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## How is life in your region? Challenges and implications for regional development and policy in Romania

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## Classis question about regional growth still in debate

Literature: do "jobs-follow-people or people-follow-jobs?" (Borts and Stein 1964; Steinnes and Fisher 1974) or related "chicken-or-egg" (Muth 1971). Later *The Determinants of County Growth* by Carlinio and Mills (1987) with lagged adjustment framework. The question relates to questions like:

- > Do people move for economic factors (jobs) or amenities and quality-of-life factors? (e.g. Lowry,1966; Partridge 2010).
- > Is the residential location decision made before or after the job location decision? (e.g., Deding et al. 2009).
- > Are employment locations of firms really exogenous to residential locations? Or vice-versa (as assumed in the monocentric city model)?

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## Duelling theoretical models

- > New Economic Geography (Krugman, 1991): falling transport cost lead to concentration of people and economic activities
- > Amenity migration (Graves, mid1970s): people or moving to nice places, warm climates
- > Agglomeration effects, attractiveness of (big) cities, high level facilities, cultural amenities (Gleaser et al, 2001 etc., Florida, 2003)
- > Storper & Scott (2009): people only move to nice places with suitable employment

→ Partridge (2010): for the US, Graves is the winner!

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## Policy relevance

- > The question what determines growth plays a central role in policy discussions: is catering to the wishes of firms by improving the business climate of a place a better strategy than catering to wishes of people and improving the people climate of a place?
- > We see changing location patterns of firms changing migration patterns of people, especially of higher educated and richer people with changing preferences
- > Changing policy focus from only economic goals like GDP, income and (un-)employment to broader goals like well-being and quality of life: e.g. OECD-project 'How is life in your region?'

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## Well-being – Quality of life - Happiness

- > The problem of **definition**
  - short term:** emotional feelings of happiness
  - long term:** life satisfaction
- > Many terms for more or less the same thing (how well one's life is going)
  - Quality of life
  - Welfare / Well-being
  - Health
  - Happiness

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## People's Well-being: changing preferences

<i>Objective measures</i>	<i>Subjective measures</i>
> Life expectancy	> Health perception
> Mortality rates	> Access to services
> Poverty	> Material deprivation
> Crime	> Safety and trust
> Income	> Life satisfaction
> Un-/employment	> Happiness
> Education	> Capabilities
> Gender balance	> Equal opportunities
> Working hours	> Work life balance

### Why look at well-being at local and regional level? (1/3)

- Well-being of people is affected by place-based characteristics

$$\text{People's well-being} = \text{Individual characteristics} + \text{Place-based factors}$$

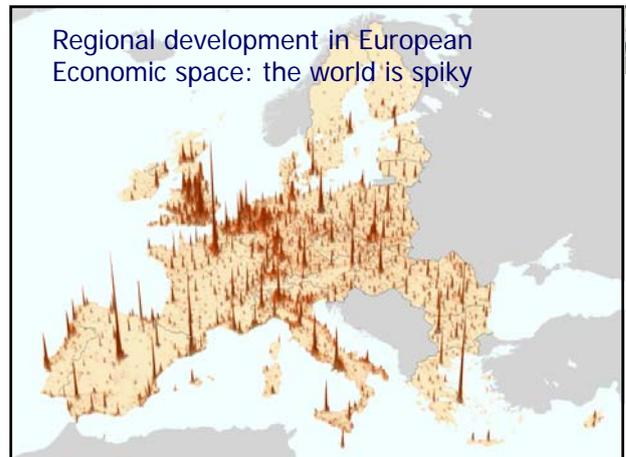
Material living conditions (e.g. jobs, income) = e.g. family, education, skills + e.g. regional labour pool, training, etc.

- Not only bridging national & regional data but also contributing to policymaking. Top-down or bottom-up approach?

Measuring well-being for policy making is essentially a bottom-up approach. However, a general framework is needed (can be top-down)

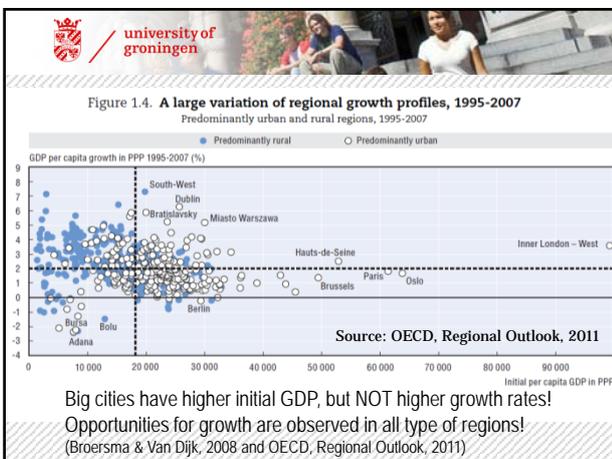
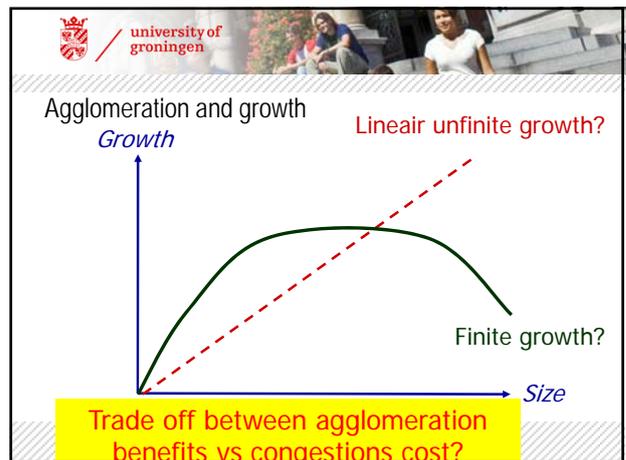
The OECD provides:

- A common framework and guidelines on indicators (e.g. common set of indicators) – *Measuring the right things*
- Guidelines on how to implement the use of well-being in policy making (built bottom-up) – *Using indicators*



### The Role and Value of (Big) Cities from pure economic and broad well-being perspective

- ECONOMIC:** (Big) cities have higher productivity, generate more knowledge outcomes (patents, innovations, copyrights, licenses), have more higher quality human capital – both stocks and inflows
- But also:** higher land and housing prices
- WELL-BEING:** (Big) cities have high quality services and amenities like universities, musea, concerts
- But also:** more traffic jams, more air pollution, more crime, higher risk of being the target of war and terrorist attacks



### Figure 1.3. Intensity of dimensions of societal progress and geographic space

	Cities	Rural areas
Efficiency/income	+	-
Environmental quality	-	+
Social dimensions: Public goods (e.g. health, education)	+	-
Social dimensions: Community-produced goods (e.g. trust, security)	-	+

Source: OECD, Regional Outlook, 2011

## Do 'jobs follow people' or 'people follow jobs'?

A meta-analysis of Carlino-Mills studies

Gerke Hoogstra, Raymond Florax  
en Jouke van Dijk (2014)

## Modelling do 'jobs follow people' or 'people follow jobs'?

- > Late 1960s variety of techniques were put forward, but in a small and fragmented group of studies.
- > Late 1980s, the number of research studies has rapidly grown and there has been relatively little disagreement about the choice of methodology due to the publication of *The Determinants of County Growth* by Carlino and Mills (1987), which marked a radical departure from previous causality studies in two respects.
- > To illustrate the importance of the publication: it was the most cited regional science article of 1987. Isserman (2004)
- > → **Meta analysis:** "The application of statistical techniques to collections of empirical findings from previous studies for the purpose of integrating, synthesising, and making sense of them" (Wolf, 1986)

Carlino-Mills model with simultaneous equations:  
possible outcomes

$$\tilde{P}_t = a_0 + a_1 P_{t-1} + a_2 (I + \tilde{W}) \tilde{E}_t + K + u_t$$

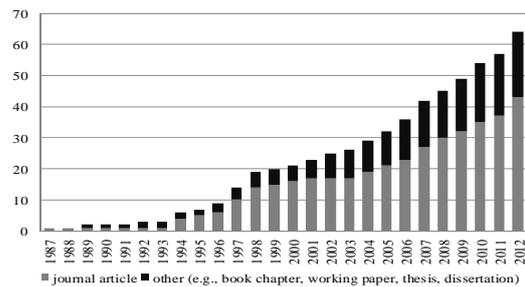
$$\tilde{E}_t = b_0 + b_1 E_{t-1} + b_2 (I + \tilde{W}) \tilde{P}_t + K + v_t$$

$a_2 > 0$  (people follow jobs)

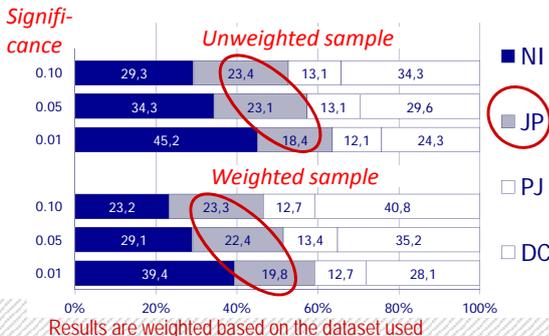
$b_2 > 0$  (jobs follow people)

	$b_2 \leq 0$	$b_2 > 0$
$a_2 \leq 0$	No interaction	jobs follow people only
$a_2 > 0$	people follow jobs only	dual causality

Meta-analysis based on 64 studies with 321 results



Classification of the results:



Do-jobs-follow-people or do people-follow-jobs?

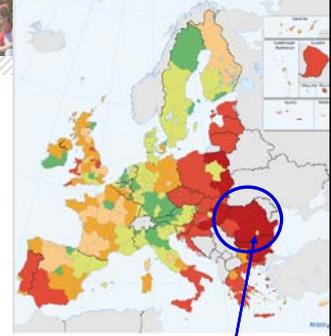
- > One third each for: no-interaction, jfp+pfj, dual causality
- > Jobs-follow-people > people-follow-jobs (about 2x more)
- > Econometric empirical evidence (results available upon request) from 64 studies on jfp-pfj still show mixed and are inconclusive
- > Data matter: results vary by geographic location of the regions, spatial resolution and population and employment characteristics, but not by time period
- > Methodology: results vary by levels vs changes, functional form, specification weightmatrix, standardization by density or shares, number of equations, inclusion of other variables; but not by SAR
- > No difference by publication type

Policy relevance

- > The question: improve the business climate for firms or the living conditions for the people?
  - depends on the characteristics of the region
  - place based policies needed.
- > Most likely improving both is needed
- > What goals to reach: from purely economic or broader well-being perspective? What are the peoples preferences?
- > What are effective and efficient policy measures?
- > Implications for Romania?

GDP per head (PPS), 2011

Source: EU-Commission (July 2014)  
Investment for jobs and growth, 6-th Report on Economic, Social and Territorial Cohesion

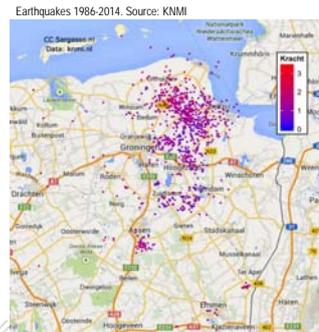
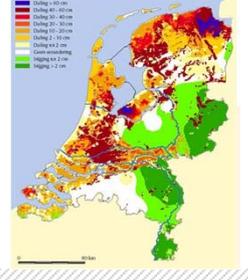


Exceptional position of the capital Bucuresti -> GDP > EU28 average

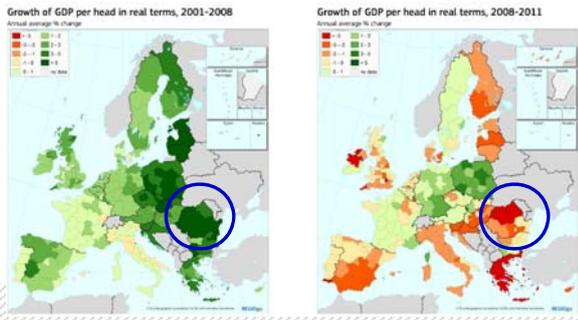
Regional GDP per capita in the EU28 in 2011 (in PPS, EU28 = 100)

The twenty highest:			The twenty lowest:		
1	Inner London (UK)*	321	1	Severozapaden (BG)	29
2	Luxembourg (LU)*	266	1	Nord-Est (RO)	29
3	Bruxelles-Cap. / Brussels Hfdst. (BE)*	222	3	Severen tsentralen (BG)	31
4	Hamburg (DE)	202	4	Yuzhen tsentralen (BG)	32
5	Bratslavský kraj (SK)*	186	5	Sud-Vest Ottenia (RO)	37
6	Île de France (FR)*	182	6	Severozitochen (BG)	38
6	Groningen (NL)*	182	6	Yugoizitochen (BG)	38
8	Stockholm (SE)*	173	8	Sud-Est (RO)	39
9	Praha (CZ)*	171	9	Észak-Magyarország (HU)	40
10	Oberbayern (DE)	168	9	Sud-Muntenia (RO)	40
11	Wien (AT)*	165	11	Nord-Vest (RO)	42
12	Darmstadt (DE)	162	12	Észak-Alföld (HU)	43
13	North Eastern Scotland (UK)	159	13	Dél-Aföld (HU)	44
14	Bremen (DE)	158	13	Lubelskie (PL)	44
15	Hovedstaden (DK)*	153	13	Podkarpackie (PL)	44
16	Helsinki-Uusimaa (FI)*	153	16	Dél-Dunántúl (HU)	45
17	Stuttgart (DE)	152	16	Centru (RO)	45
17	Utrecht (NL)	152	18	Podlaskie (PL)	47
19	Salzburg (AT)	149	18	Warmińsko-Mazurskie (PL)	47
20	Bolzano / Bozen (IT)	147	20	Świętokrzyskie (PL)	49

Natural gas extraction causes soil subsidence → earthquakes



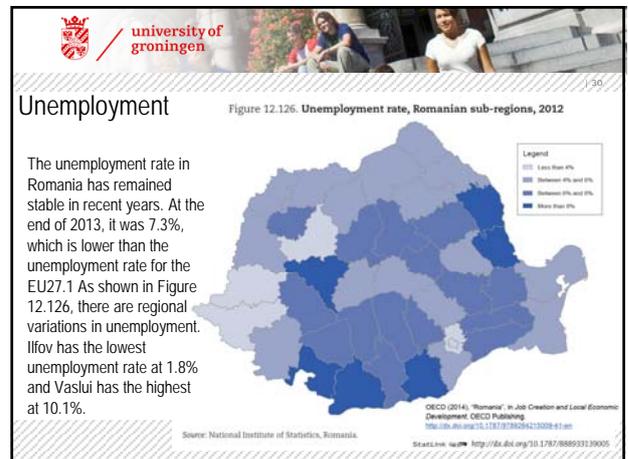
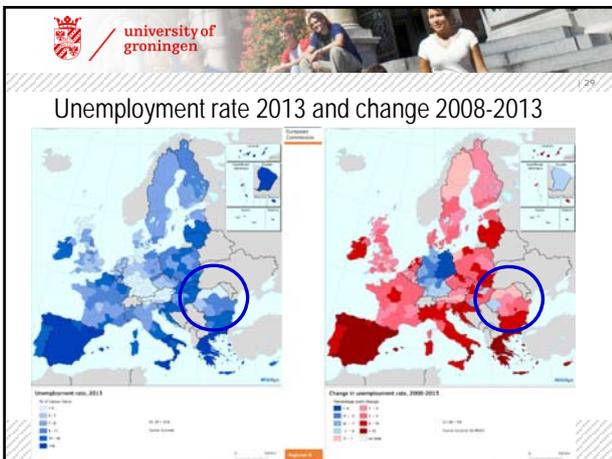
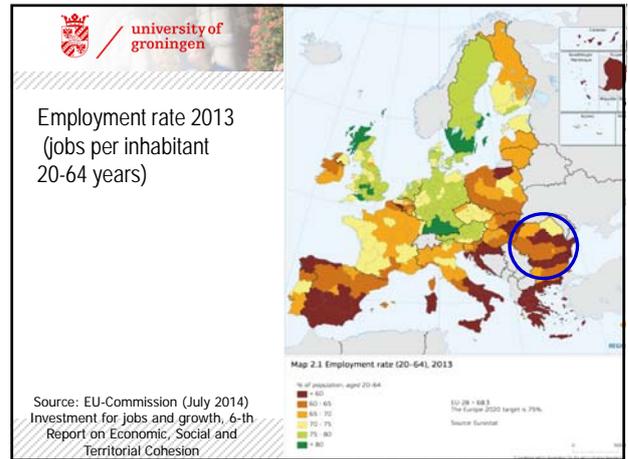
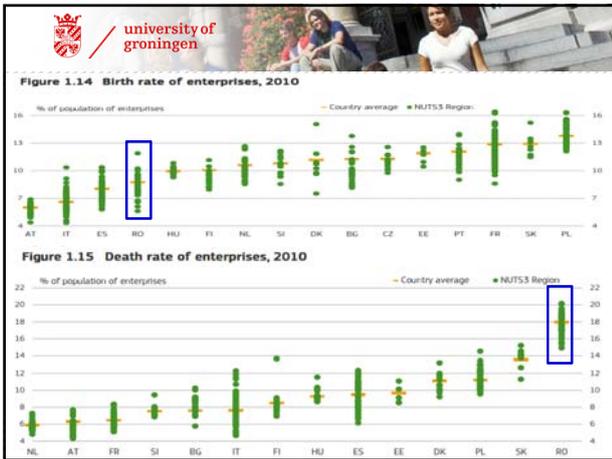
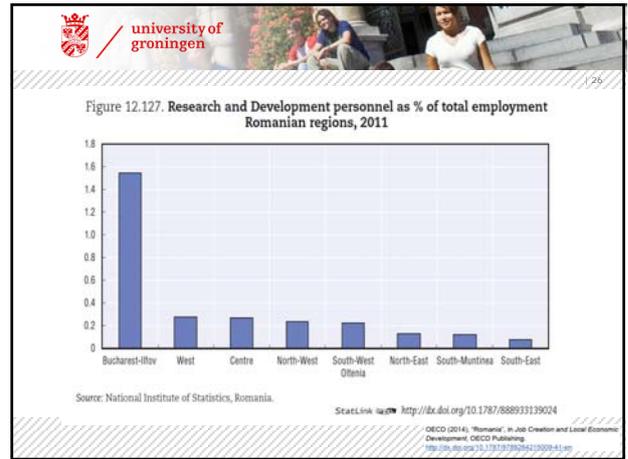
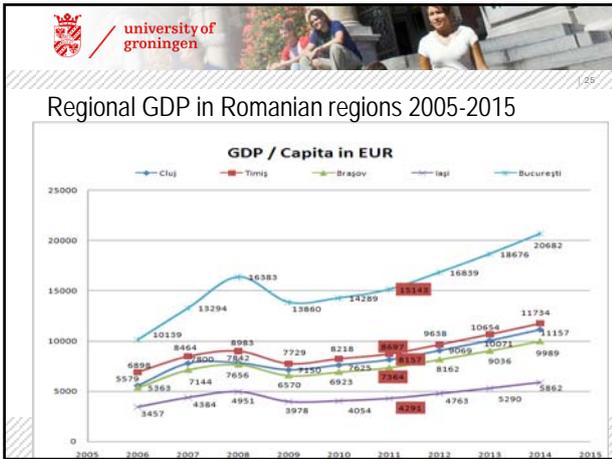
Change in GDP per head: 2001-2008 vs 2008-2011

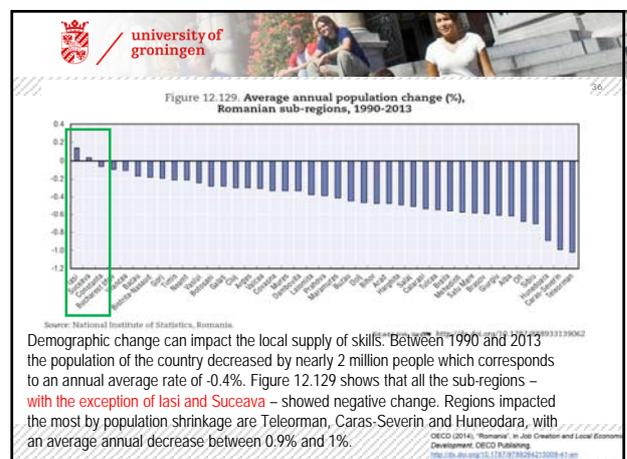
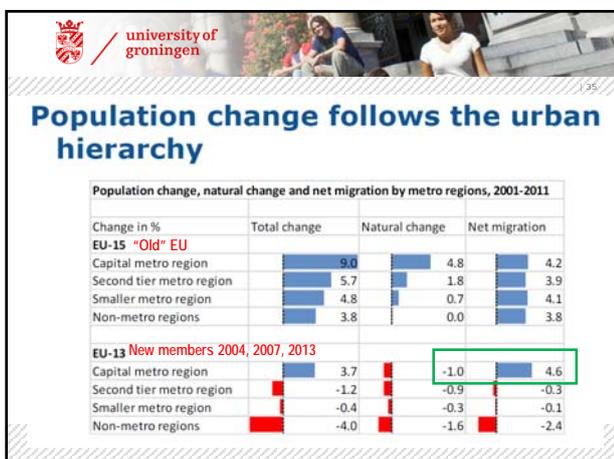
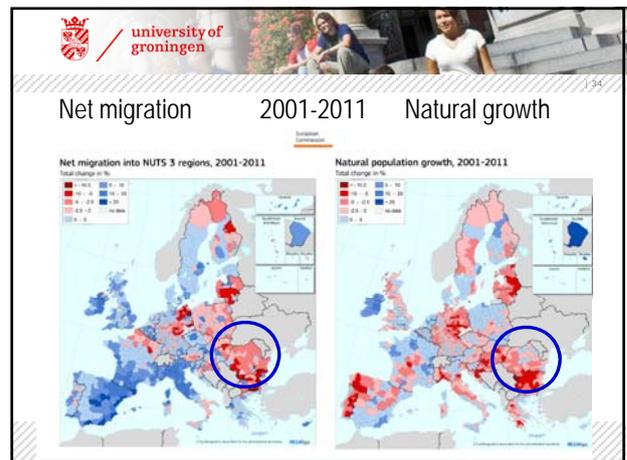
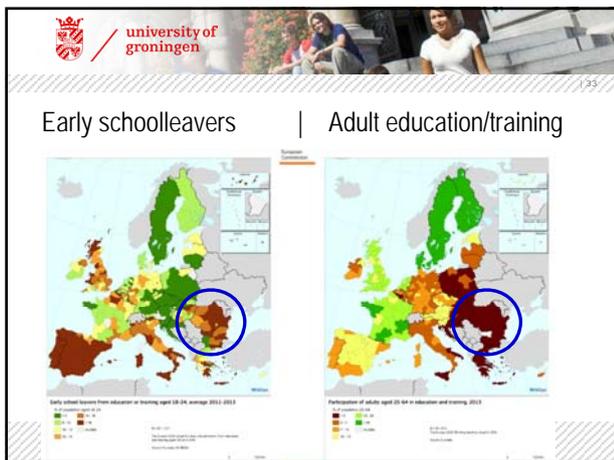
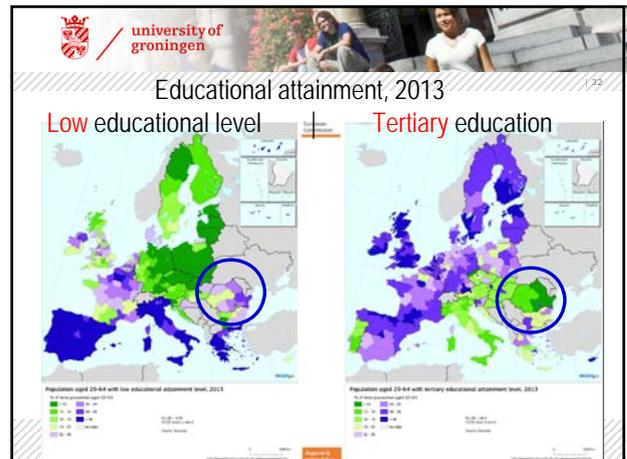
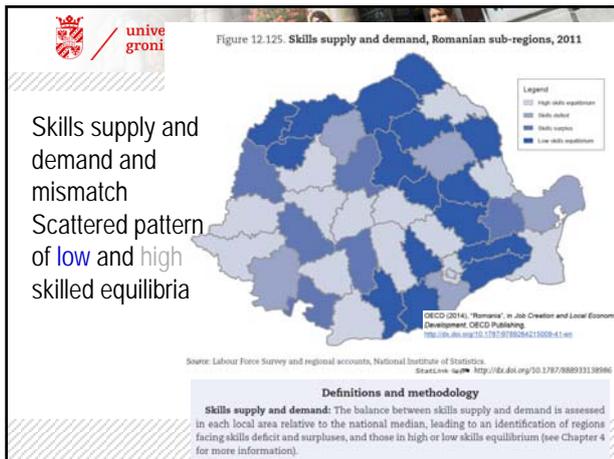


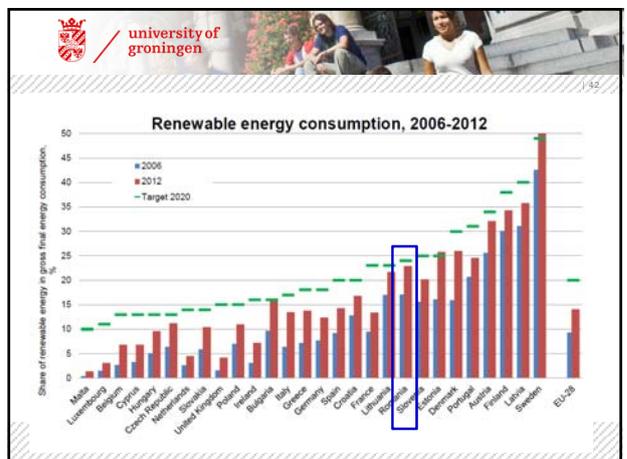
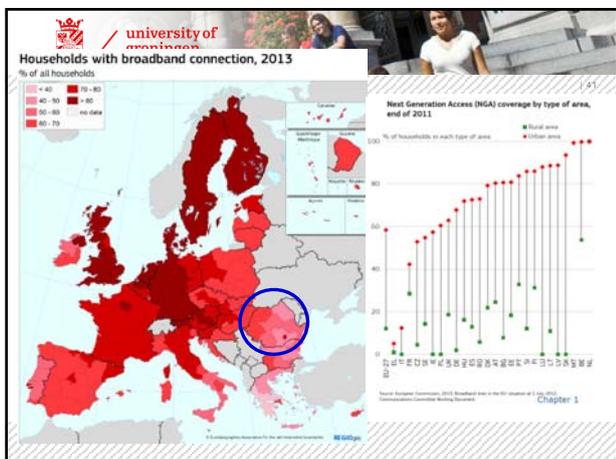
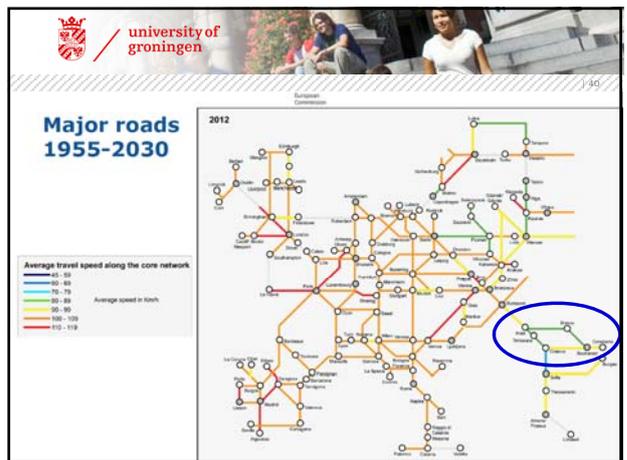
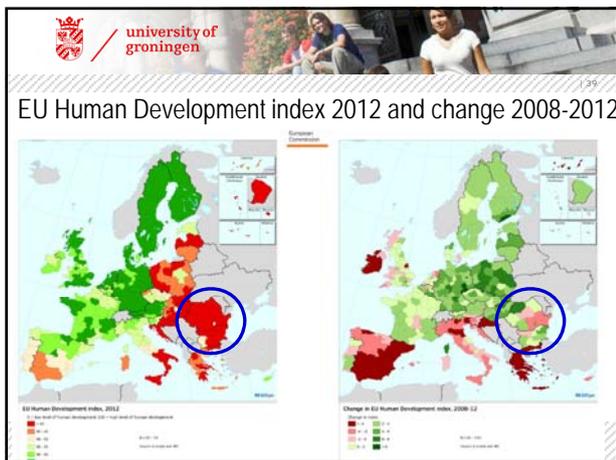
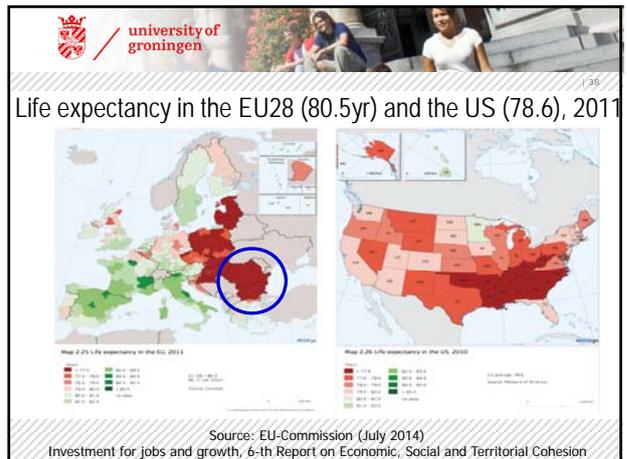
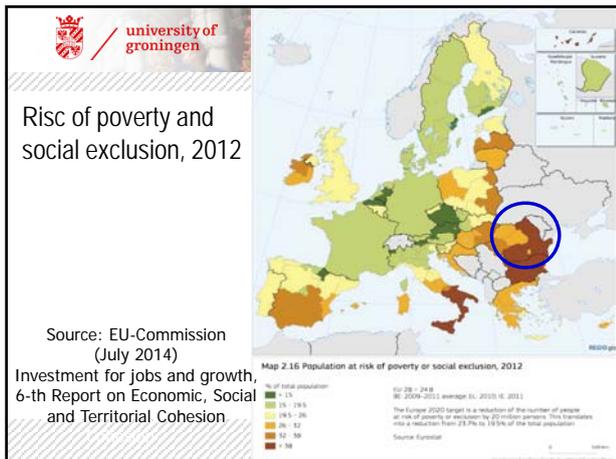
Rural regions and the crisis

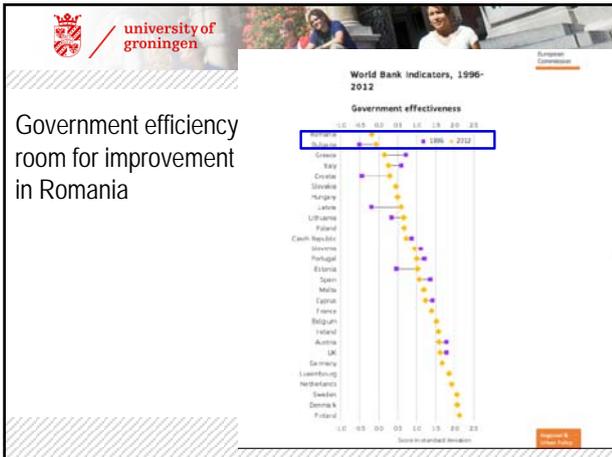
Change in GDP per head, productivity and employment per head by type of metropolitan region, 2000-2008 and 2008-2011

Average annual change (%)	2000-2008			2008-2011		
	GDP per head	Productivity	Employment per head	GDP per head	Productivity	Employment per head
<b>EU-15 "Old" EU</b>						
Capital metropolitan region	1.4	0.9	0.6	-0.8	0.3	-1.1
Second tier metropolitan region	1.3	0.7	0.6	-0.8	0.1	-0.9
Smaller metro region	1.2	0.7	0.5	-0.6	0.2	-0.8
Non-metropolitan region	1.2	0.8	0.4	-0.8	0.2	-1.0
Total	1.3	0.8	0.5	-0.7	0.2	-0.9
<b>EU-13 New members 2004, 2007, 2013</b>						
Capital metropolitan region	5.5	3.6	1.9	-0.3	1.0	-1.3
Second tier metropolitan region	4.9	4.1	0.8	1.4	1.3	0.1
Smaller metro region	3.7	3.6	0.1	1.4	1.2	0.2
Non-metropolitan region	4.5	4.4	0.0	0.6	0.7	-1.1
Total	4.9	4.3	0.6	0.7	1.4	-0.8









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- Conclusions, discussion and policy
- > Romania shows a strong economic performance, especially in the capital city region, but also some unusual spatial economic demographic patterns
  - > However large regional (urban-rural) differences in GDP, income, unemployment, education, environmental quality and quality of life
  - > The question: improve the business climate for firms or the living conditions for the people? → Future growth may benefit from a balance between policies aiming at purely economic and well-being goals
  - > What are effective and efficient policy measures?
  - > - depends on the characteristics of the region
  - > - place based policies needed.
  - > Education, R&D, Infrastructure, Entrepreneurship and Governance are the key-factors to improve the regional economy, well-being and equality



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- Interactive websites
1. <http://www.oecdbetterlifeindex.org/>
  2. <http://www.oecdregionalwellbeing.org/>
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