

Join the club

CONVERGENCE IN POPULATION AGEING ACROSS EUROPEAN NUTS-2 REGIONS

ILYA KASHNITSKY^{}, JOOP DE BEER, LEO VAN WISSEN*

URSI Autumn Conference 2015-12-10

^{*} Corresponding author: kashnitsky@nidi.nl,

WHY CONVERGENCE IN AGEING?

WHY CONVERGENCE IN AGEING?

Cohesion Policy (*success story* ?)

WHY CONVERGENCE IN AGEING?

Cohesion Policy (*success story* ?)

Ageing has a **downwards effect** on economic output

WHY CONVERGENCE IN AGEING?

Cohesion Policy (*success story* ?)

Ageing has a **downwards effect** on economic output

Measure variable is Working Ratio
(***working-age to non-working-age ratio***,
inverse of Dependency Ratio)

WHY CONVERGENCE IN AGEING?

Cohesion Policy (*success story* ?)

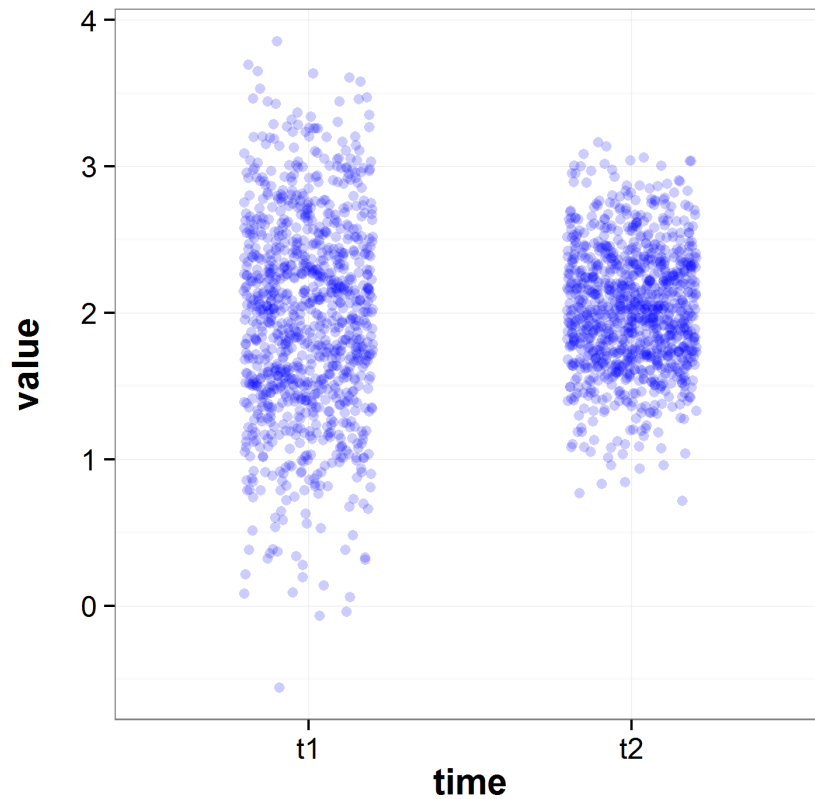
Ageing has a **downwards effect** on economic output

Measure variable is Working Ratio
(*working-to-non-working-age ratio*,
inverse of Dependency Ratio)

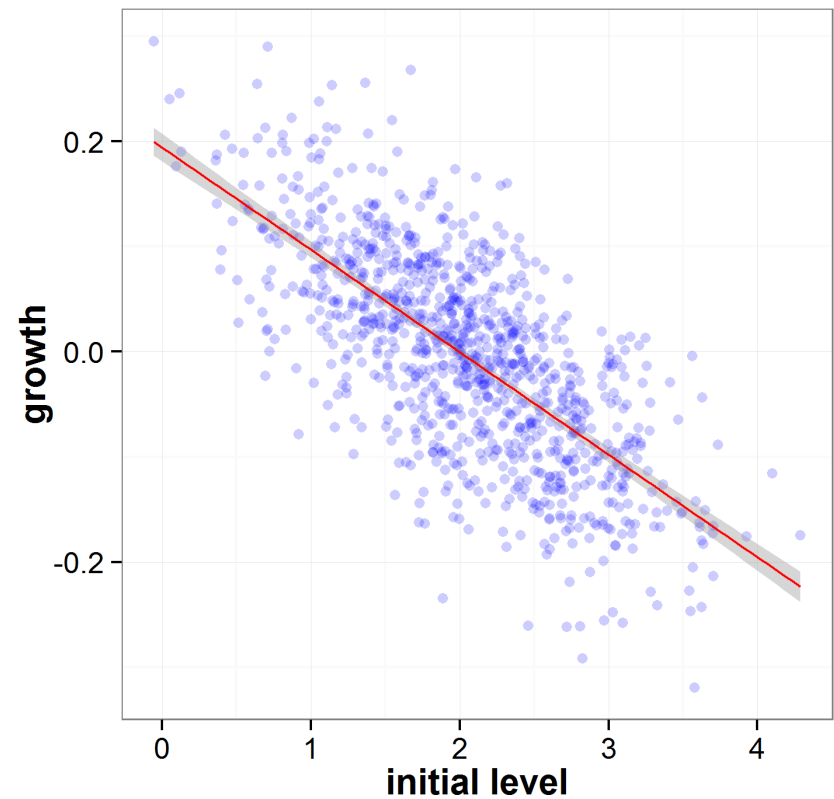
Sigma-convergence **VS** beta-convergence

SIGMA-CONVERGENCE **VS** BETA-CONVERGENCE

sigma

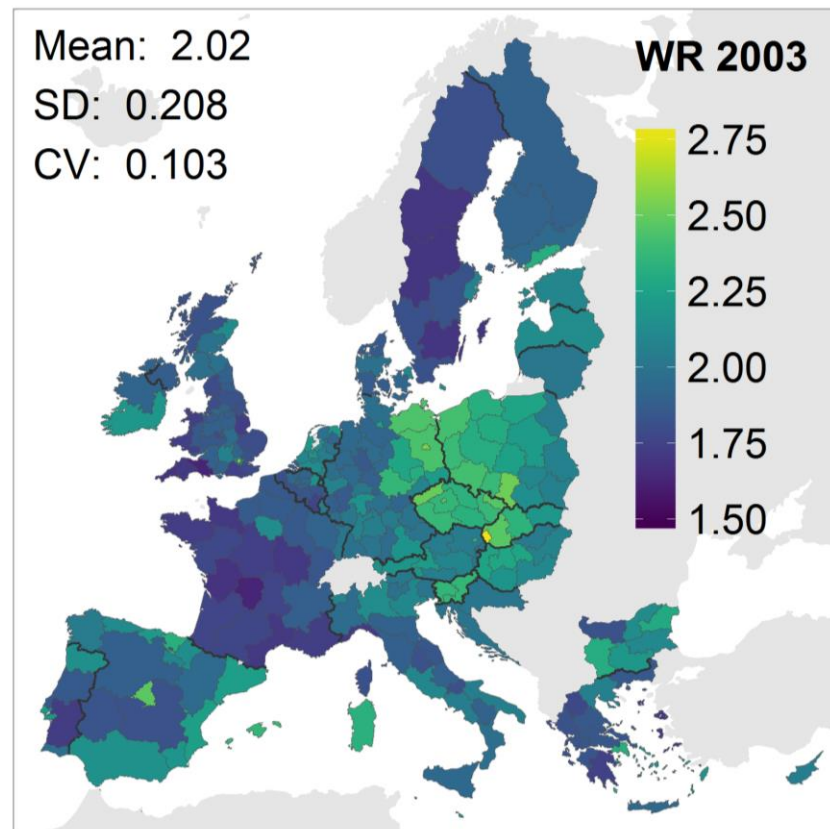


beta

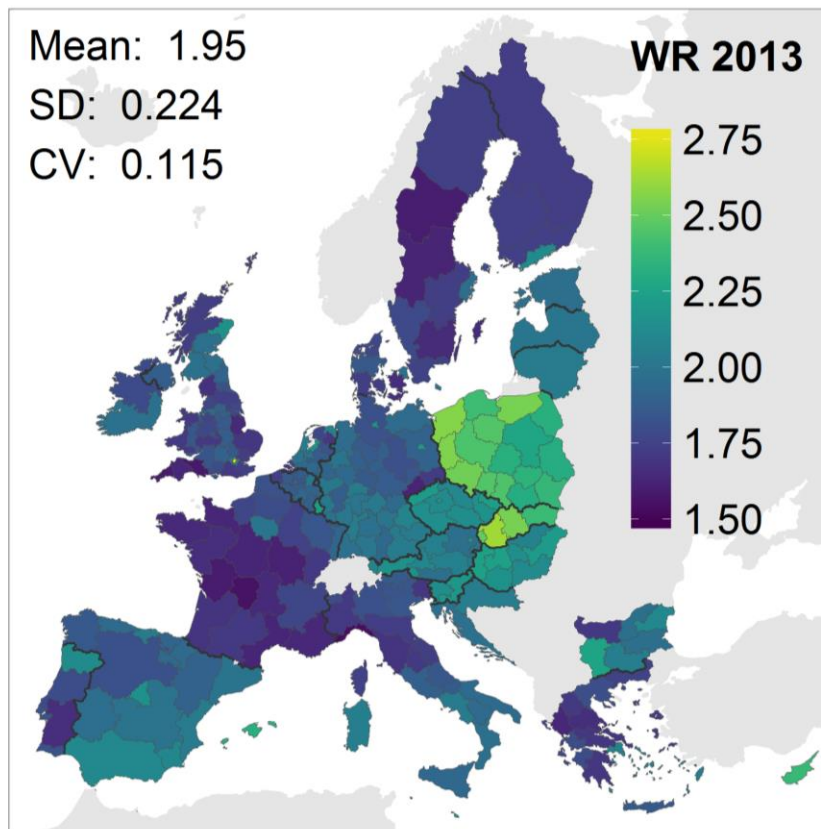


NO SIGMA CONVERGENCE

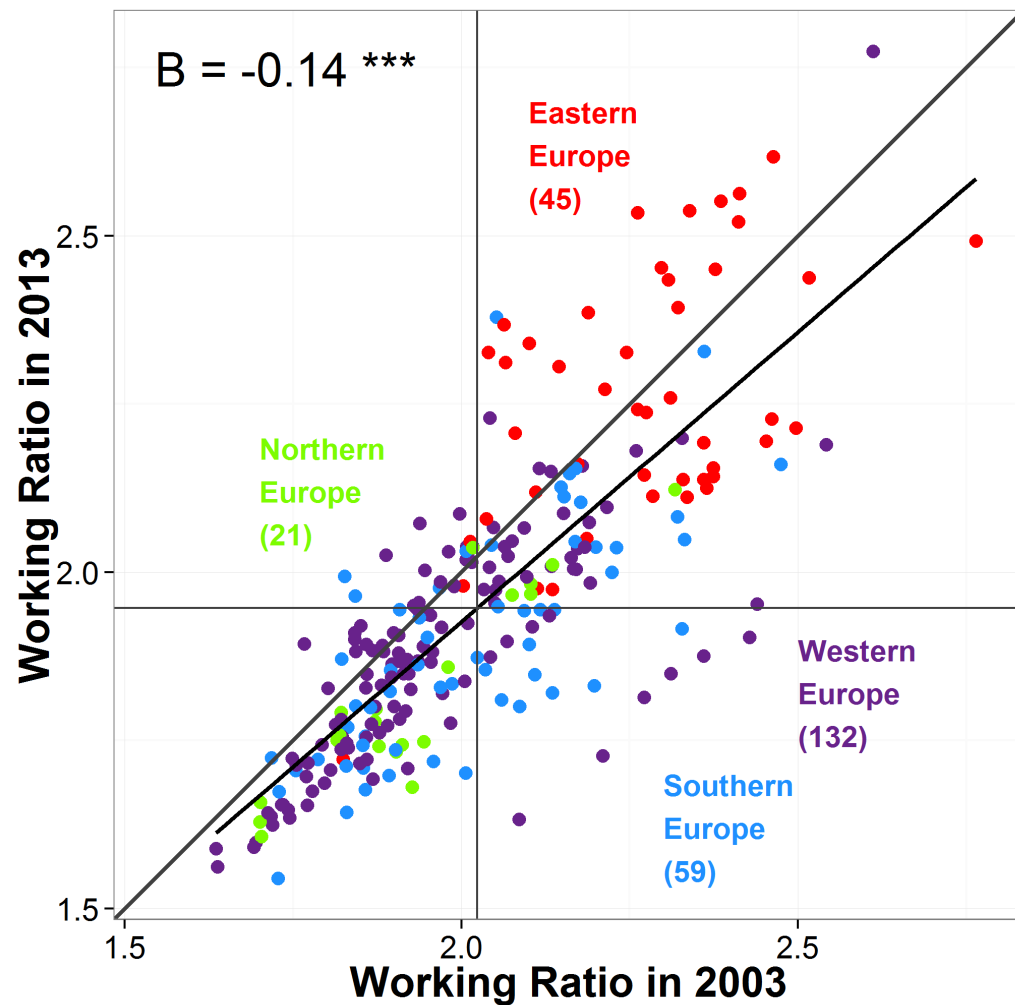
2003



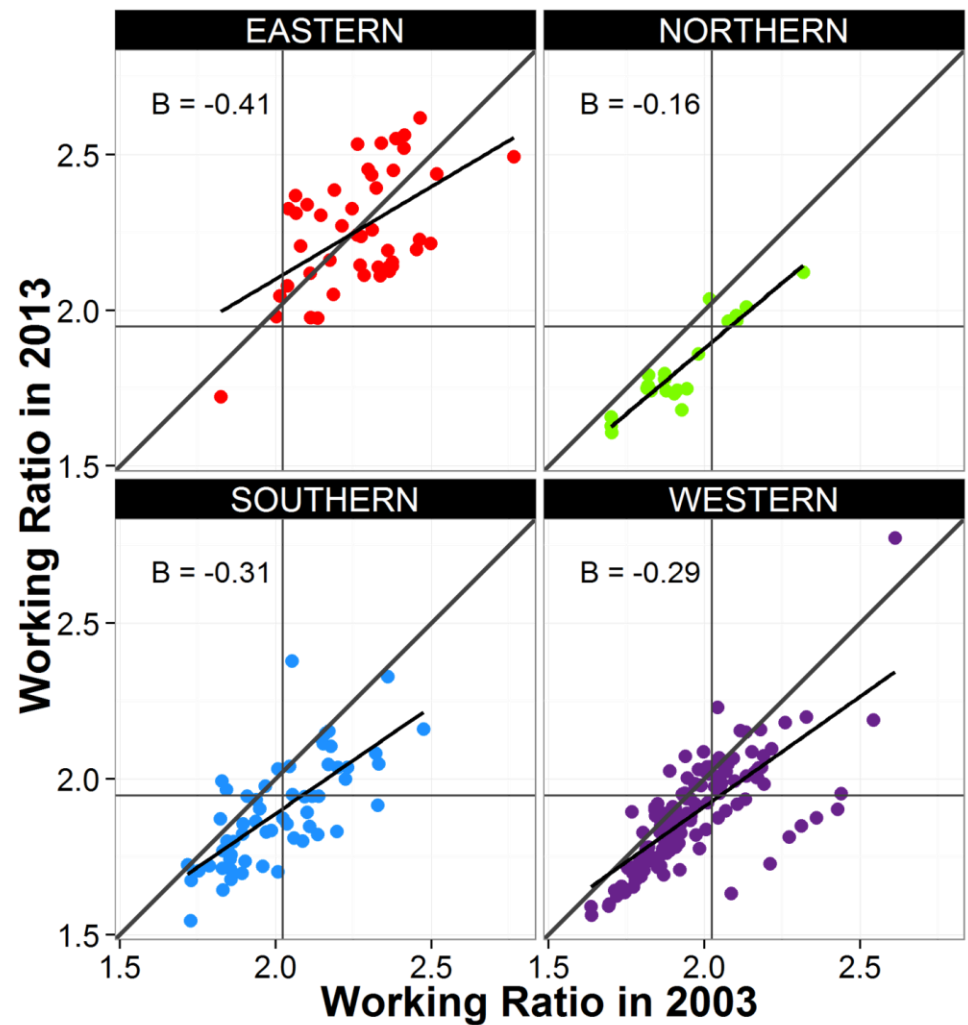
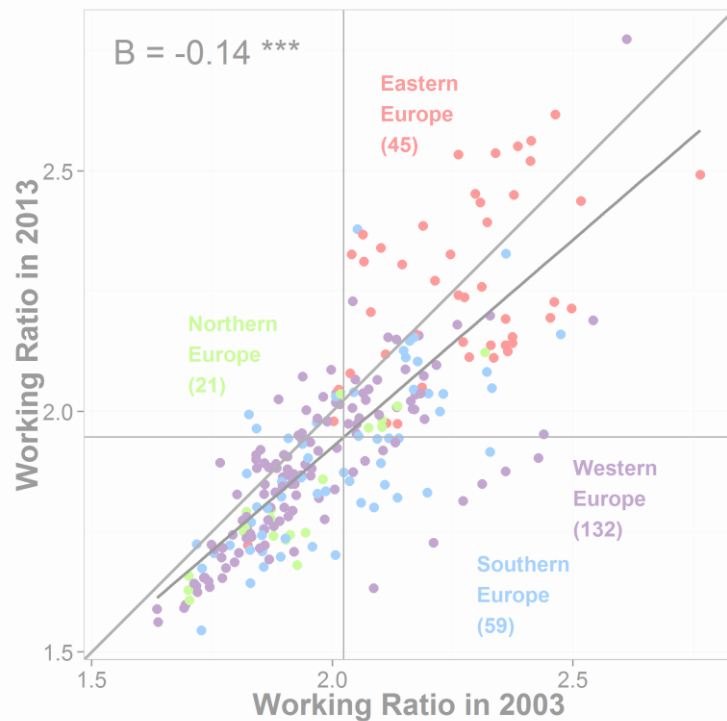
2013



BETA CONVERGENCE

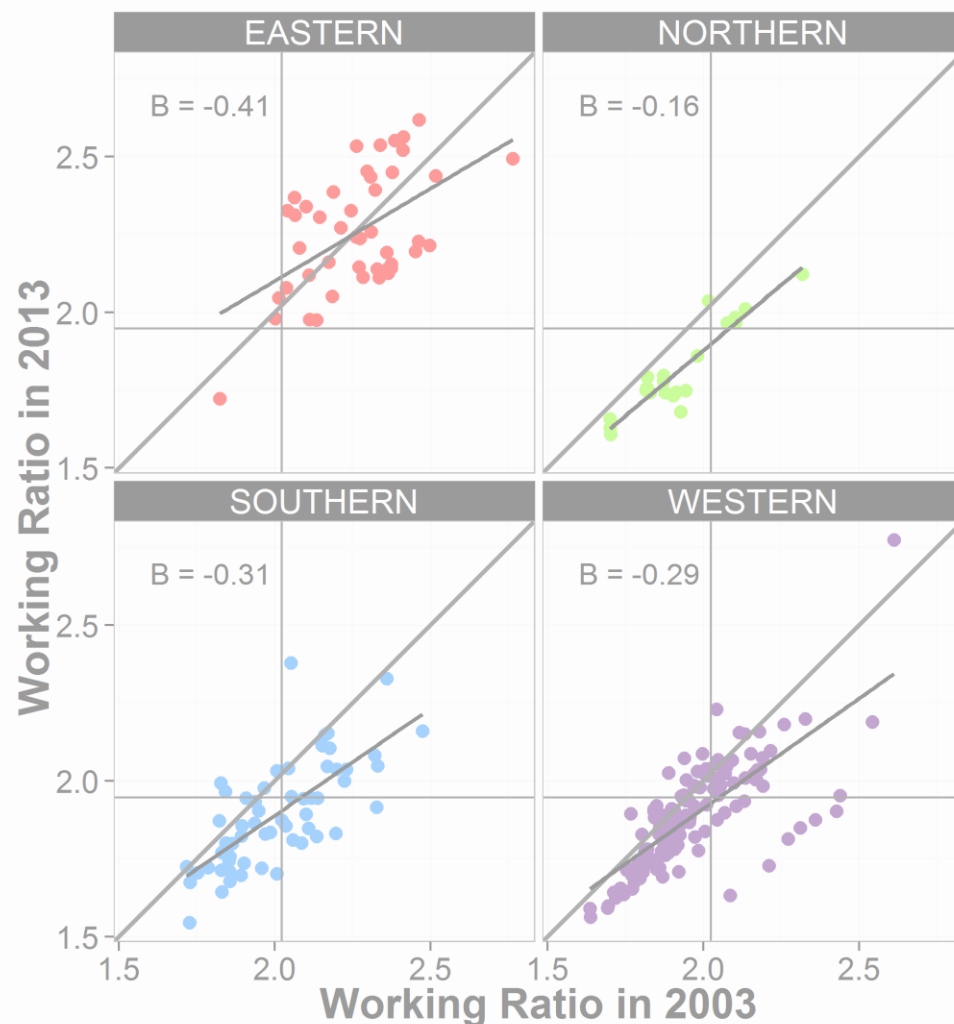


CLUB CONVERGENCE

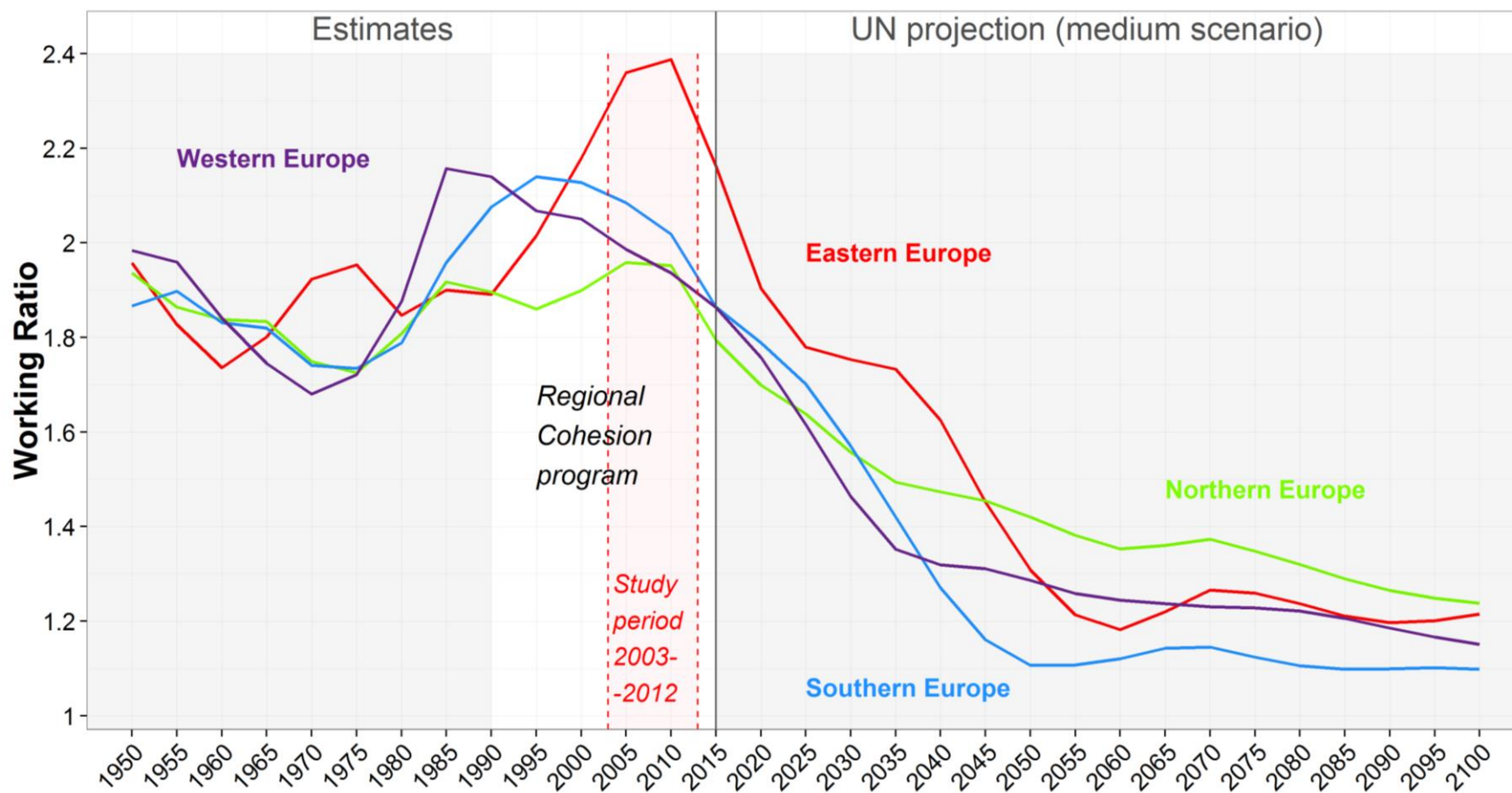


CLUB CONVERGENCE

	Europe, global	Europe, conditional
(Intercept)	0.20 (0.08)*	0.53 (0.09)***
Initial WR	-0.14 (0.04)***	-0.31 (0.04)***
Western (ref)		NA
Eastern		0.16 (0.02)***
Northern		-0.04 (0.03)
Southern		-0.02 (0.02)
R ²	0.04	0.22
Adj. R ²	0.04	0.21
Num. obs.	257	257
RMSE	0.13	0.12
*** p < 0.001, ** p < 0.01, * p < 0.05; standard errors in parenthesis		



LONGER PERSPECTIVE



RESULTS - 1

**No sigma-convergence; moderate beta-convergence;
strong evidence for **club convergence****

RESULTS - 1

No sigma-convergence; moderate beta-convergence;
strong evidence for **club convergence**

Divergent development of **East-European regions**

RESULTS - 1

No sigma-convergence; moderate beta-convergence;
strong evidence for **club convergence**

Divergent development of **East-European regions**

Since regional economic cohesion was not reached during the time of **favorable population dynamics** in East-European regions, it would be even harder to reach in the coming decades of **accelerating aging**.
(we still need to check the link between convergence in ageing and economic cohesion)

DEMOGRAPHIC EFFECTS

We examine to what extent convergence in ageing is caused by different demographic processes

DEMOGRAPHIC EFFECTS

We examine to what extent convergence in ageing is caused by different demographic processes

Two-step decomposition of the changes in WR

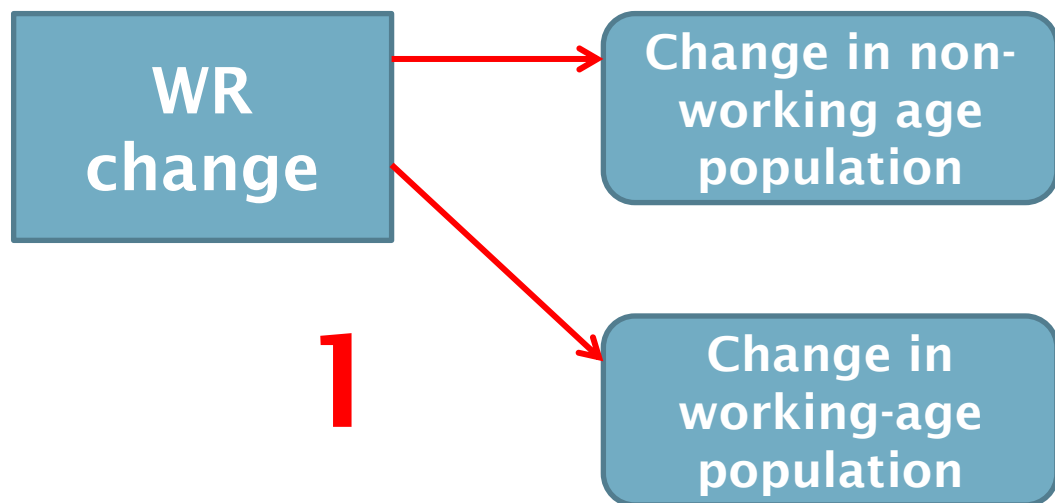
DEMOGRAPHIC EFFECTS

Two-step decomposition of the changes in WR

WR
change

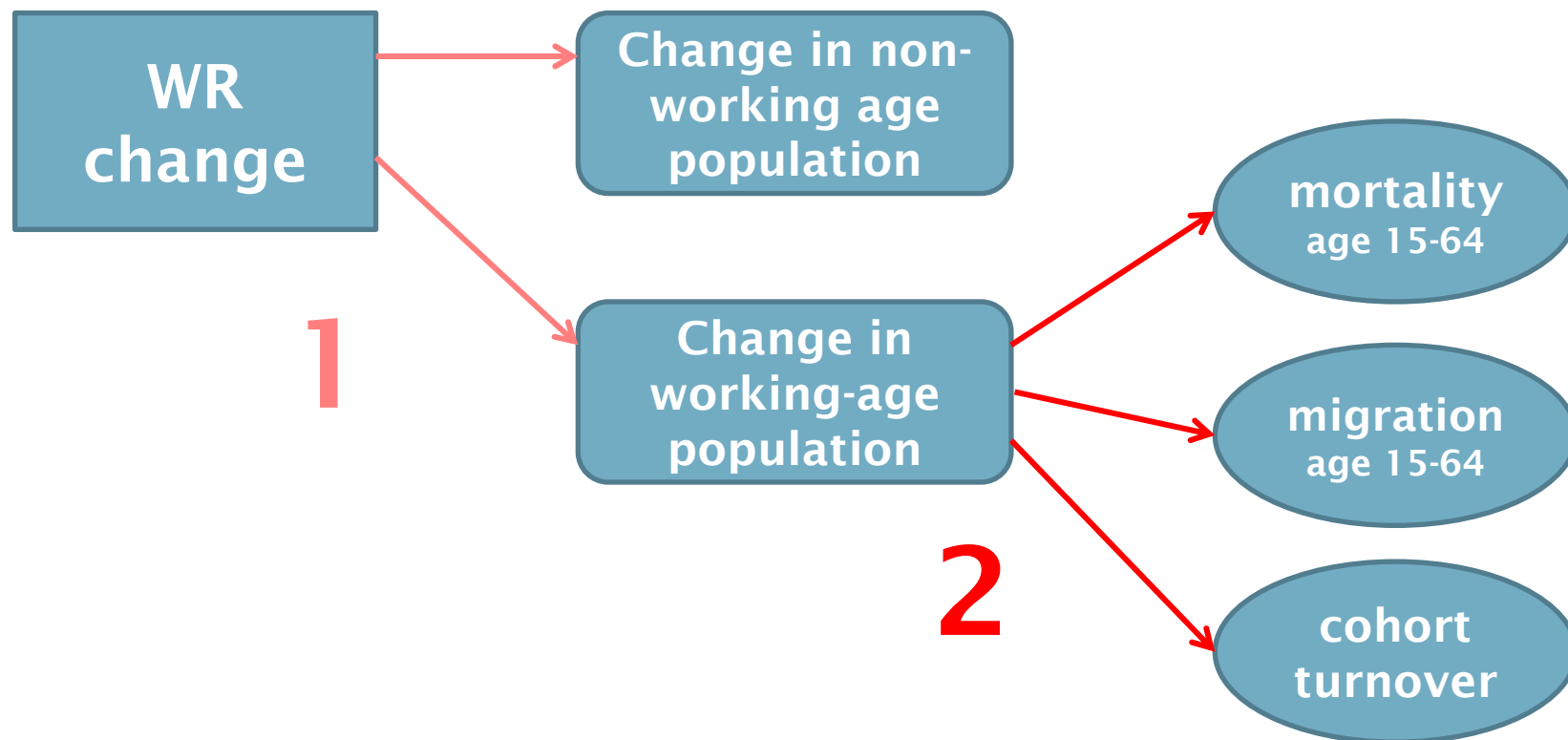
DEMOGRAPHIC EFFECTS

Two-step decomposition of the changes in WR



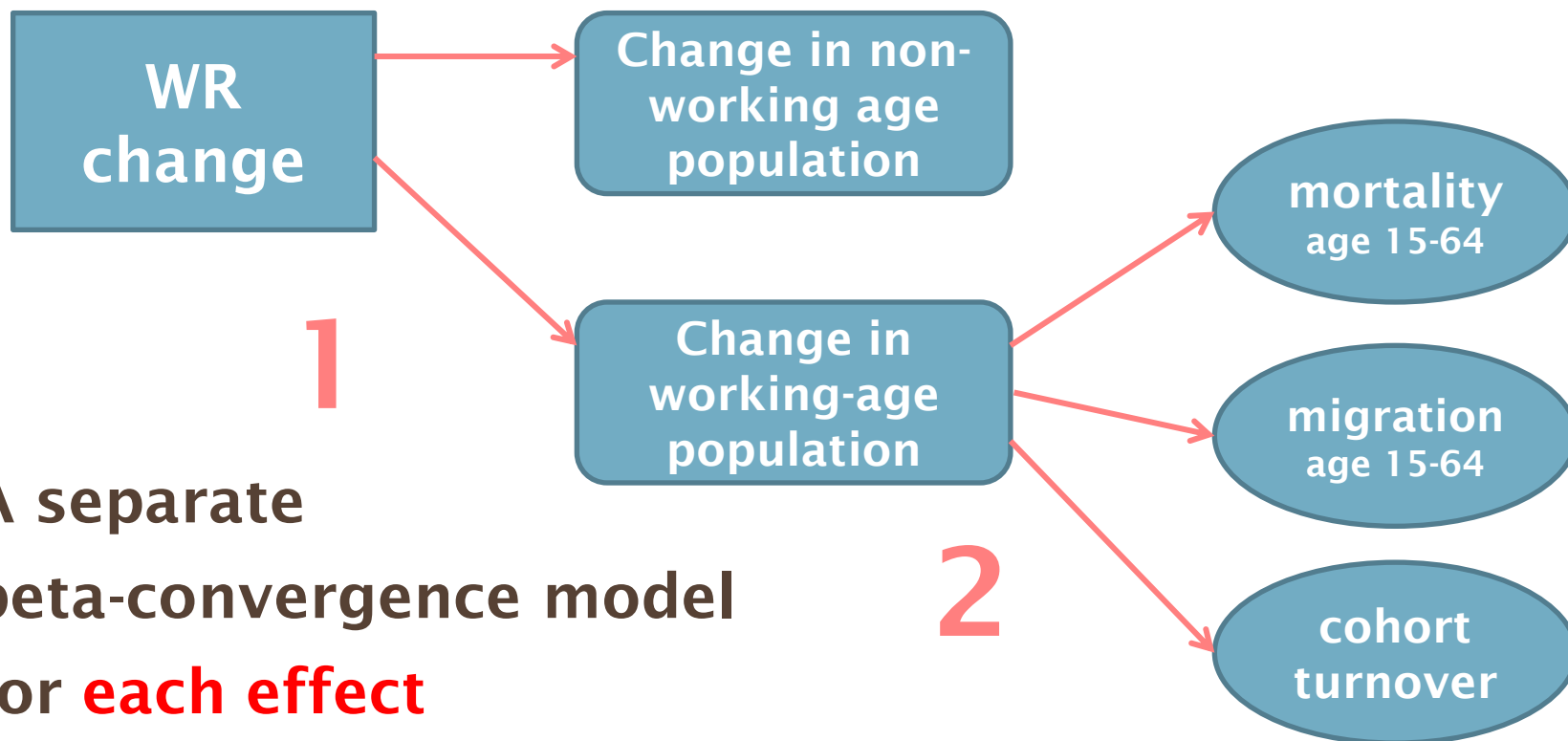
DEMOGRAPHIC EFFECTS

Two-step decomposition of the changes in WR



DEMOGRAPHIC EFFECTS

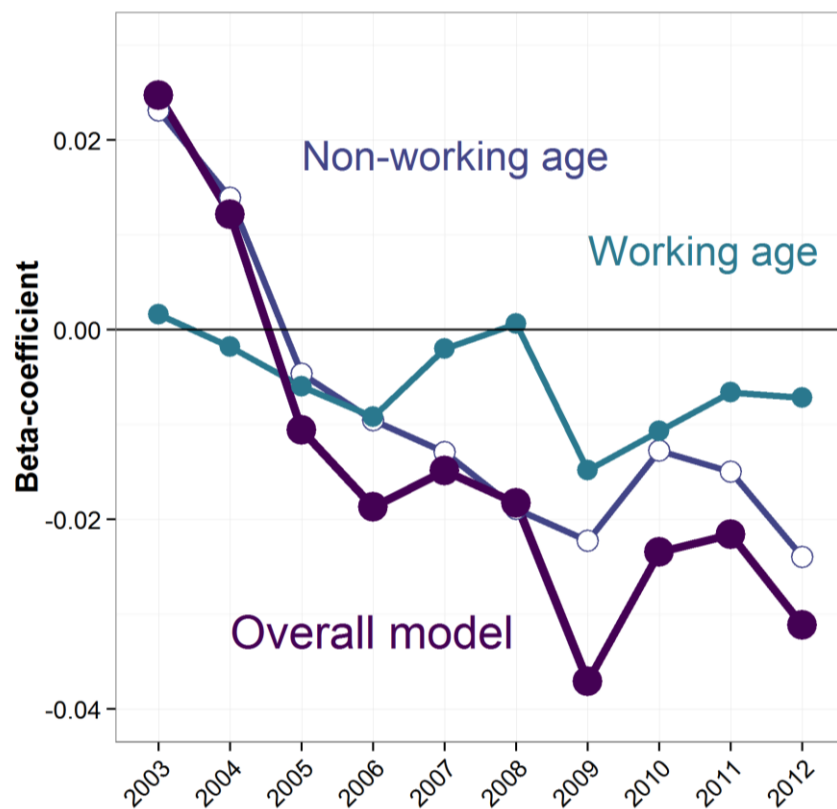
Two-step decomposition of the changes in WR



**A separate
beta-convergence model
for each effect
and each year**

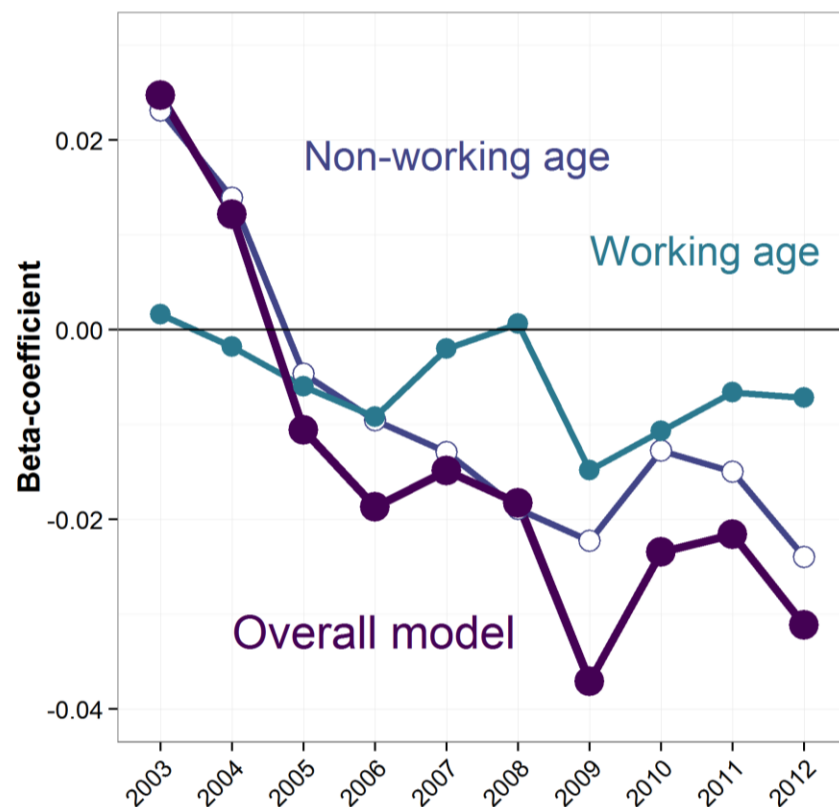
DECOMPOSED EFFECTS

First step

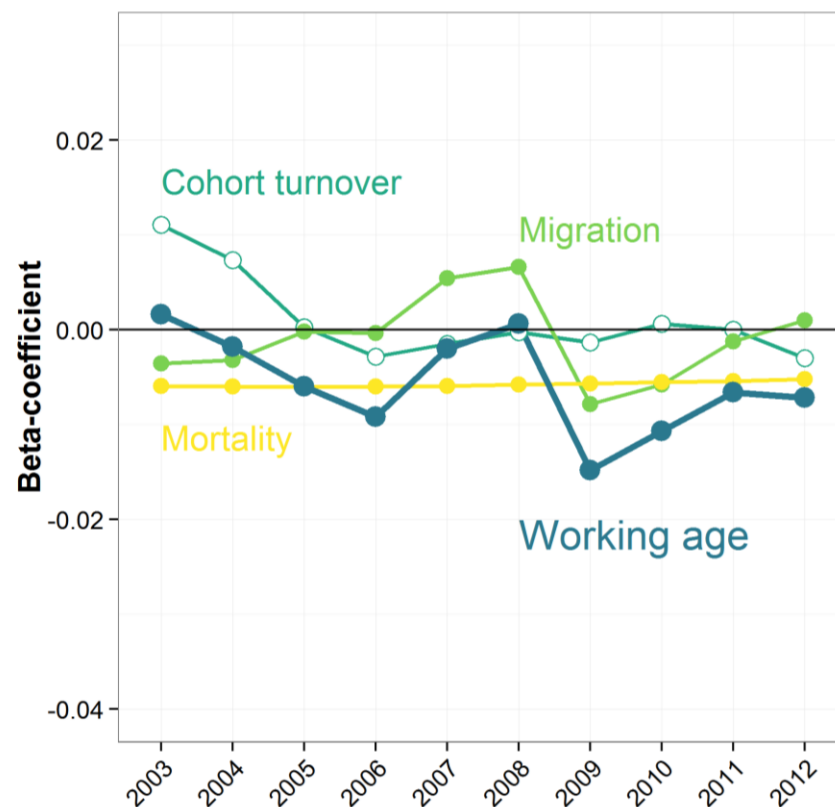


DECOMPOSED EFFECTS

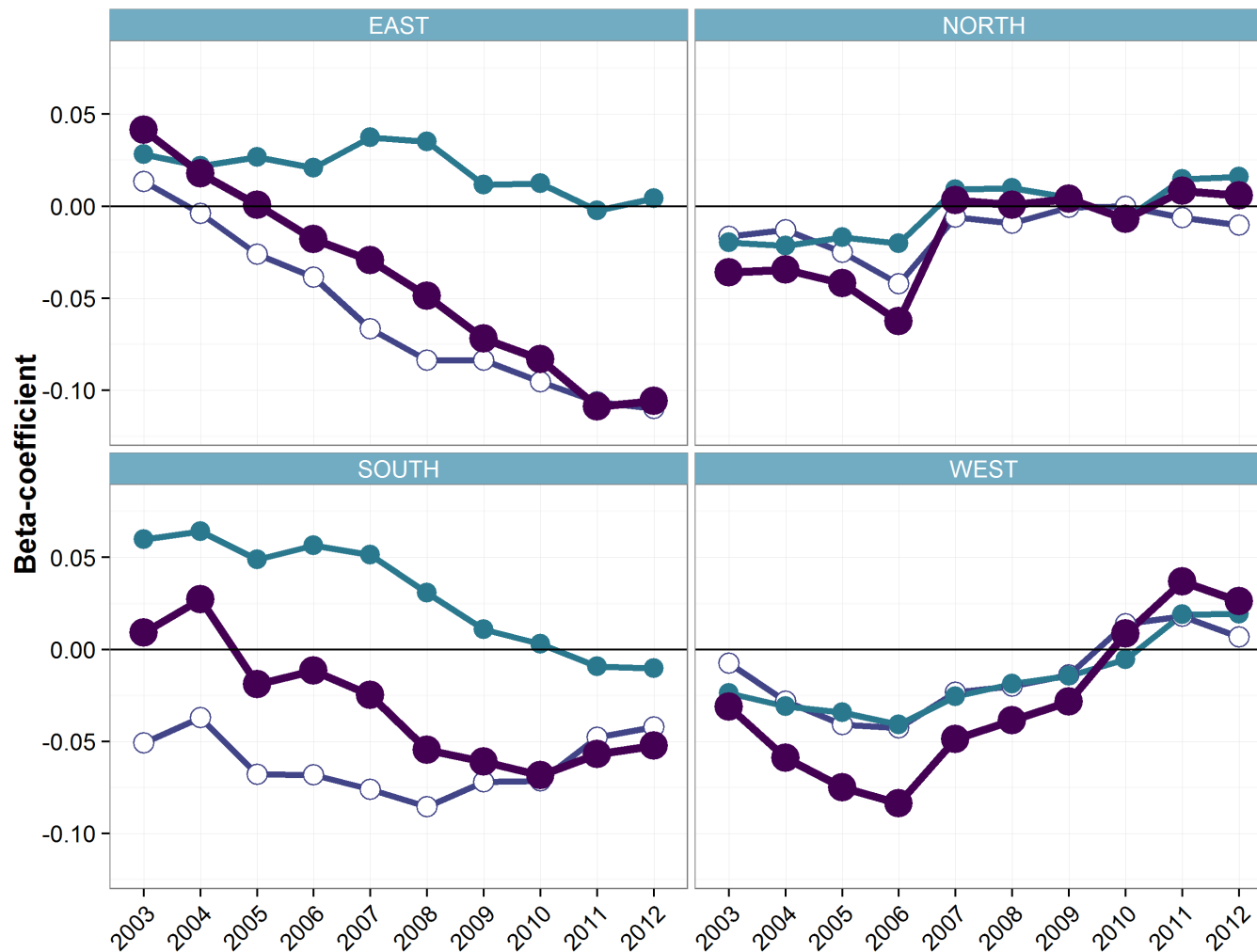
First step



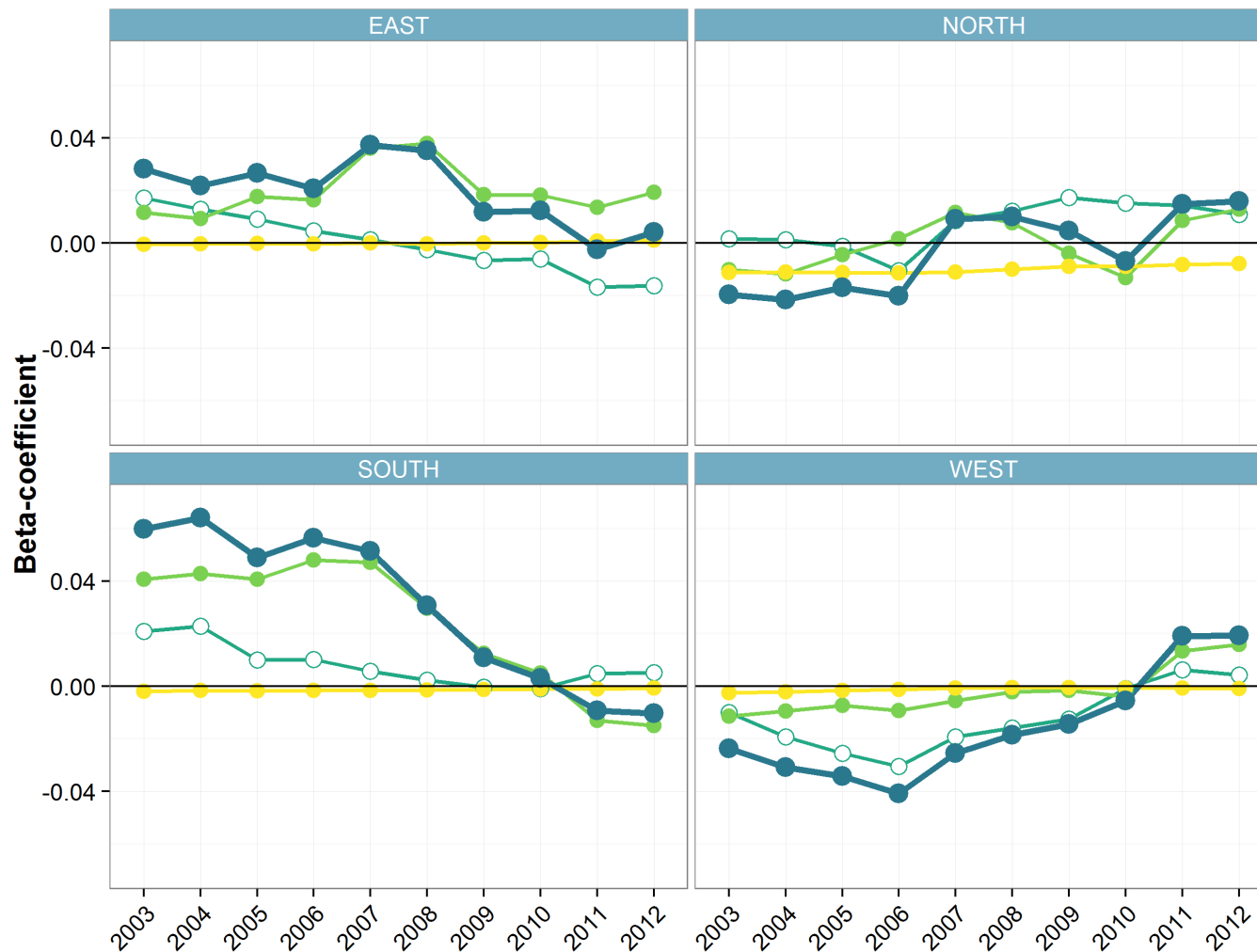
Second step



DECOMPOSED EFFECTS – 4 SUBREGIONS



DECOMPOSED EFFECTS – 4 SUBREGIONS



RESULTS - 2

Convergence in aging took place only in recent years

RESULTS - 2

Convergence in aging took place only in recent years; the prior lack of convergence is mainly explained by the demographic development of East-European regions (*link back to the 1st paper*)

RESULTS - 2

Convergence in aging took place only in recent years; the prior lack of convergence is mainly explained by the demographic development of East-European regions (*link back to the 1st paper*)

Non-working-age population's dynamics have stronger effect on convergence in ageing

RESULTS - 2

Convergence in aging took place only in recent years; the prior lack of convergence is mainly explained by the demographic development of East-European regions (*link back to the 1st paper*)

Non-working-age population's dynamics have stronger effect on convergence in ageing

The effect of working-age population's dynamics on convergence in ageing is mainly driven by migration

thank you

ILYA KASHNITSKY

kashnitsky@nidi.nl

ilya.kashnitsky@gmail.com

JOOP DE BEER

LEO VAN WISSEN

NIDI is an institute of the Royal Netherlands
Academy of Arts and Sciences KNAW and is
affiliated to the University of Groningen
www.nidi.nl



KONINKLIJKE NEDERLANDSE
AKADEMIE VAN WETENSCHAPPEN



**university of
groningen**