

Resilience, Trade and Urbanisation,

Local Economic Growth: Recession, Resilience and Recovery

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Resilience

- Relatively recent topic:
 - Special Issue Cambridge journal of Regions: *The resilient Region, 2010*.
 - The Great Recession, stimulated research
 - Not all are convinced:
Hassink (2010) – does not add to our understanding; Pendall et al.(2010) – fuzzy concept;

Concept Resilience: 'multidimensional'

- Martin (2012), four elements

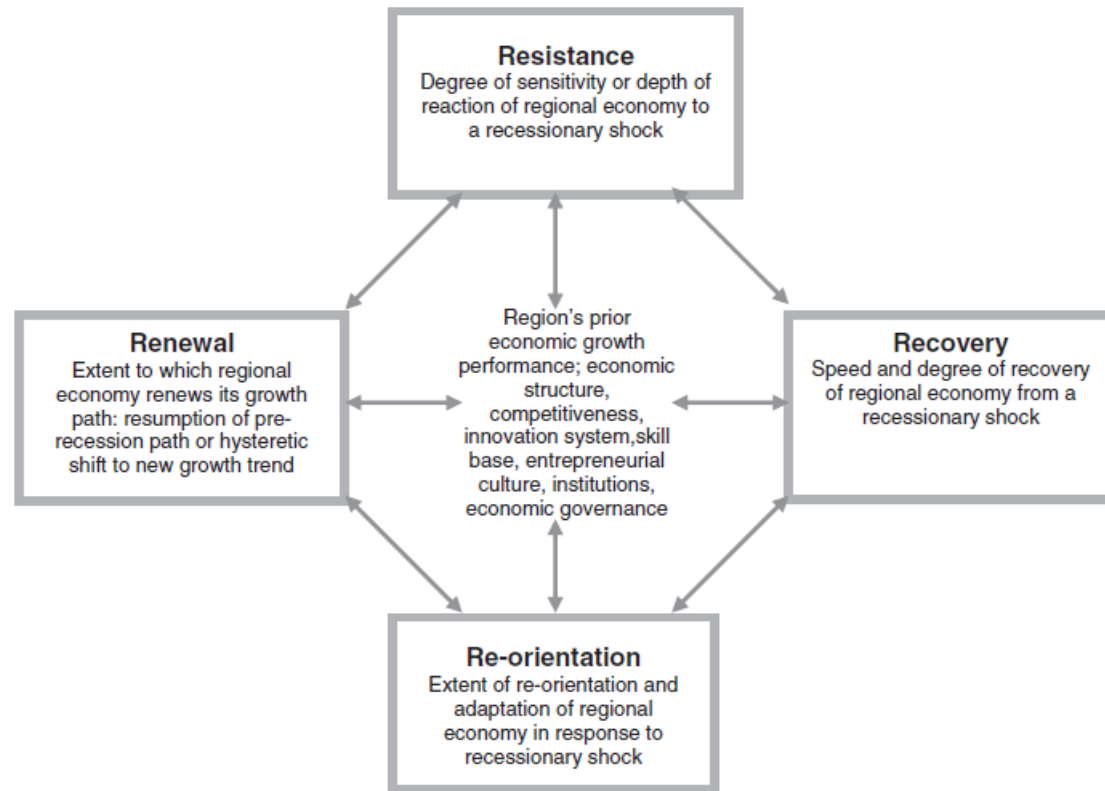
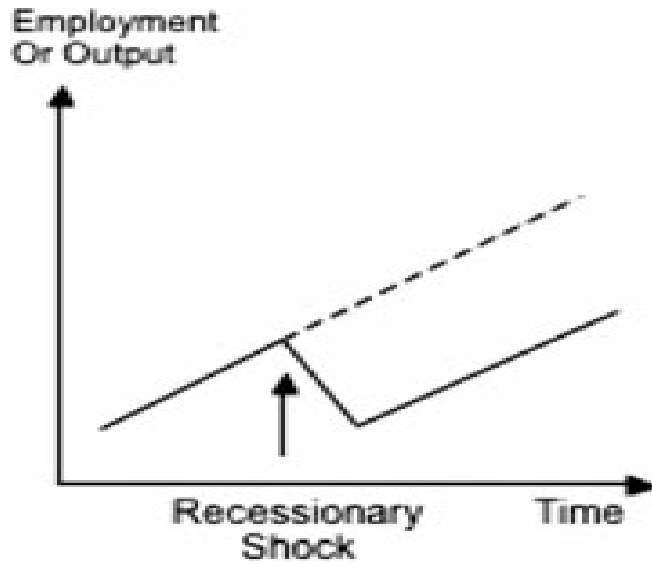


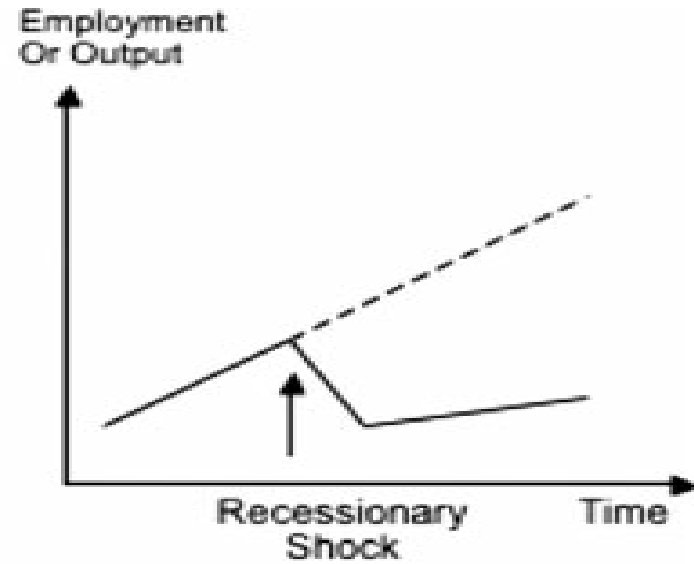
Figure 4. Four dimensions of regional economic resilience to a recessionary shock.

As an aside: Resilience is defined as an inter regional concept, whereas Economic Geography points towards intra-regional resilience, that is, the interconnectedness of regions

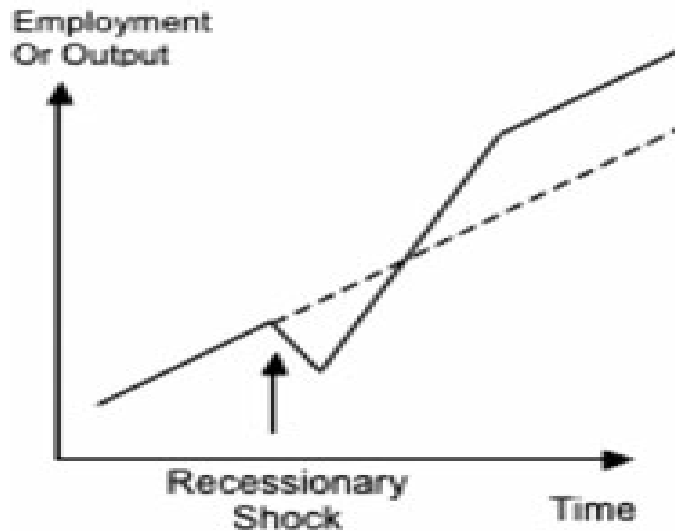
Typical outcome



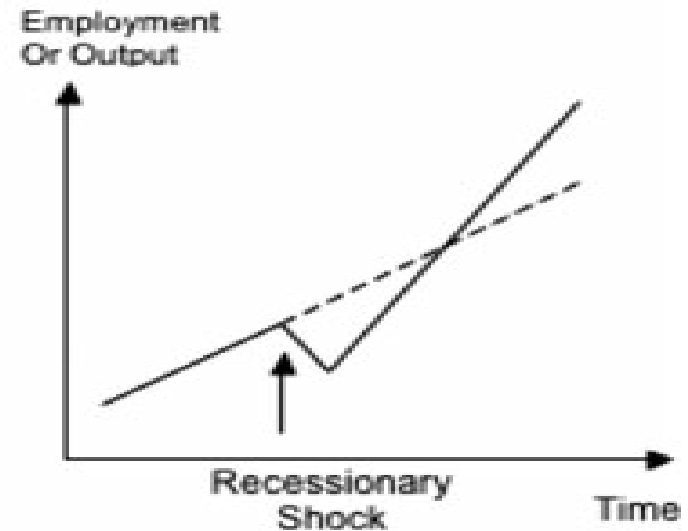
(a)



(b)



(c)



(d)

Empirical findings

- Differences in pre-/post recession growth rates, unemployment etc: considerable variation across regions, suggestion Resilience is an ‘issue’
- An example (Fingleton et al.2012) of recovery:

TABLE 2: Regional Employment Recovery from Two U.K. Recessions

	1983(1)–1990(1)	1992(4)–2008(1)
South East	1.69	1.43
Greater London	0.37	1.48
Eastern	1.39	1.26
South West	1.60	1.38
East Midlands	1.07	1.26
West Midlands	1.15	0.62
Yorks-Humber	0.97	0.73
North West	0.73	0.49
North East	0.62	0.32
Wales	1.23	0.80
Scotland	0.69	0.64
N. Ireland	0.77	1.82

Note: “Recovery” index measured as percentage growth in employment in region/percentage growth in employment in U.K.

Source: Calculated from data supplied by Experian, London.

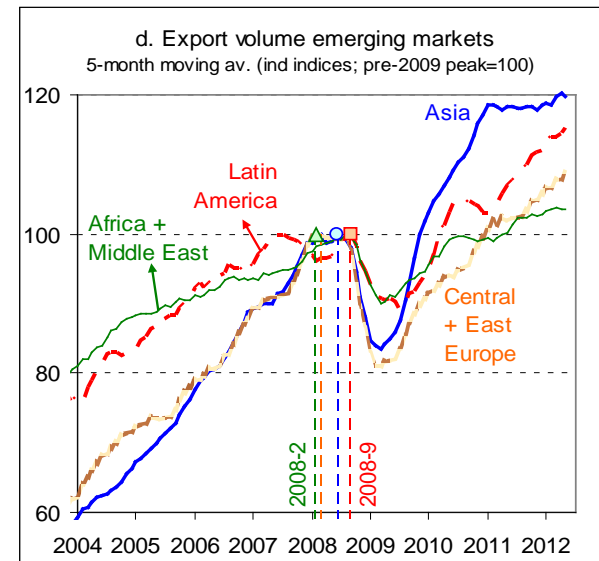
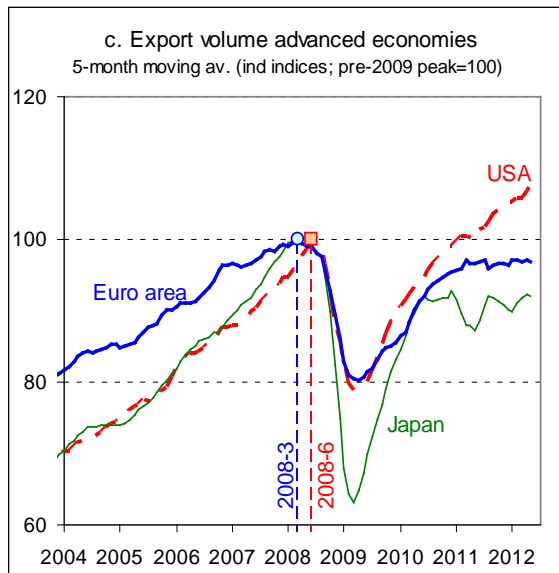
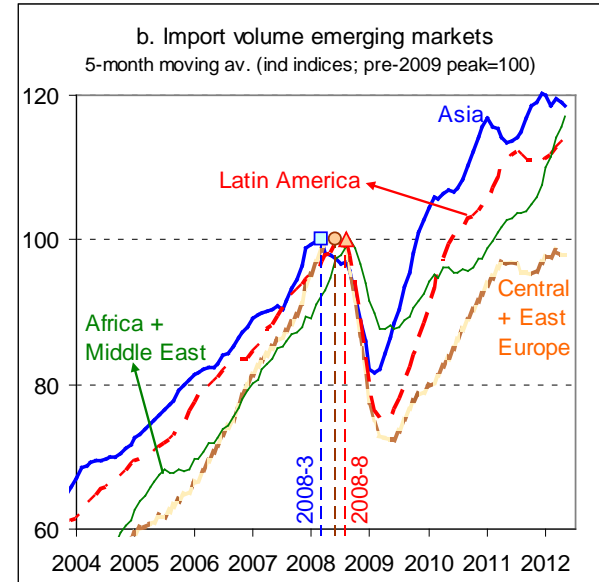
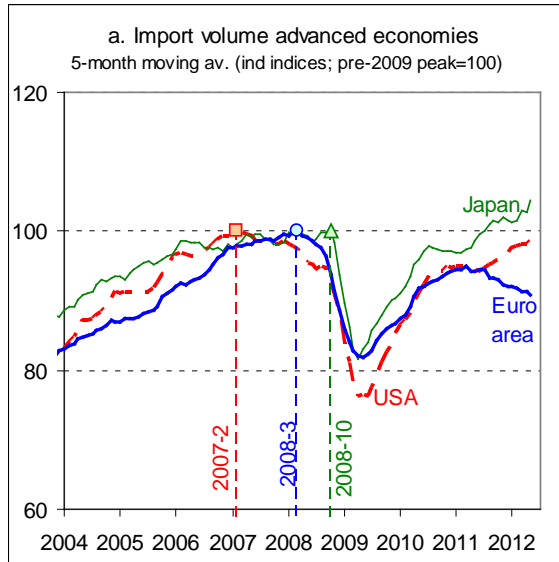
Our Contribution

Hypothesis

- Resilience/ recovery has been extensively documented, but the causes are somewhat neglected.
- Obvious cause (connection outside world: Regional *Trade* exposure: (determines sector composition of regions; specialization patterns), and is '*common*' shock
- Hypothesis: Regional trade determined by 'Lumpiness'

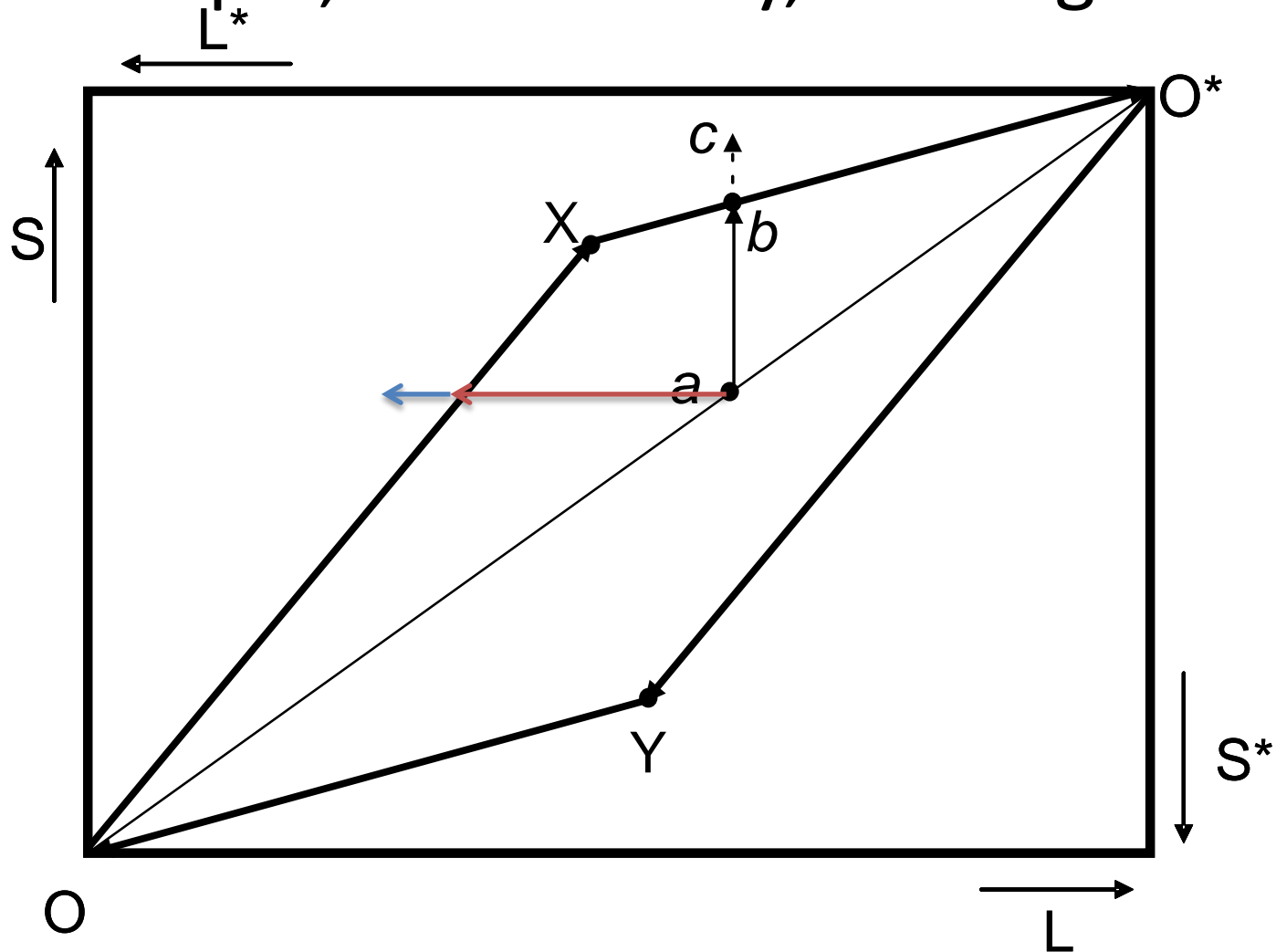
Why Trade?: Common Shock

Trade volumes and the Great Recession; selected areas, 2004 – July 2012



Why Lumpiness?

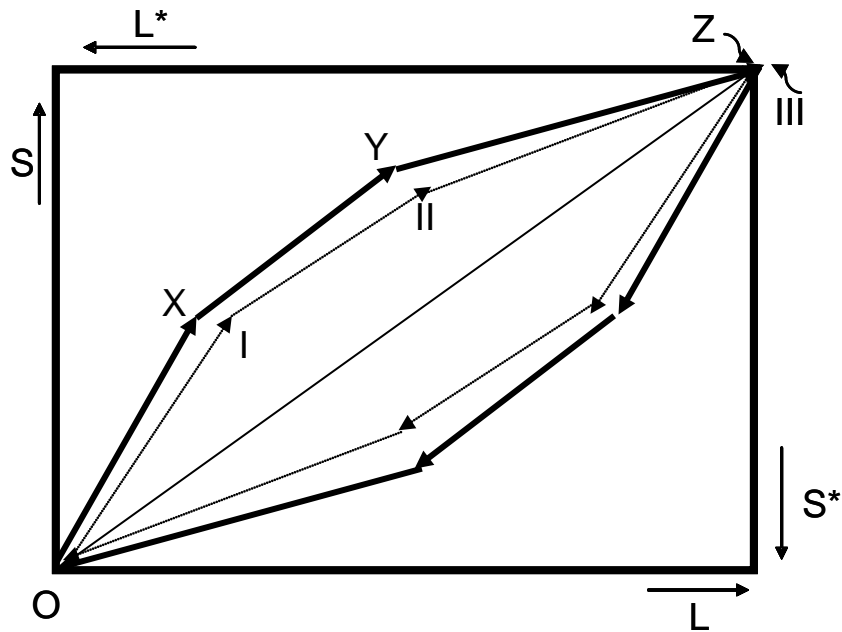
example; one country, two regions



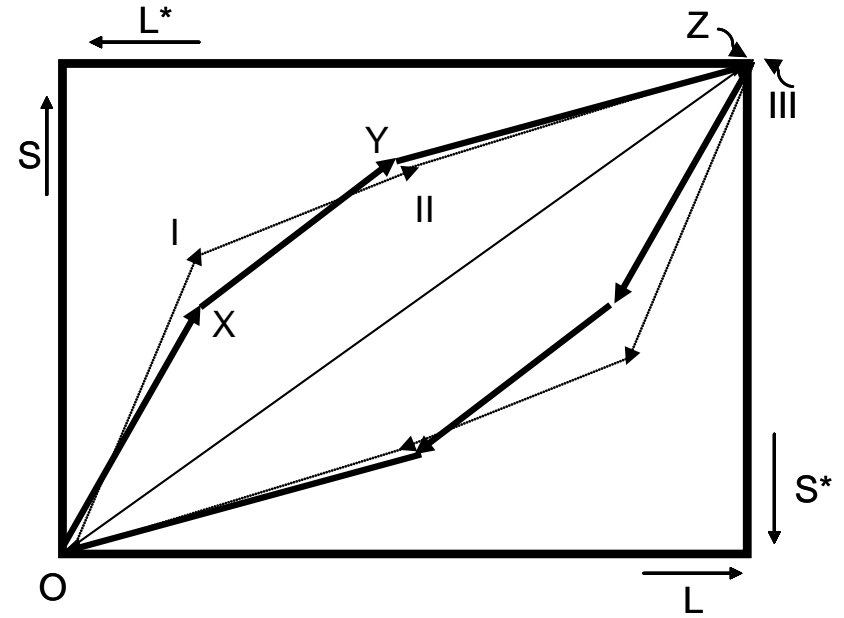
How does it matter?

- If regions do not differ '*too*' much in factor endowments, a trade shock will have similar effects
- If endowments are outside the FPE set, regions are hit very different (some are specialized, some are not).
- Does 'Lumpiness' matter in practice?
- Yes, using the so-called 'lens-condition'

I. Lens condition

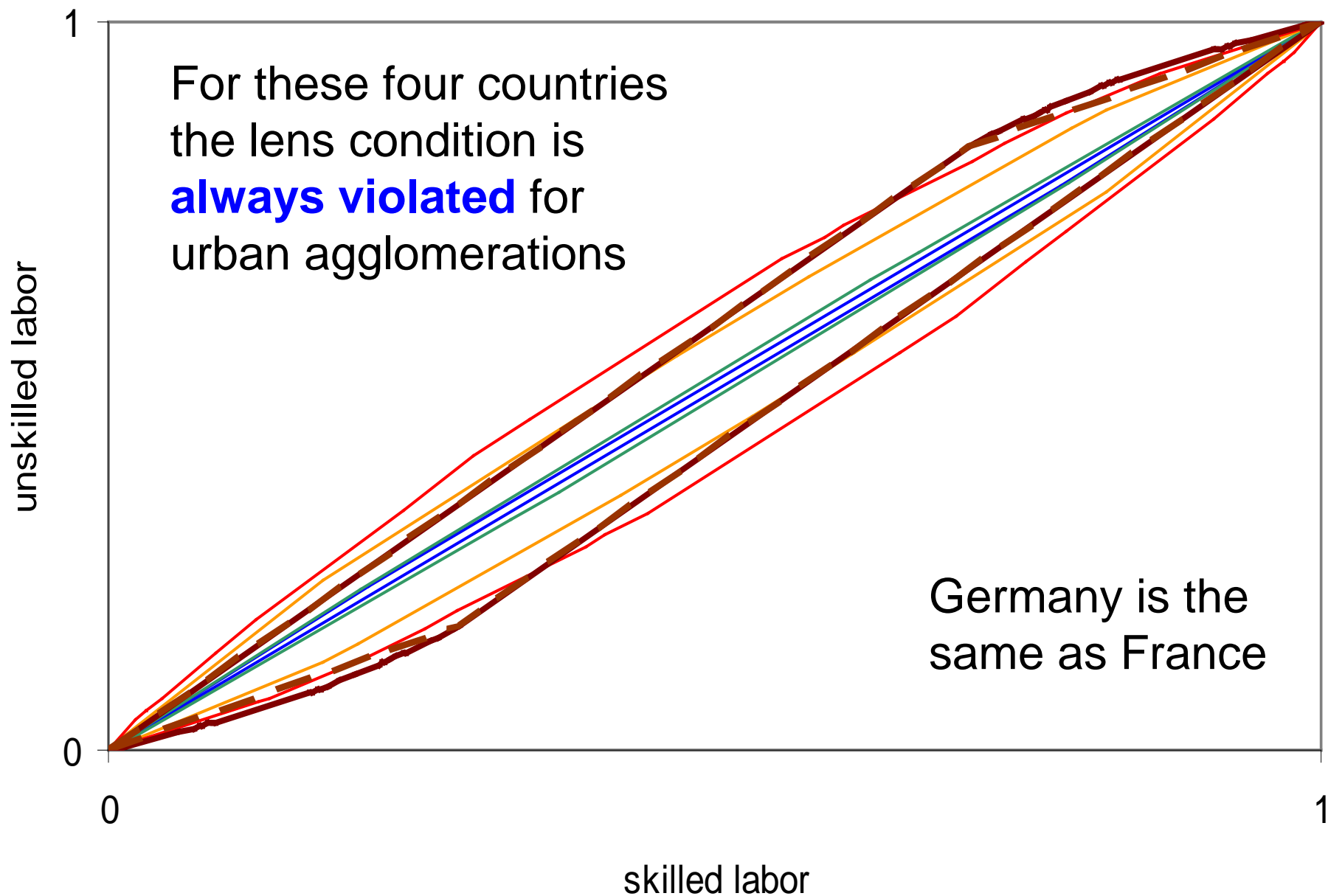


Satisfied



Violated

Italy; goods and city-region lens

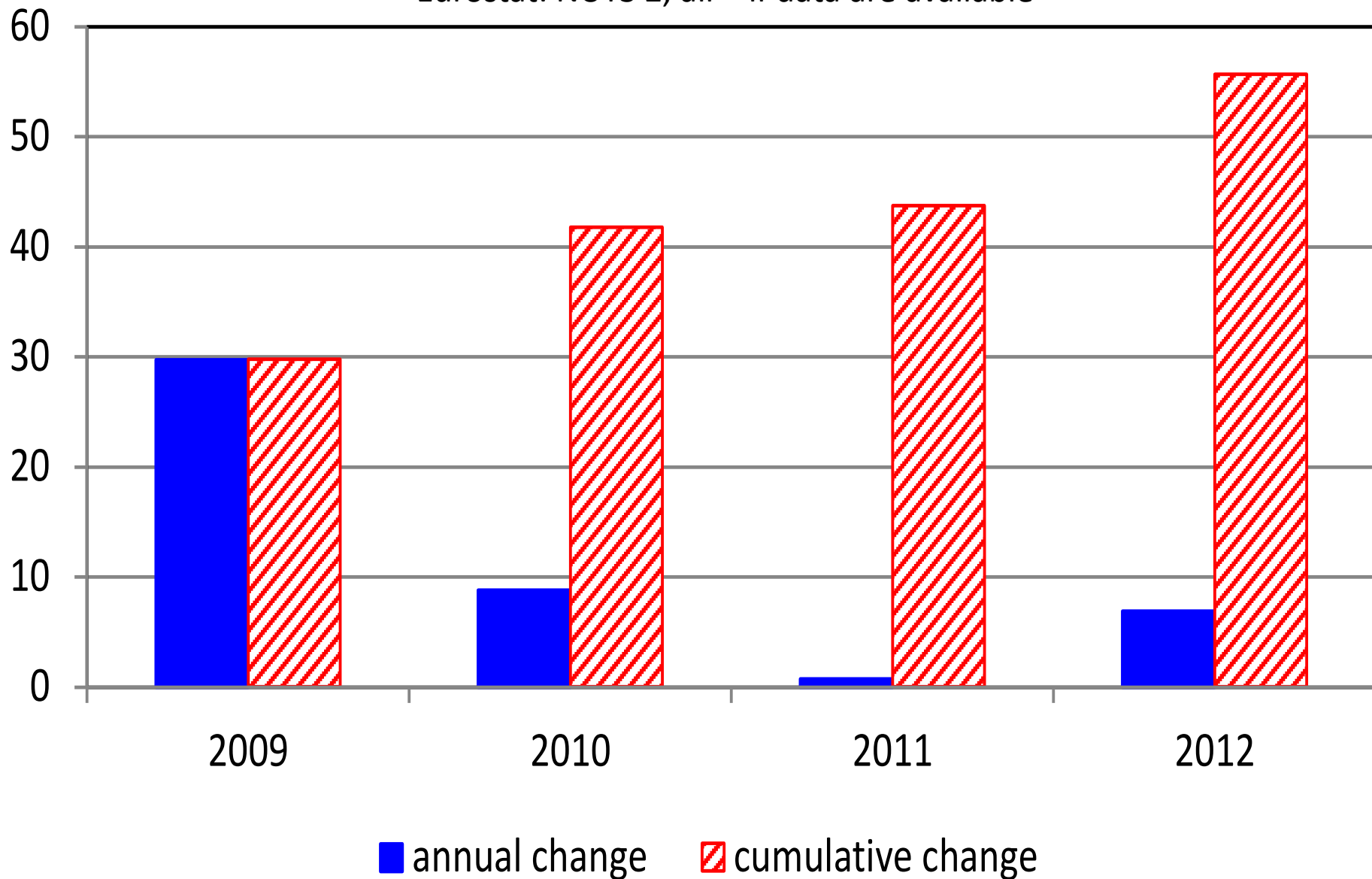


What do we like to see

- Link crisis/regions/regional urbanisation
- We focus on unemployment – because availability 2012 (for time being)
- Data: Eurostat-Nuts 2 (regional en Input-output data-2008/12, combined with NUTS 5 data (Local Administrative Units))

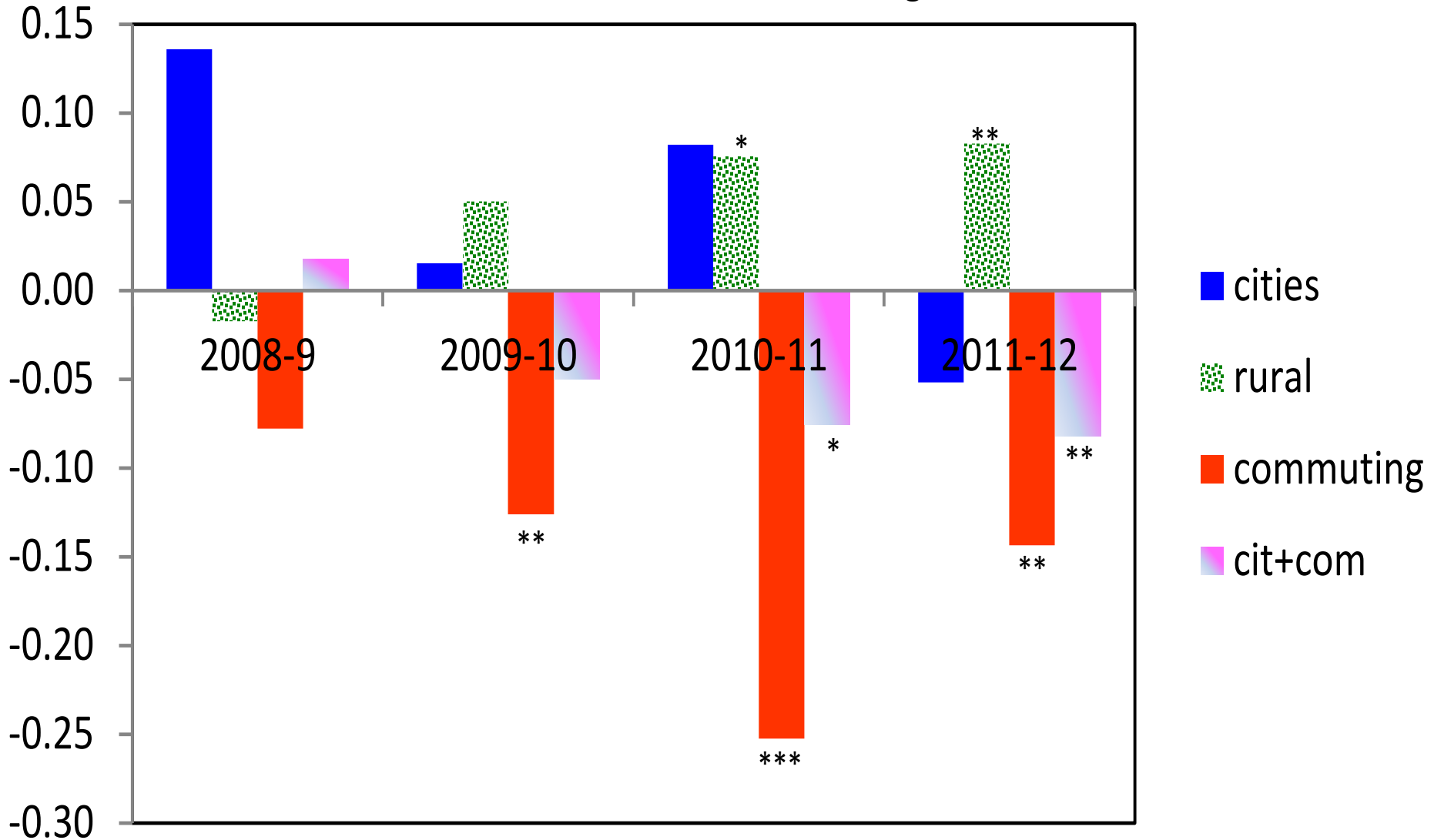
Average change in unemployment since 2008 (%)

Eurostat: NUTS 2, all – if data are available

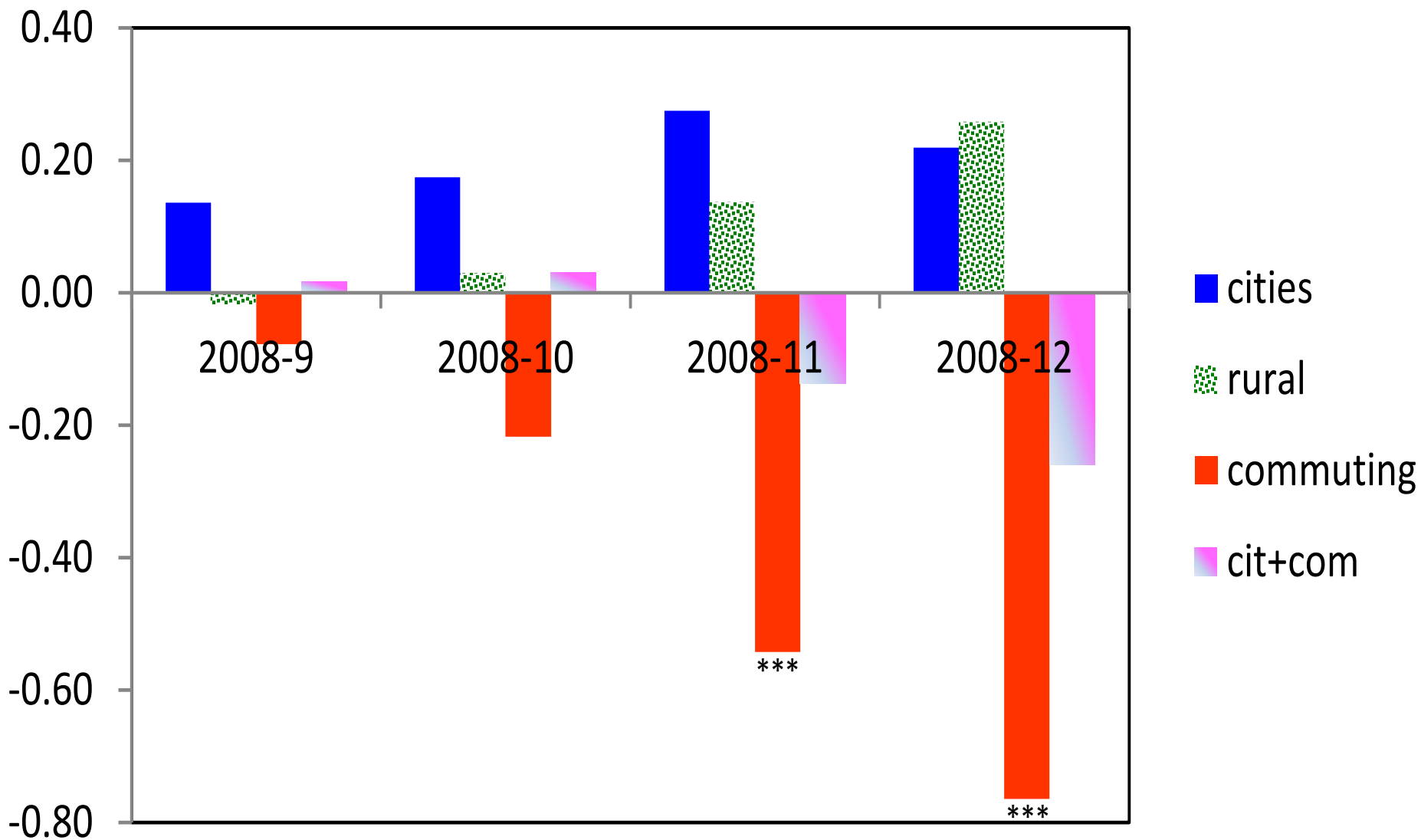


a Annual change in unemployment and population shares, regression coefficients

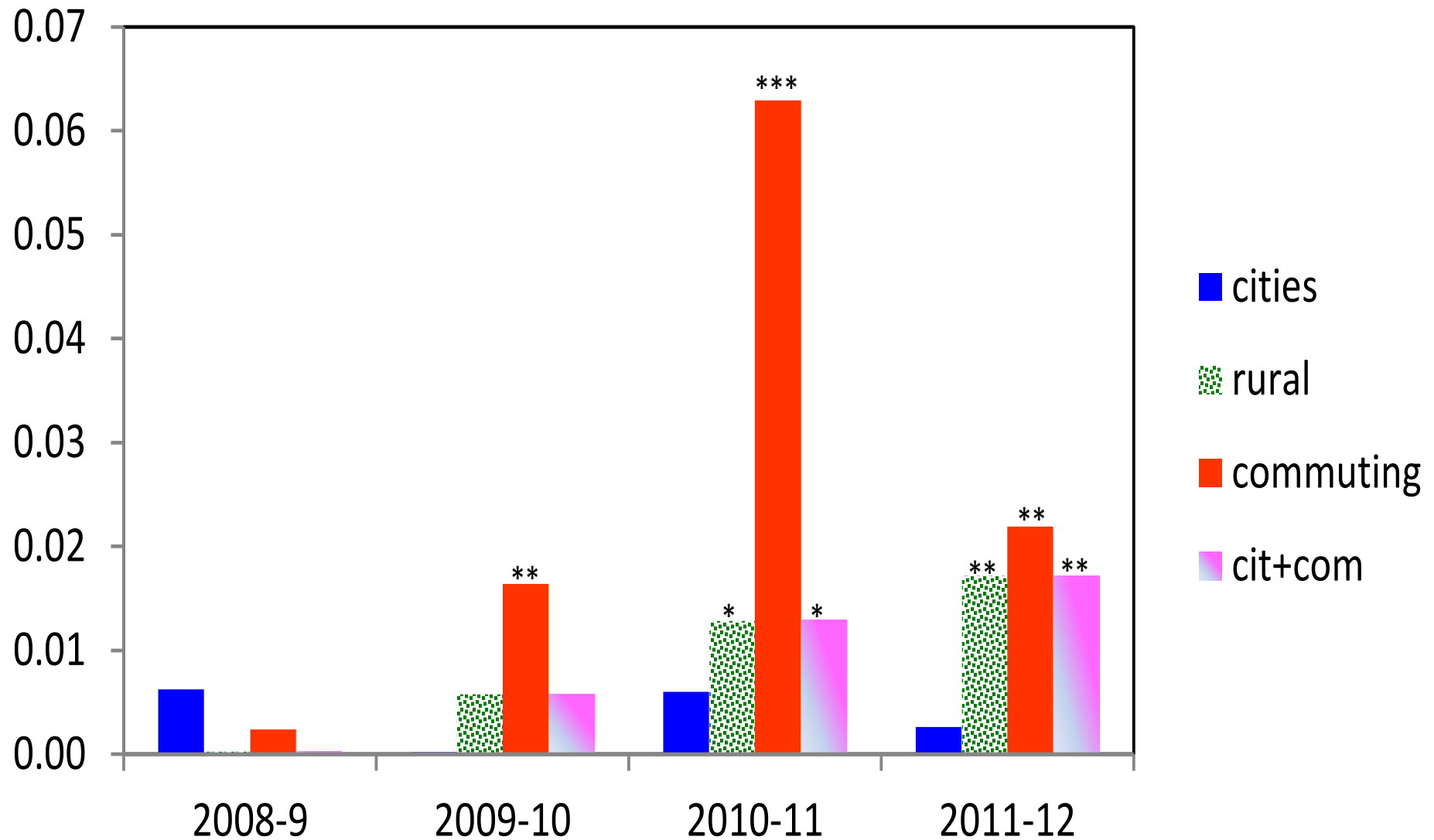
, Per NUTS 2, data on, urbanisation, commuting, rural



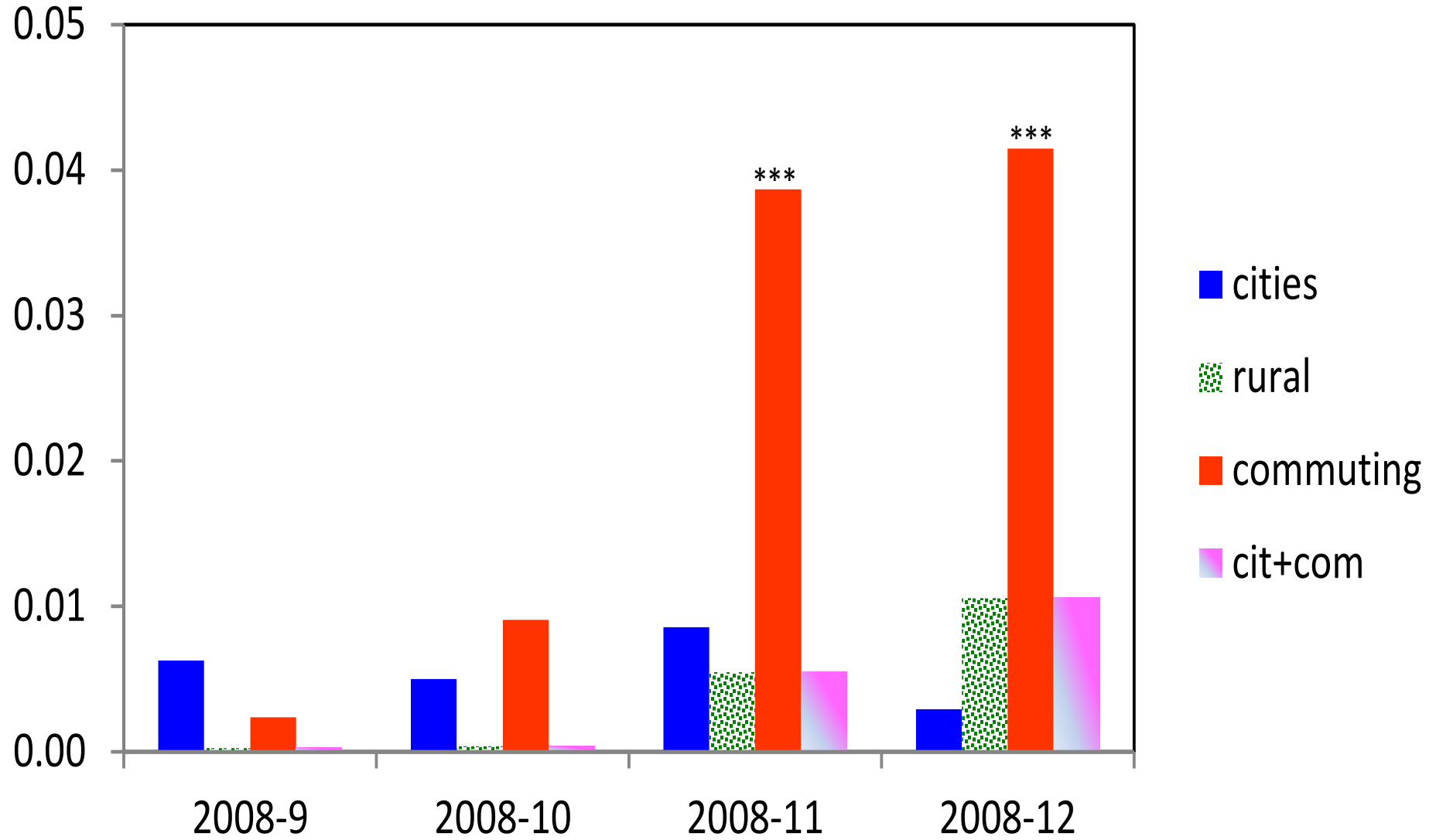
b Cumulative change in unemployment and population shares, regression coefficients



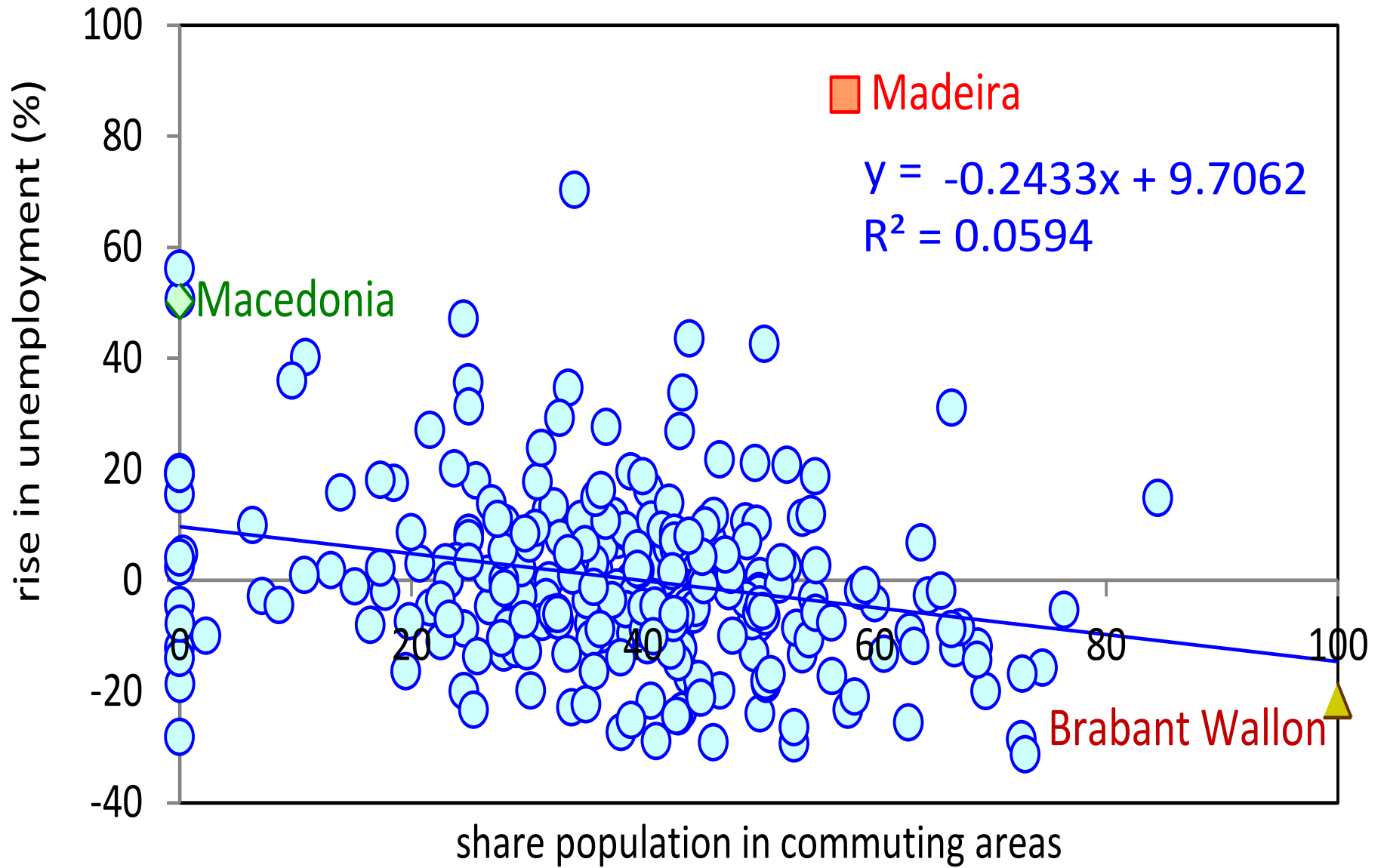
a Annual change in unemployment and population shares, explained variance



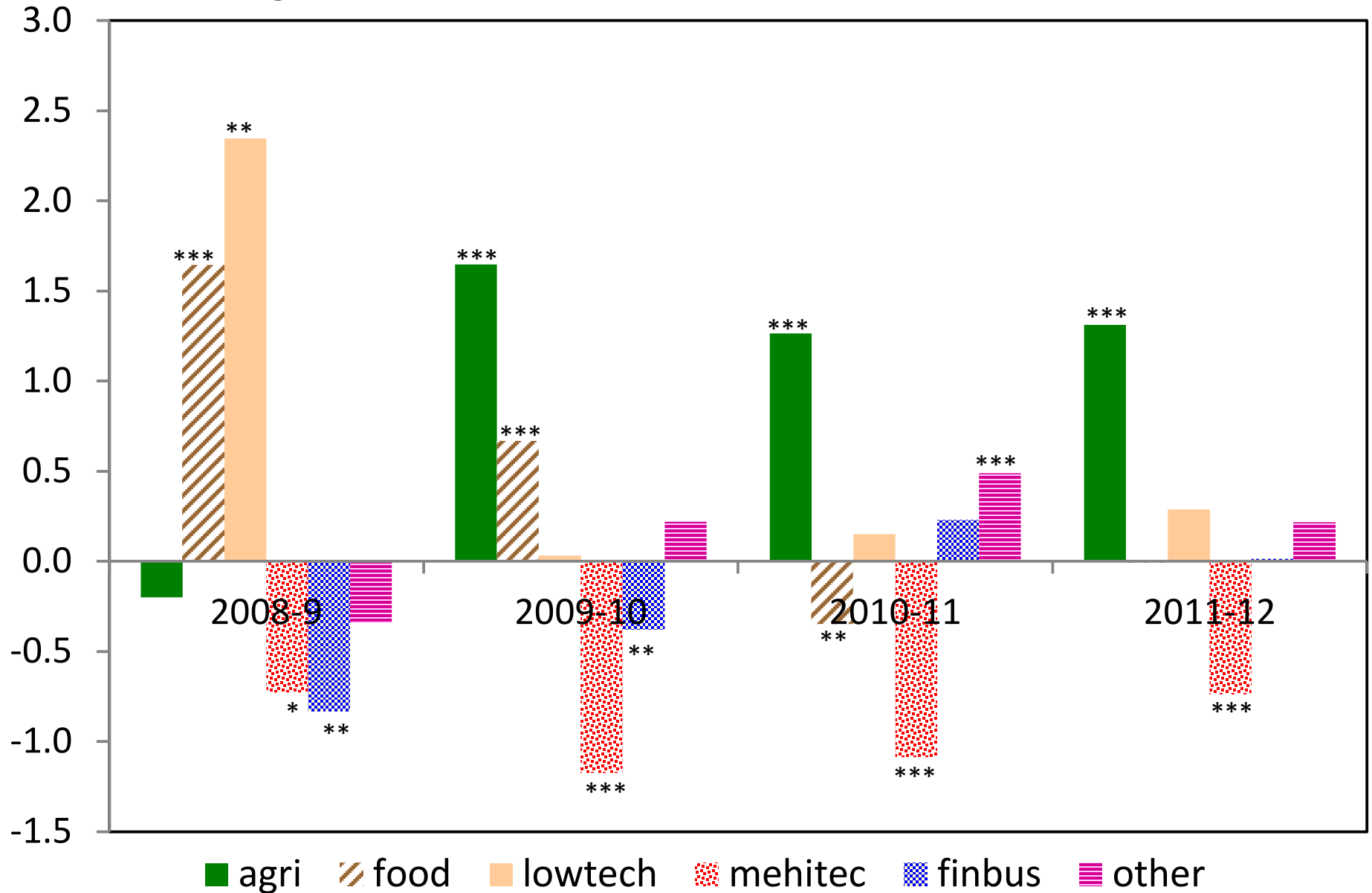
b Cumulative change in unemployment and population shares, explained variance



Rise in unemployment in 2011 (%) and commuting (%)



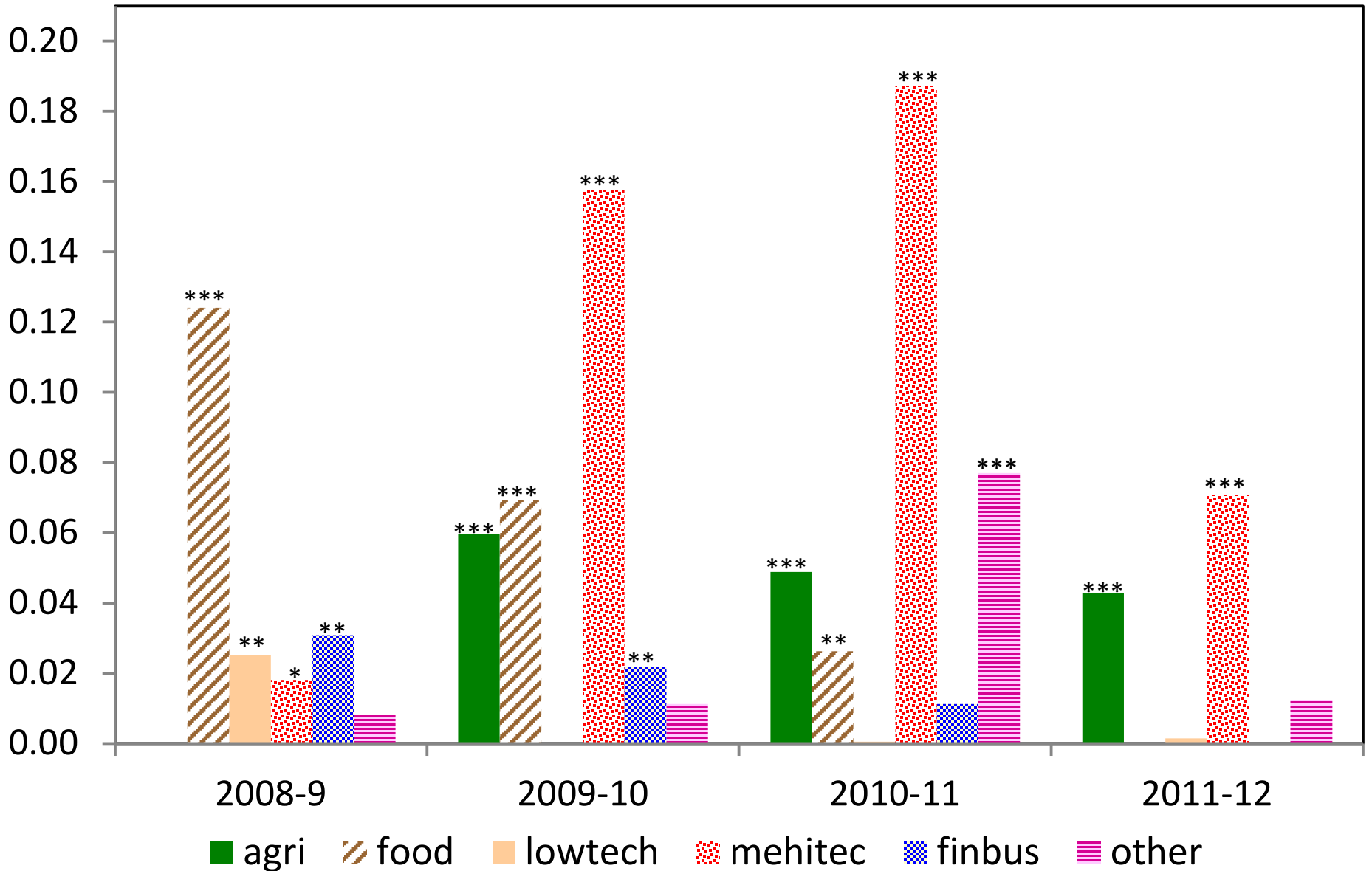
a Annual change in unemployment and sector share, regression coefficients



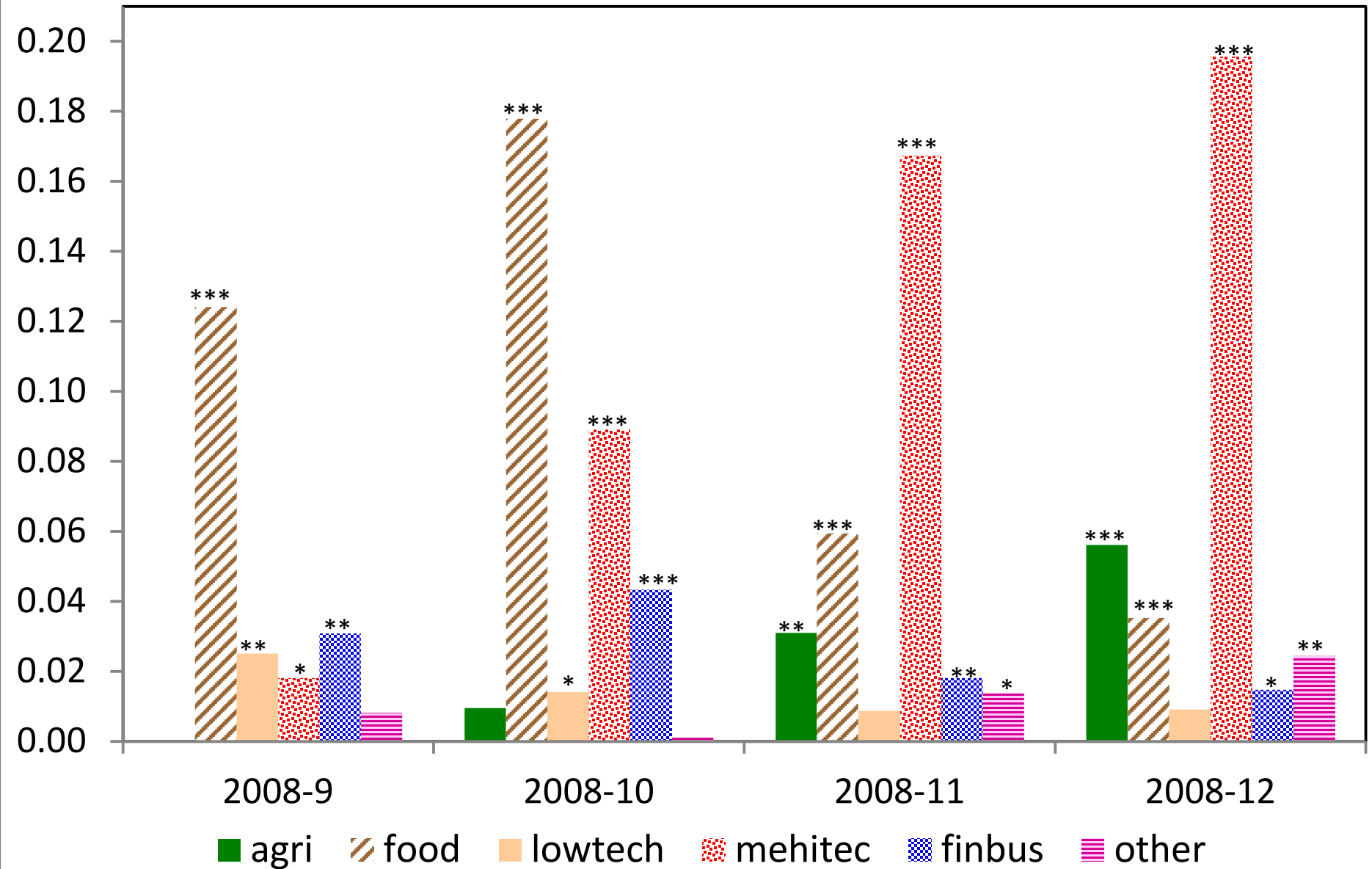
b Cumulative change in unemployment and sector share, regression coefficients



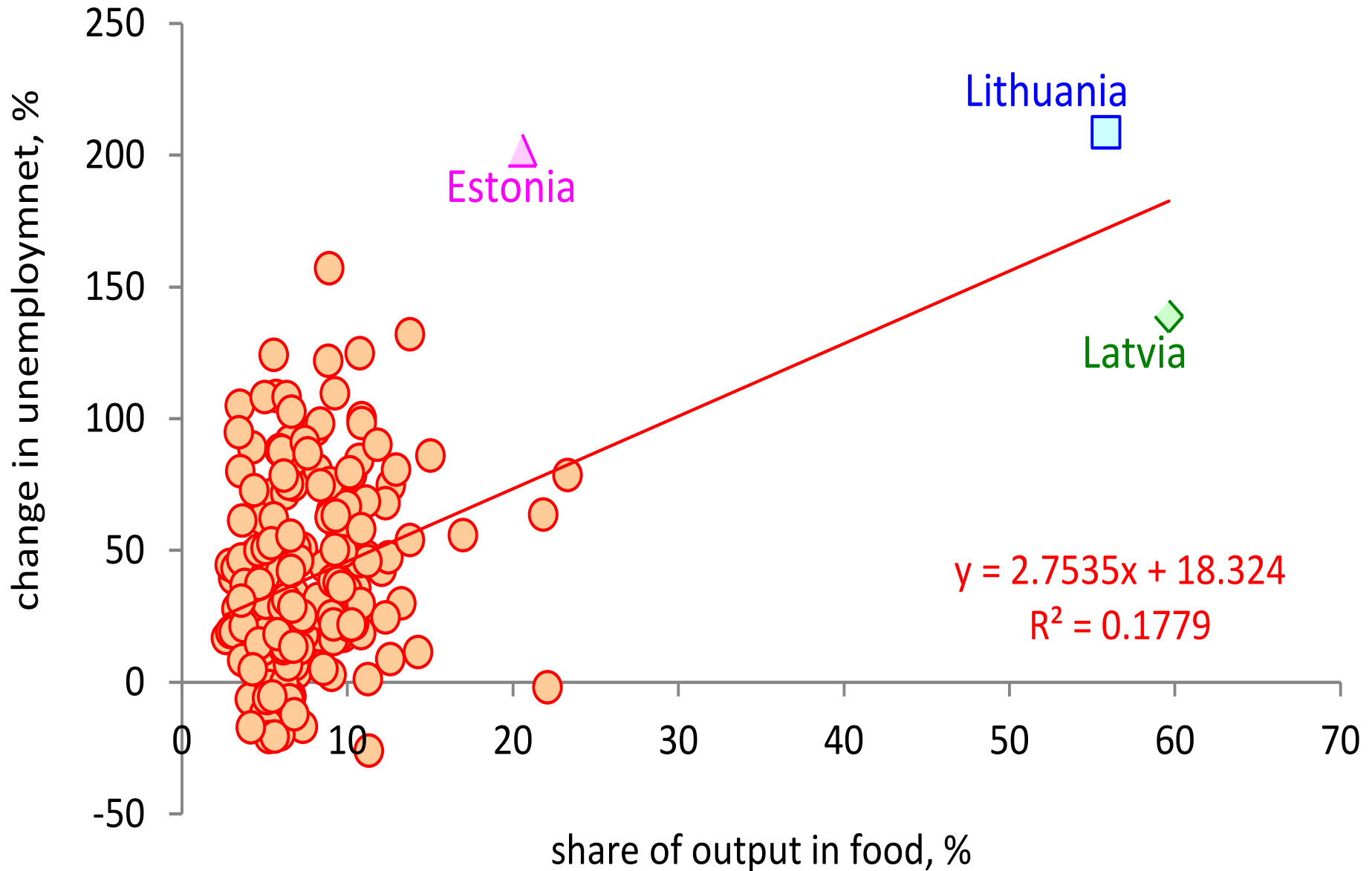
a Annual change in unemployment and sector share, explained variance



b Cumulative change in unemployment and sector share, explained variance



a Rise in unemployment (%) and food, 2008-10



b Rise in unemployment (%) and mehitec, 2008-12

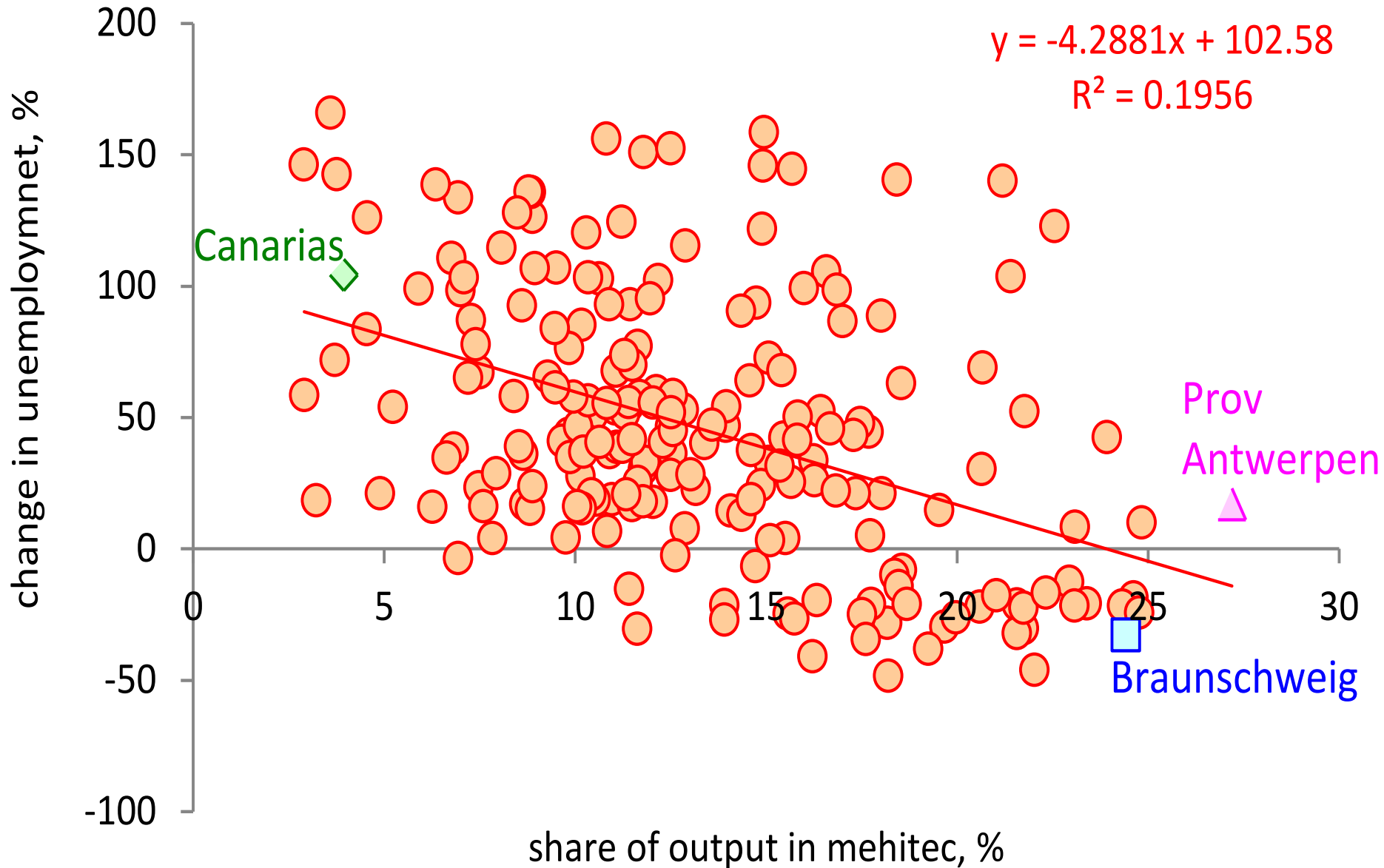


Table 1 Correlation coefficients sector output shares and urbanization shares

	agri	food	lowtech	mehitec	finbus	other	cities	commute	rural
agri	1								
food	0.180	1							
lowtech	0.142	0.087	1						
mehitec	-0.185	-0.117	0.150	1					
finbus	-0.381	-0.300	-0.434	-0.174	1				
other	-0.055	-0.574	-0.129	-0.448	-0.207	1			
cities	-0.359	-0.095	-0.132	-0.262	0.352	0.123	1		
commute	-0.341	-0.065	-0.201	0.211	0.242	-0.132	0.044	1	
rural	0.484	0.111	0.230	0.036	-0.411	0.006	-0.724	-0.721	1

207 EU NUTS2 regions

Conclusions

- Lumpiness might be a factor, besides other explanations of resilience
- Some first indications consistent with the Lumpiness hypothesis, but also consistent with other explanations
- Next steps: link sector developments with “urban regions”

From Thissen, Diodato, and van Oort (2013, p. 3):

“The **update of the data from 2000 to 2010** is based on the **extrapolation** of the dataset for 2000 (Thissen and Diodato 2012) using **constrained nonlinear optimization**. The objective function in the nonlinear optimization minimizes the quadratic distance between the coefficients of the new matrix in relation to the coefficients of the matrix of the previous year. The quadratic distance between predicted and new national trade data, final demand, investment demand and supply and use tables are additional elements that are minimized in the objective function. The optimization is constrained by the regional accounts on gross value added such that total national value added is conform the regional and national accounts. The national accounts are central in our analysis because they have been constructed using many sources of information, are the most used and reported, and are therefore considered the most reliable statistics available to us.

EU regions; production decline and export decline, 2009

