

# Quantitative Economics for the Evaluation of the European Policy

Dipartimento di Economia e Management

Irene Brunetti <sup>1</sup>   Davide Fiaschi<sup>2</sup>   Angela Parenti<sup>3</sup>

28 September 2015

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<sup>1</sup>ireneb@ec.unipi.it.

<sup>2</sup>davide.fiaschi@unipi.it.

<sup>3</sup>aparenti@ec.unipi.it.

# Plan of the Course

## Module 1: Quantitative methods for economics

- Introduction to non-parametric techniques (Prof. Davide Fiaschi)
- Introduction to bootstrap (Prof. Davide Fiaschi)
- Introduction to panel (Dr. Angela Parenti)
- Introduction to spatial econometrics (Dr. Angela Parenti)

## Module 2: European Regional policy and economic convergence

- Causes and effects of regional imbalance: economic theory and empirical evidence (Prof. Davide Fiaschi)
- Regional policies: theoretical models (Prof. Davide Fiaschi and Dr. Angela Parenti)
- Historical development of European Regional Policy (Dr. Angela Parenti)
- Econometric models for convergence (Prof. Davide Fiaschi and Dr. Angela Parenti)

# Plan of the Course

## Module 3: Evaluation of economic policy

- Statistical, non-experimental methods for policy evaluation: the problem of causality, the counterfactual approach (Dr. Irene Brunetti)
- The estimate of the counterfactual (Dr. Irene Brunetti)
- The impact of estimating counterfactual (Dr. Irene Brunetti)

## Module 4: Location of FDI in Europe

- Location of FDI in Europe (Prof. Julie Le Gallo)

# Resources and Materials for the Course

- Some books' chapters and papers
- Some handouts on R (<https://www.r-project.org/>)
- Website of the course: <http://qe4policy.ec.unipi.it/>
- Web resources for the EU Regional Policy:  
[http://ec.europa.eu/regional\\_policy/en/](http://ec.europa.eu/regional_policy/en/),  
<https://cohesiondata.ec.europa.eu/>

# Methods of evaluation

Two homeworks for each couple of students (randomly formed)

- First homework: at the end of Module 2 (about mid-November)
- Second homework: at the end of the course

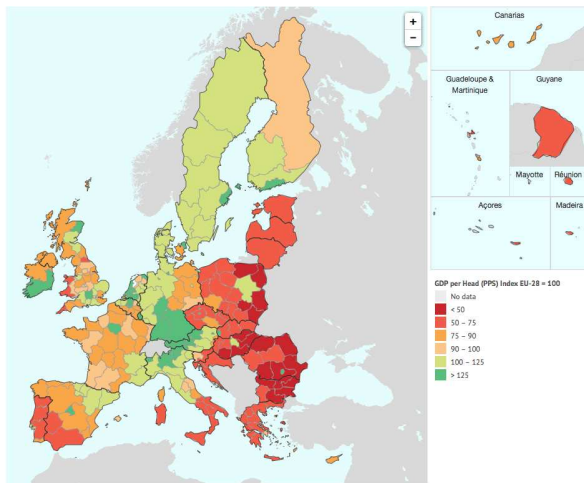
# Main Questions of the Course

- How is the inequality across European regions and how is evolving ?
- Which type of inequality we are interested in? (income, health, happiness, unemployment, productivity, concentration of economic activities, etc.)
- Is there a theoretical model able to explain such types of inequality?
- Which are the main goals of European Regional Policy?
- How are they effectively pursued?
- Macro and micro issues of European Regions.

# Why NUTS2 Regions?

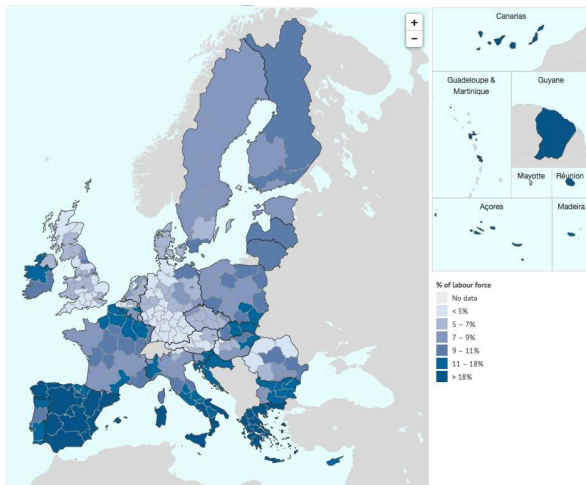


## Regional GDP per Head, 2013(PPS)

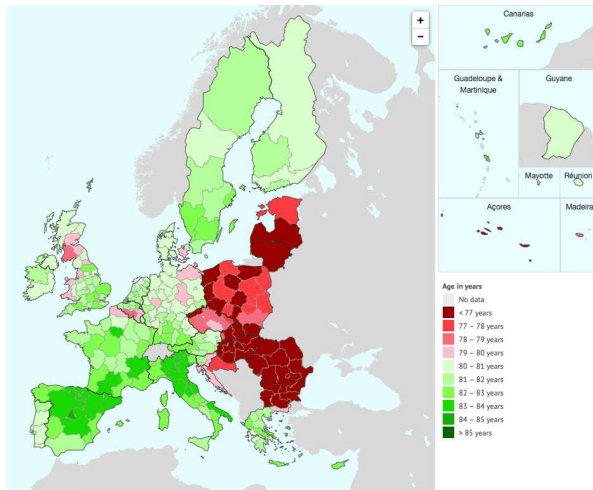




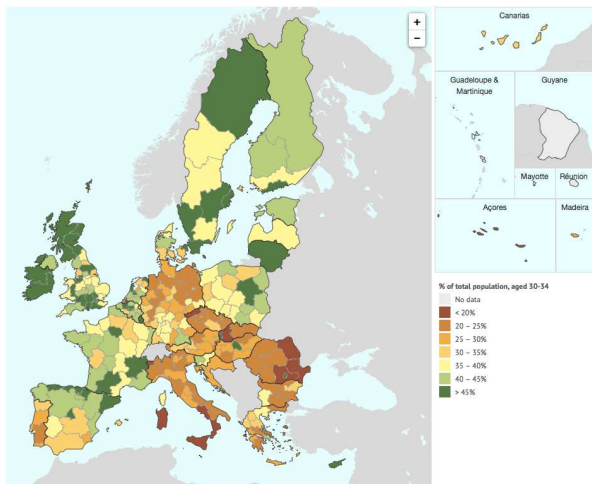
## Regional Unemployment Rate, (2014)



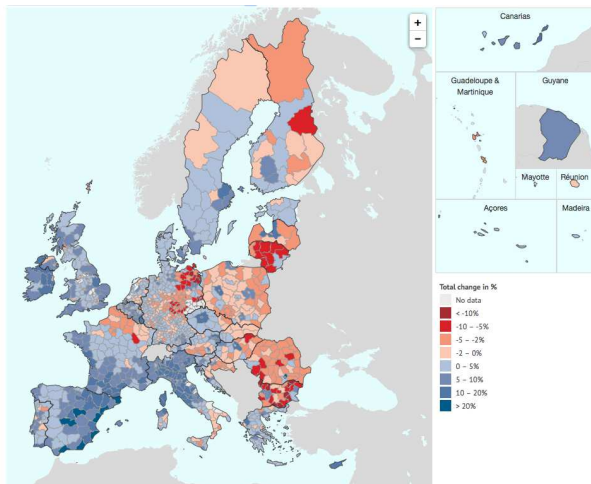
## Regional Life Expectancy, (2013)



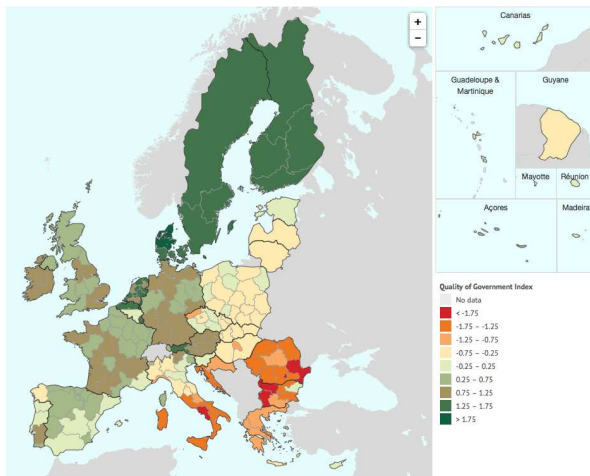
## Regional Population with Tertiary Education (2012-2014)



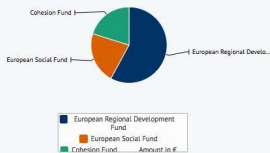
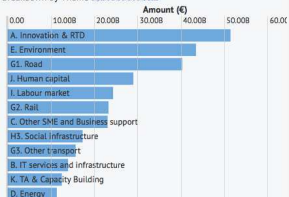
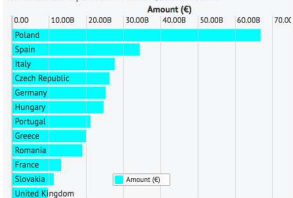
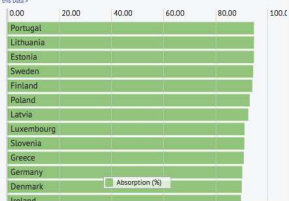
## Regional Net Migration (2001-2011)



## Regional Quality of Government Index (2013)



## EU Regional Policy 2007-2013

Breakdown by Fund [Explore and Share this Data >](#)Breakdown by Theme [Explore and Share this Data >](#)Total Allocations per Member State [Explore and Share this Data >](#)Percentage of Available Funds Paid Out by the Commission [Explore and Share this Data >](#)

## EU Regional Policy 2007-2013

