

Assessing the degree of macroeconomic convergence within the European Union

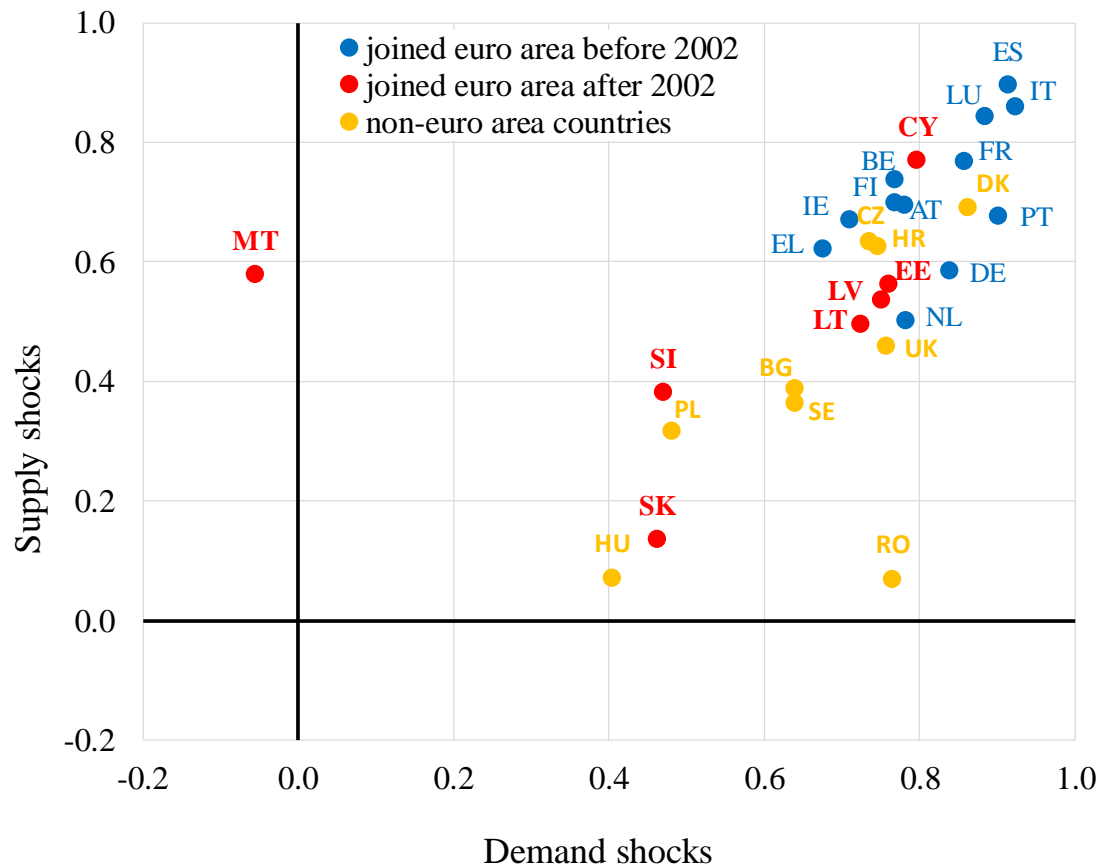
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for discussion at ELEC Danube Triangle Conference, October 25, 2018 Bucharest

Why convergence is a central issue in theoretical and applied research?

- ❑ Convergence is deeply ingrained into the idea of EU countries integration and it is a desired outcome of economic policies explicitly written into the Treaty.
- ❑ Convergence can decrease the economy's exposure to asymmetric shocks and reduce differences in the transmission of symmetric shocks.
- ❑ The EU framework for monetary integration targets the achievement of a high degree of sustainable convergence as a precondition for a country to adopt the euro.

What is the degree of economic similarities across the EU countries? (1)

Figure 1: Correlation of demand and supply shocks compared to EA average



... EU countries differ in terms of shocks they experience.

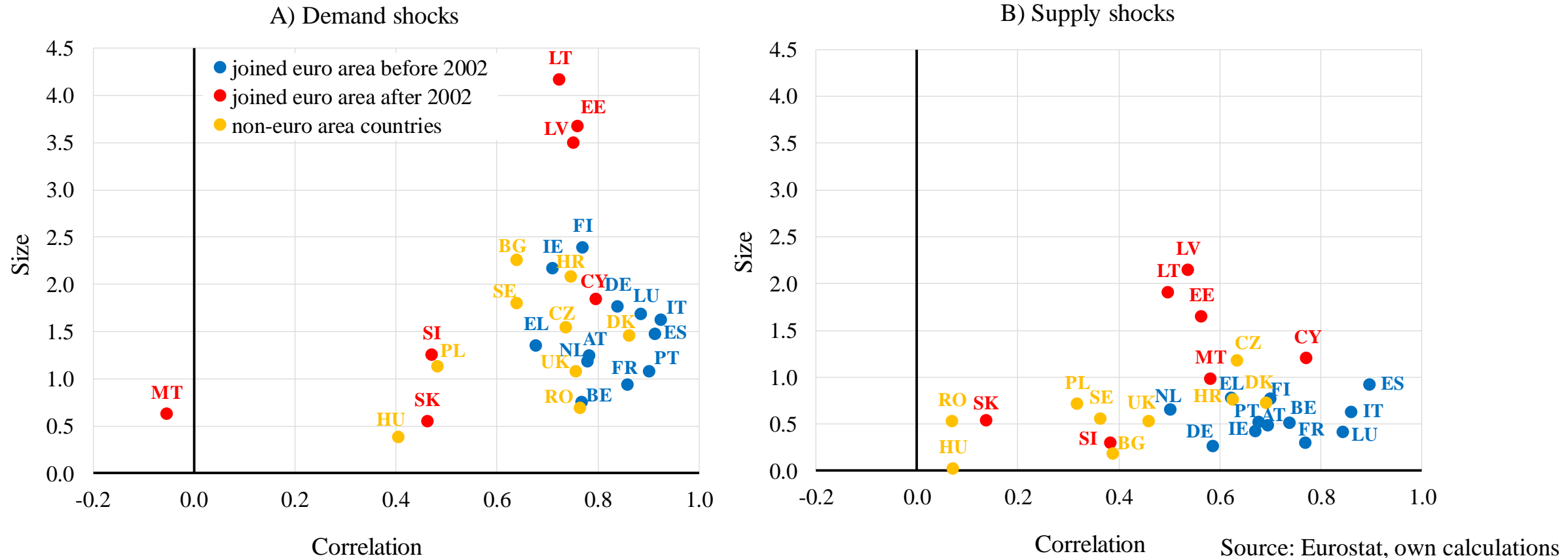
This may reflect differences related to:

- monetary policy
- fiscal policy
- structure of the economies
- other factors (consumer preferences, economic sentiments, risk perceptions, ...)

Source: Eurostat, own calculations

What is the degree of economic similarities across the EU countries? (2)

Figure 2: Size and correlation of demand and supply shocks compared to EA average



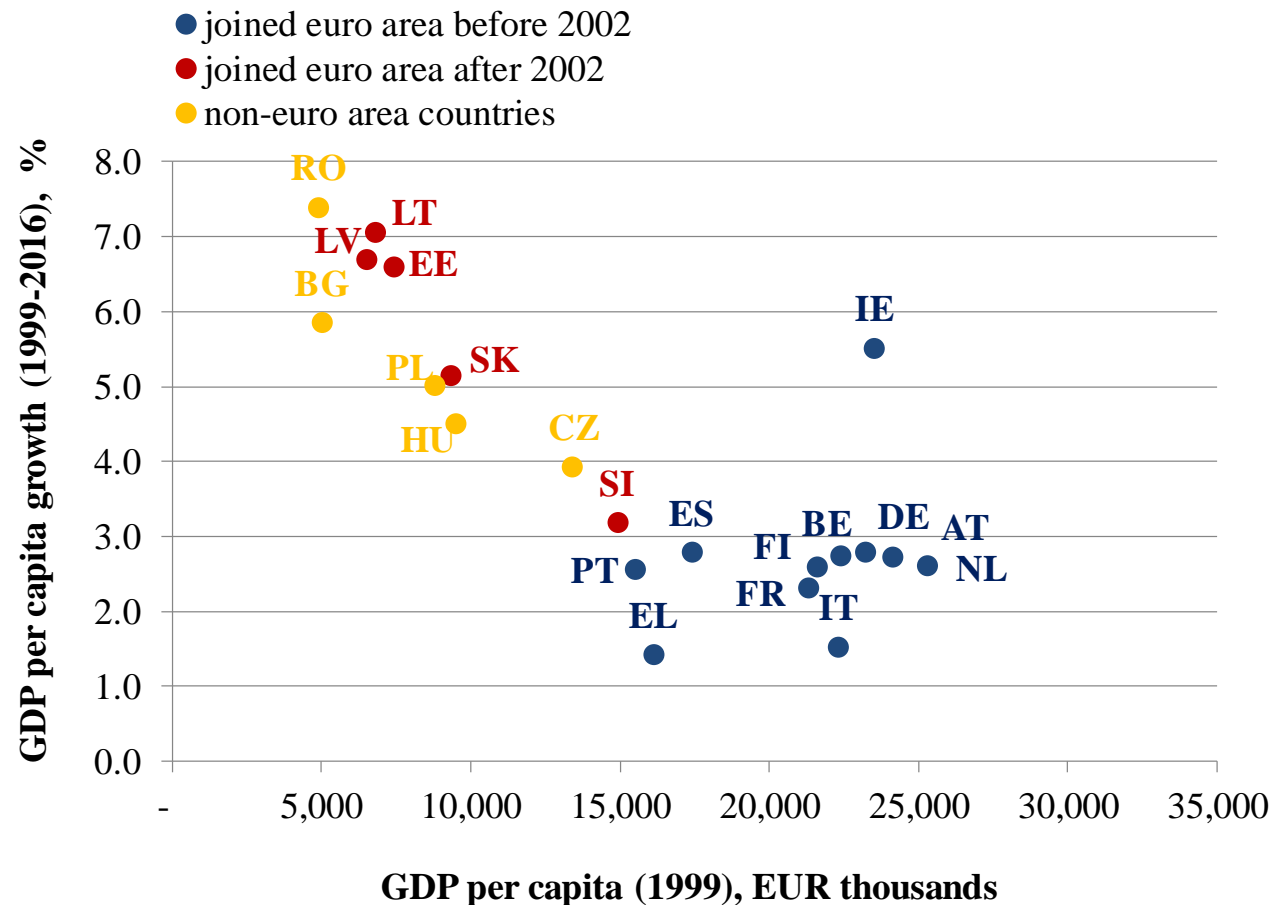
Notions of convergence

□ Several notions of convergence:

- **Real convergence** is defined as the convergence of living standards or of real GDP per capita;
- **Cyclical convergence** is achieved when countries move in synchrony along the economic cycle;
- **Structural convergence** can be defined as the adjustment of the economy's structures and institutions to those prevailing in the euro area;
- **Nominal convergence** is the convergence of nominal variables such as inflation, interest rates and exchange rates or government deficit and debt ratios. NC is the Maastricht convergence criteria for euro adoption.

Notions of convergence: *Real convergence (1)*

Figure 3: GDP per capita in 1999 vs. average GDP per capita growth in 1999-2016



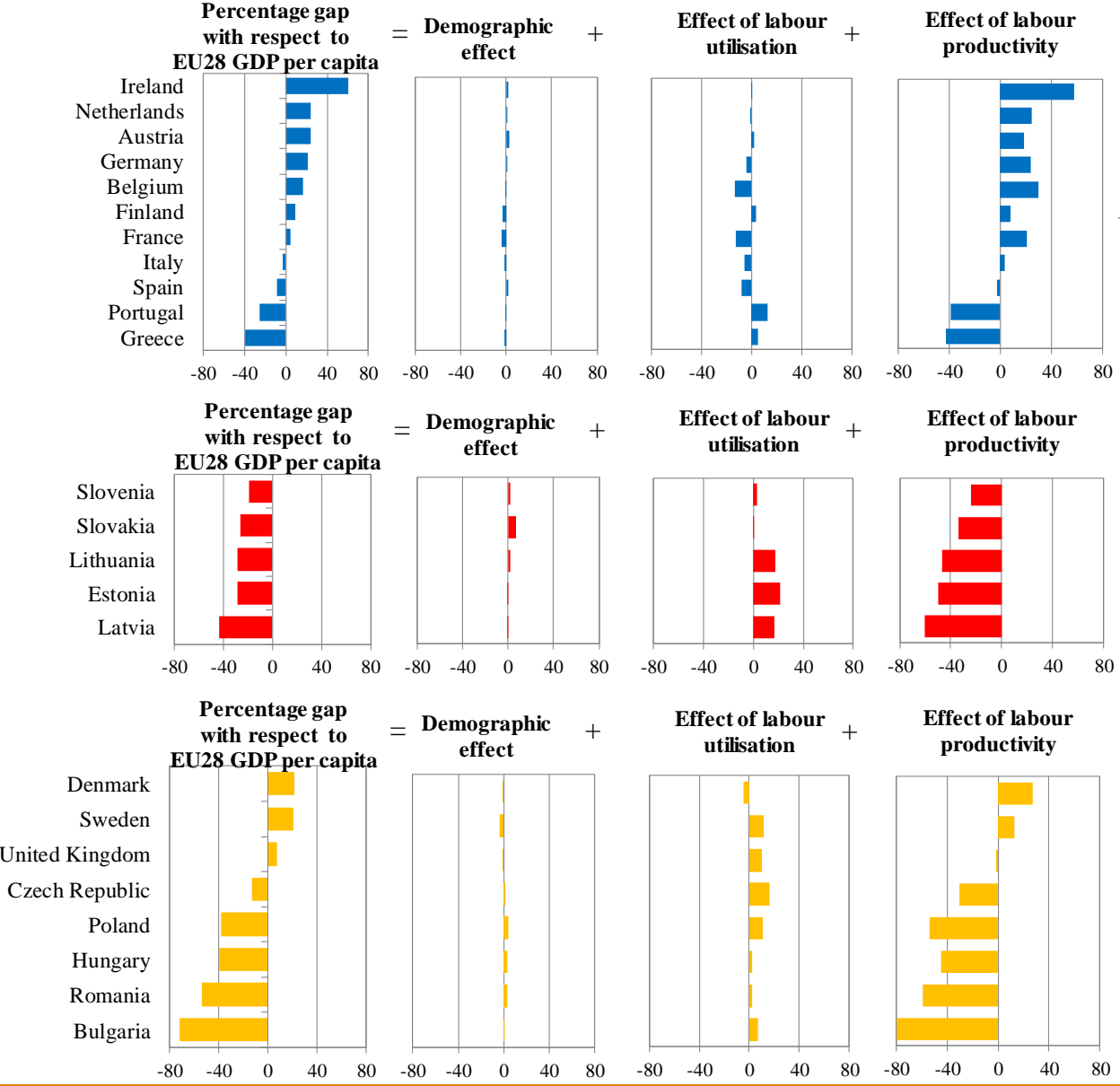
□ Main drivers of real convergence:

- Initial income levels
- Labour market and demography
- Capital investment, FDI and TFP

Source: Eurostat, own calculations

Figure 4: Decomposition of relative differences in GDP per capita as of 2016

Present state of convergence: *Real convergence (2)*

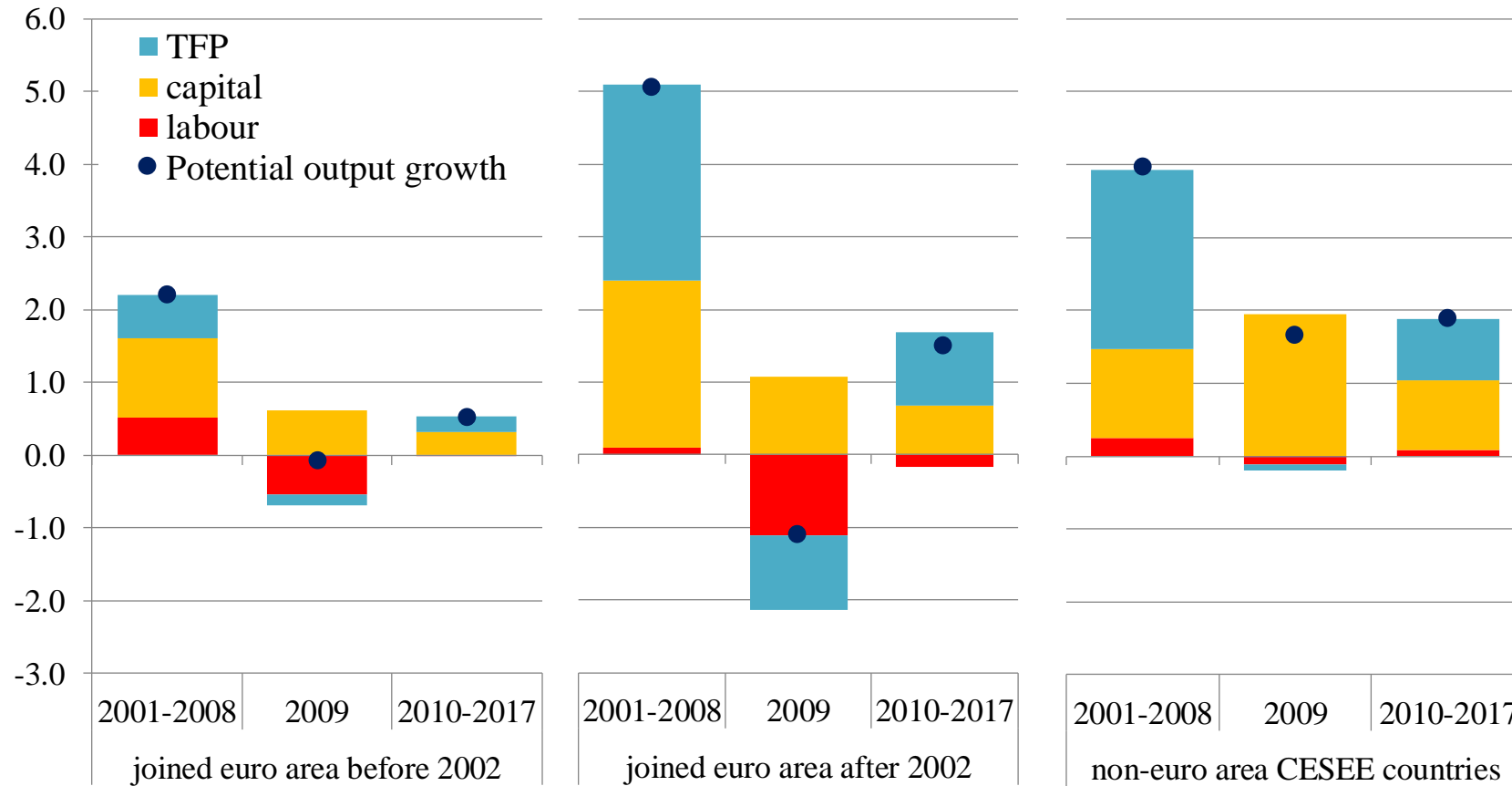


- ▣ Main drivers of real convergence:
 - Initial income levels
 - Labour market and demography
 - Capital investment, FDI and TFP

Source: Eurostat, own calculations

Present state of convergence: *Real convergence (3)*

Figure 5: Potential output growth (%)



□ Main drivers of real convergence:

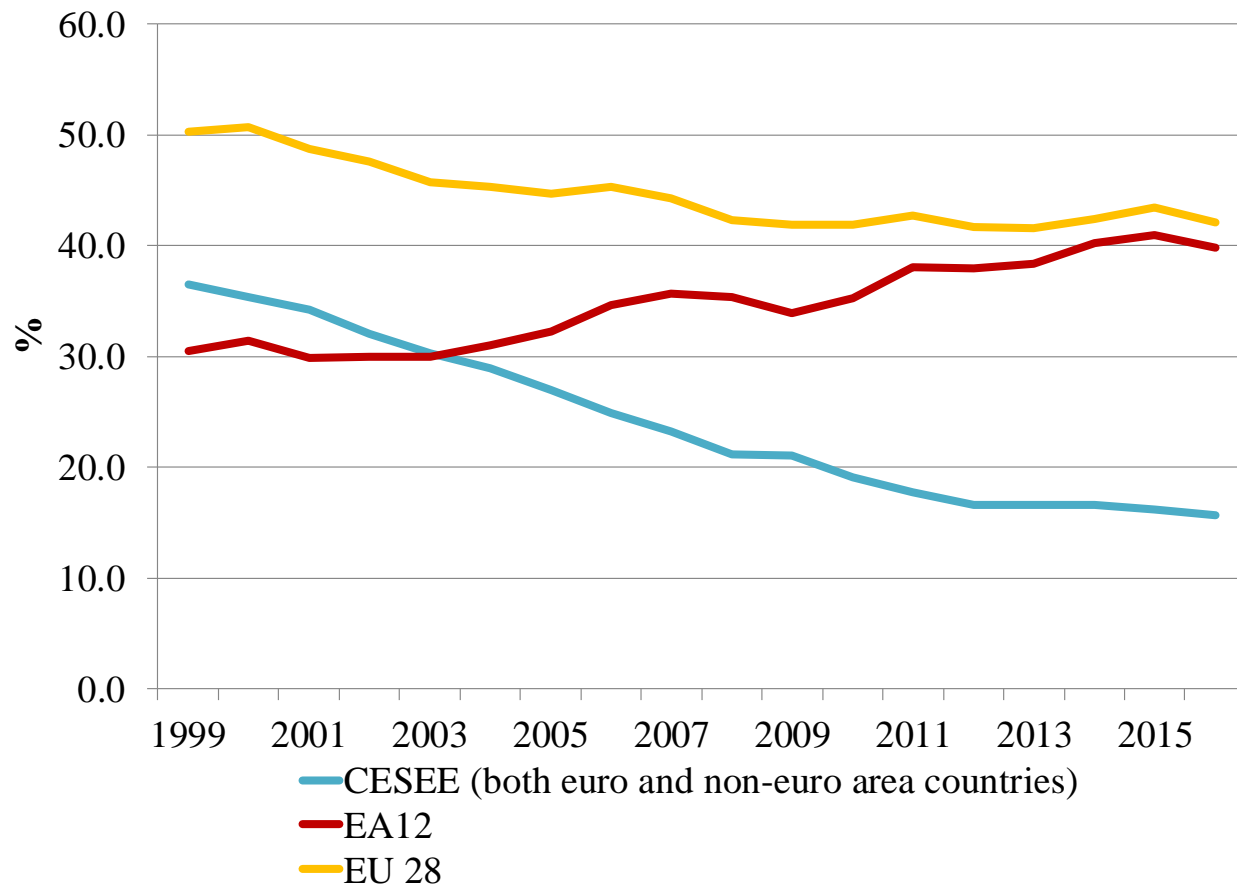
- Initial income levels
- Labour market and demography
- Capital investment, FDI and TFP

Source: Eurostat, own calculations

Present state of convergence: *Did disparities across EU declined as a result of convergence?*

Figure 6: Cross-sectional coefficient of variation of GDP per capita in EU countries in 1999-2016

Standard deviation of GDP per capita in (% of group average)



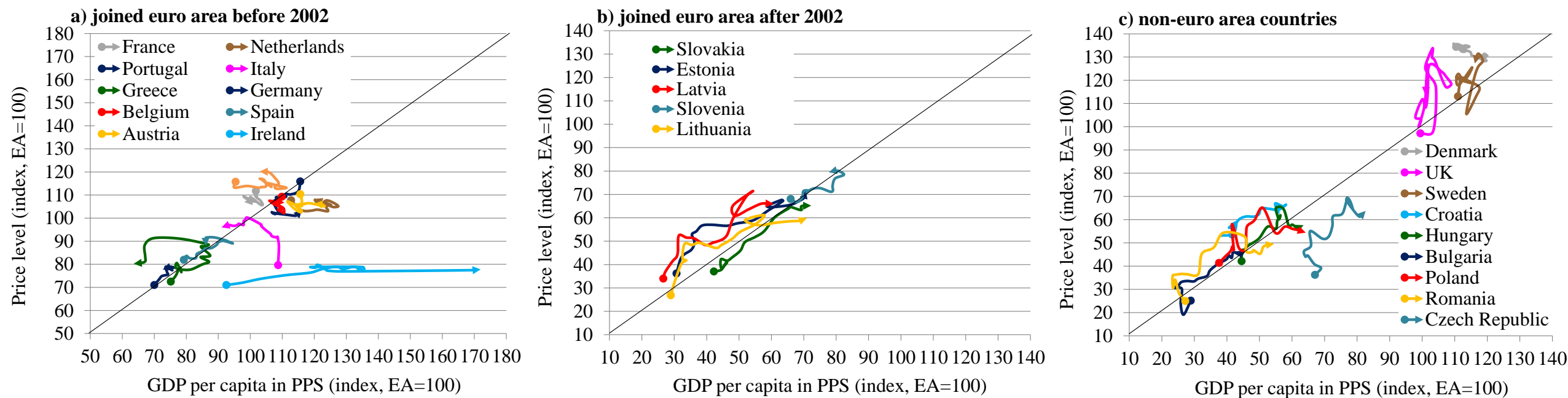
- GDP per capita differences have declined in CESEE countries, but increased across EA 12
- new dividing line in EA has emerged – north vs south countries

Source: Eurostat, own calculations

Present state of convergence: *Price convergence*

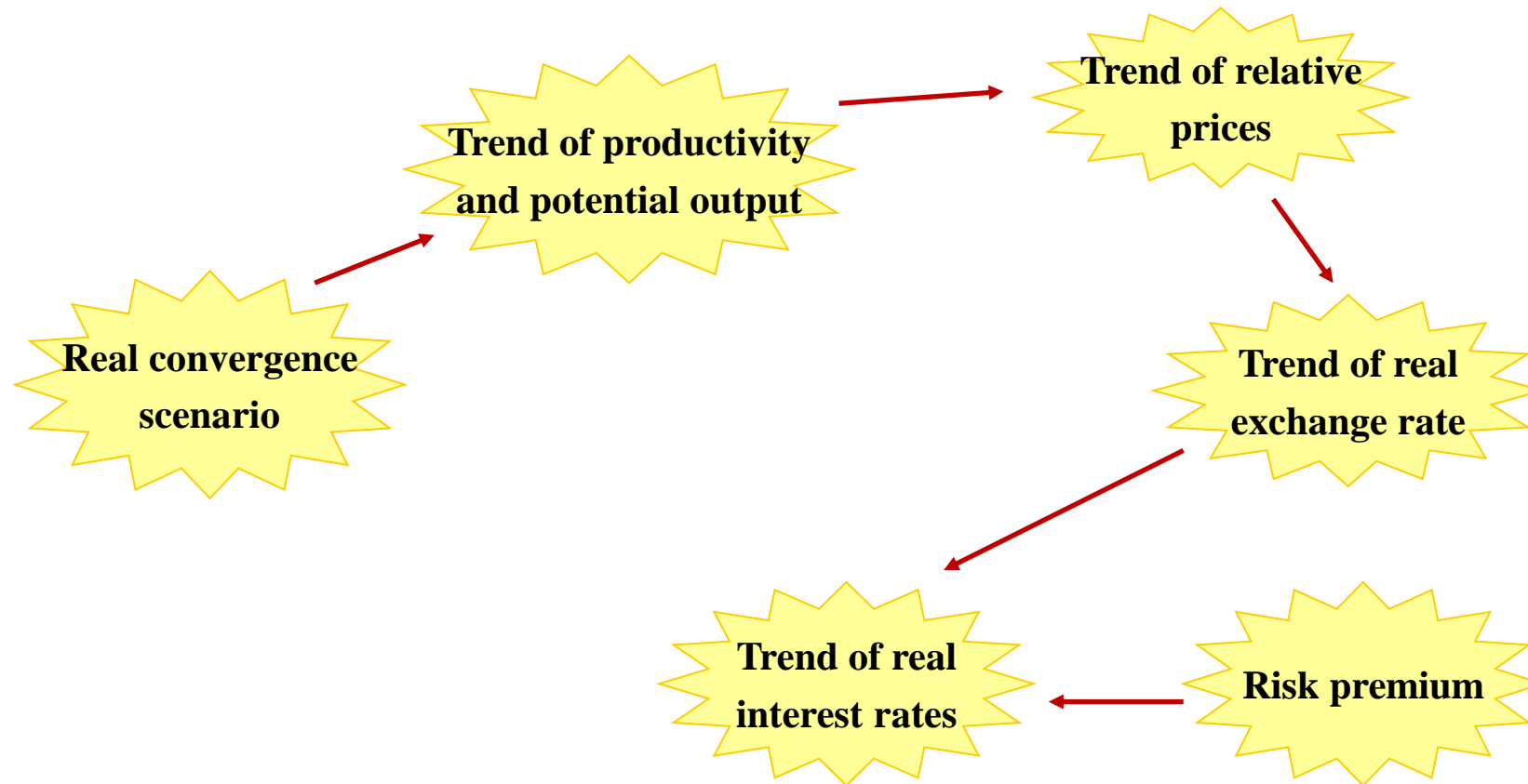
□ In both, the euro and non-euro CESEE countries income (GDP per capita) convergence has been accompanied by price convergence

Figure 7: GDP per capita vs. price level (index, EA=100)



Source: Eurostat, own calculations

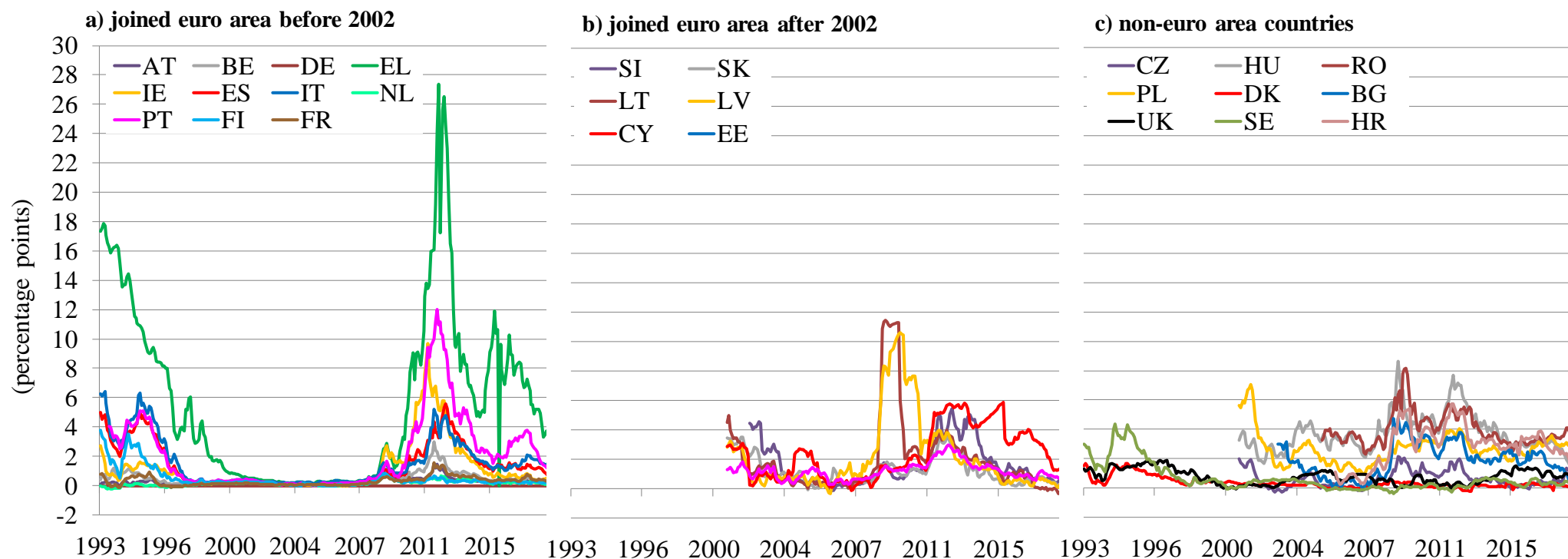
Broader picture of real convergence



Present state of convergence: *Interest rate convergence*

□ EU countries achieved interest rate convergence prior to the 2008 Global financial crisis but it was not sustainable

Figure 8: 10-year government bond spreads (compared to German bunds)



Source: ECB,
own calculations

Main takeaways

- ❑ Sustainable convergence could be achieved through:
 - ❑ macroeconomic stability;
 - ❑ higher TFP growth.

Country-specific domestic policies should aim at: (i) improving the quality of labour, (ii) improving the quality of capital and (iii) creating an institutional framework that supports innovation in businesses, (iv) wide use of financial instruments within the EU MFF post 2020.

- ❑ greater economic and capital market integration.

Role of National Promotional Banks

- ❑ **Anticyclical**

 - ❑ supporting gross capital formation, TFP & capital deepening.

- ❑ **Addressing regional and sectoral imbalances**

- ❑ **Productivity growth & competitiveness with focus on SMEs**

- ❑ **Infrastructure for Growth and Connectivity**