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What Role Does Sustainable Finance Play in Achieving Sustainable Development Goals?

Wafaa SHABBAN[1]

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Abstract

Moving to a circular economy with low carbon emissions is the main recommendation for saving our planet. The most influential call to action for ending poverty and saving the planet had been adopted by United Nations in 2015, known as Sustainable Development Goals (SDGs). Sustainable finance represents one of the most notable trends in recent years, shifting from caring about achieving short-term profit to creating long-term value. It needs more effort to manage all resources toward achieving sustainable outcomes by taking into account environmental, social, and governance aspects when making investment decisions. The main purpose of the study is to analyse the role of sustainable finance in achieving the Sustainable Development Goals by providing an overview of the diverse acceptations, in broader or narrower scope, as retrieved by the scientific literature, financial intermediaries, and international bodies in the field of sustainable finance. The paper comprehensively synthesises the taxonomy of sustainable finance activities by outlining their dynamic, continuously evolving nature. It is examined, through in-depth desk research, the potential role sustainable finance may play in achieving Sustainable Development Goals and climate neutrality, in order to answer the main research question. Using finance as a tool to achieve social, economic, or environmental sustainability is an attractive issue for many researchers, but most of the studies focused only on studying the effect of sustainable finance on one of the Sustainable Development Goals. Consequently, the added value of this paper is of a theoretical and conceptual nature. The results suggest that the main role of sustainable finance is to support the move to a sustainable economy, which further contributes to the achievement of SDGs by acting as an effective tool in this transition to a green economy and promoting development in renewable and clean energy, while at the same time catalysing social and economic sustainability.

Keywords: sustainable finance; climate finance; impact finance; green finance; sustainable development goals.

JEL Classification: F65, Q56.

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[1] Bucharest University of Economic Studies, Bucharest, Romania, e-mail shabbanwafaa22@stud.ase.ro.

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1. Introduction

Historically, sustainability as a concept appeared in the financial and economic literature relying on the environmental interpretation launched during the United Nations Conferences in the 1970s and 1980s (Soppe, 2004).

The first article on sustainable finance was published by Ferris and Rykaczewski in 1986 and concerned the benefits of social investment in portfolio management (Kumar et al., 2022). Since then, sustainable finance has represented a challenging and continually evolving concept in the financial literature (Rambaud, Richard, 2016).

The way of thinking about sustainable finance has evolved over the years, passing through different stages, its main benefits ranging from focusing on achieving short-term profit to long-term value creation (Schoenmaker, 2019).

Previously, there were no environmental concerns embedded in the economic models because the natural resources were abundant, and the emissions of carbon were limited, therefore, the economic models and even the financial theory were concerned only with work and capital, without taking into consideration that these resources should be better managed, to overcome the environmental risks.

There is a need to transfer to an economy with low carbon emissions and more circular. Concerns about the impact of economic investments on the environment and social structure have been discussed for years through research like the relationship between finance and sustainability, which further gives rise to the Environmental, Social, and Corporate Governance (ESG) criteria in investment decision-making (Friede et al., 2015), and regarding the impact of investments on climate change and human rights.

To achieve sustainable outcomes, according to (Fatemi, Fooladi, 2013), we need to incorporate sustainable value into all practices and outcomes, by considering government and social problems and accounting for all benefits and costs. Furthermore, the finance market has recently shifted toward creating social and environmental impact, as well as financial return, despite the long history of supporting “social-economic” goals (Nicholls, 2021).

The shifting or transition represented terms used to describe the evolution from our traditional financial system to a financial system based on environmental and social responsibility (Ryszawska, 2016). According to the European Commission, transitional activities refer to a specific set of activities that aim to make significant contributions and support efforts to mitigate climate change. The main idea in transitional activities is not the nature of the activity or the sector, but how the activity is performed, in order for the activity or project to be qualified as low carbon or contribute to sustainability in climate change mitigation, and supporting the transition to a climate neutral economy in a direct way (Platform on Sustainable Finance, 2021).

International initiatives like the United Nations Sustainable Development Goals and the Paris Agreement on climate actions can provide decision makers, practitioners, and businesses with clear guidance on their projected investments (Sommer, 2020). The Sustainable Development Goals represented an international

call to save the planet and mankind, through joint action that protects people, ends poverty, protects our planet, and improves the quality of lives; In 2015, all UN members adopted 17 goals as part of the 2030 Agenda for Sustainable Development (United Nations, 2022).

The paper is structured as follows: Section two provides an overview of the various acceptations, in broader or narrower scope, as retrieved by the scientific literature, financial intermediaries, and international bodies in the field of sustainable finance. Section three synthesises the taxonomy of sustainable finance activities by describing their dynamic, continuously evolving nature. Section four examines, through an in-depth desk research, the potential role sustainable finance can play in achieving the Sustainable Development Goals (SDG) and climate neutrality. The last section concludes.

2. Sustainable Finance – Review of the Various Acceptances

Sustainable finance, according to the European Commission, considers ESG issues as the principal step when investment decisions have been taken in the financial sector, which will lead to more long-term investments in sustainable economic activities and projects, therefore supporting economic growth and reducing pressures on the environment, by additionally considering social and governance considerations.

Sustainable finance can play the main role in allocating financial resources and seek them in more sustainable fields, by looking at the interactions between finance and environmental, social, and governance issues, which will make the transition to a low carbon economy more rapid (Schoenmaker, Schramade, 2020). Complementary, Mahesh et al. (2022) defined it as a financial instrument that contributes to financial development through better financing for supporting economic growth, which leads to protecting the ecological system by fighting climate change and its effects (reducing and regulating carbon emissions, promoting finance for investments in renewable energy, etc.). Thus, it will lead to more achievements in terms of sustainable development towards saving our planet and its three basic elements: environment, society, and economy (Mahesh, Aithal, Sharma, et al., 2022).

Generally, traditional finance was looking for optimal financial returns with less risk to maximise shareholder value (Schoenmaker, 2019). In this acceptance, the financial sector is separated from society and the environment and is concerned only with generating high returns. On the contrary, sustainable finance cares about social and environmental factors in addition to financial returns (Schoenmaker, 2017).

According to Migliorelli (2021), sustainable finance represents a 'self-standing factor' in efforts to achieve a sustainable society, particularly in line with the Sustainable Development Goals and the Paris Agreement. Thus, to develop a workable definition of sustainable finance, we should make references to two main issues: 1) the identification of the effective and possible dimensions of sustainability and trying to include sustainability in the investment decisions, and 2) include the evaluation of contributions or the impact of each economic activity in the

achievement or progressing toward at least one of the sustainability dimensions. Therefore, sustainable finance is defined as a type of finance that supports activities and sectors that trigger effects or exert a contribution to the achievement or progress in at least one of the sustainability dimensions, such as the preservation of the environment and the fight against climate change (Migliorelli, 2021).

Today, sustainable finance represents a booming field in the development of the financial market, but is dominated by financial institutions that seek to achieve mainly profit (Urban, Wójcik, 2019), which represents an obstacle to the achievement of sustainable financial behaviour. Therefore, the sustainable finance market can be divided into negative sustainable finance and positive sustainable finance according to its impact on the three dominances of ESG; the investments can be scanned according to the material risk profile of it; if there is no harm, it is considered negative sustainable finance, but if there is a potentially significant positive effect on the environment or social dominations, often aligned with the Sustainable Development Goals; it can be classified as positive sustainable finance (Nicholls, 2021).

The World Economic Forum defined sustainable finance as a set of activities, starting from investors who invest their money only in green projects related to institutions that take into consideration social values or good governance, so each investment is dominated by ESG considerations, and investors will not have choices between profit or saving the planet, which represented priority; therefore, they will take into account ethical business standards and inclusion when they invest their money, thus leading to make our world better (World Economic Forum, 2022).

Increasing sustainable economic growth by supporting interactions between financial services and ESG criteria represents the main objectives of sustainable finance, which had been established by the European Banking Authority. In addition to increasing the awareness of financial participants about the need to mitigate ESG risks by implementing good management practices of these risks, taking into consideration the particular nature of these risks, the uncertainty about their valuation and pricing (EBA, 2022). In this sense, sustainable finance from the point of view of BBVA bank represents the ability of the financial institution to be a creative choice for investment, not only for its financial indicators, but also for ESG criteria, thus increasing its financial resources (BBVA, 2022).

The market of sustainable finance, which aimed to merge financial returns with creating environmental and social impacts, is distinguishable because it still employs confusing and poor inconsistent terminology (Nicholls, 2021). In the following (see Figure 1), a series of terms related to sustainable finance, defined by ICMA are synthesised, which may give us an overview about the coverage and depth of sustainable finance terminology used in practice.

Figure 1. Sustainable Finance Terminology

Source: Prepared by the author according to ICMA (2020b).

3. Typology of Sustainable Finance Activities

The sustainable financial system caused non-stability in the traditional financial system and opened the way to creating suitable innovations (Ryszawska, 2016). Today, the current international discourse on sustainability is focused on the environment, especially climate change. However, the concept of sustainable finance is wider, including Green Finance, as well as social and governance-related aspects (Sommer, 2020). Some strands of literature attempt to provide evidence on the causal relationship between green finance, clean energy, environmental responsibility, and green technology as different types of sustainable finance (Madaleno et al., 2022). Clean energy, green financing, development of green economy and green bonds represent *sustainable practices* that can be measured by the ESG pillars (Yang et al., 2022).

Although there are different kinds of sustainable financial products, services, and securities in the financial market, the guidelines that have been issued by international institutions (ICMA and European Commission, for instance) have shown just the main categories of it, and have merged the rest, such as *green bonds* and *social bonds* (Migliorelli, 2021).

To achieve the EU's objectives related to climate and energy, and reach the goals related to the European green deal in 2030; the European Commission issued an

EU taxonomy for sustainable finance that was published in the journal of the European Union in 2020, It is a cornerstone of the EU's sustainable finance framework (European Commission, 2022). It represents a valuable tool for achieving a green financial system, with the aim of translating the ambitious EU climate and environmental goals into clear criteria for economically green investments / projects or environmentally sustainable. According to the EU taxonomy, the *green economic activities criteria also* include a series of EU environmental *objectives*:

- generating a positive effect on climate change mitigation and adaptation;
- protection of the resources of water and making efforts for its sustainable use;
- control and prevention of pollution;
- protection and restoration of biodiversity and ecosystems.

The conditions that have to be achieved to classify an activity as an environmental one include:

- exerting a sustainable effect for at least one environmental objective;
- do not do any significant harm to any environmental objectives;
- complying with the social safeguards and technical criteria (European Commission, 2021).

In complementing the EU's initiative for a generally accepted taxonomy for sustainable finance, the International Capital Market Association (ICMA) has provided capital market participants with specific guidelines for issuing bonds (The Social Bond Principles – The Green Bond Principles). In the acceptance of ICMA, impact bonds may be classified into three main categories:

1. **green bonds**, representing any kind of bond instrument that provides finance or re-finance in part or full, related only to new or existing *green projects* (ICMA, 2022). These low-carbon investments and projects have impacts on climate change mitigation or adaptation, of natural resources, by saving biodiversity and reducing pollution (Madaleno et al., 2022). The main idea of green finance is to use the proceeds of green bonds exclusively for the further financing of green projects, which are evaluated according to the Principles of Green Bonds, which enumerate some of the green project categories (for instance, renewable energy, energy efficiency, pollution prevention and control, environmentally sustainable management of living natural resources, and land use, clean transportation, sustainable water, and wastewater management, climate change adaptation, circular economy adapted products, production technologies, and green building) (ICMA, 2022).
2. **social bonds,** which represent a type of security whose proceeds may be further used for providing financing toward new or existing social projects or investments like providing or/and promoting access to basic services, affordable basic infrastructure, programs designed to support the unemployed from social or economic crises, sustainable food system and food security, empowerment and social improvement (ICMA, 2020a).
3. **sustainable bonds,** which are a type of bond that mixes social and green projects (ICMA, 2020a).

The World Bank also works through its institutions for uncovering sustainable solutions; it has initiatives to support sustainable finance, such as the World Bank Long-Term Finance Group initiative represented by *The Global Program on Sustainability.* The main idea of the program is to encourage the use of high-quality data in making decisions by governments, financial institutions, and investors, which will promote analyses related to natural capital resources and environmental systems.

The second initiative from the World Bank is *The Sovereign ESG Data Portal*. The main outcome of this initiative is to provide investors and policymakers with the tools and information necessary to achieve the best understanding of sustainable criteria. This initiative is supported by the first one (The Global Program on Sustainability).

Under a Green Recovery initiative, which aims to support countries in building recovery plans from Covid-19 with a low-carbon and climate-resilient focus, in 2020 the World Bank launched the initiative *Climate Support Facility*, a new trust fund supporting governments with technical and advisory services.

Although the *IFC Edge of the World Bank* represents innovation, it is a response to the call for measurable solutions to ensure the business case for the green economy and building, especially. In addition, the World Bank programs are aimed to support green bond issuance and green regulatory frameworks, such as the *J-Cab* program, which focuses on six countries with priority, and supports them technically to achieve the objectives of the program (The World Bank, 2022).

To support the transition to more sustainable and inclusive economies across the financial system, the United Nations has created a network meant to gather investors, insurers, and banks to support efforts to accelerate sustainable development within the United Nations initiative (*United Nations Environment Programme Finance Initiative*). Under this initiative, the UN has designed in 2019 a framework for responsible banks called *The Principle for Responsible Banking,* which represents a unique framework. It consists of six principles designed to ensure alignment between the practice and strategies of the signatory banks with the vision of the Sustainable Development Goals and the Paris Agreement. All signatory banks should incorporate all principles into their business strategies and all business areas.

As part of United Nations initiatives, in 2021, the United Nations convened the Net-Zero Banking alliance, which aims to provide an international framework and principles to support the implementation of carbon neutrality strategies. The alliance aims to gather a representative group of banks that are committed to achieving the goal of net zero emissions in 2050 in all their portfolios.

Based on the importance of supporting the global response to the major requirements of the Paris Agreement and enabling the role of the financial system in the transition to a low-carbon and green economy, in 2017 a group of central banks and supervisors has established the *Network of Central Banks and Supervisors for Greening the Financial System (NGFS*).

The NGFS network defined the best and most effective practices that each member has to implement, in addition to analysing the progress on green finance (NGFS, 2022).

Many efforts have been made by the European Commission to support the transition to a sustainable European economy, such as issuing a strategy and framework to support all efforts to achieve sustainable finance and transition to a sustainable economy. In particular, the EU Sustainable Finance framework depends on three main pillars.

- EU taxonomy: adopted in 2020, it is a common classification of sustainable economic activities, depending on clear criteria;
- disclosure, to help investors choose sustainable investments; there is a need to encourage both financial and nonfinancial institutions to disclose all necessary information. The Sustainable Finance Disclosure Regulation applies since 2021;
- tools designed for each participant (companies, market participants, and financial intermediaries) to develop sustainable investment solutions and prevent greenwashing, such as the EU Climate Benchmarks Regulation, which applies since 2020 (European Commission, 2022).

4. The Role of Sustainable Finance in Achieving the Sustainable Development Goals (SDG) and Climate Neutrality

Moving to a circular economy with low carbon emissions is the main objective of saving our planet and our lives. The basic task of sustainable finance is to seek and channel funding for more productive and sustainable sectors (Schoenmaker, Schramade, 2020). Currently, according to Sun et al. (2015), the incorporation of financial factors with nonfinancial factors (ESG factors) is responsible for shifting to a sustainable financial system (Zioło et al., 2021).

More efforts from European regulations are concerned with shifting to a low-carbon, more efficient resource use, and sustainable economy (Ahlström, Monciardini, 2022). To achieve the objectives related to the green deal and support the transition to the green economy, it is necessary to increase private investments in sustainable projects; therefore, sustainable finance acts as a tool to achieve the green transition (European Commission, 2022). The basic role of sustainable finance in supporting the sustainability transition process consists of moving to a financial system with environmental and social responsibility (Ryszawska, 2016).

Sustainable finance plays an important role in achieving the Sustainable Development Goals, as documented by the study by Ziolo et al. (2021), which reports a series of findings:

i. a strong link between *sustainable finance and social sustainability* (1-3-5-10-16 SDGs: ending poverty in all its forms everywhere; ensuring healthy lives and promoting well-being for all ages, reducing inequality within and among countries, promoting peaceful and inclusive societies for sustainable development and providing access to justice for all, building effective, accountable, and inclusive institutions at all levels);

ii. strong relationship between *sustainable finance and environmental sustainability* (11-12-13-15 SDGs. The goals represented: make cities and human settlements inclusive, safe, resilient, and sustainable; ensure sustainable consumption and production patterns; take urgent actions to combat climate change

and its impacts; protect, restore, and promote sustainable use of terrestrial ecosystems, sustainable management of forests, combat desertification, and deserve land degradation and halt biodiversity loss);

iii. a strong link between *sustainable finance and economic sustainability* (8-9-17 SDGs: promote sustained inclusive and sustainable economic growth; full and productive employment and decent work for all; resilient infrastructure; promote inclusive and sustainable industrialisation).

From the viewpoint of Lange and Schmitt (2019), sustainable banks can significantly contribute to achieving financial inclusion and make a social turnaround by adopting a sustainable culture that takes into account human rights and good governance standards.

Another study examined the causal relationship between green finance and sustainable finance; the results show that green finance produces positive impacts on sustainable finance in multi-subperiods (Wang et al., 2022).

There is also evidence of a strand of literature that focuses on the role that sustainable finance plays in the environment.

According to Madaleno et al. (2022), the role of Green Finance and Green Technologies has been observed in dealing with carbon neutrality in the long and short run by promoting carbon neutrality. Furthermore, to achieve successful energy transition and sustainable development goals, it is necessary to design a policy that strengthens green finance and environmental responsibility by funding green technology (Madaleno et al., 2022).

By promoting developments in renewable energy and regulating carbon emissions, sustainable finance fights against climate change (Mahesh, Aithal, Sharma, et al., 2022) and its adverse impacts on macroeconomic indicators, such as inflation, growth, and employment, on financial stability, on the value and risk profile of financial assets, leading to greater climate-related financial risk (Elderson et al., 2022).

The development of sustainable finance and renewable energy plays a fundamental role in achieving carbon neutrality goals (it can facilitate its achieving), according to the study by (Qin et al., 2022) that examines the effect of sustainable finance and renewable energy in the United States. The findings indicate that in the short term, there is a negative effect of renewable energy on CO_2 emissions, so increasing renewable energy seems to generate a greater effect on CO_2 emissions than reduce it. In addition, the direct impact of sustainable finance on carbon neutrality is more significant than the impact of renewable energy.

Green technology funding is important to strengthen and improve sustainable responsibility and green finance, leading to a successful shift to clean energy and achieving sustainable development goals (Madaleno et al., 2022). The use of green finance and renewable energy sources has a positive effect on sustainable development and a negative effect on carbon emissions according to a case study conducted at the country level by Zhou and Li (2022).

The importance of sustainable finance has also been studied in conjunction with the health care system, arguing that sustainable finance that emerges from

ESG factors implemented in the decision-making process must be the main concern according to hospital policy makers (Sepetis, 2020).

5. Conclusions and Future Research Directions

Each effort to achieve the Sustainable Development Goals has to start from the belief that our economic, environmental, and even social resources are not sufficient. We need more effort to save them by taking into consideration these aspects in our designs and try to better manage these resources through considering ESG issues as the principal step when investment decisions have been taken in the financial sector.

The need to transfer to an economy with low carbon emissions and more circular features is increasing day by day; this shifting also being noticeable in terms of moving from a traditional financial system to a financial system based on environmental and social responsibility. Sustainable finance plays a leading role in the responsible allocation of financial resources toward more sustainable fields, which will make the transition to a low carbon economy more rapid. It may start from investors, when they invest their money only in green projects, without any choices between profits or saving the planet. This change of priorities should take into account ethical business standards and inclusion when they invest their money, thus leading to making our world better, by reconciling financial returns with creating environmental and social impacts.

There are many types of sustainable finance products and activities, and we can distinguish them from non-sustainable ones through some criteria or even through the purpose of each activity. Many efforts have been made by international organisations to support the transition to a sustainable economy, such as issuing strategies, principles, and frameworks to support all efforts in order to achieve a sustainable financial path and transition to a sustainable economy and support global response to the major requirements of a sustainable economy.

Finance acts as a leader of sustainable efforts; therefore, sustainable finance plays the main role in channeling funding for more productive and sustainable sectors, which will lead to a more sustainable economy that subscribes to achieving the Sustainable Development Goals.

A strong link is present between sustainable finance and social sustainability, through manifold indicators representing several social goals like ending poverty, promoting healthy lives and better health care systems, and accountable in addition to an inclusive society. Also, there is a strong link between sustainable finance and a sustainable environment; through green technology and renewable energy, and other types of sustainable products and activities, one can promote a sustainable environment and while leading to a successful shift to clean energy and achieving carbon neutrality goals. In the same vein, sustainable finance promotes sustainable economic goals through promoting inclusive, smart, and sustainable economic growth, productive employment and decent work for all, resilient infrastructure, inclusive, and sustainable industrialisation.

The added value of this paper can be considered as a theoretical approach, the article providing an overview of the diverse acceptations, in broader or narrower

scope, as retrieved by the scientific literature, financial intermediaries, and international bodies in the field of sustainable finance. In addition, it synthesises the taxonomy of sustainable finance activities by describing their dynamic, continuously evolving nature, and examines, through an in-depth desk research, the potential role sustainable finance can play in achieving the Sustainable Development Goals (SDG) and climate neutrality. In this approach, the study has original theoretical and methodological scientific value.

In light of the increasing importance of achieving Sustainable Development Goals and the significant role of sustainable finance, the economic and business models at all levels are supposed to cover economic, social, and environmental aspects as fundamental indicators. Therefore, more advanced research should be developed to determine the value of each ESG criteria related to investment projects aiming at achieving SDGs, the literature review that performed in the paper could be used for developing further research in achieving SDGs goals.

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