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WILL THE GREEN DEAL WEAKEN THE COMPETITIVENESS AND COHESION OF THE EUROPEAN UNION?

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Abstract

The paper focuses on the European Green Deal as a comprehensive long-term economic and social transformation strategy of the European Union. The author compares the expected benefits and potential risks of the European Green Deal, particularly with respect to the timeframe of its implementation, the current and anticipated technological developments required to implement this strategy, and the different approaches of other major economies in the world to green transformation of the economy. The author also analyses the differences in the views and approaches of the EU Member States to the implementation of the European Green Deal, especially in the context of the different structure of economies and the different attitudes towards the shape of the energy mix in various EU Member States. In the final part, the author discusses the possible impacts of the European Green Deal on the competitiveness of the European Union in the global economy as well as on the economic and social cohesion of the European Union.

Keywords

European Union, European Green Deal, Competitiveness, Cohesion

I. Introduction

The European Green Deal, launched in December 2019, represents an ambitious and comprehensive strategy aimed at transforming the European Union (EU) into a modern, resource-efficient, and competitive economy. This far-reaching initiative seeks to achieve climate neutrality by 2050, decouple economic growth from resource use, and ensure that no person or region is left behind in this transition (European Commission, 2019). As the EU embarks on this transformative journey, it is crucial to examine the potential benefits, risks, and challenges associated with the implementation of the Green Deal, particularly in light of the diverse perspectives and approaches within the EU and the global context.

This paper will explore the European Green Deal's implementation timeline, the technological advancements required for its realization, and the varying approaches of other major world economies to green economic transformation. Furthermore, it will analyze the differences in opinions and approaches among EU member states regarding the implementation of the Green Deal, especially considering the diverse economic structures and differing attitudes towards energy mix composition. Finally, the paper will discuss the potential impacts of the European Green Deal on the EU's competitiveness within the global economy and its economic and social cohesion.

II. Implementation timeline and technological challenges

The European Green Deal sets out an ambitious timeline for achieving its goals, with the overarching target of climate neutrality by 2050 (see Figure 1). This long-term objective is supported by a series of intermediate milestones and sectoral targets. One of the most significant interim goals is the reduction of greenhouse gas emissions by at least 55% compared to 1990 levels by 2030

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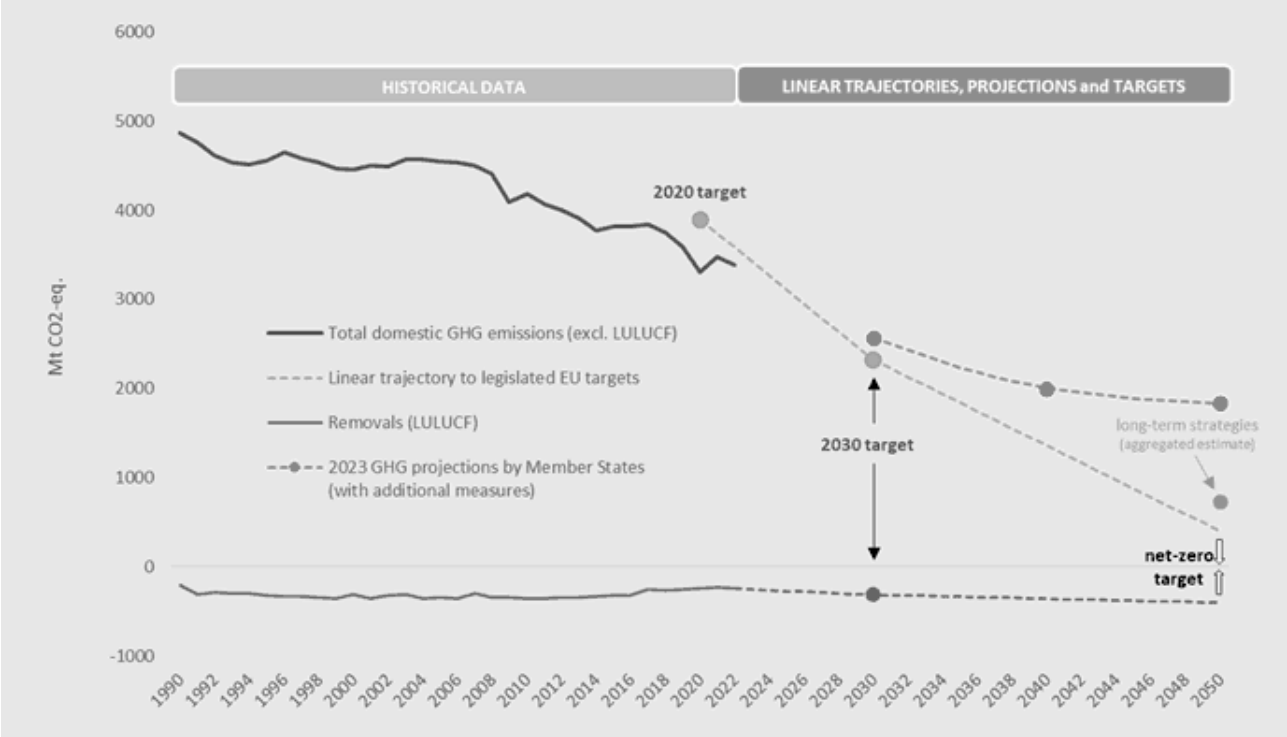
(European Commission, 2020a). This target, enshrined in the European Climate Law, represents a substantial increase from the previous 40% reduction goal and underscores the accelerated pace of the green transition envisioned by the EU.

The implementation of the Green Deal is structured around various policy areas, each with its own set of initiatives and timelines. For instance, the "Farm to Fork" strategy aims to transform the EU's food system, with targets set for 2030 including a 50% reduction in the use of chemical pesticides and a 25% increase in organic farming (European Commission, 2020b). The Circular Economy Action Plan, another key component of the Green Deal, sets out measures to be implemented by 2030 to make sustainable products the norm in the EU market (European Commission, 2020c).

Figure 1 Greenhouse gas emissions in the EU in the period 1990–2050



Note: LULUCF regulation sets rules for emission reductions and carbon removals in the land use, land use change and forestry (LULUCF) sector.
Source: European Commission (2024)

However, the ambitious nature of these timelines raises questions about their feasibility, particularly in light of the technological advancements required to achieve them. The transition to a climate-neutral economy necessitates significant innovations across various sectors, from energy production and storage to transportation and industrial processes.

In the energy sector, for example, the expansion of renewable energy sources is crucial for achieving the Green Deal's objectives. While technologies such as solar and wind power have seen significant advancements and cost reductions in recent years, challenges remain in areas such as energy storage and grid integration. The development of more efficient and cost-effective battery technologies is essential for managing the intermittency of renewable energy sources and enabling the electrification of transport (International Energy Agency, 2021).

In the industrial sector, decarbonization of energy-intensive industries such as steel, cement, and chemicals present significant technological challenges. While some low-carbon technologies are available, many are still at early stages of development or not yet commercially viable. For instance, the use of hydrogen as a clean energy carrier for industrial processes shows promise but requires further technological advancements and infrastructure development to be implemented at scale (Material Economics, 2019).

The transportation sector, responsible for about a quarter of the EU's greenhouse gas emissions, also faces significant technological hurdles in its transition to zero-emission mobility. While electric vehicles are becoming increasingly prevalent, challenges remain in terms of battery technology, charging infrastructure, and the decarbonization of heavy-duty transport and aviation (Transport & Environment, 2020).

The rapid pace of innovation required to meet the Green Deal's timelines has led some experts to question whether the technological readiness levels across various sectors align with the policy objectives. A study by the European Parliament's Panel for the Future of Science and Technology (STOA) highlighted that while some technologies necessary for the green transition are mature, others are still in development or demonstration phases (European Parliament, 2021). This mismatch between policy ambitions and technological readiness could potentially lead to implementation delays or the need for policy adjustments.

Moreover, the successful implementation of the Green Deal relies not only on technological innovations but also on their widespread adoption and integration into existing systems. This process of diffusion and scaling up of new technologies often takes considerable time and faces various barriers, including high upfront costs, regulatory hurdles, and societal acceptance issues (Geels, Sovacool, Schwanen, Sorrell, 2017).

III. Global context: Approaches of other major economies

The European Green Deal's ambitious agenda is set against a backdrop of varying approaches to green economic transformation among other major world economies. Understanding these different strategies is crucial for assessing the potential impacts of the EU's approach on its global competitiveness and the effectiveness of its climate action.

The United States, under the Biden administration, has re-engaged with global climate efforts and set a target of achieving net-zero emissions by 2050. The American Jobs Plan, proposed in 2021, includes significant investments in clean energy, electric vehicles, and climate-resilient infrastructure (The White House, 2021). However, the U.S. approach differs from the EU's one in its emphasis on market-driven solutions and its less comprehensive regulatory framework.

China, the world's largest emitter of greenhouse gases, has pledged to achieve carbon neutrality by 2060. Its approach focuses on industrial policy and state-directed investments in clean technologies. China's 14th Five-Year Plan (2021–2025) sets targets for reducing carbon intensity and increasing the share of non-fossil fuels in its energy mix (State Council of the People's Republic of China, 2021). While China's commitments are significant, its timeline for achieving carbon neutrality is less ambitious than the EU's, potentially giving Chinese industries more time to adapt.

Japan has set a goal of achieving carbon neutrality by 2050 and has outlined its Green Growth Strategy, which focuses on innovations in areas such as hydrogen, next-generation solar cells, and carbon recycling (Ministry of Economy, Trade and Industry of Japan, 2020). Japan's approach emphasizes technological innovation and public-private partnerships but faces challenges due to its high dependence on fossil fuels.

India, while committing to reducing its carbon intensity and increasing renewable energy capacity, has not set a net-zero target. Its approach emphasizes the need for climate justice and the right to development, arguing that developed countries should take the lead in emission reductions (Ministry of Environment, Forest and Climate Change, Government of India, 2021).

These diverse approaches reflect different national circumstances, priorities, and capacities. The EU's Green Deal stands out for its comprehensive and legally binding nature, as well as its emphasis on a just transition. However, this ambitious approach also raises questions about the EU's competitiveness in the global market, particularly if other major economies pursue less stringent policies.

The potential for "carbon leakage" – where companies relocate production to countries with less strict climate policies – is a significant concern. To address this, the EU has proposed a Carbon Border Adjustment Mechanism (CBAM) to level the playing field for EU industries (European Commission, 2021a). However, this proposal has been met with mixed reactions internationally and could potentially lead to trade tensions.

The success of the EU's approach will largely depend on its ability to drive global climate action and create a "first-mover advantage" in green technologies. If successful, the Green Deal could position the EU as a leader in the growing market for clean technologies and sustainable products. However, if other major economies do not follow suit with similarly ambitious policies, the EU may face challenges in maintaining its economic competitiveness in the short to medium term.

IV. Divergent approaches within the European Union

While the European Green Deal sets out a common vision for the EU's green transition, its implementation faces challenges due to the diverse economic structures, energy mixes, and political priorities of member states. These differences have led to varying levels of enthusiasm and concern regarding the pace and scale of the proposed changes.

Northern European countries, particularly the Scandinavian nations, have generally been at the forefront of climate action and tend to support ambitious climate policies. These countries often have advanced renewable energy sectors and have already made significant progress in reducing their emissions. For example, Sweden aims to achieve net-zero emissions by 2045, five years ahead of the EU target (Government Offices of Sweden, 2020). These countries see the Green Deal as an opportunity to further their environmental goals while also benefiting economically from their existing expertise in clean technologies.

On the other hand, several Central and Eastern European countries, particularly those with economies more reliant on fossil fuels or energy-intensive industries, have expressed concerns about the pace and cost of the transition. Poland, for instance, which relies heavily on coal for its energy production, has argued for a more gradual approach to decarbonization and more financial support for the transition (Ministry of Climate and Environment of Poland, 2021). These countries emphasize the need to ensure energy security and maintain economic competitiveness during the transition period.

The divergent approaches are particularly evident in discussions about the future energy mix. While countries like Denmark and Germany are pushing for rapid expansion of renewable energy sources, others, such as France, argue for the inclusion of nuclear power as a low-carbon energy source in the transition (Ministry for the Ecological Transition of France, 2020). The role of natural gas as a "transition fuel" is also debated, with some member states viewing it as necessary for ensuring energy security in the short to medium term, while others argue for a more rapid phase-out of all fossil fuels.

These differences in national contexts and priorities have led to challenging negotiations over various aspects of the Green Deal's implementation. For example, discussions over the EU's 2030 emissions reduction target and the distribution of effort among member states were particularly contentious (Council of the European Union, 2020). The allocation of funds from the Just Transition Mechanism, designed to support regions most affected by the transition, has also been a subject of debate (European Commission, 2021b).

The EU's ability to navigate these divergent approaches and find compromises that maintain the overall ambition of the Green Deal while addressing the concerns of all member states will be crucial for its successful implementation. This may require a flexible approach that allows for different pathways and timelines within the overall framework of the Green Deal, as well as targeted support mechanisms to address specific national and regional challenges.

V. Economic and social impacts

The implementation of the European Green Deal is expected to have far-reaching economic and social impacts across the EU. While proponents argue that it will create new economic opportunities and improve quality of life, there are also concerns about potential negative effects on certain sectors and regions.

One of the key economic arguments in favor of the Green Deal is its potential to stimulate innovation and create new jobs in green sectors. A study commissioned by the European Commission estimates that achieving the 55% emissions reduction target by 2030 could lead to a net increase of up to 884,000 jobs in the EU (Cambridge Econometrics, 2020). These job gains are expected primarily in sectors related to the circular economy, renewable energy, and energy efficiency.

However, the transition is also likely to lead to job losses in carbon-intensive industries. Regions heavily dependent on coal mining or fossil fuel-based energy production are particularly vulnerable. A study by the European Commission's Joint Research Centre estimates that up to 160,000 jobs could be at risk in coal regions alone (Alves Dias et al., 2018). This highlights the importance of the Just Transition Mechanism in providing targeted support to affected regions and workers.

The Green Deal's impact on overall economic growth is a subject of debate. While some studies suggest that the transition could lead to modest GDP growth due to increased investments and efficiency gains (European Commission, 2020d), others warn of potential short-term economic costs, particularly if the transition is not well-managed (OECD, 2021).

The social dimension of the Green Deal is equally important. The transition to a low-carbon economy has the potential to improve public health through reduced air pollution and promote more livable cities through sustainable urban planning. However, there are concerns about the distributional impacts of climate policies, particularly on low-income households. For example, carbon pricing mechanisms could lead to higher energy prices, potentially exacerbating energy poverty if not accompanied by appropriate compensatory measures (European Economic and Social Committee, 2021).

The Green Deal's emphasis on a "just transition" acknowledges these challenges and aims to ensure that the benefits of the green transition are shared widely while its costs do not fall disproportionately on vulnerable groups. However, the effectiveness of these measures in practice remains to be seen and will likely be a key factor in determining public support for the Green Deal in the coming years.

VI. Impact on EU's global competitiveness

The European Green Deal's impact on the EU's competitiveness in the global economy is a critical consideration. On one hand, the Green Deal has the potential to position the EU as a global leader in clean technologies and sustainable practices, potentially creating new export opportunities and attracting investments in green industries. The EU's early mover advantage in areas such as renewable energy technologies and circular economy practices could translate into significant economic benefits as global demand for these solutions grows (European Commission, 2019).

Moreover, by setting ambitious standards and regulations, the EU could influence global norms and standards in sustainability, potentially giving EU companies an advantage as other regions adopt similar measures. The proposed Carbon Border Adjustment Mechanism, if implemented effectively, could also help protect EU industries from unfair competition while incentivizing global partners to strengthen their own climate policies (European Commission, 2021a).

However, there are also concerns that the Green Deal could negatively impact the EU's short-term competitiveness, particularly in energy-intensive industries. Higher energy costs and stricter environmental regulations could lead to increased production costs for EU companies compared to their global competitors, potentially resulting in carbon leakage or loss of market share in global markets (BusinessEurope, 2021).

The success of the Green Deal in enhancing the EU's global competitiveness will largely depend on several factors:

- The pace of global climate action: If other major economies adopt similarly ambitious policies, the EU's first-mover costs could be mitigated, and its early investments could pay off. However, if there is a significant gap between the EU's policies and those of its major trading partners, competitiveness challenges could arise.
- Technological innovation: The EU's ability to drive innovation and commercialize new clean technologies will be crucial for maintaining its competitive edge.
- Policy design and implementation: Well-designed policies that provide certainty for investors, support innovation, and protect against unfair competition will be essential for maintaining competitiveness during the transition.
- International cooperation: The EU's ability to engage in effective climate diplomacy and foster international cooperation on climate action will be important for creating a level playing field globally.

VII. Conclusion

The European Green Deal represents a bold and comprehensive strategy for transforming the EU's economy and society in response to the climate crisis. Its success will depend on the EU's ability to navigate numerous challenges, including technological hurdles, divergent national interests, and potential economic disruptions.

The implementation timeline of the Green Deal is ambitious, necessitating rapid technological advancements and widespread adoption of new practices across various sectors. While this presents challenges, it also creates opportunities for innovation and economic renewal. The EU's approach stands out globally for its comprehensiveness and legally binding nature, potentially positioning the bloc as a leader in the green transition.

However, the divergent approaches and concerns among EU member states highlight the need for flexible implementation strategies that can accommodate different national contexts while maintaining overall ambition. Balancing the pace of transition with economic and social considerations will be crucial for maintaining public support and ensuring a just transition.

The Green Deal's impact on the EU's global competitiveness remains a key area of uncertainty. While it has the potential to position the EU as a leader in green technologies and sustainable practices, there are also risks of short-term competitiveness challenges, particularly if other major economies do not follow suit with similarly ambitious policies.

Ultimately, the success of the European Green Deal will depend on the EU's ability to drive innovation, manage the transition effectively, and leverage its first-mover status to create new economic opportunities. If successful, the Green Deal could serve as a model for sustainable development, demonstrating that economic prosperity and environmental sustainability can go hand in hand. However, the path to this goal is likely to be challenging, requiring sustained political will, technological breakthroughs, and effective policy implementation.

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