

International Economics Seminar

Lecture 2

Trade, economic integration, and the crisis

Andrés Rodríguez-Pose

with credit to my colleagues *Neil Lee* and
Riccardo Crescenzi



Trade and the crisis: Aims of lecture

- ▶ **Do trade and economic integration cause inequality?**
 1. Evidence
 2. Causes
 3. Theory
 4. Empirics

The crisis in Europe

- ▶ **Strong crisis starting in 2008 which has affected the whole of Europe**
 1. Significant dent to GDP
 2. Massive destruction of employment
 - 2.72% decline in employment between 2008-2012
 3. Serious effects on public finance: rise in deficits, debts.
 4. Important social and political consequences:
 - Social: Long-term unemployment, social exclusion, renewed migration
 - Political: Rise of radical, anti-system and/or anti-European parties
- ▶ **But impact has varied from country to country**
 1. Minimal in Poland (no recession)
 2. Highest in the southern periphery, from Portugal to Greece and in some eastern European countries such as Bulgaria and Latvia
- ▶ **Important within country differences**

The effect of the crisis: pre-crisis

2000-2008

	Change in GVA per head =	Change in productivity +	Change in employment rate +	Change in share of working-age population
EU-27	1.7	1.2	0.4	0.1
IT	0.2	-0.5	0.9	-0.3
PT	0.6	0.8	-0.4	0.2
DK	0.8	0.6	0.6	-0.4
FR	0.9	1.0	-0.2	0.1
ES	1.3	0.1	0.9	0.4
BE	1.4	1.0	0.4	0.0
DE	1.7	1.3	0.7	-0.4
NL	1.7	1.5	0.4	-0.1
CY	1.9	0.6	0.0	1.3
AT	2.0	1.4	0.6	0.0
UK	2.0	1.7	0.2	0.2
LU	2.1	1.8	0.3	0.0
SE	2.3	2.2	0.1	0.0
FI	2.5	1.5	1.0	-0.1
EL	3.2	1.6	1.4	0.1
HU	3.3	3.0	0.0	0.2
SI	4.3	3.3	0.8	0.1
PL	4.5	2.9	0.6	0.9
CZ	4.7	4.2	0.2	0.3
EE	6.2	4.0	1.8	0.3
SK	6.4	4.4	1.0	0.9
BG	6.4	3.2	3.0	0.0
RO	7.0	8.2	-1.5	0.4
LV	8.5	5.0	2.5	0.9
LT	8.8	5.8	1.6	1.3

Source: Sixth Cohesion Report, 2014

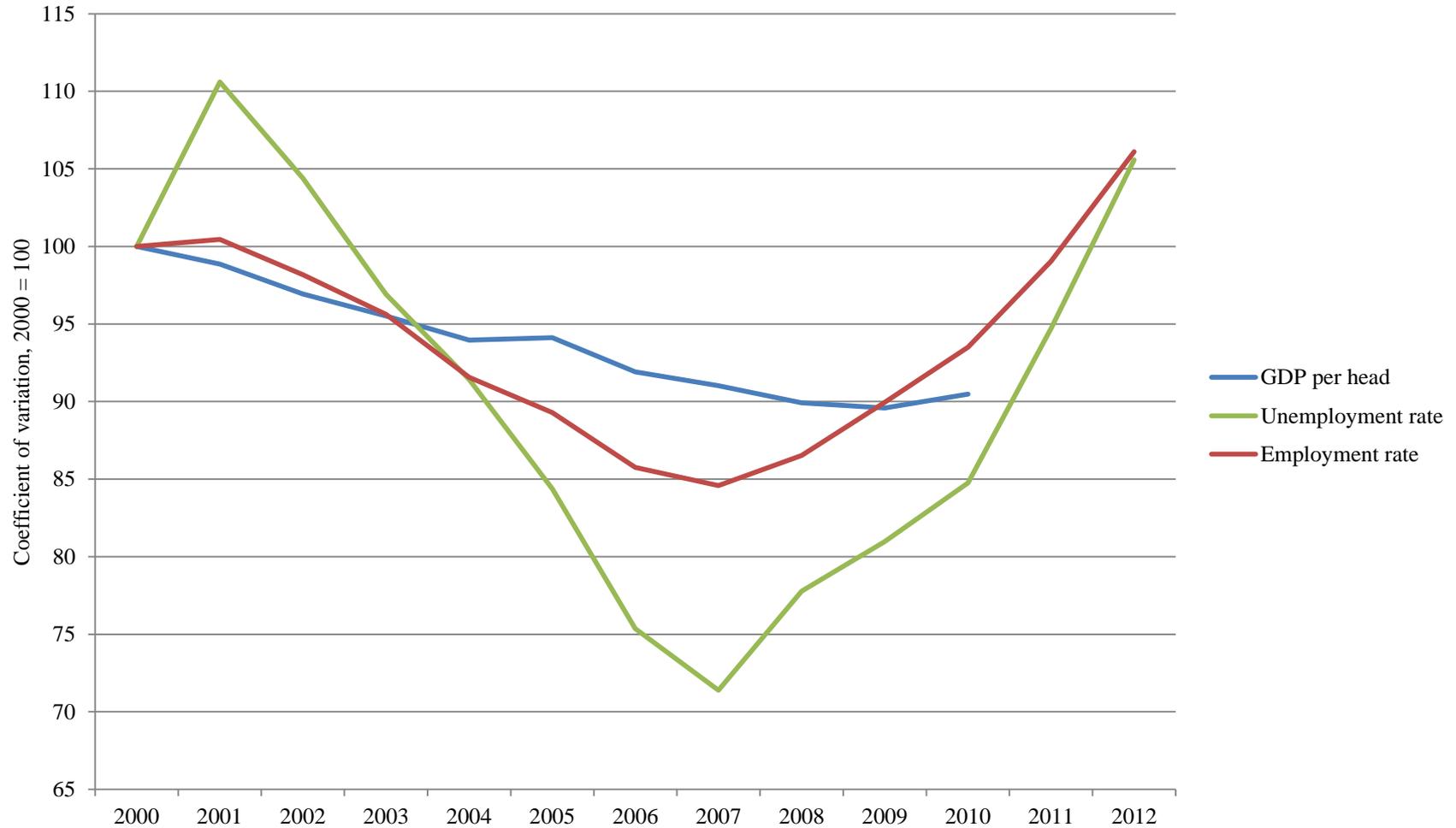
The effect of the crisis: pre-crisis

2008-2012

	Change in GVA per head =	Change in productivity +	Change in employment rate +	Change in share of working-age population
EU-27	-0.6	0.3	-0.8	0.0
EL	-5.2	-0.8	-4.2	-0.3
CY	-3.2	0.4	-3.5	-0.2
LU	-2.6	-2.5	-0.5	0.3
SI	-2.4	-0.5	-2.0	0.1
IT	-1.8	-0.8	-0.9	-0.1
FI	-1.7	-0.9	-0.4	-0.4
ES	-1.5	2.7	-3.8	-0.2
UK	-1.4	-0.7	-0.6	-0.1
RO	-1.2	-1.1	-0.7	0.6
HU	-1.2	-1.4	0.1	0.1
DK	-1.2	0.7	-1.3	-0.5
NL	-0.9	-0.3	-0.3	-0.3
PT	-0.8	1.8	-1.9	-0.7
LV	-0.5	3.8	-3.3	-0.9
CZ	-0.5	-0.3	0.1	-0.3
BE	-0.5	-0.2	-0.5	0.1
FR	-0.3	0.3	-0.4	-0.2
AT	0.0	-0.4	0.2	0.2
EE	0.0	1.2	-1.7	0.6
LT	0.4	0.9	0.9	-1.5
SE	0.5	0.9	-0.2	-0.2
DE	0.7	-0.1	0.6	0.2
BG	1.0	3.8	-2.7	-0.1
SK	1.2	2.3	-1.4	0.3
PL	2.7	3.3	-1.0	0.4

Source: Sixth Cohesion Report, 2014

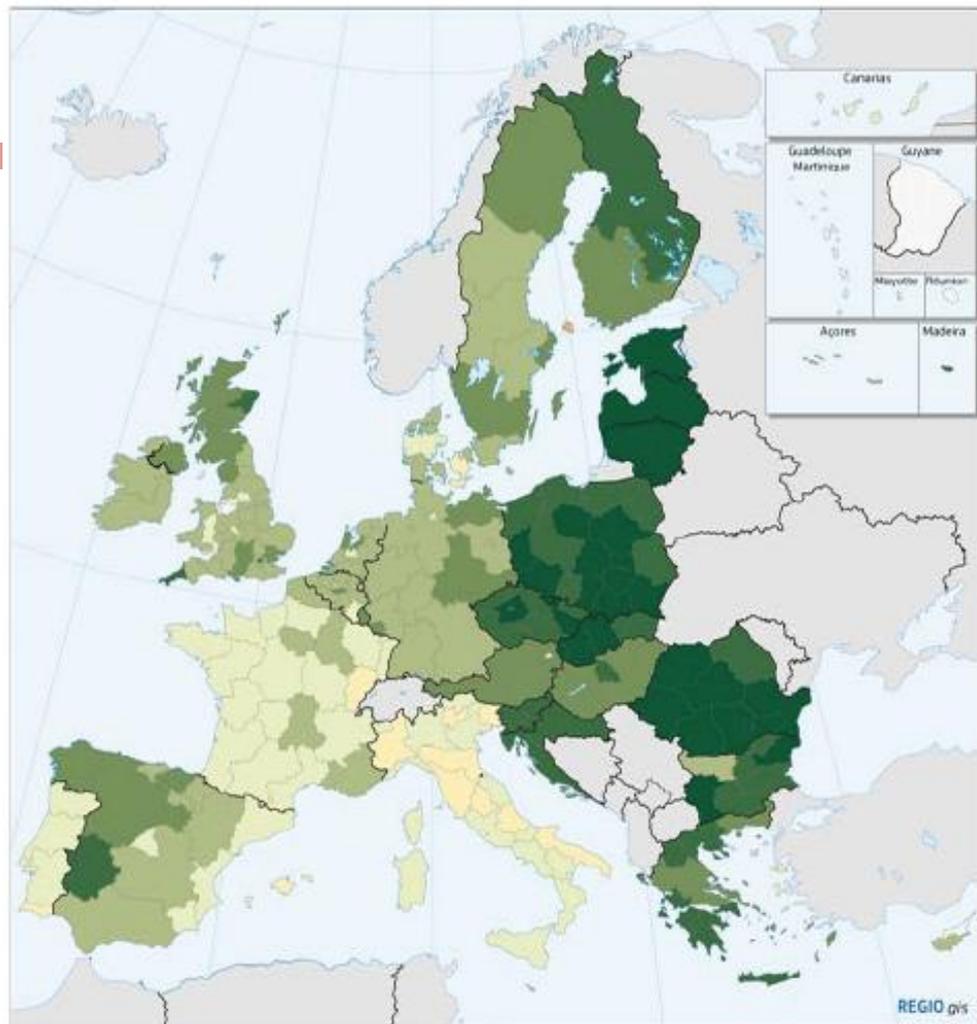
Shift from convergence to divergence



Growth before the crisis

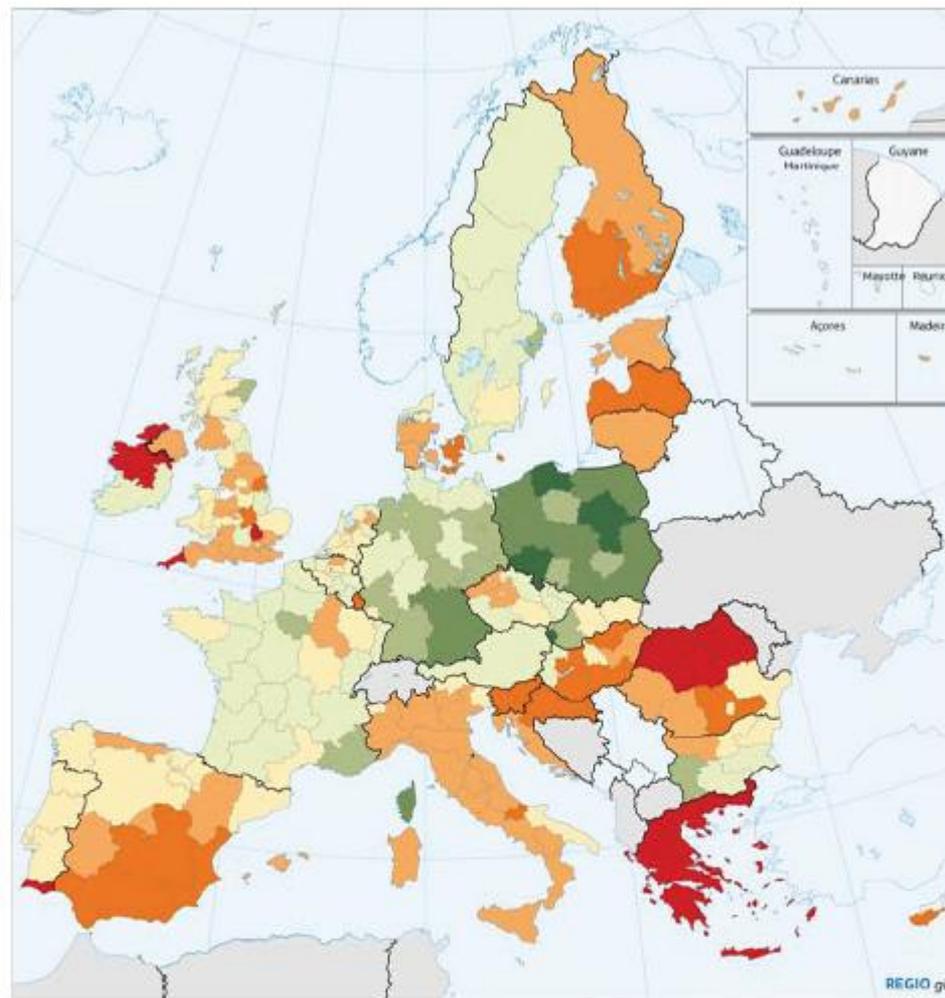
Source: European Commission,
Sixth Report on Economic, Social
and Territorial Cohesion, 2014

http://ec.europa.eu/regional_policy/sources/docof/fic/official/reports/cohesion6/index_en.cfm

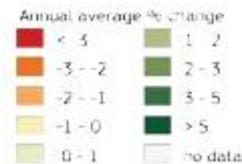


Growth after the crisis

Source: European Commission, Sixth Report on Economic, Social and Territorial Cohesion, 2014



Map 1.3 Growth of GDP per head in real terms, 2008-2011



EU 28 = -0.6
AT, EL: national values, DE: NUTS 1 values

Sources: Eurostat, DG REGIO

0 500 Km

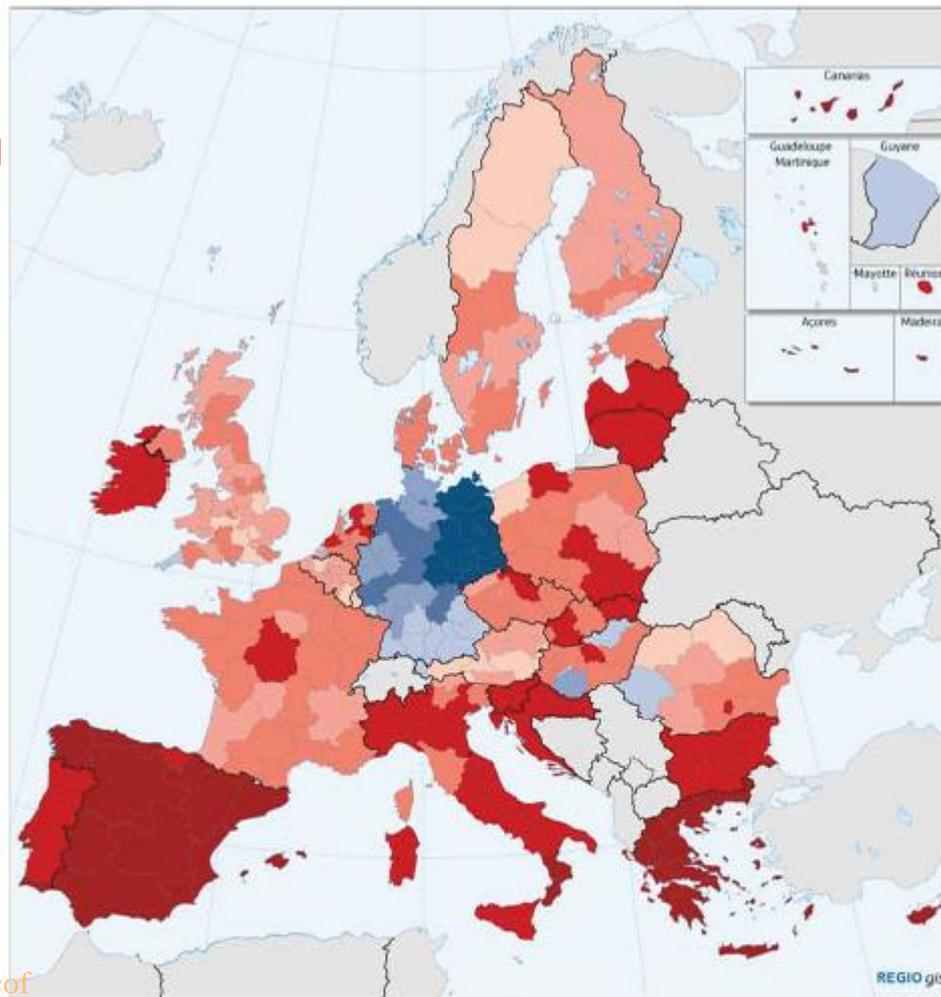
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CRISIS:
asymmetric
impacts

Employment after the crisis

Source: European Commission, Sixth Report on Economic, Social and Territorial Cohesion, 2014

http://ec.europa.eu/regional_policy/sources/docof/fic/official/reports/cohesion6/index_en.cfm



Map 2.4 Change in unemployment rate, 2008-2013

Percentage point change

Dark Blue	< -4	Light Red	1 - 2
Blue	-4 - -2	Red	2 - 4
Light Blue	-2 - -1	Dark Red	4 - 10
Very Light Blue	-1 - 0	Dark Red	> 10
Orange	0 - 1	Grey	no data

EU-28 = 3.8

Sources: Eurostat, DG REGIO

0 500km
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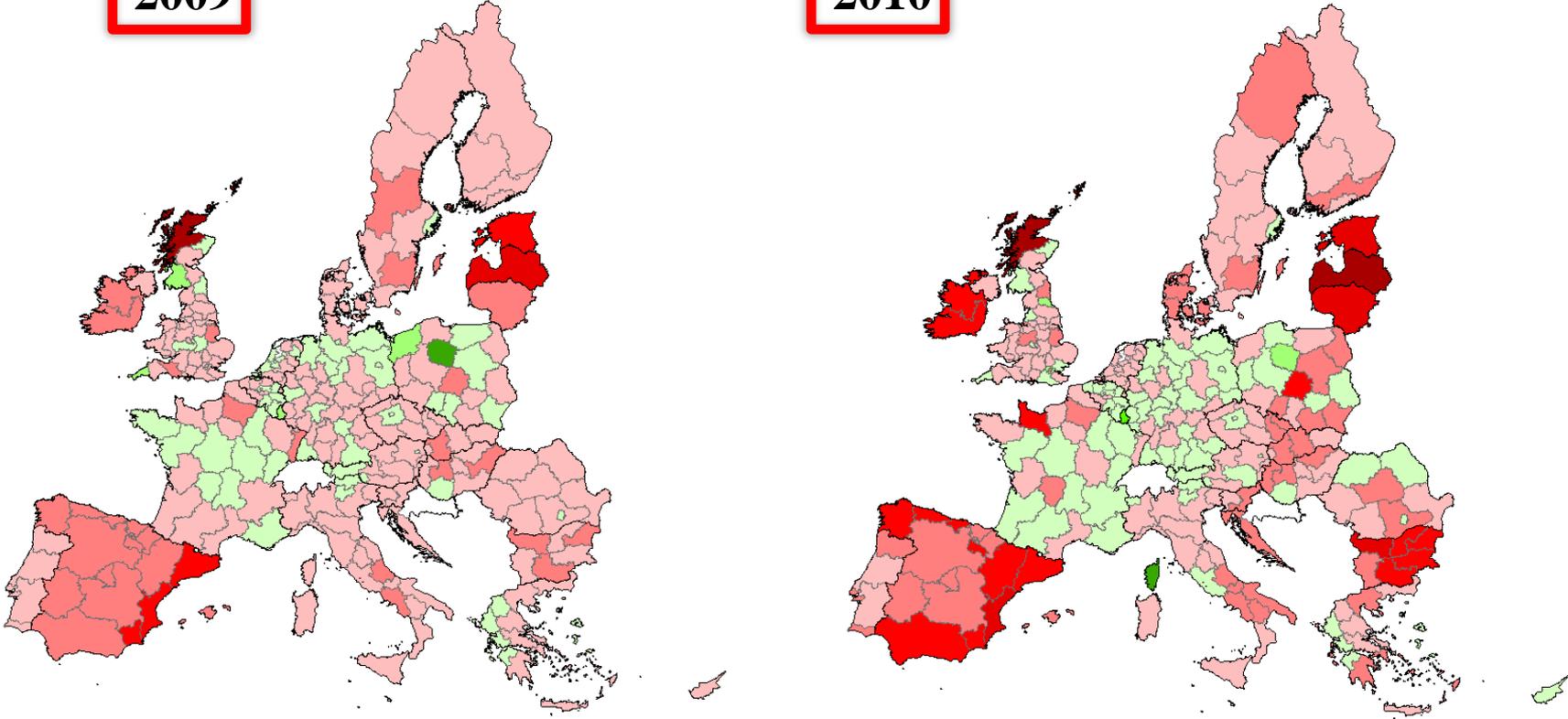
CRISIS:
asymmetric
impacts

Employment crisis in Europe

2009

2010

Base 2008

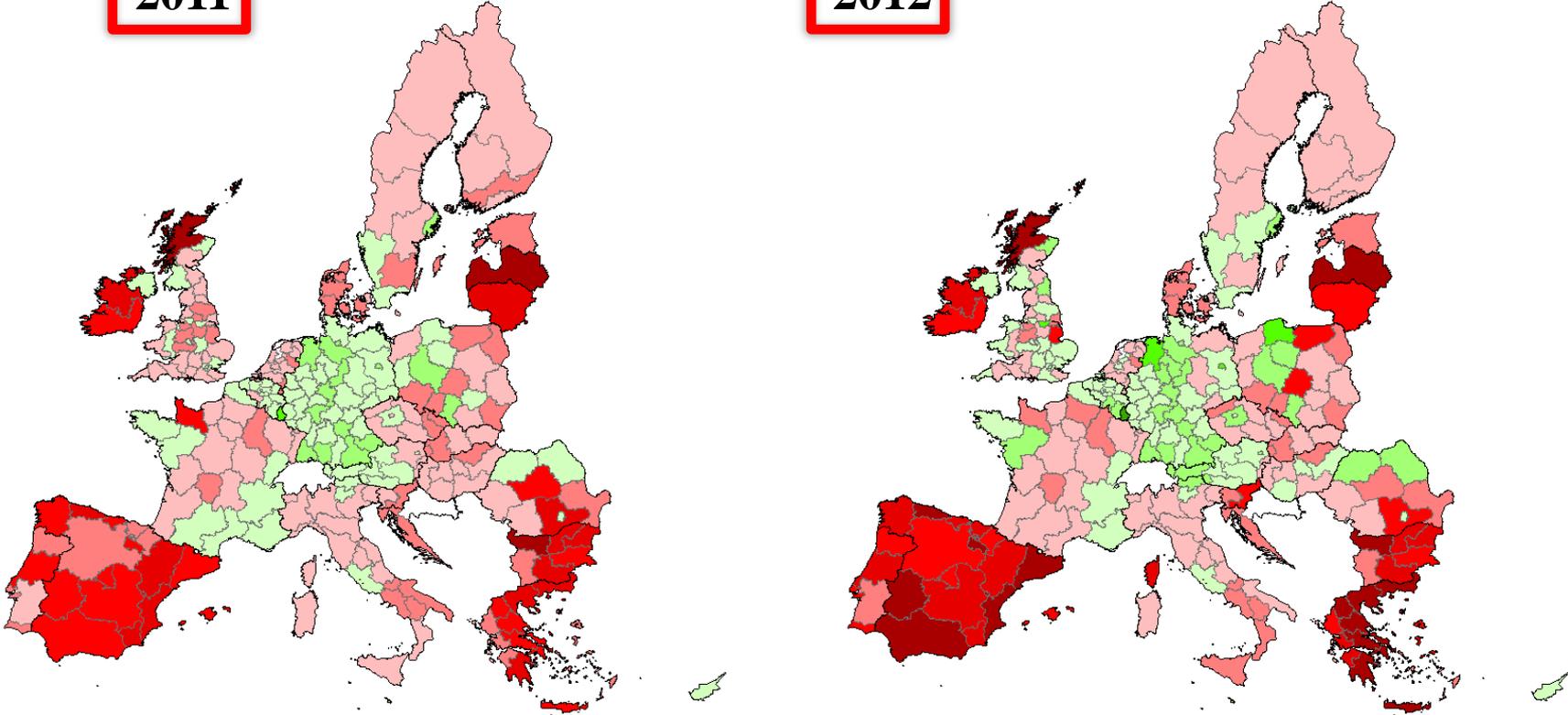


Employment crisis in Europe (II)

2011

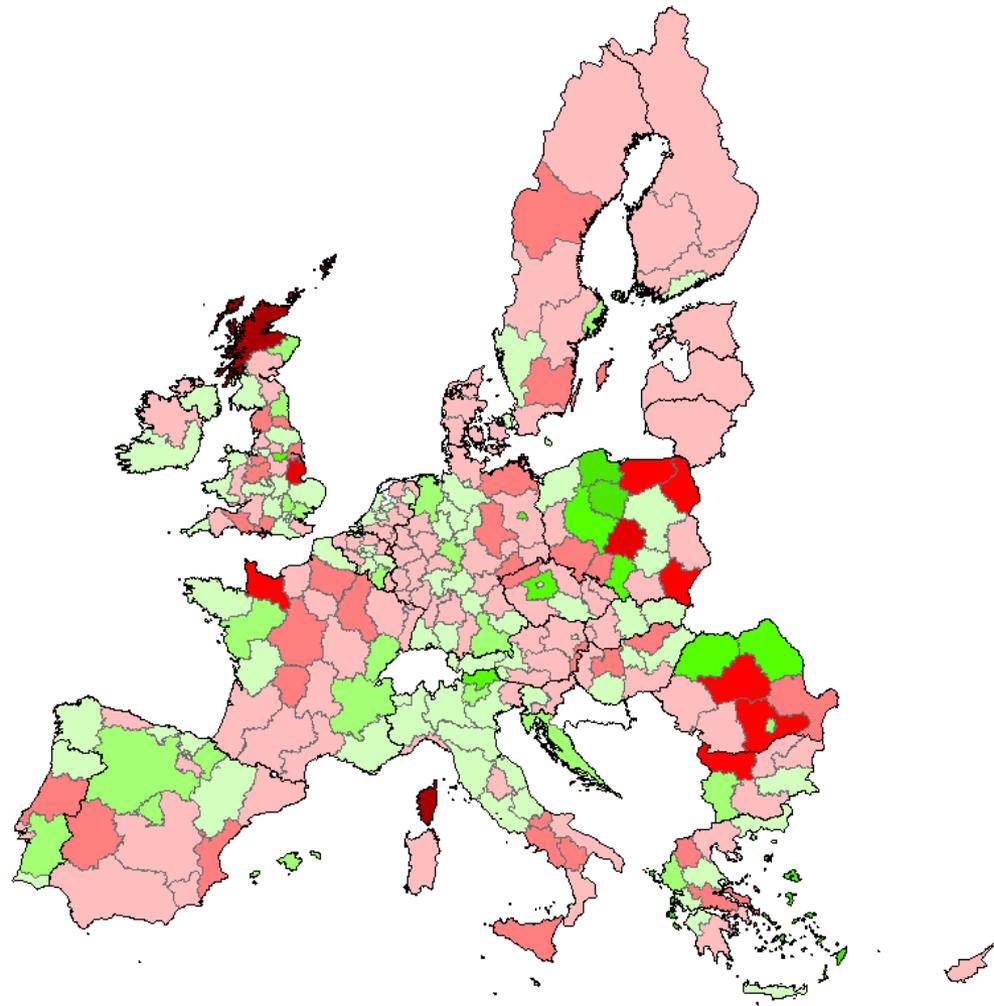
2012

Base 2008



Employment crisis in Europe (III)

2008-2012



Relative to national employment change

Causes of the crisis

- 1. High levels of debt and deficits**
- 2. Low growth and productivity**
- 3. The financial crisis and a weak banking system**
- 4. Trade imbalances**
- 5. Poorly design / functioning institutions**

Cause 1: Government debt and deficits

▶ Common view is that Euro-crisis was caused by lack of fiscal discipline

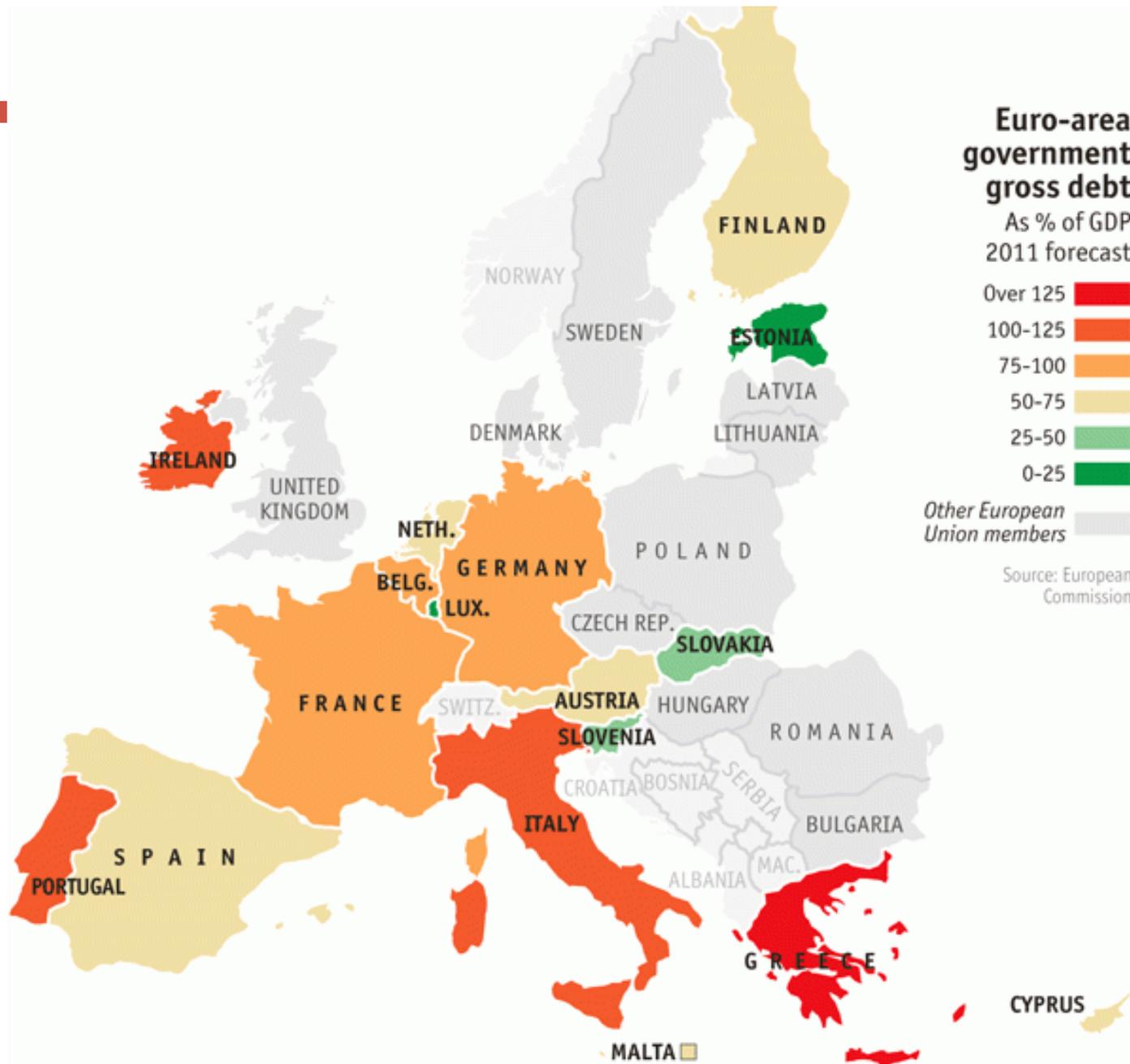
1. Economic crisis of 2007/8 led to reductions in global demand
2. Some countries hadn't "mended the roof while the sun shone"
3. Facing debt and deficit problems, refinancing became difficult

Another argument

“Europe’s turmoil is more than a currency crisis and was inevitable, in some form, even if the euro had never been created. **It’s ultimately a crisis of the welfare state, which has grown too large to be easily supported economically.**”

“The paradox is that the welfare state, designed to improve security and dampen social conflict, now looms as an engine for insecurity, conflict and disappointment.”

Robert Samuelson, Washington Post



The argument against 'debt' as a cause

- **Before the crisis Spain and Ireland had budget surpluses**
- ▶ **Debt actually caused by:**
 1. Long period of low interest rates
 2. Debt in the financial sector
- ▶ **But private debt as much a factor as public debt**
- ▶ **Contributing factor in lack of immediate recovery, but not the cause of the crisis**

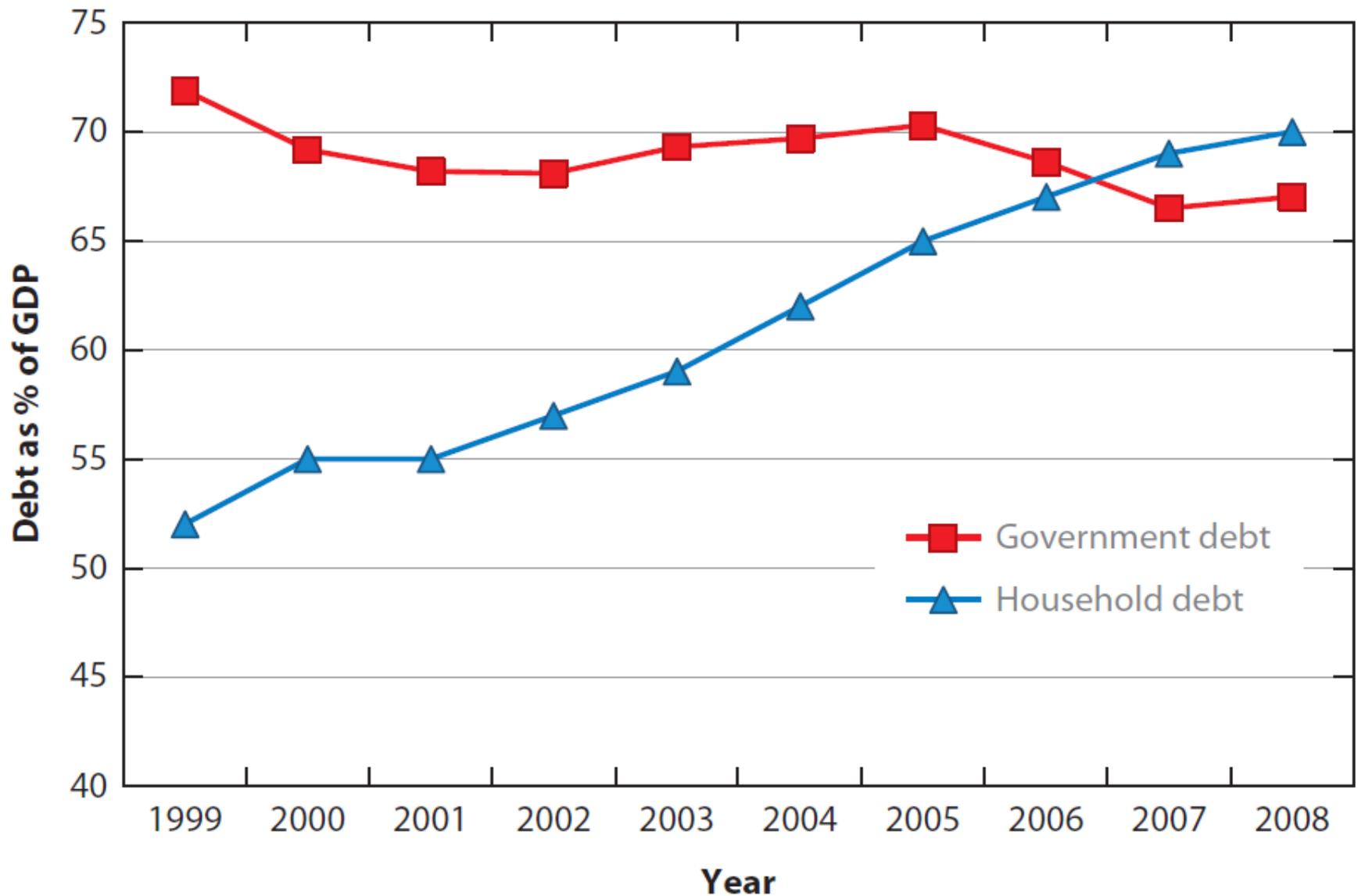


Figure 1

Household and government liabilities in Eurozone prior to crisis (as a percentage of gross domestic product). *Source:* European Commission, AMECO and CEPS.

Via: De Grauwe, 2013

An exception? Greece

▶ Huge deficits developed in pensions, health before the financial crisis

1. Very hard for government to address
2. Disguised by growth which reduced urgency
3. Inefficient- expensive, with little impact on poverty

▶ Welfare state starved of resources during crisis

▶ But particularly important during periods of economic difficulty

1. Labour market reforms enacted to reduce pension protection

Table 1 Projected spending on public pensions (% of GDP)

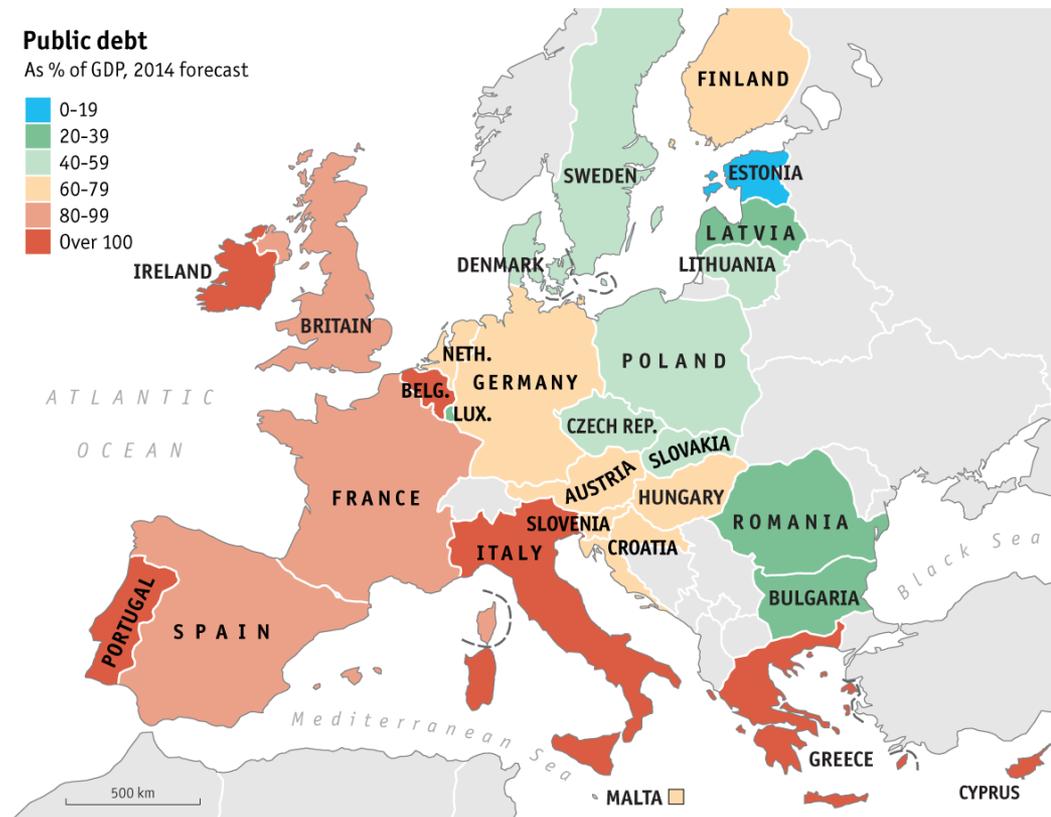
	2007	2020	2030	2040	2050	2060
Greece	11.7	13.2	17.1	21.4	24.0	24.1
Spain	8.4	9.5	10.8	13.2	15.5	15.1
Portugal	11.4	12.4	12.6	12.5	13.3	13.4
Ireland	4.0	4.6	5.4	6.4	8.0	8.6
EU	10.1	10.9	11.4	12.3	12.5	12.5

Source: European Community (2009).

For more: see Matsaganis (2012)

Related problem: Austerity

- ▶ **Public debt is only partially a consequence of the welfare state**
- ▶ **Crisis led to significant rise in public debt**
 1. Fiscal stabilisers
 2. Cost of bank bail out
 3. Reduced income
- ▶ **Some argue public debt *should* rise in difficult economic times**



Cause 2: Low growth

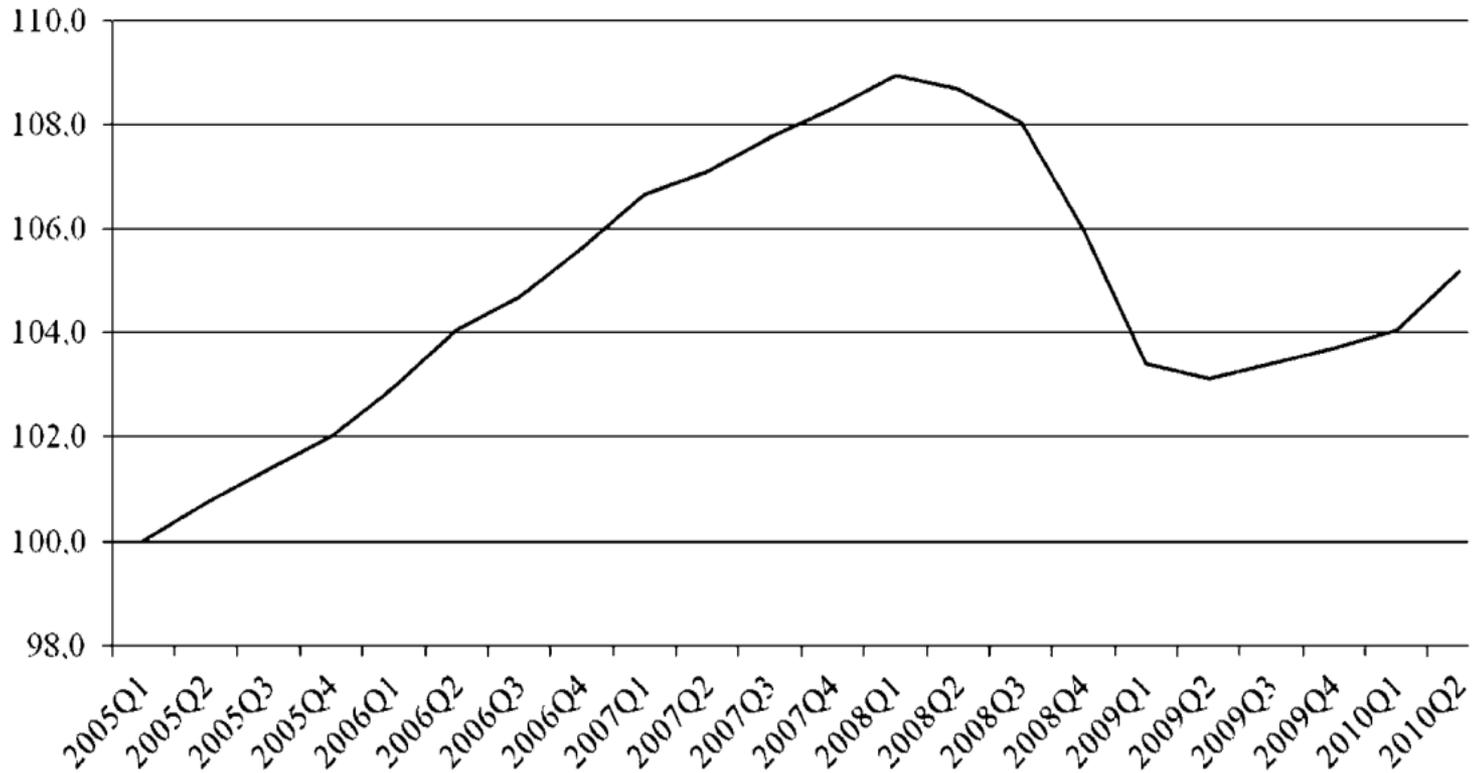
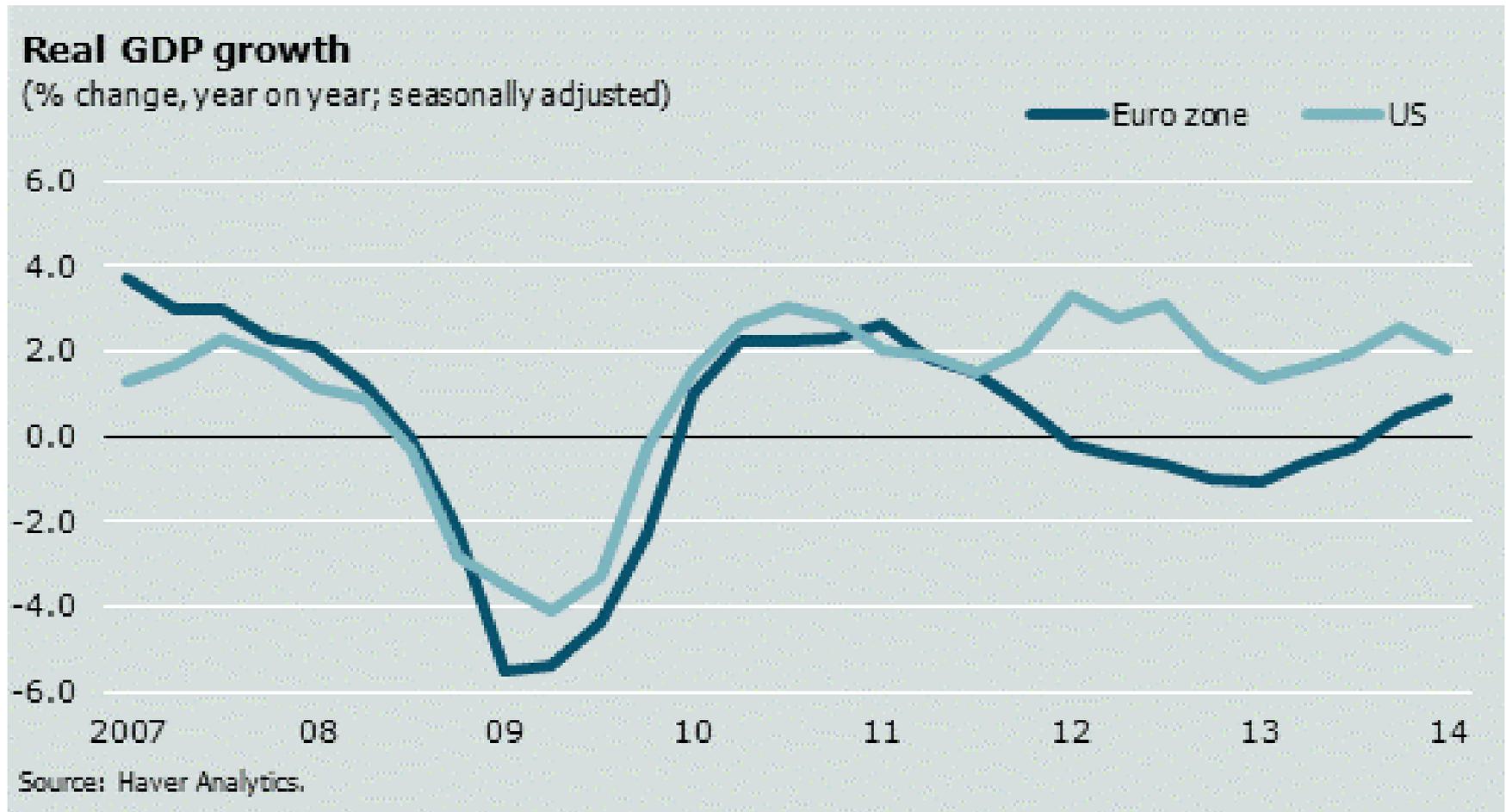


Figure 1. *Index of real GDP in the EU-27 (2005Q1 = 100).*
Source: Eurostat, Quarterly National Accounts statistics,
December 2010.

Cause 2: Low growth



Cause 2: Low growth

▶ OCA theory

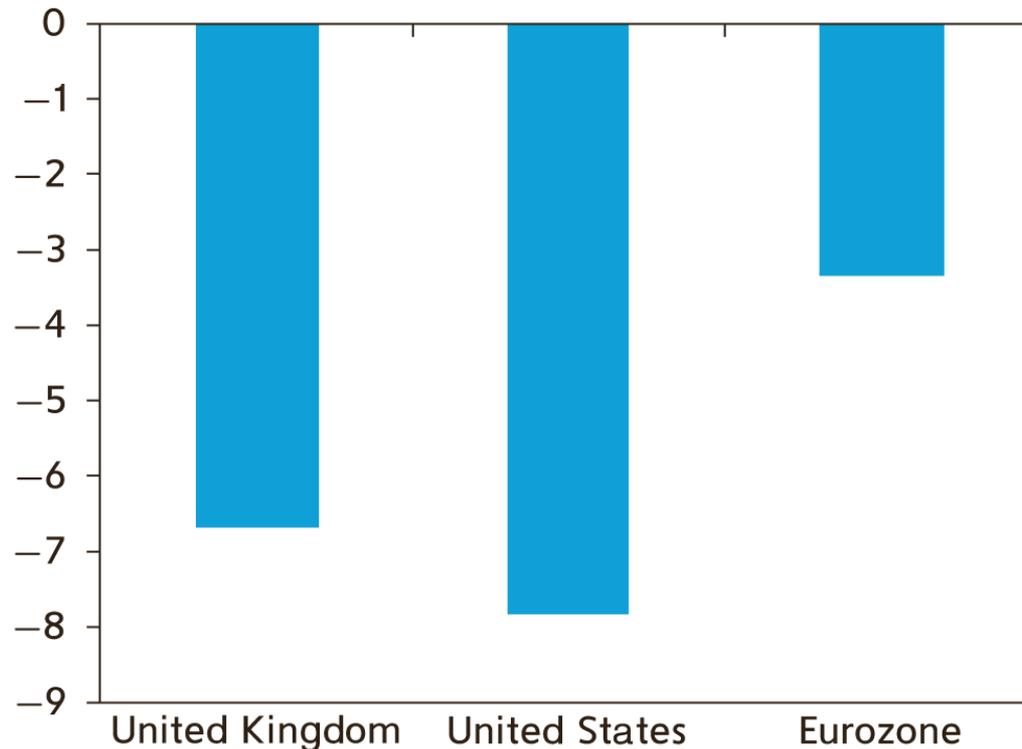
1. OCA with low factor mobility and lack of flexibility leads to ...
2. lack of competitiveness and weak growth performance
3. decade of low interest rates

▶ **This has been an important factor in the crisis**

▶ **Structural policy will be needed to enhance competitiveness – but painful**

Were austerity and debt related?

Figure 19.10 Cyclically-adjusted budget balances: averages during 2007–2013 (% of GDP)



Source: Economic Outlook, OECD

Cause 3: Banking system

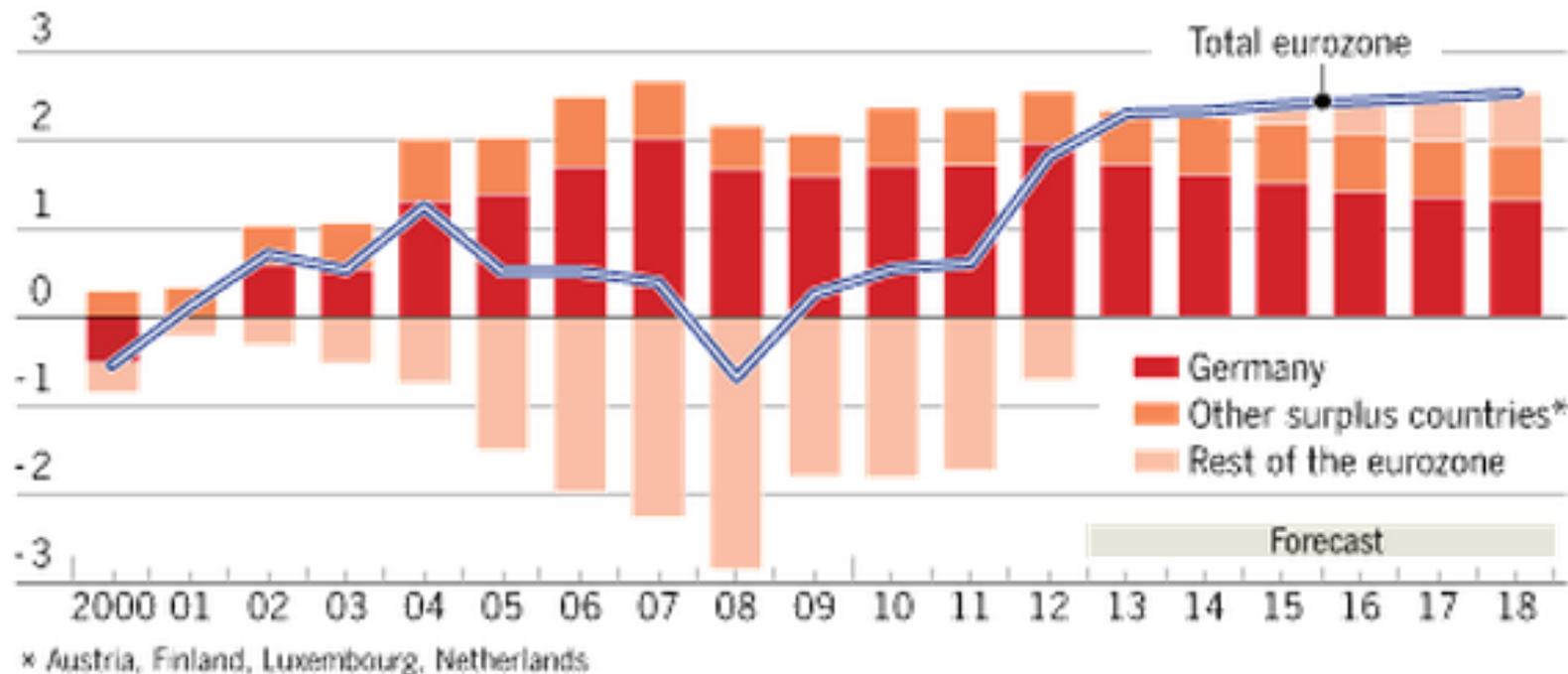
- ▶ **Most policies assumed the issue was fiscal problems**
 1. Greece seen as most important
- ▶ **But in many countries – Spain and Ireland – the problem was the banks**
 1. Low interest rates
 2. Expansionary policies
 3. Easy credit availability
 4. Crisis...

Cause 4: Trade imbalances

- ▶ Make it hard for countries to achieve export-led recovery

Eurozone imbalances

Current account balance (as a % of eurozone GDP)



Cause 4: Trade imbalances

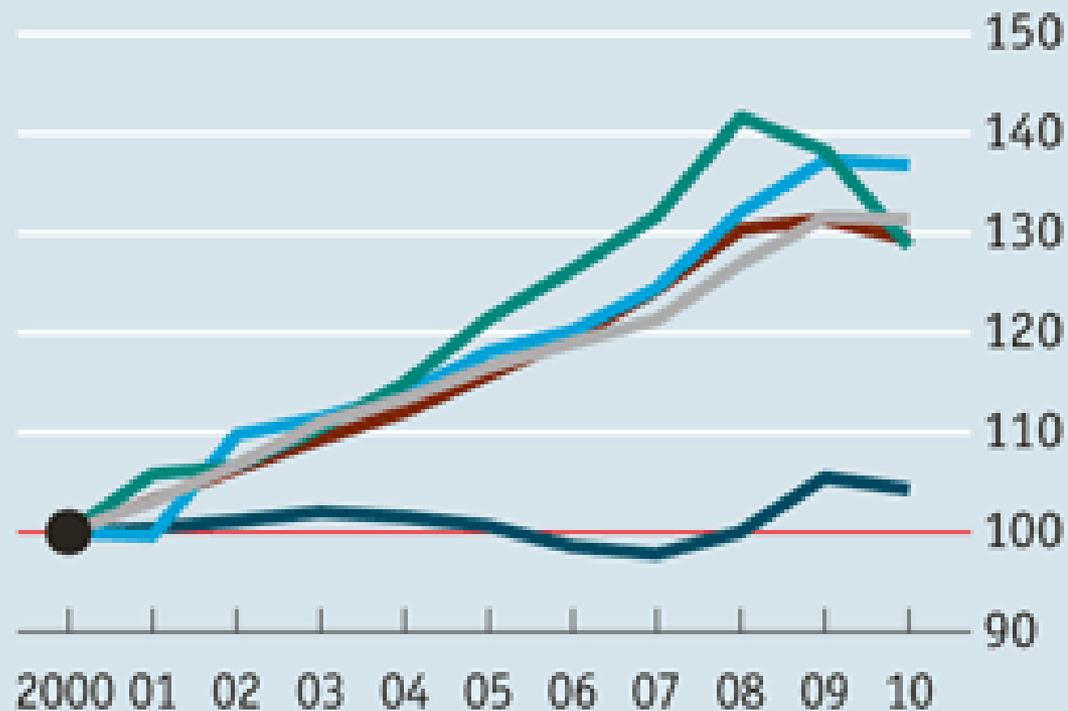
- ▶ **Greece, Ireland, Italy, Portugal, and Spain all ran rising current account deficit since late 1990s**
- ▶ **Offset by German surplus**
- ▶ **Solution – devaluation of periphery, but should this be internal or external to Eurozone?**
 1. Internal: austerity, downward rigidity of prices and so unemployment
 2. External: difficult to consider...

Deepening differences

2

Unit labour costs, 2000=100

— Greece — Italy — Spain
— Ireland — Germany



Source: ECB

Cause 5: Institutional failure

- ▶ **Repeated breaches of the stability pact have gone without punishment**
- ▶ **Some ‘bailout’ institutions**
 1. **European Financial Stability Facility (EFSF)**
 - June 2010 – used to bailout Ireland, Portugal and Greece
 - €780bn in lending + additional
 2. **European Stability Mechanism (ESM)**
 - September 2012 – provides for bailouts of eurozone MS
 - €500bn in lending + additional

Cause 5: Institutional failure

- ▶ **Institutional, political and decision making issues clearly at heart of crisis**
 1. “EU institutions are often dysfunctional, unduly dominated by Germany, and not democratic enough.”
 - Phillippe Legrain, former advisor to Barroso
- ▶ **And institutional conditions may have worsened**
 1. Eurozone taxpayers lent money to countries through bailouts (Greece, Ireland)
 2. Creditors (Germany) demanded controls over the actions of debtors: rigid, centralised fiscal controls
 3. Yet given need for restructuring and a single currency area, countries need more flexibility not less

What do you think?

1. High levels of debt and deficits
2. Low growth and productivity
3. The financial crisis and a weak banking system
4. Trade imbalances
5. Poorly design / functioning institutions
6. Structural problems: *growing economic protection?*

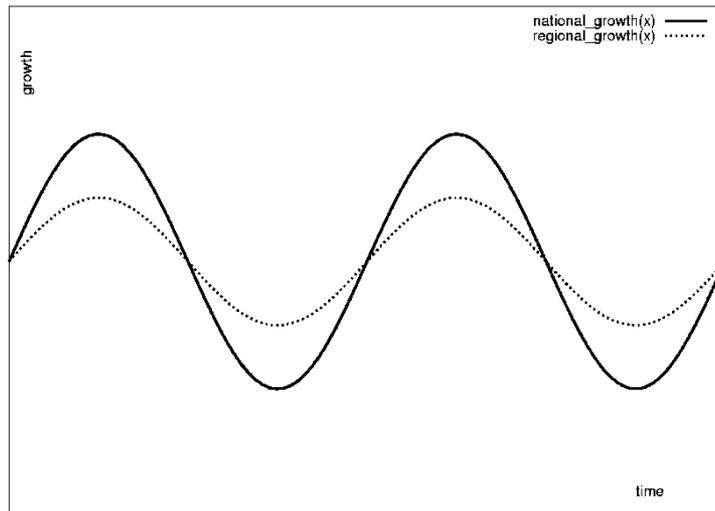
Factors behind differences in employment

- ▶ **Differences in the supply of credit across countries and, to a lesser extent, regions**
- ▶ **Economic structure and levels of regional specialization**
 1. Pharmaceutical industry (↑ 6.52% 2008-2011)
 2. Textiles (↓ 7.45%)
 3. Construction (↓ 11.95%)
- ▶ **Political and institutional conditions**
 1. Economic policies: austerity vs. stimulus
 2. Labour market regulations
 3. Overall institutional quality
- ▶ **Some countries and regions are more resilient than others (Martin, 2012)**

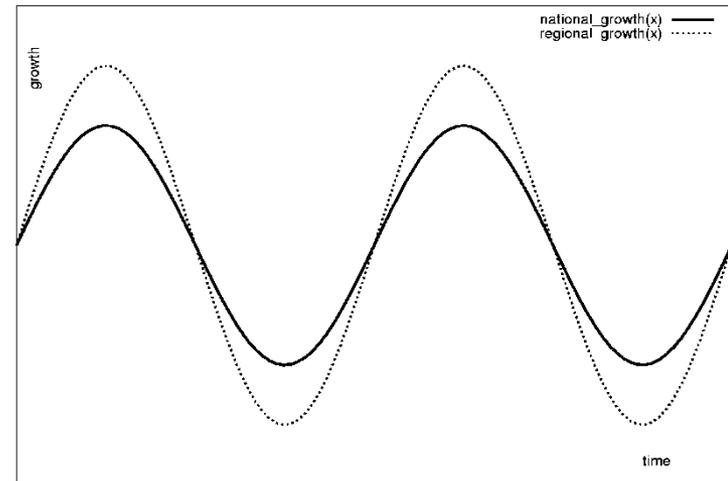
Presence of sheltered or protected economies

- ▶ **Sheltered economies can be defined as economies that are more impervious to changes in the economic cycle**
 1. Greater reliance of these regions relative to the country on sectors less exposed to market changes
 2. Greater reliance on transfers

Sheltered economy

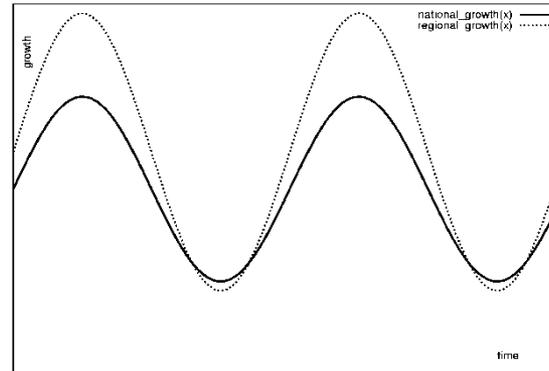
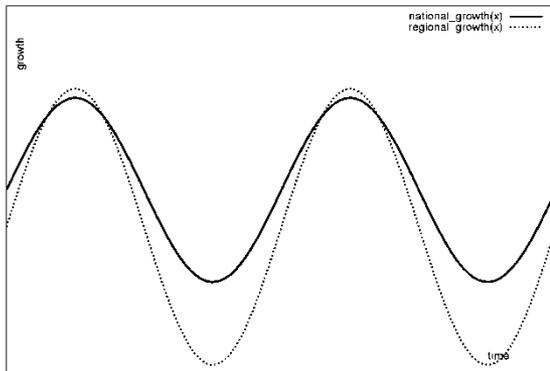
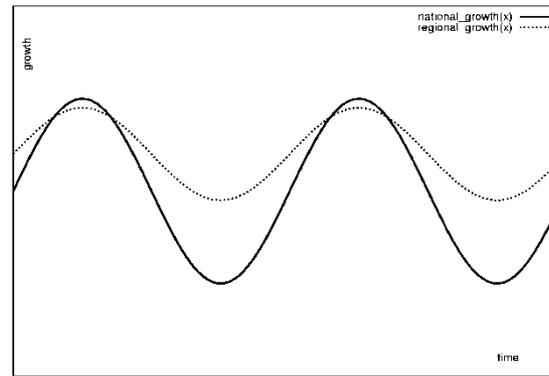
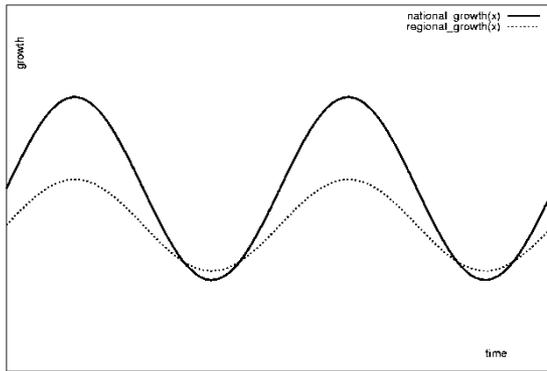


Open economy



Sheltered vs. open regions

In principle the decline or expansion of regions is independent from their market exposure ...



Measurement of sheltered economies

► Based on Rodríguez-Pose and Fratesi (2007)

$$EXP = \frac{\sum_{year=1}^n (regional_growth - national_growth) \cdot I_{EXP}}{\sum_{year=1}^n I_{EXP}}$$

$$REC = \frac{\sum_{year=1}^n (regional_growth - national_growth) \cdot I_{REC}}{\sum_{year=1}^n I_{REC}}$$

$$Shelt = EXP - REC$$

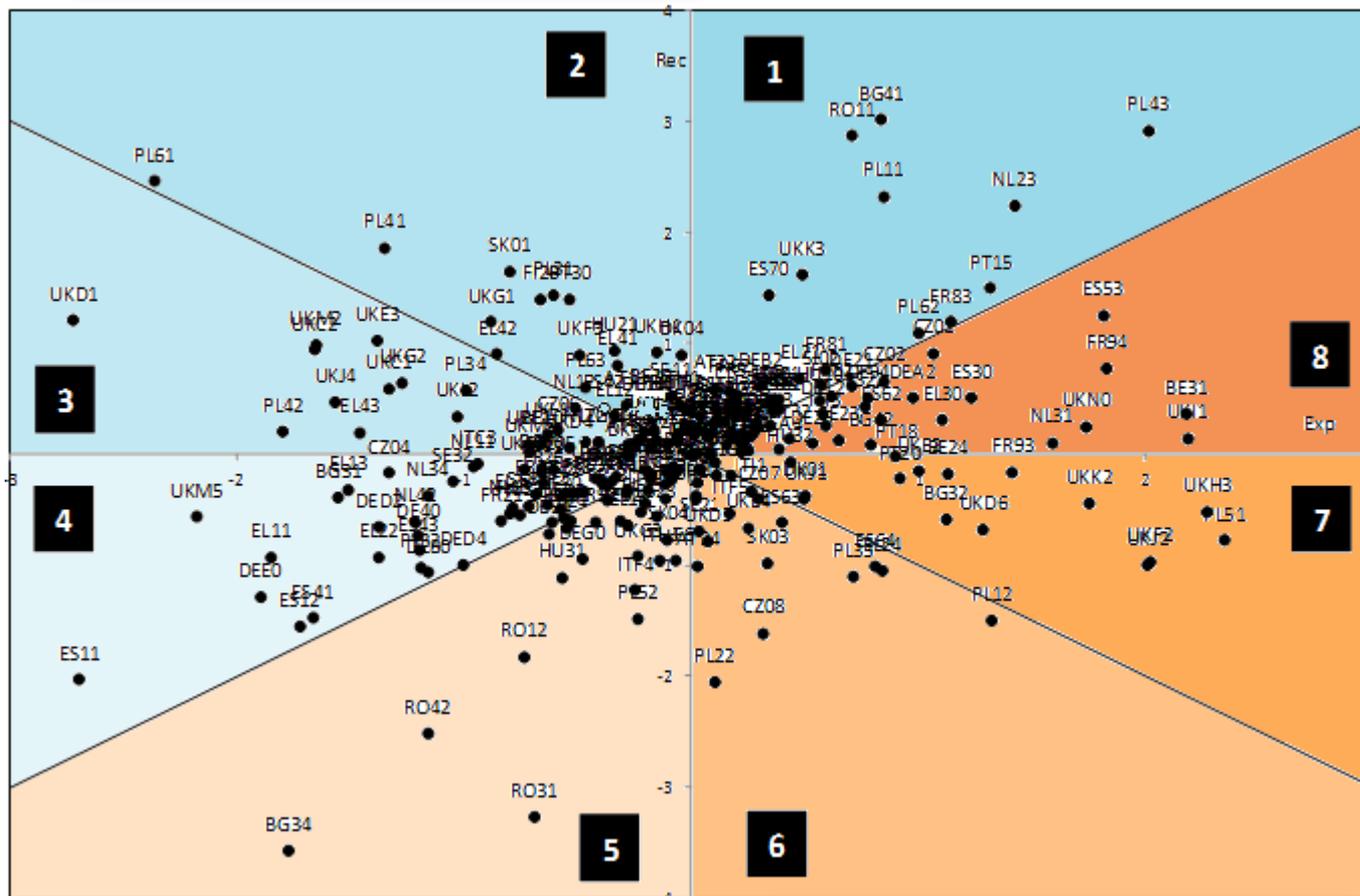
► Where:

1. EXP is the difference in the average growth rate in the region in years of above-average growth;
2. REC is the differential rate growth of the region in the years of below-average growth;
3. Where I_{EXP} e I_{REC} are the binary indicators of national growth higher or lower from the average in that year.

► Sheltered economy index calculated for 1995-2006.

Institutions and Innovation II

Blue: Sheltered regions



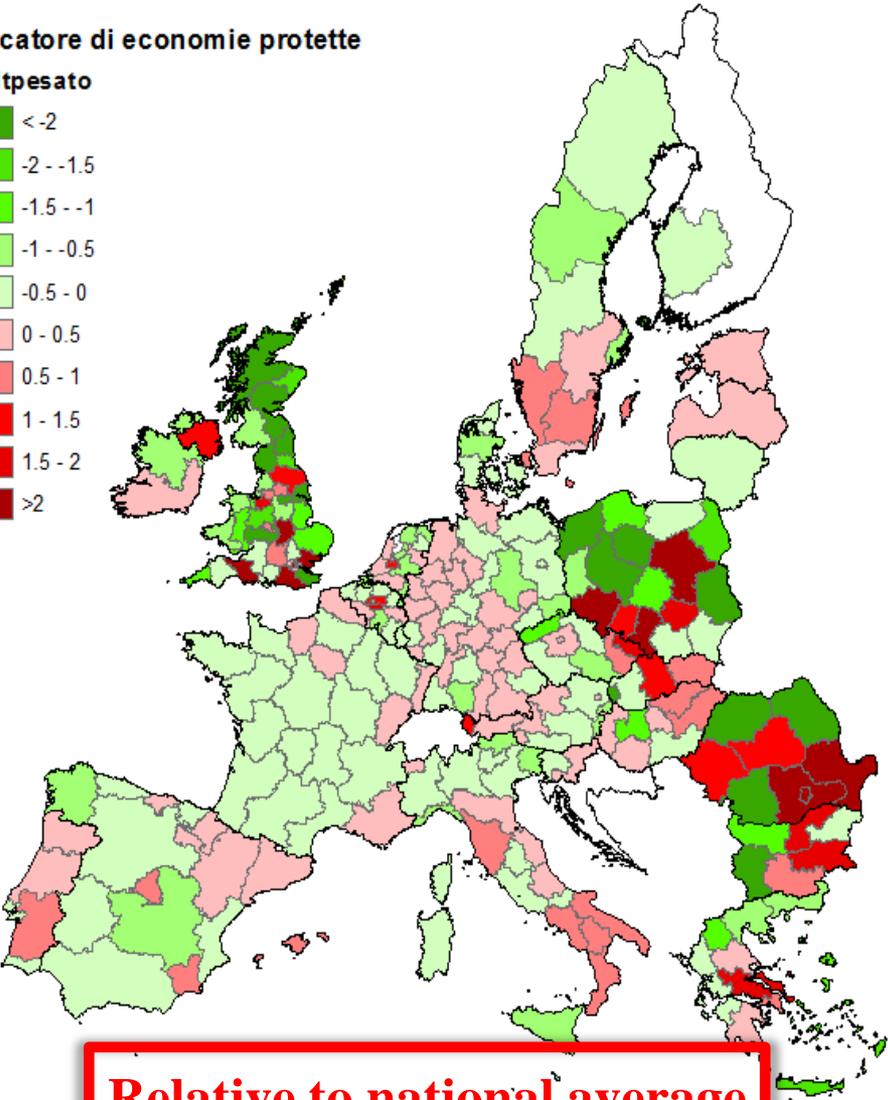
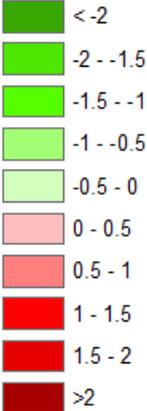
**Darker shades:
better economic
performance:**
1-8: better
performance in all
phases of the cycle
4-5-: worse economic
performance in all
phases of the cycle

Orange: Open regions

Sheltered economy index (1995-2006)

2008-2012

Indicatore di economie protette
sheltpesato



Relative to national average

Sheltered economies and crisis performance

- ▶ Has the degree of openness/protection affected the employment performance during the crisis?

Quadrants	Type of Regions	Employment growth		Employment growth		Number of regions
		2008-2012		2008-2012		
		Mean	Standard Dev.	with respect to country	Standard Dev.	
1&2	Protected and strong	-1.53	6.55	0.54	4.65	71
3&4	Protected and weak	-4.53	7.24	-1.56	4.63	70
5&6	Open and weak	-3.44	6.31	-0.66	2.92	57
7&8	Open and strong	-1.19	7.00	1.03	3.40	54
	Total	-2.72	6.89	-0.21	4.16	252
F-test		3.5		5.34		
Prob > F		0.0162		0.0014		

The results are reproduced at a finer scale

Sheltered economies and crisis performance

Quadrants	Type of Regions	Employment growth 2008-2012		Mean	Employment growth 2008-2012 with respect to country	Number of regions
		Mean	Standard Dev.			
1	Protected and strong (exp>0)	-2.28	7.07	-0.07	4.39	36
2	Protected and strong (exp<0)	-0.76	5.98	1.17	4.88	35
3	Protected and weak (rec>0)	-4.45	7.79	-2.24	5.90	24
4	Protected and weak (rec<0)	-4.56	7.03	-1.21	3.83	46
5	Open and weak (exp<0)	-4.32	6.75	-1.06	2.85	32
6	Open and weak (exp>0)	-2.32	5.62	-0.15	2.99	25
7	Open and strong (rec<0)	-2.21	6.85	1.15	5.53	15
8	Open and strong (rec>0)	-0.80	7.10	0.99	2.20	39
	Total	-2.72	6.89	-0.21	4.16	252
	F-test		1.86	2.77		
	Prob > F		0.1774	0.0088		

Less employment destruction is the most protected and less dynamic, but also in the most open and dynamic

Intermediate regions are suffering the brunt of the employment crisis

What about overall employment change?

- ▶ Has it been better to be opened or sheltered during the crisis?

*empgrowth*₂₀₀₈₋₁₂ = *f*(*regional characteristics, regional controls, national factors*)

What about overall employment change?

Previous dynamism in employment creation has been rewarded during the crisis

	(1)	(2)	(3)	(4)	(5)	(6)
Share of employment in agriculture	-0.0466	-0.0357	-0.0355	-0.0685	-0.0687	-0.0778
Human resources in Science and Technology	0.3161 **	0.2767 **	0.3416 ***	0.3026 **	0.2922 **	0.2931 **
Regions above the national average growth in 1995-2006	134.216	117.730	122.705	110.731	108.288	109.932
Share of Clerks	6 **	5 **	122.705 *	1 **	7 **	5 **
Shelt		1.5015 ***	-0.4623 **	1.2959 ***	1.0792 *	
Exp					-0.2355	-0.0273
Rec					0.4742 *	0.7132 ***

Being sheltered in the past has overall meant more employment destruction

But highly sheltered regions has been spared by the employment crisis.
 1% above average employment growth in 1995-2006 in sheltered areas has meant 0.5% less employment destruction

Conclusions

- ▶ **The interaction between sheltered economies and employment change during the crisis is complex**
- ▶ **Sheltered regions have shed more employment**
- ▶ **Past employment dynamism in open economies has led to lower job destruction (and even growth)**
- ▶ **But those regions which are the archetype of sheltered economies have also been relatively spared by the crisis**
- ▶ **The question is what happens once the recovery starts.**

Trade, economic integration, and the crisis

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More information at

<http://personal.lse.ac.uk/rodrigu1/>