



81 WORKING PAPER

Competitiveness in the age of geopolitics: what agenda does the EU really need?

Werner Raza
Julian Maukner

Vienna, January 2026

OFSE^{...}

Austrian Foundation
for Development Research

DOI: <https://doi.org/10.60637/2026-wp81>

This paper is part of the research project “Progressive Industrial Policy for the Twin Transformation”, a cooperation project between ÖFSE and Arbeiterkammer Wien.



Financial support of Arbeiterkammer Wien is gratefully acknowledged.

The ÖFSE Working Paper Series has the objectives to publish original research and initiate debates on international development issues and policies. Authors include ÖFSE employees as well as external researchers. The views expressed in the working papers are those of the authors and do not necessarily reflect the views of ÖFSE.

Download:

https://www.oefse.at/fileadmin/content/Downloads/Publikationen/Workingpaper/WP81_Competitiveness-in-the-age-of-geopolitics.pdf

IMPRINT

Austrian Foundation for Development Research – ÖFSE **A**
Austria, 1090 Vienna, Sensengasse 3, **T** +43 1 3174010 **E**
office@oefse.at, **I** www.oefse.at, www.centrum3.at

Contents

List of Abbreviations	2
List of Figures and Tables	3
Abstract	4
1. Introduction – Competitiveness as a contested concept	5
2. Conceptualizations of competitiveness	7
2.1. Central recurring elements in debates on competitiveness	7
2.2. Conceptualizations of competitiveness	8
2.2.1. Market share-focused competitiveness	8
2.2.2. Productivity-focused competitiveness	9
2.2.3. Beyond-GDP competitiveness	10
2.2.4. Comparing the three concepts of competitiveness	10
3. The state of the EU’s competitiveness	12
3.1. Market-share focused indicators	12
3.1.1. Input-related price elements: Labour costs and energy prices	12
3.1.2. Assessing output elements using profitability	15
3.2. Productivity focused indicators	16
3.2.1. Research and Development indicators	17
3.2.2. Labour productivity	18
3.3. Beyond-GDP indicators	21
3.3.1. Comparing HDI trajectories	21
3.3.2. GDP and resource productivity	22
3.4. Summary: Fearmongering unwarranted, but challenges remain	22
4. What EU policy agenda on competitiveness is needed?	23
5. Conclusions	26
References	28
About the authors	28

List of Abbreviations

BEA	Bureau of Economic Analysis industry economic
CSRD	Corporate Sustainability Reporting Directive
DMC	domestic material consumption
EC	European Commission
ECB	European Central Bank
EGD	European Green Deal
EU	European Union
EUCS3D	EU corporate due diligence directive
EUR	Euro
GDP	Gross Domestic Product
GNI	Gross National Income
GPTs	general-purpose technologies
GVA	Gross Value Added
HDI	Human Development Index
ICT	Information and Communication Technology
ILO	International Labour Organization
IMD	International Institute for Management Development
KETs	key enabling technologies
NACE	Statistical Classification of Economic Activities in the European Community
NAICS	North American Industry Classification System
OECD	Organisation for Economic Co-operation and Development
PPI	Producer Price Index
PPP	Purchasing Power Parity
R&D	Research and Development
SDGs	Sustainable Development Goals
SME	Small and Medium-sized Enterprises
ULC	Unit labour costs
UN	United Nations
UNDP	United Nations Development Programme
UNICE	Union of Industrial and Employers' Confederation of Europe (now Business Europe)
US \$	US Dollar
US	United States of America
WEF	World Economic Forum
WIPO	World Intellectual Property Organization

List of Figures and Tables

Figure 1:	Unit labour costs, main economic activities	13
Figure 2:	Unit labour costs, key detailed economic activities	14
Figure 3:	Industry energy retail prices	15
Figure 4:	Profitability, main economic activities.....	16
Figure 5:	R&D expenditure by source of funds	18
Figure 6:	Patent grants by technology and applicant's origin.....	18
Figure 7:	Labour productivity, main economic activities.....	19
Figure 8:	Labour productivity, selected detailed economic activities.....	20
Figure 9:	Human Development Indexes.....	21
Figure 10:	GDP and resource productivity	22
Table 1:	A classification of different concepts of competitiveness	11

Abstract

Competitiveness has returned to the fore of European economic policymaking with a vengeance. In this paper, we scrutinize the recent debate on the need for promoting European competitiveness, as prominently diagnosed by the Draghi Report. By disaggregating the overall academic and policy-oriented debate on competitiveness into three distinct conceptual strands – market share-focused competitiveness, productivity-focused competitiveness, and beyond-GDP competitiveness – we conduct a descriptive statistical analysis of competitiveness indicators for both the European Union and the United States. Though our analysis concurs with the Draghi Report by identifying an innovation gap in high-tech services and with respect to energy, by and large the state of EU competitiveness does not appear as bleak as insinuated by the recent public discourse. Based on a highly selective reading of the Draghi Report, the focus of current EU competitiveness policies on across-the-board deregulation will not only contribute little to address the identified problem areas, but risk to become self-defeating as they tend to exacerbate reliance upon an increasingly outdated export-oriented growth model of the EU, given pervasive protectionist tendencies in the global economy. We conclude that a more targeted approach to tackle both the innovation gap and energy dependencies is needed, which should be based on an expansionary public investment agenda and mission-oriented industrial policies.

Keywords: competitiveness, Draghi-Report, innovation, European Union, geopolitics

JEL code: F6, O3, O4,

1. Introduction – Competitiveness as a contested concept

With the publication of the Draghi Report (Draghi 2024a) and the subsequent programmatic pronouncements of the new European Commission, e.g. the Strategic Guidelines and the Competitiveness Compass (European Commission 2025c; von der Leyen 2024), debates on the notion of competitiveness have again become important for European economic policy. However, as scholars frequently observe, a definitive and widely accepted definition of competitiveness or of a competitive economy remains elusive (Kaczmarczyk 2025). Instead, the term is frequently used by lobbyists, policy-makers or academics as a buzzword to promote a self-serving agenda (Barden et al. 2024; Krugman 1994).

Amongst other reasons, this ambivalence led some scholars to refute the usefulness of the competitiveness debate. Already in 1994, Paul Krugman reacted to the concept's rise in popularity by calling it a "dangerous obsession" (Krugman 1994). He argued against the idea that countries compete globally in the same way that companies do. In contrast to private firm competition, international trade is not a zero-sum game, and contrary to firms, countries do not become insolvent. Country A can profit from country B's economic success, if it causes a growth in demand for goods produced by country A, for example. Following a Ricardian approach, each country possesses a comparative advantage somewhere, making the global division of labour increase the efficiency of resource allocation (Krugman 1996). Consequently, if policymakers pursue competitiveness policies by in particular implementing protectionist measures or export-promotion policies, respectively, this will bias the free international allocation of resources and eventually might even lead to trade conflicts. As a result, inefficient resource allocation and protectionism, respectively, will make countries worse-off overall. As far as the competitiveness debate refers to productivity, which Krugman considers the key variable to determine the long-term success of an economy, he emphasizes that the former is mostly related to domestic factors including, for instance, the skills of the workforce or the quality of the domestic innovation system. In sum, competitiveness agendas for Krugman rest on shaky theoretical grounds, as they are premised on a zero-sum view of international economic relations. In his view, the need to raise one's competitiveness is often invoked as an excuse for the imposition of unpopular policies.

Despite this early and indeed widely discussed critique coming from arguably the leading exponent of modern trade theory, the idea of nations competing with each other never left the minds of policymakers, academics and the media, particularly not in the EU. With the Lisbon Agenda of 2000 an initiative was launched to increase the external competitiveness of the European Union. Specifically, the European Union (EU) aimed at becoming "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion". Perhaps unsurprisingly, by 2010 the general judgement was that some progress had been made, but that the overall objective has not been reached (Collignon 2008; Copeland/Papadimitriou 2012). But this did not lead to a change of course, but ultimately reinforced in the minds of EU policymakers an enduring concern for the need to become more competitive. Although the Europe 2020 strategy as the successor policy framework for the period 2010-2020 was somewhat more comprehensive and broader in approach, economic events in the course of the Eurozone crisis de-facto shifted the policy approach to one based on fiscal austerity and internal devaluation, particularly in the Southern periphery of the EU. The policy prescription imposed upon the "PIGS"-countries was one of becoming competitive again upon the basis of wage and welfare cuts, privatization and liberalization. Even the European Green Deal (EGD) as the flagship project of the first Commission headed by Ursula von der Leyen since 2020, was amongst others, justified on the grounds of the programme contributing to the EU's competitiveness by promoting, e.g. green technologies and business models.

Given the EU's self-portrayed image as a staunch supporter of free trade, that is, the notion that as trade benefits all countries involved, it is not a zero-sum game, the pertinent question indeed is why competitiveness has become such an obsession for EU policymakers. Our

tentative answer to this question is two-fold. The first is economic and applies to the period of roughly 1990 to 2008. In this period, the process of neoliberal globalization was marked by both the liberalization of capital flows and financial markets, and by the reorganization of the international division of labour through the emergence of Global Value Chains. With capital as a factor of production having become mobile, countries were incentivized to compete for investment, which in turn exerted a pressure upon taxation, social welfare systems and labour costs. In the language of trade theory, absolute cost advantages became the guiding norm for resource allocation by transnational corporations. Under these circumstances, competitiveness policies were motivated by the desire to promote economic growth via the creation of attractive business environments attracting corporate investment.

Given recent geopolitical shifts, in particular the Trump administration's imposition of high tariffs on trading partners, as well as efforts to diversify supply chains and de-link from China, the case for promoting globalization and export-led growth has if anything considerably weakened. The current renaissance of competitiveness as a guiding principle for EU economic policy must thus draw upon other motivations. In this respect, our main explanatory hypothesis refers to the process of *securitization* (Buzan et al. 1998), which in our view is the conceptual key to understand the implications of the recent geopolitical turn. As a combined consequence of security of supply deficits during the COVID-19 Pandemic, of the energy crisis due to the war in Ukraine and the US pressure to de-couple/de-risk from China, EU policymakers have put economic security and competitiveness as the new top priorities. These events are seen as threats to the prevailing European economic model, and in particular the business models and thus profitability of its corporate sector. The framing of these issues as a threat to national security allows EU policymakers both to rally the troops behind a particularly forceful general interest, and to resort to extraordinary measures commensurate to the scale of the challenge. Under the rubric of competitiveness, all kinds of direct and indirect support measures for EU companies are thus put on the EU economic policy agenda. Given the continued strong political commitment to a restrictive macro-financial regime with the reformed Stability and Growth Pact and the ECB's (European Central Bank) price stability mandate at the centre, the reorientation of the economic policy regime to security-related objectives requires the successful management of politically delicate trade-offs. Most importantly, mobilizing the necessary funds for building-up military-industrial production, expanding military capacities in Member States, coping with higher prices for energy imports and investing in domestic capacities and capabilities in high-tech industries is conditional upon a large-scale redistribution of funds hitherto mostly used for social spending. To facilitate this, competitiveness is explicitly put into the service of promoting objectives such as the EU's strategic autonomy, technological leadership and economic security amid the widely shared claim of the Draghi Report that the EU suffers from a competitiveness deficit vis-à-vis the United States. Against the background of a 25 years-long history of frantic policy-making to precisely increase the EU's competitiveness, this is a surprising outcome.

Whatever the political motivations, the economic argument for the new competitiveness agenda is the claimed competitiveness deficit of the EU vis-à-vis the US, which is considered to be particularly pronounced in high-tech industries. Given Draghi's focus on productivity as the core of his conceptualization of competitiveness, dynamizing innovation is seen as the critical factor for promoting high(er) productivity growth and thus economic prosperity in the EU.

Against this background, the objective of this paper is to take issue with the recent return to competitiveness. We scrutinize in particular, if the Draghi report's central proposition of a European competitiveness deficit vis-à-vis the US stands upon firm empirical grounds. We do so by benchmarking the EU's competitiveness against the US according to distinct and well-known conceptualizations of competitiveness taken from the literature. Our assessment arrives at somewhat different conclusions. Though we confirm the innovation gap and the energy problem, on many other dimensions of competitiveness, the EU fares better than the US. Upon this basis, we argue for targeted innovation policies, but see no firm basis for

pursuing neither the across-the-board deregulatory crusade initiated by the European Commission recently, nor for backtracking on the green agenda and cutting social spending.

The remainder of the paper is organized as follows: Upon the basis of a literature review, Section 2 introduces three different conceptualizations of competitiveness and identifies central elements of competitiveness, that appear to varying degrees in all conceptualizations. Upon this basis, Section 3 provides an empirical benchmarking exercise of the performance of the European and US economy in light of the three identified competitiveness concepts. We show that depending on the concept applied, the assessment of the competitive state of the respective economies varies substantially. Section 4 takes the discussion to the policy level. We provide a critical assessment of the recent EU competitiveness agenda, arguing that the basic problem with the Draghi Report has less to do with its conceptual flaws, but the highly selective implementation by EU policymakers. Upon the basis of our own empirical assessment, we argue in favour of a targeted set of policies tackling the EU innovation gap and energy crisis. Section 5 concludes.

2. Conceptualizations of competitiveness

2.1. Central recurring elements in debates on competitiveness

When discussing the “many facets of competitiveness”, Aigner et al. (2013) differentiate between price, quality and outcome competitiveness. Price competitiveness takes on a supply-side perspective and primarily looks at the cost of the input factors of production. It therefore includes the absolute cost of labour, capital and resources, as well as taxation, but also includes labour and capital productivity. Quality competitiveness is a broad term and encompasses both the structure of an economy and its capabilities. Regarding structure, it includes the ability of an industry or country to successfully export goods and services on the global market and whether competition takes place along the price or the quality dimension. As far as capabilities are concerned, innovation, education and social systems are of relevance, as well as governance, ecological ambition, institutions and clusters. Outcome competitiveness in the past has been defined as the ability to deliver high Gross Domestic Product (GDP)/capita, employment or export quotas. Recently, new perspectives were supplemented, that also value beyond-GDP goals like life expectancy, happiness, fairly distributed incomes, work-life balance or environmental quality.

While Aigner et al.’s (2013) work is a good starting point to categorize the different concepts of competitiveness, some adaptations need to be made. On the one hand, we will from here on think of these “facets of competitiveness” as central elements of competitiveness concepts. Proponents of different definitions of competitiveness value and interpret these elements differently, but they are always part of the debate. On the other hand, we will use the term institutional elements instead of quality elements. Hence, we distinguish between *price*, *institutional*, and *outcome* elements. These are defined as follows:

- *Price elements*: Describe the ability of a country/industry to produce cheaper goods and services than their competitors. They include the costs for labour, capital and resources, but also the tax level and regulatory costs. Labour and capital productivity are also important, as actors that can use these factors more efficiently can also sell goods and services cheaper.
- *Institutional elements*: Describe the structures and institutions that a country/industry operates within and that determine the quality of production. They include governance institutions, laws, norms and regulations. For example, both the lack of necessary regulations but also a plethora of ill-targeted regulations can make it harder for industries to compete internationally. Industries also need access to affordable finance, in particular patient capital for longer-term investment. In addition, market intelligence and other

support services are important for firms and industries to correctly identify strengths, weaknesses and niches. The existence of institutions to govern industrial relations, manage labour market demands and mediate relations between employers and workers are similarly important. The ability of a country/industry to produce goods and services of better quality than their competitors requires, amongst other things, innovation, i.e. sufficient research & development and the transmission of Research and Development (R&D) spending into improved technology and consequently productivity. The education level of the work force and the quality of infrastructure that firms have access to also are depending on institutional elements.

- *Outcome elements*: Describe the ability of a country/industry to deliver the outcomes demanded by society. These are wide-ranging. From a mainstream perspective, it includes GDP/capita, profits and capital accumulation of firms and shareholders, trade balances and financial stability. From a progressive perspective, this list has to be extended to include full employment, high and fairly distributed incomes, decent living conditions, health, happiness, a good work-life balance and a healthy natural environment.

2.2. Conceptualizations of competitiveness

Over time, scholars and policy-makers not only included different elements within their definitions of competitiveness, they also interpreted these elements and their importance differently. Upon the basis of revisiting this debate, we provide a categorization of different concepts since the 1980s. Our tracking of the changes in the debate results in a classification that distinguishes three concepts of competitiveness: *Market share-focused competitiveness*, *productivity-focused competitiveness*, and *beyond-GDP competitiveness*. This classification is not intended to be a complete mapping of all views expressed within the competitiveness debate. Instead, its purpose is to give a representative overview on how competitiveness was defined by influential authors both from academia and the policy-making community at different times. The conceptualizations share some similarities, since by and large the three central elements of competitiveness as described above are featured. The specific form of integration, the importance assigned and even the interpretation applied to the central elements might however differ significantly.

2.2.1. Market share-focused competitiveness

Delgado et al. (2012) argue that in the case of the United States the term competitiveness first became prominent in the context of globalization and fears about the rise of the Japanese economy in the 1980s. Competitiveness was therefore as the ability of a country and its firms to be successful on global markets. We call this definition *market share-focused competitiveness*. As authors like Camagni (2002) put it, globalization led to a situation where not just firms but also nations compete with each other upon the basis of absolute advantage, thus contrasting Krugman's view on competitiveness. Competition is seen less as a dynamic process generating benefits for all but as one that causes winners and losers. This view was shared by the OECD (1992), who defined the competitiveness of a nation as "the degree to which it can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the longer term". Moving another step further away, the IMD (International Institute for Management Development), who began to release its World *Competitiveness Yearbook* in 1989, defined 'world competitiveness' as "the ability of a country or a company to, proportionally, generate more wealth than its competitors in the global markets" (IMD 1994). Competitiveness is thus interpreted as a relative concept, as not all countries together can gain from increasing competitiveness. There must be both winners and losers.

This also necessitates a specific view on the enablers of competitiveness. Quality-related elements of competitiveness are seen as important, and policies boosting R&D investment

are advocated for (de Buck/Strube 2004). However, stronger demands are placed on price and institutional competitiveness. Some scholars put emphasis on the importance of low labour unit costs for the competitiveness of a nation and its firms (Beyfuß et al. 2002; Brück et al. 2004). Simplified, they argue that “high labour costs diminish competitiveness, whereas low costs improve it” (Beck 2020). Regarding competition within the European common market between member states, the former president of the ECB Jean-Claude Trichet (2008) argued that disproportionately large labour cost increases in Greece and Spain put the countries at a competitive disadvantage to countries like Germany where wage moderation was prevalent. Others like Blanchard (2004) or Saint-Paul (2004) in the context of European competitiveness debates argued for deregulating labour market institutions, lowering unemployment benefits or employment protection. These views were expressed in particular by representatives of business, industry and employer institutions such as UNICE (later Business Europe), especially in the context of the EU's Lisbon Strategy. Business leaders highlighted the importance of competitiveness as the ‘leitmotiv’ for European economic policy. Intensified trade liberalization and bilateral trade agreements to secure preferential access for European companies to new markets were demanded. Unilateral European policies to tackle climate change were seen as a risk to competitiveness, as they create additional costs to companies compared to those countries that pursue no or weaker climate policies (Seillière 2006). The leaders of UNICE advocated for a reform of social systems and of labour markets to boost competitiveness. Rights of those already at work should not be enhanced, instead more people should be brought into employment. Relatedly, lower working times in Europe compared to Japan and the US were also seen critically (de Buck/Strube, 2004). Recently, industry-friendly lobby groups have emphasized the importance of lowering energy prices to maintain EU competitiveness (BusinessEurope 2024). Thus, advocates have used both price and institutional elements within this framework of competitiveness, though it is mainly through price and cost reductions that an increase in global market share is to be expected.

2.2.2. Productivity-focused competitiveness

Although discussions on the topic have started before, Michael Porter's book *The Competitive Advantage of Nations*, first published in 1990, is often seen as a major impetus for accelerating the modern debate on competitiveness (Aigner 2006). Porter argues that it is productivity and innovation-induced productivity gains that determine the ability of a nation to create and maintain high standards of living. Porter can therefore be seen as one of the first proponents of *productivity-focused competitiveness*. Reducing competitiveness to low unit labour costs or trade surpluses is viewed as short-sighted by Porter. He proposes the concept of the ‘competitive advantage’, which is a country's ability to create an environment where industries can innovate, improve productivity, and compete successfully in international markets. This ability is determined by the ‘diamond of national advantage’ which includes (i) factor conditions, such as skilled labour and infrastructure; (ii) demand conditions; (iii) related and supporting industries, i.e. the presence or absence of supplier industries or clusters; (iv) firm strategy, structure and rivalry, which shape how companies are created, organized, make strategic decisions, and position themselves in both domestic and international markets. Accordingly, there is no ‘one-size-fits-all’ approach to achieve competitiveness, different countries can create competitive advantages in different industries with different combinations of factors, as is exemplified by various case studies within the book (Porter 1998). Innovation capacities and access to capital markets are viewed as enablers of competitiveness (Porter 2004). Later work within the same framework has stressed that governments cannot improve competitiveness through fiscal and monetary policy, but via creating social infrastructures and strong institutions such as rule of law, property rights, education or public safety (Delgado et al. 2012). Other scholars whose definition of competitiveness falls into the same category include Oughton and Whittam (1997) or partially Boltho (1996), who argue that in the short-run relative cost differentials are a significant constituent of competitiveness, but in the long-run productivity based on institutional elements is central.

Around the time of the development of the initial concepts of productivity-focused competitiveness, international institutions began to publish regular reports on the competitiveness of nations. Starting in 1979 and lasting until 2020, the World Economic Forum (WEF) published annual reports under the title *Global Competitiveness Report*. Over time, various methods and indices were developed to assess the competitiveness of individual nations, with the latest version of the index introduced in 2018 (Schwab 2019). For many years, Porter was co-editor and author of the report, incorporating his concept of competitiveness based on productivity as well as arguing that global trade is not a zero-sum game and instead many nations can benefit from international competition as long as they are able to improve productivity (Porter et al. 2008). From 2004 until 2019, the report defined competitiveness as “the set of institutions, policies and factors that determine the level of productivity of a country” (Schwab 2019; Voinescu/Moisoiu 2015).

2.2.3. Beyond-GDP competitiveness

Against the background of the debate on environmental sustainability, other authors, including Karl Aigner, argue in favour of an even broader and more comprehensive definition. Competitiveness then is seen either as the “ability of a country or location to create welfare” (Aigner 2006), or more holistically as the ability of a country “to deliver the Beyond-GDP goals for its citizens, today and tomorrow” (Aigner et al. 2013).¹ Therefore, this approach to the concept of competitiveness is here called *beyond-GDP competitiveness*. Proponents of this approach do not argue that price factors are completely irrelevant for a country’s competitiveness. Instead they argue that low- and middle-income countries can be successful with a “low-road path” focused on lower costs and prices, while high-income countries should prioritize “high-road paths” focusing on high-quality education, technology and social structures (Aigner/Vogel 2015). Fundamental to this approach is the centrality of outcome indicators for assessing overall competitiveness. Compared to the above described approaches, the relevant outcomes are not merely export market shares or GDP per capita, but beyond-GDP goals such as poverty rates, (youth and long-term) unemployment, resource productivity or greenhouse gas emissions (Aigner et al. 2013).

In their 2013 paper, Aigner et al. not only engage in coining an improved concept of competitiveness but also discuss how competitiveness can be evaluated. This is of relevance for Section 2 of this paper, which tries to assess the state of European competitiveness from the perspective of the different conceptualizations. They distinguish themselves from competitiveness rankings by not providing one or few aggregated indicators but instead present several statistics for the elements of prices, economic structure, capabilities, and outcome. They also perform a regression analysis that estimates the relationship between outcome elements and the three input elements. This is done both for traditional outcome indicators such as employment, GDP per capita or the current account, as well as for “new perspective” outcome indicators that besides an income pillar include a significant social and ecological pillar. Aigner et al. (ibid.) conclude from this analysis that solely focusing on price elements poses the threat of neglecting other relevant enablers of competitiveness. Additionally, by comparing European with US indicators, they find that with a more broadened outcome perspective, the EU partially is in a comparatively better position.

2.2.4. Comparing the three concepts of competitiveness

Despite significant differences, some similarities are shared across all three presented approaches to competitiveness. To provide a concise summary illustration, Table 1 compares the discussed definitions with respect to the key elements mentioned above. All three concepts discuss competitiveness within the context of an increasingly globalizing world economy, while the beyond-GDP definition also attaches importance to the climate crisis. The question

¹ In parallel to the debate on sustainable development, and the UN Agenda 2030 including the Sustainable Development Goals (SDGs), the beyond-GDP definition of competitiveness was adopted as the basis for various conceptualizations of ‘sustainable competitiveness’, as e.g. used by the Austrian Productivity Council (Produktivitätsrat 2023).

whether price elements including low labour costs drive competitiveness is discussed by all concepts. However, only the market-share focused competitiveness scholars view low costs of labour as a crucial factor in determining competitiveness. In contrast, the other concepts typically view a narrow-minded focus on labour costs as short-sighted. Regarding the institutional facets of competitiveness, the market-share focused approach explicitly highlights the importance of a business-friendly regulatory environment, especially in the context of the EU. While proponents of beyond-GDP competitiveness value strong social institutions and social systems, proponents of a market-share focused concept view lower levels of labour and environmental protections as relevant. Both productivity focused and beyond-GDP competitiveness scholars discuss the relevance of identifying and creating markets and demand for goods and services. All concepts discuss the importance of a highly educated work force and of infrastructure. Arguably the largest differences exist regarding outcome competitiveness. The market-share focused concept of competitiveness views high GDP/capita and high export market shares as important. In contrast, proponents of a productivity focused definition of competitiveness see high productivity not just as an enabler of competitiveness, but as the key indicator and outcome variable. The beyond-GDP scholars advocate for a more holistic approach and highlight the importance of social and ecological indicators.

Table 1: A classification of different concepts of competitiveness

	Market-share focused competitiveness	Productivity focused competitiveness	Beyond-GDP competitiveness
Context	Increasing globalization, newly emerging industrialized countries	End of cold war, increasing globalization	Increasing globalization, climate crisis, Euro crisis
Price elements	Low labour costs, low tax rates, low energy costs	Low labour costs can boost competitiveness only in the short-run	Low costs important only for low-income countries, productivity more important for high-income nations
Institutional elements	Business-friendly regulatory environment, weak labour and environmental standards, liberal trade policy, strong business-science relationships, educated work force	Strong institutions, presence of clusters and supplier industries, correct identification of markets and strategies, educated work force, good infrastructure, high rates of innovation	Strong social institutions, clusters, social systems, sufficient demand, educated work force, high quality goods and services, innovation
Outcome elements	High export market shares and GDP/capita	Increasing productivity as main outcome	Not only GDP/capita, but also social and ecological indicators relevant
Proponents	(Beyfuß et al. 2002; Blanchard 2004; de Buck/Strube 2004)	(Delgado et al. 2012; Porter 1998)	(Aigner 2006; Aigner et al. 2013; Aigner/Vogel 2015)

Source: own elaboration

What becomes clear from this analysis is that a concise definition of what constitutes competitiveness is difficult to be found. This underscores the importance of clearly defining what is meant when discussing competitiveness in public debates. Clearly, especially in political discourses, this does not happen sufficiently.

3. The state of the EU's competitiveness

The previous section discussed what different scholars mean when they discuss competitiveness. Now, the state of the EU's competitiveness is examined. Following the classification of competitiveness concepts elaborated above, indicators for the three different concepts are presented, benchmarking the EU's against the US' competitiveness. It must be stated that the discussion of an indicator with respect to a concept of competitiveness does not mean that this indicator is only relevant for this specific concept. On the contrary, some indicators are relevant for multiple or all concepts, though different weights might be assigned to them. Wherever possible, indicators are presented on major industry level as well as detailed industry level for key high-tech sectors. Therefore, the strengths and weaknesses of the EU economy can be more precisely identified. Statistical offices, especially Eurostat, unfortunately often do not provide statistics such as unit labour costs (ULCs) or labour productivity on a disaggregated level. Hence, the authors were forced to conduct own calculations. Without anticipating too much of the final chapter, these indicators are compared to Draghi's (2024c) empirical results. We will argue that Draghi's conclusions are somewhat abridged, as they do not do justice to the complexity of the presented statistics and neglect some relevant statistics completely.

3.1. Market-share focused indicators

Following the above presented market-share focused concept of competitiveness, several relevant indicators for assessing an economy's competitiveness can be identified. Unit labour costs and energy costs are utilised to assess competitiveness regarding price elements from a market-share focused perspective. Industry profitability statistics are utilised to assess outcome elements from a market-share focused perspective.

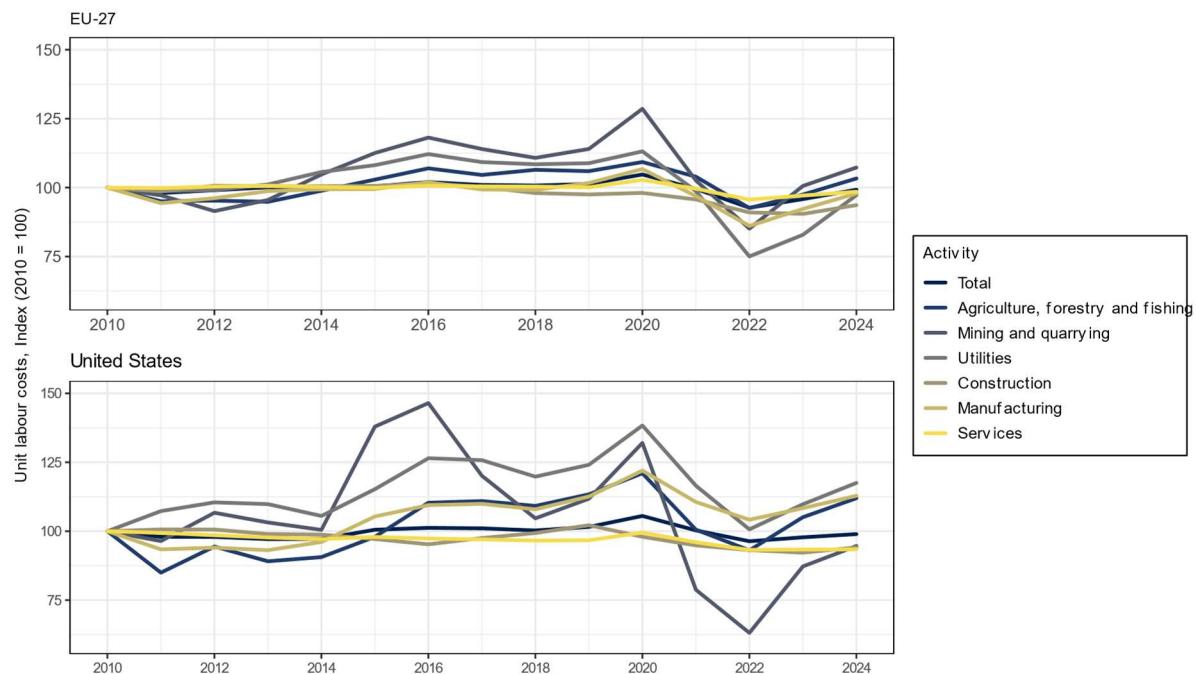
3.1.1. Input-related price elements: Labour costs and energy prices

In the introduction of the market-share focus concept of competitiveness, we showed that multiple authors (Beck 2020; Beyfuß et al. 2002; Brück et al. 2004) explicitly argue that there is a negative correlation between rising labour costs and competitiveness. To compare the competitiveness of the EU and the US in this regard, the following figures compare development of unit labour costs in both economies from 2010 to 2024. Unit labour costs are defined as the ratio between the compensation of employees from national accounts statistics and total output in the respective sector, both at basic prices. For EU main economic activities, data was acquired from Eurostat (2026c) national accounts statistics. This was not possible for detailed activities, as Eurostat national accounts data is incomplete on a disaggregated industry level. Hence, Eurostat (2026e) symmetric input-output-tables had to serve as replacement. For the US, the Bureau of Economic Analysis industry economic (BEA 2025b) as well as national income accounts (BEA 2025d) were used.

Figure 1 shows the development of ULC on the main activity level. It can be observed that generally-speaking, on a total economy level ULC are slightly below 2010 values for both economies, with the decrease being slightly (0.29pp) more pronounced in the United States. In both economies a period of rising ULCs before the COVID-19 pandemic and a sudden increase during the pandemic – caused by lower output due lockdowns – can be noted. Since 2022, however, in the US an increase in ULC by 2.59pp can be observed, in the EU this increase amounted to 6.54pp. Differences arise when developments regarding the ULC in the

manufacturing and service activities are analysed. In EU manufacturing activities, ULC were 2.13 % lower in 2024 than in 2010, in the US they increased by 12.86 % in the same period. In contrast, in US service activities ULC decreased by 6.58 % between 2010 and 2024, while in the EU they only decreased by 1.49 %.

Figure 1: Unit labour costs, main economic activities

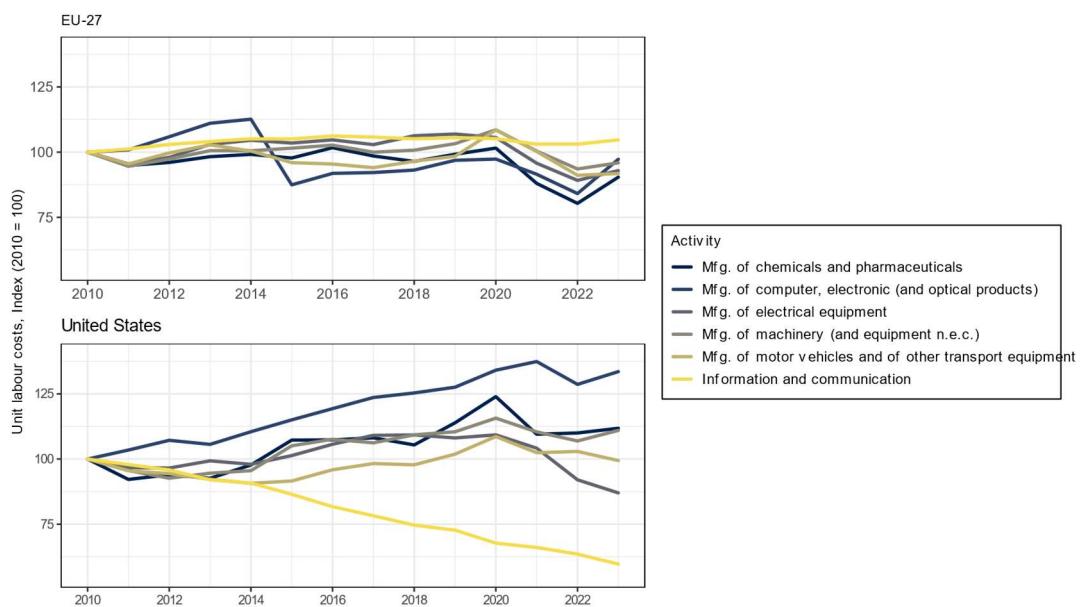


Note: Unit labour costs = Compensation of employees/Output
Own calculations; Sources: Eurostat, BEA

Figure 2 shows the development of ULCs in detailed, high-tech industries that in the innovation literature are typically considered key for determining competitiveness for the year 2010 until 2023, no more recent data was available. Between EU and US nomenclature some differences exist, indicated in parentheses. However, mostly the same industries are included. As in contrast to the European NACE classification the North American NAICS classification does not recognize the manufacture of pharmaceutical companies as a 3-digit subsector (Office of Management and Budget 2022), for the case of the EU pharmaceutical and chemical manufacturing were combined. Observing Figure 2, significant differences between the EU and US become evident. In all included manufacturing activities, European firms saw decreases of ULC in the range between 9.58 % (chemicals and pharmaceuticals) and 2.74 % (computer, electronic, and optical products). In contrast, ULC in information and communication activities have increased by 4.71 %. As in Figure 1, a period of increasing ULC since 2022 can be observed. It is therefore possible that the trend of decreasing ULC is starting to reverse. Meanwhile, sectoral heterogeneity in the US is larger. While ULC in information and communication activities have decreased by 40.29 %, ULC of most selected manufacturing activities decreased. Only in the manufacture of electrical equipment a significant decrease of 13 % was observed. Activities such as the manufacture of chemicals and pharmaceuticals (+11.7 %) and the manufacture of computer, electronic (and optical) products (+33.54 %) witnessed significant increases of ULC.

All in all, according to the calculations presented here, neither the EU nor the US were able to gain wide-reaching price competitiveness compared to each other as far as ULC are concerned. While there were some gains for the EU in manufacturing activities, these were offset by gains for the US in service activities.

Figure 2: Unit labour costs, key detailed economic activities

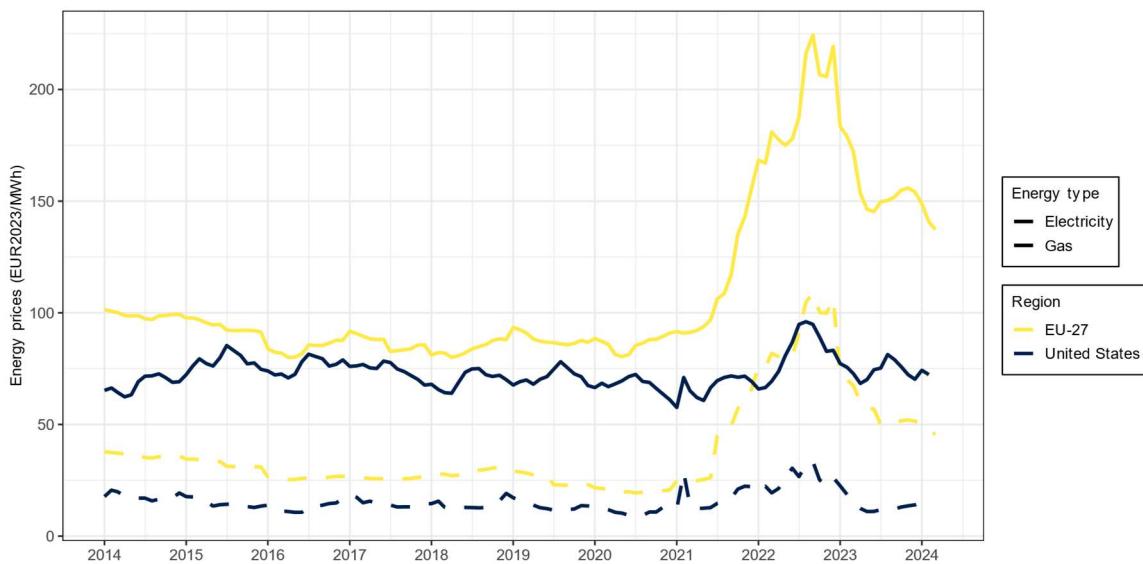


Note: Unit labour costs = Compensation of employees/Output
 Own calculations; Sources: Eurostat, BEA

However, labour costs are not the only input-price component relevant from a market-share focused perspective. In recent years, especially following the war in Ukraine and continuing decarbonization efforts, the competitiveness of EU energy prices became a talking point. Since 2014, the EU Commission published 6 reports on energy prices and costs, accompanied by external studies. Additionally, the Commission provides 5 visualisation tools concerning energy costs and prices for EU industries and households in comparison with major trading partners (European Commission 2025b). Figure 3 shows the development of EU and US energy retail prices for industry in 2023 prices from January 2014 to February 2024. The data is provided by the dashboard for energy prices in the EU and main trading partners (European Commission 2025a). It can be observed that while both electricity and natural gas prices had been higher in the EU even before the energy price crisis, the gap has become significantly larger since 2021. In January 2020, the natural gas prices paid by EU industry were 67.6 % higher than the ones paid by their US counterparts. In January 2024 they were 228.6 % higher, the ratio more than tripled in size. Electricity retail prices paid by EU industry in January 2020 were 33 % higher than US prices, this gap also increased by around a factor of three and by January 2024 prices were 100.3 % higher in the EU than in the US. Not only did the energy price crisis affect the EU much more strongly at the time, it also had impacts lasting up until today.

The 2024 study on energy prices and costs discusses the impact of rising energy costs on the EU's competitiveness on a detailed industry level (Trinomics 2025). Unfortunately, data on a sufficiently comprehensive scale is only available up to 2021.

Figure 3: Industry energy retail prices



Note: EU and US industry energy retail prices, excluding recoverable taxes and levies

Source: European Commission

The authors of the study show that for most European industries – and for all industries that we previously defined as key for EU competitiveness – the share of energy costs in total production costs either decreased or stayed constant in the period 2014-2021. However, not surprisingly this trend was reversed in 2021 with the full extent of the energy price crisis' effect not yet visible in the data available. In general, during this period, energy costs shares within the EU tend to be lower or comparable to other G20 countries. To investigate recent developments, Trinomics (2025) supplement data collected directly from 81 plants across 10 industrial sectors in 2023. These mainly include energy-intensive industries, but also the strategic *Batteries* and *Automotive* industries. They find that in industries such as *Aluminum*, *Ferro-alloys and silicon*, or the *Chemicals* production, energy costs are significantly lower in competitor countries. These price increases did correlate with production and profitability decreases. However, for the *Batteries* and *Automotives* industries this impact on competitiveness was lower due to lower energy intensity.

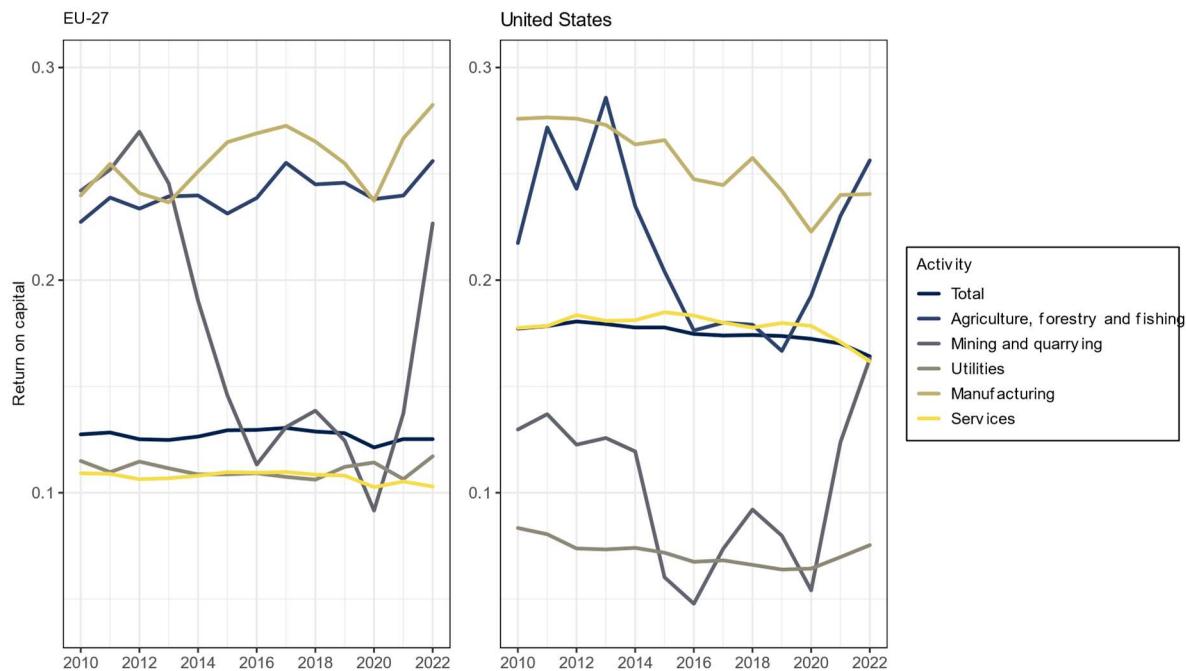
By way of summary, labour costs within the EU do not appear to develop in a manner that would be harmful to industrial competitiveness. Quite on the contrary, the calculations presented in this chapter present the EU favourably in this regard. However, rising energy prices could constitute a danger to the competitiveness of especially energy-intensive manufacturing in the EU.

3.1.2. Assessing output elements using profitability

As we argued in section 2.2.1, competitiveness by proponents of what we call a market-share focused perspective first defined competitiveness as the ability of a country and its firms to be successful on global markets (Delgado et al. 2012). In this regard, examining the profitability of individual industries seems warranted. Several methods exist to calculate industry-wide profitability using national accounts data. A common way is to calculate profit shares, e.g. the ratio of gross operating surplus and gross value added. In this case, this is not a suitable method as the profit share shows the distribution of value added between capital and workers and says little about the profitability of an industry. Instead, we decided to calculate the gross return rate on capital, dividing an industry's gross operating surplus by its total fixed assets. Gross operating surplus is again obtained from industry-by-industry symmetric input-output tables provided by Eurostat (2026e) and from the BEA's industry economic accounts (BEA

2025a). Data on capital stocks by industry is also provided from Eurostat (Eurostat 2025b) and the BEA (BEA 2025a).

Figure 4: Profitability, main economic activities



Note: Profitability = Gross operating surplus/Total net fixed assets

Own calculations; Sources: Eurostat, BEA

Unfortunately, Eurostat's fixed assets data is incomplete, for some industries data is not available for every member state. Hence, calculations could only be performed on a major sector scale. Data is also only available up until 2022. Results are shown in Figure 4. Between 2010 and 2022, both economies witnessed small overall decreases in return rates on capital. In the EU for the sum of all industries they decreased from 12.66 % to 12.32 %, in the US from 16.45 % to 15.22 %. Both in the EU and the US the construction and manufacturing activities are the most profitable as far as return rates on capital are concerned. Construction in the US (88.47 % in 2022) has especially high return rates on capital, also compared to the EU (30.7 %). As the construction sector is a significant outlier compared to the other activities, it was excluded from the figure to increase readability. In manufacturing activities (EU: 27.01 % in 2022, US: 24.11 %) higher return rates can be observed in the EU. The fact that return rates on capital in total are higher in the US is mainly influenced by the return rates observed in the very large services sector (EU: 10.29 % in 2022, US: 16.18 %).

3.2. Productivity focused indicators

In section 2.2.2, we argued that proponents of what we in consequence defined as a *productivity focused* concept of competitiveness view productivity as the key outcome element of competitiveness. Hence, in this section we will discuss and compare productivity indicators for EU and US industries. Before that, however, it is also of relevance to examine the enablers of productivity and consequently competitiveness from the perspective of a *productivity-focused* concept of competitiveness. Resorting to Porter's (1998) "diamond of national advantage" would be one possibility. However, finding suitable indicators for the cross-country comparison of cluster structures or firm strategies is difficult. Instead, we will focus on the topic of R&D, as Porter (2004) views innovation as an enabler of competitiveness. Additionally,

Draghi (2024b) argues that closing the innovation gap with the EU's competitors is pivotal for European competitiveness.

3.2.1. Research and Development indicators

To assess the innovation abilities of the EU in comparison with the US, we will consult statistics on the topic of R&D expenditures and outcomes. Figure 5 shows gross domestic expenditure on R&D by source of funds in the EU and the US as percentage of GDP for the years 2010 until 2022. Data is obtained from Eurostat & OECD (Eurostat/OECD 2025). In the sub-plot for each year, the left-hand side stacked bar shows EU R&D expenditure, the right-hand side stacked bar shows US R&D expenditure. For the years 2015 and 2022 the data for the EU was incomplete, therefore no disaggregation by source of funds can be provided. Three observations can be made. First, over the entire period gross domestic R&D expenditure was higher in the US than in the EU. Second, this gap increased over time. In 2010, R&D expenditure in the EU amounted to 1.96 % of GDP, in the US it amounted to 2.71 % – a gap of 0.77pp. By 2022 this gap increased to 1.26pp. Third, this gap is especially driven by the R&D expenditure of the business enterprise sector. The business enterprise sector includes both private and public enterprises, as long as they operate on a market basis (OECD 2015). In 2021, the US business enterprise sector recorded R&D expenditure amounting to 2.39 % of GDP. In contrast, the EU business enterprise sector only recorded R&D expenditure amounting to 1.29 % of GDP. Regarding the provision of financial resources for innovation, a lack of competitiveness of the EU compared to the US can hence indeed be determined. Following on from this, an investigation of R&D expenditure by economic activity would be warranted. Unfortunately, while Eurostat (2025) does in theory provide data on business enterprise expenditure on R&D by economic activity, the data is very incomplete. For example, it is not possible to obtain data for EU wide R&D expenditure in the Information and Communication Technology (ICT) manufacturing or pharmaceutical sectors. This again emphasises the difficulty of providing a nuanced analysis of the EU's competitiveness state.

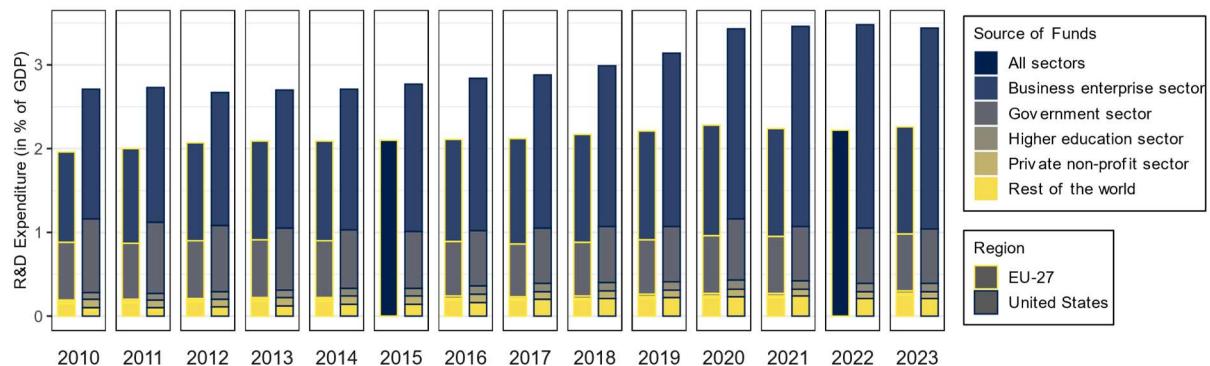
To assess the outcome of R&D endeavours, Figure 6 depicts patent grants by technology and applicant's origin. Data is obtained from the World Intellectual Property Organization's (WIPO) intellectual property statistics data centre (WIPO 2024). Data was aggregated by larger fields of technology². Again, it can be observed that through the entire depicted period, the number of patents granted to US applicants was higher than those granted to EU applicants. The gap between patents granted to EU and US applicants increased both in absolute and relative terms. Heterogeneity exists between different fields of technology. In 2022, the EU applicants compared to US applicants had slight surpluses within the fields mechanical & industrial engineering, as well as infrastructure & transport. US applicants saw slightly more patents granted in the materials & chemical engineering and consumer technology fields. Drastic differences can be observed when the fields information and communication technology and life sciences are examined, which roughly correlate with the key, high-tech economic activities we defined above. In 2022, 113,726 patents were granted to US applicants in the information and communication technology field. Respectively, only 29,851 patents were granted to EU applicants in the same field, around ¼ the amount. In the field of life sciences, 52,966 patents were granted to US applicants in 2022. In contrast, 25,301 life sciences patents were granted to EU applicants, roughly half the US amount.

Putting both figures together, it appears as if there indeed is an “innovation gap”, as was argued by Draghi (2024b). This gap seems to be driven by relatively low R&D expenditure by

² Consumer technologies consists of furniture/games and other consumer goods. Infrastructure & transport consists of transport and civil engineering. Materials & chemical engineering consists of macromolecular chemistry/polymers, basic materials chemistry, surface technology/coating, chemical engineering, and environmental technology. Information and communication technology consists of audio-visual technology, telecommunications, digital communication, basic communication processes, computer technology, IT methods for management, semiconductors, and optics. Life sciences consists of analysis of biological materials, medical technology, organic fine chemistry, biotechnology, pharmaceuticals, and food chemistry. Finally, mechanical & industrial engineering consists of electrical machinery/apparatus/energy, measurement, control, micro-structural and nano-technology, handling, machine tools, engines/pumps/turbines, textile and paper machines, other special machines, thermal processes and apparatus, and mechanical elements.

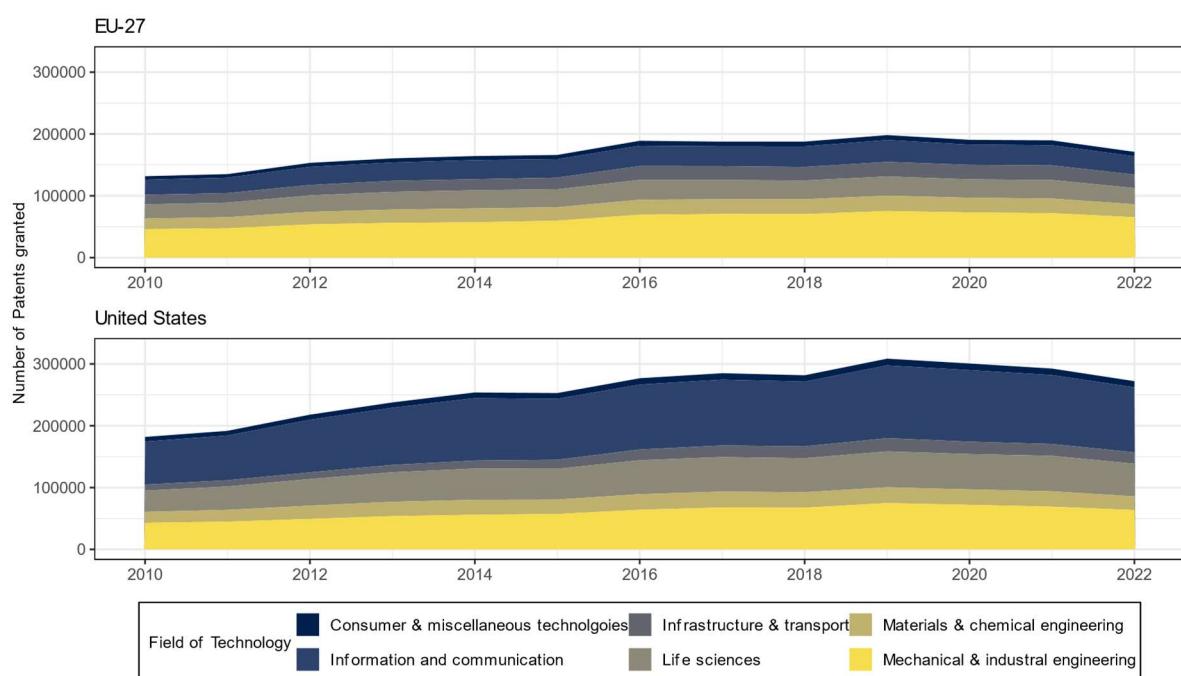
EU business enterprises. As far as the number of patents granted is concerned, there appears to be no sizeable difference in technology fields such as consumer technologies, infrastructure & transport or materials, chemical, mechanical, and industrial engineering.

Figure 5: R&D expenditure by source of funds



Sources: Eurostat/OECD

Figure 6: Patent grants by technology and applicant's origin



Source: WIPO

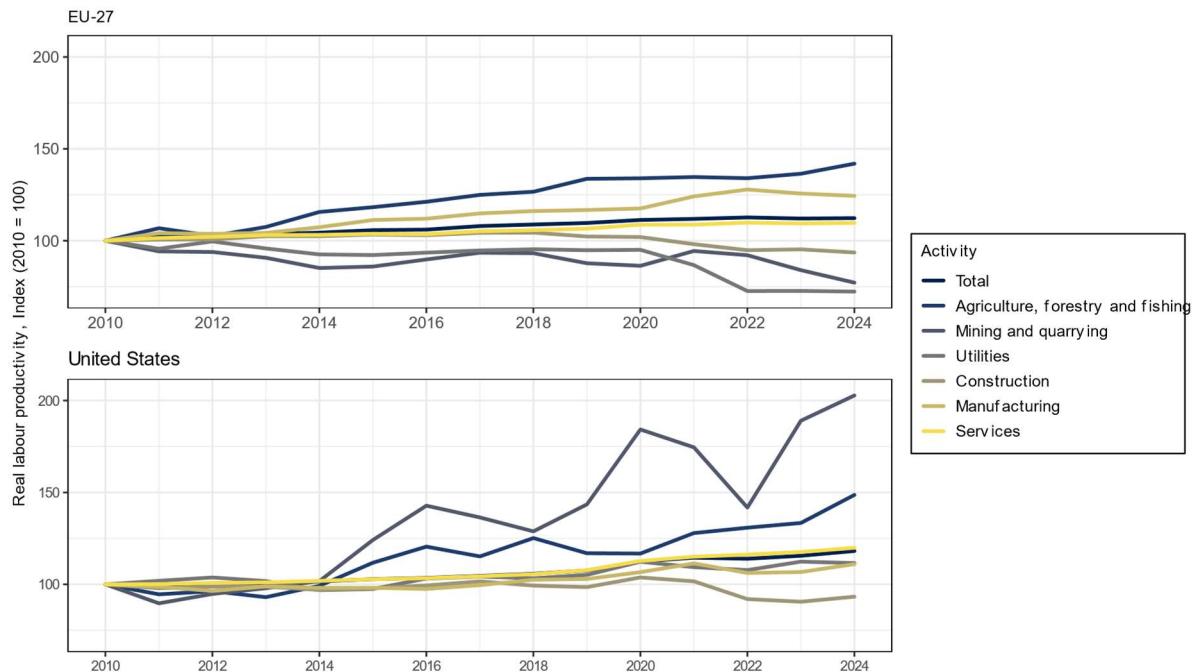
3.2.2. Labour productivity

Labour productivity is one of the most discussed indicators in the context of comparing the competitiveness of different economies. Often, however, labour productivity statistics are only shown on the national economy level. One notable exception is the Draghi report, which provides labour productivity statistics for a selected number of industries and a selected sample of EU countries (Draghi 2024a).

Comparing readily available labour productivity statistics is difficult. On the one hand, definitions are inconsistent. Both measures that define productivity as GDP (or GVA) per one hour worked and gross output per hour worked are common. On the other hand, data on disaggregated industry level is hard to come by, especially for the European Union. In this

paper, we define labour productivity as real gross value added per hour worked. Figure 7 shows the development of labour productivity for the EU and US by main economic activities. Data was obtained from Eurostat national accounts statistics (Eurostat 2026b, 2026c), the BEA (2025e) and the BLS (2025).

Figure 7: Labour productivity, main economic activities



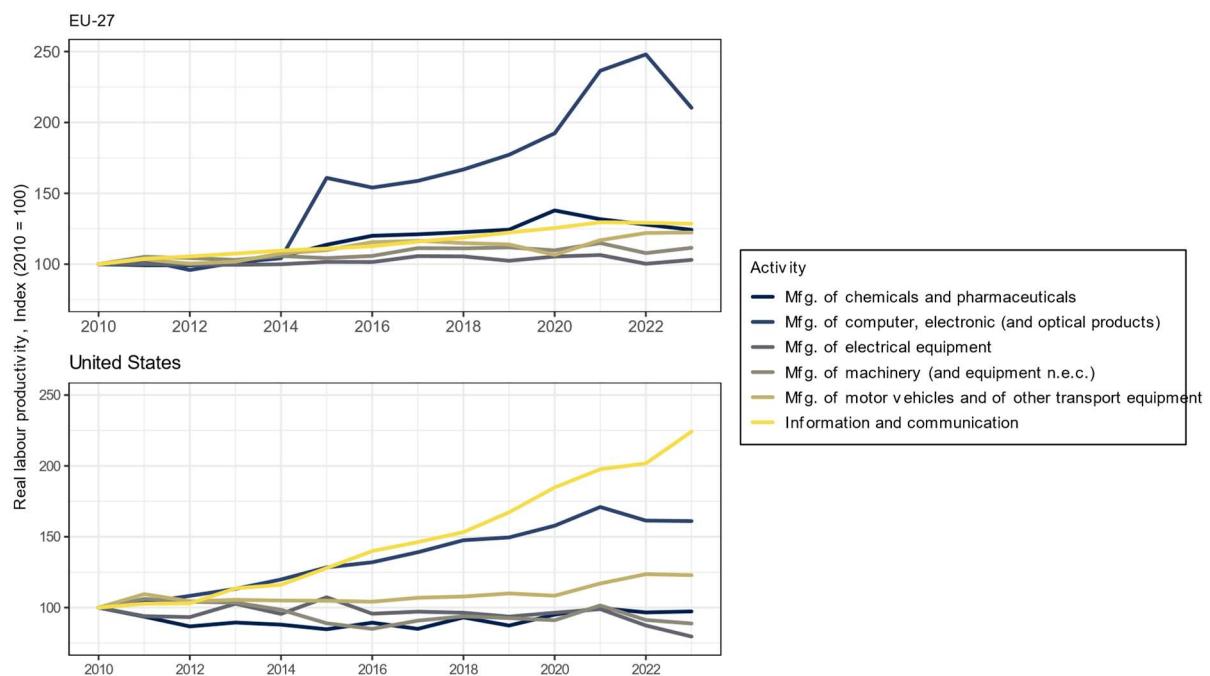
Note: Labour productivity = Real gross value added / Hours worked

Own calculations; Sources: Eurostat, BEA, BLS

From Figure 7 it can be observed that in total, labour productivity in the EU increased by 12.3 % between 2010 and 2024, while in the US it increased by 18.15 %. Up until 2020, both economies were on a similar trajectory regarding productivity growth. Since then, productivity growth in the EU stagnated while it continued to increase in the US. EU manufacturing activities recorded higher productivity gains (24.41 % vs. 11.01 %) than their US counterparts. However, again the entirety of this growth occurred before 2020 with small productivity declines in EU manufacturing activities since then. In contrast, labour productivity in US service activities increased by 19.89 % between 2010 and 2024 and only by 9.72 % in the EU. Furthermore, mining and quarrying, as well as utilities activities recorded productivity gains in the US and losses in the EU.

Figure 8 shows labour productivity statistics for the same selected detailed economic activities as above. There was no available Producer Price Index (PPI) for the activity *Computer programming, consultancy, and information service activities*, only for the activities *Computer programming, consultancy and related activities* and *Information service activities*. Therefore, the average of the two activities is taken to convert Gross Value Added (GVA) into real prices for the activity *Computer programming, consultancy, and information service activities*. Hours worked by industry are obtained from Eurostat population and employment in national accounts statistics (Eurostat 2025c). Finally, we calculated labour productivity by dividing GVA with hours worked by industry and consequently converted into an index with 2010 being 100. Calculating labour productivity for the US industries was more straightforward, as we were able to obtain both hours worked by industry and real GVA by industry from the BEA's (2025b) industry economic accounts.

Figure 8: Labour productivity, selected detailed economic activities



Note: Labour productivity = Real gross value added / Hours worked
 Own calculations; Sources: Eurostat, BEA, BLS

Figure 8 shows labour productivity for the detailed activities selected for the purpose of this paper. Parentheses again indicate that activities have slightly different, albeit still comparable, definitions within the NACE and NAICS classifications. Sufficient data for the activity *Manufacture of pharmaceuticals* was only available for the EU, for the US only data for the larger *Manufacture of chemical products* activity, which incorporates the manufacture of pharmaceuticals, was obtainable. For the EU, data for gross value added by industry was obtained from Eurostat symmetric input-output tables (Eurostat 2026e). As the input-output statistics are constructed in current prices, they first needed to be converted to real prices. For the manufacturing industries, producer price indexes were used (Eurostat 2026d). For the activity *Information and communication*, it was possible to calculate the implicit deflator by comparing real and current price GVA from regular national account statistics (Eurostat 2026c). Data regarding hours worked by industry were obtained from Eurostat national account statistics as well (Eurostat 2026b). For the US, data again was obtained from the BEA (2025e) and the BLS (2025).

From the dataset constructed, it can be observed that the EU-27 gained a productivity advantage in the manufacture of computer, electronic, and optical products. Between 2010 and 2023, productivity in the sector increased by 110.37 % in the EU and by 61.05 % in the US. In contrast, productivity gains in the information and communication service activities were much higher in the US (124.19 %) than in the EU (~28.57 %). Labour productivity in EU chemical manufacturing activities increased by ~24.26 %, while in the US they decreased by 2.70 %.

At this point, issues regarding data availability, comparability, and consistency need to be discussed. As stated above, different ways to define labour productivity exist. Additionally, differences regarding the conversion from current to real prices can create inconsistencies, which could be a potential caveat of this paper's approach. On the one hand, these issues can explain why productivity analyses at the detailed economic activity in the past were not conducted frequently. It again highlights the need for better statistics on the activity level. One

the other hand, these issues also show that productivity indicators need to be taken with caution and do not suffice to assess competitiveness alone.

3.3. Beyond-GDP indicators

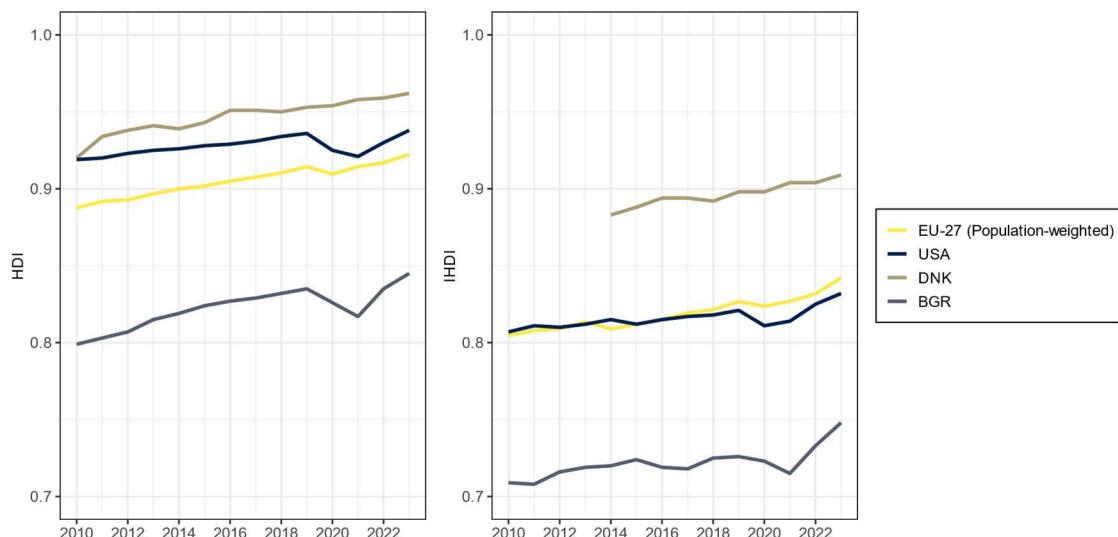
To finish the assessment of European competitiveness from the perspective of three different conceptualizations of the term, the paper moves to the beyond-GDP notion of competitiveness. Aigner et al. (2013) provide a nuanced discussion of competitiveness indicators in their paper, which includes indicators that in this paper are attributed to all three different concepts of competitiveness. However, their approach rarely includes a discussion of developments over time and does not delve into the activity level. Aigner et al. (2013) also show that there is a plethora of indicators suitable for discussion from a beyond-GDP perspective that exceeds the scope of this paper. In the following, we focus on human development, GDP and resource efficiency indicators.

3.3.1. Comparing HDI trajectories

A commonly used indicator to assess economic development from a beyond-GDP perspective is the Human Development Index (HDI) provided by the UN Development Program. It includes indicators on life expectancy, education and GNI. Less known is the inequality-adjusted HDI introduced in 2010, which accounts for inequality in health, education, and income. Figure 9 shows both indicators. Data is obtained from the UNDP (2025).

As there exists significant heterogeneity within the EU regarding (I)HDI, the two plots show the values for a Population-weighted EU-27 average, the United States, as well as the EU countries with the highest (Denmark) and lowest (Bulgaria) HDI values in 2023. Population-weighting was performed utilizing OECD (2025a) population data. The left-hand side plot shows the standard Human Development Index. It can be observed that on average, the HDI of the US is higher than the EU-27's. However, in the years 2010-2023 a catching-up of the EU-27, driven by both the upper and lower tail of the member states distribution, must be noted. In 2010, the population-weighted EU-27 average HDI was 0.887, while the US' HDI was 0.919. In 2022, the population-weighted EU-27 average HDI was 0.922, while the US' HDI was 0.938. The right-hand side of the plot shows the inequality adjusted HDIs. Data for Denmark was only available for years from 2014 onwards. Visibly, adjusting for inequality reduces both the EU-27's and US' HDI by around 10 %. However, this reduction is stronger for the US, leading to the EU-27 surpassing the US in terms of IHDI in 2017.

Figure 9: Human Development Indexes



Note: EU-27 = own aggregation; Source: UNDP

3.3.2. GDP and resource productivity

Finally, from an outcome perspective the beyond-GDP conceptualization of competitiveness advocates for – as the name implies – including other indicators besides GDP, not necessarily excluding it (Aigner et al. 2013). In this section, the paper focuses on relating GDP to ecological concerns by presenting statistics on resource productivity, i.e. GDP per tonne domestic material consumption. The plot on the left-hand side of Figure 10 shows indexed GDP per capita (Purchasing Power Parity – PPP) in constant 2021 international US \$. Data was obtained from the World Bank (n.d.). As far as level GDP per capita is concerned, already in 2010 there was a gap between both economies. The US recorded a GDP of US \$ 59,789.41 per capita, while the EU recorded a GDP of US \$ 45,250.39 per capita. As Figure 10 shows, this plot has widened between 2010 and 2024, as GDP grew by 26.26 % in the US and only by 20.08 % in the EU. The growth trajectories of both economies especially diverged since the pandemic.

The plot on the right-hand side of Figure 10 shows the resource productivity of both economies, defined as GDP per tonne of domestic material consumption (DMC). Again, World Bank GDP data was used, statistics on DMC were obtained from OECD material flow accounts (2025b). It can be observed that in 2024, resource productivity in the EU-27 was 3,783.40 US \$ per tonne of DMC while in the US it was only 3,101.25 US \$ per tonne. Between 2010 and 2024, resource productivity increased by 30.29 % in the EU and by 28.40 % in the US.

From this perspective, higher nominal GDP in the US is the outcome of a different economic structure, based on largely privatized public services and social systems with inflated expenditure dynamics that deliver inferior results compared to the European welfare system. The EU-27 provide more equal living standards and require less resources to do so. In times of the climate crisis and the increased importance of supply chain resilience due to changing geopolitical conditions, the latter point seems especially relevant.

Figure 10: GDP and resource productivity



Resource productivity = Own calculation; Sources: World Bank, OECD

3.4 Summary: Fearmongering unwarranted, but challenges remain

This section tried to systematically assess indicators corresponding to the different strands of competitiveness conceptualizations defined in Section 2. Subject to limits on data availability and comparability, the objective was to benchmark the state of the EU-27's competitiveness in comparison to the US. By no means this paper claims to provide a completely

comprehensive analysis. With a term as multi-facetted as competitiveness this would be a daring claim. However, a few important conclusions can be drawn. First, and perhaps foremost, results vary considerably across different conceptualizations. An assessment based on a market-share focused concept of competitiveness comes to different conclusions than one based on productivity. Thus, the choice of concept largely predetermines the outcome. Instead, to arrive at both a more comprehensive and nuanced assessment, a fuller picture based on a combined assessment using different conceptualizations is needed. Adopting this perspective, the following observations are warranted:

First, labour costs in the EU-27 have not developed in a way that should be harming competitiveness in comparison to the US between the years 2010 and 2024, even though post-pandemic increases of labour costs in the EU have accelerated. Second, while productivity in the EU-27 grew relatively strongly in the manufacturing sector, this is not the case for the services sector. Third, there is – as Draghi (2024b) prominently stated – an innovation gap that can be both observed in R&D expenditure and patent grant statistics. This gap is especially pronounced in key sectors such as ICT and life sciences. Fourth, EU firms fall behind US competitors in terms of profitability, which is closely connected to the high profitability of the US tech giants. Fifth, high energy prices pose a risk to the competitiveness of the EU-27's manufacturing sector. Sixth, by employing a beyond-GDP perspective on outcome indicators, one can conclude that the EU-27 provides more equal living standards and requires less resources to do so.

All in all, the state of EU competitiveness does not appear as bleak as insinuated by both the Draghi Report and the recent public discourse. Nevertheless, specific challenges, in particular with respect to energy and innovation need to be addressed. Whether the policy approach suggested by the Draghi Report and taken up by the Commission is fit for purpose, will be discussed in the subsequent section.

4. What EU policy agenda on competitiveness is needed?

With the Draghi Report and the EC's Competitiveness Compass, the debate on the EU's competitiveness returned to the centre of economic policy discussions since mid-2024. This was at least partially induced by geopolitical conflicts such as the war in Ukraine and the trade conflicts started by the second Trump administration. The exposure of strategic dependencies during the COVID-19 pandemic surely also played its role, as did the comeback of industrial policy in the US during the Biden administration and China's development from being a producer of cheap consumer goods to an economy with large high-tech and ICT sectors. Both the Draghi and Letta Reports on the future of the single market and its competitiveness take issue with these new geopolitical challenges (Draghi 2024a; Letta 2024).

Notably, and in contrast to e.g. the Lisbon Agenda of 2000, the Draghi Report puts a strong focus on productivity growth as the central objective of a new competitiveness agenda. In his definition of competitiveness, the market-share focused competitiveness view is rejected, that is, a view of international trade being a zero-sum game with the goal of maximizing export shares. Also, the report rejects a narrow-minded focus on lowering labour costs, though it acknowledges that the currently high energy costs for European industries are of serious concern and should be tackled via a reform of the EU energy markets and accelerated decarbonisation. Instead, Draghi argues that nowadays knowledge and skills embodied in the labour force as well as innovation and technological progress are the major drivers of competitiveness (Draghi 2024a). Similar to Porter (1998), productivity is seen as the key goal of competitiveness strategies. However, due to the changing geopolitical landscape, Draghi (2024b) also views security and resilience as relevant for competitiveness. In the context of the Twin Transformation, access to critical raw materials is for instance seen as critical. In addition, high levels of human development, health, education, good governance and environmental protection are emphasized, though for Draghi social wellbeing and

environmental protection can only be achieved and maintained through a dynamic and wealth-generating economy. Such a causal understanding of the relation between economic growth and the natural environment is of course problematic, as the overall productivity of an economy (i.e. total factor productivity) will be negatively affected by a deteriorating environment, in particular if environmental tipping points are not respected (Lenton et al. 2023). Also, the underlying assumption that there exists a trade-off between economic growth and environmental protection, is not supported by much of recent research (Stern/Stiglitz 2023), while the economic costs of implementing environmental policies tend to be overestimated, as estimations often rely on the wrong counterfactuals (Pilat 2024). Thus, while the Draghi Report bears some similarities to the beyond-GDP approach advocated by Aigner et al. (2013) as well as the concept of sustainable competitiveness as introduced first by the World Economic Forum and later taken up by the European Commission, its conceptualization of the relationship between economic growth and environmental protection is problematic. Hence, we argue that by and large the Draghi Report should be viewed as a proponent of a renewed, though conventional productivity-focused definition of competitiveness.

Without a doubt, the Draghi Report has been of fundamental importance for shaping recent EU economic policy, as can for instance be seen in the EC's (2025a) *Communication on A Competitive Compass for Europe* and the 2025 *Communication on the Single Market* (European Commission 2025d). The documents are explicitly based on the analysis of the Draghi Report, in particular on the three "transformational imperatives" identified by Draghi to strengthen EU competitiveness. These are (i) closing the innovation gap, (ii) developing a joint roadmap for decarbonisation and competitiveness, and (iii) reducing excessive dependencies and increasing security. More in line with the market-share focused competitiveness definition, the Draghi Report considers a more simplified and less burdensome regulatory environment and a deepening of the common market as indispensable for in particular a thriving high-tech sector, including through the establishment of a 28th regulatory regime for start-ups and scale-ups. With respect to industrial and innovation policies, Draghi (2024c) proposes to set-up an "ARPA-type" innovation agency, the development of an R&I action plan, and a host of specific policy instruments for high-tech sectors. But Draghi goes beyond a conventional supply-side agenda, and puts a strong emphasis on the provision of financial resources for R&D and investments, with EUR 800 billion per annum seen as the minimum needed for a ten-year period. Both public funding, in particular via the issuance of an EU common safe asset, and the establishment of a savings and investment union to mobilize private finance are proposed in this regard.

While the Draghi Report includes a host of pertinent policy proposals, it also suggests problematic measures such as for instance the securitization of loans, or the introduction of the 28th regime of corporate governance. The latter would exempt start-up and scale-up companies from having to comply with the respective national regulatory environment, thus potentially leading to a race-to-the-bottom for national standards in corporate law, labour law or taxation (Meyer-Erdmann/Hoffmann 2025). The main problem associated with the Draghi report, however, has to do with its selective and biased implementation by European policy-makers. More concretely, the host of recent implementation initiatives proposed by the European Commission as well as many national governments, is almost exclusively focussed on across-the-board deregulation. To be sure, the Draghi report speaks at length about the need for regulatory simplification, but its strategic trajectory is focussed on improving the business environment for innovative start-ups by leveraging the scale of the European single market. It is not arguing in favour of dismantling the social and environmental *acquis*. This is however precisely what the European Commission is doing with the *Omnibus* initiatives, the overall goal of which is to achieve at least a 25 % reduction in administrative burdens for businesses, and at least 35 % for Small and Medium-sized Enterprises (SMEs) until 2029. For the year 2025, nine *Omnibus* packages are supposedly in the pipeline (Ey 2025), focussing on a broad range of issues, in particular sustainability standards (*Omnibus I*), investment facilitation (*Omnibus II*), digital issues, chemicals regulation, agriculture, etc. What has been proposed so far, however, is not confined to reducing the administrative burden attached to a

particular regulation (e.g. reporting requirements), but extends into the core substance of existing EU regulations. For instance, with respect to the EU corporate due diligence directive (EU CS3D), the EC has proposed to reduce the scope of the regulation to only very large companies, limit due diligence obligations to only direct suppliers, and remove civil liability against companies in the case of infringements, all of which constitute core aspects of the regulation. In effect, instead of regulatory simplification, it appears that a significant dilution of social, environmental and consumer protection standards is the true objective of what is publicly presented as a reduction of administrative burdens for companies.

Whatever its true intentions, what is important to underline, is that the contribution of this deregulatory agenda to fostering the EU's competitiveness will be minimal, if not counterproductive. The Commission's argument that the cost-savings for companies will free-up resources for investment into new technologies and products, is hardly corroborated by the evidence. The Commission has for instance presented estimates that Omnibus Packages I and II will lead to annual administrative cost savings of around EUR 6.3 billion or 0,04 % of EU GDP (2025).³ As most of the respective regulations are not yet implemented, the estimated costs savings are purely fictitious. What is more, the (expected) social benefits of these regulations have been excluded from the estimation exercise, as the Omnibus packages have not been subjected to a regulatory impact assessment, which is otherwise mandatory under EU law. But even under the assumption that this deregulatory agenda leads to cost savings for companies, it is not a-priori clear that companies will use the free resources for investment and innovation purposes. Given the dire economic outlook of the EU, it might well be the case that these resources are saved or used for pay-outs to shareholders.

What is more, there is a plausible argument to be made that in the long-term, the deregulatory agenda is undermining European competitiveness proper. The original logic for e.g. introducing corporate sustainability measures such as the CS3D and CSRD was to leverage the size of the EU market – representing a full 20 per cent of global consumption – to raise labour and environmental standards worldwide. In the absence of multilateral institutions powerful enough to enforce compliance with, for instance, ILO Core Labour Standards or the Paris Climate Agreement, the EU wanted to level the global playing field by requiring private companies and their extensive supply chains to impede the social and environmental dumping that damages European producers (Duval 2025). Similar arguments apply with respect to other Omnibus initiatives, for instance on chemicals or data protection.

Devoid of sound economic logic, the prevailing deregulatory agenda of the EC will do little to contribute to increasing the EU's competitiveness as outlined by the Draghi Report. In fact, Mario Draghi's recent pronouncements have been rather critical of the lack of substantive action on the part of EU policymakers to implement the agenda he proposed in his report (see e.g. Draghi 2024c). Notably, not only for Draghi but more recently also for other prominent EU policy-makers like ECB President Christine Lagarde,⁴ it has become clear that the future sources of growth for the European economy will not come from exports, but must come from catalysing domestic sources of growth. If this is the case, then the current agenda's focus on lowering EU regulatory standards vis-à-vis international competitors is simply beside the point.

In contrast, EU policymakers would be well-advised to tackle the innovation deficit as well as the energy issue with a targeted set of measures. With respect to the innovation deficit, innovation policies should be based on a transformative mission-oriented approach (Edler et al. 2025). The policy focus should be oriented towards high-tech and key enabling technologies (KETs), as these serve as innovation drivers and provide the foundation for sustained competitiveness, prosperity, and productivity gains across sectors. By investing in KETs, such as advanced manufacturing, nanomaterials, life sciences, microelectronics, photonics, and quantum technologies, Europe not only fosters the emergence of future general-purpose technologies (GPTs), but also strengthens technological sovereignty and

³ See European Commission Press Release, 26 February 2025 (European Commission 2025e)

⁴ See Christine Lagarde's speech at the European Banking Forum on 21 November 2025 (<https://orf.at/stories/3412232/>)

resilience in the face of global competition. Given recent experience with mission-oriented approaches in the EU (Mazzucato/Kattel 2025), it will be of critical importance to strengthen state capacity and capabilities, as they provide the strategic foresight, policy coherence, and implementation power needed to properly plan, fund, regulate, monitor, and adjust the many interdependent initiatives that KETs and GPTs require. Governments could also use public procurement to pro-actively stimulate market demand for new technologies and products in a more systematic fashion (Mazzucato et al. 2025). Targeted public support should be coupled with strong performance standards and social conditionalities for companies (Mazzucato/Rodrik 2023). It is also crucial that policies ensure broad and socially balanced access to high-tech benefits, addressing risks of inequality, digital divides, and social exclusion through education, infrastructure, and inclusive frameworks.

The energy issues in the European relate both to security of supply and high prices. The Draghi Report proposes both a reform of the EU energy markets, where the merit order principle leads to inflated prices, and accelerated decarbonisation. Though both proposals are straightforward in their economic logic, little has happened in terms of implementation. We agree that the only long-term solution to effectively resolve both problems is the accelerated shift to renewables, though we think the report's confidence in the private sector supplying the necessary investment is not supported by the facts (Christophers 2025). Economic remedies, such as the recently implemented "Industriestrompreis", i.e. a subsidized cap on energy prices for energy-intensive industries in Germany and Austria, will bring short-term relief at best, but not solve the underlying problem (Südekum/Weichenrieder 2023). Instead, a massively scaled-up EU investment program for renewable energy, with a focus on solar, wind, geothermal, and green hydrogen will be pivotal. At the same time, the electricity grids must be expanded quickly and the gas grids must be dismantled or converted. Battery and pumped storage, flexibilities, and digitalization must be systematically integrated in the energy system. Energy storage, smart grids, e-mobility with the integration of charging infrastructure and vehicles as flexible storage, as well as flexibly controllable power plants and digital platforms for intelligent networking and control must be enforced. Given the higher prices for renewable energy in Europe and because of insufficient declining interest of private capital for investing into renewables and the transformation of the energy system, a public funding preference should be given to not-for-profit companies, e.g. public companies or energy cooperatives at local, regional, or national levels, while preferential guarantees and loans should be provided widely through the EIB. The next EU financial framework should provide greater support for trans-European energy grids (Raza et al. 2026). The shift to sources of renewable energy will not only lower energy prices, but provide the basis for the sustainable transformation of energy-intensive industries (such as steel, cement or chemicals) as well.

5. Conclusions

In this paper, we have scrutinized the recent debate on the need for promoting European competitiveness, as prominently diagnosed by the Draghi Report. By disaggregating the overall academic and policy-oriented debate on competitiveness into three distinct strands – market share-focused competitiveness, productivity-focused competitiveness, and beyond-GDP competitiveness – we have then performed a descriptive statistical analysis of competitiveness indicators for both the European Union and the United States. Our assessment concludes that by and large the state of EU competitiveness does not appear as bleak as insinuated by both the Draghi Report and the recent public discourse. Nevertheless, specific challenges, in particular with respect to innovation and energy need to be addressed.

Notwithstanding its conceptual flaws and partially problematic policy proposals, the main problem with the Draghi Report has in our view been its selective interpretation and one-sided implementation by European policymakers. Instead of a productivity-oriented competitiveness agenda, the prevailing focus on across-the-board deregulation, aiming at cost-savings for

companies, adheres to an outdated market-share focussed view and will do little to increase economic productivity and foster innovation in the European economy. Instead, what is needed is a policy agenda focussed on promoting domestic sources of productivity and innovation, without neglecting sustainability and beyond-GDP competitiveness. This will have to involve both supply side and demand side measures. On the supply side, structural reform steps towards leveraging the continental size of the European market must be combined with upward convergence of social and environmental standards and a much more comprehensive industrial policy agenda (see e.g. Raza et al. 2025). On the demand side, massive public investment in the green and digital transformation will be indispensable (Heimberger/Lichtenberger 2023; Skyrman 2024). This will necessitate not only the issuance of common European public debt and a substantial increase in the EU budget, but must be implemented via a system of public development banks in the EU. In contrast to the Draghi Report, given rampant financialization, short-termism and the risk aversion of private financial markets, a fully integrated European capital markets union will do little to meet investment needs, while potentially exacerbating systemic financial risks by, e.g., re-introducing large-scale securitization.

Given the long-time resistance of the corporate and, in particular, the financial sector to a more fundamental reform of the fiscal and financial framework, and the mounting opposition to the European Green Deal, the return of European politics to a competitiveness agenda may not be surprising. Paradoxically, however, the EU has returned to a market-share focussed view of competitiveness with a focus on regulatory cost-cutting. The geopolitical shifts towards protectionist trade policies however render such a strategy self-defeating. Prominent policy-makers like Mario Draghi and Christine Lagarde have apparently understood this. The question is, if and when European politics will follow.

References

Aigner, Karl (2006): Competitiveness: From a Dangerous Obsession to a Welfare Creating Ability with Positive Externalities. In: *Journal of Industry, Competition and Trade* 6(2), 161–177. <https://doi.org/10.1007/s10842-006-9475-6>

Aigner, Karl/Bärenthaler-Sieber, Susanne/Vogel, Johanna (2013): Competitiveness under New Perspectives. In: *WWWforEurope Working Paper*.

Aigner, Karl/Vogel, Johanna (2015): Competitiveness: from a misleading concept to a strategy supporting Beyond GDP goals. In: *Competitiveness Review* 25(5), 497–523. <https://doi.org/10.1108/CR-06-2015-0052>

Barden, Nicolas/Beran, Sarah/Ertl, Michael/Witzani-Haim, Daniel (2024): Wie geht's dem Standort? Wettbewerbsfähigkeit und Wohlstand in Österreich. In: *Wirtschaft und Gesellschaft* 50(2), 5–17. <https://doi.org/10.59288/wug502.257>

BEA (2025a): Components of Value Added by Industry. BEA Website (www.bea.gov) (5.2.2026)

BEA (2025b): Gross Output by Industry. BEA Website (www.bea.gov) (5.2.2026)

BEA (2025c): Table 3.1ESI. Current-Cost Net Stock of Private Fixed Assets by Industry. BEA Website (www.bea.gov) (5.2.2026)

BEA (2025d): Table 6.2D. Compensation of Employees by Industry. BEA Website (www.bea.gov) (5.2.2026)

BEA (2025e): Value added by Industry. BEA Website (www.bea.gov) (5.2.2026)

Beck, Martin (2020): Arbeitskosten und Wettbewerbsfähigkeit im EU-Vergleich 2000 bis 2019. In: *WISTA – Wirtschaft und Statistik* 2020(5), 19–32.

Beyfuß, Jörg/Grömling, Michael/Schäfer, Holger (2002): Konjunkturprognose 2003. In: IW-Tends.

Blanchard, Olivier (2004): The Economic Future of Europe. In: *Journal of Economic Perspectives* 18(4), 3–26. <https://doi.org/10.1257/0895330042632735>

BLS (2025): Annual hours worked and employment: detailed industries. BLS Website (www.bls.gov) 5.2.2026)

Boltho, A. (1996): The assessment: international competitiveness. In: *Oxford Review of Economic Policy* 12(3), 1–16. <https://doi.org/10.1093/oxrep/12.3.1>

Brück, Tilman/Uhlendorff, Arne/Woweries, Malte (2004): Lohnkosten im internationalen Vergleich. In: *DIW Wochenbericht* 71(14), 161–169.

BusinessEurope (2024): Energy and Climate Transition: How to Strengthen the EU's Competitiveness

Buzan, Barry/Wæver, Ole/Wilde, Jaap de (1998): Security: a new framework for analysis. Boulder, Colo: Lynne Rienner Pub.

Camagni, Roberto (2002): On the Concept of Territorial Competitiveness: Sound or Misleading? In: *Urban Studies* 39(13), 2395–2411. <https://doi.org/10.1080/0042098022000027022>

Christophers, Brett (2025): The price is wrong: why capitalism won't save the planet. London & New York: Verso.

Collignon, Stefan (2008): Forward with Europe: A democratic and progressive reform agenda after the Lisbon Strategy. Internationale Politikanalysen, Berlin: Friedrich Ebert Foundation.

Copeland, Paul/Papadimitriou, Dimitris (Eds) (2012): The EU's Lisbon strategy: evaluating success, understanding failure. Palgrave studies in European Union politics, Basingstoke: Palgrave Macmillan.

de Buck, Philippe/Strube, Jürgen (2004): Play to Win. Brussels: UNICE.

Delgado, Mercedes/Ketels, Christian/Porter, Michael/Stern, Scott (2012): The Determinants of National Competitiveness. NBER Working Paper 18249, <https://doi.org/10.3386/w18249>

Draghi, Mario (2024a): Europe: Back to Domestic Growth, CEPR Policy Insight No 137

Draghi, Mario (2024b): The future of European competitiveness. Part A | A competitiveness strategy for Europe

Draghi, Mario (2024c): The future of European competitiveness. Part B | In-depth analysis and recommendations

Duval, Guillaume (2025): Europe's Self-Inflicted Wound: The Corporate Responsibility Retreat. Social Europe. <https://www.socialeurope.eu/europe-s-self-inflicted-wound-the-corporate-responsibility-retreat> (15.12.2025).

Edler, Jakob/Matt, Mireille/Polt, Wolfgang (Eds) (2025): Transformative Mission-Oriented Innovation Policies: Revisiting the Role of Science, Technology and Innovation in Society. 1st ed. Eu-SPRI Forum on Science, Technology and Innovation Policy Series, Cheltenham: Edward Elgar Publishing Limited.

European Commission (2025a): A Competitiveness Compass for the EU, COM(2025) 30 final, Brussels

European Commission (2025b): Dashboard for energy prices in the EU and main trading partners 2024. https://energy.ec.europa.eu/data-and-analysis/energy-prices-and-costs-europe_en (19.06.2025).

European Commission (2025c): Energy prices and costs in Europe. https://energy.ec.europa.eu/data-and-analysis/energy-prices-and-costs-europe_en (15.12.2025).

European Commission (2025d): The Single Market: our European home market in an uncertain world A Strategy for making the Single Market simple, seamless and strong. Communication from the European Commission, COM(2025) 500 final, Brussels

European Commission (2025e): Commission simplifies rules on sustainability and EU investments, delivering over €6 billion in administrative relief. PRESS RELEASE, Feb 26, 2025. Brussels.

Eurostat (2026a): Capital stocks by industry (NACE Rev.2) and detailed asset type. https://doi.org/10.2908/NAMA_10_NFA_ST (16.1.2026)

Eurostat (2026b): Employment by detailed industry (NACE Rev.2) – national accounts. https://doi.org/10.2908/NAMA_10_A64_E (16.1.2026)

Eurostat (2026c): Gross value added and income by detailed industry (NACE Rev.2). https://doi.org/10.2908/NAMA_10_A64 (15.1.2026)

Eurostat (2026d): Producer prices in industry, total – annual data. https://doi.org/10.2908/STS_INPP_A (16.1.2026)

Eurostat (2026e): Symmetric input-output table at basic prices (industry by industry). https://doi.org/10.2908/NAIO_10_CP1750 (15.1.2026)

Eurostat (2025): BERD by NACE Rev. 2 activity. https://doi.org/10.2908/RD_E_BERDINDR2 (14.7.2025)

Eurostat/OECD (2025): GERD by sector of performance and source of funds. https://doi.org/10.2908/RD_E_GERDFUND (14.7.2025)

Ey, Frank (2025): EU-Binnenmarktstrategie: Rückbau von Beschäftigten- und Verbraucher:innenstandards droht. A&W Blog. <https://www.awblog.at/Europa/EU-Binnenmarktstrategie> (15.12.2025).

Heimberger, Philipp/Lichtenberger, Andreas (2023): RRF 2.0: A Permanent EU Investment Fund in the Context of the Energy Crisis, Climate Change and EU Fiscal Rules (Policy Notes and Reports Nr. 63). Vienna: Vienna Institute for International Economic Studies.

IMD (1994): IMD World Competitiveness Yearbook 1994. Lausanne.

Kaczmarczyk, Patrick (2025): The Competitiveness Obsession. Questioning promises of growth. Analysis, Bonn: Friedrich Ebert Foundation.

Krugman, P. (1996): Making sense of the competitiveness debate. In: Oxford Review of Economic Policy 12(3), 17–25. <https://doi.org/10.1093/oxrep/12.3.17>

Krugman, Paul (1994): Competitiveness: A Dangerous Obsession. In: Foreign Affairs 73(2), 28. <https://doi.org/10.2307/20045917>

Lenton, T.M./Armstrong MacKay, D.I./Loriani, S./Abrams, J.F./Lade, S.J./Donges, J.F./Milkoreit, M./Powell, T./Smith, S.R./Zimm, C./Buxton, J.E./Bailey, E./Laybourn, L./Ghadiali, A./Dyke, J.G. (2023): The Global Tipping Points Report 2023. Exeter, UK: University of Exeter.

Letta, Enrico (2024): Much more than a market – Speed, Security, Solidarity: Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens, European Commission, Brussels.

Mazzucato, Mariana/Kattel, Rainer (2025): Mission-oriented innovation policies in Europe: From normative to epistemic turn? London: Institute for Innovation and Public Purpose, University College London.

Mazzucato, Mariana/Rodrik, Dani (2023): Industrial Policy with Conditionalities: A Taxonomy and Sample Cases. Working Paper WP 2023/07, London: UCL Institute for Innovation and Public Purpose.

Mazzucato, Mariana/Spanó, Eduardo/Wainwright, Dan (2025): Rethinking the economics of public procurement: towards a mission-oriented economic approach. Working Paper WP 2025-08, London: UCL Institute for Innovation and Public Purpose.

Meyer-Erdmann, Marcus/Hoffmann, Aline (2025): How a 28th company law regime jeopardises workers' rights. Policy Brief 2025.05. Brussels: European Trade Union Institute.

OECD (2025a): Historical population data. OECD Website (www.oecd.org) (16.1.2026)

OECD (2025b): Material flow accounts. OECD Website (www.oecd.org) (17.1.2026)

OECD (2015): Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development. The Measurement of Scientific, Technological and Innovation Activities, Paris: OECD Publishing.

OECD (Ed.) (1992): Technology and the economy: the key relationships. Paris: OECD.

Office of Management and Budget (2022): North American Industry Classification System: United States, 2022

Oughton, Christine/Whittam, Geoff (1997): Competition and Cooperation in the Small Firm Sector. In: Scottish Journal of Political Economy 44(1), 1–30. <https://doi.org/10.1111/1467-9485.00042>

Pilat, Dirk (2024): Climate Change and Productivity: Exploring the Links, Productivity Insights Paper No. 032. Manchester: The Productivity Institute.

Porter, Michael E. (2004): Building the Microeconomic Foundations of Prosperity: Findings from the Business Competitiveness Index. In: The Global Competitiveness Report 2003–2004. New York: Oxford University Press, 29–56.

Porter, Michael E. (1998): The competitive advantage of nations. Riverside: Free Press.

Porter, Michael E./Delgado, Mercedes/Ketels, Christian/Stern, Scott (2008): Moving to a New Global Competitiveness Index. In: Porter, Michael E./Schwab, Klaus (Eds): The Global Competitiveness Report 2008–2009. Geneva: World Economic Forum, 43–64.

Produktivitätsrat (2023): Produktivitätsbericht 2023: Nachhaltige Wettbewerbsfähigkeit Österreichs, Wien.

Raza, Werner/Schlager, Christa/Skyrman, Viktor/Soder, Michael (Eds) (2026): Progressive Industrial Policy in the European Union. London: Routledge, Taylor & Francis Group.

Raza, Werner/Schlager, Christa/Skyrman, Viktor/Soder, Michael (2025): Industrial Policy In The European Union. Towards A Progressive Agenda. Brussels: Austrian Foundation for Development Research and Social Europe. https://ebooks.socialeurope.eu/9/industrial-policy-in-the-european-union#leaf_154 (15.2.2026).

Saint-Paul, Gilles (2004): Did European Labor Markets Become More Competitive in the 1990s? : Evidence from Estimated Worker Rents. IZA Discussion Papers 1067. Bonn: Institute for the Study of Labor (IZA).

Schwab, Klaus (Ed.) (2019): The Global Competitiveness Report 2019. Geneva: World Economic Forum.

Seilliére, Ernest-Antoine (2006): Delivering on Trade & Competitiveness.

<https://www.businesseurope.eu/sites/buseur/files/media/imported/2006-01625-EN.pdf> (19.3.2025)

Skyrman, Viktor (2024): Industrial Policy, Progressive Derisking, and the Financing of Europe's Green Transition. Working Paper Nr. 78. Vienna: Austrian Foundation for Development Research. <https://doi.org/10.60637/2024-wp78>

Stern, Nicholas/Stiglitz, Joseph E. (2023): Climate change and growth. In: Industrial and Corporate Change 32(2), 277–303. <https://doi.org/10.1093/icc/dtad008>

Südekum, Jens/Weichenrieder, Alfons (2023): Pro: Was für den Industriestrompreis spricht. In: Wirtschaftsdienst 103(8), 506–507. <https://doi.org/10.2478/wd-2023-0142>

Trichet, Jean-Claude (2008): Current challenges for the euro area. In: BIS Review. <https://www.bis.org/review/r081030b.pdf> (19.3.2025)

Trinomics (2025): Study on energy prices and costs: evaluating impacts on households and industry: 2024 edition. LU: Publications Office of the European Union.

UNDP (2025): Human Development Report: All composite indices and components time series (1990-2023). UNDP Website (www.hdr.undp.org) (21.8.2025)

Voinescu, Razvan/Moisoiu, Cristian (2015): Competitiveness, Theoretical and Policy Approaches. Towards a More Competitive EU. In: Procedia Economics and Finance 22, 512–521. [https://doi.org/10.1016/S2212-5671\(15\)00248-8](https://doi.org/10.1016/S2212-5671(15)00248-8)

von der Leyen, Ursula (2024): Europe's Choice. Political Guidelines for the next European Commission 2024–2029, Brussels: European Commission.

WIPO (2026): Intellectual property rights: Patent grants by technology. Geneva. <https://www3.wipo.int/ipstats/ips-search/patent> (16.1.2026)

World Bank (n.d.): GDP, PPP (constant 2021 international US \$). <https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.KD> (17.1.2026)

About the authors

Julian Maukner is a student in the Masters Programme on Economics at Vienna University of Economics and Business, and a research intern at ÖFSE.

Werner Raza is the Director of ÖFSE – Austrian Foundation for Development Research.