THE ROLE OF SUSTAINABLE FINANCE AND INVESTMENTS IN THE GREEN RECOVERY

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Abstract
The climate change and sustainable development issues have increasingly become a subject of global concern in the last decades and even more due to the impact of the Covid-19 pandemic. Therefore, the concept of sustainable finance has gained lately more substance and features. The main objective of this research is to conceptually analyse the character and importance of sustainable finance as required nowadays for a green recovery after the latest major health, environmental, financial, economic, and social Covid-19 crisis and for the transition to a sustainable economy, in the particular case of European Union. The methodology is based on the literature, own outcomes, analysis and synthesis, in order to reveal some of the most important factors for the development of a new paradigm of sustainable finance as well as the objectives and principles of development. The first part is dedicated to the scientific and theoretical background, while in the second part of the paper body it is analysed the sustainable financial system of the European Union. Although the foundation blocks have been stated and there are already successful sustainable investments in green projects (as in Romania e.g.) conclusions suggest that this is only the beginning of a new era of the sustainable financial framework, enabling the EU economy to transform and recover while taking in consideration the ESG criteria and especially the climate neutrality goals.

Keywords: *sustainable finance, investments, green recovery, principles, transition, financial framework*

Clasificare JEL: *Q01, Q54, Q56, G32*

1. Introduction and context of the study

In the last about 20 years, it has become obvious that the global climate crisis is getting more serious and aggravated. It is now clear that climate change and environmental degradation are the most striking global challenges of our time, obliging countries to recognise the urgent need to address them, as in their support for the Paris Agreement and the United Nations 2030 Agenda for Sustainable Development.

As science and especially ITC means have developed allowing for deeper and increased climate research, there is indubitable evidence that human activities have led to the alteration of the climate and environmental balance.

Within the European Green Deal, the EU has made ambitious commitments, in particular to become the first climate-neutral continent by 2050 and to reduce greenhouse gas emissions by (at least) 55% by 2030 compared to 1990 levels. Therefore, EU also aims to reach resilience to climate change, reverse biodiversity loss and degradation of the environment and to leave nobody behind in the process.

In the last years, the EU has been building a sustainable finance framework to support the flow of private finance towards sustainable economic activities in order to make the transition to a carbon neutral economy possible by 2050. The EU sustainable finance framework will play a key role in meeting these targets and supporting a sustainable recovery from the COVID pandemic. Europe will need an estimated EUR 350 billion per year in additional investment over this decade (2021-2030) to meet its 2030 emissions-reduction target in energy systems alone. Alongside, 130 billion EUR will be needed for other environmental goals. [4]

Besides, sustainable private investment is now an issue of global interest and importance: it is estimated that the COVID-19 pandemic has increased with 50% the financing gap for implementing the UN 2030 Agenda in developing countries, at USD 3.7 trillion in 2020. However, investing only 3.7% of the global institutional assets (over USD 100 trillion in 2019) towards sustainable activities in those countries would fill that gap. [15]

The main objective of this research is to conceptually analyse the character and importance of sustainable finance as required nowadays for a green recovery after the latest major health, environmental, financial, economic, and social Covid-19 crisis.

2. Conceptual background and issues

For reference on the harmful influence of the global economic development on the climate and environment, the latest AR6 IPCC assessment report, **Climate Change 2021.The Physical Science Basis** comes to the statement that: „It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred". (A.1) [11]

Further insights from the AR6 IPCC report suggest that:

- Each of the last four decades has been successively warmer than any decade that preceded it since 1850. Global surface temperature in the first two decades of the 21st century (2001-2020) was 0.99 [0.84- 1.10] °C higher than 1850-1900;
- The likely range of total human-caused global surface temperature increase from 1850–1900 to 2010–2019 is 0.8°C to 1.3°C, with a best estimate of 1.07°C. It is virtually certain that the global upper ocean (0–700 m) has warmed since the 1970s and extremely likely that human influence is the main driver. It is virtually certain that human-caused CO_2 emissions are the main driver of current global acidification of the surface open ocean.
- Changes in the land biosphere since 1970 are consistent with global warming: climate zones have shifted poleward in both hemispheres and the growing season has on average lengthened by up to two days per decade since the 1950s in the Northern Hemisphere, extra tropics (high confidence).

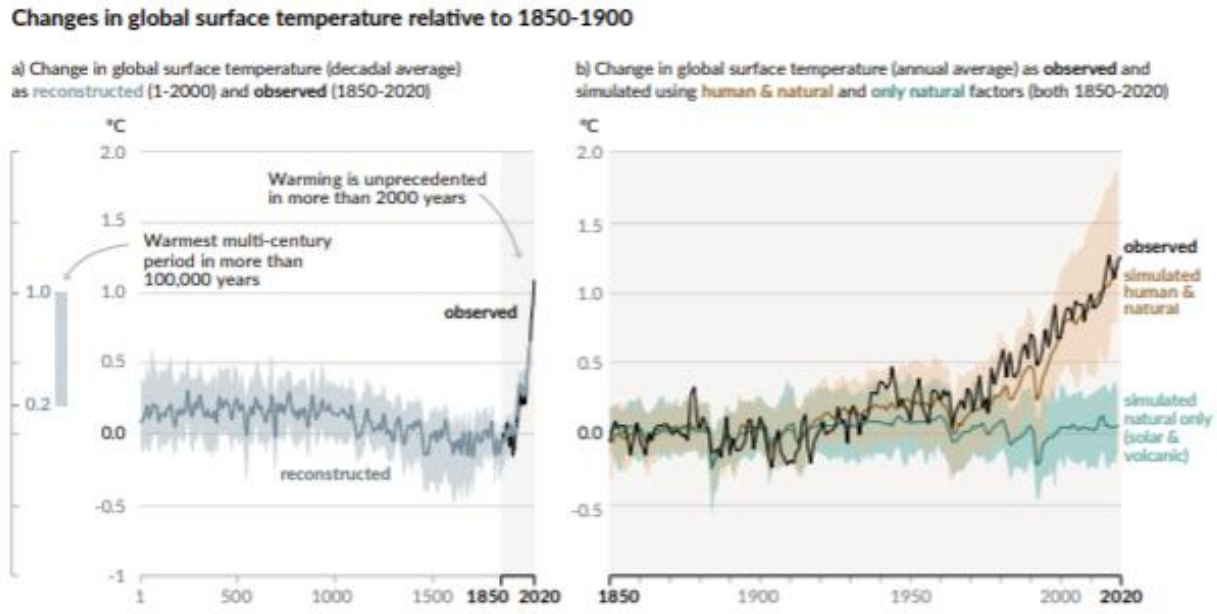
The second very important conclusion of the IPCC AR6 is A.2: „The scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years".

For instance, in 2019, atmospheric CO_2 concentrations were higher than at any time in at least 2 million years (high confidence), and concentrations of CH_4 and N_2O were higher than at any time in at least 800,000 years (very high confidence). Since 1750, increases in CO_2 (47%) and CH_4 (156%) concentrations far exceed, and increases in N_2O (23%) are similar to the natural multi-millennial changes between glacial and interglacial periods over at least the past 800,000 years (very high confidence).

The modelling with observed and simulated human and natural factors that might have affected the changes in the global surface temperature are represented in Figure 1.

There is no more mystery about the wrong economic development path that has determined the latest unprecedented and serious climate change, with rapid and possibly irreversible negative environmental effects. The governments as well as the corporations should recognize their

responsibility and reunite for best and efficient policies and investments for mitigation and adaptation.



Source: Figure SPM.1, IPCC, 2021.

Figure 1 History of global temperature change and causes of recent warming

Although sustainable development is desired, the world is still struggling with environmental challenges such as global warming, biodiversity losses, water depletion and contamination. They are followed by socio-economic issues such as hunger, poverty, discrimination, human rights violations, and corruption, still to be addressed by the Sustainable Development Goals of the UN Agenda 2030. [8]

Therefore, a green and resilient path of economic development recovery was needed even before the recent Covid-19 crisis that added even more pressure. Furthermore, transition to the green economy means evolution from the existing financial models towards those of sustainable investments with increased social and environmental responsibility.

A very good analysis of the change of paradigm for a sustainable finance is made by (Ryszawska B., 2017). In this respect, „the new approach of finance is purpose-oriented, mission-oriented and value-oriented, which is opposite to the traditional role of finance. The role of finance is changing from the dominant view which focuses on maximizing profits and shareholders wealth towards one supporting sustainable development, green economy, low-carbon economy and mitigation of climate change". [16]

Sustainable finance is considered as finance supporting sustainable development in three combined dimensions: economic, environmental, social and corporate governance. Sustainable investment refers to investments that integrate long-term sustainability issues into core investment-making processes and seeks to support sustainable economic development, enhance the quality of life and safeguard the environment. [17]

Also, according to the United Nations' Principles for Responsible Investment, sustainable investments are those which seek to combine financial return with a moral or ethical return. In the accept and definition of the European Commission, sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects:

1) Environmental issues considered include climate change mitigation and adaptation, as well as the environment more broadly, for instance the preservation of biodiversity, pollution prevention and the circular economy.
2) Social issues could refer to inequality, inclusiveness, labour relations, investment in human capital and communities, as well as human rights issues.
3) Governance of public and private institutions – including management structures, employee relations and executive remuneration – plays a fundamental role in ensuring the inclusion of social and environmental considerations in the decision-making process.

In conclusion, sustainable finance facilitates sustainable investments and transacts financial assets to create values, providing real wealth for the long-term needs of the green and environmentally sustainable economy. [3]

Nevertheless, the most important and challenging feature of sustainable finance and investment is, in our opinion, the **alignment with the Sustainable Development Goals.** The importance, opportunity and synergies of the 17 SDGs is more than outstanding, as analysed in (Frone S et al., 2020). However, to be financed, the UN SDGs require 5 to 7 USD trillion investment per year until 2030, and this amount exceeds the budget of governments. [8]

Since a large part of the SDG financing must come from private sources, sustainable finance and investment will play the most important role. There is indeed a strong global political will to enable this, as demonstrated by the agreement of UN member states on this topic called the Addis Ababa Action Agenda that includes "over 100 concrete measures to finance sustainable development, transform the global economy and achieve the Sustainable Development Goals". [18]

It is interesting and encouraging that the financial sector has adopted the SDGs more than it had the previous Millennium Development Goals, probably also due to the SDGs' focus on shared responsibility. Therefore, sustainable investing is now often referred to as "SDG investing." [10] Also, many financial institutions use now the SDGs as benchmarks in their ESG impact reports. According to a Global Impact Investing Network's (GIIN) survey, more than 60 per cent of impact investors track some or all their impact performance against the SDGs. [12]

As further analysed in the paper, the SDGs already are an influential framework in the current and further development of sustainable investments. The Sustainable Development Goals and especially the climate action (SDG 13) provide guidance to the financial industry on the most pressing global environmental and social challenges and areas the investors should focus on.

3. Objectives, principles and trends of sustainable finance in the EU and in Romania

Even before the recent Covid-19 pandemic, European Union was an early mover in the sustainable finance area by recognising the urgency of attracting more private capital to support the transition to a sustainable economy.

The European Green Deal (COM (2019) 640) was published in December 2019 as an attempt to respond to this need. Shortly after the publication of the Green Deal, in 2020 Europe and the entire world were hit by the COVID-19 pandemic, creating a new pressing challenge for policymakers. [2]

The economic impact of the pandemic has been strong, causing a 30% reduction in economic activity, so the EU has responded with an economic recovery plan. Nevertheless, the pandemic was closely related to other global environmental issues such as biodiversity loss, climate change, air/water pollution and waste management, both in terms of its origin and implications on the social well-being.

Most governments are now implementing economic stimulus packages and recovery plans that have the potential to create a both green and inclusive recovery.

The green recovery can be defined by its potential to create opportunities for income, jobs and growth, and at the same time accelerate action on medium and long-term environmental goals,

both national and European. At the same time, the sustainable financial framework is supposed to enhance the resilience of economies and societies in the face of accelerating environmental challenges.

According to the Green Deal, at least 25% of the EU spending in the next seven-year budget starting in 2021 will support climate action. To really financially support the low-carbon transition, public resources committed to green measures must be used strategically to mobilise capital from private sources. [2]

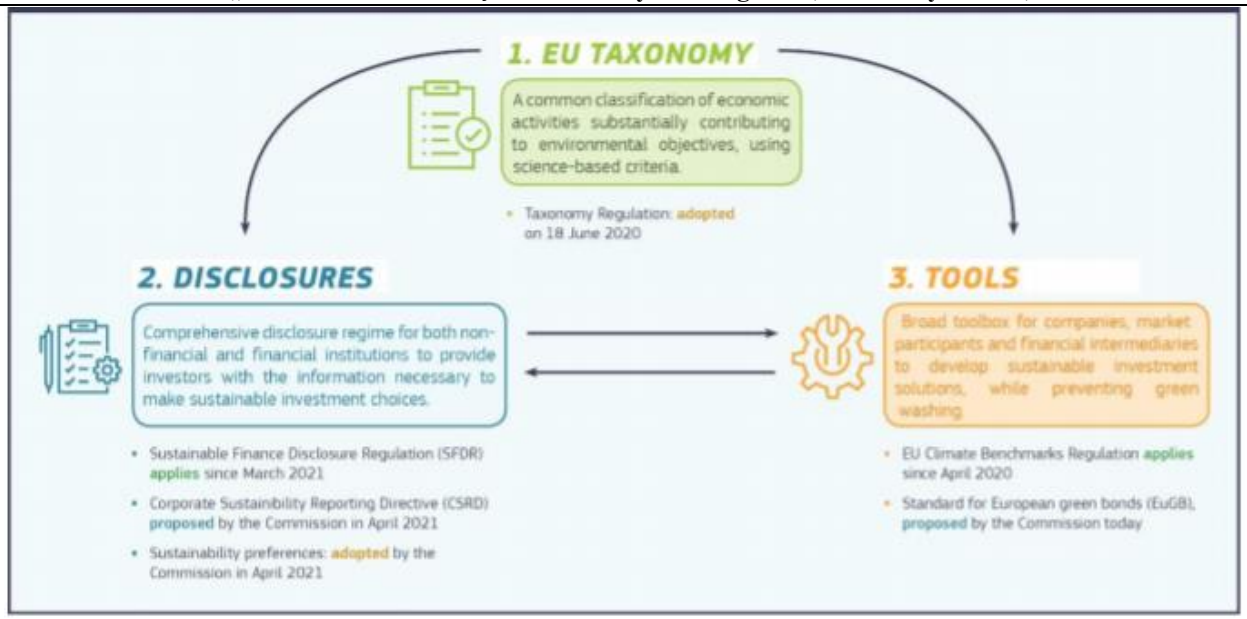
The important role of a sustainable finance may be analysed by highlighting again some of the most important features, as objectives and principles of the sustainable financial system. The main principles and objectives of sustainable finance must be:

- The financial system should correctly value and incorporate climate and biodiversity-related risk, in order to efficiently allocate the financial resources;
- Financial markets need to be transparent and efficient, ensuring market integrity and investor confidence, contributing to the market resilience.
- Especially in the COVID-19 context, greater attention to the non-financial ESG risks is required and more important than ever before, for many reasons (for sustainability and also to win market share and investment).
- Engaging private investment for sustainable infrastructure is a critical pillar of the low-carbon transition and of the green recovery. It was estimated that in the OECD countries, the annual investment needed until 2030 in energy, transport, water and telecommunications infrastructure, to sustain growth and well-being is of around USD 6.3 trillion. Besides, only 10% more (USD 0.6 trillion per year), is required to align new infrastructure with a well-below 2°C climate goal. [14]
- Increasing certainty over a selection of potential projects would allow investors to take calculated risks, invest in capacity building and help foster a market for sustainable investments. To facilitate this, governments should provide precise and consistent definitions of which investments are "green". As further analysed, the EU taxonomy for sustainable finance is an important development in this regard.
- International development banks and finance institutions should play a key role not only in supporting governments' response to the pandemic but also to the financing of the entire green recovery through strategic risk sharing.

Consequently, in the European Union, the financial sector should play a more important part to help attract private capital in all forms helping the EU economy to reach the climate-neutrality goal, especially by investing in climate change mitigation.

A framework for sustainable finance can make it easier for public authorities to raise sustainable capital. With the Multiannual Financial Framework (MFF) 2021-2027 and Next-Generation-EU (NGEU), the EU aims to spend up to 605 billion EUR on projects addressing the climate crisis and 100 billion EUR in projects supporting biodiversity. Out of the EUR 750 billion allocated for Next Generation-EU, 30% will be raised through issuance of NGEU green bonds. The 'EU climate bank', the European Investment Bank Group has also done new steps to support the transition. [3]

Thus in the European Union, the main objective of the sustainable finance framework is to channel private financial flows into relevant economic activities, since the scale of investment required for the green recovery and transition to a sustainable economy is well beyond the capacity of the public sector. A key principle is that integrated and efficient capital markets may act as catalyst for effective mobilisation and allocation of capital towards sustainable investments.



Source: EC COM (2021) 390 final

Figure 2: The foundation blocks of the EU sustainable finance framework

According to the latest strategic documents, the EU is currently putting this framework in place. Before the pandemic, in 2018, the European Commission adopted the first action plan on financing sustainable growth, setting the very important three building blocks for a sustainable financial framework.

These most important 3 building blocks of the sustainable financial framework addressing all or some of the objectives and principles are (Figure 2):

1. The classification system, or 'taxonomy', of sustainable activities;
2. The disclosure framework for non-financial and financial companies;
3. The sustainable investment tools, including benchmarks, standards and labels.

Each of the foundation blocks of the sustainable financial system deserves further more detailed analysis, to highlight their main objectives, principles and trends of development. They are only shortly underlined hereby:

1) The objective of the first block (EU Taxonomy Regulation) is to provide a robust, science-based classification system, allowing non-financial and financial companies to share a common definition of sustainability, thereby providing protection against greenwashing (use of marketing to portray an organisation's products, activities or policies as environmentally friendly when they are not).

The Taxonomy Regulation (Regulation 2020/852 amending Regulation (EU) 2019/2088) entered into force on 12 July 2020, may be considered the main pillar of this framework, since it sets an EU taxonomy system for investors to decide economic activities that may be considered environmentally sustainable. This is done by stating the Technical Screening Criteria for economic activities with substantial contribution to one of the main six EU environmental objectives:

a. Climate change mitigation;
b. Climate change adaptation;
c. Sustainable use and protection of water and marine resources;
d. Transition to a circular economy;
e. Pollution prevention and control; and
f. Protection and restoration of biodiversity and ecosystems.

The taxonomy regulation provisions (including disclosure obligations) apply from 1 January 2022 (for climate change mitigation and adaptation objectives) and from 1 January 2023 (for the other environmental objectives).

2) The European Supervisory Authorities (namely the European Securities and Markets Authority, the European Banking Authority and the European Insurance and Occupational Pensions Authority) are required under the Disclosure Regulation (in force from March 2021) to develop regulatory technical standards for the detail or amount level of information on sustainability investment targets to be disclosed in pre-contractual documents, periodical reports and websites of financial market participants.

Thus, the second block is a mandatory disclosure regime for both non-financial and financial companies, with the objective to give investors the information needed to make informed sustainable investment decisions. The disclosure requirements include the impact of a company's activities on the environment and society, and business and financial risks faced by a company due to its sustainability exposures.

3) The third building block is a set of investment tools, including benchmarks, standards and labels. The Low Carbon Benchmark Regulation (Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 (BMR)) introduced a regulatory framework of minimum requirements for EU climate transition and Paris-aligned benchmarks at the EU level.

The objective is to help financial market participants to align their investment strategies with the EU's climate and environmental goals.

It is considered that major progress has been made in laying the foundations for a sustainable finance framework in the European Union, since the three building blocks are underway, but work remains to be done [4]. However, achievement and commitment for sustainable finance and investments is now starting to show in the EU and also in Romania, as will be shortly exemplified further.

In the last about ten years, there have been developments in environmental and climate change-related investment products, including climate bonds, social bonds, sustainability bonds, trading in allowances under the EU Emissions Trading Scheme. There is an increasing number of private funds investing in companies developing solutions to climate change. Since 2020, the COVID-19 pandemic has increased the urge and importance for better disaster preparedness, resilience and planning. All the institutional investors, bank, regulators and rating agencies should find more ways to fully identify, price and credit assess all ESG risks.

It should be also appreciated that the European Bank for Reconstruction and Development (EBRD) has been investing in sustainable development since 1991. For example, under the Sustainable Water Infrastructure Facility Framework, EBRD is co-financing alongside EU Cohesion Funds the extension and modernisation of the water and wastewater infrastructure and services of the regional water operators such as in Bacau, Bihor, Dolj, Iasi and other counties of Romania [1]. Actually, the importance of the water supply and sanitation infrastructure investments in promoting sustainable development in Romania was more thoroughly analysed and highlighted in previous studies. [6-7]

While the international financial institutions have been leading the way for years, nowadays commercial banks are also actively involved in financing the circular economy. Green Group, the largest integrated recycling park in Romania, has benefited from a sustainable syndicated loan made available by a group of four local commercial banks. Green Group started in 2002 and during time "developed an integrated group of companies which today offers a multitude of closed loop solutions for collection, logistic, recycling and re-manufacturing based 100% on waste, becoming the first Industrial Recycling Park in Romania and the largest in Europe". [9]

The integrated recycling park of Green Group may be considered an actual eco-innovation park, conceptually highlighted as a vector of a green economic recovery in (Frone S., 2015) [5]. According to the official reporting, the project "Reducing CO_2 emissions through PET Recycling", developed by GreenTech (a member company of GreenGroup), is a sustainable investment, as „the first project in Europe applied to the recycling of PET waste, proactively reducing greenhouse gases emissions (GHGs) that would be otherwise required for the production of plastic products

made of virgin inputs and accelerating progress towards many of the Sustainable Development Goals (SDG's). The annual average GHG emission reduction is of 45,380 t CO_2/year." [9]

Nevertheless, the commitment of international and national financial institutions towards sustainable and green finance is increasingly official and obvious in Romania, as disclosed in a recent publication of the National for Macroprudential Oversight (NCMO) from the National Bank of Romania. It is underlined that stakes of climate change and green investment for the Romanian economy are high in terms of both opportunities and costs if this transition is delayed, since the value of green projects expected to be implemented by the public and private sector by 2030 is at least of EUR 60 billion. By comparison, the amount represents the total allocations of EU funds in Romania, in the last two multiannual financial frameworks (EUR 64 billion, 2007-2020). [13]

Conclusions

This research paper highlights the role of a sustainable finance framework in the green recovery and transition of the European Union to the climate-neutrality, taking into consideration the need for an integrated, holistic and long term approach.

The main driver of the concern for accelerated and enhanced sustainable investments is the increasingly aggravated global climate situation. To reach the climate neutrality targets, alignment of all sources of finance – public and private, national and multilateral – is required.

Therefore, the concept of sustainable finance has gained lately more substance and features, being absolutely necessary both for the green recovery and the transition to a sustainable (green and circular) economy. The new role of finance is changing from maximizing profits and shareholders wealth towards one supporting sustainable development, green economy, low-carbon economy and mitigation of climate change.

The European Union was one of the first and most active actors performing and developing a new framework of sustainable finance, in order to support and pro-actively implement the ambitious targets of the European Sustainable Development and Green Deal commitments.

However, in the last years and especially since the Covid-19 pandemic, the global context of sustainable development has changed and the resources needed to meet the sustainability goals have evolved. Although its foundation blocks have been stated and there are already many examples of good practices of green investments (in Romania also) this is only the beginning of a new era of the sustainable financial framework, enabling the EU economy to transform and recover while taking in consideration the ESG criteria and especially the climate neutrality goals.

Therefore, the EU's sustainable finance is meant to develop and show new features, trends or instruments, serving the green economic recovery and the European Green Deal, together with more and more integrated environmental and social policies. These issues will make the subject of future more empirical research, based on actual data.

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