JOURNAL OF SMART ECONOMIC GROWTH
www.jseg.ro ISSN: 2537-141X Volume 11, Number 2, Year 2026

# THE ECONOMIC IMPACT OF THE EUROPEAN GREEN DEAL AND SUSTAINABILITY LEGISLATION IN THE EUROPEAN UNION IN 2026

Laura Caban, Comenius University, Bratislava

laura.caban@fmph.uniba.sk

**Abstract:** *The European Union is currently facing several economic challenges, increased geopolitical risk, rising inflationary pressures, energy insecurity, and increasing global competition. The aim of this paper is to analyze the impact of the European Green Deal, the Recovery Plan, and the transition to a sustainable economy on the European Union's economic position in the context of current economic developments. In this research, we identify the main opportunities that sustainable finance offers for economic development, as well as the challenges related to the regulatory burden, energy security, and the European Union's ability to maintain a competitive position in the global economy. Based on an analysis of current reports and strategic documents from the European Commission, the ECB, the OECD, and others, this paper assesses the benefits and challenges associated with the green transition. The results suggest that the Green Deal functions more as a tool for the EU's long-term geopolitical and regulatory positioning than as a short-term effective tool for industrial competitiveness.*

**JEL classification:**

**Key words:** European Green Deal, Sustainable Development, Economic Growth, Green Transition, Competitiveness

## 1. INTRODUCTION

Environmental protection, together with the increasing risks associated with climate change, has become one of the most pressing global challenges. As a result, the pressure to reduce greenhouse gas emissions, use natural resources more efficiently, and support other forms of sustainable development is increasing. In response to these challenges, the European Union unveiled the European Green Deal strategic plan in 2019, whose main goal is to achieve climate neutrality in the EU by 2050 (European Commission, 2019). The financial sector plays a significant role in this process by supporting sustainable investments and financing projects that contribute to sustainable economic growth. According to the OECD (2024), this involves integrating environmental, social, and governance (ESG) factors into the decision-making

processes of companies and financial institutions to address climate-related and other sustainability risks more effectively. For this reason, several legislative measures have been adopted at the European Union level to foster the growth of sustainable (green) finance, such as the SFDR (Sustainability Disclosure Regulation for Financial Services), the CSRD (Corporate Sustainability Reporting Directive), and the ESRS (European Sustainability Reporting Standards). The goal of these tools is to increase the transparency of financial markets and reduce the risk of greenwashing (Zoller, 2026). Despite significant progress, however, the implementation of the European Green Deal also presents several challenges. The aim of this paper is therefore to analyze the role of sustainable finance in the context of the European Green Deal and to identify the main opportunities and challenges associated with the implementation of the current regulatory framework. It also aims to highlight existing gaps regarding the implications of the green transition for the European Union's long-term competitiveness and economic resilience.

## 2. THE CURRENT SITUATION IN EUROPE

Since the adoption of the European Green Deal in 2019, the economic environment of the European Union has changed significantly. The COVID-19 pandemic, the war in Ukraine, the energy crisis, rising inflation, and broader global economic developments have created new conditions for the implementation of sustainability policies. These developments have affected economic growth, energy security, investment activity, and the overall competitiveness of the European economy. According to the ECB (2026), accelerating the transition towards a climate-neutral economy can strengthen the European Union's economic resilience.

At the same time, the green transition represents one of the most ambitious economic and technological transformations in recent decades. Its implementation is influenced by a range of economic, political, and institutional factors. Among the most important challenges are the pricing of carbon emissions, increasing investment needs, regulatory complexity, and access to financing for sustainable projects (ECB, 2026).

The European Union currently relies on several policy instruments to support its climate objectives, including the EU Emissions Trading System (EU ETS), ETS 2, and the Carbon Border Adjustment Mechanism (CBAM). While these measures are intended to accelerate decarbonization, concerns have also emerged regarding administrative burdens, regulatory

uncertainty, energy costs, and the competitiveness of European industry. At the same time, substantial investment will be required to support the development of renewable energy sources, hydrogen technologies, smart grids, and other low-carbon technologies.

Discussions regarding the economic and social consequences of the European Green Deal have therefore become increasingly prominent (SEI, 2025). Concerns related to agricultural production, energy prices, inflationary pressures, and industrial competitiveness have contributed to the reassessment of several environmental measures and the modification of certain legislative proposals. Nevertheless, the European Commission continues to view sustainable investment and clean technologies as essential drivers of long-term economic growth, energy security, and climate neutrality.

The following sections discuss the main factors shaping the current situation in Europe, including geopolitical uncertainty, regulatory pressures, inflation, environmental challenges, and the potential benefits associated with the green transition.

## 2.1 GEOPOLITICAL UNCERTAINTY AND ENERGY SECURITY

According to the ECB (2026), geopolitical conflicts in recent years have significantly affected the economic development of the European Union and highlighted its continuing dependence on fossil fuel imports. Following the energy crisis triggered by Russia's invasion of Ukraine, the conflict in the Middle East has introduced an additional source of uncertainty. Rising tensions have affected oil and natural gas prices, disrupted global supply chains, and increased volatility in financial markets. At the same time, these developments have reinforced the strategic importance of energy security and accelerated efforts to strengthen the EU's energy resilience through the diversification of energy sources, the expansion of renewable energy capacity, investments in critical energy infrastructure, and the modernization of energy networks. Reducing dependence on imported fossil fuels has therefore become not only an environmental objective but also an important economic and geopolitical priority. Reflecting these risks, the Eurosystem's updated projections from June 2026 revised economic growth expectations for the euro area downward for 2026 and 2027, while the inflation outlook was adjusted upward. The persistence of geopolitical tensions may therefore continue to create inflationary pressures and weigh on economic activity across the European Union.

**Figure 1** illustrates real data from Eurostat showing the macroeconomic effects of the recent escalation of the conflict in the Middle East. The results shown in the graph suggest that if the conflicts in Ukraine and the Middle East continue, they may generate risks associated with rising inflation and higher energy prices.

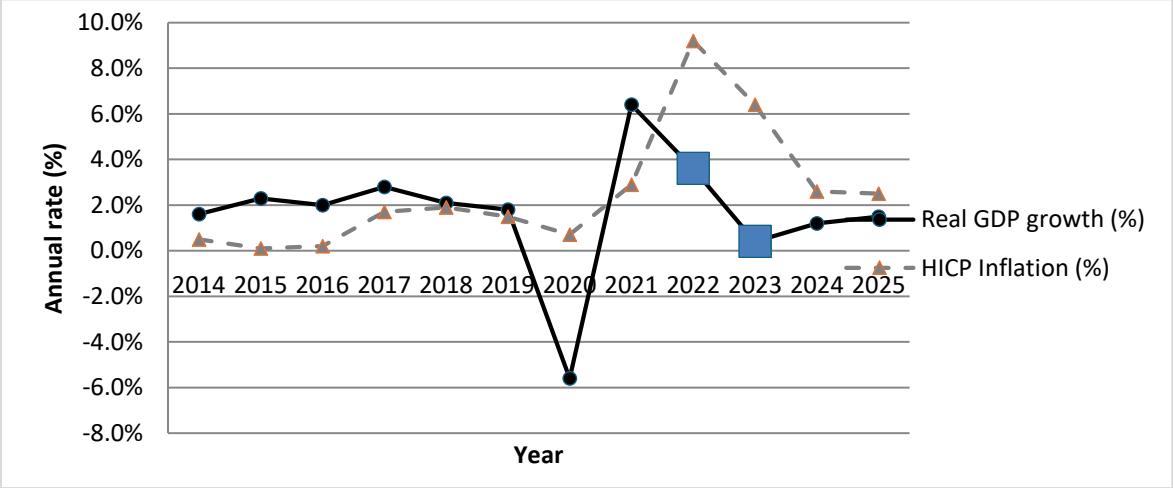


**Figure 1.** Real GDP Growth and HICP Inflation in EU (2014 – 2024)

*Note: Highlightes markers (■) indicate Russia´s invasion of Ukraine (February 2022) and the escalation of the Israel-Hamas conflict in the Middle East (October 2023).* ***Source:*** *Author based on Eurostat* ***(****Dataset codes: tec00115 & prc_hicp_aind****)***

## 2.2 REGULATORY PRESSURE AND MARKET TRANSFORMATION

a comprehensive set of legislative and regulatory measures aimed at promoting sustainable growth, sustainable finance, and greater market transparency. Key pillars include the SFDR, the European Taxonomy, the CSRD, the CSDDD, and other initiatives designed to reduce greenwashing and improve the quality and comparability of sustainability-related information. According to the ECB (2026), the implementation of these measures is taking place in an environment characterized by slowing economic growth and increasing international competition from major economies such as the United States and China. Growing pressure from businesses and several Member States has therefore led the European Union to reassess selected legislative measures and reporting requirements (Zoller, 2026). Small and medium-sized enterprises (SMEs) have been particularly affected, as the increasing scope of disclosure

obligations and regulatory requirements may create additional administrative and financial burdens that can constrain investment activity.

These developments are closely linked to the growing importance of environmental, social, and governance (ESG) factors, which have evolved from a voluntary corporate responsibility concept into an important component of investment decision-making, risk management, and corporate strategy. As a result, the adoption of sustainability-related regulation has contributed to significant changes in the functioning of European financial markets and the sustainable finance sector.

### 2.3 INFLATION AND ECONOMIC GROWTH

High inflation and rising energy prices represent two of the most significant economic challenges currently facing the European Union, prompting a tightening of monetary policy. In the context of the global transition to a low-carbon economy, new forms of inflation have emerged. Based on the several sources (ECB, 2026; SUERF, 2026), the European Green Deal, along with the green transition, is influencing inflation, and this phenomenon is often referred to as "greenflation". According to (Misztal, 2026), we define greenflation as inflation driven by the transition to a sustainable and low-carbon economy. Key factors include higher costs associated with meeting environmental and ESG requirements, limited availability of green technologies, and increased demand for Critical Raw Materials (CRMs). According to (SUERF, 2026), the transformation of the energy system requires the reallocation of capital, the modernization of infrastructure, and the introduction of new technologies, which in the short-term increases investment spending and creates additional inflationary pressures. Similarly, the European Commission notes that meeting the 2030 climate targets will require securing additional investments of 477 billion euros annually, with total investments in the energy transition reaching approximately 7.8% of the European Union's GDP. Despite the short-term costs (ECB, 2026), it emphasizes that the green transition is already yielding positive economic effects like growing investment in clean technologies. In the long term, the green transition can support economic stability and the resilience of the European economy to future geopolitical shocks.

## 2.4 ENVIRONMENTAL PARADOXES

Despite the positive objectives of the European Green Deal, its implementation is accompanied by several environmental, technological, and social paradoxes. One of the most significant challenges is the material intensity of the green transition. The expansion of electromobility, battery storage systems, wind power plants, and photovoltaic technologies requires increasing quantities of critical raw materials, particularly lithium, cobalt, nickel, copper, graphite, and rare earth elements. According to Davis (2021), the European Union faces a so-called "green paradox": while the Green Deal promotes rapid electrification and a large-scale expansion of battery production, domestic mining projects for critical raw materials frequently encounter strong public opposition due to environmental concerns. As a result, the EU remains highly dependent on imports, shifting part of the environmental and social burden associated with resource extraction to countries such as Chile, Argentina, China, and Indonesia.

Another paradox concerns biodiversity protection. Despite extensive environmental and climate policies, the condition of many European ecosystems remains unsatisfactory (EEA, 2025). The European Environment Agency reports that numerous terrestrial and aquatic ecosystems remain under pressure, while several bird species continue to face a high risk of decline. Although progress has been achieved in some areas, biodiversity loss remains a major environmental challenge within the European Union. In addition, the deployment of renewable energy infrastructure may itself create environmental trade-offs. Large-scale solar installations require extensive land use and may contribute to habitat conversion and landscape fragmentation, while poorly located wind farms can increase mortality among birds and bats through collisions or barotrauma.

A further paradox relates to greenhouse gas emissions. According to the International Energy Agency (IEA, 2025), global $CO_2$ emissions increased by approximately 1% in 2024 despite continued growth in renewable energy generation, electric vehicles, heat pumps, and nuclear energy. Rising global energy demand, economic recovery, and the ongoing use of fossil fuels have offset part of the emissions reductions achieved through clean technologies. This illustrates that technological progress alone may not be sufficient to achieve climate objectives unless it is accompanied by broader structural changes in energy production and consumption patterns. At the same time, it highlights the challenge of reconciling economic growth with environmental sustainability.

## 2.5 BENEFITS OF GREEN TRANSITION

A gradual transition to a low-carbon economy is expected to create new investment opportunities, foster technological innovation, and improve resource efficiency (ECB, 2026). The European Commission argues that integrating environmental principles into corporate strategies enables more effective risk management and enhances companies' ability to respond to changing economic and climate conditions. Preserving biodiversity and natural resources also contributes to long-term economic stability. According to the ECB (2026), another important benefit is improved operational performance resulting from investments in energy efficiency and the more efficient use of material resources. The European Commission (2026) further highlights the importance of nature-based solutions (NbS), which represent a cost-effective approach to climate change adaptation. Such measures include wetland restoration, urban tree planting, green roofs, and the revitalization of coastal systems. Investments in NbS are intended not only to reduce future environmental and economic damage but also to strengthen the resilience of cities and communities to the impacts of climate change.

In this section, we focus on currently observable developments rather than future projections, as the modernization of energy infrastructure is already producing measurable results. According to the European Commission, emissions from the electricity generation sector decreased by approximately 12% in 2024 compared to the previous year, primarily due to the growing contribution of renewable energy sources and nuclear power. At the same time, renewable energy accounted for approximately 47% of total electricity generation in the European Union, representing the highest share ever recorded. These developments indicate that investments in modern energy systems are delivering not only environmental benefits but also improvements in energy efficiency, security of supply, and the long-term competitiveness of the European economy.

Furthermore, Naturgy (2025) highlights the reform of the EU ETS emissions trading system under the Fit for 55 package as one of the European Union's key economic instruments for supporting decarbonisation. Available data indicate measurable progress in reducing emissions across regulated sectors. Emissions in sectors covered by the EU ETS were approximately 50% lower in 2024 than in 2005, while a further 5% reduction was achieved between 2023 and 2024 alone (EEA, 2025). The European Commission therefore considers the EU ETS to be one of

the most effective instruments for reducing greenhouse gas emissions and notes that the Additional benefits are reflected in declining energy production costs. According to the ECB (2026), the levelized cost of electricity generated from onshore wind and solar photovoltaic systems has fallen substantially across major EU economies since 2010, decreasing from approximately USD 0.16/kWh to USD 0.05/kWh for onshore wind and from around USD 0.40/kWh to approximately USD 0.05/kWh for solar photovoltaics.

## 3. FINANCIAL ASPECTS OF THE EUROPEAN GREEN DEAL

The European Green Deal is significantly transforming the functioning of the European Union's financial system. The regulatory framework for sustainable finance has been developing for more than a decade, building on early initiatives such as the European Commission's work on green bonds and the subsequent Action Plan on Financing Sustainable Growth. However, the success of the green transition depends not only on the adoption of ambitious environmental objectives but also on the ability of financial markets to efficiently channel capital towards sustainable investments. Sustainable finance has therefore become one of the key instruments supporting the decarbonisation of the economy by linking environmental objectives with the investment decisions of financial institutions, investors, and businesses (Christie, 2026).

In the context of the European Green Deal, ESG investments play a significant role, their importance has grown substantially in recent years, and they have become an integral part of financial markets. According to Zoller (2026), ESG investments offer several economic opportunities for the economic development of the European Union. Opportunities presented by ESG investments, which can positively impact not only the performance of individual companies, but also broader economic development include improved risk management, stronger corporate resilience to economic change, and increased investment in the circular economy (ECB, 2026). Companies that systematically take environmental, social, and governance factors into account are generally better prepared to respond to changing market conditions, regulatory requirements, or climate risks (OECD, 2022). A large body of research suggests that the better a company's ESG practices, the higher its financial performance. Furthermore based on OECD (2022), there is a positive correlation between high ESG ratings and metrics such as ROA, ROE, and stock price performance. From an investor's perspective,

the reviewed studies concluded that 33% of portfolios that take ESG risks into account achieved better risk-adjusted performance (e.g., as measured by the Sharpe ratio).

One of the main financial instruments supporting the implementation of the European Green Deal is green bonds, through which governments, financial institutions, and companies raise capital to finance environmentally sustainable projects. In financing the *NextGenerationEU* programme, the European Union has applied ICMA principles and, by April 2026, had issued more than EUR 80 billion in green bonds, making it one of the world's leading green bond issuers (Christie, 2026). The growing importance of sustainable finance is also reflected in the increasing share of green bonds and green investments across the European Union. At the same time, the shift of capital towards environmentally sustainable activities has generated higher demands for regulation, certification, and transparency, increasing compliance costs for both issuers and investors. In response to these concerns, the European Union introduced the Omnibus initiative in 2025 with the objective of simplifying sustainability reporting requirements (Zoller, 2026). A significant contribution to the financing of green transition objectives has also been provided by the *NextGenerationEU* (NGEU) programme, under which the European Commission committed to mobilizing substantial resources to support sustainable investments and climate-related projects (European Commission, 2026).

**Figure 2** shows the evolution of selected sustainability-related indicators in the European Union between 2014 and 2024, namely the annual change in greenhouse gas (GHG) emissions, the share of green investments, and the share of green bonds in total bond issuance. The observed trends suggest a substantial increase in sustainable financing activities, especially in green bond issuance and green investment, during this period. At the same time, greenhouse gas emissions continued to exhibit notable fluctuations, indicating that the relationship between the expansion of sustainable finance and environmental outcomes remains complex. All indicators are reported on an annual basis to ensure comparability and to facilitate the identification of long-term developments related to sustainable investment and environmental sustainability in the European Union.

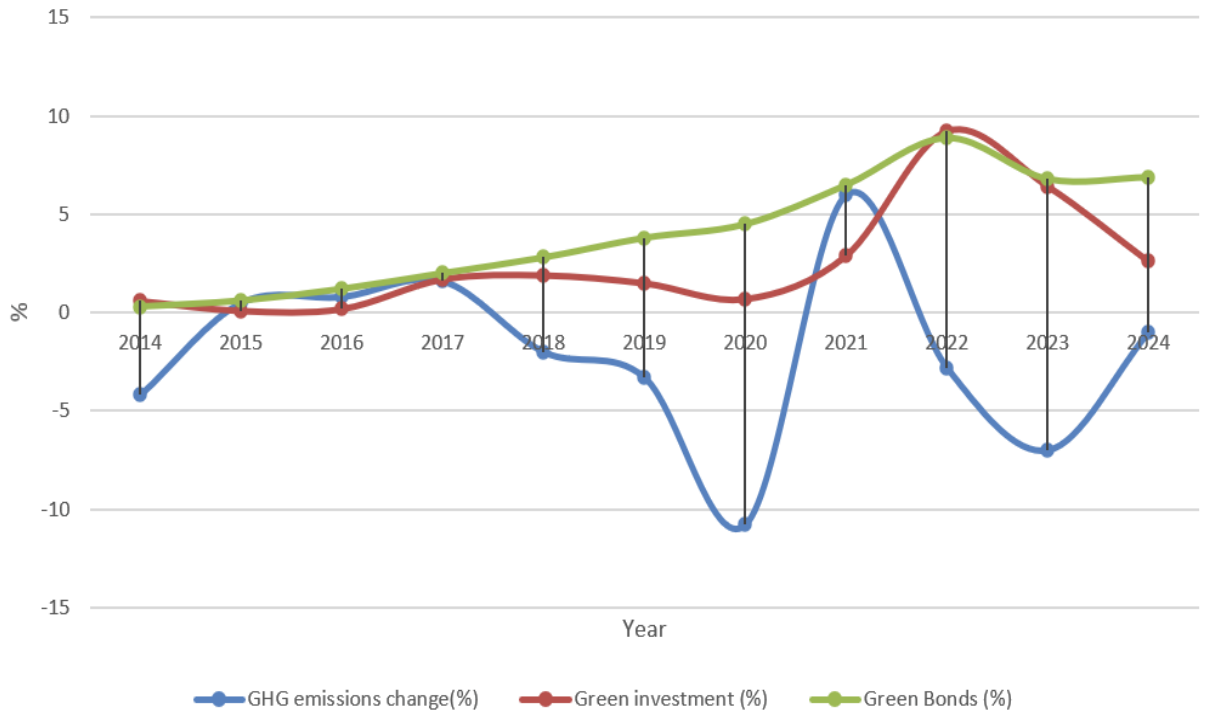


**Figure 2.** GHG emissions change, Green investment and Green bonds (average % in EU) (2014–2024)

*Source: Compiled by the author based on data from Eurostat, the ECB, and the EE*

## CONCLUSIONS

The findings indicate that the implementation of the European Green Deal is associated with both significant opportunities and substantial challenges for the European Union. While the transition towards a low-carbon economy has accelerated investment in renewable energy, sustainable finance, and clean technologies, it has also increased financing needs, regulatory requirements, and concerns regarding industrial competitiveness. The analysis suggests that sustainable finance has become an important instrument for supporting the green transition by directing capital towards environmentally sustainable activities and facilitating investment in climate-related projects.

Based on the data from IMF (2026), the information presented throughout this paper, and the analysis provided by ECB (2026), we draw the following conclusions regarding the impact of the European Green Deal on the EU's competitiveness in the global green transition:

1. The Green Deal has strengthened the EU's role as a global leader in sustainability regulation and environmental standards through initiatives such as the EU Taxonomy, ESG reporting requirements, and the development of the green bond market.
2. The Net Zero Industry Act has failed to compete financially with the scale of U.S. and Chinese industrial policy. This may limit the pace of development of selected strategic industries and clean technologies within the European Union.
3. Regulatory and technological leadership - the EU has set global standards (taxonomy, green bonds, ESG reporting).
4. Structural dependence on China: The EU remains heavily dependent on Chinese supply chains for key components of the green transition, importing approximately 98% of its solar panels and 88% of its lithium-ion batteries. This dependence extends beyond final products to upstream stages of the value chain.
5. The EU has allocated approximately 578 billion euros (about one-third of its total budget) to climate goals through the temporary Recovery and Resilience Facility (RRF) for the period 2021-2026, while the Green Deal has brought only limited improvements since in emission reductions, energy efficiency and biodiversity protection in 2021. (Moutii, 2026).

The European Green Deal has strengthened the EU's long-term competitiveness compared with previous years, particularly through regulatory and technological leadership (standards, taxonomy, green bonds). At the same time, however, it has weakened the short-term competitiveness of traditional industry relative to the U.S. and China, which rely on cheaper or less regulated approaches to decarbonization (ECB, 2026). The EU's effort to build its own green industrial base through the Net Zero Industry Act ultimately failed to compete with the scale of funding provided by U.S. and Chinese industrial policies (Moutii, 2026). The EU's long-term lag in GDP growth relative to the U.S. is a structural problem that predates the Green Deal and reflects broader challenges related to market fragmentation, productivity, innovation, and industrial competitiveness. The Green Deal has likely contributed to higher energy costs in the short term and increased regulatory pressure on industry, particularly in the automotive and agricultural sectors, but it is neither the sole nor the primary cause of these challenges.

As a result, in 2026 the EU is facing growing pressure to slow down or revise selected elements of the Green Deal, including the EU ETS and the planned phase-out of internal combustion

engines by 2035, in the name of preserving short-term competitiveness (Moutii, 2026). This pressure is further amplified by implementation challenges at the Member State level, where the EU Green Policy Tracker identifies capacity constraints resulting from rapid regulatory change and limited policy coherence during implementation (Kappe, K., Mikaelsson, M., A. & Krustok, I., 2025). These findings suggest that institutional and regulatory barriers may be slowing the implementation of Green Deal measures and reducing their overall effectiveness. This raises the broader question of whether the European Union can achieve its climate objectives under the current policy framework and competitive pressures, or whether additional adjustments will be required to ensure a successful transition.

## REFERENCES

Christie, R. (2026). Green finance or financing green? Bridging the EU's sustainable-finance and capital-market architectures. https://www.bruegel.org/policy-brief/green-finance-or-financing-green-bridging-eus-sustainable-finance-and-capital-market

Costa, M. (2026). Report: ECB´s green operational framework will only have a modest impact. https://greencentralbanking.com/2026/05/20/report-ecbs-green-operational-framework-will-only-have-a-modest-impact/

Davis, E.-P. (2021). EU faces green paradox over electric vehicles and lithium mining. https://climate-diplomacy.org/magazine/environment/eu-faces-green-paradox-over-electric-vehicles-and-lithium-mining

Europen Central Bank (ECB) (2026). The green transition – benefits and barriers. https://www.ecb.europa.eu/press/key/date/2026/html/ecb.sp260702~49c4f8e9a6.en.html

European Comission (EC) (2026). The EU Emission Trading System (EU ETS). https://commission.europa.eu/topics/climate-action/eu-emissions-trading-system-eu-ets_en

European Comission (EC) (2024). The European Green Deal. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

European Commision (EC) (2023). *Critical Raw Materials Act*. Brussels, 2023. https://commission.europa.eu/topics/competitiveness/green-deal-industrial-

plan/european-critical-raw-materials-act_en

European Environment Agency (EEA). Nature. Brussels, 2025. https://www.eea.europa.eu/en/topics/at-a-glance/nature

Eurostat (2026). Real GDP growth - volume. [tec00115] Real GDP growth rate - volume

International Energy Agency (IEA) (2025). Global Energy Review 2025. CO2 Emissions. https://www.iea.org/reports/global-energy-review-2025

Iinternational Monetary Fund (IMF) (2026). https://www.imf.org/external/datamapper/PCPIPCH@WEO/CHN/USA/EU

Kappe, K., Mikaelsson, M., A. & Krustok, I. (2025). *The EU Green Deal in turbulent times: insights from the EU Green Policy Tracker from Sweden and Estonia.* SEI Discussion Brief. Stockholm Environment Institute, Stockholm. https://doi.org/10.51414/sei2025.017

Misztal, P. (2026). Energy Price and Greenflation in the European Union. Facts and Challanges. https://doi.org/10.47743/saeb-2026-0007

Moutii, M. (2026). *Europe's Green Deal Is Unraveling*. https://thedailyeconomy.org/article/europes-green-deal-is-unraveling/

Naturgy Fundation (2025). The impact of the Greeen Deal on EU industry: measures taken and future challenges. https://www.fundacionnaturgy.org/en/producto/the-impact-of-the-green- deal-on-eu-industry-measures-taken-and-future-challenges/

Organisation for Economic Co-operation and Development (OECD) (2022). *Climate Change and Corporate Governance*. https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/06/climate-change-and-corporate-governance_551e0831/272d85c3-en.pdf

Organisation for Economic Co-operation and Development (OECD) (2026). *Global Debt Report 2026*.https://www.oecd.org/en/publications/global-debt-report-2026_e9d80efd-en.html

Sitter, N. & Sverdrup, U. (2026). Energy security & geopolitical risk in turbulemt times. https://www.ons.no/energy-security-and-geopolitical-risk-in-turbulent-times

The European Money and Finance Forum (SUERF) (2026). *The impact of the energy transition on EU inflation*. https://www.suerf.org/publications/suerf-policy-notes- and-

briefs/the-impact-of-the- energy-transition-on-eu-inflation/

Zoller, L. (2026). *EU Green Deal under preassure: How ESG investments are changing now.* https://www.aequifin.com/en/blog/how-esg-investments-2026-are-changing-now/