

# Thesis Update

## The Determinants of Economic Growth in Europe. A Regional Analysis.

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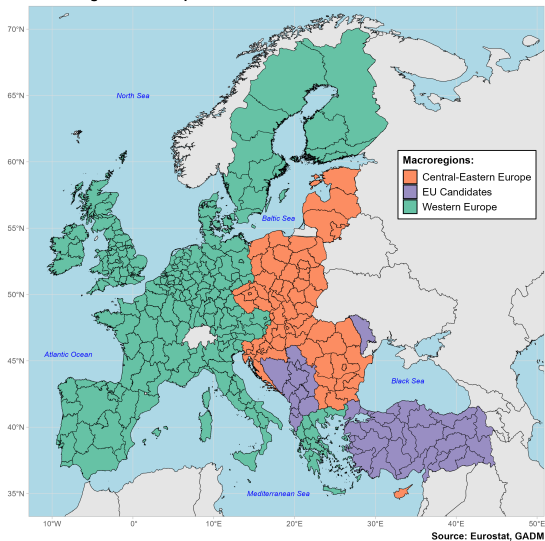
September 2024

- Overall analysis covers 301 regions between EU28 + 8 Candidates Countries
- 3 Macroregions
- Time span: 2009-2019

[Go to Figure](#)

# Area of Research

Macro-regions of Europe



Back

## Sources:

- EU Databases: ARDECO, Eurostat, ESPONS;
- World Bank;
- National Statistical Offices;
- WiiW;
- ILOSTAT.

# Variables (1)

**Dependent variable:** GDP Growth (Base price EUR09)

**Explanatory Variables:**

- ❶ GDP per capita (log),
- ❷ Lag of GDP per capita (log)
- ❸ Migration rate,
- ❹ Labor Productivity,
- ❺ Wage,
- ❻ Activity rate,
- ❼ NEET rate,
- ❽ Life expectancy,
- ❾ Fertility rate,
- ❿ Population by educational attainment,
- ⓫ Employment rate,
- ⓬ Unemployment rate,
- ⓭ Business Investment Rate,
- ⓮ Gross Fixed Capital Formation share (of GDP),
- ⓯ Sectoral components of GVA,
- ⓰ Output density,
- ⓱ Employment density,
- ⓲ Population density,
- ⓳ Distance from Bruxelles.

## Dummies:

- ① CEE/Candidate Flag,
- ② Capital region,
- ③ Coast,
- ④ Island,
- ⑤ Objective 1 Region,
- ⑥ Eurozone Member.

## Interactions:

- CEE and Candidate status combined with Capital, Population with tertiary education, Sectoral components of GVA.

# Sectoral Components of GVA

{ A Agriculture  
B-E Industry  
F Construction

**Primary Sectors**

{ G-I Retail, Transport  
J Information and Communication  
K Financial and Insurance  
L-M-N Real Estate and Business Activities

**Service Sectors**

{ O-Q Public Administration, Defence, Education  
R-U Arts, Entertainment

**Public Sectors**

I repeated analysis on three different dataset to assess robustness, adapt to business cycles and capture stronger effects:

- Dataset with all regions across 11 years,
- Dataset with only regions from Central Eastern EU and Candidate Countries,
- Dataset with two periods: 2009-2014 & 2015-2019 with all regions

Overall results remained similar across datasets.



Point of discussion:

- Dataset of choice,
- Should Time and Country Fixed Effects be included as fixed regressors in `BMS()`?
- For aggregate panel, regressors should be averaged/base or end year?
- Questions on `spatBMS()`,
- Should GFCF, GVA, and Wage also be expressed in base price EUR09?

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Thank you for your time!