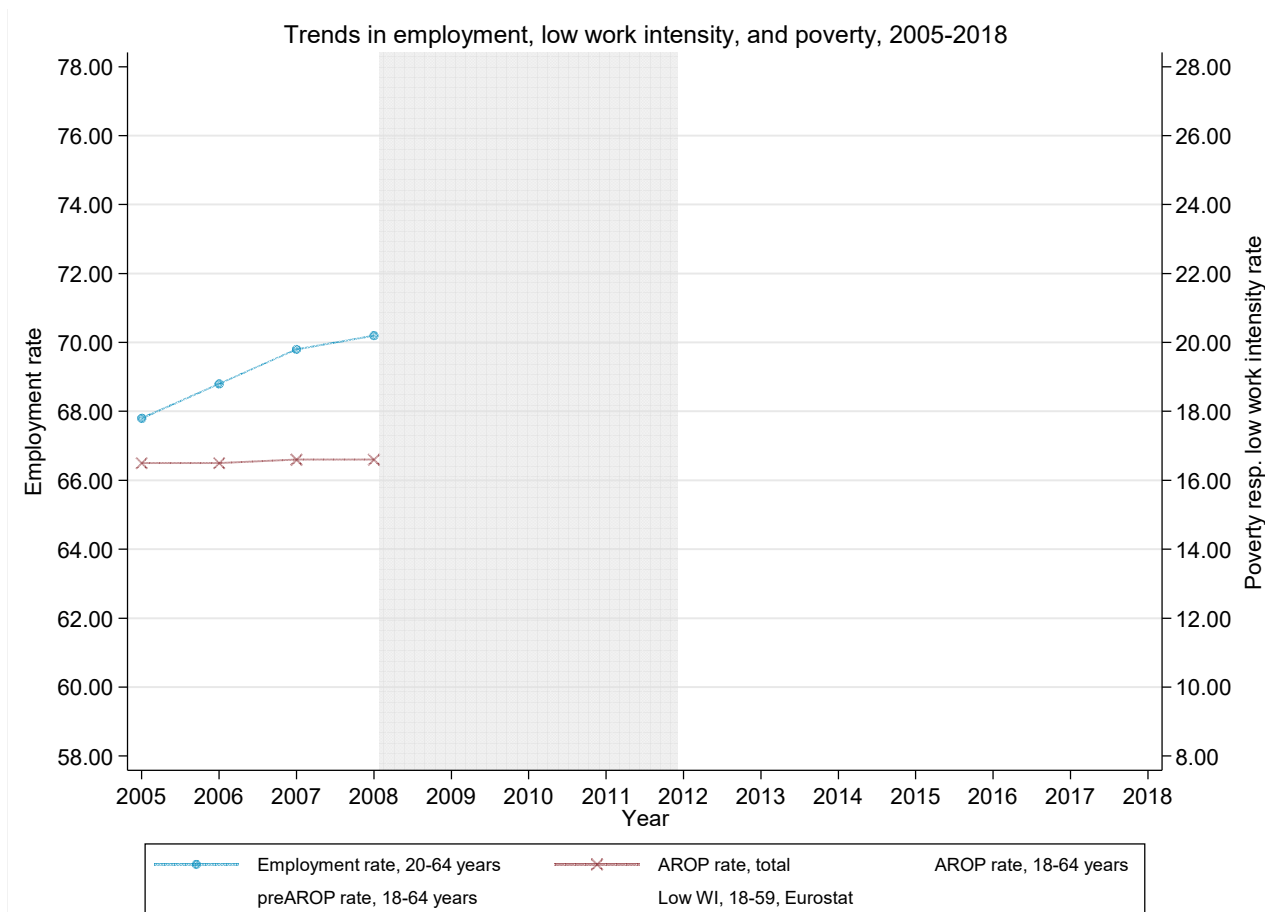# The triangle of employment, poverty, and social transfers

- Relationship between poverty, employment and social policy plays a meaningful role in social policy research and in context of the EU's strategical background
  - Lisbon Strategy: focus on employment increase, no explicit poverty goal
  - European Union 2020 strategy: includes target of reducing the number of people living in poverty or social exclusion by 20 million until 2020
- The GR and its consequences for employment and social developments made it more difficult to achieve the simultaneous goals of employment increase and the fight against poverty and social exclusion

Employment and poverty trends – before, during, and after the GR

Trends in employment, low work intensity, and poverty, 2005-2018

Note: Eurostat Database, data retrieved on 20/03/2021. Employment rates are based on LFS data (EU-28), other indicators are based on EU-SILC data (EU-27, 2007-2013).

Employment and poverty trends – before, during, and after the GR

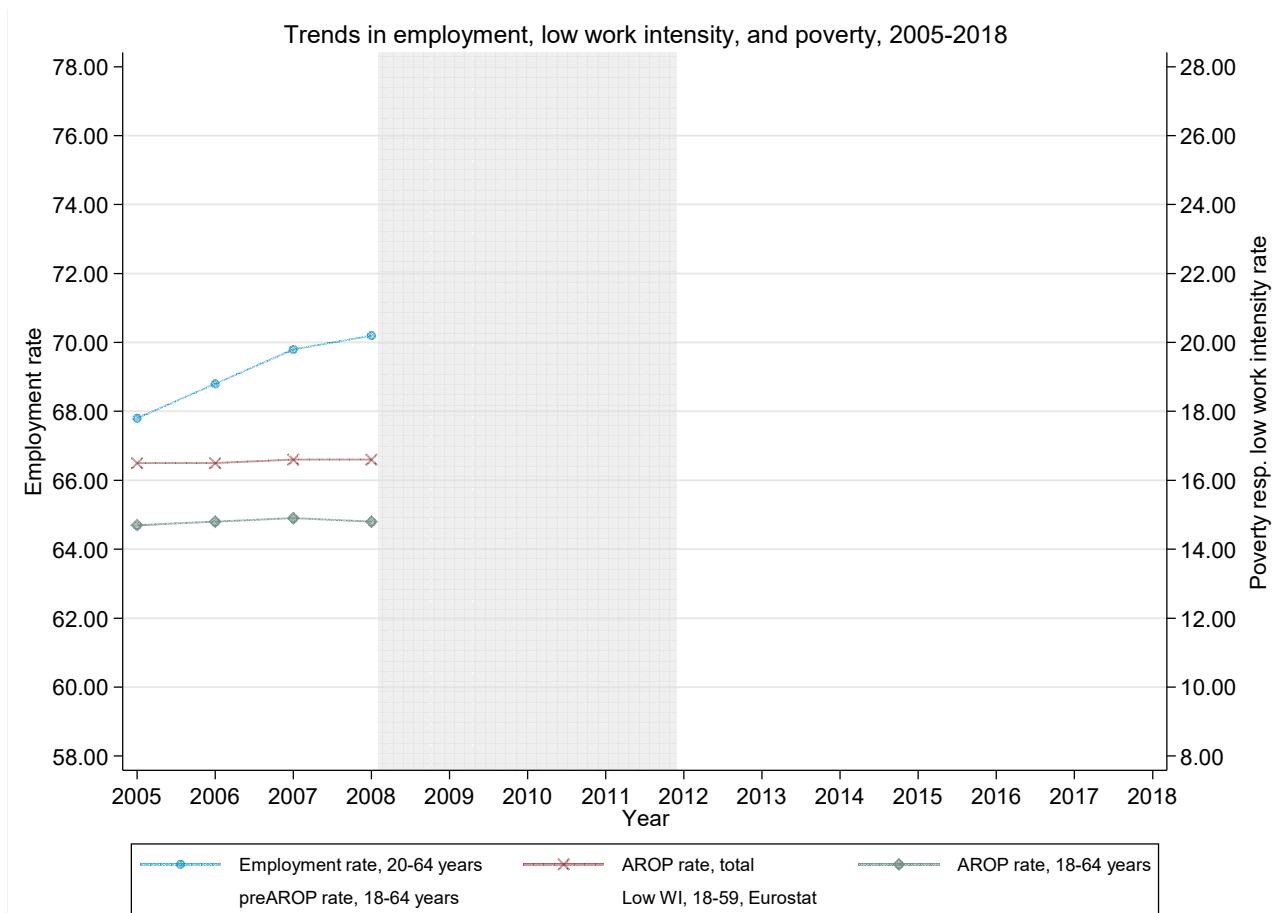Trends in employment, low work intensity, and poverty, 2005-2018

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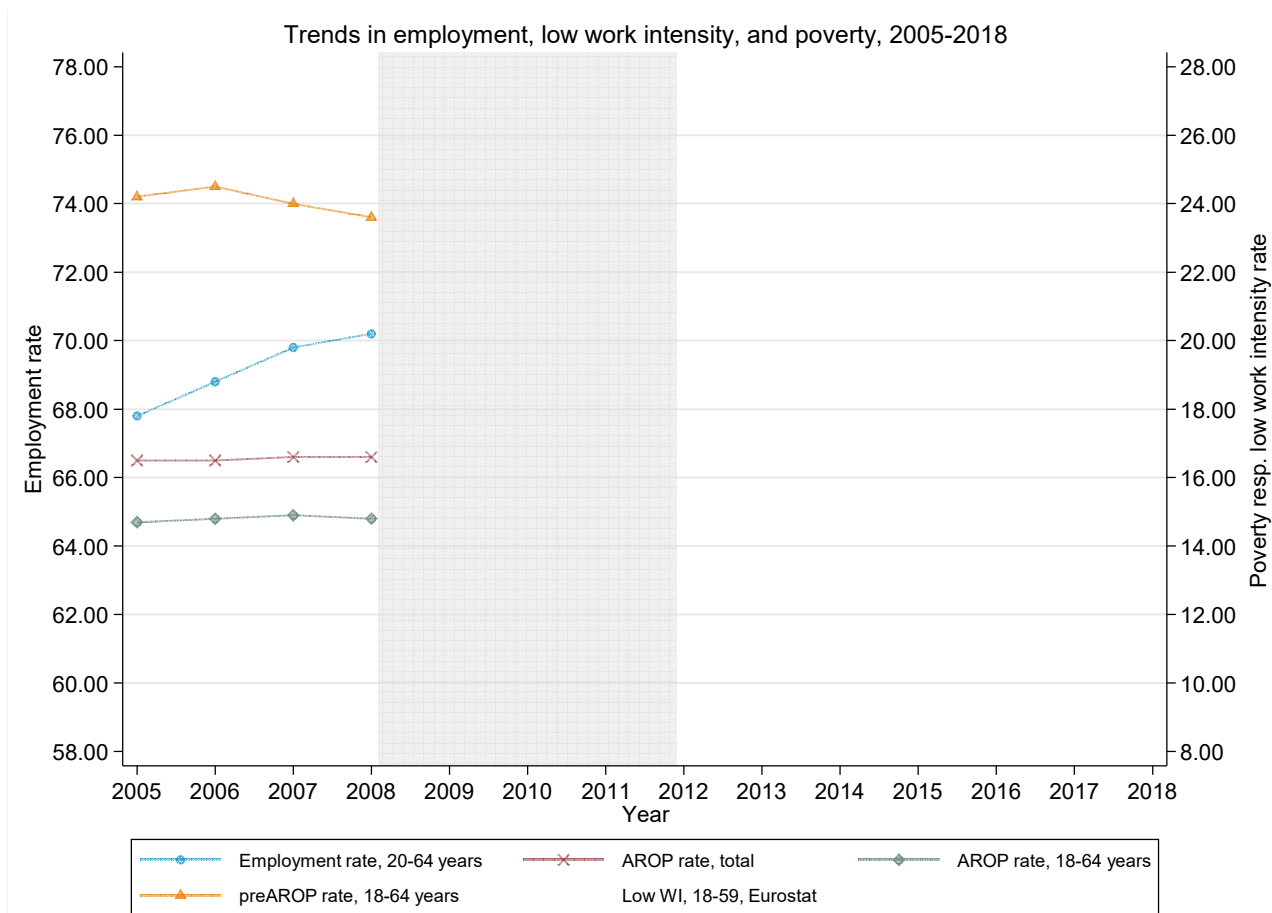Trends in employment, low work intensity, and poverty, 2005-2018

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Employment and poverty trends – before, during, and after the GR

Trends in employment, low work intensity, and poverty, 2005-2018

Legend:
- Employment rate, 20-64 years
- AROP rate, total
- AROP rate, 18-64 years
- preAROP rate, 18-64 years
- Low WI, 18-59, Eurostat

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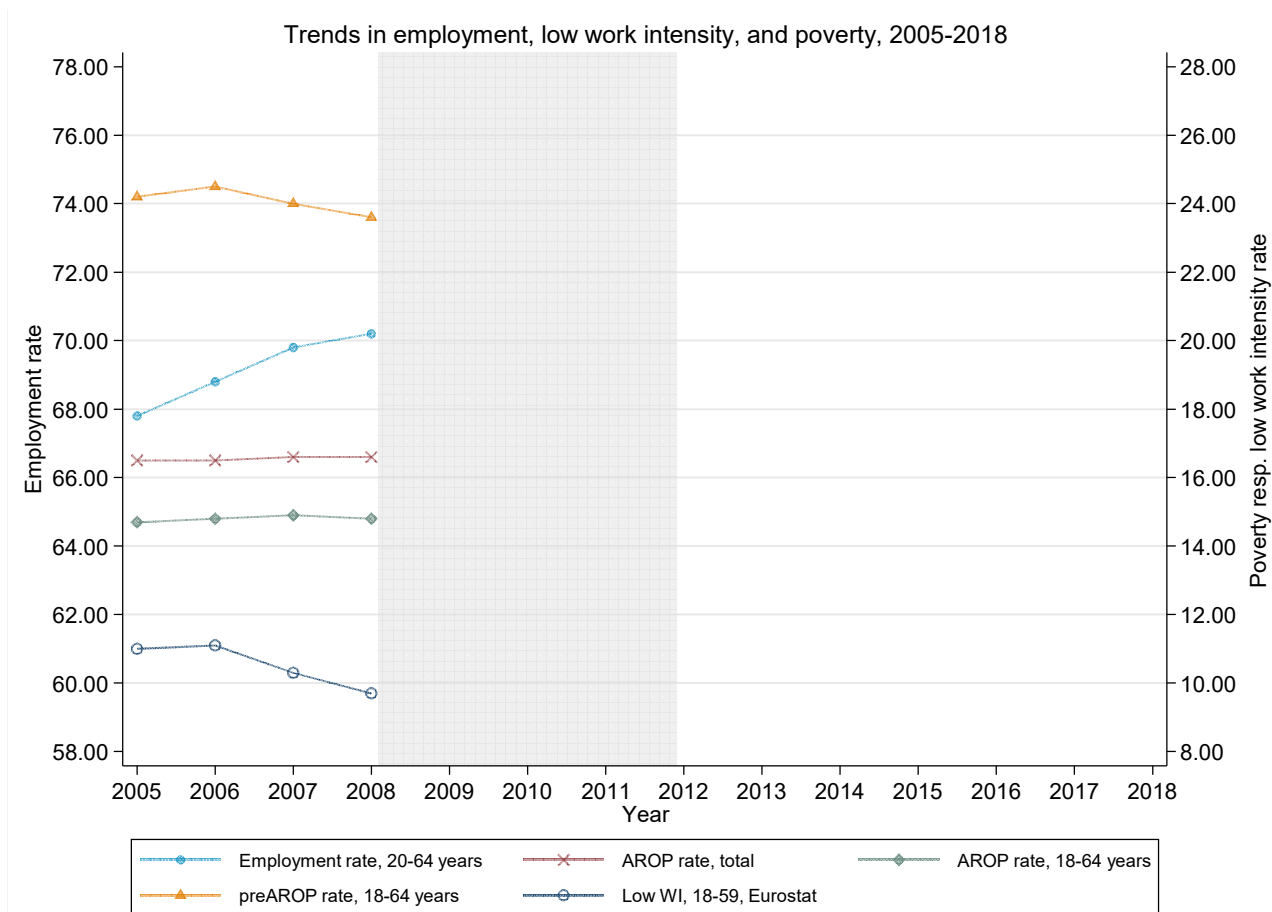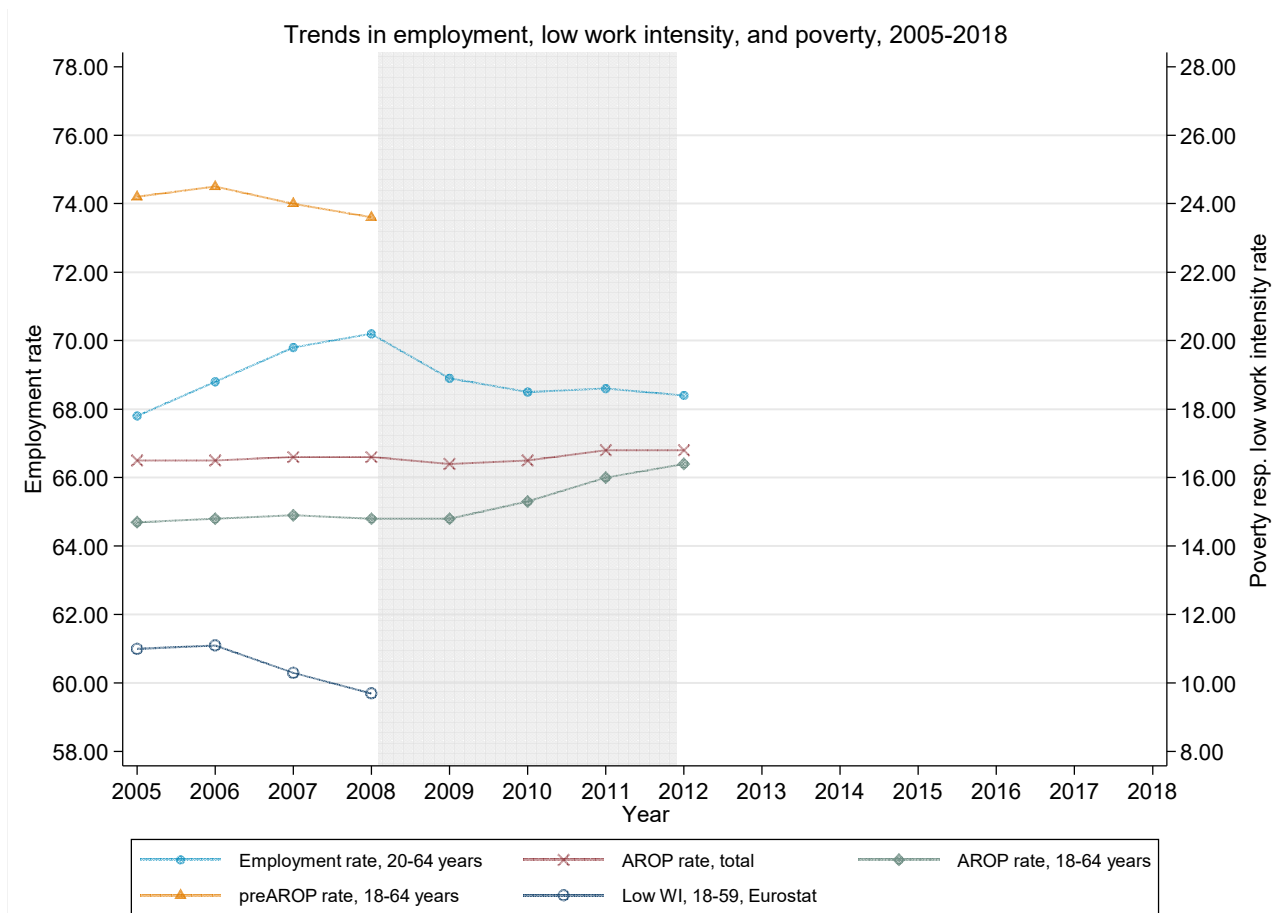- preAROP rate, 18-64 years
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Employment and poverty trends – before, during, and after the GR

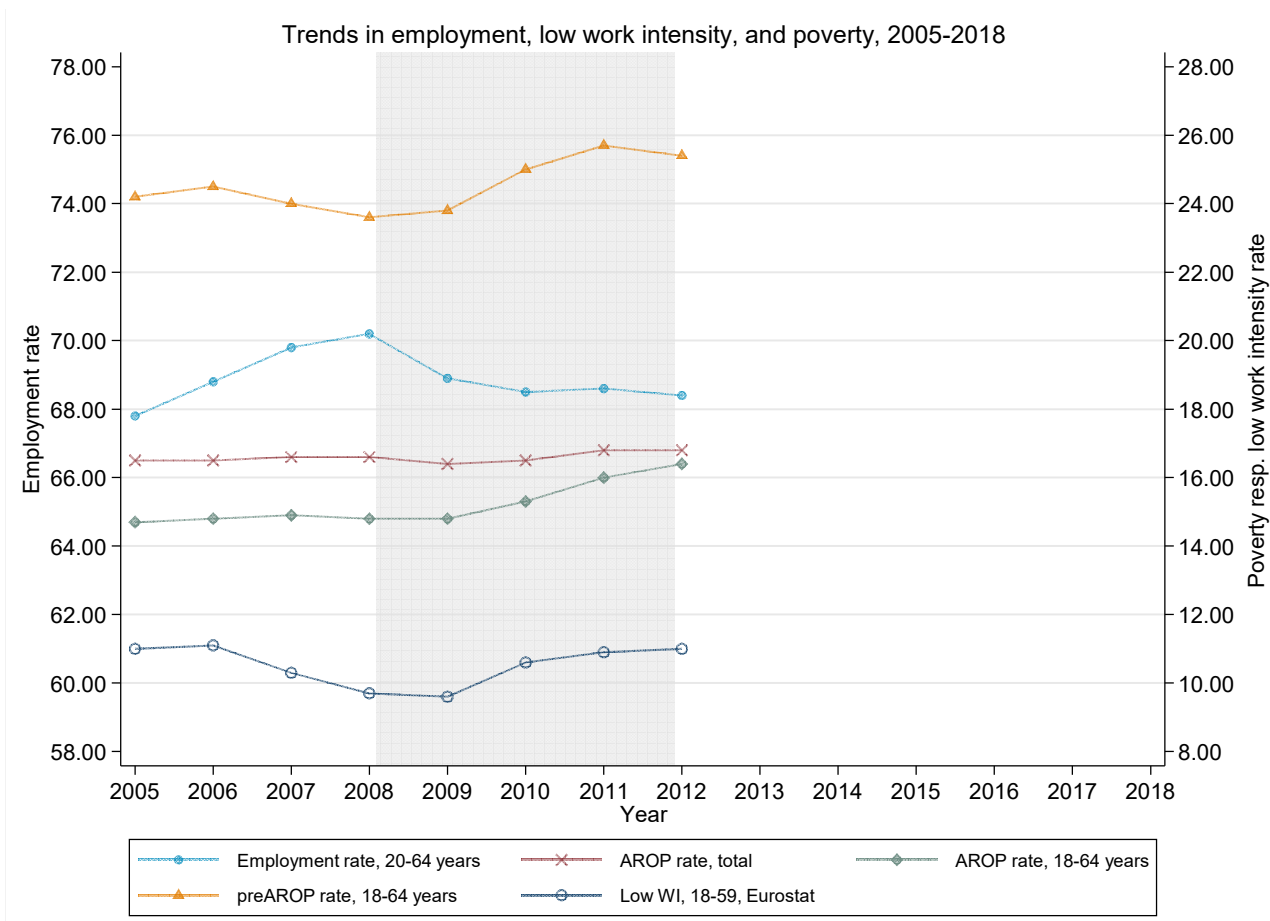Trends in employment, low work intensity, and poverty, 2005-2018

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Employment and poverty trends – before, during, and after the GR

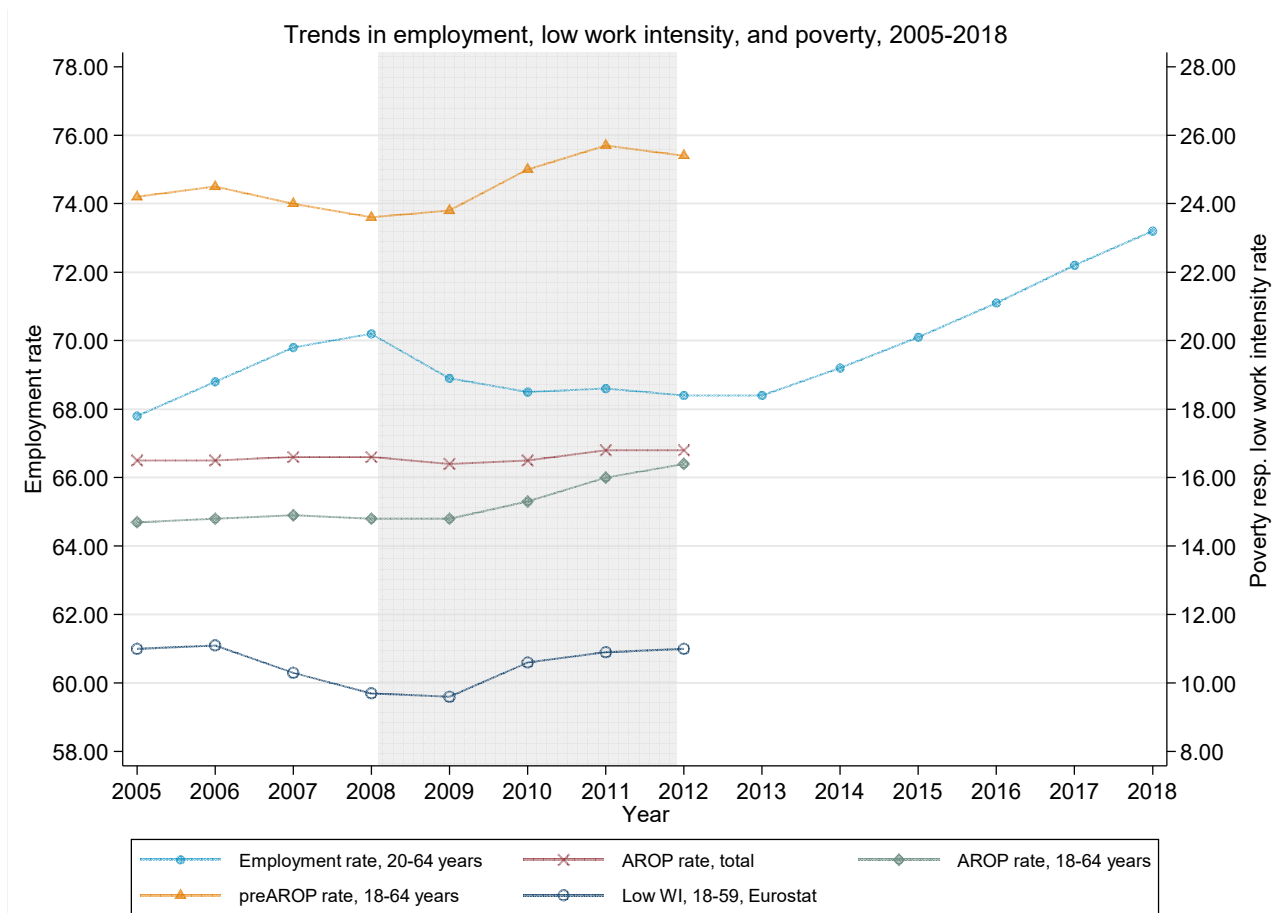Trends in employment, low work intensity, and poverty, 2005-2018

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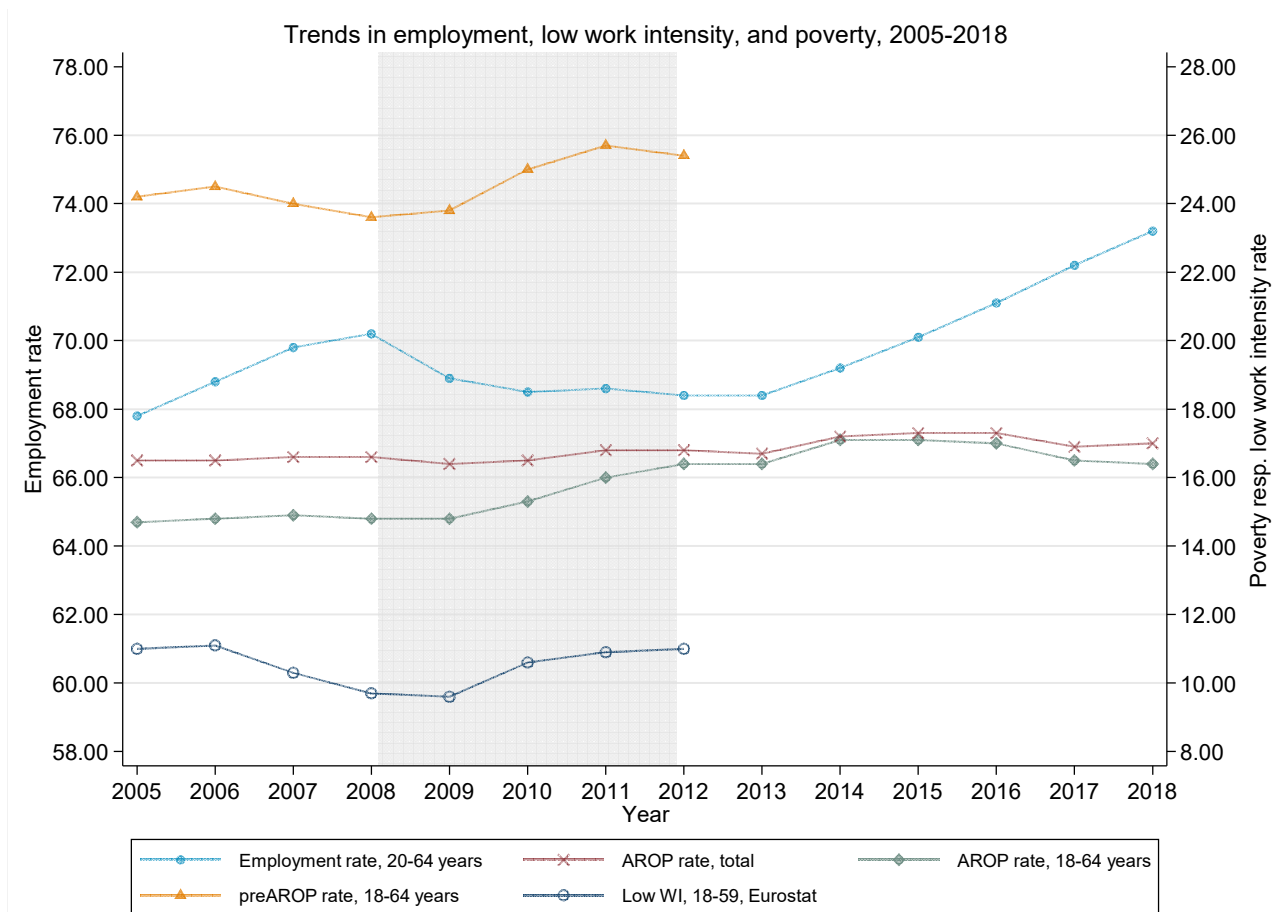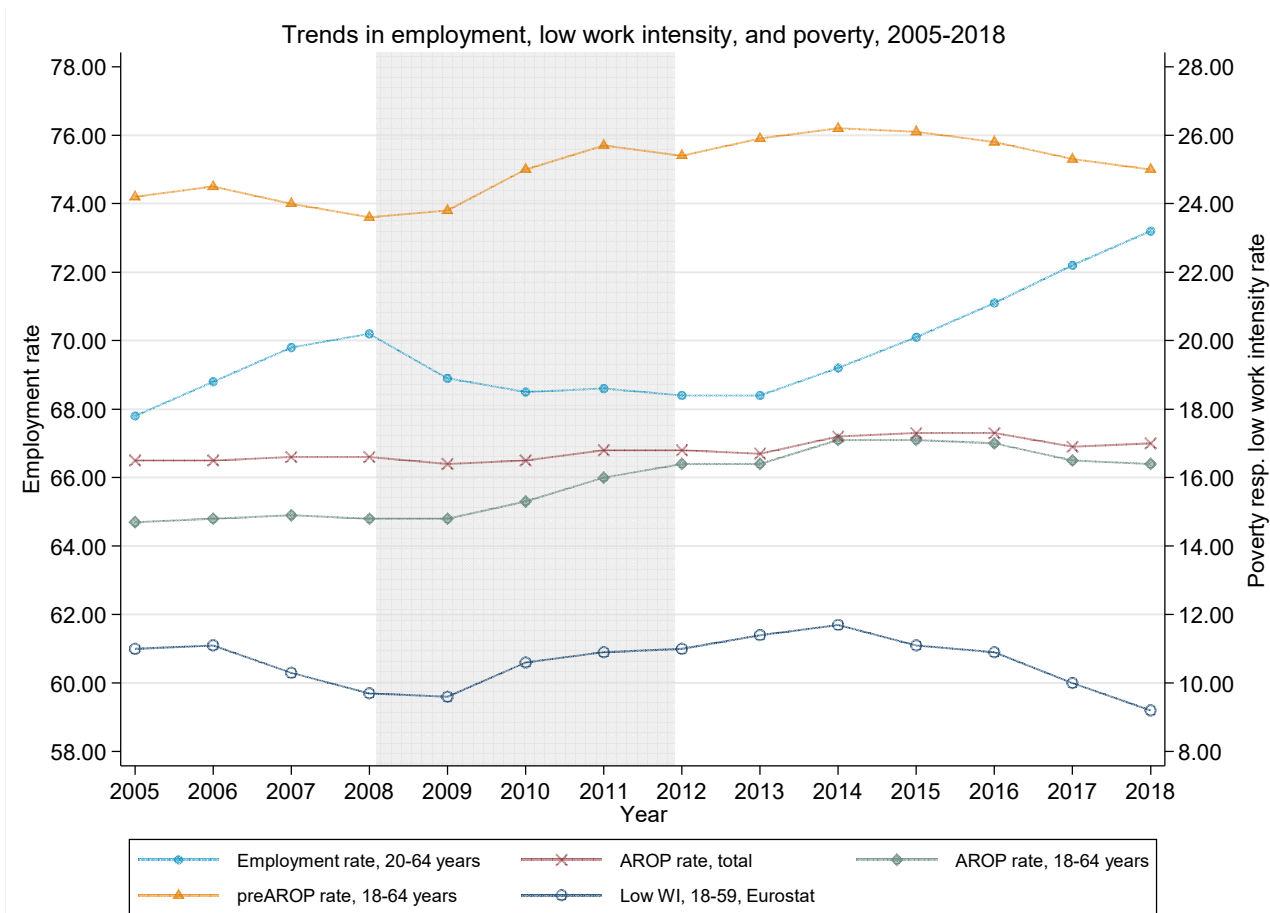- Low WI, 18-59, Eurostat
- AROP rate, 18-64 years

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Employment and poverty trends – before, during, and after the GR

Research question

- Why did the massive increase in employment not lead to a decline in poverty rates in the post-crisis period?

- Is the weak response in poverty rates to employment again due to an "uneven" distribution of rising employment across households, as was the case in the pre-crisis period?

Data and method

- EU-SILC cross-sectional UDB, EU-27 countries (incl. UK), 2005-2017

- distinguish between three periods; pre-crisis (2005-2008), crisis (2008-2013), and post-crisis (2013-2017).

- Decompositions of changes in poverty in different countries by
  - changing proportions of households with low and high work intensity, and
  - their group-specific poverty risk

- Country-level fixed-effects-regressions to estimate the elasticity of poverty rates across the EU in the different periods, based on
  - indicators retrieved from the microdata, and
  - indicators retrieved from Eurostat

Method – decomposition method

- What drives the change in poverty rates in the different phases across countries?

- Decomposition of the change in poverty rate of the active-age population into three contributory factors (simplified):
  - Change in the (group-specific) poverty risk of non-jobless households
  - Change in the (group-specific) poverty risk of jobless households
  - Change in the proportion of jobless households

$$\Delta pov(a) = \overline{njl_i}\Delta pov(a)_{njl,i} + \overline{jl_i}\Delta pov(a)_{jl,i} + \left(\overline{pov(a)_{jl,i}} - \overline{pov(a)_{njl,i}} \right)\Delta jl_i$$

Results – decomposition of changes in poverty in the crisis period
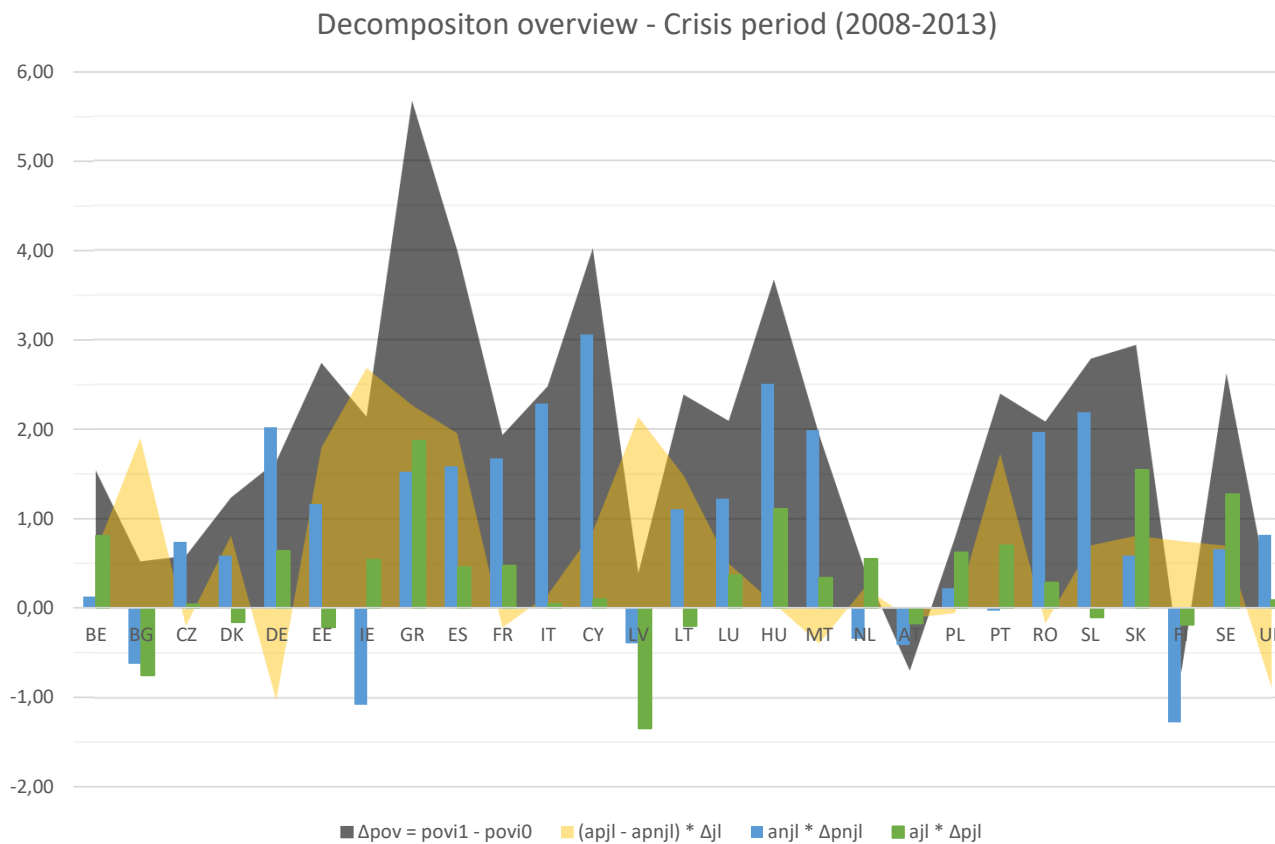
Decompositon overview - Crisis period (2008-2013)

Legend: ■ Δpov = povi1 - povi0 ■ (apjl - apnjl) * Δjl ■ anjl * Δpnjl ■ ajl * Δpjl

Results – decomposition of changes in poverty in the recovery period

Decompositon overview - Recovery period (2013-2017)

Legend: ■ Δpov = povi1 - povi0   ■ (apjl - apnjl) * Δjl   ■ anjl * Δpnjl   ■ ajl * Δpjl
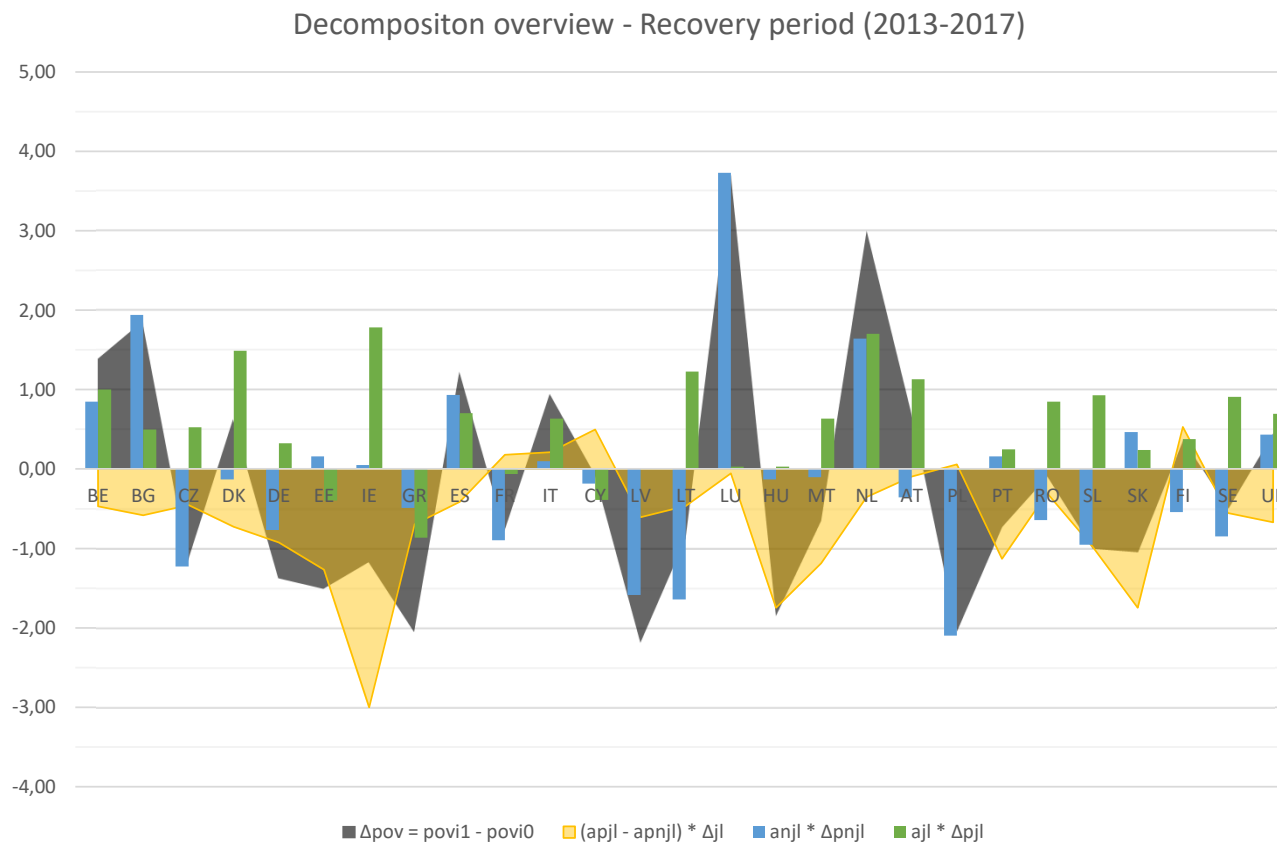
Decomposition results - summary

Patterns in the different periods, before, during, and after the crisis

- Pre-crisis-period (not shown)
  - Mixed picture compared to the crisis period, with several „extreme" cases (in all ways, increasing and decreasing with different roots)

- Crisis period
  - increasing poverty rates in almost all member states

- Post-crisis period
  - Mixed picture compared to the crisis period, with a few „extreme" cases
  - Main pattern: Declining share of jobless households, increasing poverty risk of jobless households

Where do changes in poverty in the recovery phase come from?

- Improvements in poverty rates stem from declining shares of jobless households: HU, SK, EE, MT, PT

- Changes in poverty coming from changes in the poverty risk of non-jobless households
  - Increasing risks driving increases in poverty: LU, BG
  - Decreasing risks driving improvements in poverty rates: CZ, FR, LV, LT, PL

- In many countries, the poverty risk of jobless households increases, which was balanced by their declining share in the population, and decreasing poverty risks of non-jobless households (only notable exception: GR)

- Increasing poverty rates stem from simultaneous increases in the poverty risk of jobless and non-jobless household: BE, NL

Preliminary results – multivariate

VARIABLES	(1) AROP(a)	(2) AROP(a)	(3) AROP(a)	(4) AROP(a)	(5) AROP(a)	(6) AROP(a)	(7) AROP(a)	(8) AROP(a)
Employment rate (cent.)	-0.219***	-0.169***	-0.141***	-0.132**	-0.122**			
	(0.0483)	(0.0543)	(0.0502)	(0.0515)	(0.0492)			
Period dummy (reference: Crisis)								
Period dummy: Pre-crisis	-1.113***	-1.139***	-1.197***	-0.851***	-0.960***	-0.768***	-0.759***	-0.733***
	(0.244)	(0.227)	(0.221)	(0.225)	(0.243)	(0.218)	(0.265)	(0.243)
Period dummy: Post-crisis	0.973***	0.967***	0.664**	0.664***	0.526**	1.064***	1.023***	0.617**
	(0.246)	(0.223)	(0.259)	(0.225)	(0.245)	(0.270)	(0.268)	(0.264)
Interaction: Pre-crisis period # employment rate		-0.0500	-0.0442	-0.0512	-0.0473			
		(0.0530)	(0.0490)	(0.0480)	(0.0463)			
Interaction: Post-crisis period # employment rate		-0.0851*	-0.0993**	-0.0758	-0.0875*			
		(0.0437)	(0.0427)	(0.0448)	(0.0444)			
Benefit size in jobless households			0.0406**		0.0279			0.0762***
			(0.0188)		(0.0191)			(0.0167)
Share in part-time employment (cent.)				0.252***	0.194**			
				(0.0887)	(0.0877)			
Share in jobless households (cent.)						0.242***	0.165**	0.239***
						(0.0762)	(0.0693)	(0.0657)
Interaction: Pre-crisis period # share in jobless hh							0.194*	0.139
							(0.105)	(0.0953)
Interaction: Post-crisis period # share in jobless hh							0.165**	0.160**
							(0.0672)	(0.0602)
Constant	14.62***	14.65***	12.64***	14.64***	13.26***	14.47***	14.55***	10.68***
	(0.121)	(0.104)	(0.915)	(0.105)	(0.931)	(0.123)	(0.123)	(0.846)
Observations	369	369	369	368	368	369	369	369
R-squared	0.420	0.438	0.463	0.473	0.483	0.352	0.382	0.472
Number of countries	27	27	27	27	27	27	27	27

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Conclusion

RQ: *Why did the massive increase in employment not lead to a decline in poverty rates in the post-crisis period?*

- Decomposition results on contributory factors in changes in poverty: main pattern in the post-crisis period is the declining share of jobless households → contributes strongly to changes in poverty and counterbalances less favorable poverty risks, especially among the jobless

- *Preliminary* panel regression results:
  - employment has a strong impact on poverty rates. This impact appears stronger in the post-crisis period than during the crisis (low magnitude however)
  - When including the share in part-time employment, this stronger impact in the post-crisis period diminishes
  - Higher shares of persons living in jobless households have a strong impact on poverty as well. This impact is stronger in the post-crisis period → higher proportions of the population in jobless households are *more* likely to lead to higher poverty **out** of the crisis than in the crisis period.

THANK YOU!

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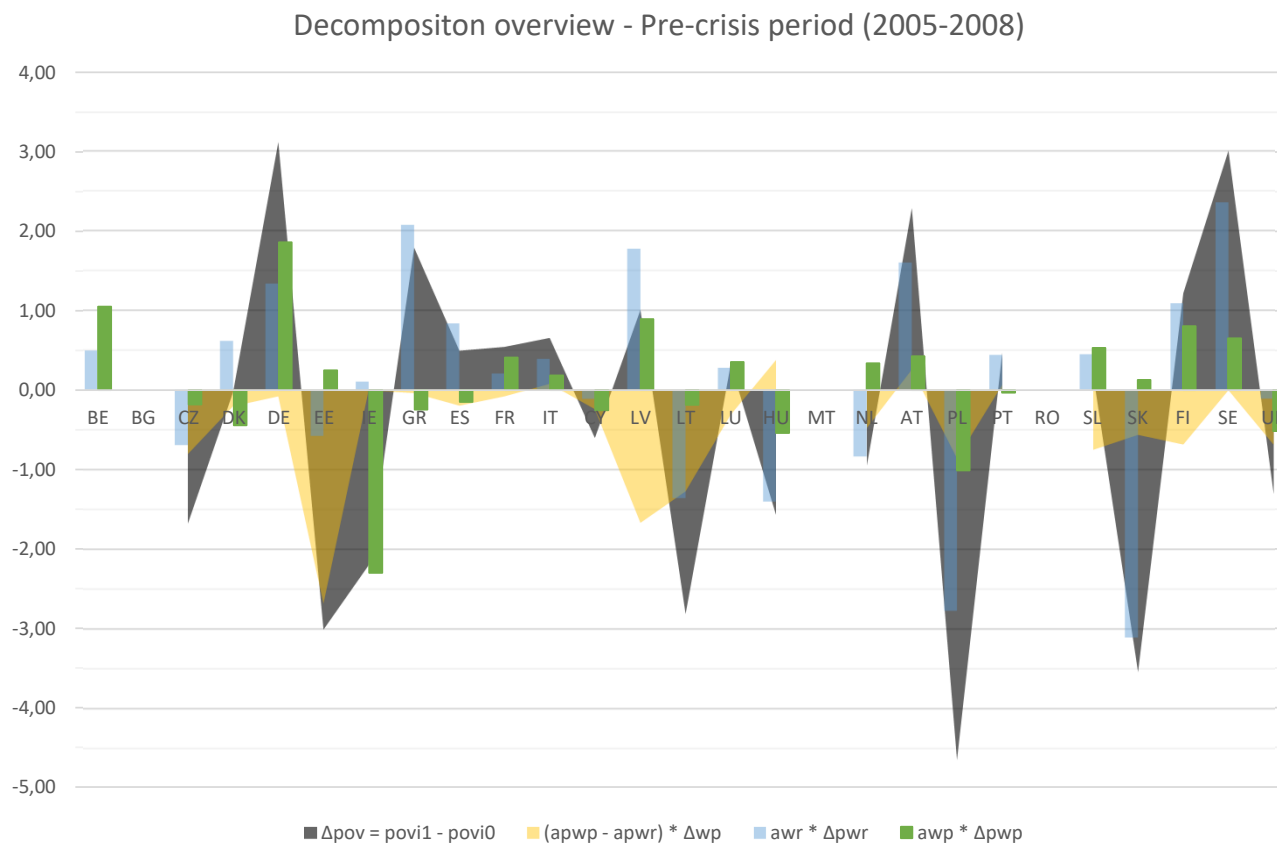E-Mail: gabos@tarki.hu

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BACKUP

Preliminary results – decomposition method

Decompositon overview - Pre-crisis period (2005-2008)

Legend: Δpov = povi1 - povi0 | (apwp - apwr) * Δwp | awr * Δpwr | awp * Δpwp

Cross-country variation in the relationship of employment and poverty over time

- The variation in trends of employment and poverty, as well as patterns of their relationship, vary widely between countries
- But, there are some „typical", stylised patterns in time trends of employment and poverty
  - i. standstill (e.g. BE)
  - ii. slow recovery (e.g. GR)
  - iii. quick recovery (e.g. LT)
  - iv. general improvement set back temporarily by the GR (e.g. CZ)

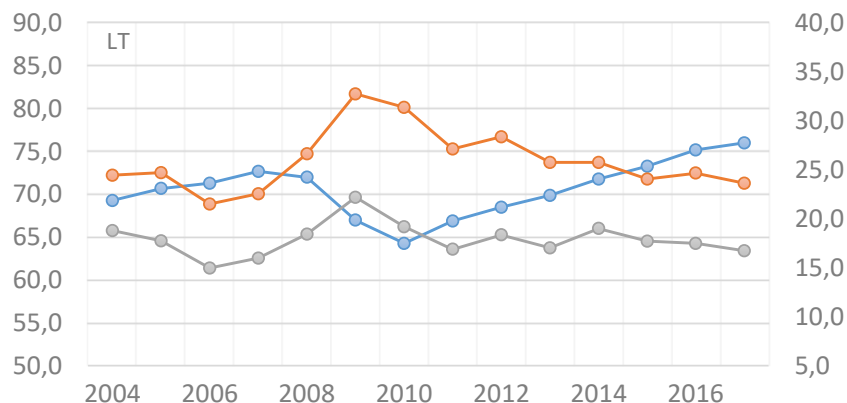# Typical employment/poverty trends, exemplary countries
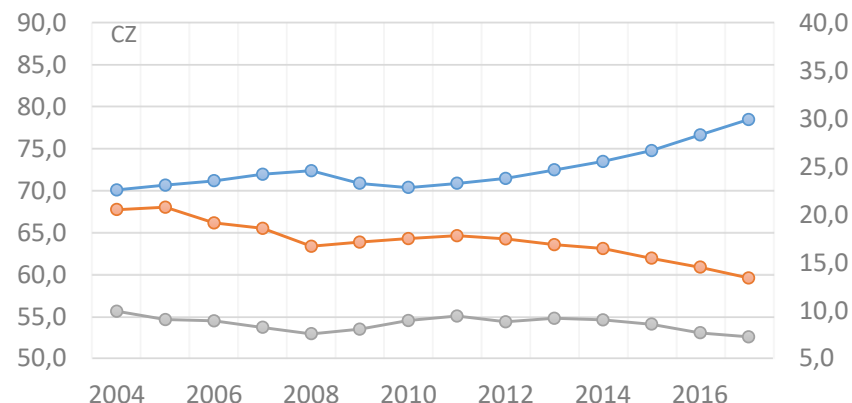

i: standstill / no changes (e.g. Belgium)
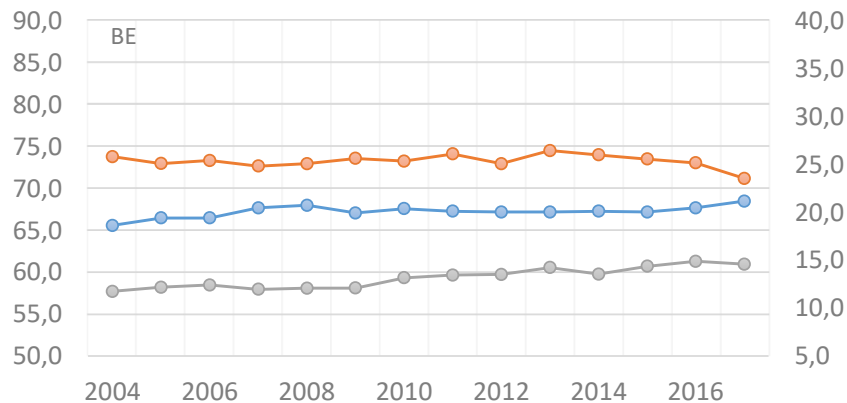
ii: large drop with slow recovery (e.g. Greece)
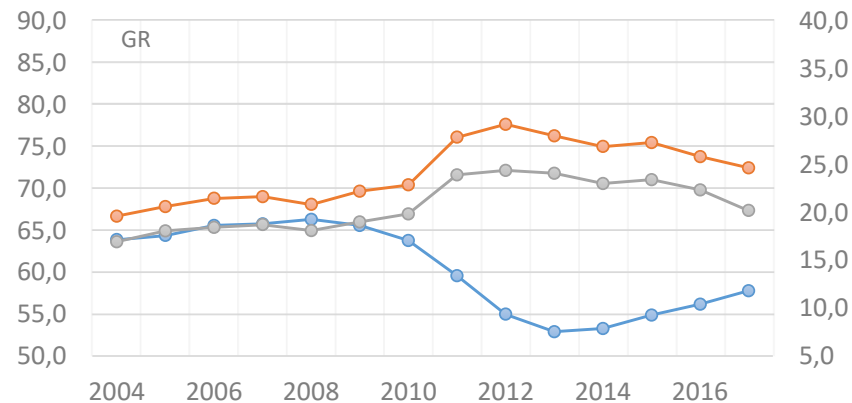
iii: large drop with quick recovery (e.g. Lithuania)

iv: improving trends slightly set back by the GR (e.g. Czechia)

Employment rate (%)　　AROP(a), after social transfers (%)　　AROP(a), before social transfers (%)

09/04/2021

Note: Own calculations based on EU-SILC (Poverty), Eurostat Database, data retrieved on 20/03/2021 (Employment).

Results – decomposition of changes in poverty in the recovery period

Decompositon overview - Recovery period (2013-2017)

Legend: ■ Δpov = povi1 - povi0   ■ (apwp - apwr) * Δwp   ■ awr * Δpwr   ■ awp * Δpwp

Gábos/Binder/Branyiczki/Tóth