European Competitiveness: A Catch-All Term or a Viable Strategy

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Executive summary

During the past couple of years, the EU has been struggling with the effects of an energy crisis, while the USA and China have since expanded their share of global GDP. Recent concerns regarding the EU's competitiveness arise from a fear of falling behind international partners in key *areas*, especially in technological advancements and innovation, energy security, and international trade. Current major policy proposals either do not attempt to define competitiveness or they rely on a very narrow definition, leaving underlying EU structural challenges unaddressed. This paper proposes a more comprehensive approach when defining "competitiveness," both as an outcome and as a process. It suggests defining competitiveness as the ability to create and assure security and welfare for the individuals living in its territory, both as an outcome and as a process, by meeting the needs of domestic and international markets. The policy recommendations prioritize measures enhancing energy security and reducing administrative burdens for the European businesses.

Introduction

The European Union (EU) has been dealing with a polycrisis since the global financial crisis of 2008-2009, challenging its once-strong position in the global geopolitical arena. With aspirations to become a "green superpower," it set extremely ambitious goals regarding environmental protection.[1] However, the Russian invasion of Ukraine, and the EU's subsequent decision to decouple from Russian energy sources, triggered an unprecedented energy crisis, causing wholesale prices of electricity and gas to surge up to 15 times their 2021 levels.[2] This had severe consequences for both households and businesses. Despite government efforts to provide additional funding to support businesses and households,[3] the enduring effects of this energy crisis may cause lasting harm, potentially causing permanent damage to Germany's energy-intensive industries. [4]

While the EU continues to struggle with the effects of the energy crisis and the securing of energy supplies, the USA and China have since expanded their share of global GDP. As a result, the EU now

[1] European Commission: Climate strategies & targets. Online: https://climate.ec.europa.eu/eu-action/climate-strategies-targets_en
[2] Jeromin Zettelmeyer, Simone Tagliapietra, Georg Zachmann and Conall Heussaff (2022): Beating the European Energy Crisis. *IMF.org.* Online: https://www.imf.org/en/Publications/fandd/issues/2022/12/beating-the-european-energy-crisis-Zettelmeyer
[3] Statista (2023): Funding for the energy crisis in Europe 2021-2023, by select country. Online: https://www.statista.com/statistics/1380815/europe-energy-crisis-spending-by-country/
[4] Hogg, Ryan (2024): Germany set to permanently pay for reliance on Russian gas—as power chief says 'significant structural demand destruction' means it will never fully recover from the energy crisis. *Fortune.com.* Online: https://fortune.com/europe/2024/04/11/germany-pay-reliance-russian-gas-power-chief-significant-structural-demand-destruction-energy-crisis/

finds itself in a so-called "competitiveness crisis," with problems stemming from decreasing productivity becoming increasingly evident.[5]

One of the priorities of the Hungarian EU presidency is the adoption of a New European Competitiveness Deal[6] aimed at restoring the competitiveness of the European Union. The ambition of the Hungarian Presidency is not new; it builds on the priorities of the Spanish-Belgian-Hungarian trio presidency, which has placed strong emphasis on competitiveness.

This paper aims to review key current policies and recent policy proposals related to the field. It will then examine how the term *competitiveness* is becoming a catch-all phrase in the European discourse and policy proposals, highlighting the conceptual and methodological difficulties of measuring it. Lastly, the paper proposes a new approach to measuring competitiveness and suggests prioritizing policy reforms that would contribute to sustainable economic growth.

Major Policies and Recent Policy Proposals

Two documents have had an important role in the approaches of the presidency trio regarding the question of competitiveness. The first is the **Antwerp Declaration for the European Industrial Deal**, presented to the President of the Commission in February 2024 during the Belgian Presidency.[7] This document, signed by more than 1,250 organizations active across 25 different sectors, aims to complement the EU's Green Deal strategy.

The signatories proposed ten different measures to prevent the loss of quality jobs in Europe, stimulate investment, and help the transition to climate neutrality. One of the most important recommendations of the Antwerp Declaration is that the EU should put competitiveness at the heart of its new European Strategic Agenda for the 2024-2029 period. Central to this initiative is EU energy policy, with the signatories urging the next European Commission to prioritize affordable low-carbon renewable and nuclear energy projects, enable cross-border electricity procurement, expand the hydrogen and renewable low-carbon grids, and develop partnerships with resource-rich countries. The Antwerp Declaration stresses the importance of securing the EU's access to critical and raw materials, with a focus on domestic mining, increased recycling of critical raw materials, and new global partnerships. Finally, signatories argue that legislation should encourage business growth, avoid detailed and restrictive regulations in order to pursue the policy objectives of the EU Green Deal strategy, and reduce administrative burdens.

The Hungarian Presidency also mentions **Enrico Letta's** comprehensive report, ***Much More Than a Market.***[8] In preparing this comprehensive policy review, Letta visited 65 European cities and participated in more than 400 meetings to gather input from EU citizens and stakeholders. The report presents policy recommendations to the European Council, namely, delegating the task of drafting a comprehensive Single Market Strategy to the European Commission. The author advocates that the new strategy should "break down existing barriers, promote consolidation, and enhance the

[5] European Commission (2023): Long-term competitiveness of the EU: looking beyond 2030. COM(2023) 168 final. Online: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52023DC0168
[6] Priorities of the Hungarian Presidency (2024) Online: https://hungarian-presidency.consilium.europa.eu/en/programme/priorities/
[7] The Antwerp Declaration for the European Industrial Deal (2024) Online: https://antwerp-declaration.eu/
[8] Enrico Letta (2024): Much More than a Market. Online: https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf

competitiveness of the Single Market, along the lines of the proposals contained in the Report."[9] The report addresses the EU's demographic and economic decline, contrasting its economic growth – measured in GDP per capita – to the United States (US), which has increased by almost 60% from 1993 to 2022, whereas Europe's growth was less than 30%. The policy recommendations are divided into six principal areas:

1. First, the author emphasizes the importance of research, innovation, and education in the structures of the European Single Market. Technological advancements in areas such as AI, quantum computing, biotech, and robotics could play an essential role in enhancing the competitiveness of the EU.
2. Second, the Single Market should be able to offer adequate structures facilitating the mobilization of private and public sector resources and direct them towards a fund financing common key objective.
3. Third, the author considers that "the lack of integration in the financial, energy, and electronic communications sectors is a primary reason for Europe's declining competitiveness."[10] As such, he recommends integrating these markets, highlights the advantages that the Single Market, due to its size, could present, and suggests supporting the scale-up and growth of European companies.
4. Fourth, it looks at cohesion policy and the challenges faced by approximately one-third of the EU's population that was inadequately served. The document urges the reform of the cohesion policy in order to better address the challenges faced by citizens and small and medium-sized companies (SMEs) respective to their regions.
5. The fifth part presents recommendations for improving the regulatory framework, decreasing administrative burdens, and harmonizing markets to improve the efficiency in the Single Market.
6. Last but not least, he stresses the strategic value of the methods and timing of the European enlargement as an instrument to protect European interests and prosperity.

Both documents present sound policy solutions that could benefit the European Union. However, neither of them attempts to define "competitiveness" as a concept. The Letta report has a holistic approach and considers demographic challenges, administrative burdens, unused private capital, and cohesion policy reform. However, it suggests that all of the EU's problems could be solved through the advantages offered by the European Single Market – and ultimately, a closer union in several policy areas. As such, he overlooks aspects related to the productivity of the European industry. Without considering issues related to productivity – the amount of goods and services needed to produce a good or service – the solutions offered by Letta could be of limited success.

Another important document addressing Europe's current economic challenges is **"The Future of European Competitiveness"** by **Mario Draghi**.[11] The Draghi report explores various sectoral policies, including digitalization and advanced technologies, semiconductors, automotive, defense, pharma, and energy-intensive industries. It also lists the downsizes arising from decoupling from relatively inexpensive Russian energy sources following the aggression against Ukraine.

[9] Letta (2024): p. 144.
[10] Letta (2024): p. 8.
[11] Draghi, Mario (2024a): The future of European competitiveness – A competitiveness strategy for Europe. European Commission. Online: https://commission.europa.eu/document/97e481fd-2dc3-412d-be4c-f152a8232961_en

Looking at the past two decades, Draghi highlights the widening gap in GDP between the EU and the US, which is driven mainly by a slowdown in productivity growth in Europe, which he attributes to the tech sector. Draghi does not see competitiveness as a zero-sum game focused on conquering global market shares and raising trade surpluses, as policies defending "national champions" that can curb competition, nor as a race to the bottom.[12] Instead, he stresses the importance of knowledge and skills within the labor force to boost productivity. Hence, he aims to enhance the EU's competitiveness by increasing productivity. While not entirely clear, it seems that Draghi equates the term "competitiveness" with productivity – a more precise and clear definition than those used in previous documents. To improve productivity, Draghi identifies three major challenges facing the EU: 1) The lack of commonly agreed-upon priorities followed by effective policy actions; 2) The fracturing of the European Single Market, which limits the benefits of collective spending power; and lastly, 3) The lack of coordination of the EU's industrial strategy. He contrasts these challenges with the policies of the US and China, which combine fiscal policies to promote domestic production, trade policies to penalize anti-competitive behavior, and foreign economic policies to secure supply chains.

The strategy has five main elements: First, continued common debt issuance to inject the needed capital into the markets – Draghi suggests a minimum annual investment of €750 to €800 billion.[13] Second, he proposes a cautious but pragmatic trade policy, especially with China. Third, he stresses the importance of the commercialization of technological advancements while building citizens' skills to match up with the latest technology. Fourth, the defense industry plays a crucial role in Draghi's strategy, along with the derisking of several supply chains. Fifth, the administrative burdens should be lifted and the EU legislative process made simpler – among others, he advocates for making decisions with qualified majority voting.[14]

One of the strengths of the Draghi report is its strong focus on industry and technology; however, this is also its weakness. While European industry is essential in rebuilding the EU's competitiveness – despite the lack of a clear definition of the term – it deals little with the political and social aspects of the European Union. For example, political support for common bond issuance is minimal; Germany's current finance minister does not support it,[15] and given the German constitutional debt-brake,[16] any future support from a German government is unlikely. Additionally, unlike the Letta report, Draghi scarcely addresses issues related to demographics and territorial and social cohesion, which are vital elements of the European Union.

The importance of technological advancements and the need for related investments are becoming more pronounced. Ursula Von der Leyen, the President of the Commission, aims to create a new European Competitiveness Fund[17] to invest in new strategic technologies that contribute to realizing

[12] Draghi, idem. p. 9.
[13] Draghi, idem. p. 59.
[14] Draghi, idem, p. 64.
[15] Politico (2024): Germany's Lindner rejects Draghi's common borrowing proposal. Online: https://www.politico.eu/article/germanys-lindner-rejects-draghis-common-borrowing-proposal/
[16] See Articles 109 and 115 of The Basic Law for the Federal Republic of German Constitution. Online: https://www.gesetze-im-internet.de/gg/art_109.html and https://www.gesetze-im-internet.de/gg/art_115.html.
[17] Reuters (2024): EU executive to propose competitiveness fund for strategic technologies. Online: https://www.reuters.com/world/europe/eu-executive-propose-competitiveness-fund-strategic-technologies-2024-07-18/

Integrated Important Projects of Common European Interest (IPCEI).[18] These projects are European initiatives jointly developed by at least four Member States (MS) to address systemic market failures. They could be in the areas of healthcare supplies, microelectronics value chains, cloud computing, chips, or advanced packaging. Additionally, von der Leyen plans to propose the creation of a new Clean Industrial Agreement to provide cheap and clean energy.[19] Furthermore, she wants to create a Skills Union to overcome labor market barriers, emphasize vocational training, and strengthen education in STEM fields.[20]

The Commission President's plans align with current policies centered around the securitization of Europe's economic development, including the European Economic Security Strategy,[21] the Framework for ensuring a secure and sustainable supply of critical raw materials[22] or the Strategy on the European semiconductor ecosystem.[23] However, these documents primarily focus on increasing technological development as a means of guaranteeing competitiveness. Another important legislative act recently adopted by the EU is the regulation imposing duties on imports of new battery electric vehicles.[24] The legislation aims to avert an "imminent threat of injury to an already vulnerable Union industry" due to potential losses in market share, acknowledging the "sensitivity of the electric vehicle sector and its strategic importance to the EU economy in terms of innovation, value added and employment".[25]

It seems that recent concerns regarding the EU's competitiveness stem from a fear of falling behind international partners in *particular areas*, mainly in technological advancements, energy security, and international trade. Consequently, recent steps and current policy proposals aimed at improving the EU's "competitiveness" tend to primarily address these issues.

Affordable energy and the critical raw materials needed to produce and store it are essential for both the European industry and its citizens. Similarly, securing the supply chains for these products and services, along with protecting the related intellectual rights, are vital steps that the EU must

[18] https://competition-policy.ec.europa.eu/state-aid/ipcei/approved-ipceis_en?prefLang=hu&etrans=hu
[19] Ursula von der Leyen (2024): Europe's Choice. Political Guidelines for the Next European Commission 2024–2029. Online: https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en?filename=Political%20Guidelines%202024-2029_EN.pdf
[20] Ursula von der Leyen (2024): Europe's Choice. Political Guidelines for the Next European Commission 2024–2029. Online: https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en?filename=Political%20Guidelines%202024-2029_EN.pdf
[21] Joint Communication to the European Parliament, the European Council and the Council on "European Economic Security Strategy," Join/2023/20 Final, Online: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023JC0020
[22] Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1724 and (EU) 2019/1020 (Text with EEA relevance), PE/78/2023/REV/1, OJ L, 2024/1252, 3.5.2024, ELI: http://data.europa.eu/eli/reg/2024/1252/oj
[23] Regulation (EU) 2023/1781 of the European Parliament and of the Council of 13 September 2023 establishing a framework of measures for strengthening Europe's semiconductor ecosystem and amending Regulation (EU) 2021/694 (Chips Act) (Text with EEA relevance), PE/28/2023/INIT, OJ L 229, 18.9.2023, p. 1–53
[24] Consolidated text: Commission Implementing Regulation (EU) 2024/1866 of 3 July 2024 imposing a provisional countervailing duty on imports of new battery electric vehicles designed for the transport of persons originating in the People's Republic of China. Document 02024R1866-20240704., ELI: http://data.europa.eu/eli/reg_impl/2024/1866/2024-07-04
[25] Commission Implementing Regulation (EU) 2024/1866 of 3 July 2024 imposing a provisional countervailing duty on imports of new battery electric vehicles designed for the transport of persons originating in the People's Republic of China, C/2024/4646, OJ L, 2024/1866, 4.7.2024., 1.1. (3) .

undertake. However, achieving these objectives will only ensure the basic needs of European industry without necessarily improving the EU's competitiveness. In other words, despite major investments in technology and innovation, certain segments of European industry might still be losing to its international competitors.

Challenges of Measuring Competitiveness

Shares in world GDP

The concept of competitiveness is hard to define, as experts and political decision-makers rarely agree on what it means and how to measure it. While there are several schools and approaches to defining and measuring competitiveness, the current paper does not intend to present a review of the academic literature in this field. Rather, it aims to illustrate how different commonly used measurements can lead to misleading conclusions and highlight the need for a more nuanced understanding of what competitiveness could mean for the EU.

One way of measuring a country's competitiveness is to compare its shares of world GDP when expressed in purchasing power standards. According to Eurostat, in 2021, China was the largest economy, accounting for about 18.9% of the world's GDP. The United States followed as the second largest, with 15.5%, while the EU ranked in third at 15.2%.[26] What exactly do these figures mean? They indicate how many goods and services can be purchased in these countries when using an artificially constructed currency unit. In other words, with the same amount of money, one could buy the most goods and services in China, followed by the US, and third, the EU. This is a relatively good proxy measure for the standard of living.

However, it raises the question of how the wealth is distributed within each particular country: Is wealth concentrated in the hands of a relatively small percentage of individuals, or do the majority of individuals have enough money at their disposal that would allow them to buy goods and services? This can be checked by comparing GINI coefficients, which measures how income distribution (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. Essentially, it helps us understand whether only a relatively small elite benefits from the wealth accumulated in a country.

The Gini coefficient, as measured by the World Bank, does not have values for the European Union as a block; instead, it is calculated for each individual MS. To estimate a "typical" value for the EU, the median Gini coefficient of the MSs was used as a proxy. This data, collected from all MSs regularly, starting in 2004, allows for a comparison of EU statistics with those of the US and China over the past two decades.

[26]Eurostat (2024): EU represented 15.2% of world's GDP in 2021.
Online: https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20240530-2#:~:text=The%20largest%20economy%20in%20the,third%20place%2C%20with%2015.2%25.

Figure 1. Gini Coefficient

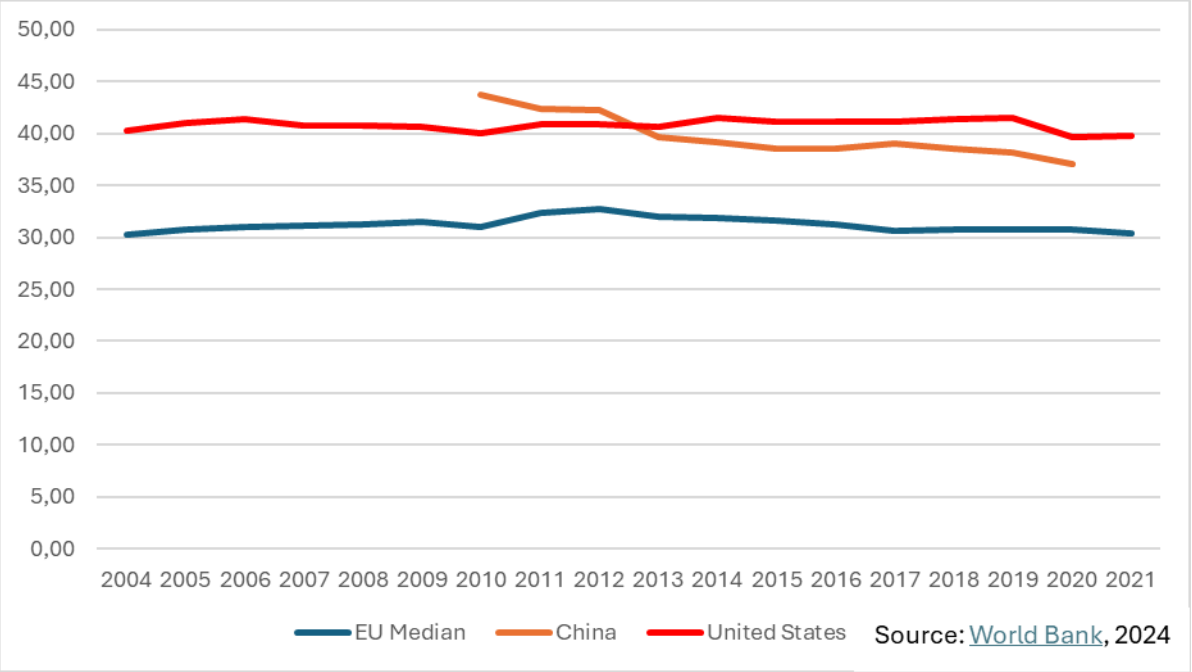


Figure 1. shows that EU MSs generally have a more egalitarian income distribution compared to the US or China. Although China has managed to reduce its income inequality in the past decade, the data suggests that proportionally fewer people in the US and China enjoy the benefits of their well-performing economies compared to Europeans. This suggests that the increase in GDP shares is more likely driven by a growth in the income of a relatively small percentage of elites, while the broader population sees only limited benefits. When the majority of a population only experiences a marginal gain from the country's economic growth – whether measured by real GDP or purchasing power – it is highly debatable if the country has truly enhanced its competitiveness.

Measures of international trade

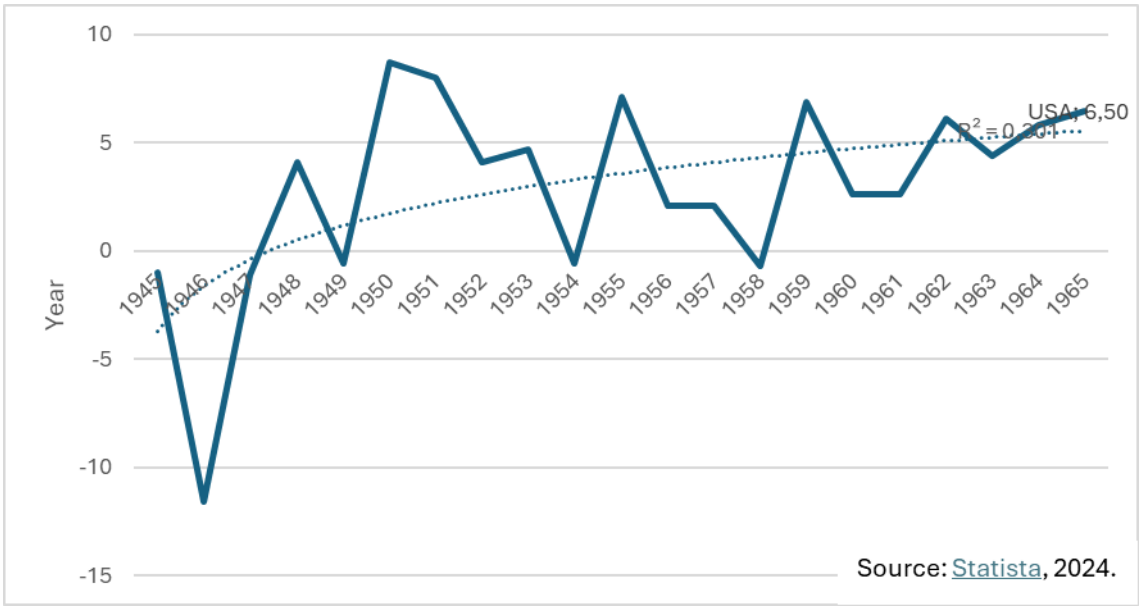
Another set of instruments often used to measure competitiveness relates to international trade and trade balances. However, as Krugman wrote decades ago, measuring the competitiveness of a country – or, in this case, the 27-nation European Union – inevitably leads to a trap, especially if it is measured using one of the metrics of international trade.[27]

The EU's trade balance could be used to measure the competitiveness of EU industry, but it merely indicates the extent to which foreign partners are looking for a particular EU product or service. A decrease in the trade balance would not reveal, for example, whether a particular partner is not purchasing EU products or services due to protectionist measures, an interest in buying from another trading partner – a possible political ally – or if they find the cost of EU products more expensive than anticipated. Nor does it consider the possibility that the EU might adopt a protectionist policy, closing off certain markets, which could provoke countermeasures taken by trading partners and lead to unwanted changes in trade balance.

[27] Krugman, P. (1994). Competitiveness: a dangerous obsession. Foreign Affairs., 73, 28.

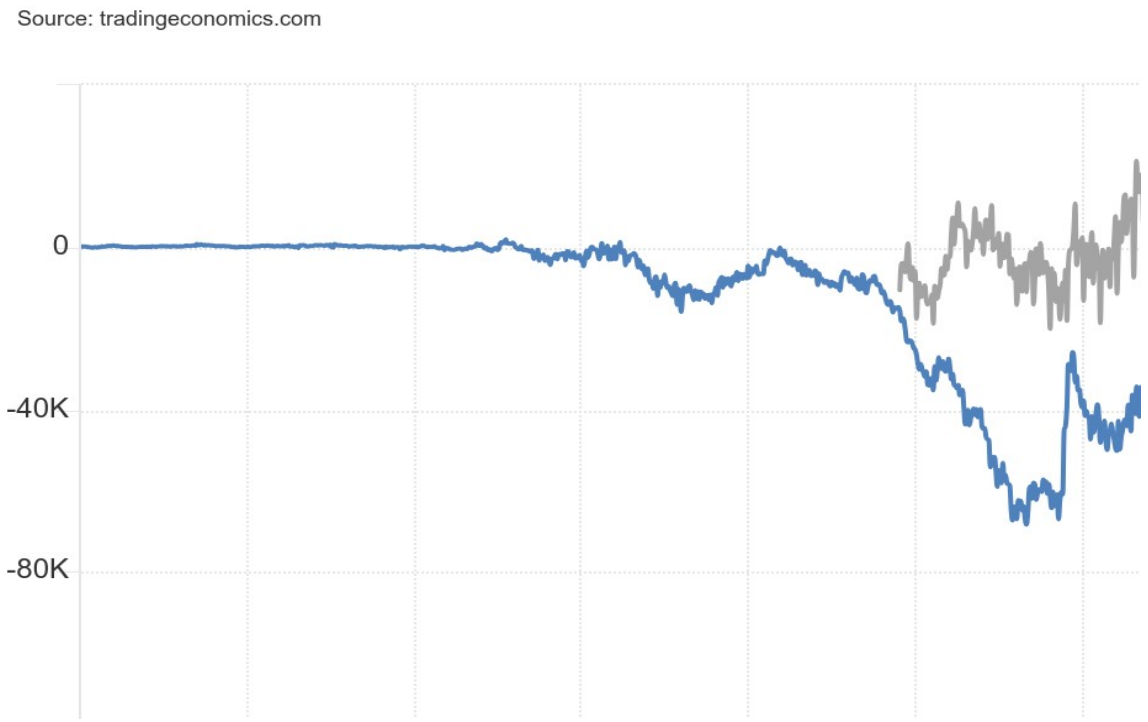
Similarly, the trade balance does not tell us whether the living standards of EU citizens have risen or fallen because of a given trade change. For instance, in the 1950s, the US was a highly closed economy driven by its internal market – companies' production primarily directed toward local consumption. If we only examined the trade balance of the US companies during that time, we might conclude that the US had lost its competitiveness, necessitating radical changes to avoid economic stagnation. However, as shown in Figure 2, living standards in the US during the 1950s did not decline.

Figure 2. Annual growth of real GDP in the United States of America from 1945 to 1965



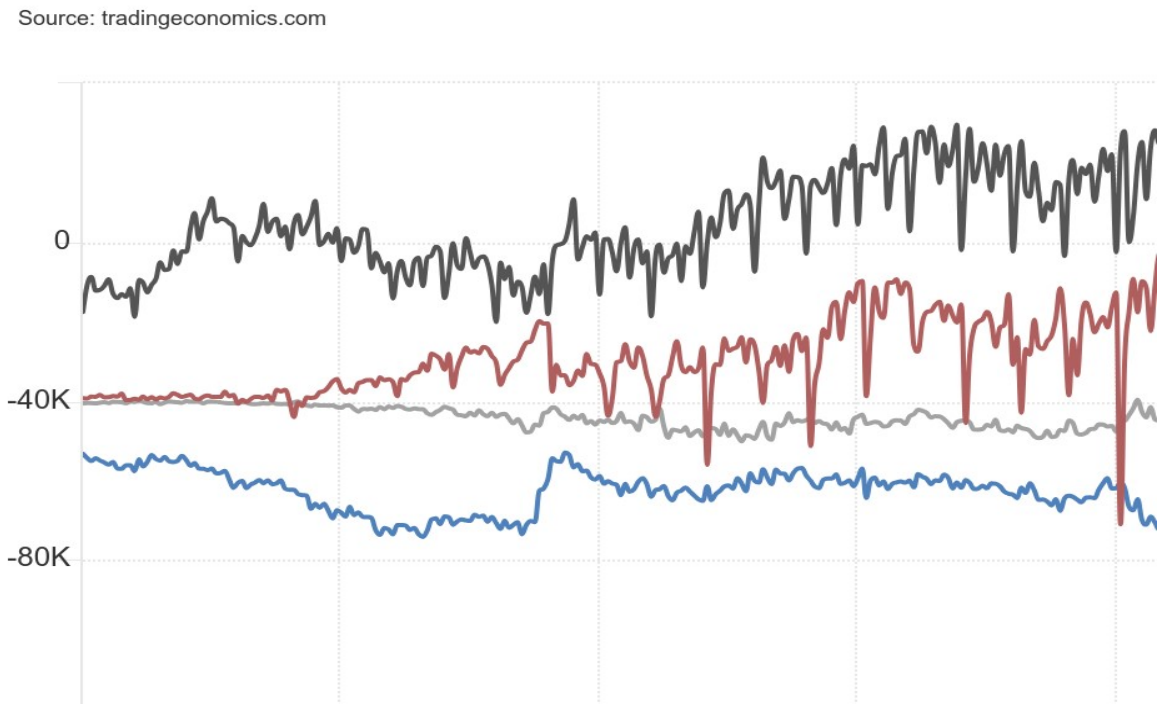
The annual growth rate of real GDP in the United States sharply increased in 1950, and continued to grow, albeit with some fluctuations. The logarithmic trendline shows these tendencies, capturing the line's ups and downs. The data shows a clear upward trend that continued for over a decade. Hence, despite some US companies having a trade deficit, the standard of living in the country did not necessarily decrease. Moreover, the trade balance of all US markets during the examined period was in a narrow positive range, as shown in Figure 3.

Figure 3. US and EU trade balance



It is worth noting that the EU's trading balance has been predominantly positive, with some notable exceptions. On the contrary, the US trading balance has been in the negative range for approximately four decades, as shown in Figure 4. Additionally, the EU's trade balance has consistently outperformed that of its competitors for decades, with the exception of 2022, mostly due to policies related to energy imports. However, data indicates that it seems to be recovering from this setback.

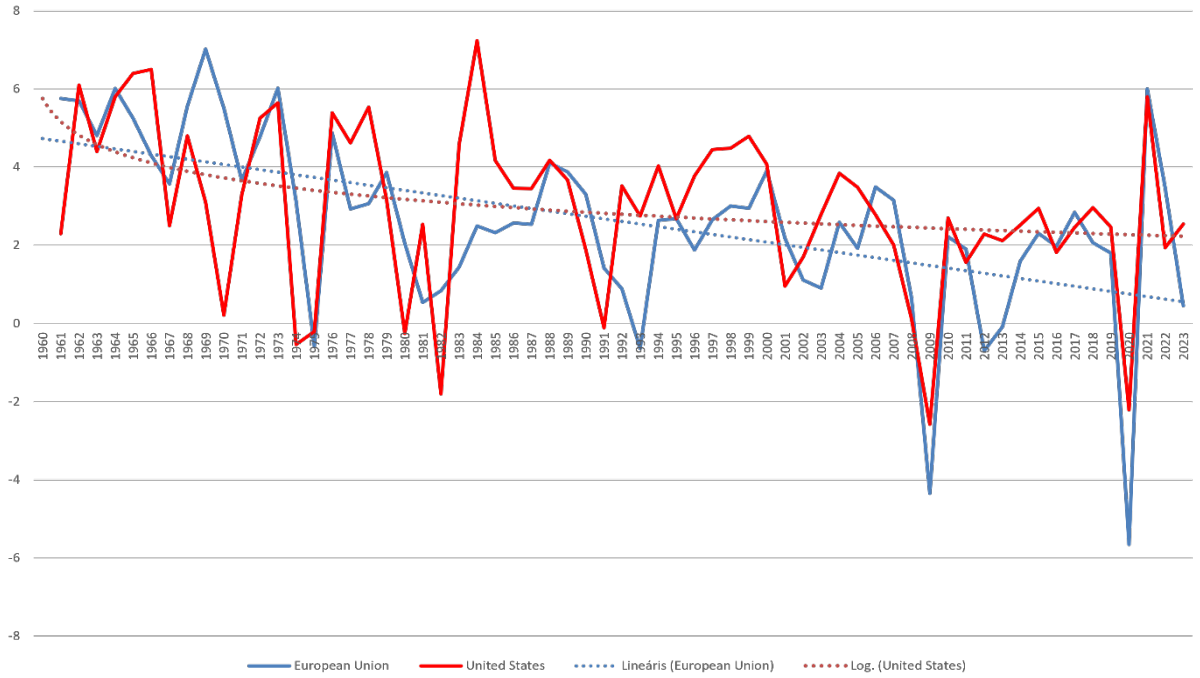
Figure 4. Trade balance of the EU, China, India, and the USA



As shown in Figures 3. and 4. the trade balance of the USA has constantly been negative. Compared to the other three major economies – China, India, and the EU – this might lead us to think that the US economy is facing several challenges, such as a loss in competitiveness and a possible slowing of the economy. Based on this logic, one might also assume that the EU's positive trade balance is proof of the EU's competitiveness. However, the EU's predominantly positive trade balance does not correlate with a faster GDP growth compared to the US, demonstrating that trade balance alone is not an adequate tool for measuring the competitiveness of an economy.

Moreover, according to the data presented in Figure 5, both the EU's and the US's GDP growth has been slowing since the 1960s. Despite its positive trade balance and more evenly distributed income, the EU's reduced GDP growth is more pronounced than that of the US.

Figure 5. Real GDP growth in the EU and the US



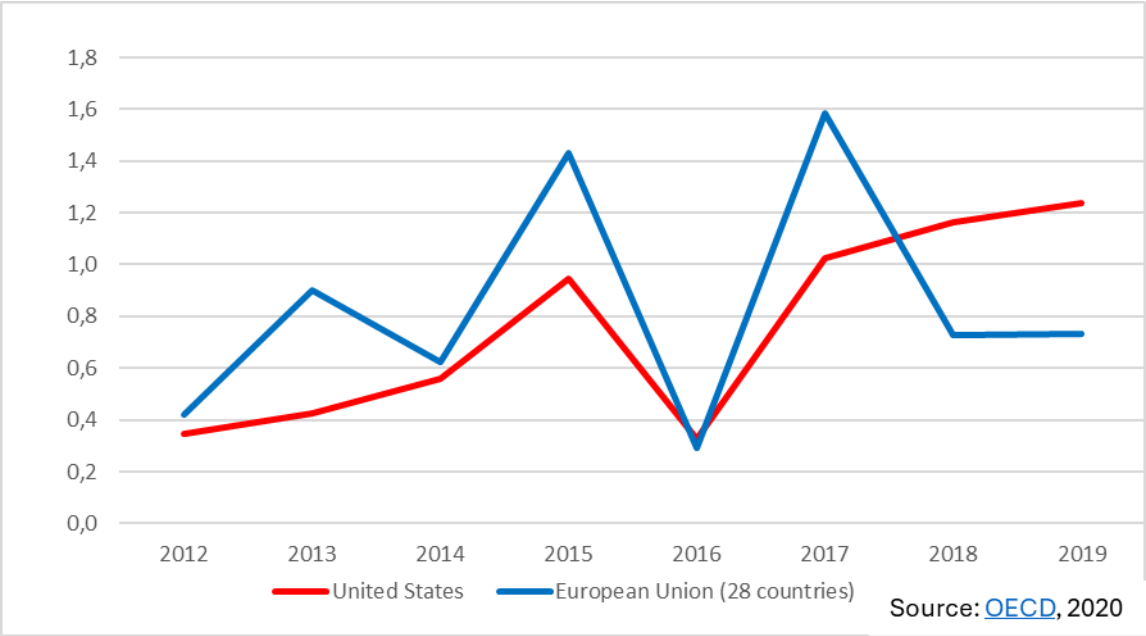
In other words, measuring a country's, or a block of a country's, trade balances does not necessarily indicate a growth in economy. Focusing only on trade balance in the context of competitiveness might not result in accurate conclusions regarding competitiveness.

Productivity

Instead of focusing on trade balances, Draghi aims to improve the productivity of European industry. Productivity measures the output of a company or industry per unit of input, typically measured in hours worked per person. Raising productivity can be achieved by a combination of improvements in technology and physical and human capital. A more productive market can produce more output with a given set of inputs, such as labor, physical capital, and technology. This increase in productivity facilitates the cheaper and quicker acquisition of raw materials, production of goods, and the provision of services, ultimately leading to better pricing and increased profitability. These are helpful indicators to refine and improve economic processes that could possibly lead to better-paying jobs and an improved quality of life.

Measuring the productivity growth of the EU, the US, and China would allow us to compare how the three major economies have been making use of their technology and capital. The OECD does not provide data for China; nonetheless, according to available data, the European Union's labor productivity growth has decreased during the past *seven years*, while US labor productivity has been increasing. However, it is important to note that prior to 2017, European productivity growth outpaced that of the US.

Figure 6. Labor productivity growth, total economy, GDP per hour worked, average annual growth rate



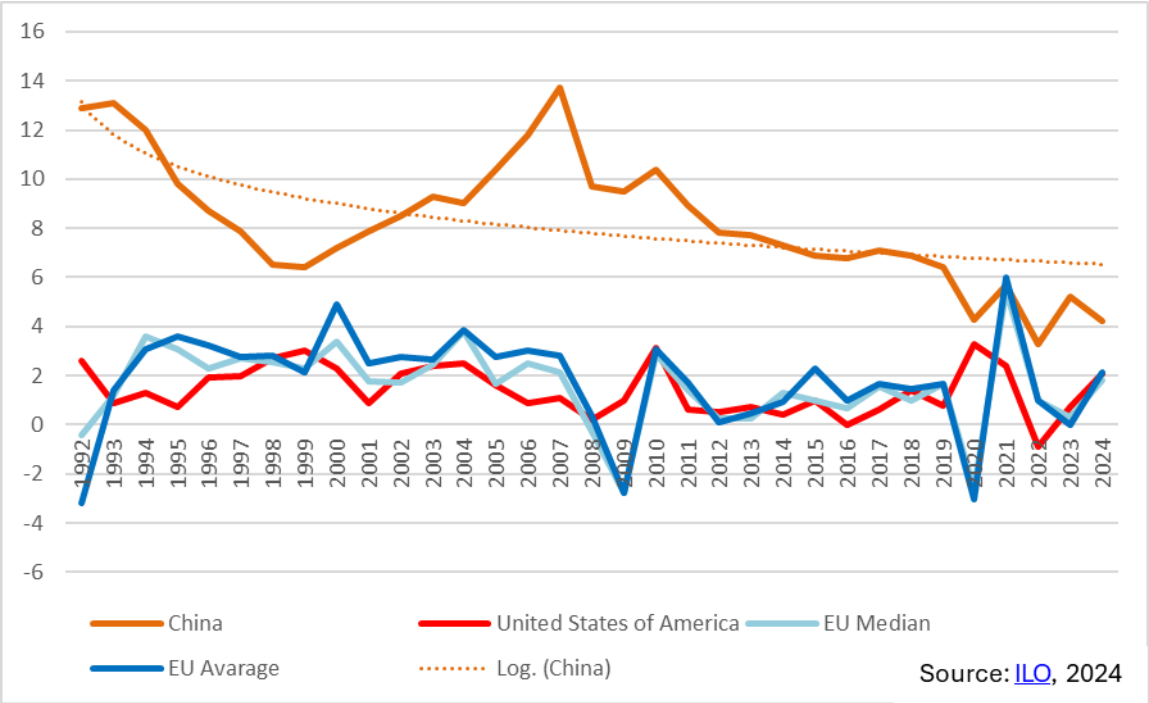
The International Labor Organization provides data for the three economies for a longer period using a similar metric, though its data collection method differs. It gathers data from individual MSs regarding the percentage of annual change in output per worker, measuring it at a constant GDP of 2017 in international dollars adjusted for purchasing power parity. Based on the individual MSs' data, the median, "typical" EU productivity, and average productivity were computed and compared with figures from China and the US, as shown in Figure 7.

Since the 1990s, the productivity of China has been much higher than that of the EU or the US, with no striking difference between the latter two for the past three decades. This means that China was able to produce a unit of product or service for a much lower price than the US or the EU – mainly due to lower labor costs and less stringent environmental protection legislation. However, China's labor productivity has been declining drastically since 2007, as the logarithmic trendline of Figure 7. shows. Currently, China's productivity value is nearing that of the EU and the US; nonetheless, both the US and the EU perceive the Asian country's economic activity and growth as a threat to their *own competitiveness.* The situation highlights the challenges of measuring competitiveness in productivity.

Contrastingly, the modest productivity declines in the EU and the US seem to justify a major overhaul of the European industry, labor markets, and political structures, as some policy proposals advocate. While addressing challenges in finding qualified workers is crucial, a decrease in productivity does not inherently mean a decrease in competitiveness, as evidenced by the case of China.

Draghi posits that the recent decline in European productivity is due to the differences in technological advancements, especially compared to the USA. However, this might require more investigation. Differences in technological advancements alone do little to explain how the EU's real GDP growth (as shown in Figure 5.) has been slowing at a faster pace for decades when compared to the USA, even while simultaneously maintaining a positive trade balance and faster-growing labor productivity.

Figure 7. Percentage of annual change in output per worker (GDP constant 2017, international $ at PPP)



Measuring competitiveness through productivity, as described above, presents several challenges. One significant issue is that it can obscure the larger picture – namely, the overall outcome. While investment and skillset re-training are essential and may justify substantial funding programs, increasing productivity alone would not automatically ensure that there will be an increased demand on the market for European products or services, even if they are offered at competitive prices. Additionally, as seen in China's case, a decline in productivity does not necessarily mean a decline in competitiveness – at least not necessarily in the perception of rivals.

In conclusion, the different metrics often used to measure "competitiveness," such as a share in world GDP, international trade measures, and productivity, do not inherently indicate a decline in socio-economic status or overall well-being.

Is the EU Losing on a Competition or its Competitiveness?

Defining Competitiveness

As previously noted, current policies and policy proposals do not define the concept of competitiveness; hence, the solutions might be less coherent than ideal. The Letta report's suggestions could be centered around accelerating integration and expanding it to more policy areas while using the Single Market. Draghi concentrates on productivity and the major infrastructural investments needed to increase it. While there are common elements in the two policy recommendations, ultimately, it seems that the two authors take different sides when choosing between competitiveness

and political and social goals – this is not a new dilemma. In their 1985 book, Scott and Lodge[28] concentrate on the perceived tradeoff between national competitiveness and social goals. They propose using a matrix where national economies can be placed according to their policy decisions. The matrix's vertical axis has development-oriented strategies (such as work, savings, and investment) and distribution-oriented strategies (like income redistribution, economic security, or consumer benefits) on its horizontal axis. Differences in international competitiveness of the various nation states account for changes in the inward versus external orientation of the policies. Currently, by looking at the policy alternatives, it appears that the EU must choose between international competitiveness and its social goals.

However, this does not necessarily have to be the case, especially not in the case of the European Union, whose budget and policies have a redistributive function. Therefore, a proposed definition of the term competitiveness is put forward, following Aiginger's main idea: a national economy, or a block or national economies, is considered competitive if it can create and assure security and welfare to the individuals living within its territory, both as an outcome and as a process, by meeting the needs of domestic and international markets.[29]

The **outcome** of competitiveness should be measured through various indicators of living standards, such as purchasing power parity (PPP), Gini coefficients for wealth distribution, employment rate, hours worked, environmental damage, military capability and crime rates. The **process** competitiveness should reflect how we obtain the outcomes, and the efficiency with which technology and physical, floating, human capital is used – namely, total factor productivity (TFP) or multifactor productivity (MFP). This chapter outlines the major obstacles the EU faces regarding competitiveness while using the above-mentioned definition.

Areas to improve – focus on process competitiveness

The EU cannot enhance its competitiveness without first improving its process competitiveness. To achieve this, it must focus on foundational areas, particularly the efficient use of its physical, technological, floating and human capital – especially its energy resources. One of the most urgent challenges the EU faces is the extremely high energy price levels.[30] European electricity prices reached records in 2022 following the decoupling from the Russian gas supply in February 2022. According to Statista, the most expensive electricity prices in the world were the household prices in Italy, the United Kingdom, and Germany. In contrast, the least expensive electricity in the world was measured in countries with exporters of natural gas and petrolatum, such as the United States, Russia, China, and the Middle Eastern countries of Qatar and Iran.[31] Electricity prices by December 2023 had somewhat stabilized. However, the highest residential electricity prices were still in Europe at USD 0.234 per kWh, as opposed to USD 0.077 in China and USD 0.162 in the USA. The highest business electricity prices were also in Europe at USD 0.205 per kWh, while in China and the USA they were

[28] Scott, Bruce R., and George C. Lodge. "US competitiveness in the world economy." The International Executive 27, no. 1 (1985): 26-26.
[29] Aiginger, Karl (2006): Competitiveness: from a dangerous obsession to a welfare creating ability with positive externalities. *Journal of industry, competition and trade*, 6, 161-177.
[30] Draghi, Mario (2024b): The Future of European Competitiveness. Part B | In-depth analysis and recommendations p. 5-7. Online: https://commission.europa.eu/document/download/ec1409c1-d4b4-4882-8bdd-3519f86bbb92_en?filename=The%20future%20of%20European%20competitiveness_%20In-depth%20analysis%20and%20recommendations_0.pdf
[31] Statista (2024): Global electricity prices - statistics & facts. Online: https://www.statista.com/topics/10726/global-electricity-prices/#topicOverview

0.089 and 0.137 per kWh, respectively.[32] Leveling energy prices should be a priority for the EU as it is the foundation for a viable industry that can produce goods and services for both domestic and international markets. Inevitably, this would require major investment in infrastructure.

Additionally, given the emphasis on energy transition, the EU will need to face another challenge: ensuring the necessary critical raw materials and rare earth elements. Currently, China accounts for 60% of global rare earth oxide production, while the US accounts for 16%, and China's overall supply is estimated at 80-100% of the global market.[33] The energy transition will have to deal with substituting the necessary minerals, diversifying the supply, and establishing a supply chain independent of China. The difficulties arising from these highlight that the greatest challenges currently faced by the EU are more geopolitical and geoeconomic than those purely defined by productivity. To overcome these challenges, the EU must build viable relationships with a wide variety of countries, even if their political orientations and values might not align.[34] Ultimately, this could be a significant political challenge.

Investments and improvements in the areas mentioned above are the basis for a viable industry and to meet the basic needs of the European population. However, improving process competitiveness cannot stop here, or these investments will likely fall short of the expected returns. According to the Draghi report, currently, there is a 20% gap in TFP/MFP levels between the EU and the US,[35] but the author does not elaborate on its details and simply concludes that it is due to a lack of technological advancements.

Multifactor productivity is the overall efficiency with which labor and capital inputs, such as technology, are used together in the production process. Growth in MFP is measured as that part of GDP growth that changes in labor and capital inputs cannot explain.[36] In other words, if labor and capital inputs remain unchanged for a certain period, changes in output would reflect changes in MFP. Management practices, brand names, organizational change, general knowledge, network effects, spillovers from production factors, adjustment costs, economies of scale, imperfect competition, and measurement errors all affect MFP. The drivers of MFP can be listed in three main groups. Firstly, factors related to innovation, knowledge, and technologies, such as applied research, development, and digitalization. Second, the ones that contribute to the diffusion of existing skills and qualifications and the use of public infrastructure. Lastly, the ones related to management and the distribution of resources across sectors, such as financial development, business dynamics, and external market factors.

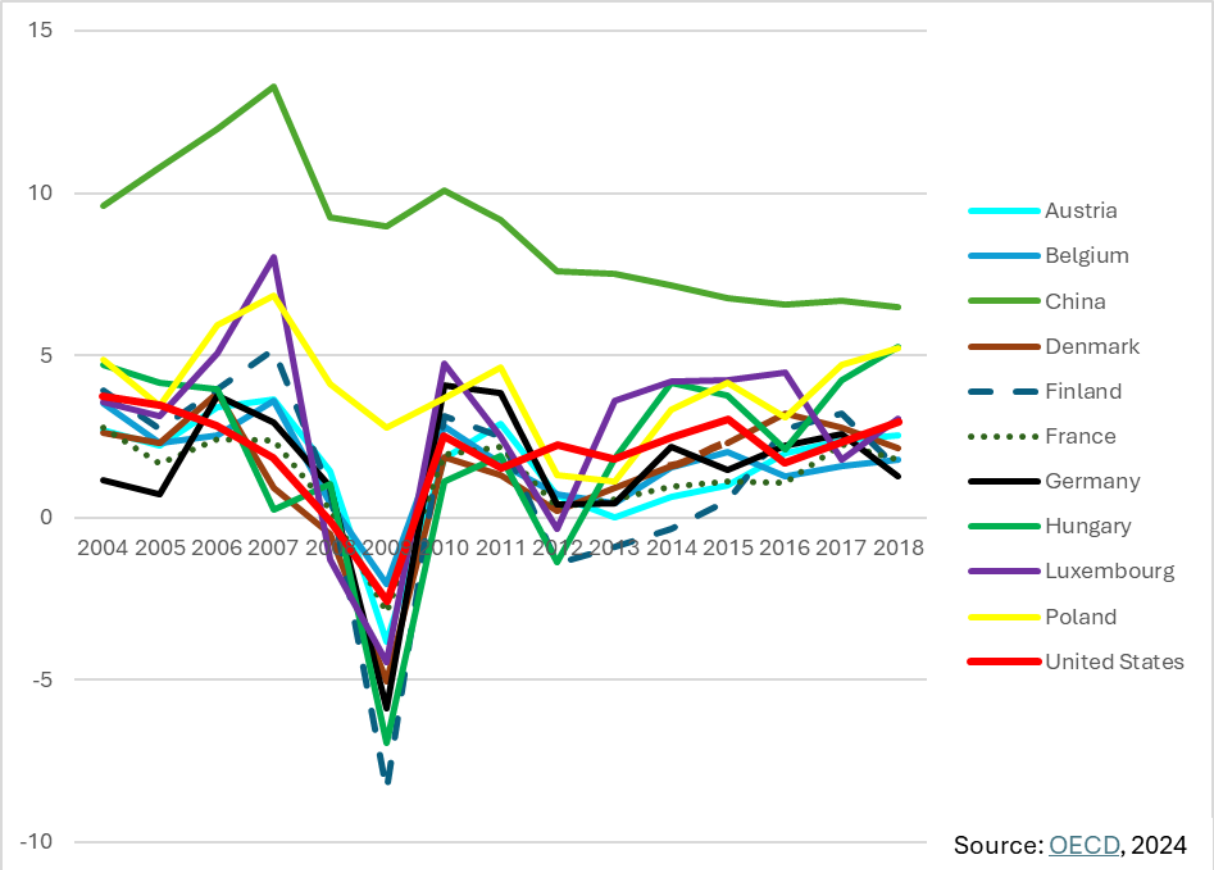
Given the EU's environmental goals, an increase in MFP that harms the environment would not be acceptable. Therefore, a measurement that considers environmental damage would be a more accurate measure to assess any increase in MFP. The OECD's database on environmentally adjusted

[32] Global Petrol Prices (2024) Online: https://www.globalpetrolprices.com/electricity_prices/#hl115
[33] Depraiter, Lisa and Stephane Goutte (2023): "The role and challenges of rare earths in the energy transition." *Resources Policy*, 86.
[34] Packroff, Jonathan (2023): Commission trade chief: EU cannot only trade with 'like-minded countries'. Euractiv. Online: https://www.euractiv.com/section/economy-jobs/news/commission-trade-chief-eu-cannot-only-trade-with-like-minded-countries/
[35] Draghi, Mario (2024b): p. 283.
[36] OECD (2024): Multifactor productivity. Online: https://www.oecd.org/en/data/indicators/multifactor-productivity.html

multifactor productivity (EAMFP) growth measures the residual growth in the joint production of both the desirable and the undesirable outputs that cannot be explained by changes in the consumption of inputs (including labor, produced capital, and natural capital). For a given growth of input use, EAMFP increases when GDP increases or when pollution decreases.[37] Therefore, it is a suitable index for measuring process competitiveness as it accounts for pollution or serious damage to the environment.

OECD does not provide data for the EU as a block. However, US, China, and EU Member States data is provided until 2018. Some of the major EU economies and the ones widely considered competitive,[38] such as Denmark and Luxembourg were selected. As such, only some of the MS data was examined and compared, as shown in Figures 8. and 9.

Figure 8. Environmentally adjusted multifactor productivity, GDP growth rate, US, China, and selected EU MSs



The data shows that EAMFP expressed in GDP growth rate in the US does not have outstanding values when compared to several EU MSs; however, the line seems to be more stable than, for example, Finland's trends. While both EU MSs and the US significantly lost their EAMFP during the

[37] OECD (2024): Environmentally adjusted multifactor productivity. Online: https://data-explorer.oecd.org/vis?df[ds]=DisseminateFinalDMZ&df[id]=DSD_EAMFP%40DF_EAMFP&df[ag]=OECD.ENV.EPI&dq=.A.EAMFP_G.&pd=2010%2C&to[TIME_PERIOD]=false

[38] IMD (2024): World Competitiveness ranking. Online: https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-competitiveness-ranking/rankings/wcr-rankings/#_tab_List

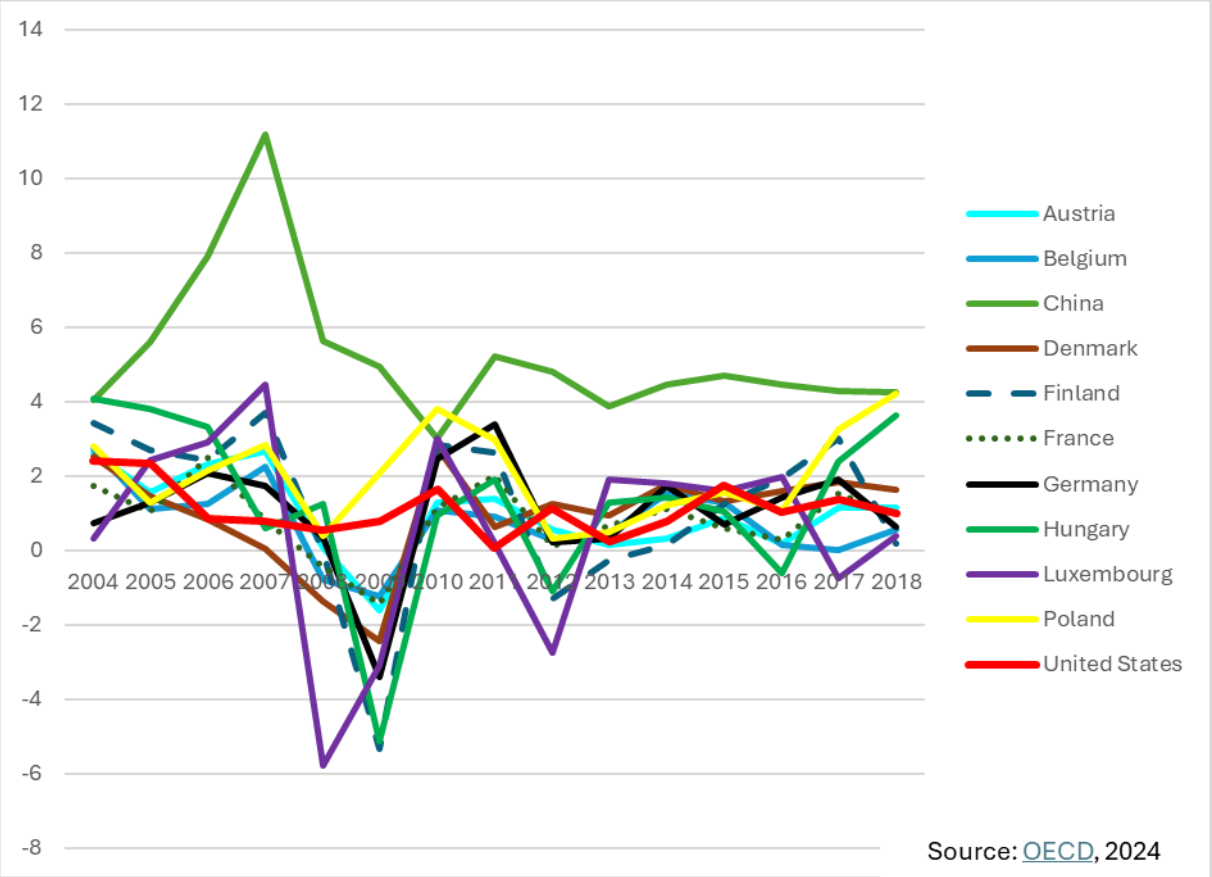
financial crisis in 2008-2009, the extent was quite different among the examined states: Finland, Hungary, and Germany were hit the hardest, having between -8.41 and -5.86 percentage change compared to the previous year while the US's decrease was 2.56 percentage. In contrast, Poland managed to increase its GDP growth rate by 2.79 percentage points, which looks minimal next to China's 8.98 percentage points growth. The sharp Europe-wide drop in 2009 shows how the international financial markets have had a much stronger effect on the European MFP than the US or China. China's EAMFP values are much higher than those of the EU and the US, though they show a notable decline, likely attributable to a combination of increased pollution[39] and its decline in MFP.

The sharp fluctuations in the EAMFP of the European Member States, contrasted with the US's steadier trend, are hard to explain solely to a lack of technological advancements, as Draghi suggests. If that were the case, we would likely see a constant decline in the EAMFP values of the MSs with more moderate ups and downs. However, the majority of MSs' values show abrupt downturns and sudden increases, followed by additional dips. This pattern is much better explained by the vulnerability of the European economy to adverse business dynamics and negative external market factors – in other words, factors related to resource allocation and management. It seems that EU economies are likely to be less flexible and responsive to the external environment compared to the US or China.

When reviewing the trends of the EAMFP growth rate, as shown in Figure 9., the difference between the US and the EU MSs is even less remarkable, apart from a slightly smaller decline in the US's growth when compared to most EU MSs. However, China's growth rate seemed to fall drastically from 2007 to 2010, before starting a slow recovery. While the data is available only until 2018, the difference between the EAMFPP growth rates between China (6.48%), the US (2.95%), and some EU MSs (notably Poland and Hungary with 5.21% and 5.25%) is much lower than the Draghi report suggests.

[39] Yanzhong Huang (2024): China's Battle Against Air Pollution: An Update. Council on Foreign Relations. Online> https://www.cfr.org/blog/chinas-battle-against-air-pollution-update

Figure 9. Environmentally adjusted multifactor productivity growth rate, US, China, and selected EU countries



Considering this, the current prioritization of plans regarding investment in cutting-edge technology, research and development, and digitalization would not address the underlying structural problems. Consequently, investments are likely to have a lower return on investment than expected. EU companies appear to be adapting much more slowly to the markets' challenges than their competitors. To counter this challenge, decreasing bureaucracy for companies, lifting administrative burdens, and increasing the ease of doing business in Member States should be prioritized above all.

Another aspect of process competitiveness addresses the resource allocation for various projects. As such, one area where process competitiveness could be increased is the management and allocation of resources related to the cohesion policy, which is in need of major reform.[40] The funds' main goal is to support less developed European regions to reduce the economic, social, and territorial disparities that still exist within the EU. Current policies tend to fund unsustainable projects and services that are not viable without continued support, and resources do not reach those entities most in need. A comprehensive reform could contribute to increasing process productivity and reconciling the apparent contradiction between development-oriented strategies and distribution-oriented strategies.

[40] Máthé, Réka (2024): A fejletlen régiók problémái. *Ludovika.hu*. Online: https://www.ludovika.hu/blogok/ot-perc-europa-blog/2024/07/19/a-fejletlen-regiok-problemai/

A second aspect of resource allocation should address current state aid policies, considering how they are practiced in the USA and China,[41] and aim to offer a comparable response. Policies accelerating capital market union and encouraging public and private investments into key industries are welcome in this sense. Additionally, joint programs to provide critical goods and services and strengthen the European supply chain should be prioritized.

Lastly, certain aspects of outcome competitiveness should be addressed, namely, creating and ensuring the safety and security of EU residents. The supply shortages experienced during the COVID-19 pandemic have pointed out the vulnerability of supply chains in several critical industries; these should also be rebuilt and strengthened. Similarly, the difficulty of providing one million artillery rounds to Ukraine in one year[42] highlights the weakness and limitations of Europe's defense industry capacity. Building up a common European defense program and structure might be a sensitive political issue, but fragmentation in this sector reduces outcome competitiveness.

A rarely addressed issue of competitiveness is the safety of residents as expressed in crime rates. These rates reflect the extent to which individuals feel that their property is protected and their freedom of movement is unrestricted, such as feeling safe when walking home at night. A high level of personal safety can be regarded as a metric of competitiveness, as it demonstrates a robust social contract and social cohesion – both necessary for a thriving economy and social well-being.

In conclusion, current narratives, strategies, and policy proposals aiming to improve the EU's competitiveness lack a clear definition for the term. Most initiatives focus on the need to improve the results of certain econometric indicators, such as trade balance, GDP growth or productivity. However, changes in these indicators alone does not necessarily contribute to an increase in the socioeconomic status of the residents. In other words, focusing on the undefined "competitiveness" of the EU might not result in tangible benefits for the EU's residents. The following section provides policy suggestions using a more comprehensive definition of competitiveness.

Policy recommendations

Looking at the geopolitical landscape and the EU's decreasing role in it, increasing the EU's competitiveness is a sound policy objective. However, using the wrong measures when assessing competitiveness can make it easy to lose sight of important aspects. Competitiveness might mean an increased share in world trade or improved productivity, however, focusing on these outcomes might not necessarily lead to an increase in social and economic well-being for the majority of the EU's population.

In this sense, the paper proposes a more comprehensive definition for "competitiveness": the ability to create and assure security and welfare to the individuals living in its territory, both as an outcome and as a process, by meeting the needs of domestic and international markets.

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[41] See US Congress (2022): H.R.5376 - Inflation Reduction Act of 2022, Online: https://www.congress.gov/bill/117th-congress/house-bill/5376/text and Bickenbach, Frank, Dirk Dohse, Rolf J. Langhammer, and Wan-Hsin Liu (2024): "EU Concerns About Chinese Subsidies: What the Evidence Suggests." *Intereconomics* 59 (4), pp. 214-221.

[42] Brzozowski, Alexandra (2024): EU months late on one million ammunition target for Ukraine. *Euractive*. Online: https://www.euractiv.com/section/defence-and-security/news/eu-months-late-on-one-million-ammunition-target-for-ukraine/

Outcome competitiveness, therefore, should be evaluated through several indicators reflecting living standards, the distribution of created wealth, employment rates, hours worked, the degree of potential environmental damage, as well as the security and safety of residents. Process competitiveness, on the other hand, should focus on evaluating the efficiency with which the different types of capital are used. Measuring process competitiveness in environmentally adjusted multifactor productivity allows keeping track of measures on environmental protection while improving productivity. In this sense, when aiming for competitiveness, the following policy priorities are proposed:

- The EU should aim for both outcome and process competitiveness. Maintaining welfare and offering security should be the aim of the policies, not the increase of various abstract econometric indexes.
- Investments in infrastructure to lower energy prices are a must. The EU should leverage its market size to obtain better energy prices. Similarly, investments in strategic technologies and harmonizing European industrial policies to address energy supply challenges should be prioritized.
- Diversifying the supply chains needed for the energy transition and the green transition might be a more difficult task without building relationships with resource-rich countries. Without this, the EU's most energy-demanding industry is unlikely to meet even the internal market's demands. Tackling this challenge requires the adoption of realpolitik in the EU's foreign policies.
- Investments, technological advancements, and training – in other words, increasing input will not suffice to effectively increase European outcome competitiveness. The EU needs to learn how to achieve more, with less – and first focus on its process competitiveness. Lifting administrative burdens for European businesses would allow business actors to respond more rapidly to market changes and adapt their management practices.
- Factors related to resource allocation and management should be addressed in reforming cohesion policies and focusing on sustainable and viable business ideas so that it can address challenges of development versus distribution-oriented strategies.
- Building up a common European defense program and structure might be a sensitive political issue; nonetheless, fragmentation of the defense industry leads to low outcome competitiveness.
- The coordination of the EU's industrial strategy, especially in the fields where market failure is predominant, should contribute to an increase in process competitiveness.
- Migration policies should consider the safety aspects of outcome competitiveness.