

THE EUROPEAN GREEN DEAL AND ITS IMPACT ON THE ECONOMY OF THE EUROPEAN UNION

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Abstract: *The European Green Deal is the European Union's central framework for linking climate action with long-term economic transformation. Introduced in 2019, it sets out to reshape the EU into a climate-neutral, resource-efficient, and more resilient economy by 2050. This paper examines how that agenda affects the EU economy, with particular attention to renewable energy, industry, agriculture, the circular economy, and pollution control (Fetting, 2020). The analysis uses academic studies together with official EU documents in order to interpret the economic changes associated with the Green Deal. The literature suggests that decarbonization depends heavily on cleaner energy systems and lower-emission production models, but also on substantial capital investment and institutional adjustment across multiple sectors. Overall, the Green Deal appears to create both economic promise and policy strain. It can stimulate innovation, support new employment opportunities, and strengthen competitiveness in emerging green industries, yet it also places pressure on traditional sectors, public budgets, energy prices, and labor-market adjustment processes.*

Key words: *European Green Deal, sustainable development, renewable energy, circular economy, climate neutrality*

JEL: Q56, Q58, O44

Introduction

Climate change and environmental degradation have become defining challenges of the contemporary global economy. Rising greenhouse gas emissions, resource depletion, and the long-term effects of industrial expansion have increased pressure on governments to adopt development strategies that are environmentally sustainable as well as economically viable (Fetting, 2020; Filipović, Lior and Radovanović, 2022).

Against this background, the European Union launched the European Green Deal in 2019 as a broad strategy for transforming its economy. The initiative seeks to combine climate neutrality with economic modernization by promoting lower emissions, higher energy efficiency, and wider use of renewable energy sources by 2050 (European Commission, n.d.; Fetting, 2020).

What makes the Green Deal especially significant is that it extends far beyond environmental regulation. It functions as a cross-sector policy framework that shapes decisions in energy, industry, agriculture, transport, and resource use, generating both economic opportunities and significant transition costs (Ejdys and Szpilko, 2022; Stoian et al., 2023).

This paper therefore aims to assess the Green Deal not simply as an ecological program, but as a driver of economic restructuring within the European Union. By combining official policy material with specialized literature, it examines sectoral change, economic implications, and the main advantages and disadvantages associated with the strategy (Fetting, 2020; Ejdys and Szpilko, 2022).

Basic content

Existing scholarship presents the European Green Deal as a multidimensional project designed to align climate objectives with a new model of economic development. Rather than treating environmental protection as separate from growth policy, the literature increasingly interprets the Green Deal as an attempt to redefine growth itself around sustainability, resilience, and more efficient resource use (Fetting, 2020; Ejdys and Szpilko, 2022).

Systematic reviews of the field show that research on the Green Deal clusters around several major themes, especially energy, circular production, industrial transformation, buildings, mobility, food systems, biodiversity, and pollution. This range of themes illustrates that the strategy affects nearly every major area of economic activity within the European Union (Ejdys and Szpilko, 2022).

Energy transition occupies a particularly prominent place in the literature. Researchers consistently emphasize the strategic importance of renewable electricity, improved efficiency, lower fossil-fuel dependence, and supporting infrastructure such as smart grids and green hydrogen systems for achieving climate neutrality (European Commission, n.d.; Filipović, Lior and Radovanović, 2022).

Another major strand of scholarship focuses on the circular economy and industrial adaptation. In that discussion, resource reuse, waste minimization, eco-design, and cleaner production are presented as essential for reducing environmental impact while improving long-term economic resilience, especially in construction and manufacturing (Bonoli, Zanni and Serrano-Bernardo, 2021; Kuci and Fogarassy, 2021).

Agriculture and biodiversity also feature strongly in the debate, particularly through analysis of the "Farm to Fork" agenda and its relationship to the Common Agricultural Policy. These studies stress that environmental credibility depends not only on emission targets, but also on soil quality, ecosystem protection, and sustainable food production (Cuadros-Casanova et al., 2023).

The literature further suggests that the success of the Green Deal depends on more than formal regulation. Public acceptance, environmental education, and the development of sustainability-related competencies are also important, because long-term transition requires behavioral adaptation alongside institutional reform (Tomassi et al., 2024; Sandri et al., 2025).

This paper adopts a qualitative research design based on document analysis and literature review. Such an approach is appropriate because the European Green Deal is not a single policy instrument, but a broad strategic framework whose economic effects are interpreted through a combination of policy documents, analytical reports, and academic research (Ejdys and Szpilko, 2022; Fetting, 2020). The literature review focused on relevant academic work drawn from recognized databases such as Scopus, Web of Science, and Google Scholar. The selected studies include review articles, theoretical contributions, and empirical analyses dealing with sustainability, climate policy, energy transition, and circular economic models (Ejdys and Szpilko, 2022).

In parallel, official European Union materials were examined in order to identify the Green Deal's institutional logic, policy priorities, and implementation mechanisms. These sources were important for clarifying how the strategy is framed by the European Commission and how it is intended to influence the broader EU economy (European Commission, n.d.; Fetting, 2020).

The analysis proceeded through synthesis and comparison of the collected material. Particular attention was given to areas of agreement and disagreement in the literature, especially where authors differ on the balance between environmental benefits, economic costs, competitiveness, and social fairness (Stoian et al., 2023; Sandri et al., 2025).

An interdisciplinary perspective was necessary because the topic sits at the intersection of economics, environmental policy, industrial transformation, agriculture, and education. This broader lens helps explain why the Green Deal should be understood as a systemic economic transition rather than a narrow environmental package (Ejdys and Szpilko, 2022; Tomassi et al., 2024).

The main limitations of the study arise from its reliance on secondary sources and from the fast-changing nature of EU policy development. Even so, the use of recent and relevant materials makes it possible to outline the main economic tendencies and debates associated with the Green Deal with a reasonable degree of credibility (Sandri et al., 2025; European Commission, n.d.).

The European Green Deal is the European Union's flagship strategy for shifting toward a climate-neutral economy. Presented by the European Commission in 2019, it sets climate neutrality by 2050 as the overarching objective and frames that objective as both an environmental necessity and an economic modernization project (European Commission, n.d.; Fetting, 2020).

The strategy operates across a wide policy range that includes energy, industry, transport, agriculture, and environmental protection. Its core priorities include lowering greenhouse gas emissions, improving efficiency in energy use, and expanding the role of renewable energy within the EU's economic model (European Commission, n.d.; Ejdyś and Szpilko, 2022).

Within the energy sector, the Green Deal promotes a shift away from fossil fuels through renewable generation, infrastructure development, and support for technologies such as green hydrogen. In industry, the same framework encourages cleaner production systems and modernization through low-emission technological change (Filipović, Lior and Radovanović, 2022; Fetting, 2020).

Transport and agriculture are also central to the strategy. Sustainable mobility and electric-vehicle infrastructure are presented as necessary for cutting transport emissions, while the "Farm to Fork" strategy seeks to reduce the environmental footprint of food systems and agricultural production (European Commission, n.d.; Cuadros-Casanova et al., 2023).

At the same time, the Green Deal incorporates biodiversity protection, ecosystem restoration, pollution reduction, and circular resource use. This broader scope shows that the strategy is designed not only to decarbonize production, but also to reshape the relationship between economic activity and the natural environment (Ejdyś and Szpilko, 2022; Kuci and Fogarassy, 2021).

Because of this scale, implementation brings both benefits and pressure points. The Green Deal may stimulate investment, green employment, and innovation, but it also requires costly adaptation and creates adjustment burdens for sectors that have been built around conventional energy and production models (Stoian et al., 2023; Sandri et al., 2025).

The Green Deal affects the EU economy by altering how major sectors produce, consume, and invest. Its influence is structural rather than marginal: the strategy aims not just to reduce emissions, but to change the technological and organizational foundations of economic activity in line with climate-neutrality targets for 2050 and interim reduction goals for 2030 (European Commission, n.d.; Leonard et al., 2021).

Renewable energy sits at the center of the Green Deal's economic transformation agenda. Expanding solar, wind, and other low-carbon sources is essential for reducing fossil-fuel dependence, while new investment in grids, storage, and hydrogen infrastructure is expected to support that transition (European Commission, n.d.; Filipović, Lior and Radovanović, 2022).

Economically, this shift can attract capital, support innovation, and create employment in new green industries. At the same time, it can impose significant transition costs on fossil-fuel-dependent regions, which is why the Green Deal places emphasis on fairness and support mechanisms for vulnerable territories and workers (Filipović, Lior and Radovanović, 2022; Sandri et al., 2025).

Agriculture is another strategic field within the Green Deal, especially through the "Farm to Fork" framework. The strategy encourages reduced use of pesticides and chemical fertilizers, along with production models that are more compatible with climate and biodiversity goals (European Commission, n.d.; Cuadros-Casanova et al., 2023).

From an economic perspective, sustainable agriculture can improve environmental outcomes and strengthen long-term food-system resilience. However, it can also create adjustment costs for farmers, especially where new standards require investment, new knowledge, or shifts in production practices and subsidy structures (Cuadros-Casanova et al., 2023; Sandri et al., 2025).

The circular economy dimension of the Green Deal aims to reduce waste and resource intensity by encouraging recycling, reuse, durability, and better product design. In practical terms, this reorients industrial activity away from linear "produce-use-discard" models and toward more regenerative production systems (Kuci and Fogarassy, 2021; Bonoli, Zanni and Serrano-Bernardo, 2021).

This model can improve competitiveness by lowering dependence on raw-material inputs and stimulating process innovation. Yet its implementation also depends on regulatory consistency, supply-chain adaptation, and investment in recycling systems and new production standards (Kuci and Fogarassy, 2021; Ejdyś and Szpilko, 2022).

Reducing pollution is another core component of the Green Deal, with policies targeting cleaner air, safer water, and healthier soil. The strategy links these goals to industrial emissions control, safer material use, and the wider diffusion of cleaner technologies across the economy (European Commission, n.d.; Ejdys and Szpilko, 2022).

Although these interventions can raise compliance costs in the short term, they may also generate major long-term benefits through better health outcomes, reduced environmental damage, and improved living conditions. The debate in the literature therefore centers on how to balance immediate business costs against wider social gains (Stoian et al., 2023; Sandri et al., 2025).

The Green Deal has broad macroeconomic significance because it frames climate policy as a route to restructuring the European economy. Its core ambition is to separate growth from intensive resource use while maintaining competitiveness under more sustainable conditions (European Commission, n.d.; Fetting, 2020).

Energy transition is central to that process. As the EU reduces fossil-fuel dependence and invests more heavily in renewable systems, the effects extend beyond domestic energy policy into trade relations, industrial costs, and geopolitical positioning within global markets (Leonard et al., 2021; Filipović, Lior and Radovanović, 2022).

At the same time, the strategy is investment-intensive. Financing new infrastructure, technological modernization, and innovation may place pressure on public spending and on how resources are distributed across the wider economy, especially where governments must also preserve social cohesion during transition (Filipović, Lior and Radovanović, 2022; Sandri et al., 2025).

The labor market is also affected in uneven ways. New opportunities can emerge in renewable energy, circular production, and green technology, while employment in more carbon-intensive industries may decline, creating a politically and socially sensitive redistribution of economic opportunity (Stoian et al., 2023; Leonard et al., 2021).

Scholarly discussion of the Green Deal repeatedly shows that large-scale economic transition cannot be evaluated in purely positive or purely negative terms. Its effects are mixed and must be considered through a balanced assessment of environmental gains, economic trade-offs, and social consequences (Stoian et al., 2023; Sandri et al., 2025).

1. Advantages

- The strategy supports environmental protection by lowering emissions and encouraging cleaner air, water, and soil conditions across the European Union.
- It can improve energy efficiency and reduce wasteful resource use, which may lower long-term operating costs and strengthen resilience.
- It creates conditions for green innovation, technological development, and new forms of employment, especially in renewable energy and circular production systems.
- It may also strengthen the EU's international position by presenting Europe as a leader in sustainability-oriented economic governance and environmental policy.

2. Disadvantages

- The transition requires substantial financial commitments, making implementation costly for governments, firms, and some households.
- In the short term, energy prices may rise as systems adjust and new infrastructure is financed, placing pressure on consumers and businesses.
- Stricter environmental rules can create competitiveness concerns for some European companies, particularly when competing with firms operating under weaker standards elsewhere.
- Certain workers and regions may bear disproportionate adjustment costs, especially where traditional industries contract faster than new sectors can absorb displaced labor.
- The transition can also deepen dependence on imported critical materials and global supply chains needed for low-carbon technologies and industrial adaptation.

Conclusions

This paper set out to examine how the European Green Deal influences the economy of the European Union across its major sectors. The evidence reviewed suggests that the Green Deal should be understood not as a limited environmental initiative, but as a broad framework for economic transformation with consequences for production, investment, regulation, and social adjustment (Fetting, 2020; Ejdys and Szpilko, 2022).

The analysis indicates that the strategy relies heavily on renewable energy expansion, efficiency gains, and cleaner industrial processes. These changes are essential for reducing emissions and improving the use of resources, but they also require institutional coordination and sustained financial support if they are to be implemented effectively (European Commission, n.d.; Filipović, Lior and Radovanović, 2022).

From an economic perspective, the Green Deal generates a combination of opportunity and strain. It can promote innovation, strengthen green sectors, and create new employment possibilities, yet it also imposes substantial costs and adjustment pressures on traditional industries, energy consumers, and labor markets (Stoian et al., 2023; Sandri et al., 2025).

For that reason, its long-term success is likely to depend on policy design rather than ambition alone. A transition of this scale requires not only environmental targets, but also credible support for affected sectors, socially balanced implementation, and continued attention to competitiveness within the international economy (Leonard et al., 2021; Sandri et al., 2025).

In conclusion, the European Green Deal marks a major shift in the economic direction of the European Union. Its effectiveness will depend on whether the EU can reconcile environmental objectives with social stability and economic performance while maintaining the broad political and institutional support needed for transition (European Commission, n.d.; Tomassi et al., 2024).

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