

Diversity of ageing in the territories of the European Union: drivers and impacts

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THE DEMOGRAPHIC LANDSCAPE OF EU TERRITORIES

CHALLENGES AND OPPORTUNITIES IN DIVERSELY AGEING REGIONS



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Introduction

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Chapter 5 Attitudes, politics

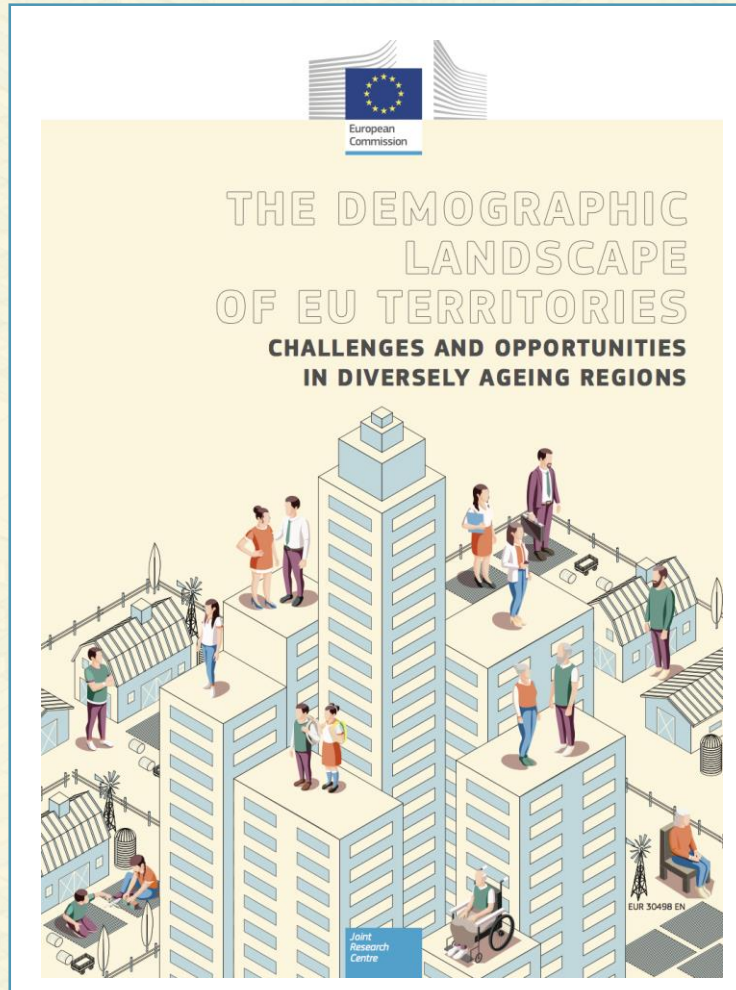
Marco Scipioni (E6)
Guido Tintori (E6)

...Together
with many
colleagues

Outline

- Framework and aim
- Literature
- Geographic patterns of ageing
- Contribution of net migration
- Access to services and amenities
- Economic impact
- Electoral behaviour and political impact
- Conclusion
- Viz: the atlas of Demography

Framework



Within the new Commission's portfolio on Demography and Democracy

Linking to:

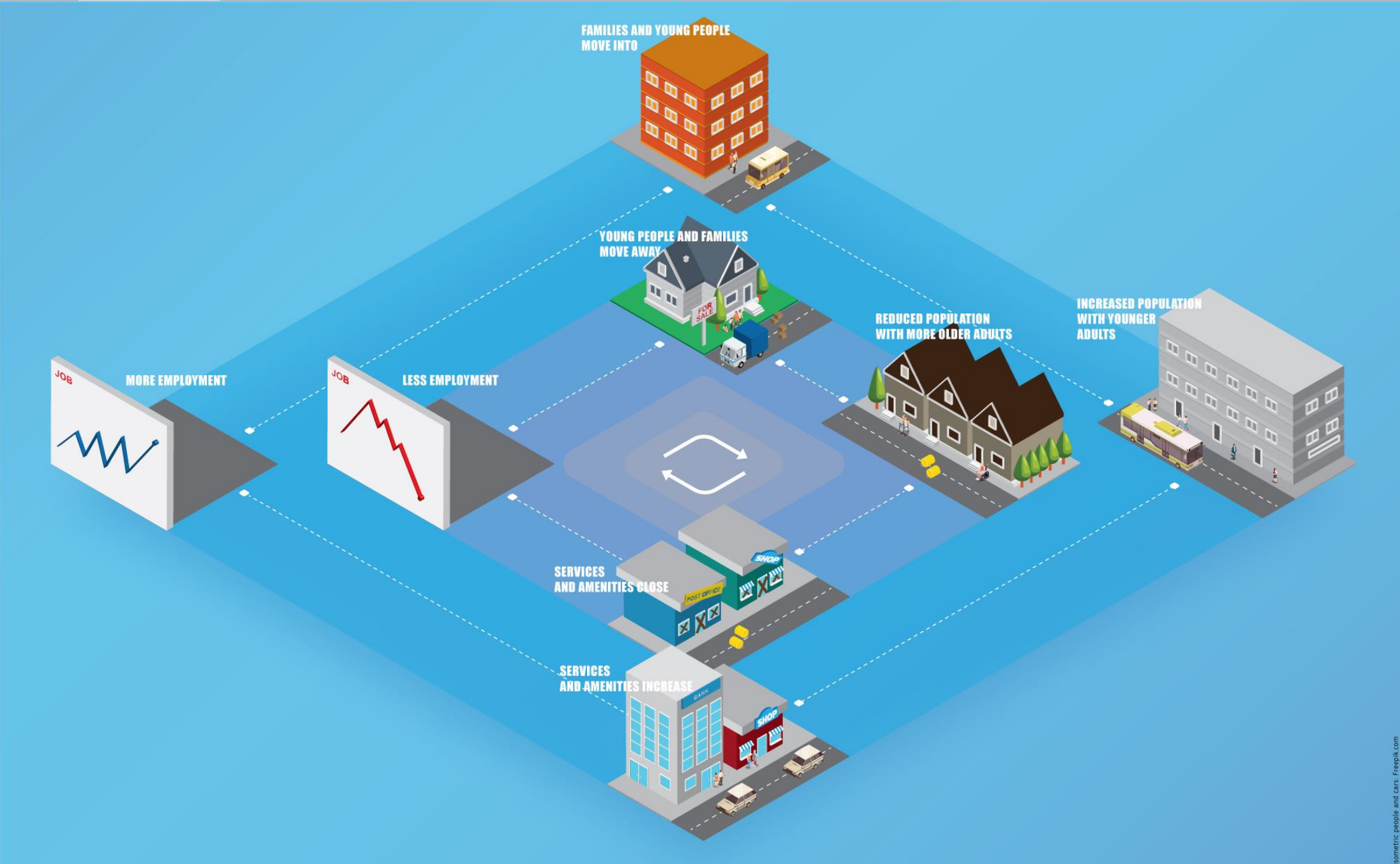
- Report on the Impact of Demographic Change (June 2020)
- Green Paper on Ageing (January 2021)
- Long Term Vision for Rural Areas (June 2021)

Aim

- Territorial diversity (present/future) in the EU
- Drivers (cohort turnover and net migration)
- Impacts:
 - Access to services
 - Macro-economic performance
 - Political attitudes and behaviours

Added value

- Innovative: historical and projection of age structures at grid level
- Degrees of urbanization
- Multilevel impact at regional level



Spatial ageing literature

- **Segregation** depending on kin and non-kin networks (*Sun and Schafer 2019*)
- Segregation of youth and elderly, e.g. England and Wales (*Sabater et al. 2017*), Germany (*Franz and Vaskovics 1982*), U.S. (*Winkler 2013*)
- **Quality of life:** Increased well-being for elderly in city centres (China, *Ng et al. 2017*) or in rural areas (Europe, *Cantarero et al. 2018*)
- **Spatial analysis of migration and ageing:** Ageing influenced by processes of urbanization, suburbanization, deurbanization and reurbanization (*Gregory and Patuelly 2015*)
- *Kashnitsky et al. (2020)* show disparities within urban and rural areas, regardless whether they were able to attract or retain population, at NUTS2
- we investigate at higher resolution level.



Spatial ageing literature

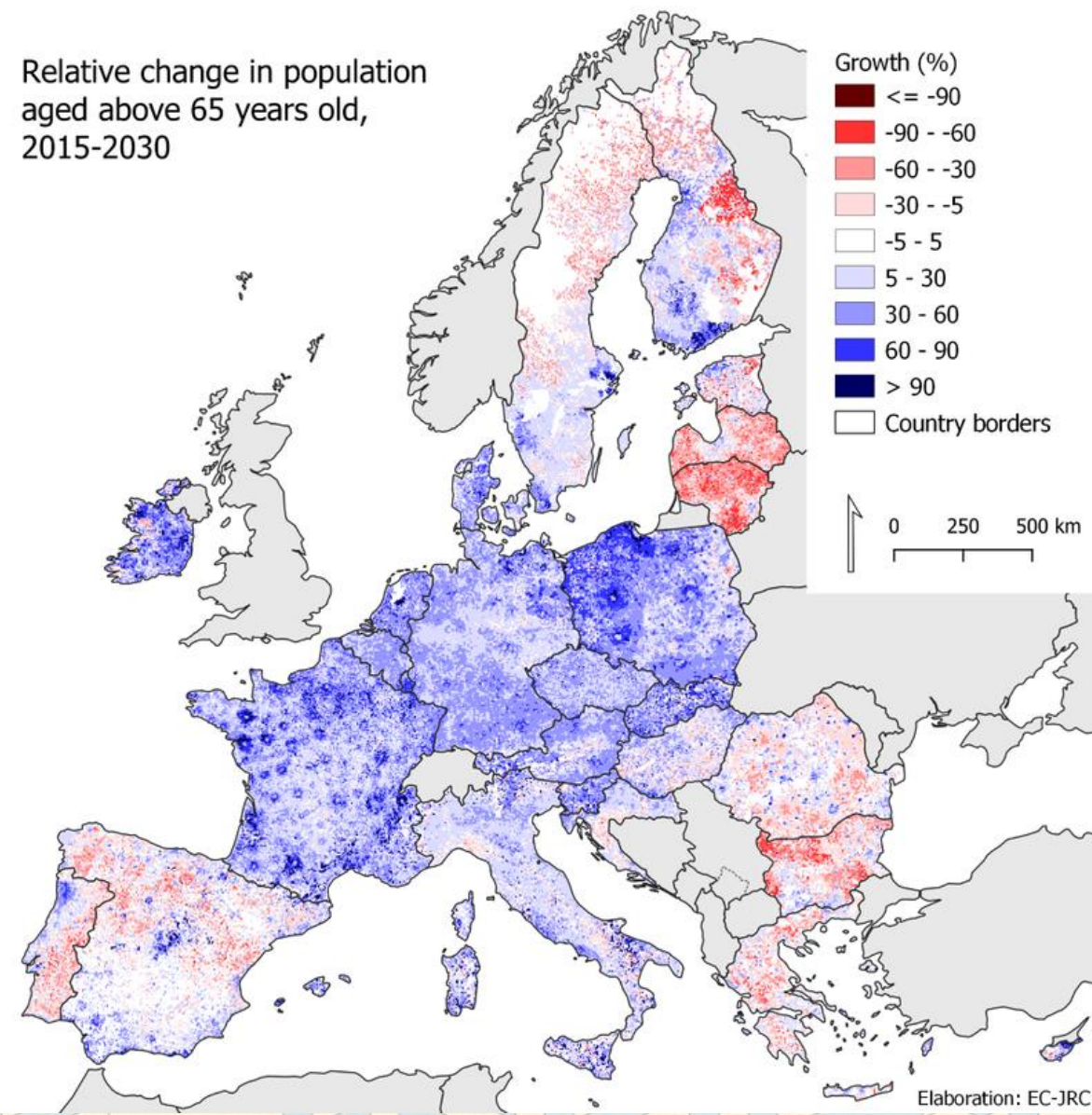
- **Impact of ageing:**
 - **Accessibility and availability of services** and sustainability of infrastructures for attractiveness (*Sabater et al. 2017*)
 - **Social cohesion:** polarization of the elderly votes at spatial level → rupture of the contract across generations (*Vanderbeck and Worth 2015*)
 - **Local economic growth:** Mixed evidence, but rather negative (*Gakova and Dijkstra 2010; Gabriele et al. 2018; Daniele et al. 2018*)



Geographical patterns of ageing

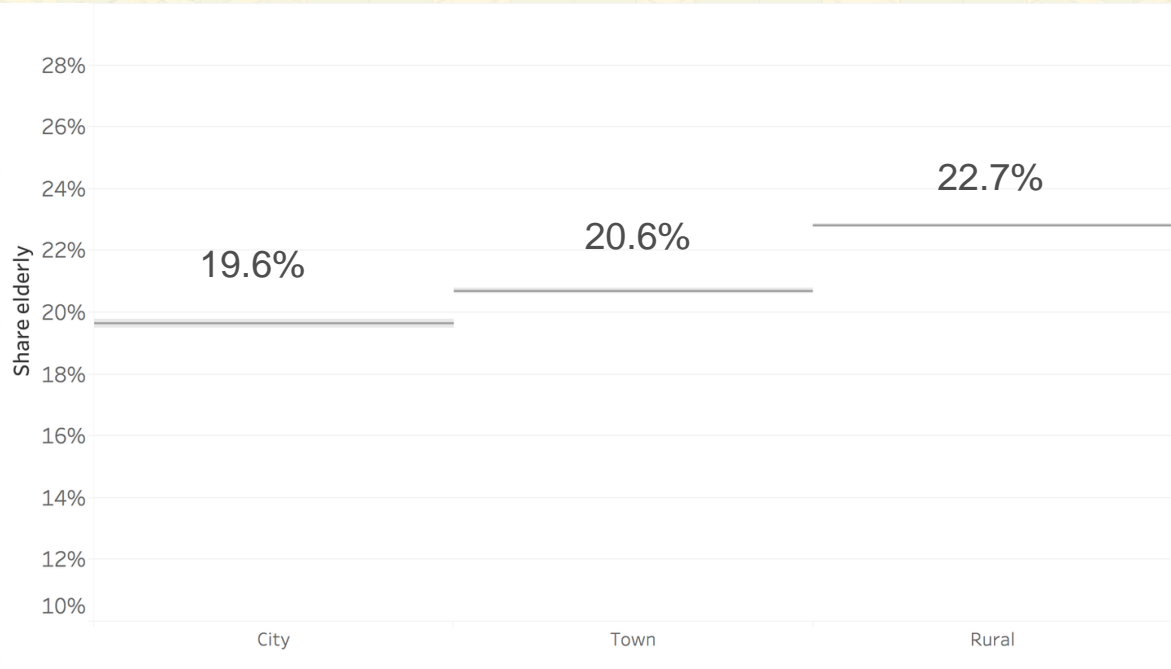
Datasets:

- **2011** data downscaled at high spatial resolution by age, using the ENACT night-time population grid map (ENhancing ACTivity and population mapping - JRC)
- 2012-2050 data, EUROPOP 2013 (NUTS3) downscaled from the LUISA model at high spatial resolution.

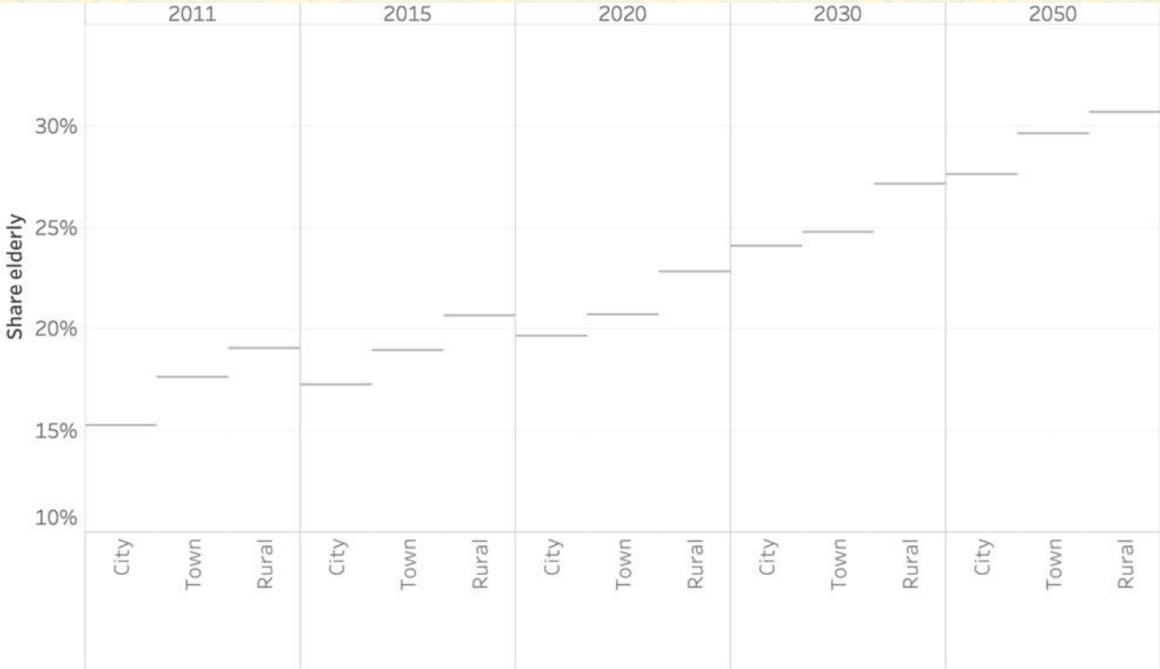


Distribution of elderly by degree of urbanization

Share of elderly by degurba, EU, 2020



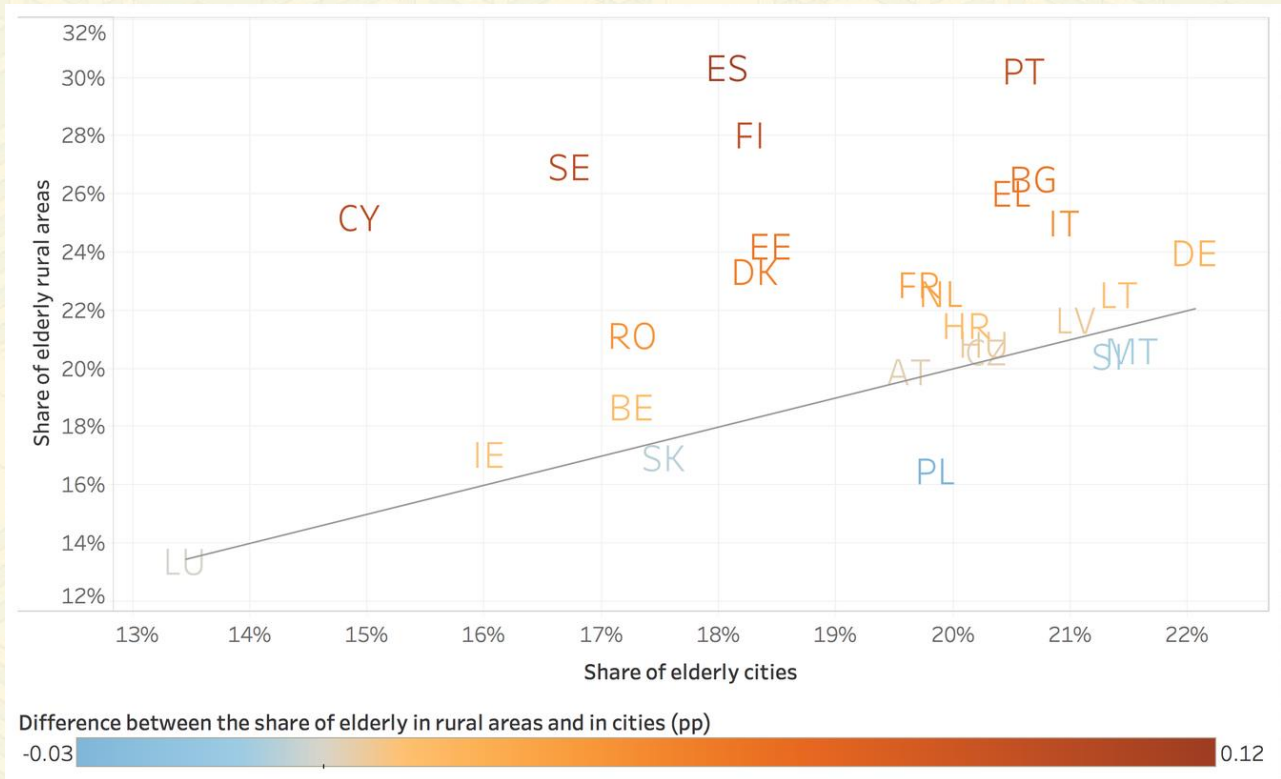
Share of elderly by degurba, EU, 2011-50



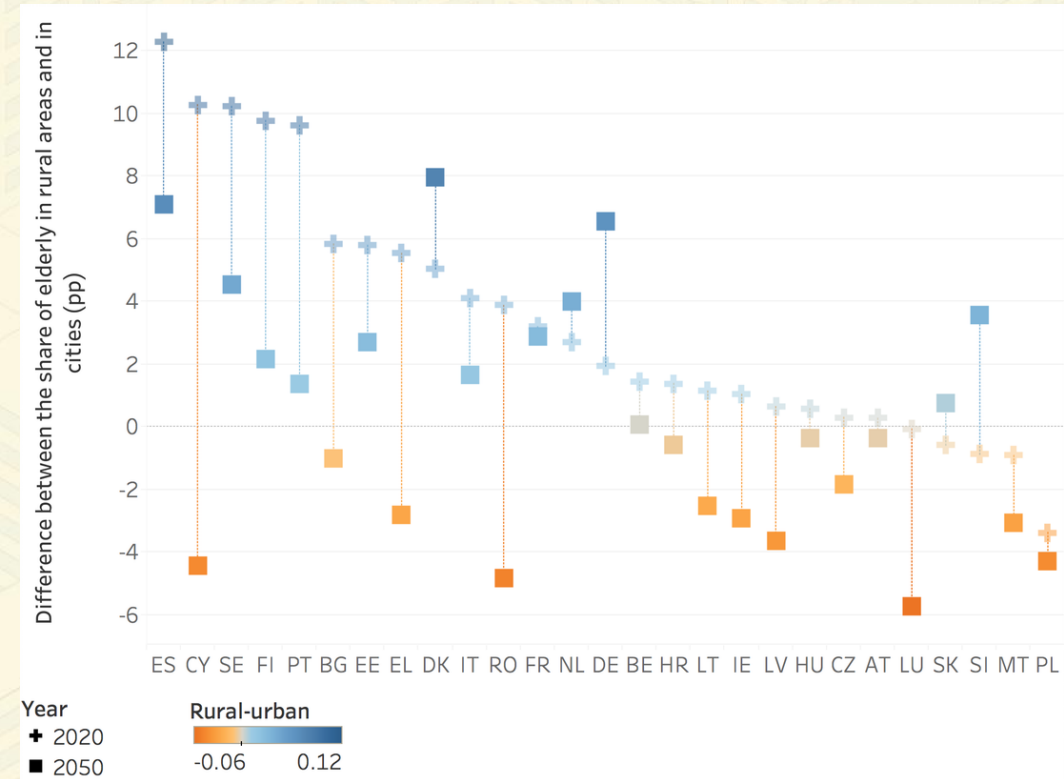
Note: Medians across 98,000 LAUs

Distribution of elderly by degree of urbanization

Share of elderly by degurba, MS, 2020

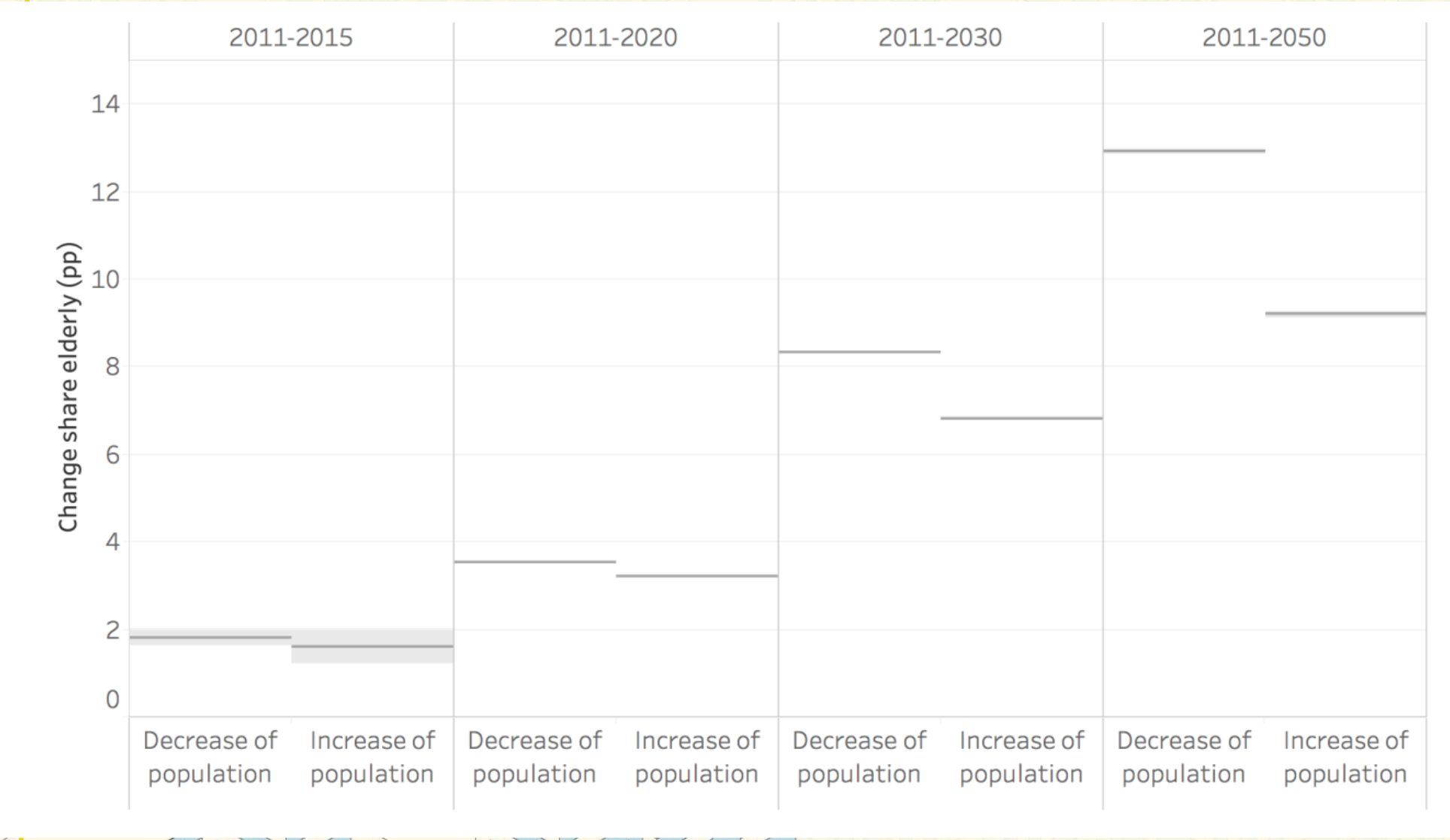


Share of elderly by degurba, MS, 2020-50



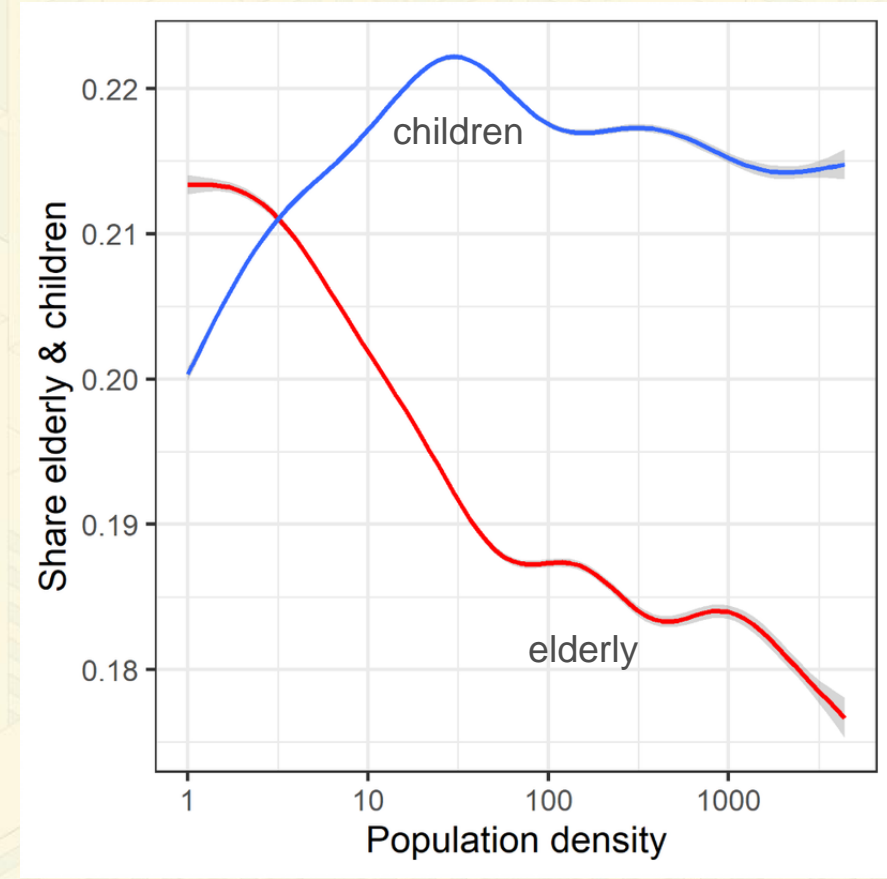
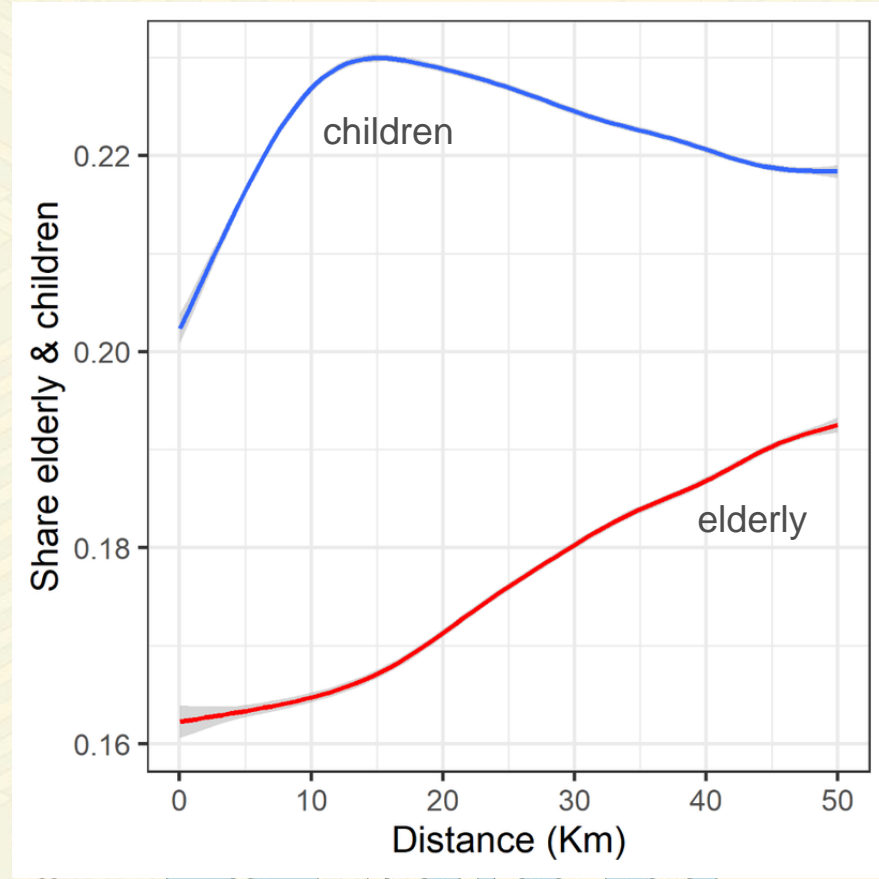
Note: Medians across 98,000 LAUs

Distribution of elderly by change in population



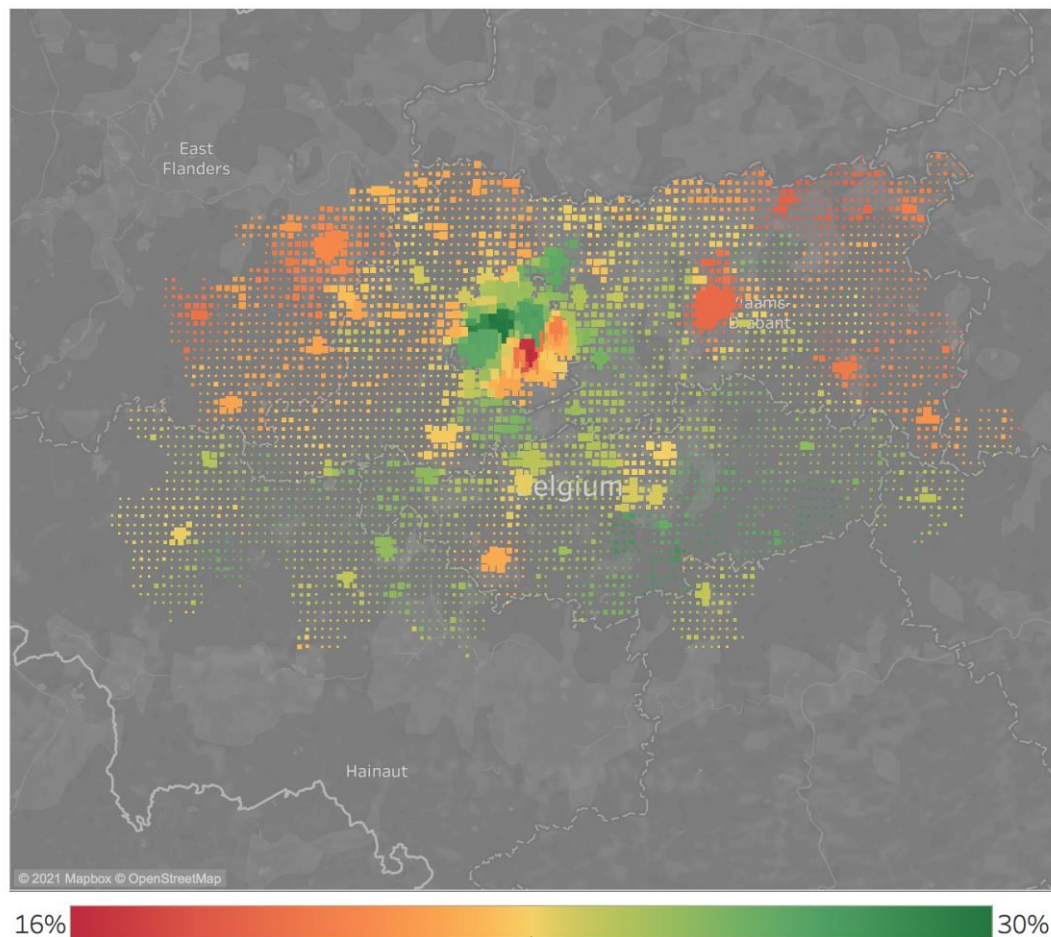
Note: Medians across 98,000 LAUs

Ageing vs distance to FUA & vs density, EU, 2011



Changing residential preferences over the life course

Share of children (Functional Urban Area of Bruxelles)



Evidence

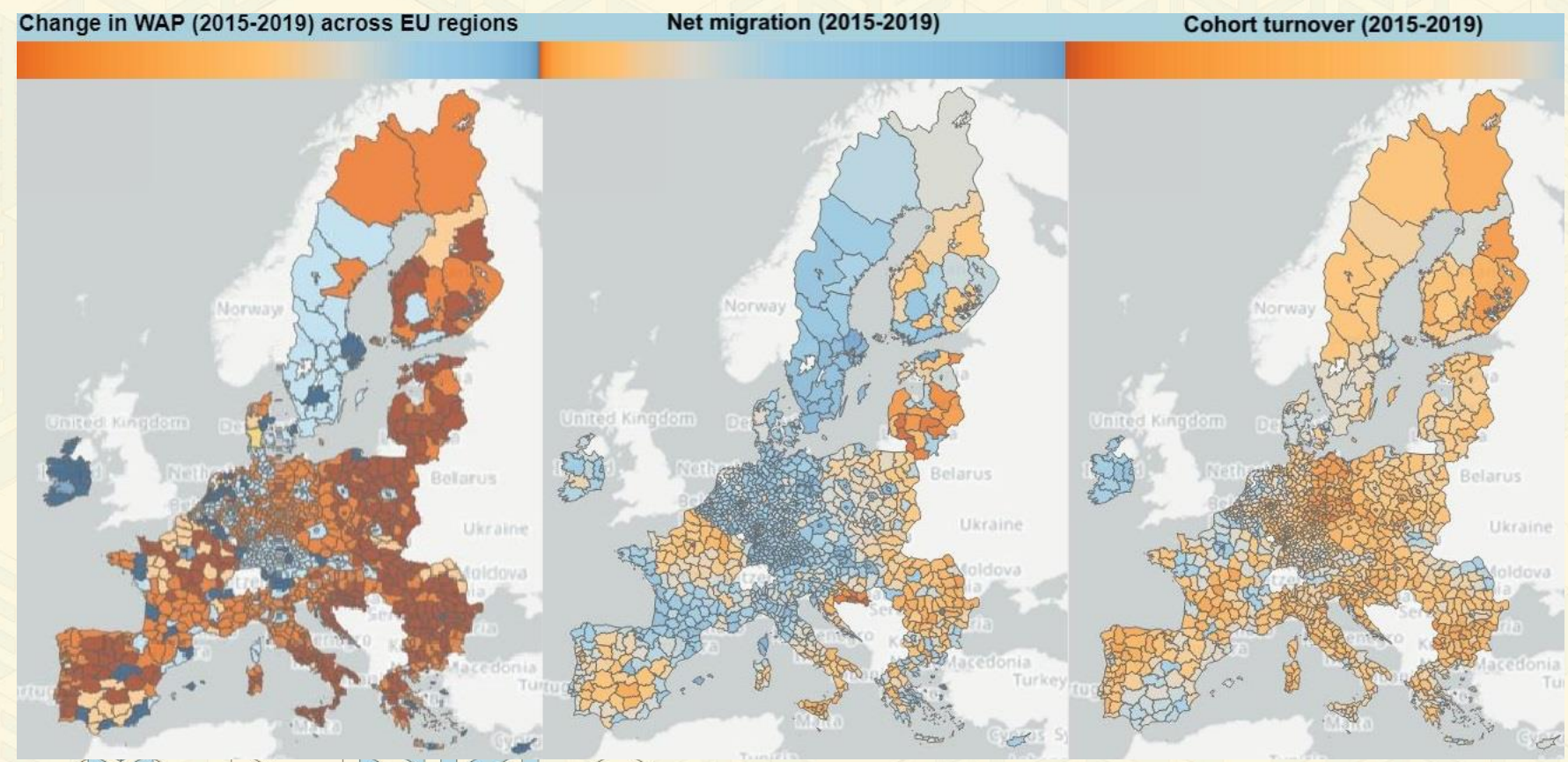
- Families with children prefer to live in the peripheries of cities and elderly in areas far from city centres
- Those trends can reinforce either a positive or negative cycle of population change

Drivers: Cohort turnover vs. migration

- Using the methodology of de Beer, van der Erf, and Huisman (2011) to identify the components of changes in working age population
- Derive net migration as a residual

$$netmigr_{j,t-t+1}^{a-a+x} = (pop_{j,t+1}^{a-a+x} - pop_{j,t}^{a-a+x}) + deaths_{j,t-t+1}^{a-a+x} - (entry_{j,t-t+1}^{a,a+1} - exit_{j,t-t+1}^{a+x-1,a+x})$$

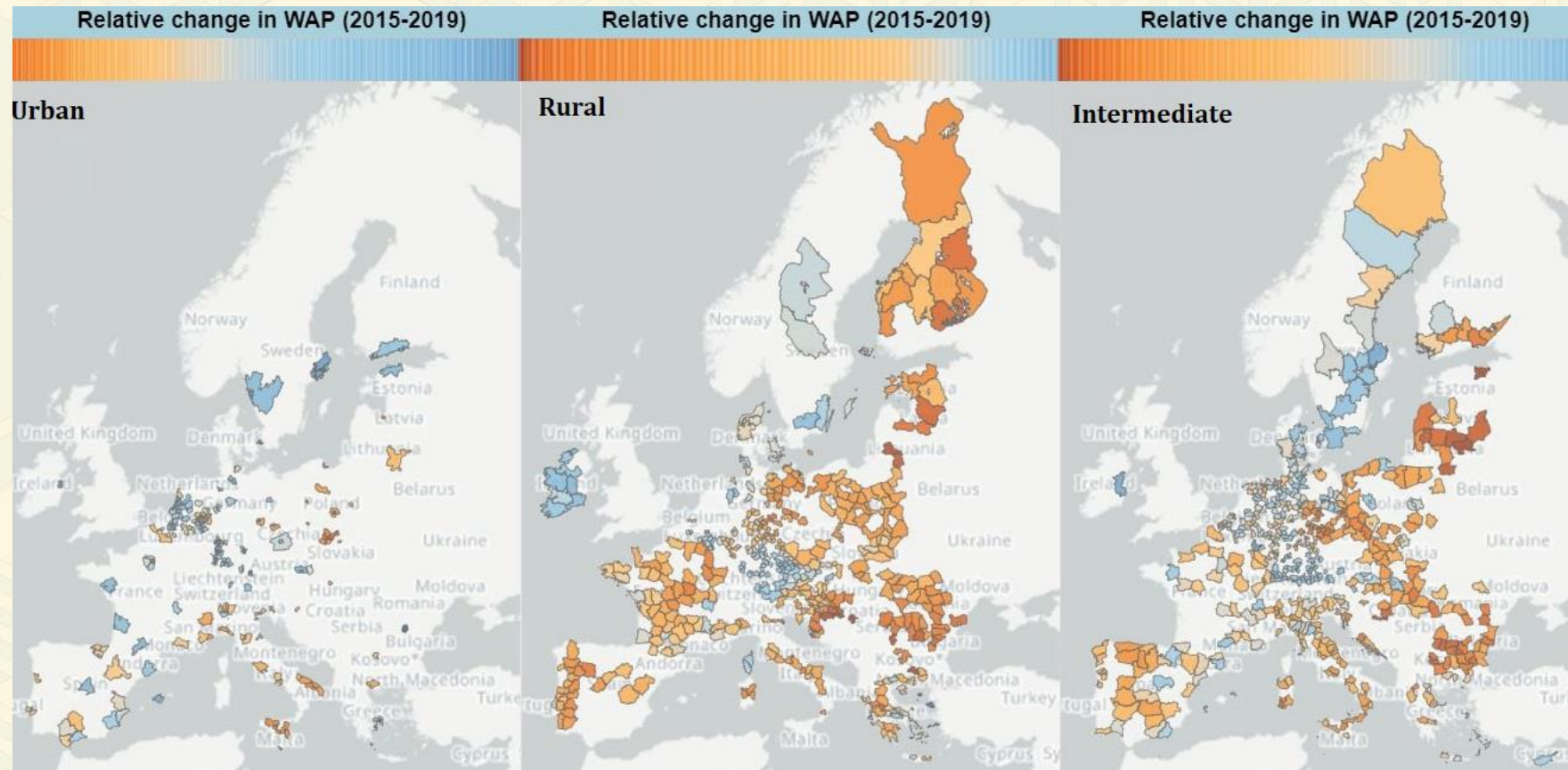
Changes in working age population, net migration and cohort turnover, 2015-2019



Legend: colour gradient ranges from dark red for negative values to dark blue for positive ones.



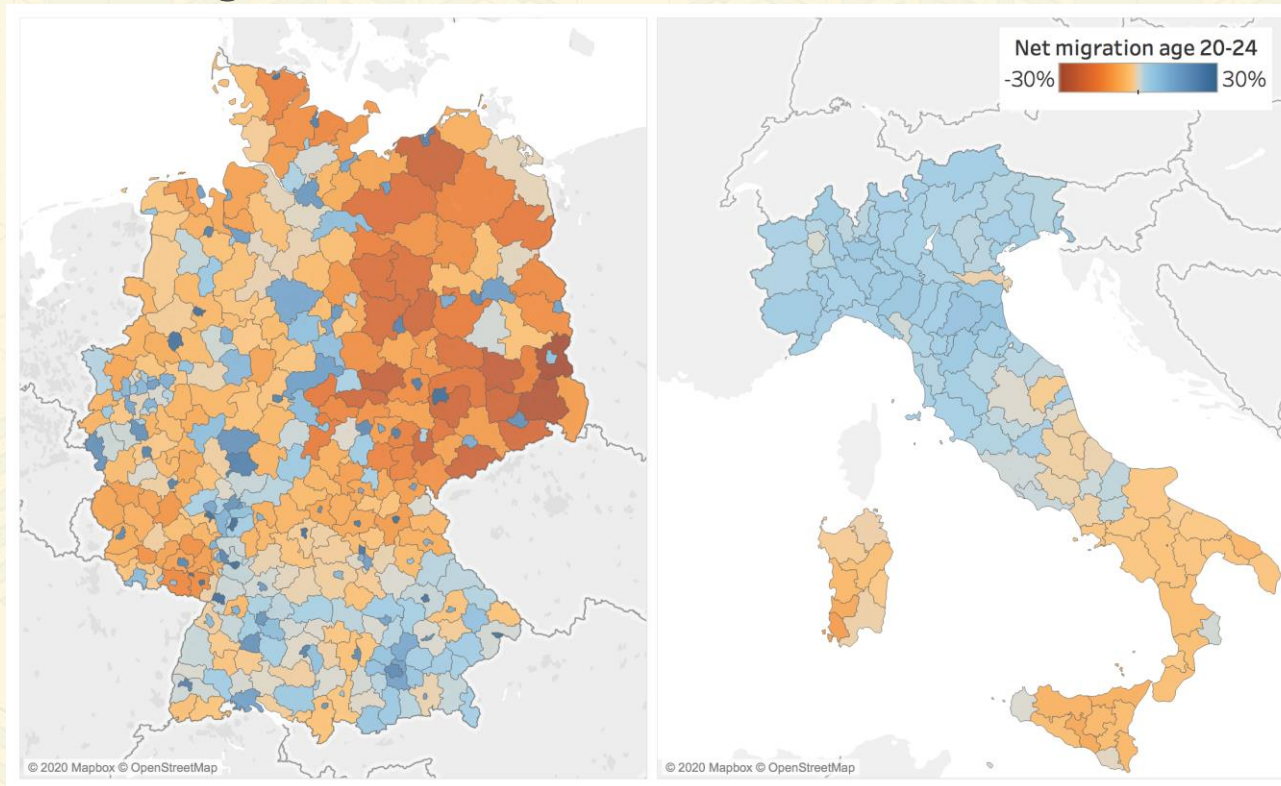
Changes in working age population, net migration and cohort turnover, 2015-2019, by degurba



Legend: colour gradient ranges from dark red for negative values to dark blue for positive ones.

Youth on the move

Net migration rate, 20-24, 2015-2019

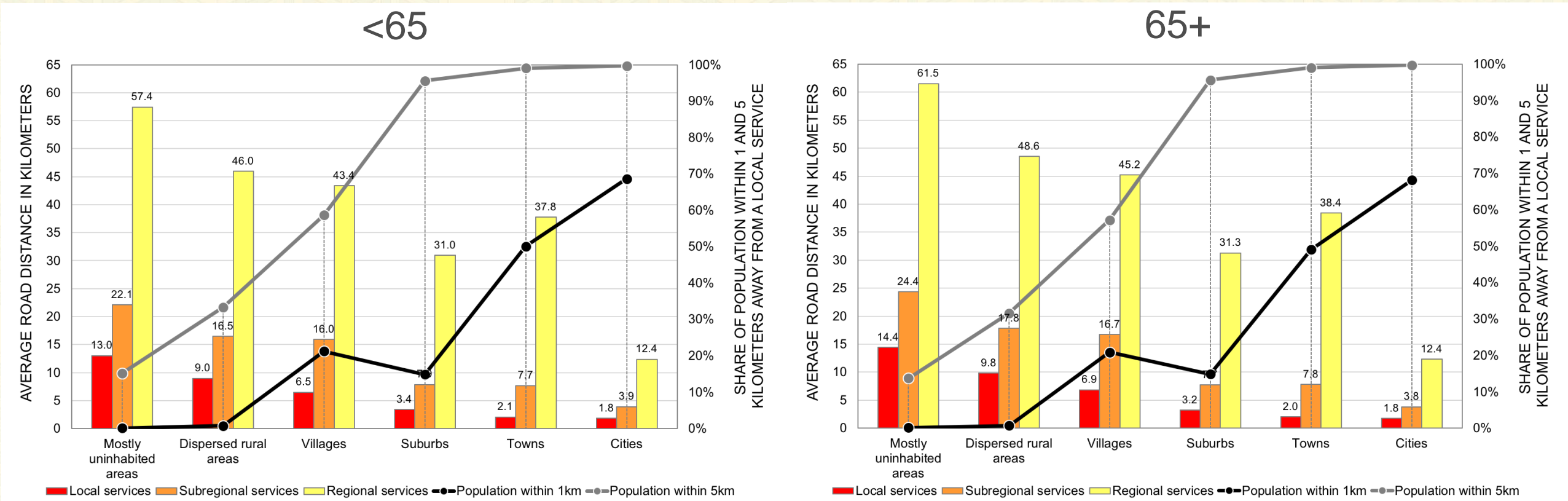


Evidence

- Some regions are ageing and depopulating because there are more young people leaving than arriving

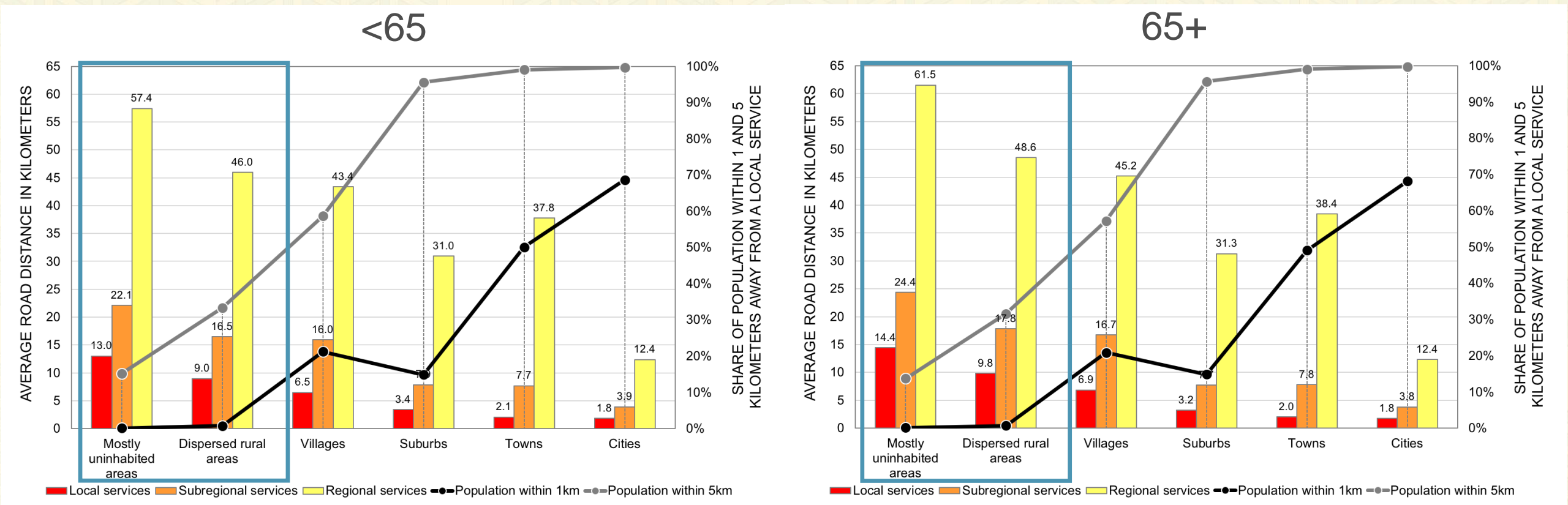
Accessibility to services and urban amenities

Road distance (bars) and % population (line) within a certain distance to a service



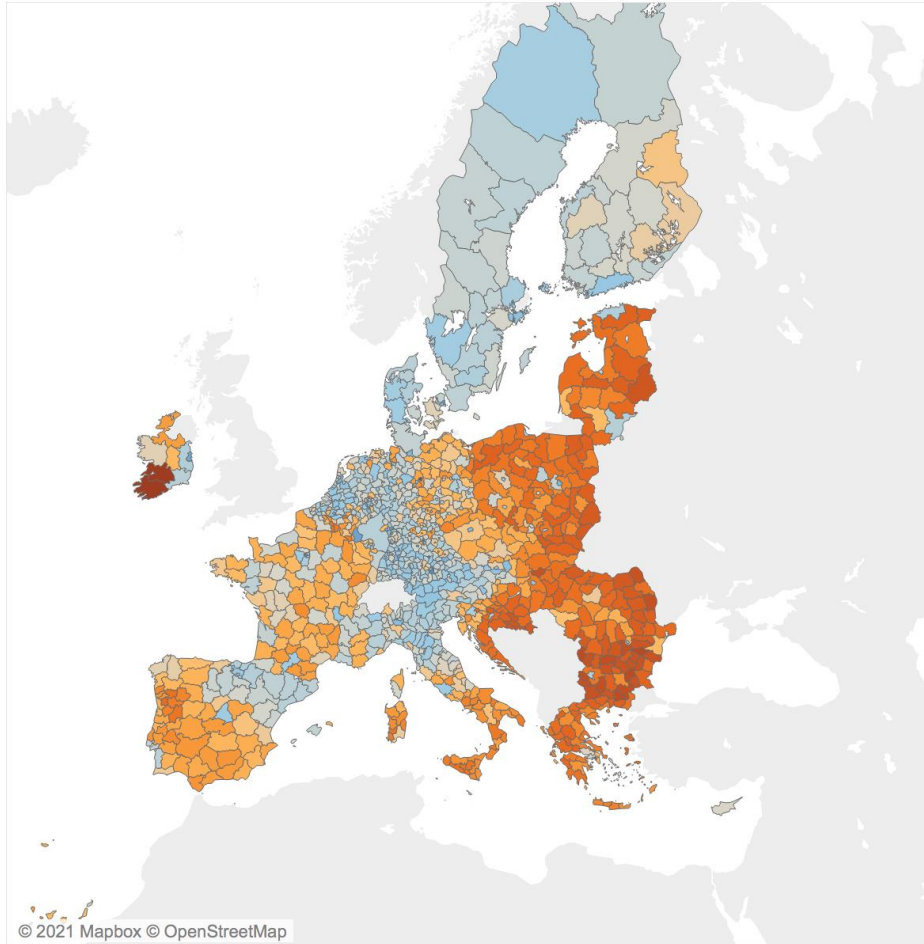
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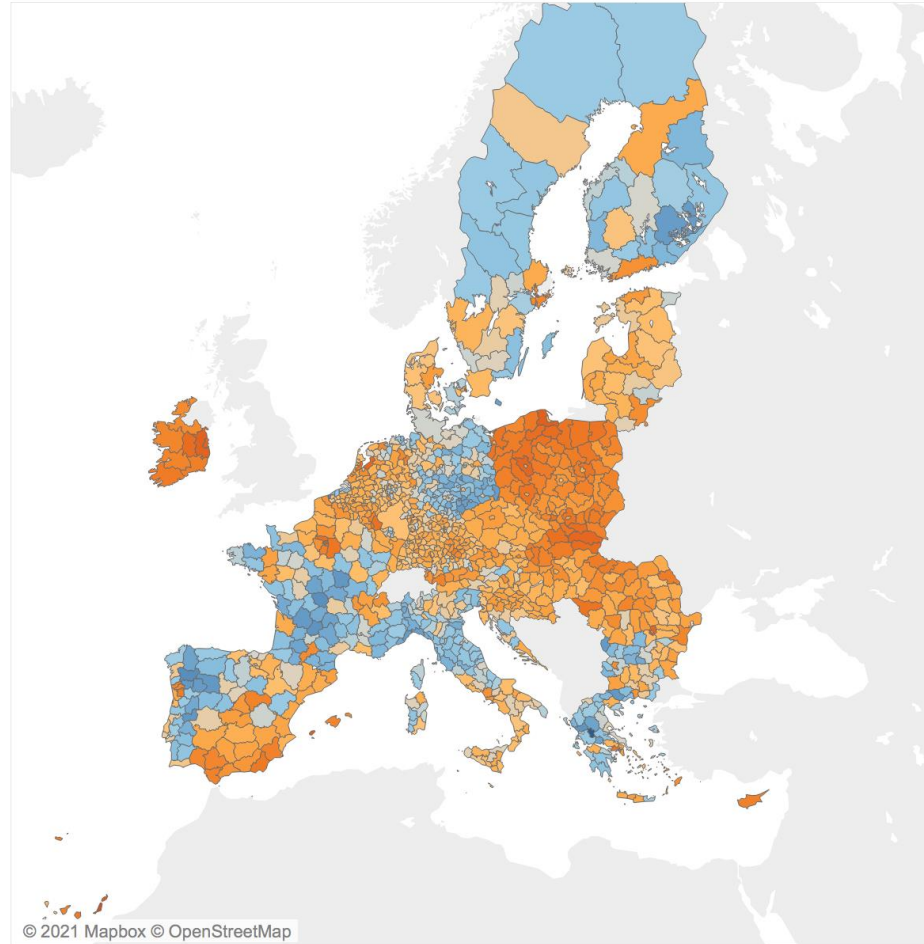


Age and economic growth

GDP per capita

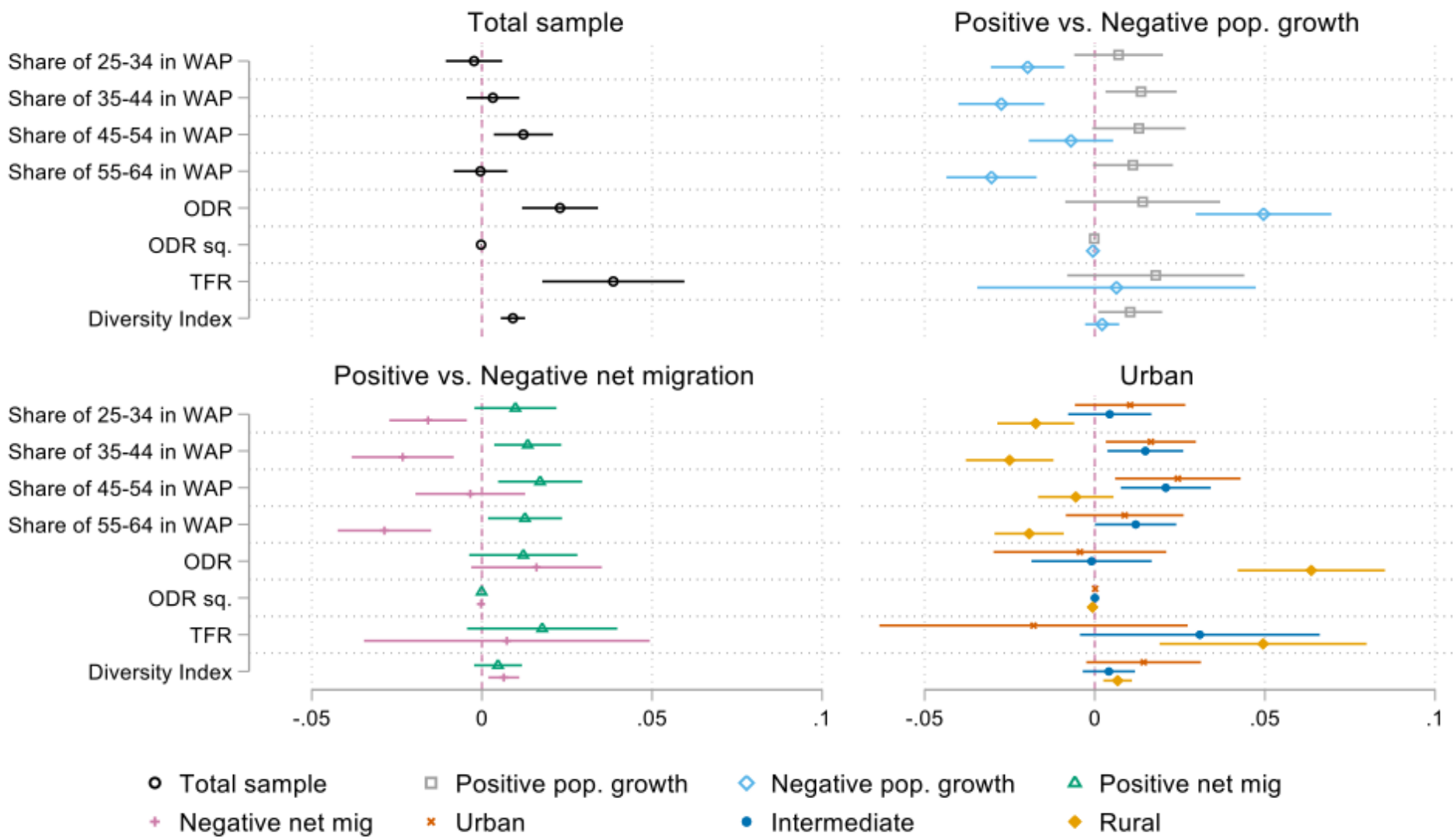


Old-Age Dependency Ratio

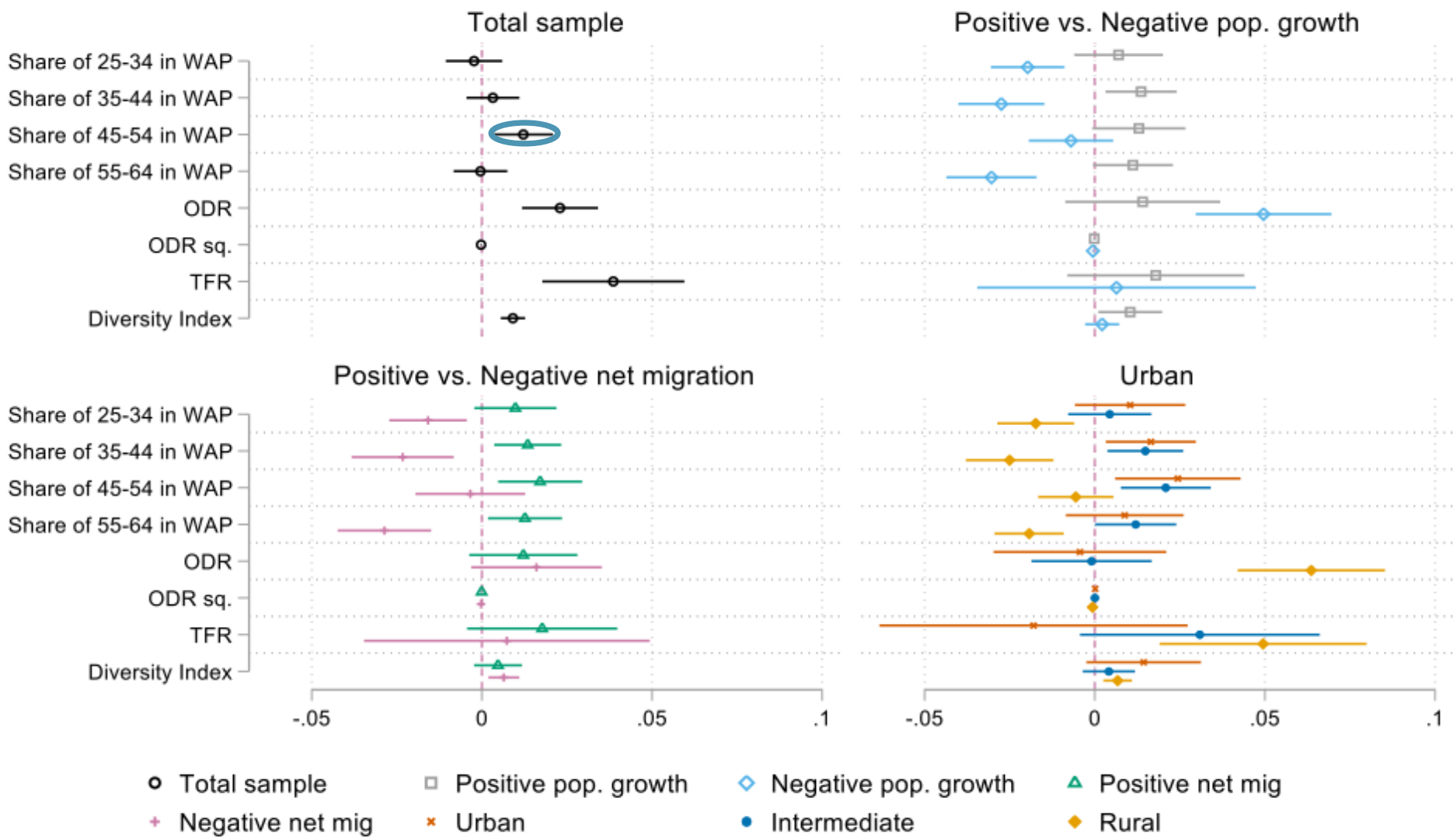


2,882 155,000 5.00 65.00

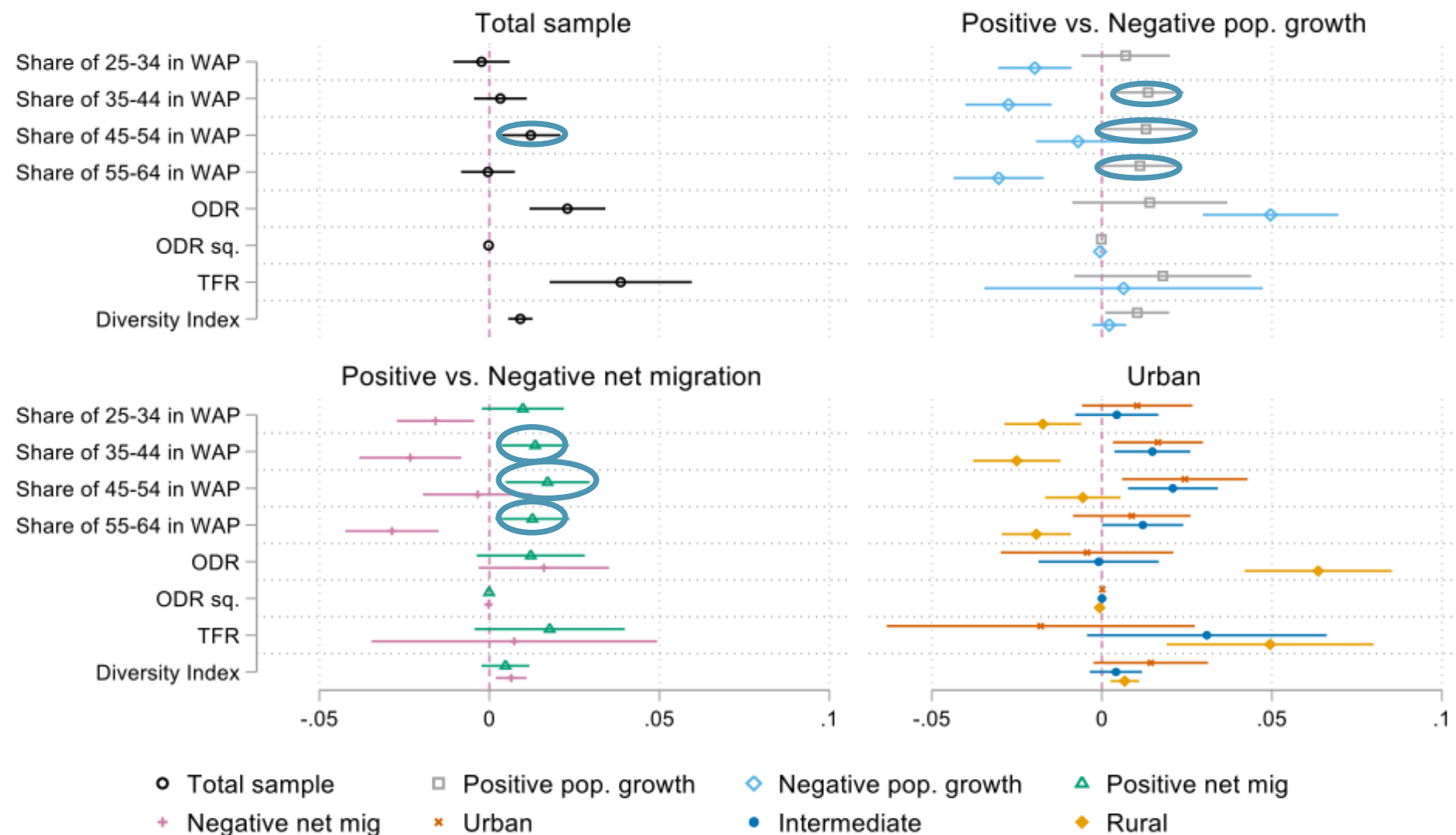
Results of regression for dep. var. GDP/capita



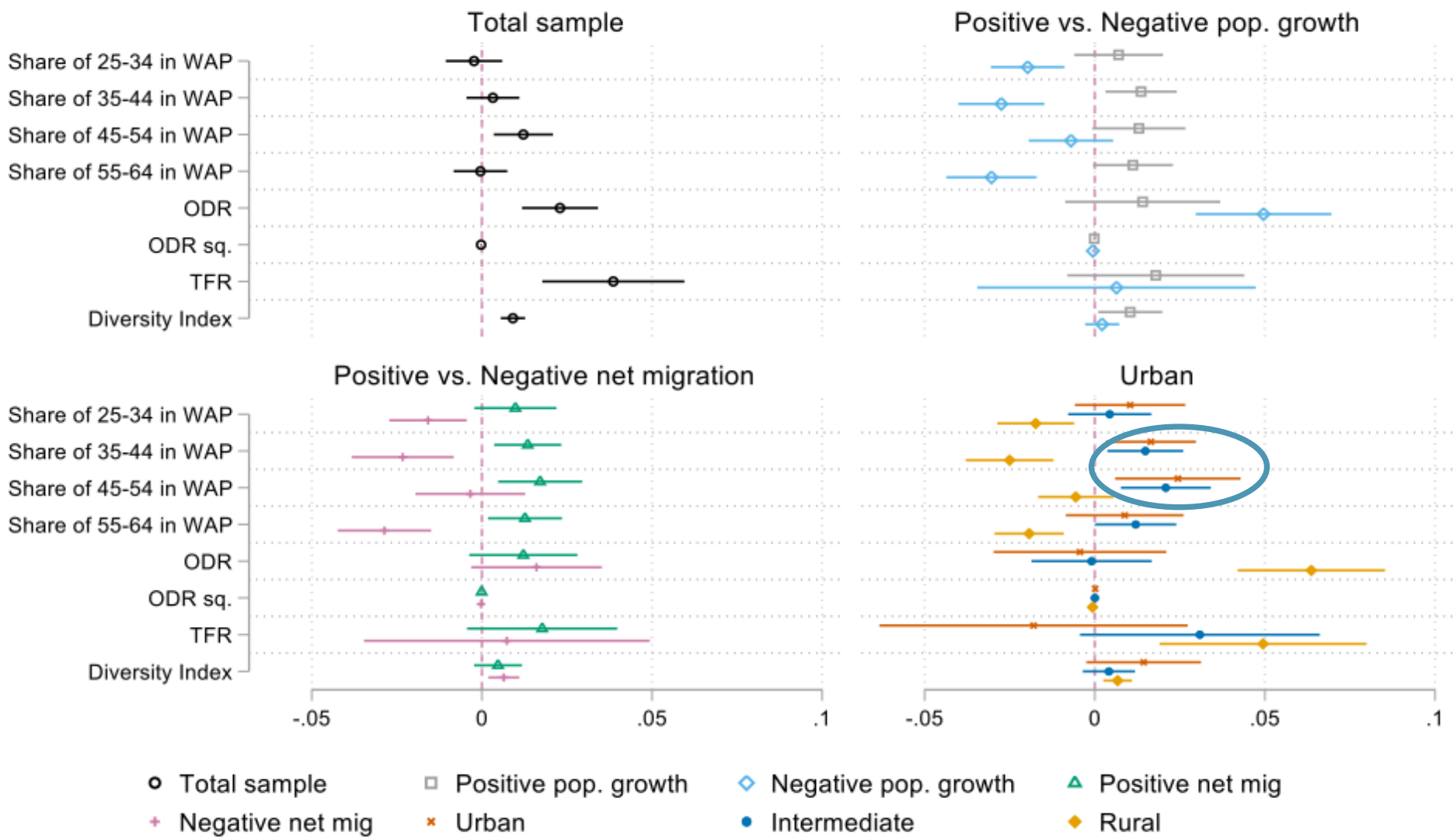
Results of regression for dep. var. GDP/capita



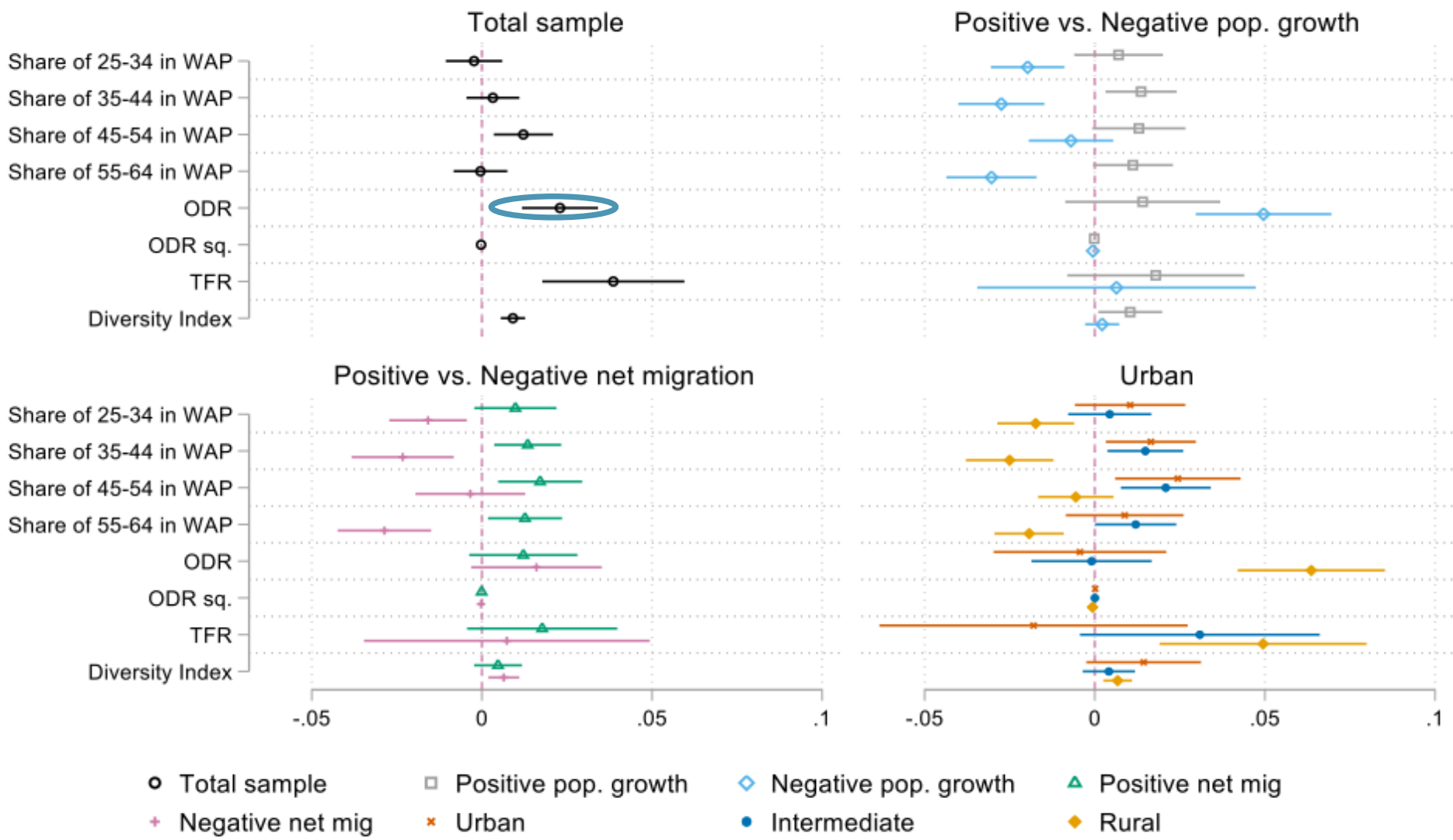
Results of regression for dep. var. GDP/capita



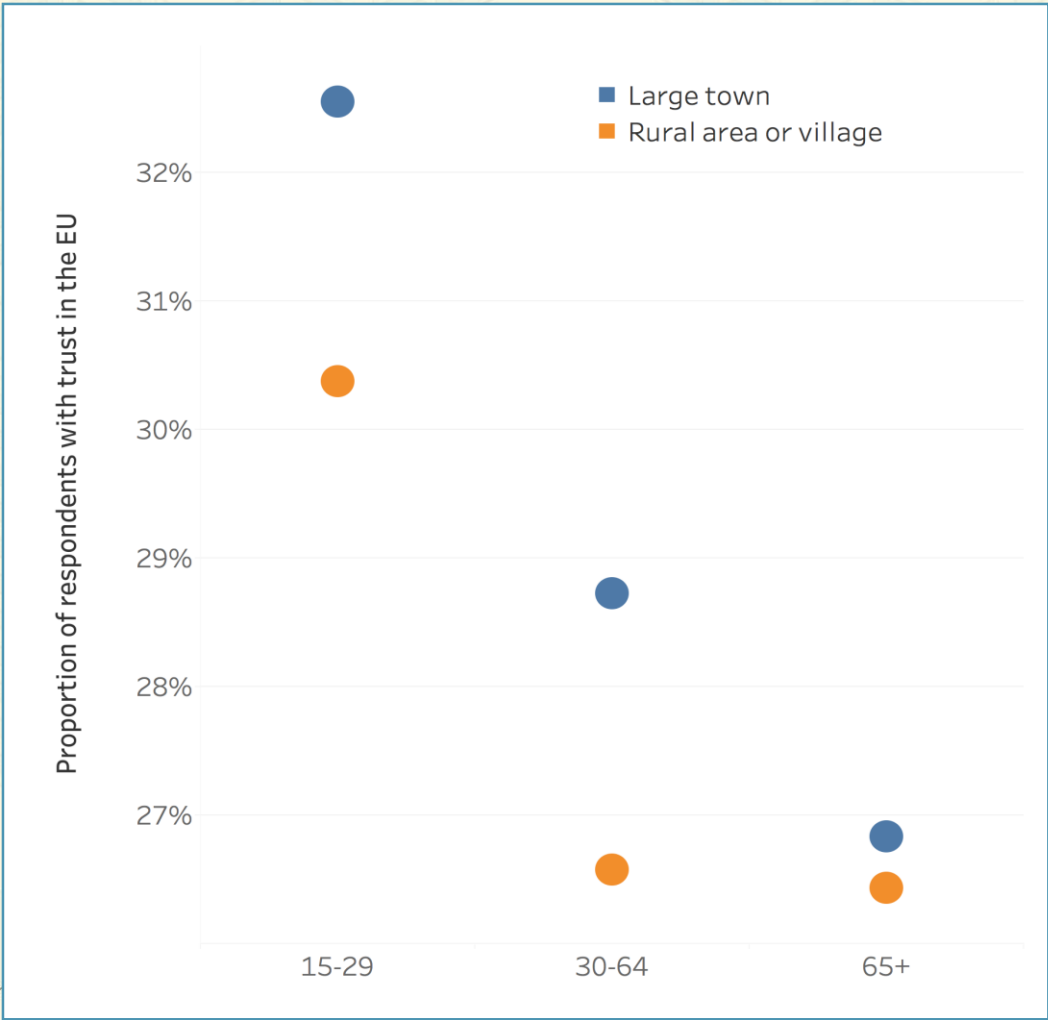
Results of regression for dep. var. GDP/capita



Results of regression for dep. var. GDP/capita



Demography and democracy

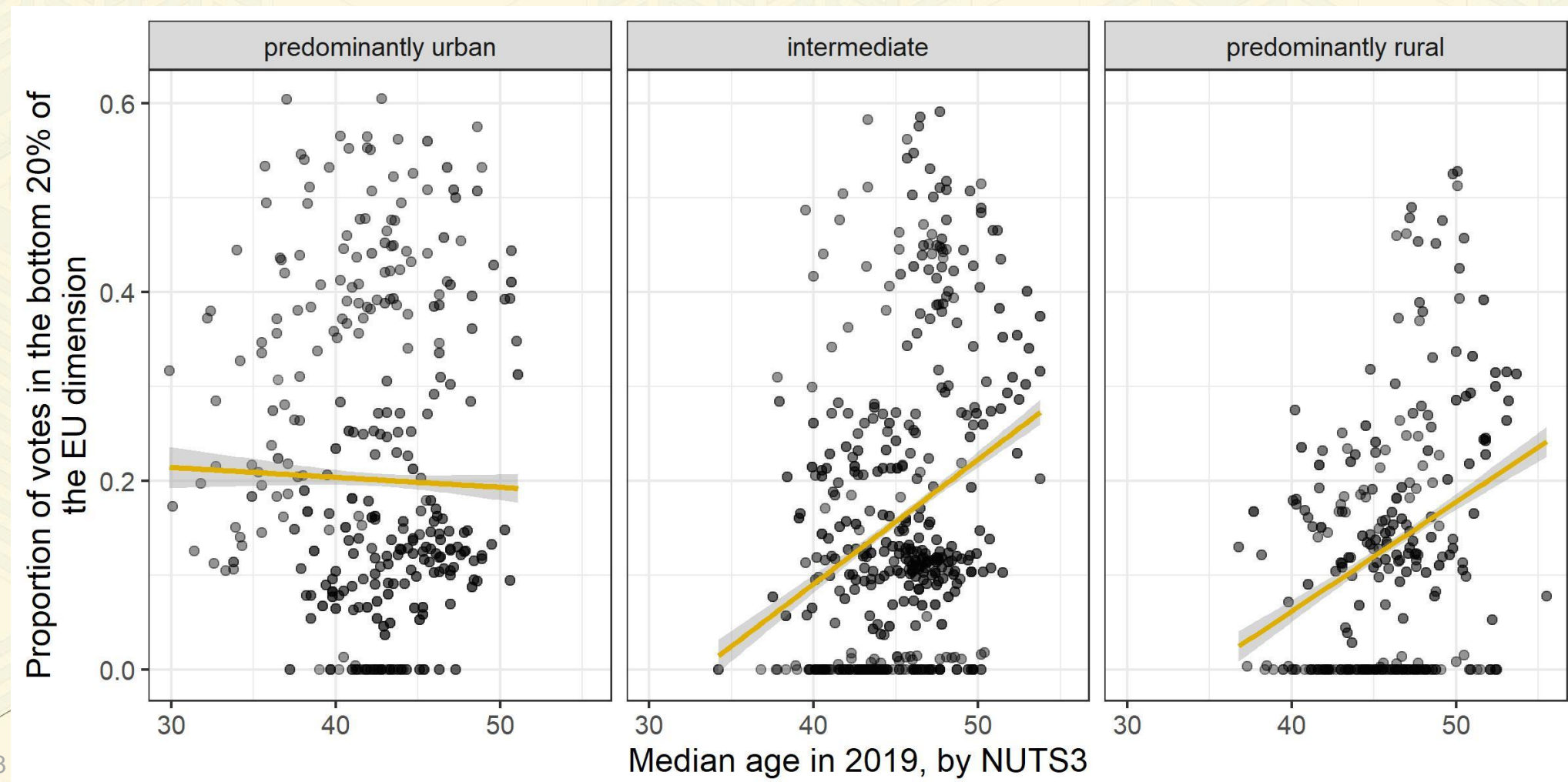


Evidence

- Divides in voting and attitudes towards the EU (and immigration) depend on the interaction between age and place of residence

Age and political behaviour

Proportion of votes for political parties with critical stances re.EU, NUTS3*



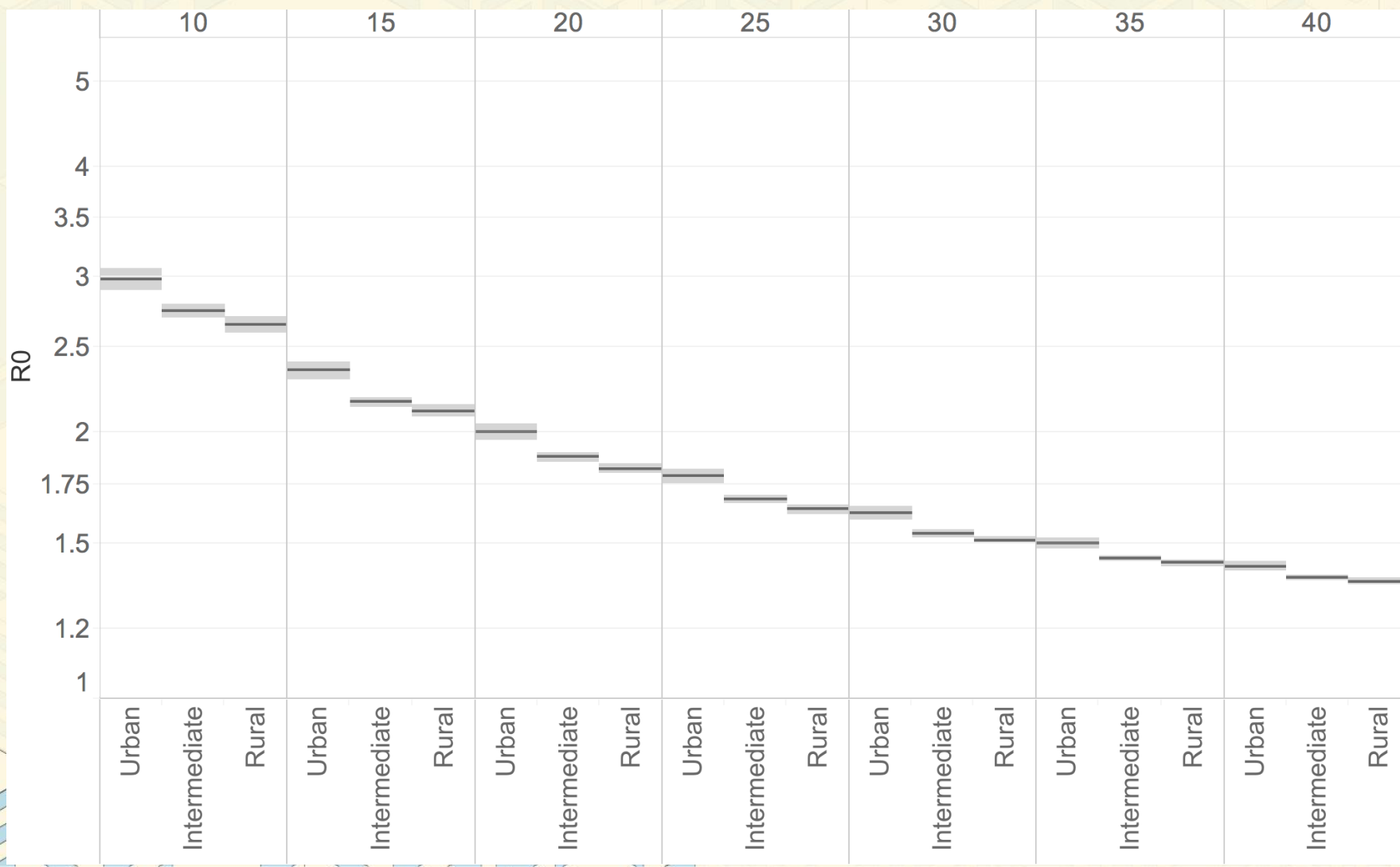
* Incl. UK

What are the main conclusions?

- Ageing is more associated to **depopulation** than to rural or remote areas; It is shaped by intra regional migrations and residential preferences over the **life course**
- In some regions, (intra-regional) **migration** is compensating for the deficit in cohort turnover, leading to increases in the working age population
- Ageing is affecting GDP per capita and labour productivity in a **non-linear way**: in depopulating and rural areas, a young population is not a pre-requisite for economic performance
- In rural areas, ageing is interacting with the local context in determining **divides** in attitudes and political positioning vs the EU
- While **policies** cannot offset the overall macro-regional trends for ageing, especially cohesion, urban and rural policies can respond to the specific needs of **diversely ageing regions**. These policy interventions will be essential to avoid a widening of political and socio-economic divides in EU.

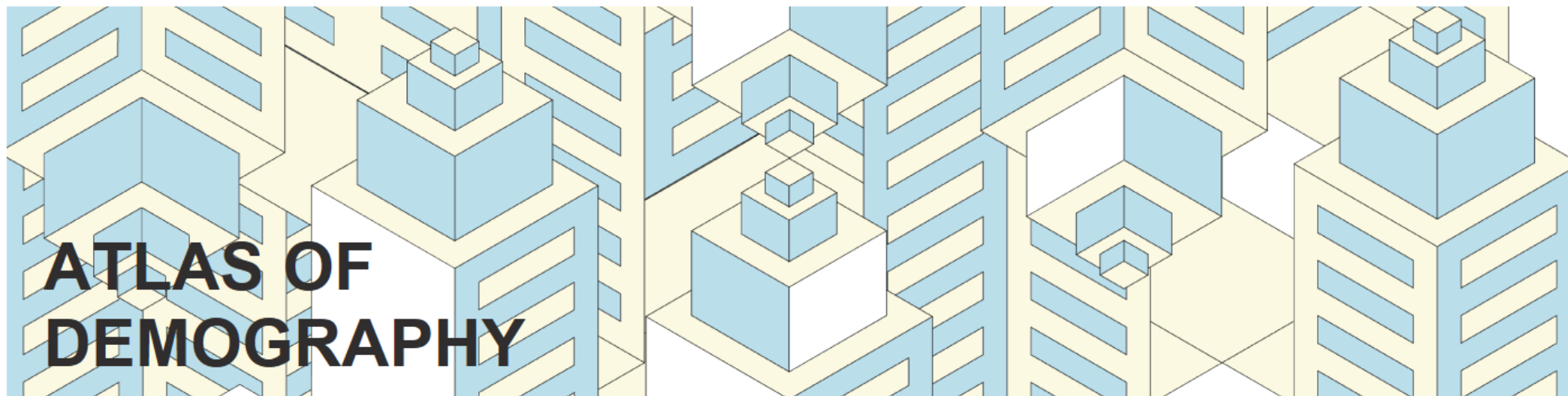
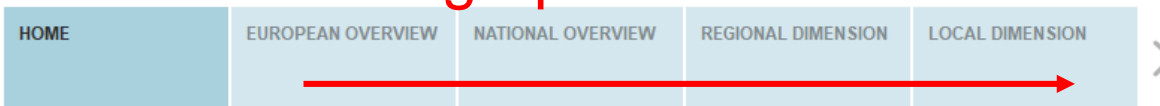
Territorial in COVID-19: the first wave

R0 by degurba, EU NUTS3, by temporal window (10-40 days)



Geographic dimension

Data <



ATLAS OF DEMOGRAPHY

SCOPE

The AoD is an online interactive tool for genuine **demographic intelligence** in the EU.

By building upon **demographic data** (integrating fertility, mortality and net migration information), and **population projections** at the very local level, the tool will **support Commission work under a variety of policy areas**, offering a clear potential for foresight.

The **strong territorial perspective** and **forward-looking approach** of the Atlas can enable EU policy makers to detect, monitor and anticipate **demographic and related challenges** such as territorial inequalities, education and skills gaps and socio-economic vulnerabilities.

DESCRIPTION

This tool can be navigated following two main directions:
- **geographically**, from EU to local level, through the top menu.
- **thematically**, through the stories accessible from the bottom-right menu.

Each tab opens a dashboard. A **dashboard** is a collection of interactive **maps and charts** that can be customised through **filters** and explored by the user. By **hovering the mouse** on text, chart and maps, additional information and charts will be shown in tooltip. The **HOME** button leads back to this page.

STORIES Thematic dimension: STORIES



Demographic changes in labour force supply

Although ageing is a common trend across the European Union, in the period 2015-19 28% of regions (24% of population) benefitted from net migration (including all types of migration) to compensate for the demographic deficit in working age population that exists due to cohort turnover.

Filters

Time period
2015-2019

Geographic dimension
Regions

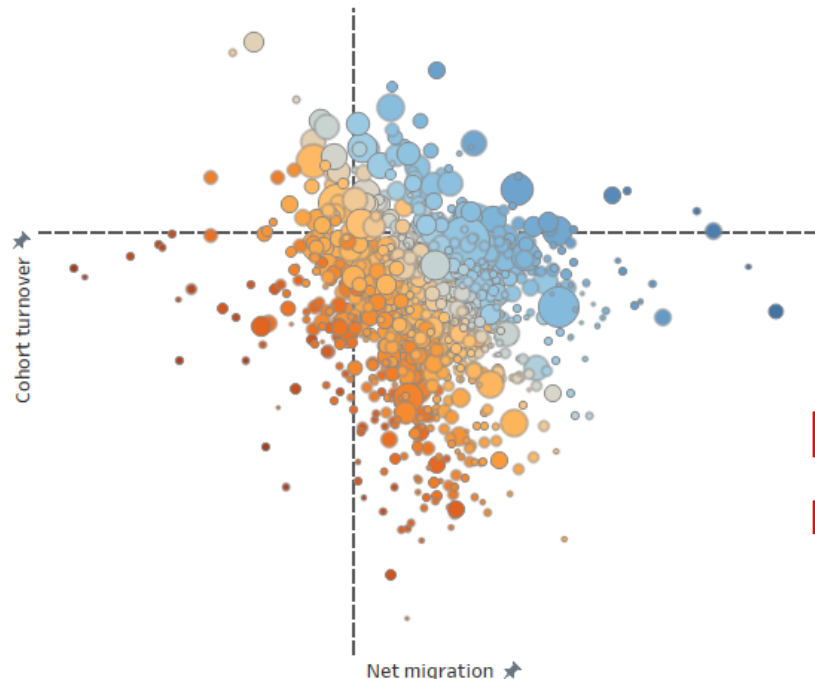
EU/non-EU countries
EU

Member States
(All)

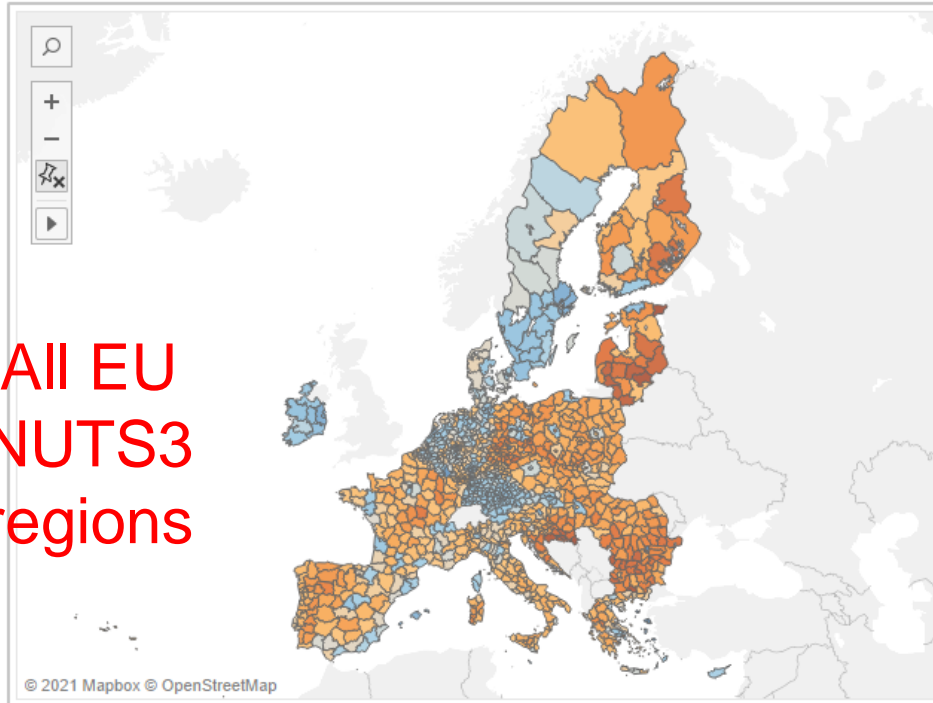
Map type
Single component

Map indicator
Relative change in WAP

Change in Working Age Population across 2015-2019 by EU Regions



Relative change in WAP 2015-2019



All EU
NUTS3
regions

Relative change in WAP Regions



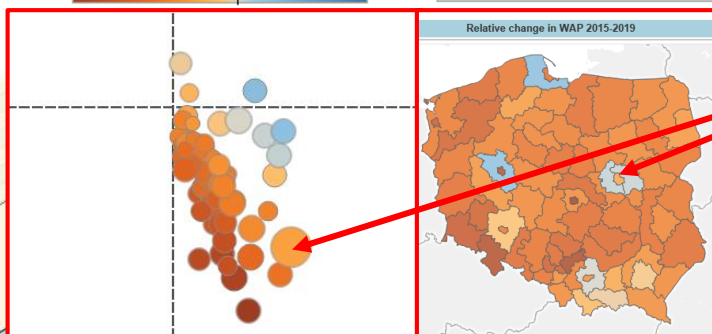
Relative change in WAP MSs



Map indicator value



Poland
NUTS3
regions



City of Warsaw (Poland)

Working Age Population	2015:	1 134 595 (69% of total pop.)
Net migration	2015-2019:	64 984 (6%)
Cohort turnover	2015-2019:	- 59 547 (-5%)
Change in Working Age Pop. 2015-2019:		- 25 706 (-2%)

Thank you!

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