Boundaries of sustainable socio-economic development in the context of the European Green Deal

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***Abstract*— The European Green Deal is a response to today's challenges concerning environmental protection and depletion of natural resources. Among the most important objectives, climate change mitigation and energy transition were identified, and these are linked to socio-economic development. The article presents the theoretical assumptions of sustainable development and the consequences of the implementation of the European Green Deal for social and economic development. Based on the analysis performed, opportunities and threats to the implementation of the European Green Deal are indicated.**

Keywords— sustainable development, European Green Deal, energy transition, socio-economic development

I. INTRODUCTION

In the 1920s economic pressure on the environment caused significant degradation and limited the availability of resources necessary for economic development, thus becoming the premise of the idea of sustainable development. Sustainable development envisaged keeping a balance between three dimensions, environmental, economic and social. According to the assumptions, sustainable development should ensure the accomplishment of economic goals, social and material well-being, accomplishment of environmental goals, environmental protection and quality, and accomplishment of social goals, justice and security.

In the 21st century, there is a further aggregation of the negative effects of the processes of environmental degradation and pollution, which may constitute a barrier to further development. Disparities in economic development are the result not only of the intensive exploitation of natural resources, but also of geopolitical conditions, which caused the uneven development of the individual countries, globally and within the European Union (Pawlas & Danowska-Prokop, 2025). Sustainable development is the concept of lasting socio-economic development achieved by incorporating respect for natural resources and environmental protection into the economic system to ensure a better standard of living for society. Given the wide variation in the development of the member states of the European Union, the objective of sustainable development should be to strive for an equal standard of living and to stimulate the economic development necessary to create material and social wealth, enabling the needs of the present and future generations to be satisfied.

A contemporary response to the problems of environmental protection and over-consumption of natural resources is the European Green Deal. Transforming the EU's economy for a sustainable future requires a number of measures that are linked to a profound restructuring of the economic processes. The implementation of the European Green Deal involves the rebuilding of the economy in terms of clean energy supply in industry, production and consumption, infrastructure, transport, food and agriculture and construction. The necessity to take far-reaching decarbonisation measures has an important social context. Social justice is becoming an argument also in the scientific discourse, used by both the proponents of radical action and those pointing to the need to slow down the green transition because of its economic impact and social costs. This trend has intensified especially over the last decade (Paterson, Thaler, Hoffmann, Hughes, Oels, Chu, Mert, Huitema, Burch & Jordan, 2018). It requires the development of a strategy with a long-term perspective, and the ways to implement such a strategy should consider the complex socio-economic situation of each country. Environmental protection should not be a barrier to socio-economic development because it would

ASEJ - Scientific Journal of Bielsko-Biala School of Finance and Law
Volume 29, No 2 (2025), pages 8
https://doi.org/10.19192/wsfip.sj2.2025.1
Received: March 2025., Accepted: July 2025,
Published: July 2025

prevent other social objectives from being met, including tackling unemployment, meeting people's material needs and increasing living standards (Desai, 1991).

Environmental protection is important because it aims to safeguard the limited and non-renewable natural resources that determine the possibilities for further economic development. However, within the framework of sustainable development, the pursuit of protection of the environment and its resources should not lead to blocking economic growth. A prerequisite for effective environmental protection is to define the limits of environmental stress tolerance within which measures will be taken to stimulate sustainable production and consumption and the circular economy. Stimulating economic development is essential for the creation of material and social wealth. This is particularly true for less developed countries, otherwise their citizens will bear the greatest costs of the green transition under the European Green Deal. The objectives of the European Green Deal represent contemporary challenges for the EU Member States in the area of the environment while concerns are raised that too little attention is paid to the economy and society.

The research problem is the potential limitations of the socio-economic development in the implementation of the European Green Deal, in both theoretical and practical terms. The aim of this paper is to identify the impact of the implementation of the European Green Deal on the prospects for sustainable socio-economic development. In order to achieve the aim of the paper, the *desk research* method was applied for both own research and for data obtained from reports, based on the example of Poland. The research used the methods of literature studies and logical and comparative analysis of data from secondary sources.

II. ENVIRONMENTAL DETERMINANTS OF SOCIO-ECONOMIC DEVELOPMENT

The problem of choosing a long-term perspective for the development of a country is of a multidimensional nature as there are e.g. the economic, technical, ecological, social and political dimensions. An important role is played by the economic, ecological and social dimensions indicating the protection of the environment and the quality of human life (Poveda, 2017). Considering the environmental dimension of sustainable development does not mean that the other two are to be inhibited. They can become stimulators of the technological progress, of raising the educational level of society and of creating new jobs as well as developing entrepreneurship and making efficient use of labour and natural resources. The economic dimension emphasises the need for economic growth to ensure prosperity, eliminate unemployment and increase living standards (Binda & Łapińska, 2018). These dimensions are interdependent, which is important from the point of view of choosing the direction of development. The choice and implementation of specific line of development requires appropriate systemic solutions that support the desired direction of development, e.g. the choice between higher costs of energy consumption burdened by a CO_2 tax or investment in renewable energy. On the other hand, the economic development of any country is decisively determined by the availability of basic raw and other materials. An abundant supply of raw materials, low cost of exploitation and low prices resulted in overshoot (Meadows, Meadows & Randers, 1995). It is only the economic crises that draw attention to the fact that raw materials cannot be treated as relatively abundant goods. Even leaving aside such extremely pessimistic forecasts, the prevailing view is that the availability of natural resources is becoming increasingly limited over time. The accumulation of anthropopressure also contributes to the negative effects of climate change on a global scale. Previously formulated warnings suggested that the prospect of a collapse in development during the 21st century was real because relentless economic growth threatened to reach the limits of development (Spangenberg, 2002). In the contemporary view, a major role is attributed to the substitution of raw materials through the technological progress that will make it possible to stagger the demand for their specific functional properties. In contrast, the availability of energy raw materials will be increasingly more difficult as the use of resources increases. The use of alternative energy sources will increase the cost of acquiring or processing them.

The limits to development are not only non-renewable raw materials, but also limited other environmental components, such as land surface, clean water and air. In order to counter scarcity trends, environmentalists called for zero growth (Rogall, 2005). However, it is important to note the economy-wide consequences of such an approach (higher unemployment, conflicts in the sphere of distribution and impoverishment of society). At the same time, it is pointed out that halting economic growth will not improve the environmental situation. There will only be a reduction in anthropogenic changes and the economic crisis will make it impossible to finance projects in the field of environmental protection. Therefore, zero use of natural resources is not indicated, but the need to reduce emissions, introduce a closed-loop economy and develop environmentally friendly technologies. Today, in the 21st century, the same threats can be identified, as well as a wide variation in the level of socio-economic development of continents and countries. Every situation of geopolitical conflict has its consequences for the raw material and fuel market. There are two fundamentally different trends in raw material forecasts. According to the first, the rapid depletion of non-renewable raw materials may lead to a halt in economic development while the second assumes that there is only a question of investment in acquiring alternative sources of raw materials, especially renewable energy.

The discussion on the inclusion of ecological aspects in economics has been going on for many years. Nowadays, the focus of influence has changed; it is ecology that sets the field and boundaries of economics (Sójka, 2022). However, a long-term goal common to economics and ecology has been recognised. The protection of the natural environment should be included in the pursuit of economic objectives (Barbier & Markandya, 2012).

III. FROM SUSTAINABLE DEVELOPMENT TO THE EUROPEAN GREEN DEAL

The most important event in the implementation of the idea of sustainable development was the United Nations Conference on Environment and Development (the so-called Earth Summit) in 1992 (Ministerstwo Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa,1997),). The courses of action adopted then were milestones influencing the interpretation and implementation of the idea of sustainable development by linking environmental protection requirements and socio-economic development (United Nations, 2012). At the next UN Forum in 2002 in Johannesburg, the implementation of Agenda 21 and other arrangements from a decade earlier were reviewed (Johannesburg Summit, 2002). Commitments were then made to implement sustainable development in three key areas, economic growth and equitable distribution of benefits, environmental protection and social development (Sobolewski, 2002). In 2012 another UN summit was held (Rio+20), which adopted the declaration The Future We Want to Have and renewed commitments to sustainable development in the 21st century (Czech, 2013).

In 2015 the 70th Session of the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, entitled Transforming Our World, identifying 17 key Sustainable Development Goals. The 2030 Agenda for Sustainable Development was a landmark document that set out the key goals to guide the world's development in the 2050 perspective, in 5 areas: people, planet, prosperity, peace and partnership (OECD, 2017). In response to the challenges of the UN 2030 Agenda for Sustainable Development and the 2050 targets, the European Union developed the European Green Deal in 2019, which forms an integral part of the EU and the Member States' strategy (Communication from the commission, 2019/640 final). The European Green Deal includes the following environmental objectives:

- mitigating climate change by 2050;
- energy transition towards renewable energy sources;
- committing the industrial sector to shift to circular economy;
- achieving zero environmental pollution;
- building and renovating in an energy - and resource-efficient way;
- protecting and restoring ecosystems and biodiversity;
- introduction of a healthy and environmentally friendly food system;
- taking steps towards sustainable and intelligent mobility.

The objectives of the European Green Deal represent contemporary challenges for the individual countries in the areas of economy, environment and society. The transformation of the economy towards sustainability requires the rationalisation of the processes of using environmental resources into sustainable products and involves reducing the consumption of natural resources, introducing renewable energy, reducing air, soil and water pollution and improving people's quality of life (Heyen, Menzemer, Wolff, Beznea & Williams, 2020). The transformation of the EU economy in the 2050 perspective is based on legal regulations, fiscal instruments and financial support for green undertakings. The European Green Deal is most often identified with climate change and renewable energy. Climate change is the most important and challenging strategic objective within the European Green Deal. The European Commission has drawn up a plan to increase the EU's 2030 target for reducing greenhouse gas emissions to at least 50%, and potentially to 55% from 1990 levels. It then adopted more ambitious targets, to make Europe a world leader in environmental and climate action. As part of its latest Fit for 55 package, it calls for a new target of a 90% reduction in CO_2 emissions by 2040 (Regulation (EU) 2021/1119). In addition, the EC proposes a tightening of climate policy and its acceleration, which is to be contributed by, among other things, taxes, a move away from coal, a sharp reduction in oil and gas consumption and a financial outlay of considerable value for investment in renewables. The associated costs are estimated at EUR 1.5tn per year between 2031 and 2050.

Further decarbonisation of the energy system is key to achieving the 2030 and 2050 climate strategy goals as more than 75 % of the EU's greenhouse gas emissions come from the production and use of energy in various sectors of the economy (Carbon Neutral Industry Act, 2024). Achieving a climate-neutral Europe requires a closed-loop economy, which involves the transformation of the industrial sector and all supply chains (Council of the European Union, 2024b). Through a system of incentives for producers and consumers to extend the life cycle of products, the new legislation is intended to help reduce waste and promote more sustainable manufacturing and a closed-loop economy. Climate change is heavily influenced by transport which is responsible for a quarter of the EU's greenhouse gas emissions and this amount continues to rise. Meanwhile, the requirements do not apply entirely to transport from countries outside the EU, which not only undermines the competitiveness of EU hauliers, but results in large-scale increases in emissions (Council of the European Union, 2024a).

The Council and the European Parliament have reached an initial agreement on the Directive on corporate sustainability due diligence. Companies will also have to ensure that their business model is in line with the Paris Agreement's goal of limiting global warming to 1.5°C (Council of the European Union, 2023).

The premise of the European Green Deal is to transform the EU into a just and prosperous society living in a modern, resource-efficient and competitive economy that achieves zero net greenhouse gas emissions by 2050 and economic growth is decoupled from the use of natural resources.

IV. DILEMMAS OF SOCIO-ECONOMIC DEVELOPMENT IN THE CONTEXT OF THE EUROPEAN GREEN DEAL

Today there is a growing awareness of the need for environmental action to protect our planet. At the same time, there are opinions that unilateral environmental action by the EU, without similar action on a global scale, will not stop the process of environmental pollution, but will instead worsen the economic and social situation, especially of the poorest countries (Lachowicz, 2023). The EU policy of the European Green Deal may lead to limiting the pace of economic development by overburdening finances through the development of economic and legal instruments. In the face of numerous regulations and the current situation and challenges of civilisation based on the idea of sustainable development, the European Green Deal should be a strategic direction of economic development beyond the environmental scope. The ambitious goals of the European Green Deal for the protection of Europe's environment cannot be achieved at the proposed pace and economic diversity of the EU countries. The causes of climate change and other pollution are global and transboundary. The opportunity for a green Europe in the near and distant future is the EU's strategy for sustainable development and environmental security with a 2050 horizon. This objective requires investment in innovation and research for the transformation of the EU economy and the modernisation of industrial policy. The objectives formulated within the European Green Deal represent difficult tasks for individual EU countries to achieve and require significant capital expenditure in green investments at national and company level. At the same time, the increase in energy costs is progressing due to the green tax and the price of allowances on the ECTS trading market, which affects the ability to finance the tasks.

The intention to make Europe the first climate-neutral continent by 2050 is a major challenge. A green transition for Europe can only be fully effective if other countries outside the EU take similar action (Gródek- Szostak, Adamczyk, Kotulewicz-Wisińska, Niemczyk, Olszowska & Szeląg-Sikora, 2024). The scale of the reforms announced and planned so far is highly controversial. On the one hand, there are opinions that the European Green Deal will, in retrospect, be equated with a new industrial revolution; on the other hand, that the implementation of such stringent standards will undermine the competitiveness of the EU economy (Pawlowski, 2009). This may lead to a collapse of economic development and to social conflicts, and consequently, to a loss of security for the EU Member States and lack of public acceptance of the introduction of the legislative changes.

Achieving the targets outlined in the European Green Deal requires significant investment, which, according to the European Commission's estimates, will be necessary in the amount of EUR 260bn per year to achieve the climate and energy targets set for the period up to 2030. An important component of the European Green Deal is to be the Fair Transformation Fund, intended for regions most affected by the effects of decarbonisation, but there is a lack of public information on the financing of the specific measures.

The Council and the European Parliament have reached a preliminary agreement on the Carbon-Neutral Industry Act, which aims to create the conditions for investment in green technologies by simplifying authorisation procedures and supporting strategic projects. The aim is to meet 40% of the EU's demand for strategic carbon-neutral products and technologies, such as photovoltaic panels, wind turbines, batteries and heat pumps. This initiative is expected to accelerate the EU's climate and energy targets by 2030 with the hope of achieving climate neutrality and creating new jobs. In contrast, there are new proposals for emissions trading, whereby a significant proportion of the proceeds from the sale of ECTS, rather than being used for national investment in climate protection and renewable energy, are to remain available to the EU.

V. OPPORTUNITIES AND THREATS FOR SOCIAL AND ECONOMIC DEVELOPMENT IN THE IMPLEMENTATION OF THE EUROPEAN GREEN DEAL IN POLAND

Implementing the Green Deal requires significant socio-economic changes, especially in terms of raw materials, fuels and energy, as well as everyday life. According to research, achieving the stated goals may lead to a negative impact on the economies of the EU member states, especially on the international competitiveness of the economy compared with countries that do not take similar action. Greenhouse gas emissions in the European Union reached 3.4bn tonnes eq CO_2 in 2023, indicating a 7% decrease compared with 2022 (Eurostat, 2025). Among EU countries, the highest emissions were recorded for Germany – 720.4m tonnes eq CO_2, France – 403.4m tonnes eq CO_2 and Italy – 399.4m tonnes eq CO_2. Poland was ranked fourth with emissions of 377m tonnes eq CO_2, committing to the targets set under the Climate Pact (Ministry of Climate and Environment Republic of Poland, 2025). For the implementation of the European Green Deal, the National Energy and Climate Plan 2021-2030 was developed, which includes specific targets and measures to reduce greenhouse gas emissions by 2030 and achieve climate neutrality by 2050 (Ministry of Climate and Environment Republic of Poland, 2019). The transformation of the energy sector will take place by reducing dependence on fossil fuels and increasing the share of RES in total energy production as well as increasing energy efficiency in sectors such as construction, industry and transport. However, analyses indicate that even after taking into account the cost of purchasing CO_2 emission permits (ETS), the total cost of electricity production by wind farms and solar PV farms will be higher than that of coal-fired electricity production (Table 1). According to experts, the implementation of all the legal acts, and in particular those concerning energy under the conditions of the Polish energy system, will lead to an increase in energy costs and a loss of competitiveness of the Polish economy as well as the impoverishment of a significant part of the Polish population (Chorowski & Malecha, 2024). Furthermore, it should be noted that the reduction of fossil fuel extraction and the decommissioning of mines also generate additional costs (Juszczak, Pilszyk, Mniszewski, Kania, Tomasik & Wiącek, 2023). In order to ensure that Poland's energy needs are met,

the construction of a nuclear power plant is necessary, and until this investment is completed, modernised coal-fired power plants should be a stable source of energy.

TABLE 1.: TOTAL COSTS OF ELECTRICITY PRODUCTION BY SOURCE

Source of energy	Cost excl. ETS (PLN/MWh)	Cost incl. ETS (PLN/MWh)
lignite	225	535
hard coal	352	610
natural gas	450	450
wind generators	754	754
PV solar energy	819	819
other RES	530	530
other power plants	470	470

Source: Mielczarski (2024), *Europejski Zielony Ład – Koszty bezpośrednie dla gospodarki i społeczeństwa, Raport._Drapiezny_Zielony_NIE_Lad-1.pdf*, s. 78 [Accessed: 20 March, 2025]

Achieving the objectives of the European Green Deal requires reducing dependence on fossil fuels and increasing the share of RES in total energy production. However, the analysis shows that the share of energy generated from RES sources in total electricity should not exceed 30% for its costs to remain at 2023 levels (Table 2).

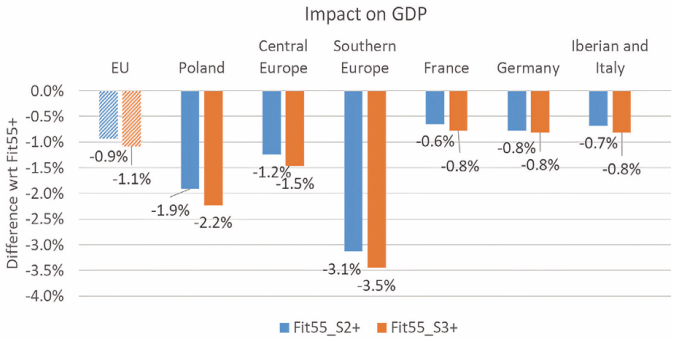
TABLE 2.: IMPACT OF THE SHARE OF ENERGY FROM RES ON ELECTRICITY COSTS

Specification	2023	40%	50%	75%
Energy production (TWh)	166	200	225	250
Average energy cost without ETS (PLN/MWh)	440	502	553	672
Average energy cost with ETS (PLN/MWh)	603	665	716	835
Increase in energy costs (%)	100	114	111	127

Source: (Mielczarski, 2024, p.85).

In order to ensure energy security, policies have been set out to guarantee meeting the demand for energy raw materials, certainty of distribution of raw materials and fuels, and production and supply of electricity and heat (Ministry of Climate and Environment Republic of Poland, 2019). In addition, Poland plans to develop wind farms, solar power plants and other RES-related projects, as well as to increase energy efficiency in various sectors of the economy (Ministry of Climate and Environment Republic of Poland, 2025). Improving energy efficiency will be of crucial importance in reducing energy consumption and GHG emissions under the Fit for 55 assumptions (Pyrka, Lizak & Jeszke, 2023). Within the framework of Fit 55, the European Union proposes scenarios for change that will create further burdens for the member states and may reduce the GDP, which is particularly relevant for Poland (Fig. 1). At the same time, it encourages the effective use of EU financial support to carry out the energy transition and close the carbon gap by investing in the best sources of clean energy. In addition, the EU sets a cap on emission allowances for energy-intensive industries, energy producers and airlines. A key regulatory driver is the reform of the ETS which is expected to accelerate CO2 price increases for power generation and industry and extend emission costs to new sectors, road and maritime transport and heating (Bank PKO, 2021). Under the existing ETS, there will be an increase in allowance prices by 2030 and an accelerated phase-out of emission allowances by 61% as compared with the 2005 levels.

FIGURE 1. IMPACT OF THE FIT55 S2+ AND FIT55 S3+ SCENARIOS ON THE GDP OF SELECTED EU COUNTRIES AND REGIONS



Source: *Economic impact of the 2040 GHG emission reduction target proposed by the European Commission* GO2'50. Klimat. Społeczeństwo. Gospodarka. [Accessed 10 April.2025].

The high carbon intensity of Poland's coal-based economy and the slowdown in the transition may significantly reduce the competitiveness of business operators due to the high cost of obtaining energy as well as a higher carbon footprint in the supply chain than in other countries. Despite the implementation of the Fit for 55 package, emissions in the domestic energy sector will still be higher than the EU average. Poland's GDP is in 50% based on exports, out of which 75% go to EU countries (Modzelewski & Wawrzonkiewicz, 2024). In order to remain competitive, economic operators will be forced to reduce energy costs and the carbon footprint of their products as much as possible. According to experts' estimation, it is Poland, beside Bulgaria, that will have to spend the most on adapting its economy to zero-carbon standards. Data from March 2025 show that 41.54% of electricity is generated by coal-fired power plants, about 11.06% by gas-fired power plants, 13.57% by wind power plants, and 13.32% by hydro and other power plants (Rynek Elektryczny, 2025).

An increase in the share of energy from RES in the energy mix will result in an increase in energy costs of approx. 30%. It should be stressed that this is an optimistic variant, assuming constant costs at the 2023 level, and these calculations do not take into account the increase in electricity costs due to forced switching. In reality, the estimated increase in the cost of electricity assuming an increase in the RES share to 75%, at which decarbonisation of the energy sector is possible, will be at least 50% (Table 3).

TABLE 3: COSTS OF ELECTRICITY GENERATION WITH INCREASING SHARE OF RES

Source of energy	40%	50%	75%
lignite	30	23	0
hard coal	44	36	0
natural gas	20	23	25
wind generators and solar PV systems	60	90	163
other RES	20	25	30
other power plants	26	29	33
Total	200	225	250

Source: (Mielczarski, 2024, p.85)

Reasonable concerns are raised in respect of the so-called border carbon tax, i.e. the Carbon Border Adjustment Mechanism (Ministry of Climate and Environment Republic of Poland, 2023). It aims to regulate the price of goods entering the EU customs territory according to the CO_2 emissions associated with them. This will result in increased costs and

reduced competitiveness for carbon-intensive sectors and a decrease or lack of taxation of these entities, which could mean a lack of budget revenue (Modzelewski & Wawrzonkiewicz, 2024). This also entails the risk of job losses and a decrease in budget revenues from payroll taxes in these sectors. A negative effect will also be an increase in production costs in carbon-intensive sectors, which may result in job cuts or relocation of activities to countries with lower emission costs.

The transformation of the Polish energy sector towards more sustainable energy sources will require significant investments and structural changes, which may be difficult and costly (Directive (EU) 2023/2413). According to an estimate, the costs of adapting the Polish economy to the Green Deal and Fit for 55 objectives could amount to EUR 527bn (Jelonek, 2024). The costs of the European Green Transition are estimated to be approx. EUR 360bn annually, which is 2.3% of the current gross domestic product, of which 70% of the investment concerns the public sector. Additional costs, over and above the investment, may amount to approx. PLN 60bn annually, which makes a total of approx. PLN 500bn by 2030. It should be stressed that the costs will depend on a number of factors, including the pace of the transformation and the availability of low-carbon technologies. Within the framework of the Green Deal, various forms of tax burdens may be proposed (Modzelewski & Wawrzonkiewicz, 2024), e.g. a tax on CO_2 emissions of economic entities, environmental taxes or charges on vehicles emitting large amounts of CO_2, property taxes for CO_2 emissions, a tax on products and services with high energy consumption and waste generation, or a tax on energy consumption by businesses and households. The above-mentioned taxes and charges will increase the operating costs of economic activities, decrease profitability, reduce revenues and consequently reduce tax revenues to the budget. Consequently, the increased costs incurred by economic operators will result in higher prices of goods and services and higher inflation.

The implementation of the European Green Deal is debated and raises strong opposing opinions. On the one hand, threats to economic development and living standards are pointed out, while on the other hand, opportunities to reduce climate change and improve environmental quality are highlighted (Table 4).

TABLE 4: OPPORTUNITIES AND THREATS TO SOCIO-ECONOMIC DEVELOPMENT IN THE CONTEXT OF THE EUROPEAN GREEN DEAL

Opportunities	Threats
Mitigation of climate change	Too rapid pace of change
Reduction of environmental pollution	Increase in energy and resource prices
Clean environment for health and life	Decrease in economic competitiveness
Reducing fossil fuel extraction and land degradation	Redundancies in carbon-intensive industries
Energy transition	Decrease in budget revenue
Striving for climate neutrality	Decreasing GDP and increasing inflation
Financial support from EU funds	Impoverishment of society

Source: own elaboration.

The implementation of the European Green Deal raises several concerns, associated in particular with the increase in business costs, the decrease in the competitiveness of the economy, and the increase in inflation, all of which will affect the standard of living of the population.

On the other hand, an opportunity for Poland under the Cohesion Policy and the Recovery and Resilience Facility is the proposed support of approx. EUR 170bn between 2021 and 2027, and approx. EUR 250bn by 2030 (Jelonek, 2024). A non-negotiable issue will be the improvement of environmental quality, which is important for the health and lives of citizens.

VI. CONCLUSIONS

The analysis presented shows that the European Green Deal policy will result in higher prices for electricity, gas and petroleum products. This may lead to a significant increase in the share of energy costs in the total costs incurred by economic operators. The European Green Deal implies a reduction in the extraction and consumption of fossil fuels, including coal. The need to adapt to more stringent environmental standards, at such a rapid pace, may increase pressure on the individual sectors of the Polish economy. A consequence of the implementation of the regulations related to the Green Deal and the Climate Pact will be a decline in the profitability of business entities, particularly in the industrial, road transport and trade sectors. The higher costs of maintaining production will increase the prices of industrial products. This will translate into a relative increase in prices in the dependent industries, especially in construction, automotive engineering, machinery and white goods manufacturing. The increase in costs will therefore reduce the global competitiveness of Polish enterprises and, through the increase in prices, affect living standards.

The European Green Deal was intended to be a response to the contemporary challenges concerning environmental protection and limiting the consumption of natural resources. The requirement for businesses to comply with EU environmental regulations in terms of environmental standards may be difficult to achieve, resulting in a lack of competitiveness or even economic stagnation. At present, the main beneficiaries of the energy transition will be developers of renewable energy technologies and those investing in them while it is the poorest countries that will pay the price to meet the requirements of the European Green Deal.

The economic transition introducing restrictive standards towards a green economy in the individual EU member states must consider the economic and social impacts of these measures. Particularly when similar regulations on climate change, environmental protection or green standards for food products and other goods do not apply to countries outside the EU. Territorial borders are no barrier to the transfer of either pollution or products, which are often harmful and of low quality and do not meet the EU standards. Therefore, the cost-benefit analysis regarding the implementation of the European Green Deal should also include adequate financial assistance for less developed EU countries. The costs of rigorous implementation of the European Green Deal requirements in the EU member states will affect the operating costs of

companies and thus their competitiveness on the international market. Furthermore, the emerging problems of businesses will have an impact on the economic development of the EU member states, which will negatively affect the social situation of the citizens. In order to remain a global leader in climate action, the European Union should set the limits and the time of the energy transition taking into account the socio-economic conditions of the Member States notwithstanding the many problems that will be experienced by the member states during the implementation of the European Green Deal. Otherwise, it will not be possible to achieve the ambitious goals of transforming the EU into a community of just and prosperous societies of member states, living in a modern and competitive economy. The considerations carried out herein indicate that achieving the positive effects of the European Green Deal strategy will depend on adapting the pace of transformation to the capabilities of the economies of the individual countries. The analysis was carried out ex ante while further ex post research is required in the 2030 perspective.

Acknowledgement: The publication is financed from the subsidy granted to the Krakow University of Economics within the Support for Conference Activities 2024 programme.

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