

The Productivity Dynamics of the Greek Economy: Drivers, Convergence, and Heterogeneities

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**Growth Drivers for the Greek Economy:
Resilience, Inclusiveness, and Structural Transformation**

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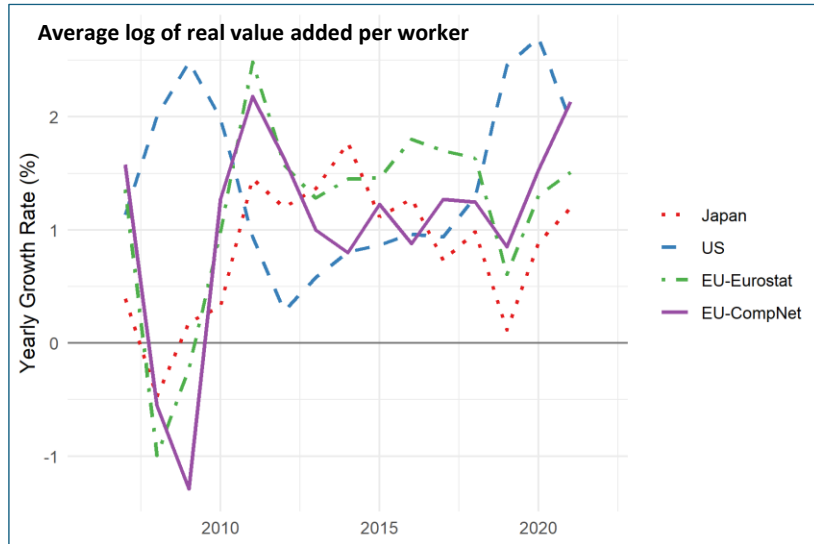
The Productivity Dynamics of the Greek Economy

Main Topics to be Covered

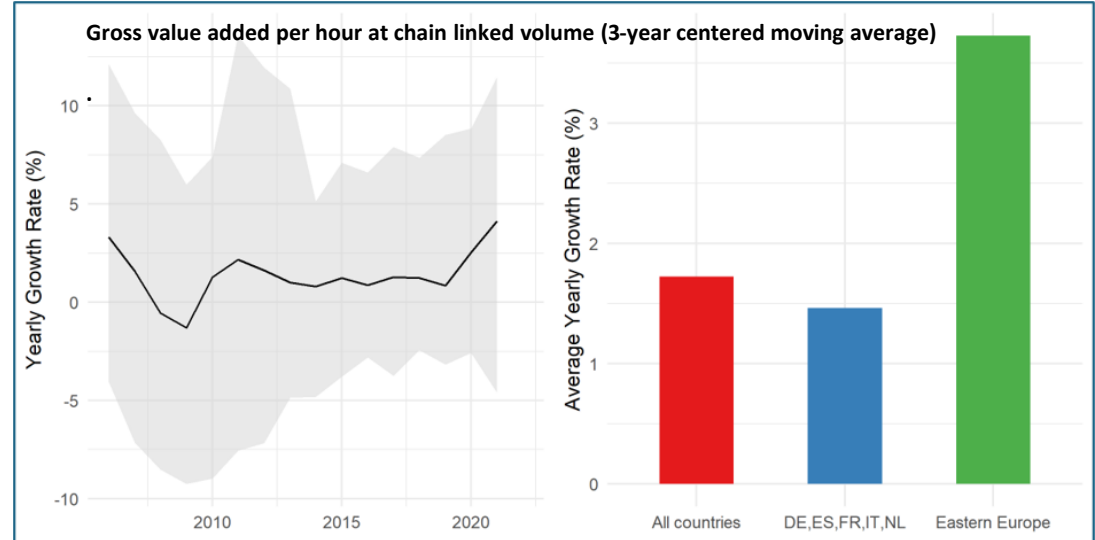
1. Productivity convergence and dispersion of the EU and global economies
2. Productivity dynamics of the EU regional economies
3. Productivity dynamics of the Greek economy and its regions
4. Productivity and left-behindness of Greek Metropolitan Areas
5. Productivity dynamics of the Greek economy by firm size and technology level
6. Conclusions and policy implications

Productivity growth rate and dispersion across the EU and global economies

Aggregate labour productivity growth rate (cumulative 2000-22)



Average productivity growth dispersion and by country groups, 2020-22

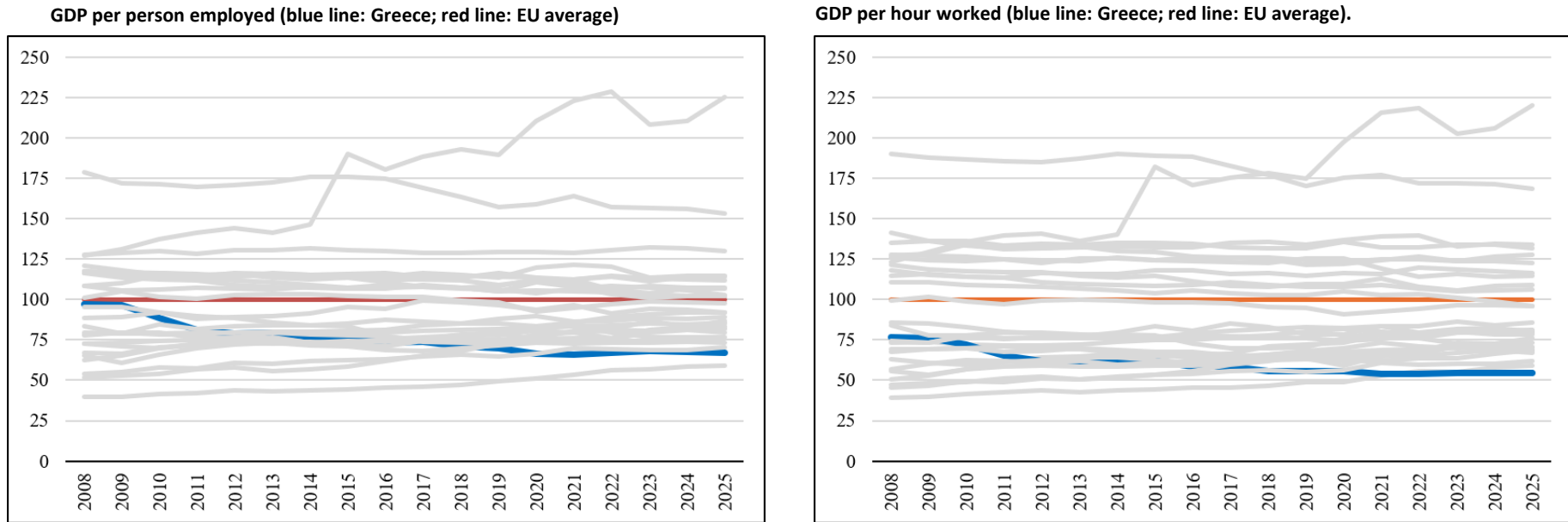


Source: CompNet (2026) *Europe's Productivity Challenge*, IWH-CompNet, Halle, Germany. Notes: Aggregation across countries using real value-added weights. The EU countries included: Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain. Eastern Europe includes Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia.

- Deceleration in productivity growth following the 2008 Global Financial Crisis, despite a rebound after the covid pandemic. European productivity growth appears comparable with that of the United States, except for periods of Global Financial Crisis and covid pandemic.
- Productivity growth is weakest among the large Western European economies, while Eastern European countries record significantly stronger performance, exceeding 3.5% per year, more than double the rate observed in the largest economies, reflecting convergence dynamics.

Productivity growth rate and dispersion of Greece vis-à-vis the EU

Labour productivity in purchasing power standards (PPS), (EU27=100), 2008-2025



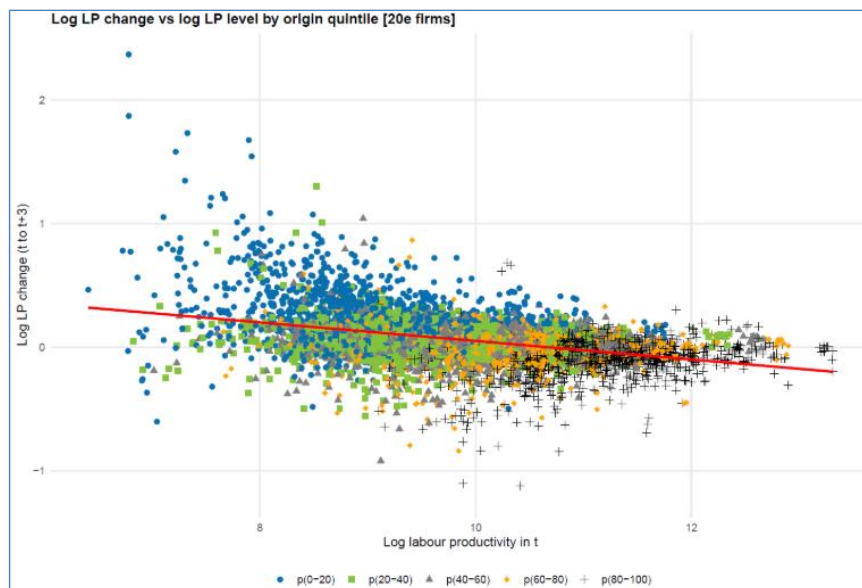
Source: Bertsatos, G., Tsekeris, T. (2026) Productivity developments in Greece and the EU. *Greek NPB Annual Report 2026*, KEPE, Athens, Greece.

- Following the positive macro-developments, Greece experienced a real productivity growth of 1.2% per person employed and 2.7% per hour worked in 2025, compared to 2024, compared to the average of 1% and 1.4%, respectively, in the EU.
- However, after the outbreak of the economic crisis, Greece gradually departed (diverged) from the EU average, until 2020, and then essentially maintained this gap with the EU27 average, i.e., 67.2% of the EU27 average in terms of hour worked and 54.5% per person employed, in 2025.

Productivity convergence across the EU countries and firms of different productivity classes

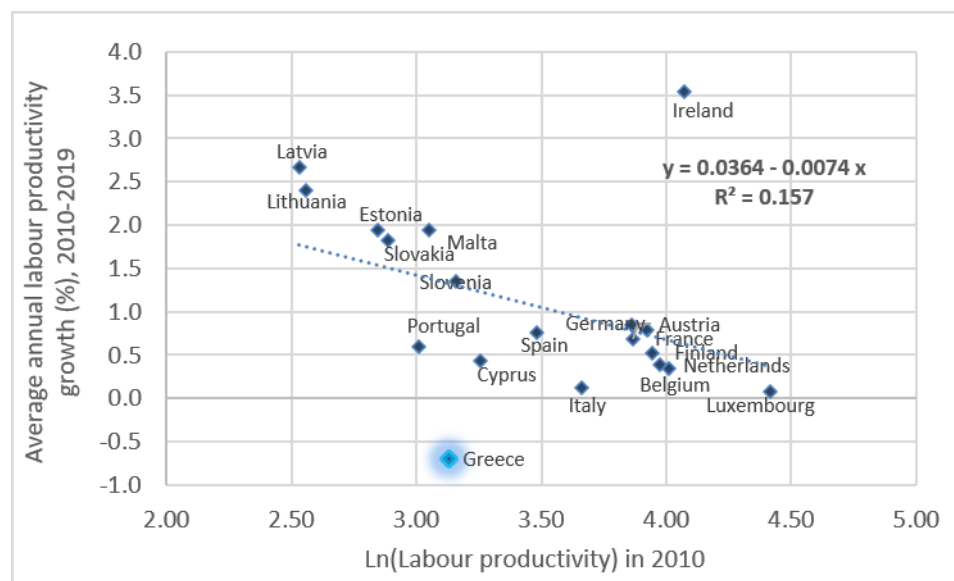
Beta convergence of labour productivity in terms of persons employed

Gross value added per person employed (colours refer to different quintiles), 2005-2022



Source: CompNet (2026) Europe's Productivity Challenge, IWH-CompNet, Germany.

GDP per hour worked (2015 reference level) among the EA19 countries, 2010-2019

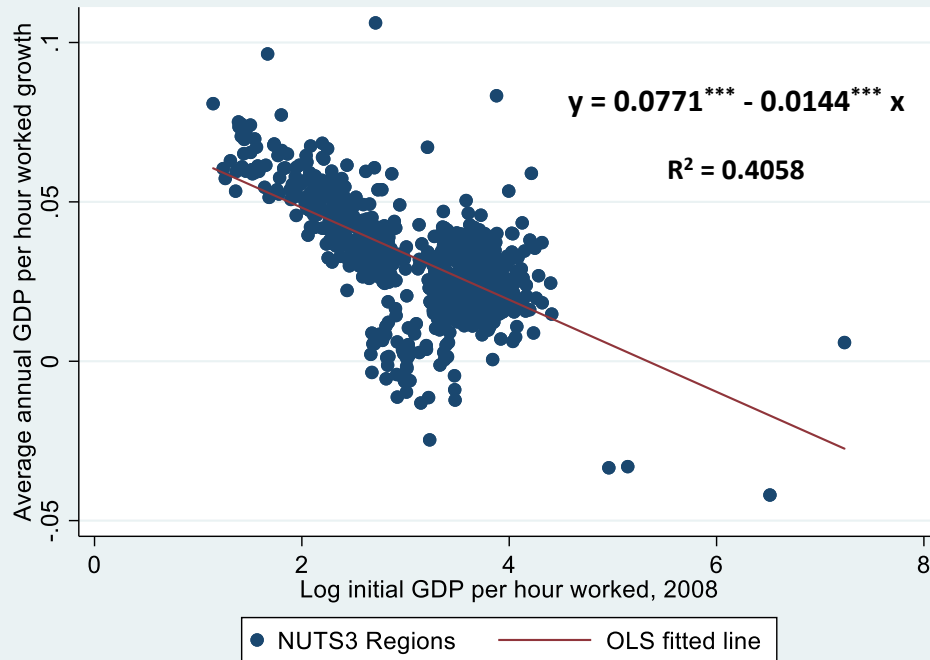


Source: Greek NPB Annual Report (2020)

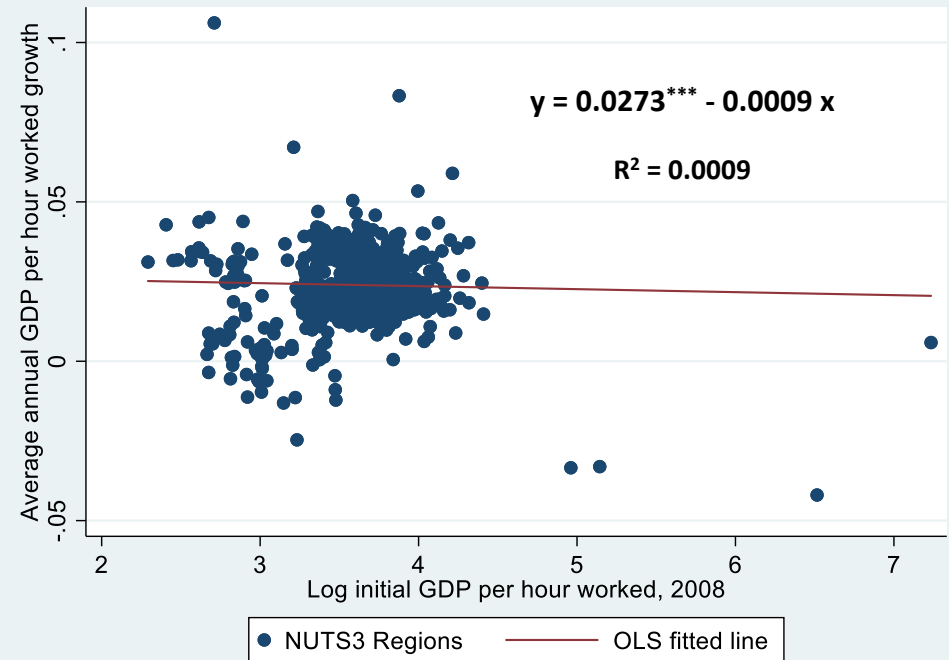
- Based on micro-data (CompNet), at the EU level, it is evident that low-productivity firms (particularly, in the first and the second productivity quintiles) improve their relative position moving to a higher quintile within three years. This outcome points to a catch-up effect.
- Evidence of very slow convergence process among the EA countries, in terms of labour productivity; while several Eastern EU countries (together with Ireland) have shown considerable productivity growth during the previous decade (2010-2019), some other countries, especially Greece, fall significantly behind the average productivity growth and diverge.

Regional productivity convergence in Europe

Beta convergence of all EU NUTS-3 regions, 2008 - 2025



Beta convergence of the Western EU NUTS-3 regions, 2008 - 2025

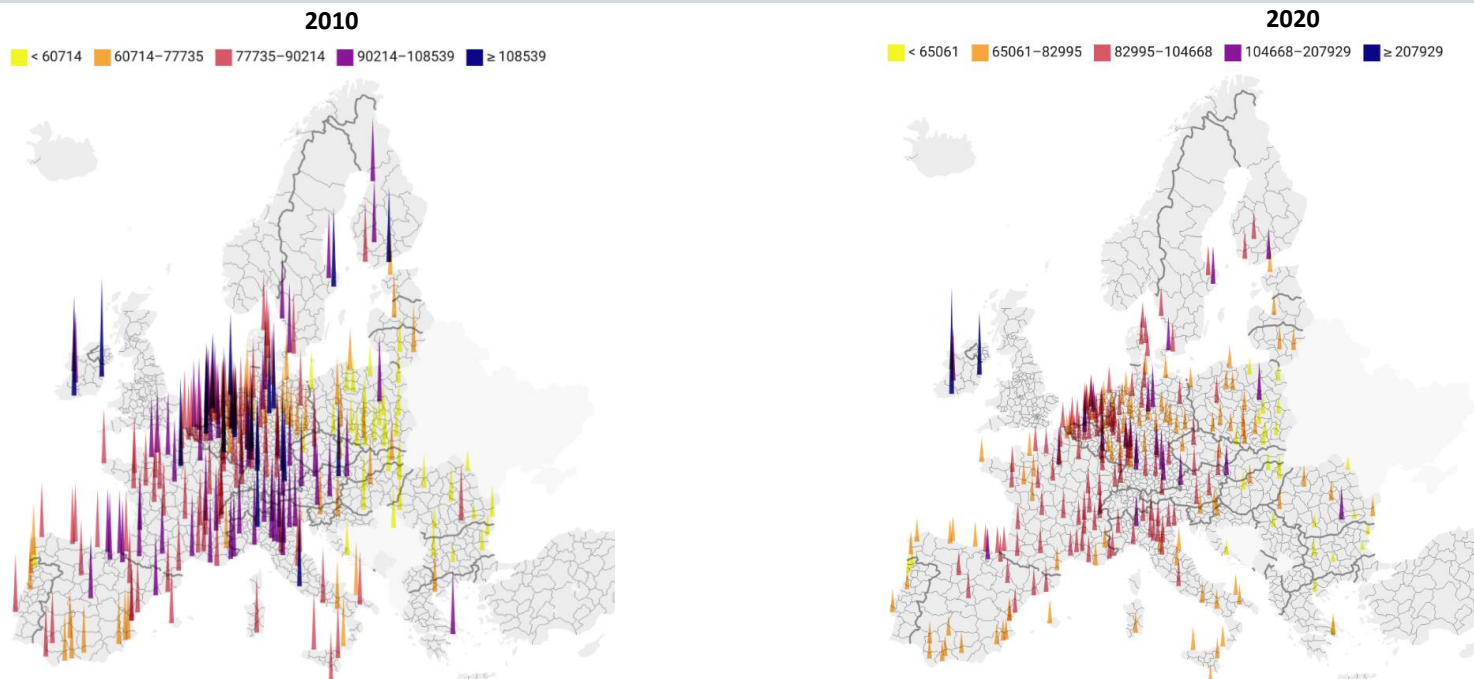


Source: ARDECO regional database. Own processing. Total no. of observations: 1,174. No. of observations for Western EU sample: 936.

- There is a significant –although slow- convergence among all EU regional units.
- There is no convergence when the Eastern EU regional units are excluded from the analysis.
- The time required for the EU regional economies to bridge half of the initial gap separating them from their steady-state equilibrium is equal to 41 years.

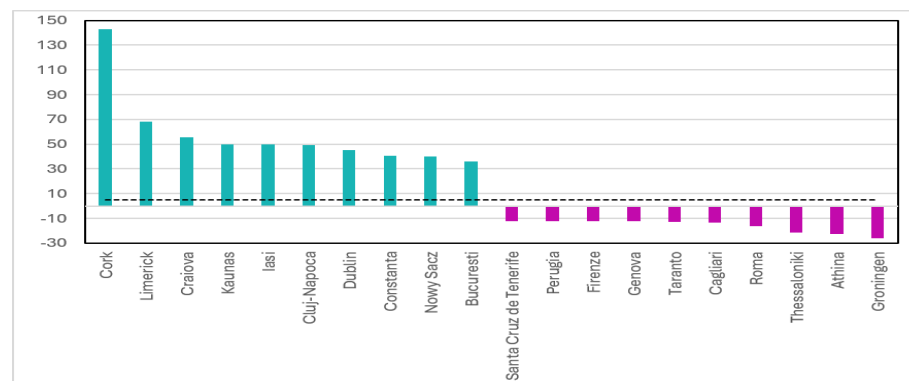
Metropolitan productivity trends in Greece vis-à-vis the EU

Labour productivity (GDP per worker, in USD, constant prices, constant PPP, base year 2015) in the EU metropolitan regions, 2010 - 2020



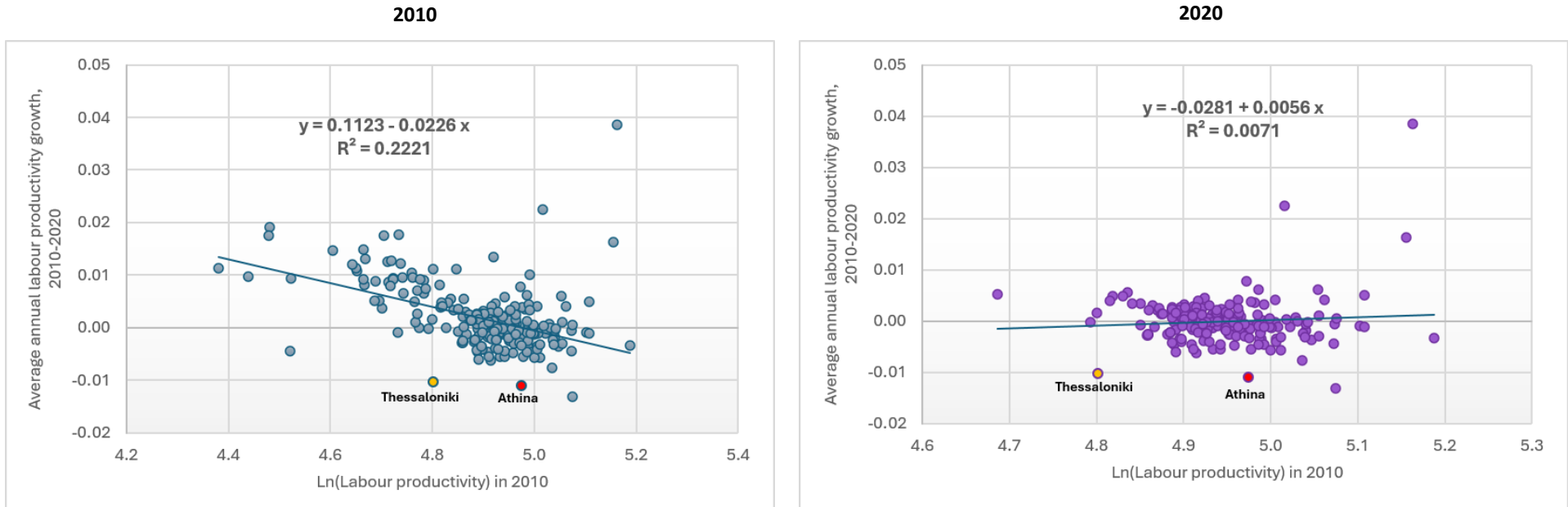
Source: Tsekeris, T. (2026). Productivity and left-behindness of EU metropolitan regions: Trends, spatial analysis and convergence. *Regional Science Policy & Practice*.

- Significant drop of labour productivity of the Greek metropolitan areas (FUAs), as both Athens and Thessaloniki had most negative productivity growth (except Groningen), i.e., -23% and -21%, respectively, retreating to the fourth and fifth (last) group respectively, between 2010-2020.



Metropolitan productivity convergence in Greece vis-à-vis the EU

Labour productivity (GDP per worker, in USD, constant prices, constant PPP, base year 2015) in the EU metropolitan regions, 2010 - 2020

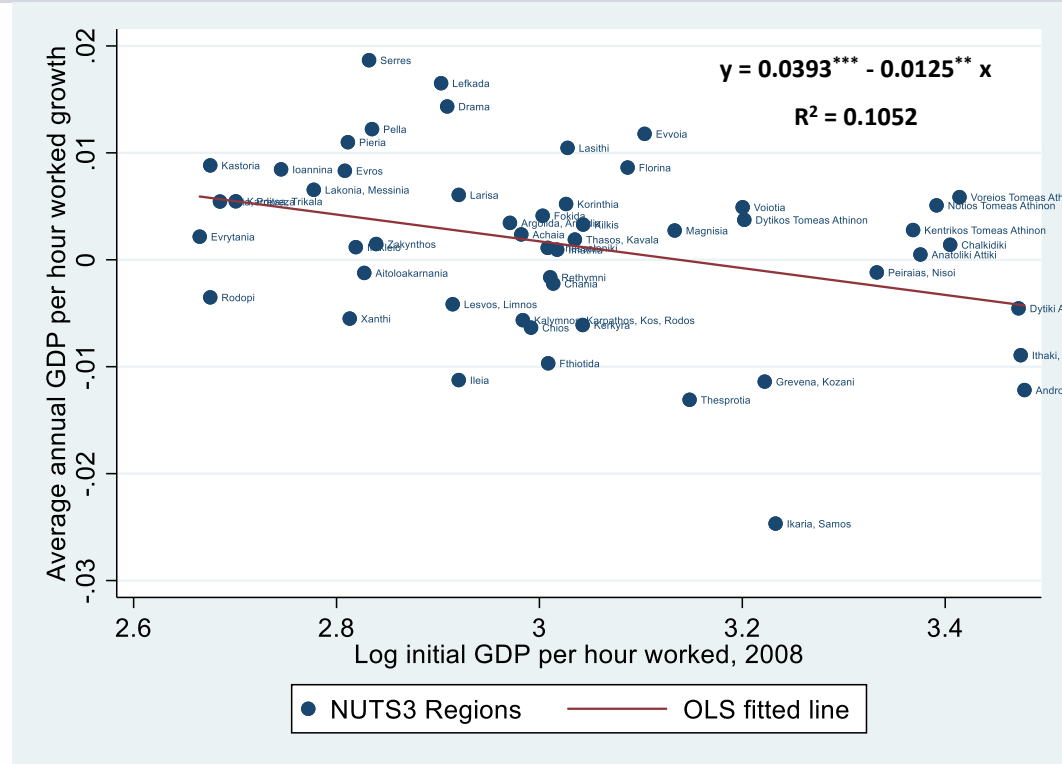


Source: Tsekeris, T. (2026). Productivity and left-behindness of EU metropolitan regions: Trends, spatial analysis and convergence. *Regional Science Policy & Practice*.

- Existence of a clear trend of convergence across the entire sample of the EU metropolitan regions during 2010-2020; 34 years to reduce the inter-metropolitan productivity gap in the whole EU by half.
- When excluding from the sample of metropolitan regions those situated in the eastern bloc of EU countries, the convergence hypothesis is not accepted, implying a divergence process of the Athens and Thessaloniki metropolitan areas, and a multi-speed convergence process at the EU level.

Regional productivity convergence within Greece

Beta convergence of Greek NUTS-3 regions, 2008 - 2025



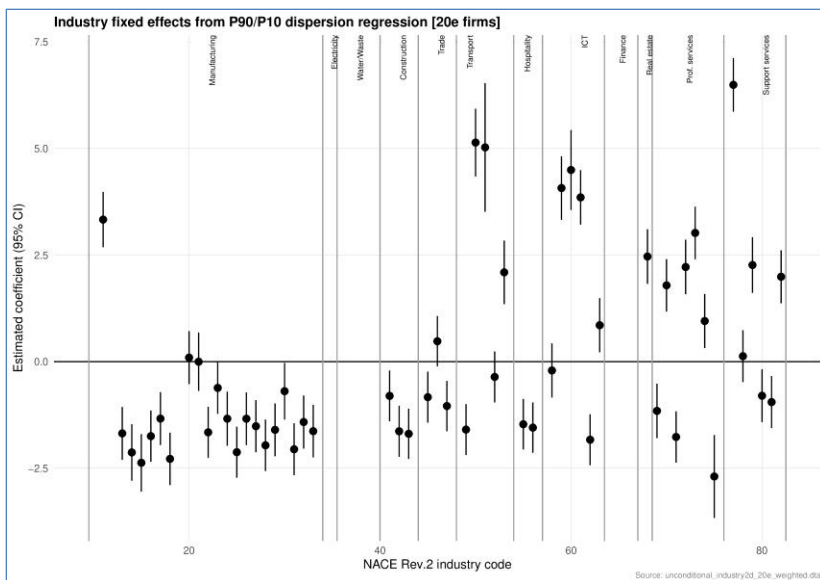
Source: ARDECO regional database. Own processing. No. of observations: 52 .

- There is a significant –although very slow- convergence among the Greek regional units.
- The time required for the Greek regional economies to bridge half of the initial gap separating them from their steady-state equilibrium is equal to 49 years (about half century)!

Productivity dispersion across economic sectors in the EU

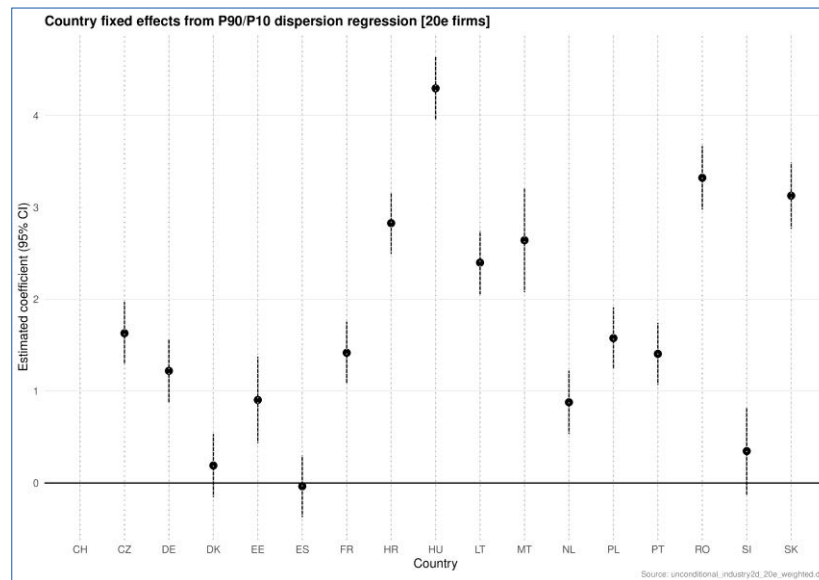
Sectoral productivity dispersion

Industry fixed effects from Labor Productivity P90/P10 dispersion regression (20e firms)



Sectoral productivity convergence

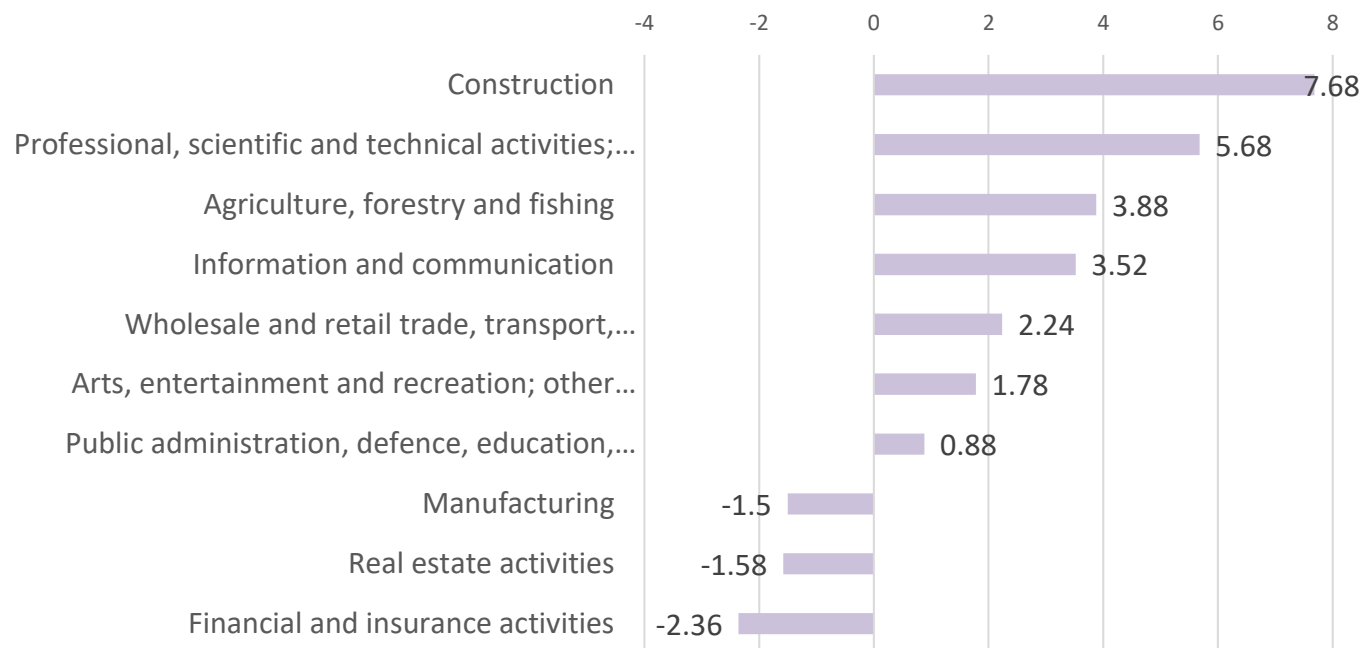
Country fixed effects from LP P90/P10 dispersion regression (20e firms)



Source: CompNet (2026) *Europe's Productivity Challenge*, IWH-CompNet, Halle, Germany. Notes: Aggregation across countries using real value-added weights. The EU countries included: Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain and Switzerland (CH as reference). CEE includes Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia.

- Regression of firms' productivity dispersion (ratio of the 90th to the 10th percentile of the productivity distribution P90/P10) on year, country, and 2-digit NACE Rev. 2 industry dummies.
- Dispersion appears to decrease in all sectors in manufacturing except one. Much more diversified are the results instead in services.
- Dispersion appears to be more evident in CEE countries, compared to Western or 'Old Europe' countries.

Sectoral contribution of labour productivity growth (%) in Greece



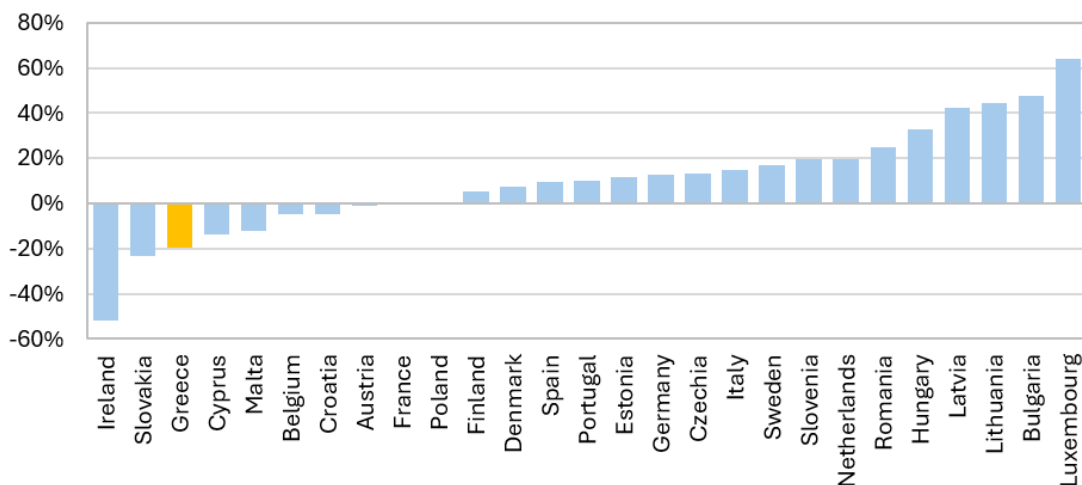
Source: Rodousakis and Tsekeris (2026) The sectoral structure of productivity, In: Growth Issues of the Greek Economy 2025 - 2035, KEPE, Athens, Greece.

- Between 2019-2024, on average, Construction and Professional/Scientific activities had the largest contribution to the labour productivity growth, while the Manufacturing, Real Estate and Finance the least.
- These trends depict the structural deficiencies of the productivity structure of the Greek economy, since the increase of economic activity is largely accompanied by a rise in employment and, to a lesser extent, by a sustainable improvement in value added per employee.

Productivity gaps between Greece and the EU by firm size and economic activity

	Percentage share of firms				Percentage share of employees				Percentage share of value added			
	Avg. 2008-2012		Avg. 2019-2023		Avg. 2008-2012		Avg. 2019-2023		Avg. 2008-2012		Avg. 2019-2023	
	Greece	EU27	Greece	EU27	Greece	EU27	Greece	EU27	Greece	EU27	Greece	EU27
Very small	85.6%	72.7%	82.8%	75.1%	16.4%	4.9%	6.5%	4.1%	9.6%	1.3%	2.8%	1.4%
Small	7.8%	17.7%	11.2%	16.1%	10.4%	10.3%	9.9%	8.5%	6.0%	4.0%	8.1%	3.7%
Medium	4.9%	7.0%	3.8%	6.2%	29.6%	20.9%	21.3%	16.8%	24.7%	7.8%	22.2%	8.9%
Large	1.7%	2.6%	2.3%	2.6%	43.6%	63.9%	62.3%	70.5%	59.7%	86.8%	66.9%	86.1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Bertsatos, G., Missos, V, Rodousakis, N. (2024) The performance of SMEs in Greece and the EU27, *Greek NPB Annual Report 2024*, KEPE, Athens, Greece.



- Greece has a technological deficiency of production structure, as it falls short in all fundamental metrics about the technology level of SMEs and large firms.
- Relatively high percentage of firms are clustered around very small firms unable to fully leverage the advanced skills required for higher productivity.
- Low productivity performance of high-tech and knowledge-intensive (HTKI) SMEs in Greece, as it was reduced -20% in Greece between 2009-2023.

Main Conclusions

- Productivity convergence is not only about the catching up of laggard or poorer countries and regions.
- It also relates to the productivity slowdown, stagnation, or even contraction of the frontier or more productive ones.
- The heterogeneity of the (multiple-speed) catching-up process increases when moving from national to subnational levels, e.g., regional productivity gaps among and within countries (core-periphery disparities).
- Further heterogeneity arises when separating the productivity of industrial activities from that of service sectors, and when considering firms of different (technology, capital, knowledge) categories and size classes, especially among the (very) small ones.

Key Policy Recommendations

- **Need for policies to enhance the productivity of the Greek economy and the multi-faceted convergence with the EU average.**
- Importance of structural policies that boost productive investment, technological upgrading and improvement in the quality of work, so that growth will mostly rely on productive adjustments (efficiency-driven) and less on extensive ones (input-driven).
- Upgrade spatial governance and establish place-based evidence-informed policies to exploit positive agglomeration economies create spatial synergies and diffusion effects and reduce regional productivity gaps.
- Promote technological capabilities and advanced skills of firms, through R&D support, access to cutting-edge technologies, upskilling/reskilling training programmes, regulatory reforms, and infrastructural improvements.

The Productivity Dynamics of the Greek Economy

Drivers, Convergence, and Heterogeneities

Thank you for your attention!

Any question?

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Greek National Productivity Board (NPB)

<https://www.kepe.gr/en/research/recent-publications-kepe/national-productivity-board/>

CompNet NPBs' Common Report (2026)

https://www.iwh-halle.de/fileadmin/user_upload/Documents/ProdTool/ProdTool_Common_Report.pdf