(Missing) Productivity and the Growth Challenge

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Joint OFCE-LEAP Workshop

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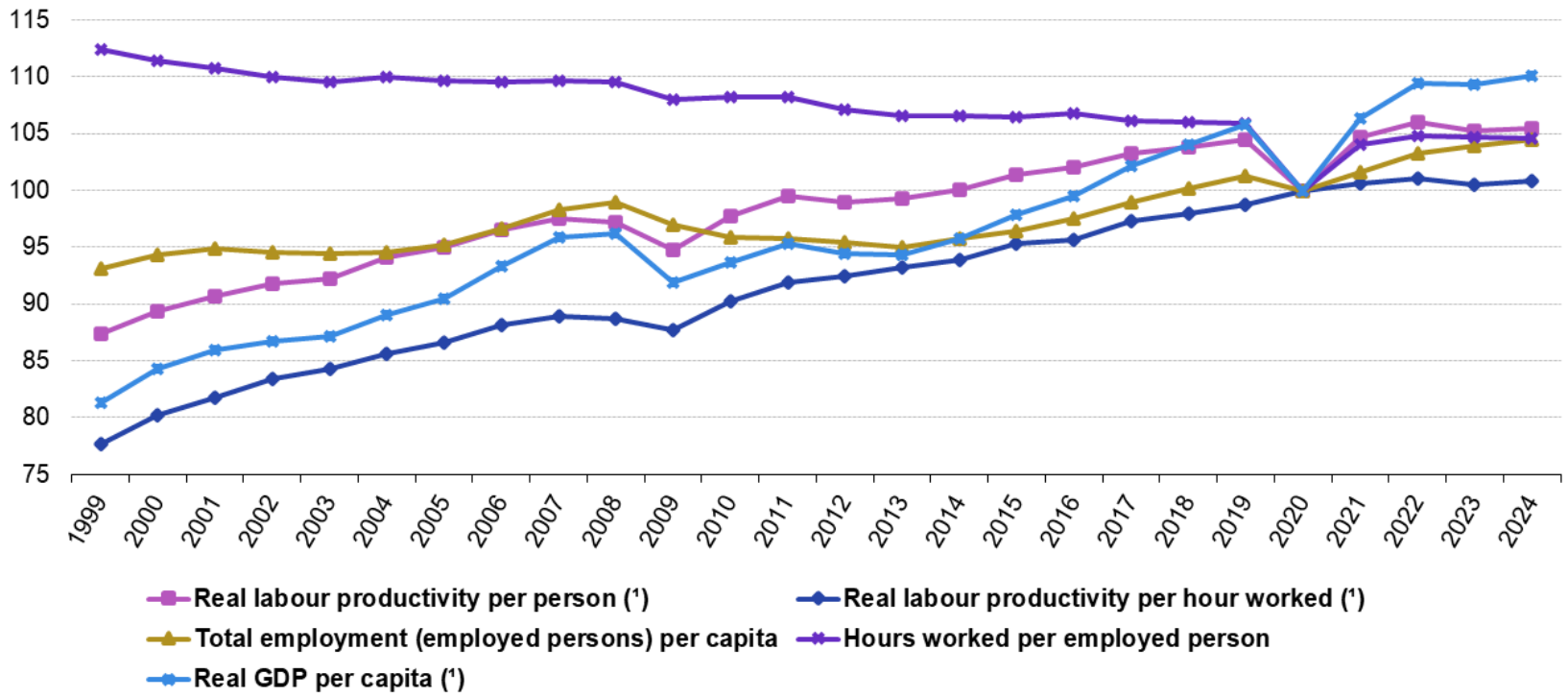
The problem: low productivity

Evolution of key input indicators of labour productivity and real GDP per capita in the EU
(index 2020 = 100, 1999-2024)



(1) these indicators are calculated on GDP in chain linked volumes
Note: Y axis does not start at 0
Source: Eurostat (online data codes: nama_10_lp_ulc, nama_10_pc)

eurostat

EU productivity is substantially lower than the US

Low productivity resulted in an increasing (Europe's/Italy's) **labour productivity gap with the US** since the mid-1990s and again since the Covid pandemic

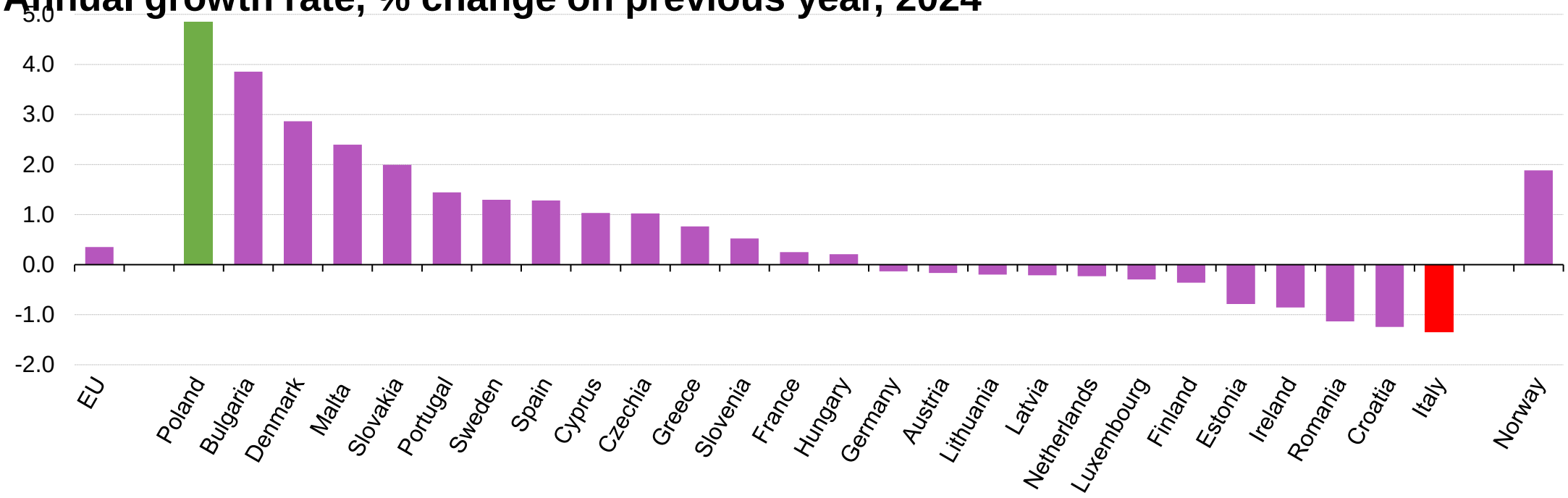
Lower total factor productivity explains the bulk of per capita income gap with the US

Different measures, similar patterns

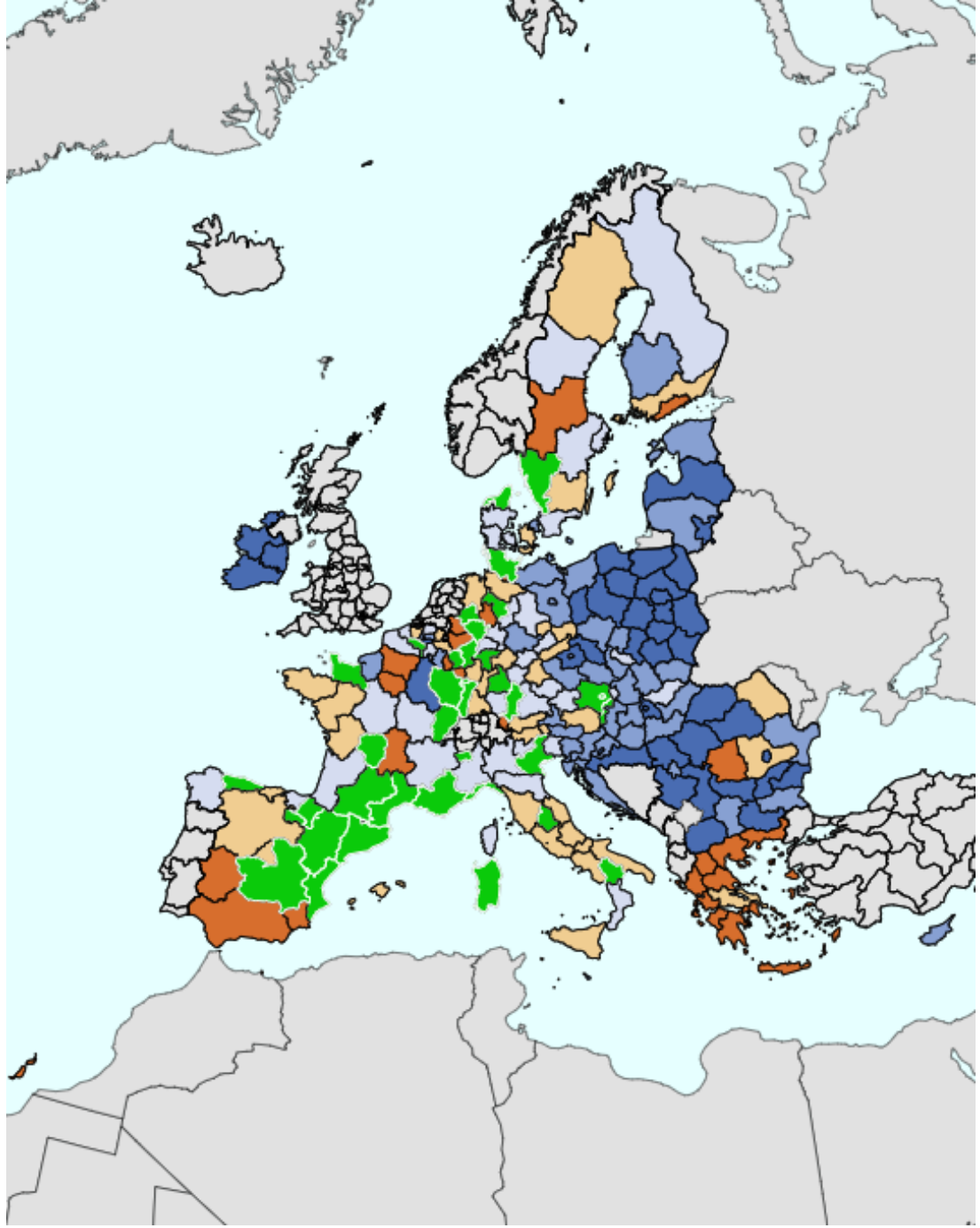
The problem: low productivity and heterogeneity between EU countries (Italy)

Real labour productivity per hour worked by country

Annual growth rate, % change on previous year, 2024



Note: the 2024 hours worked data for Belgium cannot be published

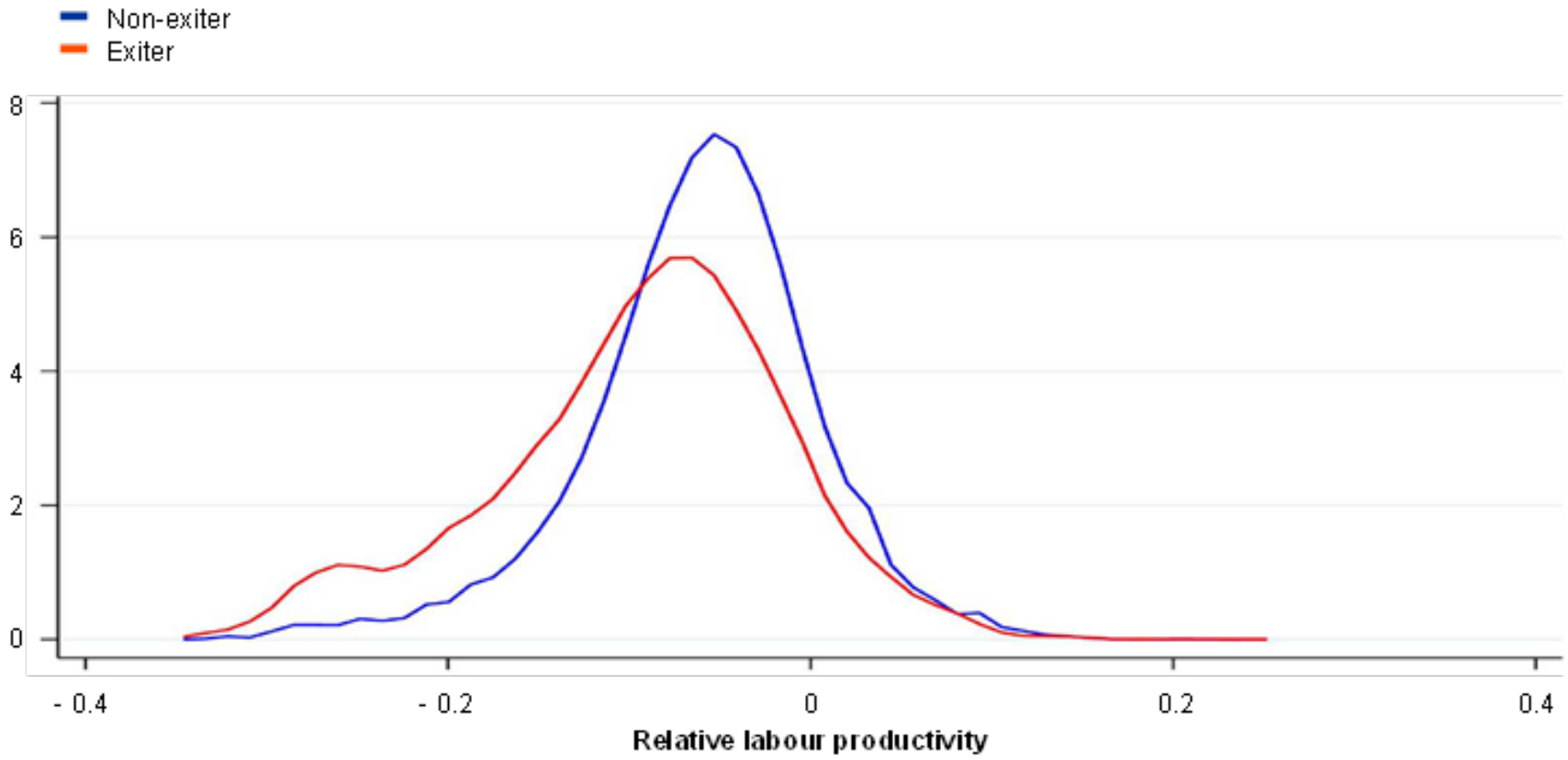


≥ 18.6 to 98.05
≥ 98.05 to 100.9
≥ 100.9 to 103.45
≥ 103.45 to 105.73
≥ 105.73 to 114.38
≥ 114.38 to 177.1
Data not available

Eurostat, April 2025, data for 2023

The problem: heterogeneity within countries (Higher in eastern countries)

Distribution of productivity of firms that exited compared with survivors in the same sector, 2020



Different productivity distributions matter for responses to shocks/opportunities

More integrated market helps productivity but no convergence (lower productivity = less resilence but also incapacity of getting opportunities, e.g AI)

Notes: The data refer to Belgium, Germany, Spain, France, Italy and Portugal. Labour productivity is defined as real value added per employee

The framework for solutions is the Draghi Report (together with the EU competitiveness compass)

The Draghi Report identifies **three transformational imperatives** to boost competitiveness

1. **Closing the innovation gap** (but EU/Italy bureaucracy)
2. *A joint roadmap for decarbonisation and competitiveness*
3. ***Reducing excessive dependencies and increasing security***

The EU competitiveness Compass sets out an approach and a selection of flagship measures **to translate each of these imperatives into reality**, accounting for differences between and within countries, regions and firms

Closing the innovation gap: the importance of considering firms heterogeneity

- The Draghi Report claims that: “Europe must be the place where tomorrow’s technologies, services, and clean products are invented, manufactured and marketed, as we stay the course to climate neutrality”

Important differences at firm level (affecting results)

1. listed firms (a minority)

- The total factor productivity growth of (**European/Italian) listed firms** is lower than that of US, with a **larger divergence in tech sectors** (productivity of US listed tech firms increased by around 40% over the past two decades, that of European tech firms was stagnant, Adilbish et al, 2025).
- This is linked to a **widening gap in innovation efforts: R&D expenditures of European tech firms have been 3-4% of sales versus a 12% in the US**

For small firms, innovation is even a larger problem…

2. Size of firms

- For small and medium firms (majority in Italy), innovation is constrained by **limited absorptive capacities, low initial knowledge, limited access to finance, and economies of scale disadvantage**
- These structural disadvantages obstruct the required R&D stock to innovate and might limit their ability to invest in fixed capital

3. firms in Global Value Chains

- But for **small firms in Global Value Chains** the situation may be better…
- **Foreign knowledge sourcing through GVC participation is a potential innovation input with reduced fixed costs** *(could it be an alternative to R&D spending?)*
- GVC participation is particularly important for firms in strengthening their market position

Firms in Global Value Chains…

- **The fragmentation of production allows for enhanced learning:** foreign knowledge embedded in imported intermediate goods induces a learning effect
- **Upgrading the quality of exports to move to higher value-added activity stimulates innovation**
- **Horizontal relationships** (Hruskova, 2024; Srdelić and Dávila-Fernández, 2024) and competition (Aghion et al., 2021) resulting from foreign markets' access **induce product and process innovation**. Undoubtedly, the learning effect varies under firms' heterogenous absorptive capacities.
- Firms spending on R&D for example, have adequate absorptive capacities facilitating GVC learning
- On average, **firms that form part of global value chains are found to exhibit higher productivity than non-participating firms**. In addition, longer participation strengthens the productivity-enhancing effects.

Results

- Macro-level empirical studies using trade data or international input-output tables generally find **productivity-enhancing effects of GVCs, but macro-level analysis does not include firm heterogeneity in the analysis**, so it is unclear through what channels firm productivity increases.
- **Micro-level studies** have the advantage of including firm heterogeneity in the analysis to **identifty the channels of productivity increase**.
- Micro level studies also claim **productivity improvements through entry/exit of firms** (composition effect)

Critical raw materials are particularly important for GVC

- They are indispensable for the EU/Italian economy and a wide set of necessary technologies for strategic sectors such as **renewable energy, digital, aerospace and defence**.
- The EU has approved the Critical Raw Materials Act (CRM Act) to ensure access to a secure and sustainable supply of critical raw materials, enabling Europe to meet its 2030 climate and digital objectives
- For each critical material, EU has an info sheet with all the relevant info (including competitors etc) https://scrreen.eu/crms-2023/

Identifying firms exposed to disruption of critical inputs …

……is key for policymakers to better prepare for forthcoming shocks with potential implications for growth and price stability. **Microdata are crucial not only for mapping strategic dependencies, but also for quantifying their importance if a shock hits**

- A **deeper, more granular understanding of exposure to foreign dependencies would enhance our ability to pinpoint where and to what extent price pressures may arise**, while also improving the assessment of economic and financial stability risks. At the same time, **this insight is essential for designing more effective industrial policies and improving supply chain resilience**
- This aligns with the European Commission advocating for 'strategic autonomy', in particular increasing our use of technologies that do not rely on materials provided by potentially unreliable trading partners

In summary

- **Europe's labour productivity gap with the US has widened**
- Long-established business models have been challenged (by the pandemic and the wars)
- Some **key economic dependencies turned into geopolitical vulnerabilities** (rare hearth, litium…)
- Europe is very exposed to shocks, Italy even more than Europe
- Europe trade-to-GDP ratio exceeds 50% (37% in China, 27% in the United States)
- **Europe/Italy relies on a handful of suppliers for critical raw materials and import over 80% of its digital technology**
- Italy (Europe) has very high energy prices: EU companies face electricity prices that are 2-3 times higher than those in the United States and in China
- **Europe is lagging behind in new technologies**: only four of the world's top 50 tech companies are European
- **Participation in global value chains is commonly seen as an important driver of productivity growth**
- An element is also the fact that the **single market does not work well (Letta Report)**

THANKS!