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Fostering economic growth in the EU through the sustainable finance[1]

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Abstract
Over the next twenty years, Europe will need to invest significant financial resources, particularly in the area of environmental protection. It will be essential to direct both public and private funds towards ecological and sustainable actions to mitigate the risks associated with climate change, while simultaneously creating new jobs and ensuring sustainable economic growth. The aim of this article is to analyse the issues surrounding sustainable finance, as well as the actions and instruments undertaken by the EU in relation to the restructuring the system for financing sustainable environmental investments. The authors seek to answer the following questions: (1) Will the actions undertaken by the European Commission (EC) in restructuring the financial system contribute to achieving Sustainable Development Goals? (2) How, and to what extent, will the implemented solutions in this area help businesses and other institutions operating in markets, such as financial or capital markets, to meet the requirements associated with achieving Sustainable Development Goals? The authors verify a research hypothesis assumed that sustainable finance instruments adopted in the EU should facilitate the implementation of ecological and sustainable investments to mitigate the risks posed by climate change, thereby creating new jobs and promoting sustainable economic growth in the EU. However, the complexity of the implemented solutions implies many

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legal, economic, and social dilemmas that are noticeable in every aspect of social and economic life. The article employs descriptive, comparative, and diachronic research methods. The research outcomes lead to the conclusion that, although EU institutions strive to equip all stakeholders involved in the process of restructuring the system for financing sustainable investments with appropriate instruments, the complexity of sustainable development and sustainable finance issues (such as non-financial reporting, the detailed nature of indicators to be achieved, and their presentation by different stakeholders, etc.) makes these instruments insufficient to ensure the presentation of consistent and comparable data by companies and other market participants.
Keywords: sustainable development, theories of sustainable finance, European Union, EU Taxonomy, financial system, sustainable finance instruments, economic growth

Wspieranie wzrostu gospodarczego w UE poprzez zrównoważone finanse

Streszczenie
W ciągu najbliższych dwudziestu lat Europa będzie musiała zainwestować znaczne środki finansowe, szczególnie w obszarze ochrony środowiska. Niezbędne będzie skierowanie zarówno publicznych, jak i prywatnych funduszy na ekologiczne i zrównoważone działania mające na celu złagodzenie ryzyka związanego ze zmianami klimatu, przy jednoczesnym tworzeniu nowych miejsc pracy i zapewnieniu zrównoważonego wzrostu gospodarczego. Celem niniejszego artykułu jest analiza zagadnień związanych ze zrównoważonym finansowaniem, a także działań i instrumentów podejmowanych przez UE w związku z restrukturyzacją systemu finansowania zrównoważonych inwestycji środowiskowych. Autorzy starają się odpowiedzieć na następujące pytania: (1) Czy działania podejmowane przez Komisję Europejską (KE) w zakresie restrukturyzacji systemu finansowego przyczynią się do osiągnięcia celów zrównoważonego rozwoju? (2) W jaki sposób i w jakim zakresie wdrożone rozwiązania pomogą przedsiębiorstwom i innym instytucjom działającym na rynkach, np. finansowych czy kapitałowych, spełnić wymogi związane z realizacją Celów Zrównoważonego Rozwoju?
Autorzy weryfikują hipotezę badawczą, która zakłada, że przyjęte w UE instrumenty zrównoważonego finansowania powinny ułatwiać realizację ekologicznych i zrównoważonych inwestycji łagodzących zagrożenia związane ze zmianami klimatu, a tym samym tworzyć nowe miejsca pracy i promować zrównoważony wzrost gospodarczy w UE. Jednak złożoność wdrażanych rozwiązań implikuje wiele dylematów prawnych, ekonomicznych i społecznych, które są zauważalne w każdym aspekcie życia społecznego i gospodarczego. W artykule zastosowano opisowe, porównawcze i diachroniczne metody badawcze. Wyniki badań prowadzą do wniosku, że choć instytucje unijne starają się wyposażyć wszystkich interesariuszy zaangażowanych w proces restrukturyzacji systemu finansowania zrównoważonych inwestycji w odpowiednie instrumenty, to złożoność zagadnień związanych ze zrównoważonym rozwojem i zrównoważonym finansowaniem (m.in. sprawozdawczość niefinansowa, szczegółowy charakter wskaźników do osiągnięcia, ich prezentacja przez różnych interesariuszy itp.) sprawia, że instrumenty te są niewystarczające do zapewnienia prezentacji spójnych i porównywalnych danych przez przedsiębiorstwa i innych uczestników rynku.
Słowa kluczowe: zrównoważony rozwój, teorie zrównoważonych finansów, Unia Europejska, taksonomia UE, system finansowy, instrumenty zrównoważonych finansów, wzrost gospodarczy

The end of the twentieth century resulted in fundamental transformation of the political and economic world. The radical and dynamic economic and social transformations that have taken place in the last few decades have resulted in the concept of *sustainable development* gaining significant popularity (Jeżowski 2010: p. 47; Jodkowska 2011: p. 51). The core of this concept is redressing developmental imbalances on a regional basis and ensuring development that takes into account the interests of present and future generations, while meeting economic, social and environmental objectives (Dernbach 1998; Lélé 1991; Alińska et al. 2018: p. 27–44).

The concept of sustainable development originated from and was developed internationally by the United Nations (UN). In 2015, the UN adopted the *Paris Agreement on Climate Change* and the *UN 2030 Agenda for Sustainable Development*. While most countries signed the agreement, realising the serious consequences of climate change and the need for collective action, their level of commitment to its implementation can be different. Following the decision of the United States to withdraw from the *Paris Agreement,*[2] the European Union (EU) has pledged to take the lead in implementing the agreement and ensuring the transition to a low-carbon, more resource-efficient and circular economy. As early as the 1990s, the EU took ambitious steps towards sustainable development. However, a watershed moment in the implementation of this concept was the adoption of the *Paris Agreement*, on which basis the EU strengthened its work to establish a set of priorities for EU Member States. The creation of legal, social, environmental, economic conditions, involving a funding system that includes both EU public, national and private sources, is integral to the implementation of the concept of sustainable development.

The aim of this article is to analyse the issue of sustainable finance, as well as the actions taken and instruments used by the EU in connection with the redesign of the financing system for sustainable environmental investments.

The research hypothesis assumes that sustainable finance instruments adopted in the EU should facilitate the implementation of green and sustainable investments in order to mitigate the risks posed by climate change and create new jobs and sustainable economic growth in the EU. However, the complexity of the introduced solutions implies many dilemmas of a legal, economic and social nature, which are noticeable in every area of social and economic life. Therefore, we can pose the following **research questions:**

- Will the measures adopted by the European Commission (EC) in the area of restructuring the financial system contribute to the achievement of the Sustainable Development Goals?
- Will the solutions introduced in this area help companies and other institutions operating in markets, e.g. financial or capital markets, to meet the requirements related to the achievement of Sustainable Development Goals? If so, how will that happen?

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2 During Donald Trump's previous presidency, the USA withdrew from the *Paris Agreement*. However, after Joe Biden took office, the USA rejoined the agreement.

Methodology

The article presents the EU's work on sustainable finance, which is addressed in a synthetic and comprehensive manner and based on up-to-date and diverse sources of information, filling an existing gap in the literature on this subject.

The following **research methods** were used to verify the research hypothesis:

- descriptive and comparative methods (applied in each case, where different definitions and theories will be discussed);
- the normative method (as regards the presentation of the instruments used and legal acts adopted by the EU for the reconstruction of the financial system and the creation of conditions facilitating the implementation of the concept of sustainable development);
- the diachronic method (interpreting the fulfilment of the concept of sustainable development and the actions undertaken and implemented by the EU as a process subject to change and development, taking into account the diversity of the factors affecting the functioning of markets and businesses).

The article is divided into three parts. The first one presents definitions and theories on sustainability. The second part contains the analysis of selected sustainable finance instruments in the EU. The third part points to selected dilemmas related to the implementation of the sustainable finance concept in the light of the legal solutions adopted by the EU.

Sustainable finance: definitions and theories

Traditional financial tools, such as bonds or shares, are neither sufficient nor appropriate to support sustainable development. This is because the primary objective of financial activities is profit maximisation, without taking into account the multidimensional approach characteristic of sustainable development. In other words, traditional profit-oriented finance ignores key environmental and social aspects that are relevant to sustainable development (Zioło et al. 2021: p. 45). In the context of the challenges of sustainable development, the claim that the main purpose of companies is to generate profits is losing relevance.

The concept of *sustainable finance* attempts to reconcile the goals of sustainable development with the principles of the traditional financial system. Therefore, researchers also take a more detailed approach in formulating definitions, including a series of measures aimed at integrating social, environmental and economic factors into the decision-making processes of financial entities. Definitions of sustainable finance can be systematised according to the area of finance or management, with which the concept of sustainability is associated. Finance is considered to be sustainable if it supports development in three integrated dimensions: economic, environmental and social (Ryszawska 2016: p. 185–194). This definition establishes a direct link between finance and sustainable development and is close to the definition formulated in the *United Nations Environment*

Programme, where finance is considered as sustainable, when it meets the long-term needs of a sustainable and inclusive economy, taking into account economic, social and environmental aspects (see: United Nations Environment Programme 2017).

Migliorelli (2021) defines sustainable finance as that, which – by supporting sectors or activities – contributes to at least one of the key aspects of sustainability. In his considerations, he points out that sustainable finance is filled with a variety of concepts, definitions, as well as industry and policy standards, which can hinder its development. He suggests that, for simplicity, they should be called "finance for sustainable development" rather than "sustainable finance" (Migliorelli 2021).

Based on research concerning sustainable finance conducted between 1981 and 2018, Granier and Rigot found that the debate on the topic revolves around five themes, namely:

- the effectiveness of socially responsible investment funds (SRI),
- corporate social responsibility,
- the performance of socially responsible companies and stock market indexes,
- investment strategies of financial actors,
- the role of pension funds in sustainable development (Granier, Rigot 2021).

Sustainable finance can also be defined as finance that takes into account management (ESG) factors (Gerster 2011) in addition to environmental and social factors. Sustainable finance is defined by Ozili (2021) and Bakken (2021) in a similar way. Ozilli defines it as finance that takes ESG issues into account, when making investment decisions in the financial sector (Ozili 2021). Bakken, on the other hand, defines it as investment decisions that take into account ESG factors related to a particular business or project (Bakken 2021).

Sustainable finance can be understood as financial mechanisms that promote sustainable development and contribute to its goals. With regard to the allocation of capital in a more sustainable economy, it would be useful to note the definition formulated by the International Capital Markets Association, according to which *sustainable finance* is a concept that encompasses climate, green and social finance. It aims not only to achieve short-term profits, but also to ensure the long-term sustainability of both individual organisations and the financial system as a whole, while taking into account environmental and social aspects (International Capital Market Association 2020).

The literature on sustainable finance is a growing section of broader literature concerning finance. *Sustainable finance theory* is a relatively new area of research, which involves many academics, economists, politicians and activists. Sustainable finance is an area that combines elements of economics, finance, ethics, ecology, and sociology. As such, it is difficult to identify the main representative of this theory, because many sustainability concepts develop as a result of discussion and collaboration between a considerable number of people. Among researchers, scientists and activists, we can mention Daniel Kahneman or Amos Tversky,[3] who studied how people make economic

[3] Winners of the 2002 Nobel Prize in Behavioural Economics.

decisions, including sustainable investments. John Elkington introduced the concept of 'three-dimensional sustainability' (economic, social, and environmental), which he popularised as the *Triple Bottom Line* (TBL) in 1994. Many large banks and investment funds have developed their own sustainable investment strategies, and they are also actively involved in discussions on this topic. Non-governmental organisations (NGOs), such as WWF, *Greenpeace* and *Oxfam*, which have been working for environmental protection and social justice for years, are also promoting sustainable investments, as well as politicians and policy makers, who make decisions on financial market regulation that affect the development of sustainable finance at international and national level.

All of the above-mentioned circumstances and areas of research conducted to date have resulted in the formulation of theories of sustainable finance, such as: "the priority theory of sustainable finance, the resource theory of sustainable finance, the peer emulation theory of sustainable finance, the life span theory of sustainable finance, the positive signalling theory of sustainable finance and the system disruption theory of sustainable finance" (Ozili 2023: p. 6).

The *priority theory of sustainable finance* suggests that achieving sustainability goals should be an overarching objective for financial institutions. This means that investment and lending decisions should be made taking into account their environmental and social impact, not just financial profit. As Ozili points out, prioritising the achievement of sustainable finance goals does not necessarily mean that sustainable finance goals will be achieved. He believes that sustainable finance goals can still be achieved without making them a priority (Ozili 2023: p. 10; Wilson 2010: p. 267–280).

The *life span theory of sustainable finance* assumes that the interest of economic entities in sustainable finance is determined by the lifespan and current stage of development of financial products, services or instruments aimed to achieve sustainability. This theory emphasises that the rise or fall of interest in specific sustainable finance products[4] or services is closely linked to their life cycle. The application of this theory in practice can be hampered by the lack of precise information on the future of specific sustainable finance products or services (Ozili 2023: p. 11; Shabb et al. 2021).

The *resource theory of sustainable finance* indicates that countries with a greater stock of technology, knowledge and skills have an advantage in sustainable finance. It emphasises that a country's level of economic development is closely related to the quantity and quality of man-made resources, such as human or technological capital. Countries with more developed infrastructure and human capital have an advantage in sustainable finance. However, this theory does not take into account the fact that building such resources is a long-term process, which can lead to more affluent countries having a greater capacity to achieve sustainable development goals than poorer countries (Ozili 2023: p. 12).

According to the *theory of peer emulation in sustainable finance*, companies tend to emulate other businesses that have already achieved success in sustainable finance. This enables companies to quickly implement sustainable solutions that have already

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4 For example, green bonds, which popularity depends on various factors, including their stage of development.

proven successful for others. In this way, companies can avoid the risks associated with creating new, untested solutions (Cunha et al. 2021). However, it is important to bear in mind that solutions, which work in one country, may not be effective in another. Focusing solely on imitating others may limit the development of new, more effective solutions (Ozili 2023: p. 10).

The *positive signalling theory of sustainable finance* suggests that companies use communication about sustainability as a marketing tool to build a positive image. Sustainability disclosure helps to reduce the knowledge gap between investors and companies. There is a risk that companies may use sustainability communication to hide other issues (Ozili 2023: p. 12; Schoenmaker 2018).

On the other hand, the *disruption theory of sustainable finance* assumes that the transition towards sustainability poses challenges to the traditional financial system, forcing transactors to adapt. According to this theory, the transition to sustainable finance can cause major changes to the existing financial system. If companies have a full understanding of how to transition to sustainable finance, it will be easier for them to understand and accept the changes. Transition to sustainability does not necessarily mean a revolution in finance, but rather an evolution (Ozili 2023: p. 11; Oman, Svartzman 2021).

While presenting the above-mentioned definitions and theories of sustainable finance, we should take into account that the priorities of sustainable development and sustainable finance may vary over time in response to changing realities in the country or the world. If certain prominence is assigned to sustainable finance as a priority in economic development at a given time, this means also that all actors (economic, social, public institutions, etc.) will take it very seriously and make a great effort to achieve these goals. If they are not prioritised, then the effect will be the opposite (Kuhn 2020).

Investments in sustainable development, such as social infrastructure or environmental protection, are essential for the well-being of society. However, despite bringing high social benefits, they often provide little financial return. Consequently, the public sector is the main source of funding for such investments. However, in order to successfully implement costly development programmes, it is also necessary to involve the private sector. Therefore, blending public and private resources (blended finance) has become a key element in contemporary discussions on financing sustainable development (United Nations 2015: p. 9–10).

Despite numerous positive aspects of the development of sustainable financing of environmental investments, voices of criticisms can be heard. Critics of sustainable development point to a number of internal contradictions associated with the concept of sustainability. They point out that the necessary restrictions and regulations contradict the principles of a free market economy. Even assuming infinite progress, the Earth's resources are limited, which undermines the basic assumptions of the concept. As a result, sustainable development turns out to be difficult to reconcile with reality (Poczta-Wajda, Sapa 2017). Some scholars believe that nowadays the concept of sustainable development is interpreted in multiple ways, often serving as a political slogan rather than a concrete action plan. The lack of a clear vision of the future hinders the effective implementation of the Sustainable Development Goals (Cervantes 2013). Critics of sustainable development also point out that many of the initiatives already taken in this area have not delivered the expected results, and that the very model of sustainable development based on the principles of capitalism may be exacerbating social inequalities (Kosiek 2015).

Selected sustainable finance instruments in the EU

The concept of sustainable development began to be promoted in the EU in the early 1990s. However, the adoption of the *Paris Agreement* and the *UN 2030 Agenda for Sustainable Development* in 2015 was a special moment for the strengthening of environmental priorities in the EU's sustainable economic development (see: Council Decision (EU) 2016/1841). At that time, the European Commission intensified its work to establish a number of priorities that were to be, and should be, respected and implemented by EU Member States in 2014–2020[5] and 2021–2027.

In 2015, at the request of G20 finance ministers and the heads of central banks, the FSB[6] set up a special task force to explore how companies could better communicate the impact of climate change on their business. The purpose of this group was to create clear rules to allow investors to more easily assess whether a company was well prepared for future climate challenges. The first proposals for these principles emerged in 2017. The group's recommendations revolved around four thematic areas, representing the core elements of an organisation's operation: governance, strategy, risk management, indicators and targets (see: TCFD 2017).

Recommendations included the need to determine what information about climate risk should be made available by companies. It is important that this information enables them to ensure data consistency, comparability and analysis of different scenarios. This would enable companies to better assess how climate change may affect their business, and they can adjust their strategies accordingly.

Following the adoption of the climate agreement, in December 2016 the European Commission established the *High-Level Expert Group on Sustainable Finance* (HLEG) to develop a set of recommendations concerning the financial sector and the transition to a low-carbon economy. Progress in sustainable finance starts not with finance itself, but with defining the special economic model for sustainability. This is a low-carbon,

5 Priorities include the *Clean Air Policy* (European Commission WWWa), the *Circular Economy Action Plan* (European Commission 2023a), *A Framework Strategy for a Resilient Energy Union,* also known as *Energy Union Strategy* (European Commission 2015), the *Clean Energy for All Europeans Package* (European Commission WWWb), the *EU Strategy on adaptation to climate change* (European Commission 2013), *A New Skills Agenda for Europe* (European Commission 2016b), the *European Pillar of Social Rights* (European Commission WWWc, 2018c), the development of the *Blue Economy Financing Principles* (IFC 2022) and the *Investment Plan for Europe* (European Council WWW, see also: European Commission 2019).

6 The Financial Stability Board (FSB) was established in 2009. It is an international body tasked with monitoring the global financial system and makes recommendations on it. Its work involves coordinating the activities of national financial authorities and international standard-setting bodies in the development of sound regulatory, supervisory and other rules for the financial sector (see: GLEIF WWW).

resource-efficient and increasingly circular economy characterised by high employment, technological innovation and sustainable growth. This model should also include changes in the financial system to ensure that the EU economy is moving in the desired direction. This means changes in financial policy and regulation, as well as changes in the financial market (European Commission 2017: p. 2–3).

On 31 January 2018, the HLEG presented a comprehensive plan for building a sustainable financial system in the EU. This document concluded that sustainable finance should be based around two important needs:

1) enhancing the role of finance in sustainable and inclusive growth by financing the long-term needs of society,
2) strengthening financial stability by integrating environmental, social and corporate governance (ESG) factors into investment decision-making (European Commission 2018a: p.1–2).

Furthermore, eight key recommendations were defined as core elements of a sustainable European financial system, including:

- a proposal for a classification system for sustainable business activities (the so-called EU Taxonomy),
- the introduction of the *EU Ecolabel* for certain financial products and a standard for green bonds,
- recommendations on how financial institutions and companies should disclose how sustainability is taken into account in their decision-making processes (Deloitte 2019).

Based on the recommendations of the HLEG, in March 2018 the European Commission developed the *Action Plan on financing sustainable growth* (European Commission 2018a), and in July 2018 the European Commission set up *EU Technical Expert Group on Sustainable Finance* (TEG) to develop detailed guidance on sustainable development. The group included representatives from the academia, finance and business sectors. The first outcome of their work were reports on the disclosure of environmental impacts of activities and the creation of uniform system for classifying business activities in terms of their sustainability. This work was followed by three TEG's reports covering recommendations for an environmentally sustainable business classification system: the EU taxonomy (EU Technical Expert Group… 2020), green bond standards (EU Technical Expert Group… 2019) and disclosure of climate indicators and ESG factors.

In 2019, the EU established the *International Platform on Sustainable Finance* (IPSF), which provides a forum for dialogue between policy makers. Its aim is to develop regulatory measures on sustainable finance. Through this platform, its members can exchange and disseminate information to promote best practices, compare different initiatives, as well as identify barriers and opportunities related to sustainable finance, while respecting national and regional contexts. The platform's work is focused on the taxonomy of sustainable financing, comparing goals, metrics and performance criteria, and identifying common ground. It comprises 20 jurisdictions (including the EU), representing 51% of the world's population, 54% of global GDP and 58% of global greenhouse gas emissions, and it is focused on sharing and promoting best practices and comparing and aligning approaches to sustainable finance (European Commission WWWd).[7]

In order to implement the adopted plan for financing sustainable growth, the following legislation has been introduced:

- a directive setting out the principles for corporate sustainability reporting (*Corporate Sustainability Reporting Directive* – CSRD, see: Directive (EU) 2022/2464) and the complementary *European Sustainability Reporting Standards* (ESRS), which will be adopted as delegated acts supplementing the CSRD (European Commission 2023b);
- EU Taxonomy establishing a common classification system for identifying environmentally sustainable business activities (European Commission 2018b);
- Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on Sustainability Disclosures in the Financial Services Sector (SFDR) aimed at financial market participants and financial advisors to enhance transparency on sustainability aspects of the financial sector (see: Regulation (EU) 2019/2088).

The CSRD entered into force in January 2023. It amends the reporting requirements previously set out in the NFRD (Directive 2014/95/EU), which was adopted in 2014 and came into force in 2017, following its transposition into the *Polish Accounting Act*. This directive introduced an obligation for large companies, such as listed companies or banks, to regularly publish reports on their environmental, social and governance impacts. This increases the transparency of these entities' activities and enables a better assessment of their sustainability. It imposes new obligations on many more companies than before. In addition to large listed companies, it also covers medium-sized listed companies and large private companies. All these companies will have to prepare detailed reports on how their activities affect the environment, society and how factors such as climate change affect their financial performance (Steward Redqueen 2024: p. 18–20).

The *Non-Financial Reporting Directive* will take effect from 2025.[8] It will be applied also to companies already covered by the NFRD. Starting from 2026, the new requirements will be extended to all large companies. From 2027, the new rules will be applied to small and medium-sized enterprises (SMEs) listed on regulated markets (with the exception of micro-enterprises). However, they will be allowed to opt out voluntarily until 2029. Furthermore, starting from 2029, the new requirements will be indirectly applied to certain non-EU companies (Steward Redqueen 2024: p. 19).

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7 In November 2021, the IPSF published the first report on a common taxonomy, the result of a detailed comparison between the EU and Chinese taxonomies, including a mitigation target and the establishment of a permanent methodology for comparing the two taxonomies.

8 Companies within the scope of the NFRD in January 2022 started reporting the percentage of their activities (or the percentage of their exposure to activities) deemed eligible for the EU Taxonomy compared to non-eligible activities (i.e. not included in the taxonomy). At this stage, these companies are not required to assess the compliance of these activities with the EU Taxonomy. They are only required to report the activities related to climate targets (activities related to other targets will be published in 2023). Since 2023 non-financial companies within the scope of the NFRD are required to report the activities that have been found to comply with the climate targets of the EU Taxonomy.

The EU Taxonomy is a scientifically based classification system that serves to increase transparency on the financial market. It helps companies and investors to make informed decisions regarding sustainability. While it does not impose specific investment or environmental targets, it provides common criteria for assessing business activities in terms of their climate and environmental impact. The EU Taxonomy can be applied to companies covered by the NFRD/CSRD, as well as financial market participants offering financial products in the EU subject to the SFDR. It refers to entities offering products that promote environmental or social aspects. To be classified as environmentally sustainable, a business must make a significant contribution to at least one of the six environmental objectives and must comply with the OECD guidelines. These objectives are the following:

"1. Climate change mitigation,
2. Climate change adaptation,
3. Sustainable use and protection of water and marine resources,
4. Transition to a circular economy,
5. Pollution prevention and control,
6. Protection and restoration of biodiversity and ecosystems" (Steward Redqueen 2024: p. 19).

The assessment is made on the basis of harmonised thresholds, known as "technical screening criteria". These criteria were set out in delegated acts on the EU Taxonomy and contain rules for the practical implementation of the EU Taxonomy Regulation (see: Regulation (EU) 2020/852). These are:

- the Delegated Regulation on Climate established the DNSH principle (see: Commission Delegated Regulation (EU) 2021/2139),
- the Supplementary Delegated Regulation on Climate (see: Commission Delegated Regulation (EU) 2022/1214) setting out technical screening criteria for activities that can make a significant contribution to climate change mitigation and adaptation,
- the Delegated Regulation on Environment, setting out technical screening criteria for activities that can make a significant contribution to the other four environmental objectives (Commission Delegated Regulation (EU) 2023/2486).

The 2019 SFDR regulation came into force in March 2021. It imposes ESG disclosure obligations on two types of financial entities: financial market participants that manufacture and sell financial products and provide portfolio management services (i.e. asset managers, pension fund providers, banks and insurers) and financial advisers. Financial entities are required to disclose a range of information at entity and product level, including in relation to sustainability risks, and to consider adverse sustainability impacts in their investment processes (Steward Redqueen 2024).

We can find opinions in academic literature that integrated reporting is a response to the growing expectations of companies regarding the transparency of the organisation's activities in the area of corporate social responsibility and sustainability. Information on these activities is increasingly recognised as important for market participants (Berndt et al. 2014).

The *Sustainable Finance Action Plan* is part of a broader sustainable finance agenda. As a whole, it is difficult to capture all the EU legislation, initiatives, programmes or projects that are part of the implementation of the sustainable finance concept, or the institutions that are also involved in the process of building and coordinating integrated sustainability reporting. Complementing the wide range of legislation related to non-financial reporting by financial institutions and other companies, there are other flagship directives that include: „the Institutions for Occupational Retirement Provision (IORP II) Directive; the Shareholders' Rights II Directive; and the political agreement achieved on securitisation to include ESG requirements […]. In addition, the EU promotes the integration of climate policies and instruments such as the Emissions Trading System (ETS), the Adaptation Strategy, and the 2030 Climate and Energy Package into financial decisions through relevant procedures and practices" (European Investment Bank 2016; European Commission 2017: p. 9). The Investment Plan for Europe (EFSI 2.0) also should support EU action to foster sustainable investments for job places creation, economic growth, competitiveness and a low-carbon economy (European Commission 2017: p. 45).

The plan for creation of a capital markets union identified the need to promote European Green Bond Standards. The mid-term review of the Capital Markets Union (CMU) emphasised that a profound overhaul of the financial system is necessary to make investment more sustainable and the system to promote true sustainability from an economic, social and environmental perspective (European Commission 2016a). Also in the banking union, prudential regulation for the banking sector is largely based on international standards and guidelines, in particular the Basel capital standards package, as well as guidelines developed by the UN and the Financial Stability Board. Furthermore, the European Banking Authority (EBA) recommends that the European Commission and EU legislators support the adoption of long-term perspectives through clearer sustainability legislation, continue to increase disclosure of long-term risks and opportunities by both corporates and banks, improve information flows and access to data, and support the role of the banking sector in raising awareness of sustainability challenges and environmental, social and governance risks (European Banking Authority 2019: p. 4–5).

The general regulations for the implementation of the structural funds (see: Regulation (EU) 2021/1060) also refer to the principle of sustainable development. The Regulation 2021/1060 emphasises the importance of sustainable development for the European Union. In relation to that, at least 30% of EU budget expenditure must be allocated for measures that contribute to climate goals, while not harming the environment at the same time. The EU funds are obliged to support projects that are in line with the *Paris Agreement* and the UN Sustainable Development Goals. Also for European funds, the principle "do no significant harm" (DNSH) can be applied, which follows from the EU Taxonomy Regulation (see: Regulation (EU) 2020/852).

On the other hand, among the institutions involved in the development of the financial and non-financial reporting system for the Sustainable Development Goals there is the International Integrated Reporting Council (IIRC) – established in 2009 global coalition of regulators, investors, companies, standard setters, accountants and NGOs. Its mandate is to create and develop an international framework for integrated reporting.

Selected dilemmas related to implementation of the concept of sustainable financing in the EU

Implementing the concept of sustainability at company level is an arduous process, generating a lot of concerns and risks, not infrequently the need for organisational restructuring of enterprises. Problems arising with the implementation of the concept and the provision of sustainable financing can be grouped according to the markets, in which the companies or institutions operate, according to the thematic areas or sectors in which they operate, or which arise from the interpretation of the law. The state (government administration) is responsible for identifying problem areas and reporting them to the relevant bodies at European Union level. Due to the complexity of the problem related to the implementation of sustainable development, selected dilemmas formulated at the level are presented below:

- European Union, during the preparation of legal solutions;
- Poland, as the Member State;
- markets (in particular financial and capital markets), enterprises – related to the preparation of integrated reports and operational performance.

Businesses play a key role in the European Union's transition towards climate neutrality. They are the ones charged with taking decisive action on sustainability, including identifying and managing human rights and environmental risks in their value chains. The complexity of these chains requires companies to implement comprehensive management systems to identify and reduce the negative impact of their activities. The activities of EU companies, especially large corporations, are strongly linked to global supply chains. The complexity of these networks, involving numerous suppliers both within and outside the EU, makes it difficult to identify and reduce the negative impacts of business activities on human rights and environment. Greater transparency and systematic due diligence efforts across the value chain are needed to address this issue. Therefore, it is necessary to prepare solutions at EU level imposing cross-sectoral due diligence and corporate responsibility obligations (European Parliament Resolution (2020/2129(INL)). The European Parliament and the European Council have proposed legal solutions in the form of the *Directive on Corporate Sustainability Due Diligence* (see: Directive (EU) 2024/1760). It is important in terms of being able to meet the objectives set out in existing and planned Union's instruments in the area of human rights, including labour rights, and in the area of environment. Although EU environmental law imposes numerous obligations on companies and the Member States, its scope is limited to activities carried out directly within the Union. Meanwhile, much of the negative environmental impact of EU production[9] takes place beyond its borders, in global supply chains (Jungmichel et al. 2017).

Current regulations, such as the Environmental Liability Directive (see: Directive 2004/35/EC), are focused on the direct activities of companies and do not cover the

[9] It is estimated to be 80–90%.

harmful effects of their actions in value chains (European Commission 2022). EU Member States are becoming increasingly active in introducing sustainability due diligence legislation. While they are all pursuing the same objectives based on international standards (e.g. the UN Guiding Principles on Business and Human Rights, as well as the OECD Standards for Responsible Business Conduct), the adopted solutions are widely different. Some countries focus on specific aspects of sustainable development, while others take a more comprehensive approach. For example, the Dutch law, which establishes an obligation to carry out horizontal due diligence on child labour issues throughout the value chain. A political party in Austria has presented a draft law on social responsibility for forced and child labour in the clothing industry (European Commission 2022).

Companies operating in international markets, especially those with extensive supply chains, currently have to contend with a variety of sustainability regulations. This situation not only makes it difficult to do business, but also leads to an uneven playing field between companies from different countries. In the future, as regulation continues to evolve, these differences may become even more visible. In some cases companies may be subject to several different sets of rules at the same time, further complicating the situation. Gaps in the due diligence rules may lead to a situation where some companies can avoid their obligations under the new due diligence rules if their business is not sufficiently linked to the country in question. This gives them unfair advantage over competitors who have to comply with these requirements (European Commission 2022). On 24 May 2024, the EU Council adopted the *Directive on Corporate Sustainability Due Diligence* (CSDD, see: Directive (EU) 2024/1760). The Member States have two years to implement the provisions of the Directive into their national legal order.

The introduction of EU Taxonomy is, as already mentioned, a challenge for Polish entrepreneurs not only due to their operational activities, but from the interpretation of legal regulations. The *Working Group on the Application of the EU Taxonomy*, established at the Polish Ministry of Finance in May 2023, has prepared recommendations for further legislative work that should make it easier for entrepreneurs to adapt to the new regulations. These recommendations are based on the most important barriers, which include:

- limited access to the data necessary for reporting on the basis of the EU Taxonomy;
- the risk of "greenwashing" and unreliability of data obtained from third parties (low reliability of data or declarations necessary for reporting under the EU Taxonomy, including confirmation of compliance with the principle "do no significant harm" (DNSH), especially when obtained from foreign counterparties);
- lack of transparent regulations on reporting rules and calculation method for the climate change adaptation and mitigation target;
- lack of clarity on who is the independent third party that will effectively certify emission reductions and compliance with the DNSH principle;
- lack of publicly available tools to calculate the carbon footprint in terms of life cycle assessment (LCA);

- no indication of a specific methodology for calculating the carbon footprint, there is a need to develop a uniform interpretation for each footprint approach: direct emissions and those calculated in LCA;
- lack of reliable data on the carbon footprint of products in the EU and outside the EU (e.g. similar to the German database for construction products), including the lack of a ready-made Polish database for environmental product declarations (EPD) and precise guidelines (including at EU level) for setting and verifying the border carbon tax (CBAM);
- high costs of obtaining reliable data from external sources necessary to calculate e.g. the carbon/environmental footprint over the entire life cycle, e.g. cost of access to the database Ecoinvent (Laskowski 2023: p. 3–6).

When introducing new obligations for the operation of a company, including reporting obligations arising from the fulfilment of the idea of sustainable development, attention should be paid to their effectiveness. If the differences between the current information system and the new integrated reporting system will be minor, the costs associated with the company's creation of a new framework and standards may be too high in relation to the potential benefits. Matuszak (2016) emphasises the differences between traditional and integrated reporting. Integrated report is a comprehensive document that combines information from different areas of company operations, such as finance, management, corporate governance and sustainability. Its structure should reflect a holistic approach to management, and it is not just a compilation of different types of data. The aim of integrated reporting is to provide a more comprehensive view of the company's activities, taking into account both financial and non-financial aspects. While, on the one hand, integrated reports should be more comprehensible to a wide audience, on the other hand, their flexible nature can lead to differences in the way of presenting information. This makes it difficult to compare reports from different companies (Matuszak 2016: p. 112–114).

Similar doubts are expressed by Świderska and Bek-Gaik (2016): for example, whether the actual decision-making relevance of the integrated report will lead to success in attracting long-term investors, or whether the implementation of integrated reporting will result in changes to a company's business model? Integrated reporting raises dilemmas among entrepreneurs, mainly related to concerns about the possibility of losing competitive advantage as a result of too much disclosure (Świderska, Bek-Gaik 2016: p. 12).

A *Sustainability Reporting Survey* prepared in 2023 by KPMG indicates that less than a half of the surveyed companies in Poland identify and report on ESG factors that materially affect the value and business model of the company (KPMG 2023). The high percentage of companies that do not link ESG information to financial materiality indicates that there is still a lack of understanding in Poland of how environmental, social and corporate governance issues affect the value of a company. Although recommendations indicate that remuneration should be linked to the achievement of ESG, this practice is not widespread in Poland. One reason for this situation is that many Polish companies do not have well-defined and business-relevant ESG indicators to assess performance in this area (KPMG 2023).

The scope of what the financial sector should do in the area of ESG is very broad. On the one hand, banking sector institutions should comply with the reporting requirements under the Taxonomy Regulation and the SFDR disclosure and related regulatory framework. On the other hand, these institutions need to prepare themselves to incorporate ESG information disclosed by others into their decisions if they want to remain at the forefront of change. The construction of ESG risk assessment tools and the development of staff competencies are two pillars underpinning financial institutions' commitment to a sustainable financial market. Both are essential to enable effective monitoring of ESG risks and to support investment in projects with positive environmental and social impacts. This is even more important, since "the first climate risk stress tests conducted at banks in 2022, where risks related to material climate impacts as well as short- and long-term risks arising from the transition to a more sustainable economy were assessed, revealed that banks, despite certain progress, still do not adequately take climate risks into account. This applies in particular to the principles of stress testing and credit risk models. All these aspects require a strategic approach, including the definition of new professional roles in ESG and the directions of their development" (PARP 2023: p. 54). „Banks are required to integrate ESG criteria into their total risk management process, which creates challenges such as revising the financial institution's strategy, auditing customer and asset portfolios, or estimating ESG risks" (PARP 2023: p. 83).

Estimates from the European Central Bank (ECB) suggest that companies in the mining and energy sectors account for around 5% of banks' credit exposures. Although the banks' loan portfolios include entities in the mining and energy sectors, which have the highest carbon footprint, the risk for banks servicing these companies is low due to the low share of these companies' loans in the total loan portfolio.

Businesses in the manufacturing sectors account for a much larger share (around 20%) of banks' loan portfolios. This segment creates significant transition risk and represent the main source of climate-related credit risk in banks' corporate loan portfolios. Banks' exposure to transition risk from investments in securities of carbon-intensive companies is significant. Approximately 30% of banks' corporate equity and bond portfolios represent investments in entities with a high carbon footprint (Zioło 2023: p. 46–47).

Sustainable finance regulations are also forcing organisational changes in financial institutions and companies. The preparation of non-financial reports necessitates the cooperation of all units in a given financial organisation or enterprise. Among the specific competences of the employees of the above-mentioned institutions related to the implementation of tasks in the area of sustainable development, the following are mentioned: analytical thinking skills allowing for the identification of areas requiring greater attention from companies and the recognition of possible fields requiring correction, knowledge and correct understanding as well as ability to analyse new requirements and legal acts, high competence in the field of the banking system functioning and ESG risk management, knowledge of the specific nature of the financial industry in the context of ESG, a strategic approach to introducing changes in the organisation, taking into account ESG factors and an attitude towards this issue based on personal commitment (Zioło

2023: p. 76). Unfilled competence gaps in ESG can significantly limit the pace and scope of financial sector transformation. This leads to the need to intensify efforts and investments in building ESG competencies in the financial sector through the development of co-operation between all stakeholders, including higher education (Zioło 2023: p. 91).

In addition to banks, which can be regarded as leaders of change in financing sustainable development, the stock exchange should also be mentioned as being a strong leader of change in this area. For more than 20 years, the WSE (Warsaw Stock Exchange, pl. *Giełda Papierów Wartościowych w Warszawie*) has been working for the development of the capital market in terms of corporate governance issues of listed companies and has supported the processes of integrating sustainability factors into the business activities of companies. The result of these activities are the regulations on *Good Practices of Companies Listed on the WSE*, in force since 2002,[10] and they are aimed at increasing the transparency of listed companies, improving the quality of communication between companies and investors, strengthening the protection of shareholders' rights, also in matters not regulated by law, not imposing on listed companies burdens that are not offset by market benefits (Giełda Papierów Wartościowych 2021). This was followed by the introduction of the RESPECT index in 2009 to promote socially responsible business, which was replaced by the investable WIG-ESG index in 2019. In June 2023, the *Warsaw Sustainable Segment* was launched, which is a dedicated section on the website gpwcatalyst.pl containing information on bonds issued by companies or government entities, the funds raised from which are used for projects financing sustainability. In 2021, the WSE announced the *WSE Group ESG Strategy 2025*, which defines the WSE's long-term commitment to promoting sustainable development and implementing ESG initiatives. The WSE also publishes *ESG Reporting Guidelines* (see: Steward Redqueen 2024), which provide a practical tool to support issuers in disclosing ESG data in line with the needs indicated by investors.

The aforementioned regulations can also be applied to the insurance sector. Insurance companies are obliged to regularly report on their environmental and social impacts and to inform customers about the sustainability of investment products. The new regulations require insurance intermediaries to assess customers' sustainability preferences and take them into account when selecting products.

Conclusions

The issue of financing sustainable development, both on a global and European scale, has increased importance in recent years. In the face of ambitious environmental goals, such as those set out in the *Paris Agreement* and the *UN 2030 Agenda for Sustainable Development*, significant financial resources need to be mobilised. According to the European Commission estimates, the sustainability investment gap in Europe is at least €350 billion per year. The main objective of the *EU Action Plan on Financing Sustainable Growth* is to transform the financial system to support sustainable and inclusive growth.

[10] Since 1 January 2016, the WSE also applies the corporate governance principles developed in the form of the *Best Practices for WSE Listed Companies*, which were updated in 2021.

This means channelling investment towards environment-friendly and community-friendly projects, managing risks associated with climate change and other threats, and ensuring greater transparency in financial activities. The analysis carried out for the purpose of this article leads to the conclusion that EU institutions are seeking to equip all stakeholders involved in the process of redesigning the financing system for sustainable investments with the appropriate instruments to enable them to fulfil their obligations under EU legislation.

However, due to the complexity of sustainability issues,[11] they are not described in a way that enables consistent and comparable data to be presented by companies and other market participants in all EU Member States. These instruments require continuous monitoring, supplementation and clarification of legal solutions from the EU and Member State level. They also require increased organisational and human resources on the part of entrepreneurs and other market participants. They also require greater commitment and creativity in the launch of new products to finance environmental investments, but with a significant administrative burden, indicator on the side of the borrower, etc. the European Union has set itself the ambitious goal of achieving EU climate neutrality by 2050. This means that all Member States should reduce their greenhouse gas emissions to zero, while the intermediate target is to reduce emissions by at least 55% by 2030.

With these assumptions in mind, further questions arise which undoubtedly should be pursued as a follow-up to this study. Namely, at what cost will the EU Member States achieve these targets, if at all? How will this cost be distributed among the individual Member States, the burden on public finances and on businesses and other financial institutions? What will be the cost per capita for an EU citizen? How will these costs correspond to reductions in greenhouse gas emissions on a global scale if countries on other continents do not take responsible action to protect the climate and the environment? Whether, all things considered, the people of Europe will not face higher costs of living or doing business compared to other countries? And when will it even be possible to say that the Sustainable Development Goals have been achieved or are being achieved at a satisfactory level in view of the ongoing process of global climate change?

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[11] E.g. the detailed nature of indicators to be pursued and presented by different stakeholders, the classification of activities as environmental, the interpretation of EU regulations and their alignment with national law, etc,

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