# UNIVERSITA' DEGLI STUDI DI PADOVA


**DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI "M.FANNO"**

**CORSO DI LAUREA MAGISTRALE IN BUSINESS ADMINISTRATION**


**TESI DI LAUREA**

## The impact of the Sustainable Finance Disclosure Regulation on investors


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**ANNO ACCADEMICO 2021– 2022**

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# INTRODUCTION

## Background of this work

Sustainability is becoming an increasingly relevant concern in many sectors of society, including the financial sector. When making investment decisions, investors nowadays look for more than just the most profitable products; they also examine environmental, social, and governance (ESG) factors, as well as how the financial product in question contributes to sustainability. According to a recent survey conducted by the European Fund and Asset Management Association (EFAMA), the number of ESG funds has increased at a rate that is more than double that of non-ESG funds.[1]

The increased importance of sustainability has compelled financial market participants to begin incorporating sustainability considerations into investment decision-making processes and to enable investors to select financial products that specifically invest in sustainable companies or contribute to ESG considerations in other ways. The term "sustainable investment" has become an established concept on the financial market as a measure to foster sustainable development, and the majority of corporations are now using investment strategies that incorporate sustainability, ranging from exclusion of certain sectors and products to engagement.

However, the increased interest in more sustainable financial products, combined with the lack of a legal framework governing sustainable investing, has resulted in so-called greenwashing, in which companies portray themselves as environmentally responsible in order to conceal environmental flaws and gain an unfair competitive advantage.

In response to the lack of sustainable finance regulations, the EU introduced the European Green Deal, which includes the adoption of new sustainability-related regulations such as the Sustainable Finance Disclosure Regulation (SFDR) and the Taxonomy Regulation (TR), as well as a regulation amending the Benchmark Regulation. The SFDR, which went into effect on March 10, 2021, requires financial market participants (FMPs) and financial advisers (FAs) to be more transparent and publish information about how they integrate sustainability risks into their investment decision-making and advisory processes. The regulation not only requires these actors to submit information on how they incorporate sustainability on an entity level, but it also requires them to classify their financial products as art. 6, art. 8, or art. 9 in order to understand what kind of and how much information they must disclose. Products that come under art. 8 or art. 9 are also known as light green or dark green products.

[1] EFAMA. ESG Investing In The UCITS Market: A Powerful And Inexorable Trend. Market Insights. Issue 4. 2021.

The European Green Deal, which includes the SFDR, is also one of the measures taken by the EU to help achieve the goals of both the UN's Agenda for Sustainable Development and the Paris Agreement, as well as to prevent greenwashing, and it includes a variety of strategies aimed at furthering sustainable development and halting climate change. The UN's Agenda for Sustainable Development includes the Sustainable Development Goals (SDGs), which are based on human rights and include battling climate change and improving the environment. These goals, in turn, have led to the formation of the Paris Agreement, which addresses climate change and was signed shortly after the SDGs were established.

Furthermore, the SFDR intends to decrease investor uncertainty regarding sustainable investment.

## Research question and literature contribution

The regulation that entered into force on the 10th March of 2021, the so called SFDR, aimed at deleting greenwashing and to generally decrease investors uncertainty regarding sustainable investment.

This thesis tries to investigate the effect that the regulation has had on investors. Using the methodology called Event Study it asserts the market reaction arounds the days of news that led to the passage of the Sustainable Finance Disclosure Regulation.

Since some literature have said that the requirements of the EU Green Deal are not strict enough, it is interesting to investigates what final investors think about this regulation. What is their sentiment towards its introduction? This thesis does so trying to individuate stock's abnormal returns around the event days, which are news leading to the introduction of the regulation.

This work contribute to the literature regarding the EU Action Plan and its role in designing and implementing the sustainable finance in Europe.

In this regard, this work is particularly original, as it directly addresses the Sustainable Finance Disclosure Regulation, which went into effect just few months ago.

It also contributes to the literature concerning non-financial information disclosures, by analysing investor opinion after the introduction of a rule that obliges corporations to report non-financial information.

## Delimitations

This work is novel and addresses a current issue. As a result, it may be deemed innovative and a significant contribution to the literature. At the same time, the lack of similar works might be viewed as one of its limitations. Indeed, there aren't many works that analyse the SFDR's disclosure rules, and it's been difficult for me to grasp all of its technicalities.

Additionally, technically speaking, the Event Study is a useful tool but it does not come without limitations. For example, a common limitation of such event studies is the identification of a

control-group to control for confounding events not related to the regulatory change under study. I address this issue individuating a sample of firms not directly impacted by the regulation, and I investigate the presence of any effect of that regulation on their market prices. While such an analysis allows me to control for confounding events, there is still the possibility that the observed results are due to the effect of changes on firm's characteristics that are not related to the Regulation. I address this second issue by a cross-sectional analysis that control for firm' characteristics that might be linked to the firms' returns.

## Structure

The thesis will be divided into four chapters, with each chapter beginning with a brief introduction and closing with a short summary of what has been processed in the chapter.

Chapter 1 aims to provide an understanding of the concept of Sustainable Finance and ESG criteria, including a description of some ESG investment strategies and ESG ratings. It also scrutinize the reasons that drive both companies and investors to invest in ESGs. It, at the end, explains the concept of greenwashing, related to The sustainable Finance, and in particular, to the Sustainable Finance Disclosure Regulation.

Chapter 2 will discuss some of the legal frameworks, as well as global treaties and initiatives, regulating sustainability on the financial market, that are applicable to the financial industry. To begin, the chapter will go over global frameworks such as the United Nations' 2030 Agenda for Sustainable Development, which includes the SDGs, and the Paris Agreement. Second, the chapter will describe the legal framework governing sustainable finance in the EU, as well as the initiatives undertaken at the EU level, including a brief introduction to the SFDR. Finally, a look at the current stage of implementation of those techniques will be provided, attempting to contextualize the difficult situation of the pandemic we are currently experiencing.

Chapter 3 will focus entirely on the SFDR, as this is the main topic of the thesis, and will give a description of the aims of the regulation as well as relevant articles. At its end, it will also show some statistics about its application after few months.

The Final chapter, the fourth, will deal with the Event Study and so it will try to investigate the market reaction to the introduction of the Sustainable Finance Disclosure Regulation.

## Methodology and material

A thorough literature evaluation was initially required in order to answer to my research topic. I began by reading the Event Study literature and attempting to identify the appropriate approach for the setting of my work among prior similar research. Then, in order to fully comprehend the Regulation, I analyzed numerous detractors and did research among leading

investment and consulting businesses. Furthermore, in order to provide a clear context for the Regulation, a literature study on the issue of Sustainable Finance in the EU and Sustainable Investing was done.

In addition, I utilized STATA statistical software to carry out the Event Study. Next to it, in order to access the data, I utilized the University account on the Reuters application software called EIKON, which has a function called DATASTREAM that allows its users to download a large amount of time series data.

# Chap 1: ESG CONCEPT IN THE FINANCIAL MARKET

## 1.1 Introduction

Sustainability is an aspect that seems to become more and more important for the financial industry and will be even more so with the SFDR in place. However, before going into the new regulation and the legal framework connected to sustainable finance and ESG, it is important to understand the concept of sustainable finance and how it is incorporated on the financial market.[2]

This chapter aims to provide an understanding of the concept of Sustainable Finance and ESG criteria, including a description of some ESG investment strategies and ESG ratings. It also scrutinize the reasons that drive both companies and investors to invest in ESGs. It, at the end, explains the concept of greenwashing, related to The sustainable Finance, and in particular, to the Sustainable Finance Disclosure Regulation.

## 1.2 Sustainable Finance definition

Sustainable finance is part of a broader universe of sustainability efforts, aimed at achieving sustainable development – a concept first defined in the Brundtland Report in 1987 as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[3]

Today this concept forms the basis of the United Nations (UN) 2030 Agenda for Sustainable Development and its seventeen Sustainable Development Goals (SDGs) which aim to eradicate poverty, protect the planet and promote peace and prosperity for all.[4]

Following what UNEP says[5], the terms 'green finance', 'sustainable finance', 'climate finance' and 'low carbon finance' relate to an overlapping territory of issues, applied to financial decision-making and flows[6], including environmental, social, economic and governance issues. However, while sustainability has begun to play an increasingly important role in the financial industry, "green" or "sustainable finance" has no defined meaning.

On a G20 sustainable finance report, the term sustainable finance is broadly referred as:

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[2]Tanskanen I. Green Funds : An Analysis of the Product Specific Disclosures of the EU Sustainable Finance Disclosure Regulation 2019/2088 [Internet] [Dissertation]. 2021. Available from: http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-444049

[3] Report of the World Commission on Environment and Development: Our Common Future, October 1987.

[4] United Nations General Assembly resolution 70/1, Transforming Our World: The 2030 Agenda for Sustainable Development, A/RES/70/1

[5] UNEP, Design of a Sustainable Financial System, Definition and Concept: background Note. Sep 2016.

[6] See for example PRI (2013). PRI Reporting Framework 2013 Main definitions http://www.unpri.org/wp-content/uploads/2013- 14_PRI_RF_maindefinitions.pdf and Global Reporting Intiative (n.d.). Sustainability Reporting Guidelines https://g4.globalreporting.org/Pages/default.aspx

> "…financing as well as related institutional and market arrangements that contribute to the achievement of strong, sustainable, balanced and inclusive growth, through supporting directly and indirectly the framework of the Sustainable Development Goals (SDGs)."[7]

On the other hand, the EU has defined the sustainable finance a little differently:

> "… 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".[8]

To put it in other words, the term and concept of sustainable finance can be viewed in a variety of ways. Simultaneously, a variety of stakeholders, including banks, investors, policymakers, financial regulators, and non-governmental organizations (NGOs), are developing their own definitions of "green" in the context of green finance, with different definitions developed for green bonds, green lending, and green equity investments[9]. According to the European Commission, the focus of actions related to defining "green" for green listed equities, such as funds, appears to be taking a comprehensive approach to "sustainable investment," also known as "responsible investment."

However, as it will be discussed more in the following section, the definition and meaning of "sustainable investment" might differ.

## 1.3 Sustainable Investment

Sustainable Investing has evolved during the last several decades. As a result, it is a field with a substantial number of terms and acronyms, many of which are used interchangeably or defined differently by various market participants. There is therefore substantial potential for confusion when looking at this sector, particularly for asset owners or asset managers considering adopting this type of investing or integrating some of its principles into their investment process.

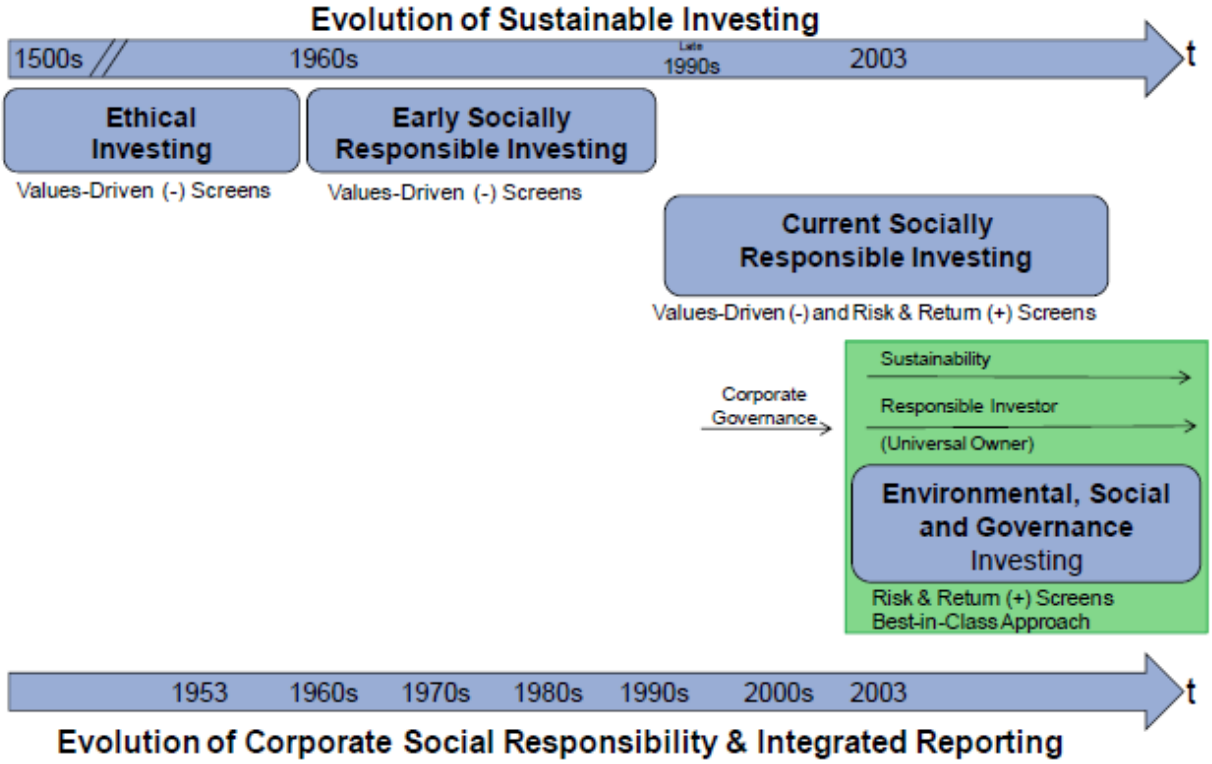
In the literature, sustainable investment practices are often described using overlapping and complementary terms, such as social, ethical, responsible, socially responsible, and others (see Cadman, 2011[10]). In line with recent suggestions (Eurosif, 2010[11], 2011[12]; Hoffmann,

[7] Sustainable Finance Study Group. Sustainable Finance Synthesis Report. 2018. Argentina.
[8]https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance_en
[9] Kahlenborn W., Cochu A., Georgiev I., Eisinger F., Hogg D. Defining "green" in the context of green finance: Final report. European Commission, 2017.
[10] Cadman, T. Evaluating the governance of responsible investment institutions: An environmental and social perspective. Journal of Sustainable Finance & Investment. 2011. 1. 20-29.
[11] Eurosif. European SRI study 2010. European Sustainable Investment Forum. Paris, France, 2010.
[12] Eurosif. Corporate pension funds & sustainable investment study. European Sustainable Investment Forum. Paris. France. 2011.

Scherhorn, & Busch, 2004[13]; Juravle & Lewis, 2009[14]); I regard sustainable investments as a generic term for investments that seek to contribute toward sustainable development by integrating long-term ESG criteria into investment decisions. With this scope of sustainable investments, investors' financial objectives are combined with primarily nonfinancial concerns[15].

For Example Fulton M. Hahn B.M., Sharples C, in order to help simplify the topic, express the evolution of Sustainable Investing(SI), illustrating it here in this figure:[16]

**Figure 1: Timeline of the Evolution of Sustainable Investing**




*Source: Fulton M. Hahn B.M., Sharples C. Sustainable Investing: Establishing long-term Value and Performance. Climate Change Investment Research. Deutsche bank group. 2012.*

Ethical Investing, Socially Responsible Investing ESG-Responsible Investing are all terms created across these decades that can be considered as evolution of the same term:

> "The term "Sustainable Investing" (SI) can be used as a "catch-all" term to refer to all forms of Socially Responsible Investing, ESG-oriented investing (which is more similar to a CSR approach), and Responsible Investing."[16]

[13] Hoffmann, J. Scherhorn, G., Busch, T. Darmstadt definition of sustainable investments. Wuppertal, Germany: Corporate Responsibility Interface Center/Wuppertal Institute. 2004.
[14] Juravle C, Lewis A., The Role of Championship in the Mainstreaming of Sustainable Investment (SI): What Can We Learn From SI Pioneers in the United Kingdom? Organization & Environment. 2009. 22(1):75-98.
[15]Busch T, Bauer R, Orlitzky M. Sustainable Development and Financial Markets: Old Paths and New Avenues. Business & Society. 2016. 55(3):303-329.
[16] Fulton M. Hahn B.M., Sharples C. Sustainable Investing: Establishing long-term Value and Performance. Climate Change Investment Research. Deutsche bank group. 2012.

Others, such as Talan, Sharma[17], conduct a literature review of the Sustainable investment and say that Sustainable investment refers to the integration of environmental, social, and governance (ESG) factors in investment decision-making.[18] Though evidence suggests that the origin of sustainable investing dates back to the 18th century[19], it has only gained popularity over the last two decades[20]. The success of United Nations Principles for Responsible Investment (UNPRI)—which calls for the incorporation of ESG factors in investment and ownership decisions—is a significant indicator of the growth of sustainable investment[21].

Another definition is given by Richardson, that describes SRI as "a potential way to meld environmental, social, and economic considerations in investment decisions, raising them to a higher sustainability standard".[22] Corresponding to Richardson's definition, the European Sustainable Investment Forum (Eurosif) considers SRI a strategy to incorporate sustainability factors in the investment process and defines it as

> "… a long-term oriented investment approach which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio. It combines fundamental analysis and engagement with an evaluation of ESG factors in order to better capture long term returns for investors, and to benefit society by influencing the behaviour of companies.[23]"

Moreover, the Social Investment Forum lists three SRI strategies: screening, shareholder advocacy, and community investing, but this leaves a multitude of possibilities. Many of the definitions come from the investment vehicle itself; in other words, the type of assets included or excluded from an SRI fund determines the definition. For example, many funds are based on excluding firms that sell products deemed by the fund to be harmful to society, such as tobacco and alcohol. However, it is not clear that the assets selected were investor (demand) drive.

## 1.4 ESG and SRI investments strategies

As said before, one connotation of Sustainable Finance is the Social Responsible Investing.

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[17] Talan G., Sharma G.D. Doing Well by Doing Good: A Systematic Review and Research Agenda for Sustainable Investment. Sustainability. 2019, 11, 353.
[18] Global Sustainable Investment Alliance. Global Sustainable Investment Review; Global Sustainable Investment Alliance: Washington, DC, USA, 2014.
[19] Croft T. Up From Wall Street: The Responsible Investment Alternative; Cosimo Books: New York, NY, USA, 2009.
[20] Capelle-Blancard G., Monjon, S. Trends in the literature on socially responsible investment: Looking for the keys under the lamppost. Bus. Ethics 2012, 21, 239–250.
[21] UNPRI Principles for Responsible Investors. The PRI is World's Leading Proponent of Responsible Investment 2018, April.
[22] Richardson BJ. Socially Responsible Investment Law: Regulating the Unseen Polluters. Oxford University Press. 2008.
[23]Eurosif. European SRI Study. European Sustainable Investment Forum. 2018.

In 2015, Revelli and Viviani[24], wrote that in the past 20 years, socially responsible investing (SRI), which embodies ethical values, environmental protection, improved social conditions and good governance, has increasingly attracted the interest of individual and private investors, as well as academics.

According to Renneboog et al.[25] "Unlike conventional types of investments, SRI applies a set of investment screens to select or exclude assets based on ecological, social, corporate governance or ethical criteria, and often engages in local communities and in shareholder activism to further corporate strategies towards the above aims".

Indeed, the main ESG strategies are negative screening (i.e., excluding particular firms or industries), positive screening (i.e., concentrating on particular industries), best-in-class investing (i.e., selecting the best 33 or 25 % regarding ESG), activism (filing petitions and voting on annual general meetings of shareholders), and engagement (meeting with the board of the corporate and trying to convince them to perform better on ESG)[26].

Negative screening has a long history as a tool in the fight against practices perceived by groups as unjust. For example, Quakers decided at their 1758 yearly meeting to ban members from participating in the slave trade. Initially, most negative screens were designed to exclude companies in so-called "sin industries" like alcoholic beverages, tobacco products, gambling and non-military firearms.[27]

Negative screens have also been used in more recent years as a means to enact political and social change. For example, divestment played a role in fighting (and ultimately defeating) apartheid in South Africa. Many funds active in the divestment movement against the apartheid regime in South Africa conducted a negative screen that employed research provided by Ethical Investment Research Services (EIRS), which was founded by a group of British churches and charities in 1983. Nowadays, EIRS also screens for a wider variety of negative impacts, including ones related to the environment.

Differently from what is said about negative screening, investors who use positive screening to select investments concentrate their capital in industries, stocks, or projects that are considered "best-in-class" on specific environmental, social, and governance (ESG) metrics when compared to their peers. There are different ways to positively screen via ESG frameworks:

[24] Revelli C., Viviani J.I. Financial Performance of socially repsonsible invesnting (SRI): what have we learned? A meta-analysis. Business Ethics:A Europen Review. V.24. n.2. 2015.

[25] Renneboog, L., Ter Horst, J. and Zhang, C. Socially responsible investments: institutional aspects, performance and investor behavior. Journal of Banking & Finance, 32, 1723–1742. 2008

[26] van Duuren E., Plantinga, A., Scholtens B. ESG Integration and the Investment Management Process: Fundamental Investing Reinvented. *J Bus Ethics* 138. 525–533. 2016.

[27]Wallace C., ESG Investing: What is Negative Screening. The Impactivate. 2017. https://www.theimpactivate.com/what-is-negative-screening/

some investors look for companies that are actively improving their scores, while others favour companies that have already established high scores. The use of positive screens is often combined with a "best in class" approach. Firms are ranked within each industry or market sector based on CSR criteria. Subsequently, only those firms in each industry are selected which pass a minimum threshold.[28] Negative and positive screens are often referred to as the first and second generation of SRI screens, respectively. The third generation of screens refers to an integrated approach of selecting companies based on the economic, environmental and social criteria comprised by both negative and positive screens. This approach is often called ''sustainability" or ''triple bottom line" (due to its focus on People, Planet and Profit). The fourth generation of ethical funds combines the sustainable investing approach (third generation) with shareholder activism. In this case, portfolio managers or the companies specialized in granting ethical labels attempt to influence the company's actions through direct dialogue with the management or by the use of voting rights at Annual General Meetings.

## 1.5 ESG definition

As it is understood in previous paragraphs the SRI is based on ESG criteria. Therefore in the context of this thesis, I believe that an overview of those criteria can be useful.

The most common investing method is "ESG Integration," which entails incorporating environmental, social, and governance ("ESG") criteria into the fundamental analysis of assets. ESG is a well-established concept in the financial sector for determining the long-term viability of assets. Portfolio risk/return profiles can be improved by using ESG criteria. Nowadays many investors rely on rating agencies in order to obtain a third-party judgment on the performance of a given company's ESG performance.

ESG is an investment strategy that considers environmental (E), social (S) and governance (G) issues when valuing company stocks.[29] As a concept, ESG was mainly popularized by the Freshfields report in 2005, which led to the establishment of the United Nations Principles for Responsible Investment[30] (UNEP FI, 2005, 2015). Many ideas contained in this report, including ESG, were later adopted by financial market participants. Today, ESG is an integral part of most investment strategies that claim to foster 'responsible investment'.[31]

[28] Renneboog. L., ter Horst J., Zhang, C. Socially responsible investments: Institutional aspects, performance, and investor behavior. Journal of Banking & Finance. 32. issue 9. p. 1723-1742. 2008

[29] Stefan L. Responsible investment: ESG and the post-crisis ethical order. Economy and Society. 49:1. 71-91, 2020.

[30] UNEP. Finance Initiative, Overview. 2015.

[31] Arjaliès D. A social movement perspective of finance: How socially responsible investment mattered. Journal of Business Ethics. 92(s1). 57–78. 2010.

ESG investment are based on the evaluation of companies' non-financial performances and focus instead on social and environmental commitment. Usually, stocks evaluation is based on accounting and market data that analysts evaluate, in order to give recommendations and build their strategies. They evaluate and make prediction about market movements and evaluation. The accounting and market data, as we know are based on financial performances, earnings, sales, cash flow, and macroeconomics data, interest rates and growth estimates. However, they have always been interested in other source of data that could eventually impact market movements.[32] The establishment of the ESG concept has now institutionalized this screening of what analysts refer to as non-financial data.[33]

The application of ESG criteria to financial investments is becoming increasingly popular among operators; this trend has led to the development of a flourishing literature on related topics also in academic research. Integrating environmental, social and governance impacts into investment and financial decision making and especially focusing on the upside of ESG (positive) impact investing is a nascent field of research.

## 1.6 ESG ratings

As more and more companies are starting to incorporate ESG in their investment process through different strategies, rating agencies have created systems to capture significant sustainability and CSR data.[34] Arguably, the ultimate users of the ESG ratings are the investors, which employ ESG ratings as an objective source of data ensuring that their funds flow into companies with a decent corporate social performance as increasingly demanded by their limited partners.[35]

The basis for the sustainability rating approach is information on the relevant company, based on for example annual reports and sustainability reports, but also external information from NGOs and databases.[34] As sustainability-related data are often qualitative and arguably challenging to compare, the ratings' outcomes tend to differ. Eccles et al. (2019)[36] say that there are around 500 ESG rankings, more than 100 ESG awards, and 120 voluntary ESG disclosure standards estimated to have been in the market as of 2019. The lack of commonly unified standards for ESG measurement has led to considerable differences in how ESG is measured

[32] Leins S. Stories of capitalism: Inside the role of financial analysts. Chicago. IL: University of Chicago Press. 2018.
[33] Nicholls A. The institutionalization of social investments: The interplay of investment logics and investor rationalities. Journal of Social Entrepreneurship. 1(1). 70–100. 2010
[34] Staub-Bisang M. Sustainable Investing for Institutional Investors: Risks, Regulations and Strategies. 1stedn. John Wiley & Sons. 2012.
[35] Amel-Zadeh, A., Serafeim, G. Why and How Investors Use ESG Information: Evidence from a Global Survey. Harvard Business School Working Paper. 2017.
[36] Eccles R.G., Stroehle J., Lee L.E. The Social Origins of ESG? An Analysis of Innovest and KLD. Organ. Environ. 33. 1–36. 2019.

and evaluated by different data vendors. Consequently, when Berg et al. (2019)[37] compared the sustainability ratings by five market-leading ESG rating agencies, authors found an average correlation coefficient of 0.61, far from a perfect correlation of 0.99 exhibited, for example, among the credit ratings. While the academic literature provides some explanation for these differences e.g., due to data quality and collection methods, the differences in scoring models and methodologies remain. In addition, as investors pay for the ESG scores, in contrast to the situation in credit scoring, where the companies compensate for their scores, the puzzle of variances in the ESG ratings is far from being resolved.[38]

Li & Polychronopoulos (2020)[39] has offered a typology of the most common approaches of the ESG data and rating providers differentiating between (1)—companies like Refinitiv and Bloomberg collecting data from public sources, but not offering any value-adding input or scoring, (2) comprehensive—including ESG data providers that gather public and own-created data to combine it via own methodology to issue a score or a rating (e.g., Sustainalytics, MSCI, RepRisk), (3) specialists—companies focusing on specific ESG issue (e.g., Carbon Disclosure Project). While some rating agencies evaluate the company endeavours based on compliance to certain sustainability standards, others put more weight on the company's ability to recognize and manage the risks[39]. Additional differences emerge based on the consideration of the materiality in the whole assessment process[40]. Finally, the data sources used and the exact metrics applied cause an additional gap, where the differences in the outcome can emerge[41].

## 1.7 ESG from a company's perspective

The relationship between sustainability performance and firm value is 'complex, ambiguous, and nuanced' (Perrini et al. 2011)[42]. Nevertheless, it has been recognized that through a performance improvement on ESG issues, a firm can boost its key value drivers, such as growth, profitability, capital efficiency and risk exposure (Schramade 2016[43]; Giese et al. 2019[44]). On the academic side, the literature on the relationship between ESG and financial performance is extensive. Since the 1970s more than 2,000 studies have been released; Friede, Busch, and

[37] Berg F., Kölbel J., Rigobon R. Aggregate Confusion: The Divergence of ESG Ratings. 2019.
[38] Zumente I., Lace N. ESG Rating: Necessity for the Investor or the Company?. Sustainability. 13. 2021.
[39] Li F.F., Polychronopoulos A. What a Difference an ESG Ratings Provider Makes! 2020.
[40] Lopez C., Bendix J. ESG Ratings: The Road Ahead. The Milken Institute. 2020.
[41] OECD. OECD Business and Finance Outlook 2020—Sustainable and Resilient Finance. OECD Publishing. Paris, France. 2020.
[42] Perrini F., Russo A., Tencati A., Vurro C. Deconstructing the Relationship Between Corporate Social and Financial Performance. Journal of Business Ethics 102. 2021
[43] Schramade, W. Integrating ESG into Valuation Models and Investment Decisions: the Value-Driver Adjustment Approach. Journal of Sustainable Finance & Investment 6 (2): 95–111. 2016.
[44] Giese G., Lee L.E., Melas D., Nagy Z., Nishikawa L. Foundations of ESG Investing: How ESG Affects Equity Valuation, Risk, and Performance. The Journal of Portfolio Management 45 (5): 69–83. 2019.

Bassen (2015)[45] combining the findings of these studies show that, despite the different methodologies, samples, and datasets adopted, in roughly 90% of them the relationship between ESG and corporate financial performance is non-negative, with the majority of the studies reporting positive findings.[46]

Adopting the concept of materiality of the Sustainability Accounting Standards Board (SASB) and working on a sample of more than 2,000 U.S. companies over 21 years, Khan, Serafeim, and Yoon (2016)[47] use Kinder, Lydenberg, and Domini (KLD) data to create materiality and immateriality scores. The results of their analysis demonstrate that companies top performing on ESG material issues outperform those in the bottom quantile. Even more interestingly, the authors also show that a high performance on immaterial ESG issues doesn't lead to superior financial performance. Applying the methodology of Khan, Serafeim, and Yoon (2016)[47], Kotsantonis and Bufalari (2019)[48] reach the same results working on the top 100 largest international banks. Also in the study of van Heijningen (2019)[49], based on a large sample of international companies from 2005 to 2017 and on ESG data by RobecoSAM, materiality is confirmed to improve the predictability of financial performance in comparison to total ESG or immateriality scores.

The concept of materiality can be explained by the one provided by SASB that identifies those sustainability issues that are relevant from an investor's perspective. SASB's definition of materiality is strictly linked to the audience it refers to (i.e. investors) that has its own unique needs, different from those of suppliers, customers, communities, interest groups, and other stakeholders. As investors demand reliable and comparable sustainability information with clear links to financial performance, SASB identifies the subset of sustainability issues that are material to them from a universe of 26 generic sustainability issues (General Issue Category [GIC]) organized in the five dimensions of environment, social capital, human capital, leadership and governance, and business model and innovation. As financial materiality of sustainability issues varies across industries to preserve a focus on financial materiality as well as to attain comparability among peers, SASB's standards are industry specific.

[45] Friede G., Busch T., Bassen A. ESG and Financial Performance: Aggregated Evidence From More Than 2000 Empirical Studies. Journal of Sustainable Finance & Investment 5 (4): 210–233. 2015.

[46]Madison N., Schiehll E. The Effect of Financial Materiality on ESG Performance Assessment. Sustainability 13:7. p. 3652. 2015.

[47]Khan M., Serafeim G., Yoon A. Corporate Sustainability: First Evidence on Materiality. Accounting Review 91 (6): 1697–1724. 2016.

[48] Kotsantonis S., Bufalari V. Do Sustainable Banks Outperform? Driving Value Creation through ESG Practices. Report of the Global Alliance for Banking on Values (GABV). 2019.

[49] van Heijningen, K. The Impact of ESG Factor Materiality on Stock Performance of Firms. Erasmus Platform for Sustainable Value Creation working paper. 2019.

Spandel e al. (2020)[50] investigate the capital market reaction in response to the publication of the Sustainability Accounting Standards Board's (SASB) standards on the financial materiality of environmental, social, and governance (ESG) issues. Their results indicate that the publication of the sector-specific SASB standards triggered a market reaction for firms in the respective sector. The findings thereby highlight how the SASB standards shape investors' perception by establishing precision regarding ESG items' financial materiality. As they show that the capital market reaction to the standards' publication is negative for low-performing firms and positive for high-performing firms, they establish that accounting standards prompt investors to adjust their consideration of ESG-related costs and benefits in their firm valuations. They find the capital market reaction to be more pronounced for low-performing firms, which is in line with prior research highlighting the relevance of firms' heterogeneity to the consequences of (non-financial) regulation and with current research on the economic consequences of ESG materiality (Grewal, Hauptmann, and Serafeim 2020[51]; Khan, Serafeim, and Yoon 2016[52]). More specifically, the more pronounced negative reaction for low-performing firms is in line with the argument that capital market participants anticipate future wealth transfers to firms with higher non-financial performance (Grewal, Riedl, and Serafeim 2018[53]). In addition to that, the insights of the study into the perception-changing role of such standards imply that non-governmental standard setters may play a crucial role in determining which ESG issues are considered material by investors and consequently by firms.

## 1.8 ESG from an investor's perspective

On a study conducted by Amel-Zadech and Serafeim (2018)[54] it is shown why investors do invest in ESG. They documented that the vast majority of surveyed investors are motivated by financial reasons rather than ethical reasons in using ESG data[55]. They showed that these financially motivated investors prefer different ESG investment styles from the styles preferred by the ethically motivated investors in their sample. A large number of investors use ESG information because of client demand or as part of their product development process. A good example is green bonds, where the proceeds of the bonds are to be allocated for projects that improve environmental outcomes.

[50] Spandel T., Schiemann F., Hoepner A. G. F. Capital Market Effects of ESG Materiality Standards. 2020.
[51] Grewal J., Hauptmann C., Serafeim G. Material Sustainability Information and Stock Price Informativeness. J Bus Ethics. 2020.
[52] Khan M., Serafeim G., Yoon A. Corporate Sustainability: First Evidence on Materiality. The Accounting Review 91 (6): 1697–1724. 2016.
[53] Grewal J., Riedl E. J., Serafeim G. Market Reaction to Mandatory Nonfinancial Disclosure. Management Science 65 (7). 2018.
[54] Amel-Zadeh A., Serafeim G. Why and How Investors Use ESG Information: Evidence from a Global Survey. Financial Analysts Journal. 74:3. 87-103. 2018.
[55] This is not surprising given that the respondents consist of mainly mainstream institutional investors.

Another study, of Hartzmark and Sussman[56], investigates the sustainability sentiment from a final investor perspective. They examined the introduction of the Morningstar mutual fund sustainability "globe" ratings in 2016 to show that investors value sustainability criteria. In fact, after the introduction of Morningstar ESG ratings, US funds with low ESG ratings subsequently observed net outflows while funds with high ESG ratings had net inflows. In a related study, Ceccarelli, Ramelli and Wagner [57],examined the mutual fund inflows to the recently introduced eco-labelling "low-carbon designation" funds by Mornigstar in the United States and Europe. The authors found that fund managers tend to adjust their holding toward climate-friendlier stocks in order to keep investors. Riedl and Smeets (2017)[58] used administrative and survey data to study what influences individual investors to hold socially responsible mutual funds. The authors found that social preferences play a role, but financial motives are less important in driving individual investors' SRI mutual fund choices. Bauer, Ruof, and Smeets (2021)[59] conducted a field experiment with beneficiaries of a Dutch pension fund to study to what degree individual beneficiaries within the pension system prefer their pension savings to be used to promote sustainability. The authors found that 68% of the participants favoured an approach that invests their pension savings in a sustainable manner (even if it implied lower returns). The willingness to pay, however, is much an open area for research.[60]

## 1.9 Which ESG factors are considered the most by investors

A 2019's survey – Investor Sentiment: Responsible Investing – undertaken by Dutch asset manager NN Investment Partners, investigates which ESG factors investors believe to have the most potential to drive returns. The results show that while two thirds (66 percent) of professional investors see the greatest potential in environmental factors when it comes to generating returns, governance (40 percent) and especially social factors (15 percent) lie far behind.

More recently, in September 2020, the World Economic Forum (WEF) released a set of 'stakeholder capitalism metrics', designed to assist in the benchmarking of sustainable business performance. The metrics are centred on four pillars, encompassing a number of ESG factors:

- People: Diversity reporting, wage gaps, and health and safety.

[56] Hartzmark S.M., Sussman, A.B. Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows. European Corporate Governance Institute (ECGI) - Finance Working Paper No. 565/2018. 2019.
[57] Ceccarelli M., Ramelli S., Wagner A. F. Low-carbon Mutual Funds. Swiss Finance Institute Research Paper No. 19-13, European Corporate Governance Institute – Finance Working Paper No. 659/2020. 2021.
[58] Riedl A., Smeets P. Why Do Investors Hold Socially Responsible Mutual Funds?. The Journal of Finance, 72: 2505-2550. 2017.
[59] Bauer, R., Ruof, T., & Smeets, P. Get Real! Individuals Prefer More Sustainable Investments. Review of Financial Studies, 34(8), 3976-4043. 2021.
[60] Pedro M. ESG and Responsible Institutional Investing Around the World: A Critical Review, CFA institute, 2020.

- Planet: Greenhouse gas emissions, land protection, and water use.
- Prosperity: Employment and wealth generation, taxes paid, and research and development expenses.
- Principles of governance: Purpose, strategy, and accountability informing risk and ethical behaviour.

The WEF is encouraging businesses to include a full set of metrics in their corporate and financial reporting, but some of these areas currently carry more weight with investors than others. These are generally the most easily measurable, and therefore mostly likely to be included in annual reports and covered by mainstream media. According to surveys by IHS Markit[61], seven of the top ESG metrics commonly sought by PE fund investors are:

- A formal, overarching ESG policy which provides an overview of a company's social responsibility and environmental position.
- Assignment of ESG responsibility within the management team, reflecting the level of ESG integration across the organisation.
- A corporate code of ethics to guide management and employees as they carry out organisational objectives.
- Diversity among employees, board members and management, promoting a wider range of perspectives in decision-making.
- A formal environmental policy showing the management team's ability to monitor and address the environmental costs of the organisation's operations.
- The ability to estimate carbon emissions, both direct and indirect, including those produced by the wider value chain.
- Health and safety record, using accident and incident rates to measure safety of working environments.

## 1.10 Non-financial performance disclosure and greenwashing

According to stakeholder theory, the disclosure of financial, social and environmental information (i.e., corporate sustainability disclosure—CSD) is part of the dialogue between a company and its stakeholders and it provides information on a company's activities that legitimise its behaviour, educate and inform, and change perceptions and expectations.[62]

Given that is not always easy to measure the non-financial performances of companies, "Greenwashing" is another phenomenon that has emerged. It could be described as the act by

[61] https://ihsmarkit.com/index.html

[62] Michelon, G., Parbonetti, A. The effect of corporate governance on sustainability disclosure. J Manag Gov 16, 477–509. 2012.

corporations that portray themselves as environmentally responsible in order to cover up environmental faults, or eco-exaggeration[63]. In recital 25 of the final RTS draft to the SFDR, greenwashing is defined as

> "… the practice of gaining an unfair competitive advantage by recommending a financial product as environmentally friendly or sustainable, when in fact that financial product does not meet basic environmental or other sustainability-related standards."[64]

Initially, the term was only used to describe misleading cases of environmental advertising, however nowadays it refers to a larger range of corporate activities, such as specific instances of environmental reporting, distribution of educational materials and event sponsorship.[65] The most obvious cases of greenwashing have been described as firms using advertisement to proclaim or imply a deep devotion to sound environmental practice, often by pointing out specific accomplishments within the field, as a distraction from its otherwise poor environmental performance and/or lobbying efforts to limit environmental regulation[65]. According to the EC[66], greenwashing could erode investors' trust in the concept of sustainable investment and result in unfair competitive advantage, which could have a direct negative impact on the internal market.

## 1.11 Conclusion

This chapter concluded that there are various perspectives on the concept of sustainable finance as well as what constitutes a sustainable investment. There was no definite definition of the term "sustainable investment" prior to the adoption of the SFDR. Nonetheless, the common denominator among the various definitions of the term appears to be that sustainable investment includes the consideration of sustainability aspects in the investment decision-making process, as well as a desire to contribute to sustainable development. There are numerous methods and approaches available for developing sustainable investment strategies for financial instruments. Funds, for example, can be made more sustainable by excluding certain products and industries, or by taking the opposite approach and making inclusions based on how the company integrates sustainability. However, funds can be more sustainable if they aim to have a positive social or environmental impact, use a thematic investment approach, or incorporate ESG criteria into their financial analysis. Furthermore, shareholder engagement could be used as a long-term investment strategy. In the related literature, it is widely shown that companies can obtain

[63] Diffenderfer M and Baker K-AC. Greenwashing: What Your Clients Should Avoid. 28 GPSolo Magazine 32 2011.
[64] Joint Committee of the European Supervisory Authorities. Final Report on draft Regulatory Technical Standards, JC 2021 03, Feb 2021.
[65] Whellams M. Greenwashing in Kolb RW (ed). The SAGE Encyclopedia of Business Ethics and Society. SAGE Publications. 2018.
[66] Commission. Commission Staff Working Document: Impact Assessment. SWD264 final, 26. 2018.

financial benefits, especially in capital markets, when they do invest in ESG; furthermore, the benefit sore when materiality is considered. Other literature, suggests that investors are more and more interested in ESG criteria and investing, positively respond to introduction of ESG indexes. This hype around the ESG has created a wide range of investment theories and methods used by investors and companies.

Despite the wide range of ESG investment methods used by companies, there are some that claim to be more sustainable than they are, a practice known as greenwashing. Greenwashing has emerged alongside sustainable investment strategies, and it is a risk that investors should be aware of when looking for sustainable investments. Thus properly the object of this work, the Sustainable finance Disclosure Regulation, aims to provide more transparency on sustainability within the financial markets in a standardised way, thus preventing greenwashing and ensuring comparability.[67]

[67] CONSOB. Study on Sustainability Related Ratings. Data and Research. 2020.

# Chap 2: TOWARDS A SUSTAINABLE FINANCIAL MARKET

## 2.1 Introduction

The concept of sustainable finance, as well as the methods associated with sustainable investing, were explained in the preceding chapter. However, in order to make the financial market even more sustainable and to prevent negative environmental occurrences, such as greenwashing, there are several legal frameworks, as well as global treaties and initiatives, regulating sustainability on the financial market, that are applicable to the financial industry. Some of these agreements and initiatives will be discussed in this chapter. To begin, the chapter will go over global frameworks such as the United Nations' 2030 Agenda for Sustainable Development, which includes the SDGs, and the Paris Agreement. Second, the chapter will describe the legal framework governing sustainable finance in the EU, as well as the initiatives undertaken at the EU level, including a brief introduction to the SFDR, which will be expanded upon in the following chapter. Finally, a look at the current stage of implementation of those techniques will be provided, attempting to contextualize the difficult situation of the pandemic we are currently experiencing.

## 2.2 International Agreements: The legal framework

The governance of sustainable finance is largely fragmented. There are many international, supranational and national initiatives and policies promoting and supporting aspects of sustainable finance. Although they have emerged in a rather uncoordinated fashion, they provide a strong basis for a common understanding around different aspects of sustainable finance and are increasingly being joined together through mutual recognition to form a regulatory network of mostly voluntary standards.[68]

### 2.2.1 The UN Work

2015 was referred to as “The time for global action for people and planet” by the United Nations leaders. To certain extent due to a fortunate chance, several key challenges relating to the global poverty, development and climate agendas were to be solved in 2015. After what was described as two major failures of multilateralism on Climate Change (in 2009 at the COP 15 in Copenhagen) and on Sustainable Development (in 2012, at the UN Conference on Sustainable

[68] Katelouzou D., Klettner A. Sustainable Finance and Stewardship: Unlocking Stewardship's Sustainability Potential. An edited version of the paper will be published as a chapter in Global Shareholder Stewardship: Complexities, Challenges and Possibilities (Dionysia Katelouzou D.,Puchniak D.W. Cambridge University Press, Forthcoming), European Corporate Governance Institute - Law Working Paper No. 521/2020. 2020.

Development, so called Rio+20), 2015 was seen by many as the last opportunity for the UN to deliver on its development mandate[69].

### 2.2.2 The 2030 Agenda

During 2015, and for the first time in history, world leaders unanimously agreed on sustainable development as vision for the future of humanity. After years of public debate, of intergovernmental negotiations and of the mobilization of civil society and social movements, world leaders met in three global events to agree on concrete commitments to build the world we want. In September, in a World Summit celebrated in New York, the Member States of the United Nations - more than 150 of which were represented by their heads of state, Presidents or Prime Ministers - adopted the 2030 Agenda for Sustainable Development (United Nations 2015a)[70].

Additionally, the Member States of the United Nations agreed on a framework for Financing for Development, the Addis Ababa Action Agenda (United Nations 2015b).[71] The Action Agenda establishes a strong foundation to support the implementation of the 2030 Agenda for Sustainable Development. It provides a new global framework for financing sustainable development by aligning all financing flows and policies with economic, social, and environmental priorities.

The UN General Assembly adopted the 2030 Agenda for Sustainable Development on September 25, 2015, and it is described as

"... a plan of action for people, planet, and prosperity."[70]

In addition, the agenda seeks to strengthen global peace. The agenda includes seventeen so-called Sustainable Development Goals (SDGs), which were adopted by all UN member states in 2015.[71] Importantly, the Agenda also includes a preamble and a declaration including three aspects. The Agenda is referred to as being universal, transformative, and indivisible[72].

The SDGs are intended to accomplish what the eight Millennium Development Goals (MDGs) adopted in 2000 did not, as well as to realize human rights for all, achieve gender equality, and empower all women and girls.[73] The goals went into effect on January 1, 2016, and the agenda's goal is to achieve them by 2030. The SDGs are based on human rights assumptions; in other words, the goal has always been to improve human rights as the goals are pursued. For example,

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[69] de Loma-Osorio G.F. The 2030 Agenda for Sustainable Development: Bringing Climate Justice to Climate Action. Development 59, 223–228. 2016.
[70] United Nations. Transforming our world: the 2030 Agenda for Sustainable Development. A/RES/70/1. 2015
[71] United Nations. Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda). A/RES/69/313. 2015.
[72] Mohammed, A. J. Sustainable Development: A Universal, Integrated, and Transformative Agenda. 2015
[73] Blau J, The Paris Agreement: Climate Change, Solidarity, and Human Rights. 1st edn. Palgrave Macmillan. 2017.

goal 1 is to eliminate poverty in all of its forms everywhere, goal 8 is to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all, and goal 13 is to take immediate action to combat climate change and its consequences.[74]

### 2.2.3 Paris Agreement

The SDGs, which were adopted shortly before the Paris Climate Conference, aided in laying the groundwork for the conference, which resulted in the adoption of the Paris Agreement under the United Nations Framework Convention on Climate Change (the Paris Agreement).[75] The agreement, signed by 195 countries, was adopted on December 12, 2015, and went into effect on November 4, 2016.[75] The parties acknowledge in the agreement's preamble that climate change is a common concern and that when taking actions to address this issue, they should respect, promote, and consider their respective obligations on human rights, including but not limited to the right to health, the rights of children, gender equality, and women's empowerment.[76]

The agreement's goal, according to art. 2(1), is to improve the global response to the threat of climate change in the framework of sustainable development and efforts to eradicate poverty.[77] According to the same article, this goal should be met by keeping the increase in global average temperature well below 2 degrees Celsius, improving the ability to adapt to the adverse effects of climate change, fostering climate resilience and low greenhouse gas emissions development, and aligning finance flows with the path toward low greenhouse gas emissions and climate-resilient development. Furthermore, art. 2(2) states that the agreement will be implemented to represent equity, as well as the idea of shared but differentiated obligations and commensurate capabilities, in light of varied national circumstances. The article's second argument also emphasizes that more affluent countries have a responsibility to ensure that developing countries can meet their obligations to reduce emissions and develop clean energy technology.[73]

The 2030 Agenda and the Paris Agreement are more than two sides of the same coin: achieving the climate goals and the SDGs are both an issue of justice that can only be achieved

[74] A complete list of all the 17 SDGs can be found at www.sdgs.un.org/2030agenda.

[75] European Union: European Commission. Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the regions, Action Plan: Financing Sustainable Growth. March 2018. COM/2018/97 final.

[76] See United Nations, 'Conference of the Parties, United Nations Framework Convention on Climate Change, Report of the Conference of the Parties on Its Twenty-First Session, Held in Paris from 30 November to 13 December 2015 – Addendum – Part Two: Action Taken by the Conference of the Parties at Its Twenty-First Session' Dec 1/CP.21, FCCC/CP/2015/10/Add.1 (29 January 2015) ('Adoption of the Paris Agreement'). The agreement can be found in the Annex of this document

[77] The Paris Agreement is also enhancing the implementation of the United Nations Framework Convention on Climate Change, adopted in New York on 9 May 1992, according to art. 1 of the agreement.

simultaneously. There is only one shared vision, that of intra and intergenerational justice. While poverty eradication is its top priority, the SDGs address the drivers of climate change and its consequences and establishes targets that are key to mitigation, to adaptation and to Climate Justice. The SDGs cannot be achieved and sustained if climate change is not under control -below 1.5º C by 2100- and the most vulnerable are empowered through resilience. On the other hand, the climate goals cannot be achieved without a success of the SDGs by 2030. This is due to the fact that many of the SDGs include global targets that affect one or several of the drivers of climate change and of mitigation. Climate Justice can only be a reality if the SDGs are achieved, and so are the climate goals. The SDGs contain necessary conditions that need to be accomplished at national and international levels in addition to the accomplishment of the commitments reflected in the NDCs[78] and in the Paris Agreement, to make Climate Justice a reality. Countries may achieve their GHG emission targets as reflected in their NDCs, and the whole outcome may suffice the reductions in GHG emissions globally to achieve the 2 °C -and even the 1.5 °C- targets; but, even in this case, they may do so in a way that does not make Climate Justice effective.[69]

## 2.3 Sustainable Finance in the EU Action Plan

While there are worldwide agreements that govern sustainability, the EU has done its own research about sustainability and sustainable finance.

The Sustainable Finance Action Plan (SFAP) was first laid out by the European Commission in March 2018 in response to the landmark signing of the Paris Agreement in December 2015, and to the United Nations 2030 Agenda for Sustainable Development earlier in 2015, which created the Sustainable Development Goals. The Sustainable Finance Action Plan is also aligned with the goals of the European Green Deal, which aims to see the EU carbon neutral by 2050.

The plan is part of a wider Sustainable Finance Framework which is backed by a broad set of new and enhanced regulations. These include a new Sustainable Finance Disclosure Regulation, which aims to better classify the sustainability credentials of investment funds, and a new EU Taxonomy, which aims to define what economic activities are 'green' for the first time. The EU also plans to enhance the sustainability requirements of existing rules such as Mifid for financial disclosures and UCITs for fund registrations.[79]

[78] Nationally Determined Contributions (NDCs). The Paris Agreement (Article 4, paragraph 2) requires each Party to prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve.

[79] https://www.robeco.com/uk/key-strengths/sustainable-investing/glossary/eu-sustainable-finance-action-plan.html

The plan's objectives are as follows: 1) reorient capital flows toward sustainable investment in order to achieve sustainable and inclusive growth; 2) manage financial risks associated with climate change, resource depletion, environmental deprivation, and social issues; and 3) foster transparency and long-termism in financial and economic activity.[80]

Furthermore, the plan includes expanded sustainability regulation for the financial sector, such as a proposal for an EU taxonomy legislation, a proposal for sustainability disclosures, and a proposal for building low-carbon benchmarks.

### 2.3.1 The Green Deal

As part of the EU's efforts to create a more sustainable economy and the Action Plan on Financing Sustainable Growth, the EU has developed a new strategy to make the Union's economy more sustainable, known as the European Green Deal.[81]

The European Green Deal is the European Commission's key policy strategy for transforming the European Union into a fully decarbonized economy by 2050.[82] The strategy aims at combining decarbonization with green economic growth[83], through policy actions in the fields of the circular economy, mobility, agriculture and, notably, energy. The plan also explains how the transition should be carried out, as well as which investments are required and what financing options are available. The European Green Deal aims to protect, conserve and strengthen the EU's natural capital, as well as protect the health and well-being of citizens from risks and impact related to the environment.[82] It is also an integral part of the EC's strategy to implement the UN's 2030 Agenda for Sustainable Development, including the SDGs.[75] To satisfy the deal's aims, the EC has produced a Sustainable Europe Investment Plan, which will help meet the increased budgetary demands.[75] The European Commission also sees the private sector as critical to financing the green transition and has developed a refreshed sustainable finance strategy.[84]

The approach will prioritize three categories of actions: 1) It will strengthen the foundations for sustainable investment through, among other things, taxonomy adaptation and increased sustainability-related disclosures; 2) it will make it easier for investors and companies to

[80] https://ec.europa.eu/info/publications/sustainable-finance-renewed-strategy_en
[81] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
[82] European Union: European Commission. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: The European Green Deal. Dec 2019. COM/2019/640 final.
[83] Knodt M., Ringel M., Müller R. 'Harder' soft governance in the European Energy Union. Journal of Environmental Policy and Planning. 2 (1). pp. 1-14. 2020.
[84] European Union: European Commission. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions:: Sustainable Europe investment Plan European Green Deal Investment Plan. Jan. 2020. COM/2020/21 final.

identify sustainable investments and ensure their trustworthiness, for example, through clear labels and an EU green bond standard; and 3) environmental and climate risks will be managed and integrated into the financial system.[75]

### 2.3.2 SFDR

The Sustainable Finance Disclosure Regulation, abbreviated SFDR, is a component of the European Green Deal that went into effect on March 10, 2021.[85] The regulation compels FMPs and FAs to be more transparent about the incorporation and consideration of sustainability risks in their investment decision-making process. As a result of enhanced sustainability-related disclosure obligations, FMPs will also be required to classify their financial products as either an art. 6, 8, or 9-product in order to understand which disclosure requirements under the regulation they will be required to comply with. Furthermore, organizations to whom the legislation applies are obligated to post the required information on their websites, in their periodic reports, and in pre-contractual material, such as prospectuses and investor information. In the next chapter, a more detailed description of the SFDR and its articles will be provided.

### 2.3.3 Taxonomy

The Taxonomy Regulation (TR) is also one of the action points included in the European Green Deal and the Sustainable Europe Investment Plan as described above and was adopted on 22 June 2020.

In July 2018, the European Commission set up a Technical Expert Group on sustainable finance (TEG) including a heterogeneous group of participants from academia, business, and the finance sector, on the one hand, and members and observers from EU and international public bodies, on the other hand. In this context, one of the four mandates of the TEG was specifically to develop a unified, clear, and detailed EU classification system for sustainable economic activities. Given the complexity of the task, the TEG activities were extended until 2020 and, after the first release in June 2019, the final version of the Taxonomy Technical Report was released in March 2020[86,87] with the publication of the so-called EU Taxonomy. The six environmental objectives pursued in the EU Taxonomy are: (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, and (6) protection and

[85] European Union: European Commission. Proposal for a Regulation of the European Parliament and of the Council on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU) 2016/2341. May 2018. COM/2018/354 final.

[86] EU Technical Expert group on Sustainable Finance. Taxonomy: Final Report of the Technical Expert Group on Sustainable Finance. TEG European Commission: Brussels, Belgium. 2020.

[87] EU Technical Expert group on Sustainable Finance. Taxonomy Report: Technical Annex. TEG European Commission: Brussels, Belgium. 2020.

restoration of biodiversity and ecosystems. Taking these environmental objectives as the rational target, the TEG applies the EU Taxonomy as the framework that guarantees a unified classification system for determining when economic activities can be considered environmentally sustainable. Based on the NACE (French: *Nomenclature statistique des Activités économiques dans la Communauté Européenne*) classification, the official industry classification used in the European Union, the TEG selected a list of macro-economic sectors considered relevant in terms of GHG emissions in the EU (roughly 93.5% of Europe's emissions) and covering a significant proportion of GDP and total employment at the EU 28 level. For each macro-sector, the TEG identified a list of eligible activities and, then, determined the "detailed technical screening criteria" necessary to validate whether economic activities meet the relevant substantial contribution to the environmental objectives. Note that eligibility under the EU Taxonomy is assessed on an activity basis rather than by entity (i.e., company). Nevertheless, a key part of the EU Taxonomy assessment includes defining what part of a corporate's performance can be assessed as sustainable. To this end, determining to what degree a company can be considered environmentally sustainable depends on the individual contribution of each eligible economic activity to the company performance, in terms of turnover, or revenues when appropriate, but also in terms of capital or operational expenditure[15]. As a general rule guiding the performance criteria, an economic activity is qualified as environmentally sustainable when (i) it contributes substantially to at least one of the six environmental objectives; (ii) it follows the principle of "Do No Significant Harm" to any other environmental objectives; and, (iii) it complies with minimal social safeguards. Indeed, when an economic activity meets the EU Taxonomy performance thresholds it is then certified as "EU Taxonomy-aligned". In practice, a company that is fully or partially involved in eligible economic activities (e.g., reforestation, electricity generation, public transport) and meets the EU-Taxonomy technical screening criteria, it is allowed to classify a corresponding percentage of its performance (turnover, capital expenditure, or operational expenditure) as environmentally sustainable. Consequently, a financial intermediary investing in that company may compute its proportional share of Taxonomy-aligned investment. In this way, the intermediary (e.g., investment and mutual funds, private and occupational pensions) will disclose the nature and the extent to which its financial products are EU Taxonomy-aligned. This represents a powerful edge for investment firms, as companies will have to disclose their EU Taxonomy-aligned turnover and capital expenditure in their annual reports, as required in the Non-Financial Reporting Directive. Otherwise, the financial intermediary will have to declare that a product does not align. The EU Taxonomy was converted into a Regulation by the end of 2020. The criteria will be laid down in delegated acts, following recommendations

from key stakeholders (i.e., expert groups— the TEG at first, followed by the 'Platform on sustainable finance'—and public consultation) and Member States. Consequently, market actors have to start complying with the Taxonomy Regulation requirements as of December 2021.

### 2.3.4 The Climate Benchmarks

Another goal of the Technical Expert Group was the introduction of a Benchmark regulation and a Benchmark disclosure rule.

The amendments to the EU Benchmarks regulation consists of two main parts. First, it introduces two new types of climate benchmark: the EU Climate Transition Benchmark (EU CTB) and the EU Paris-Aligned Benchmark (EU PAB), and their minimum requirements. Second, it lays out Environmental, Social and Governance (ESG) disclosure requirements that are applicable to all investment benchmarks, with the exception of currency and interest rate indices. Specifically, the disclosure requirements apply to all registered benchmark administrators, either based in the EU or offering benchmarks within the EU.

The final report on climate benchmarks[88] and the benchmarks' ESG disclosures prepared by the EU Technical Expert Group (EU TEG) was published in September 2019, and the resulting EU Regulation 2019/2089[89] entered into force on 10 December 2019. Once the Delegated Acts are adopted, the benchmark administrators must start complying with this Regulation. Draft Delegated Acts amending the details of the EU CTBs, the EU PABs and the benchmarks' sustainability disclosures were published in April 2020 and were open for consultation until 6 May 2020. These new sustainability related amendments to the EU Benchmarks regulation have been adopted to achieve four main objectives. By creating binding legislation, the EU aims to:

- Increase the comparability between benchmarks
- Provide a tool to support climate-focused investment strategies
- Increase transparency with respect to the impacts of investments
- Disincentivize greenwashing

Comparability and transparency are both worthy ideals but have previously been proven difficult to put into practice with respect to environmental benchmarks. There are countless benchmarks on the market, many of which claim to represent similar characteristics, but actually result in contradictory outcomes. To make matters worse, the publicly reported rationale behind different benchmarks is seldom sufficiently rigorous and comprehensive for

[88] EU Technical Expert group on Sustainable Finance. Final report on climate benchmarks and benchmarks ESG disclosures. TEG European Commission: Brussels, Belgium. 2019.

[89] Regulation (EU) 2019/2089 of the European Parliament and of the Council of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks (Text with EEA relevance)

outsiders to draw their own conclusions about the benchmarks' suitability for certain purposes. This is where the new ESG disclosure requirements for all benchmarks shine. For each benchmark, the regulation requires administrators to disclose the methodology behind it, together with a statement explaining how the ESG factors are reflected in the benchmark in a standardized and comparable way. Non-ESG focused benchmarks have a non-disclosure option, but this nevertheless requires them to explicitly state that they do not pursue any ESG objectives, which will likely have a negative impact on the benchmark's popularity. However, all benchmarks must include a disclosure on their alignment with the Paris Climate Agreement emissions reduction goals by the end of 2021[90].

The EU CTB and PAB benchmarks have been designed to reorient the ESG focus on investment away from simple risk reduction to a greater emphasis on opportunity-seeking, in line with the objectives of a transition to a climate-resilient economy. As their name suggests, the Paris-Aligned Benchmarks have stricter demands, including alignment with the Paris Climate Agreement global warming targets and a 50% lower weighted average GHG (greenhouse gas) intensity than the investable universe, and they are designed for institutions whose clear goal is to actively support the transition to a climate-sustainable world where global warming is limited to 1.5 $^{o}$C above pre-industrial levels. The EU CTBs, on the other hand, allow diversification and a focus on mitigating climate change risks, and are primarily intended for large institutional investors and for all investments, but still require a 30% lower GHG intensity than the investable universe. The requirements of both benchmarks implicitly assume a need for diversification.

## 2.4 The impact of the COVID-19 Pandemic on Sustainable Finance

The Covid-19 crisis is the "worst human and economic crisis of our lifetimes", according to the UN General Secretariat in their 2020 annual Sustainable Development Goals (SDG) report.[91] While the world was not on track to achieve the SDGs by 2030 to begin with, the SDG report states that some positive achievements will now be reversed, and in some areas, developments will be set back by at least a decade if there is no targeted and internationally coordinated effort to prevent this from happening. Most evidently, Covid-19 is devastating health systems around the world. Additionally, the lockdown measures and shutting down of economies threaten to exacerbate extreme poverty and advances in education, as over 90% of the global student

[90] https://home.kpmg/se/sv/home/campaigns/2020/06/eu-sustainable-finance-explained-climate-benchmarks.html
[91] United Nations Economic and Social Committee. 2020. "Progress Towards The Sustainable Development Goals- Report Of The Secretary-General. (p.2)

population has been affected by school closures. In order to reverse these setbacks, the report estimates that 10% of global GDP would have to be mobilized.[92]

The coronavirus pandemic and disease that originated in 2019 (COVID-19) has deflected the attention of governments away from long-term sustainability objectives by imposing unparalleled injections of resources to rescue national economies, with the risk of putting the achievement of the Sustainable Development Goals (SDG) many years behind schedule (UN, 2020)[93]. In this context, the survival of global environmental and socio-economic sustainability priorities becomes more than ever dependent on sustainability-oriented investments from the public and the private sector.

On the other hand, the economic recovery programmes provide an opportunity to set the world on a more sustainable path and even accelerate the achievement of international objectives, such as the Paris Climate Agreement and the SDGs. However, due to the pressing needs of an economy in recession, there is a danger that long-term strategies may be side-lined. The OECD conducted a survey about the impacts of the Covid-19 crisis on governments' ability and commitment to achieving the 2030 Agenda. The results show that 72% of respondents stated that the consequences of the virus outbreak would impact on their capability to achieve the SDGs.[94]

Like in the rest of the world, the Covid-19 pandemic has exposed already existing challenges in Europe. In her speech introducing the proposal for the European Recovery Package, EU Commission President Ursula von der Leyen identified the key challenges for Europe in the wake of Covid-19 as rising inequalities, a digital divide, and the advancing climate crisis. The EU recovery plan is inspired by "competitive sustainability" and has the Green Deal at its core. Therefore, the SDGs may be more crucial now than they were before the crisis.

After five days of negotiation, the European Council decided on a recovery package, "Next Generation EU" (NGEU) and the next Multiannual Financial Framework (MFF) on July 21, 2020.[95]

Together, the Green Deal, Recovery Package and Adjusted Work Programme aim at setting Europe on a path to a sustainable recovery, focusing on environmental and ecological sustainability while leaving no one behind, as well as digitalisation. The negotiating process has highlighted the difficulties of consolidating different national interests under one policy

[92] United Nations Economic and Social Committee 2020
[93] UN, 2020. The Sustainable Development Goals Report 2020. United Nations (UN). July 2020.
[94] OECD. Building A Coherent Response For A Sustainable Post-COVID-19 Recovery - Preliminary Version. Tackling Coronavirus (Covid-19): Contributing To A Global Effort. 2020.
[95] European Union: European Commission. Speech By President Von Der Leyen At The UN High-Level Event On Financing For Development In The Era Of COVID-19 And Beyond. 2020.

umbrella. The package has been discussed in the European Parliament, and MEPs have criticised the substantial funding cuts to programmes that focus on the future, such as research, or the greenest part of the Common Agricultural Policy.

In the midst of the pandemic, an important question emerged: Is there any apparent trade-off between crisis management measures and pursuing the sustainable finance agenda? Many stakeholders argued for the European Green Deal to remain central for a robust recovery and growth in the EU, and this was recently reinforced in the Commission's Communication on "Europe's moment: Repair and Prepare for the Next Generation".

## 2.5 The SDGs recent performance in Europe

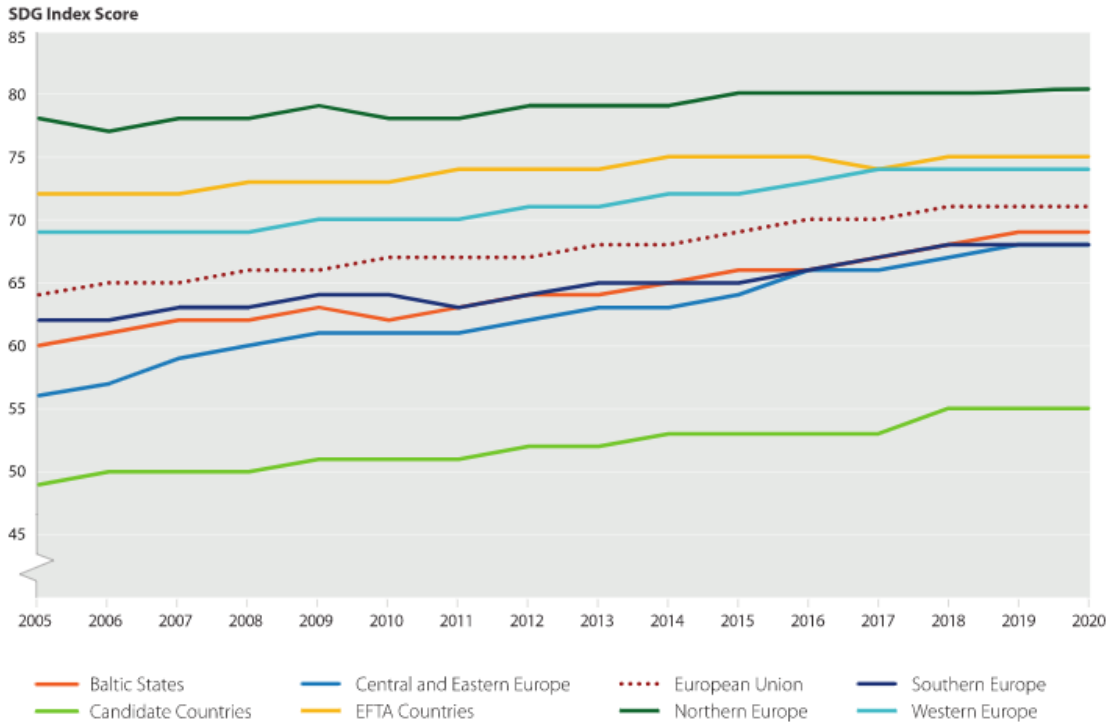
The SDG Index and Dashboards for European Countries provides an overview of the performance of the Union and 38 European countries on the SDGs. It underline how Europe's SDG performance compares vis-à-vis the rest of the world and how European countries and subregions compare with each other.

The COVID-19 pandemic is a setback for sustainable development in Europe and throughout the world. The world average SDG Index score declined in 2020 for the first time since the adoption of the SDGs in 2015 (Sachs et al., 2021)[96], driven by rising poverty rates and unemployment, and the EU27 average SDG Index score also dropped slightly from its 2019 level. This weakening in the EU27's SDG performance was, however, less than that observed in the rest of the world, possibly due to the size and effectiveness of automatic stabilizers and dedicated economic and social policies, among other reasons.

The decline in the SDG Index score observed in 2020 comes after years of progress on the SDGs in the EU27 and the rest of Europe. Between 2000 and 2019, the average EU27 Index score grew by 8.5 percentage points, from 62.9% to 71.4%. In fact, the average annual growth rate of the SDG Index score from the adoption of the Global Goals in 2015 until 2019 (0.9%) was greater than the average annual growth rate observed between 2010 and 2015 (0.6%). While this does not imply that the EU27 was on track to achieve the SDGs, it does suggest that there was an acceleration of progress on the SDGs since their adoption in 2015.

[96] Sachs J., Schmidt-Traub G., Kroll C., Lafortune G., Fuller G., Woelm F. Sustainable Development Report 2020: The Sustainable Development Goals and Covid-19 Includes the SDG Index and Dashboards. Cambridge University Press. 2021.

**Figure 2: SDG Index Scores, EU27 and European regions, 2005-2020**

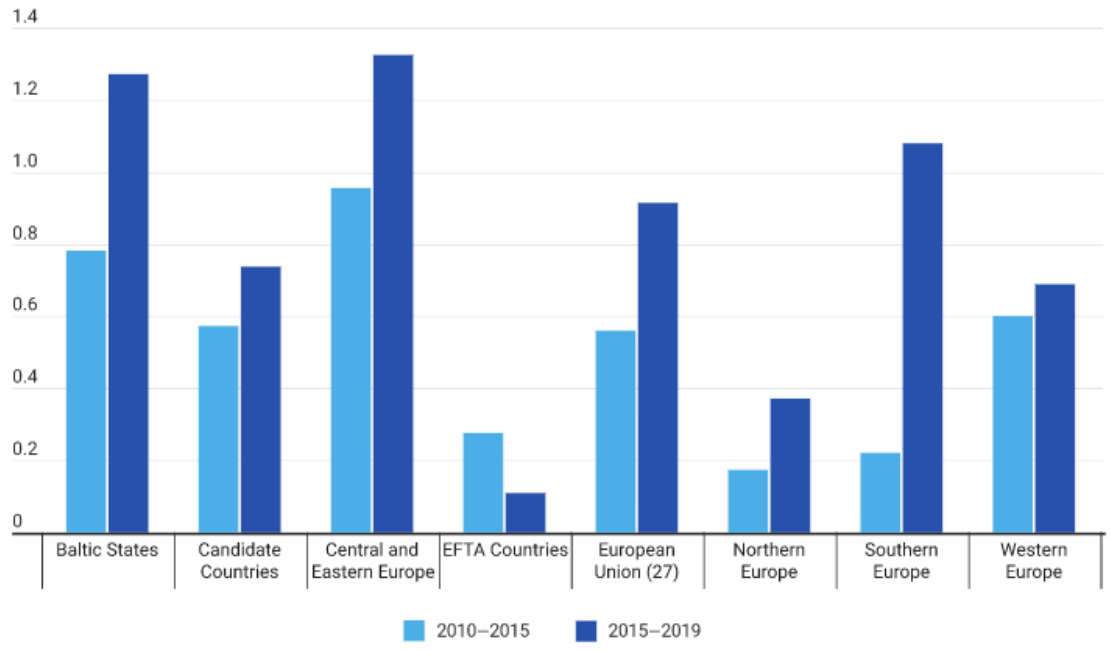



*Note 1: Population-weighted averages. Subregions: Baltic States (Estonia, Latvia, Lithuania); Candidate Countries (Albania, Montenegro, the Republic of North Macedonia, Serbia, Turkey); Central and Eastern European Europe (Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovak Republic, Slovenia); Northern Europe (Denmark, Finland, Sweden); Southern Europe (Cyprus, Greece, Italy, Malta, Portugal, Spain); Western Europe (Austria, Belgium, France, Germany, Ireland, Luxembourg, the Netherlands); EFTA Countries (Iceland, Liechtenstein, Norway, Switzerland). SDG Index scores from 0 (lowest) to 100 (best).*

*Source: Europe Sustainable Development report 2021*

There are gaps in SDG performance across European regions and countries (see Figure 2). Overall, Northern European countries perform best, with an average SDG Index score of 81% in 2020. By contrast, candidate countries perform more poorly, with an average score in 2020 of just above 55%, driven notably by poorer performance on socio-economic goals (SDG 1 and SDGs 3 to 9) and on SDG 16 (Justice, peace and strong institutions). Yet the results suggest that some convergence has occurred over the past decade, with European regions and countries that started at lower SDG Index scores progressing faster than those at higher scores. However, the pace of convergence remains slow. At the present growth rates, candidate countries would not attain scores currently held by Northern Europe for another 52 years. Southern Europe would reach this level in 18 years, while Central and Eastern Europe would reach it in 17 years.

**Figure 3: Average annual growth rate of the SDG Index from 2010 to 2015 versus 2015 to 2019 (%)**

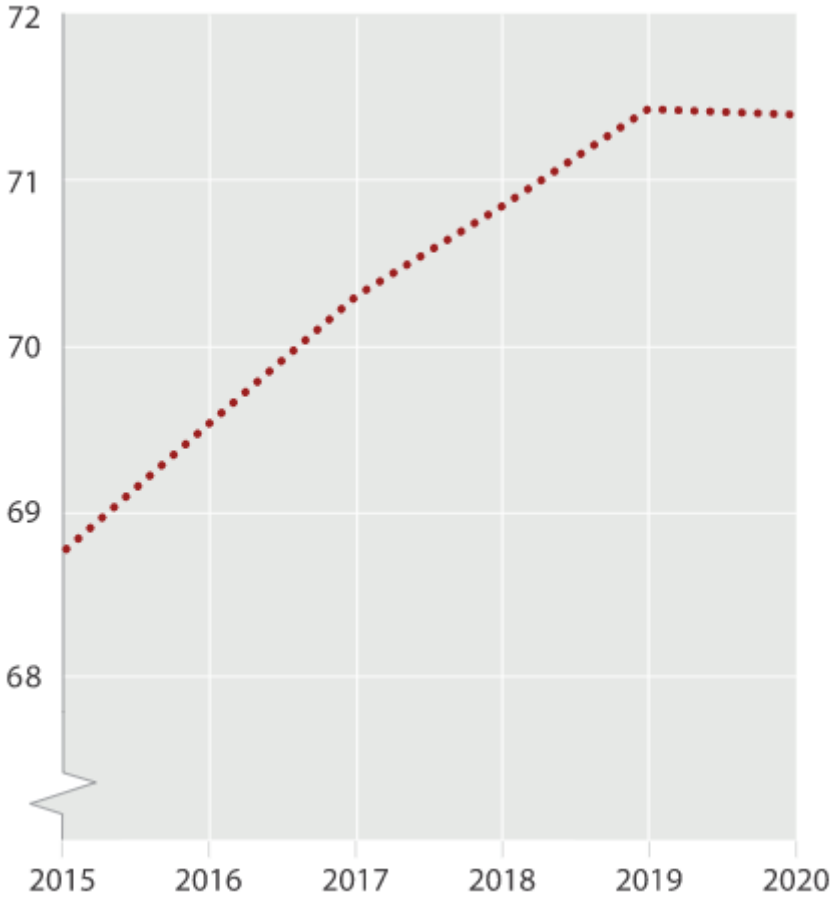



*Note 2: Population-weighted averages. Subregions: Baltic States (Estonia, Latvia, Lithuania); Candidate Countries (Albania, Montenegro, the Republic of North Macedonia, Serbia, Turkey); Central and Eastern European Europe (Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovak Republic, Slovenia); Northern Europe (Denmark, Finland, Sweden); Southern Europe (Cyprus, Greece, Italy, Malta, Portugal, Spain); Western Europe (Austria, Belgium, France, Germany, Ireland, Luxembourg, the Netherlands); EFTA Countries (Iceland, Liechtenstein, Norway, Switzerland). SDG Index scores from 0 (lowest) to 100 (best).*

*Source: Europe Sustainable Development report 2021*

The COVID-19 pandemic led to a reversal in SDG progress on many goals and indicators. Vulnerable groups and populations were particularly affected in Europe and in the rest of the world (Lancet COVID-19 Commission, 2021). While there are differences in how COVID-19 impacted SDG performance across European countries, the pandemic particularly affected economic prosperity and jobs, health status, and access to and quality of services. The slight decline in this year's average SDG Index score for the EU27 is driven to a large extent by increased poverty and unemployment and a decline in life expectancy (Figure 4).

**Figure 4: SDG Index Score, EU27, 2015-2020**




*Source: Europe Sustainable Development report 2021*

The pandemic led to temporary decreases in greenhouse gas emissions and improvements on other environmental indicators during lockdowns, but emissions picked up rapidly after restrictions were lifted. There are no clear signs yet of structural improvements on climate and biodiversity goals at the EU or global levels stemming from the COVID-19 pandemic (Sachs et al., 2021[96]). The impacts of the COVID-19 pandemic on the SDGs may take years to be fully reflected in the data. First, because of delays and time lags in data reporting. Second, because it might take years to fully assess consequences of the pandemic related to delayed health interventions and screenings. There may be long-term impacts on health status, mental health and learning outcomes, equity and skills (The Lancet COVID-19 Commission: Task Force on Mental Health, 2021[97]). The depth and length of structural scarring of the economy and social progress due to the pandemic remain uncertain.

[97] https://covid19commission.org/mental-health-wellbeing

## 2.6 Conclusion

As demonstrated in this chapter, the legal framework related with sustainability on the financial market is fairly extensive. There are numerous international and EU-level accords and treaties. On a global scale, the Paris agreement, along with the SDGs, give a sustainability "plan" that must be followed globally in order to achieve the multiple objectives set forth by these legislative agendas and enhance the climate and environment. To assist in meeting the goals of these international frameworks, the EU has devised its own sustainability policy, the European Green Deal. The European Commission (EC) has issued two new regulations as part of the European Green Deal: the SFDR and the TR.

Sustainability will remain an enduring policy and market theme in the (post) Covid-19 era.

At the EU level, the Action Plan on Sustainable Finance (March 2018) put forward an extensive list of legislative and non-legislative initiatives related to the taxonomy, disclosure, suitability and fiduciary duties, low-carbon benchmarks, non-financial corporate reporting, credit and sustainability ratings, green bond standards and eco-labels for retail financial products. These will be continued with a Renewed Strategy (December 2020) focusing on the overall ecosystem, implementation of the toolbox and systemic risk implications.

The current crisis has given a brutal reminder about the need to strengthen the preparedness and resilience of our societies as a whole. The next three to five years will certainly be crucial in terms of the impact on the real economy, i.e. translating sustainability in a consistent manner at the operational level, and mobilising significant private capital flows to support recovery and growth in Europe. From a policy perspective, synergies with the capital markets union (CMU) initiative should also be further explored.[98]

While the SFDR will compel FMPs to be more transparent about the incorporation of sustainability into investment decisions, the TR will establish criteria that will assist these actors in classifying and understanding the notion of an environmentally sustainable investment. Furthermore, beginning in 2022, FMPs categorizing their products as art. 8 or 9 SFDR will be required to adopt certain TR criteria requiring them to offer further disclosures. In other words, the new EU legislation not only entail improved financial regulation within the EU, but also establish a standard legal framework that oversees financial market sustainable integration.

[98] Amariei C. Sustainable finance in the Covid-19 era, European Capital Market Institute. Commentary no 66. 2020.

# Chap 3: SUSTAINABLE FINANCE DISCLOSURE REGULATION

## 3.1 Introduction

The goal of this chapter is to dig deeper into the Sustainable Finance Disclosure Regulation, in particular, showing what this regulation means for the companies involved and what investors can expect after it.

The regulation 2019/2088 of the European Parliament and of the Council, of 27 November 2019, was published on the 9th of December 2019 in the Official Journal. It entered into force on the 20th day after its publication and applied from the 10 March 2021.[99]

It lays down sustainability disclosure obligations for manufacturers of financial products and financial advisers toward end-investors. It does so in relation to the integration of sustainability risks by financial market participants (i.e., asset managers, institutional investors…, all entities offering financial products where they manage clients' money) and financial advisers in all investment processes and for financial products that pursue the objective of sustainable investment.

In addition, the co-legislators added disclosure obligations as regards adverse impacts on sustainability matters at entity and financial products levels, i.e., whether financial market participants and financial advisers consider negative externalities on environment and social justice of the investment decisions/advice and, if so, how this is reflected at the product level. The reason is that investment decisions and financial advice might cause, contribute to, or be directly linked to negative material effects on environment and society, regardless of whether the investment strategy pursue a sustainable objective or not, such as investments in assets that pollute water or devastate biodiversity, to ensure the sustainability of investments.[1]

The structure of the chapter is the follow: in section 3.2 I will show the main subject of the regulation and some key definitions; in section 3.3 the concept of Principal Adverse Impact will be explain; later, in the 3.4 I will show the main disclosure rules; in the paragraph 3.5 the classification level will be delighted, and at the end, before showing some statistics about its application, I will deal with level 2 disclosure and RTS.

## 3.2 Into the Regulation

### 3.2.1 Subject matter

In the article 1, the regulation says:

[99] Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. 2019.

> ‘’harmonised rules for financial market participants and financial advisers on transparency with regard to the integration of sustainability risks and the consideration of adverse sustainability impacts in their process and the provision of sustainability-related information with respect to financial products”.

This means that the goal of the regulation is the introduction of disclosure rules with regard to the sustainability risks and the adverse sustainability impact of processes as well as sustainability information of financial products. This disclosure rules will be applied by “Financial market participants” and “Financial Advisors”.

### 3.2.2 Definitions

As with regard to the firms impacted by the regulation, art 2 explains:

- ‘Financial market participant’ means:
  - an insurance undertaking which makes available an insurance-based investment product (IBIP)
  - an investment firm, which provides portfolio management
  - An institution for occupational retirement provision (IORP)
  - A manufacturer of a pension product
  - An alternative investment fund manager (AIFM)
  - A pan-European personal pension product (PEPP) provider
  - A manager of a qualifying venture capital fund registered in accordance with Article 14 of Regulation (EU) No 346/2013[100]
  - A manager of a qualifying social entrepreneurship fund registered in accordance with Article 15 of Regulation (EU) No 346/2013[100]
  - A management company of an undertaking for collective investment in transferable securities (UCITS management company); or
  - A credit institution which provides portfolio management.
- ‘Financial advisers’ means:
  - An insurance intermediary which provides insurance advice with regard to IBIPs
  - An insurance undertaking which provides insurance advice with regard to IBIP
  - A credit institution which provides investment advice
  - An investment firm which provides investment advice

[100] Regulation (EU) No 346/2013 of the European Parliament and of the Council of 17 April 2013 on European social entrepreneurship funds. 2013.

    - An AIFM which provides investment advice in accordance with point (b)(i) of Article 6(4) of Directive 2011/61/EU[101]; or
    - A UCITS management company which provides investment advice in accordance with point (b)(i) of Article 6(3) of Directive 2009/65/EC[102]
- Financial product means:
    - A portfolio managed in accordance with point (6) of this Article
    - An alternative investment fund (AIF)
    - An IBIP
    - A pension product
    - A pension schemes
    - A UCITS; or
    - A PEPP
- 'Sustainable investment' means an investment in an economic activity that contributes to an environmental objective, as measured, for example, by key resource efficiency indicators on the use of energy, renewable energy, raw materials, water and land, on the production of waste, and greenhouse gas emissions, or on its impact on biodiversity and the circular economy, or an investment in an economic activity that contributes to a social objective, in particular an investment that contributes to tackling inequality or that fosters social cohesion, social integration and labour relations, or an investment in human capital or economically or socially disadvantaged communities, provided that such investments do not significantly harm any of those objective and that investee companies follow good governance practices, in particular, with respect to sound management structure, employee relations, remuneration of staff and tax compliance.
- 'Sustainability risk' means an environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of the investment
- 'Sustainability factors' means environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters.

[101] Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010

[102] Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)

## 3.3 PAIS: Principal Adverse Impacts

Article 4 of the Disclosure Regulation requires financial market participants ("FMPs") to publish and maintain on their websites, where they consider principal adverse impacts of investment decisions on sustainability factors, a statement on the due diligence policies with respect to those impacts, taking due account of the size, nature and scale of their activities and the types of financial products that they make available. Where a FMP does not consider the adverse impacts of investment decisions on sustainability factors, the FMP must publish and maintain on its website clear reasons for why it does not do so, including where relevant information as to whether and when they intend to consider such adverse impacts. This requirement applies from 10 March 2021.[103]

With this regard, it is important to point out that there is a huge difference on the application of art. 4 between small and big enterprises. Indeed, Under Article 4(3) of the SFDR, financial market participants with more than 500 employees must consider principal adverse impacts (PAIs) of investment decisions on sustainability factors. Under Article 4(4), financial market participants that are parent undertakings of a large group with more than 500 employees must also consider PAIs. The Commission clarifies that under Article 4(4), financial market participants must count employees within both EU and non-EU subsidiaries.

At the same time, firms with fewer than 500 employees may consider PAIs or explain why they do not consider the adverse impacts of their investment decisions on sustainability factors. This means that while companies with less than 500 employees have the possibility of explaining why they do not consider the PAIS, those with more than 500 employees don't.

> "shall publish and maintain on their websites a statement on their due diligence policies with respect to the principal adverse impacts of investment decisions on sustainability factors. That statement shall at least include the information referred to in paragraph 2."

The PAIS is intended to show investors and prospective investors how investment decisions made by a FMP have or may have adverse impacts on sustainability factors relating to environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters.

[103] SFDR Factsheet: The Principal Adverse Impact Statement, Matheson, matheson.com

## 3.4 Disclosures rules

The rules on disclosure set by the SFDR apply at 2 levels: at the level of the firms themselves and at the level of the products they manage, market or advice.[104]

The disclosure at entity level must be published on the website and refers to:

- Publish information on the policies regarding the considering of sustainability risks in investment decision/advice (sustainability risks)
- Explain the due diligence policies regarding the PAIS of investment decisions/advice. Where the PAIS are not considered, explain why (Principal Adverse Impacts on Sustainability. PAIS)
- Explain how the remuneration policy is consistent with the integration of sustainability risks (remuneration)

The disclosure at the product level consists in:

- Description of the characteristics and objective, and of the methodologies for the assessment, measurement, and monitoring.
- Explain how sustainability risks are integrated in investment decisions/advice, and the impact of these risks on the returns of the products. If risks are not integrated, explain why. (Sustainability risks).
- Explain whether, and if so how, a product considers PAIS. If PAIS are not considered, explain why. (PAIS).
- Special Disclosure: for products promoting environmental or social characteristic or having sustainable investment as their objective, explain how, comparison with designated index. (To be disclosed in pre-contractual disclosures, on the website, and in periodic reports).
- Taxonomy disclosures: explain which environmental characteristic the product promotes or which environmental objective it has. Also explain to what extent the investments underlying the product are in activities that qualify as "environmentally sustainable" under the Taxonomy Regulation. (to be disclosed in pre-contractual disclosures).

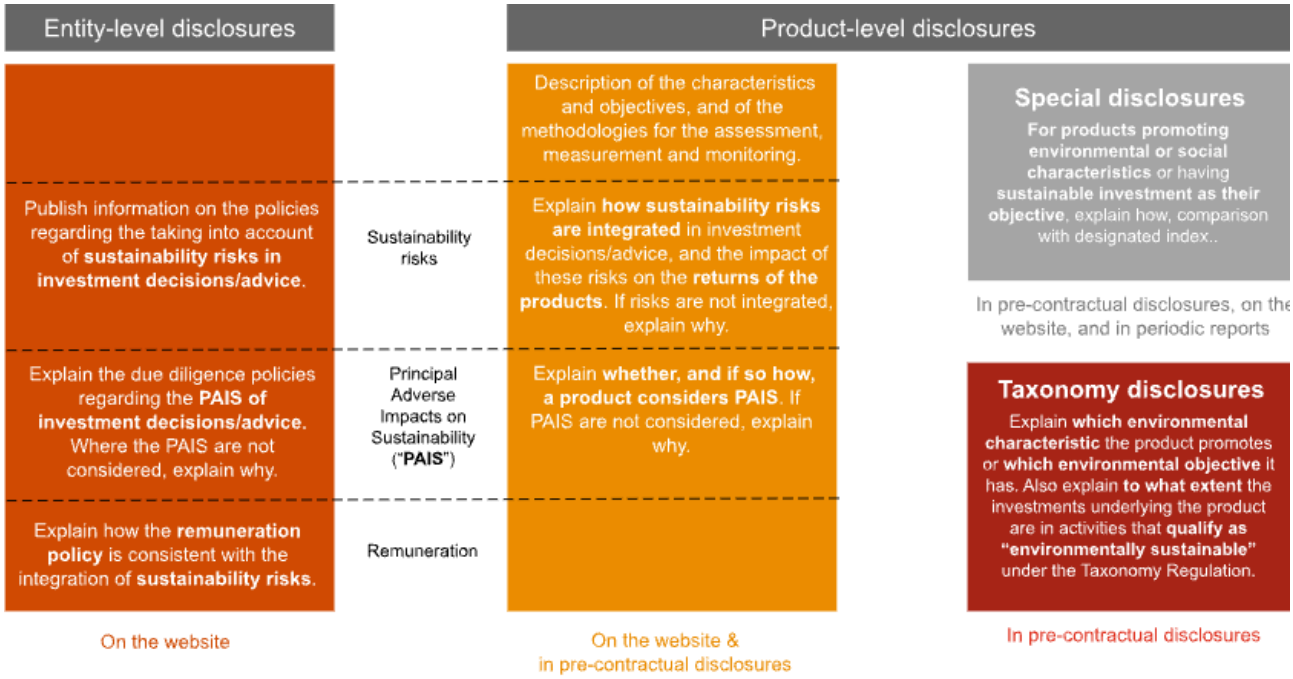
Note that we can distinguish between Level 1 and Level 2 disclosures. Level 1 disclosures are entity level disclosures which require information about FMP policies on the identification and prioritisation of principal adverse sustainability impacts. FMPs will also need to provide a description of the principal adverse sustainability impacts and of any actions in relation thereto taken or where relevant, planned as well as a summary of engagement policies. While the

[104] The EU Sustainable Finance Disclosure Regulation (SFDR) is live – what can we expect? Ogier.com. 2021

requirements in the SFDR relating to the entity-level disclosure of principal adverse impacts apply from 10 March 2021 (Level 1) on a comply or explain basis, the additional detailed entity and product level 2 disclosures, which includes the 'principal adverse sustainability impacts statement' will apply from 1 January 2022.[105]

Figure 5 gives a summary of the disclosure rules set by the regulation.

**Figure 5 SFDR Disclosure rules**




*Source: PWC website*

Next to the disclosure requirements, financial products promoted as ESG are required to classify as being Article 8 or 9 products, depending on whether they meet the requirements for either classification, with Article 9 taking on more restrictive criteria.

## 3.5 Classification

### 3.5.1 Article 6

Art. 6 SFDR could be considered as the "lowest" classification threshold, as it contains the least disclosure requirements. Financial products that do not meet the requirements to be classified either as Article 8 or Article 9 product, are classified as Article 6.

Article 6 covers funds which do not integrate any kind of sustainability into the investment process and could include stocks currently excluded by ESG funds such as tobacco companies or thermal coal producers. While these will be allowed to continue to be sold in the EU,

[105] What is the SFDR? Sustainable Finance Disclosure Regulation., KPMG. https://home.kpmg/ie/en/home/insights/2021/03/what-is-the-sfdr-sustainable-futures.html

provided they are clearly labelled as non-sustainable, they may face considerable marketing difficulties when matched against more sustainable funds.[106]

However, it is important to note that all FMPs must comply with the requirements of art. 6 and describe how they integrate sustainability risks, regardless of if they are classifying their products as an art. 8 or 9. Art. 6 SFDR stipulates that FMPs should provide descriptions on how they integrate sustainability risks into their investment decisions, as well as the results of the assessment of the likely impacts of such risks on the returns of the financial product they make available. Furthermore, art. 6 SFDR requires FMPs who do not consider sustainability risks to be relevant to provide an explanation to this. In other words, art. 6 could both be seen as a product classification for funds integrating ESG aspects, as well as a mandatory disclaimer for funds that do not integrate sustainability risks in their investment process.

### 3.5.2 Article 8 – Light green funds

An Article 8 Fund under SFDR is defined as "a Fund which promotes, among other characteristics, environmental or social characteristics, or a combination of those characteristics, provided that the companies in which the investments are made follow good governance practices."[107]

The Draft RTS (with which I will deal later) contains some limited guidance and indications as to what constitutes an Article 8 fund. One way for a fund to promote environmental and social characteristics and to be an Article 8 Fund is to adopt the mandatory principle adverse sustainability indicators ("PAIS"). In the view of Deloitte's experts, if a fund considers the PAISs, this does not mean they are automatically an Article 8 Fund.[7] The Fund Manager must integrate the sustainability risk indicators into their investment decisions. Art. 8 requires FMPs to provide information on how the characteristics are met in pre-contractual documentation and if an index has been chosen as a reference benchmark the FMP should also describe if this index is consistent with the characteristics. In addition to the obligations within art. 8, there are supplementary disclosure requirements for light green funds. According to art. 10 SFDR, funds qualifying as an art. 8 must also make certain website disclosures. For instance, art. 10 SFDR demands FMPs to provide a description on the environmental or social characteristics, information on the methodologies used to assess, measure and monitor these characteristics, together with the information required by art. 8 and art. 11 SFDR, where the latter states that

[106] Robeco.it https://www.robeco.com/it/punti-di-forza/investimenti-sostenibili/glossario/article-6-8-and-9-funds.html

[107] Sustainable Finance Disclosure Regulation - Article 8 Funds or "Light Green Funds". DELOITTE. 2021.

FMPs will have to include certain information related to the environmental or social characteristics in the periodic reports.[108]

### 3.5.3 Article 9 – Dark green funds

The third and final classification level within SFDR is art. 9, which pertains to so-called "dark green funds". An Article9 Fund under SFDR is defines as "a Fund that has sustainable investment as its objective or a reduction in carbon emissions as its objective"[109].

The article also states that for products with a goal of sustainable investing, FMPs shall offer information in pre-contractual disclosures on how that goal is met. If an index is chosen as a benchmark, they should explain how it is aligned with the purpose. If the fund's goal is to reduce carbon emissions, the pre-contractual disclosure should include information on the fund's goal of minimal carbon emission exposure while meeting the Paris Agreement's long-term global warming objectives. Furthermore, in the Draft RTS, Article 9 Funds with a carbon reduction objective must refer to an EU Climate Transition Benchmark or an EU Paris-aligned Benchmark (once available). If the product's goal is to reduce carbon emissions and no EU Climate Transition Benchmark or EU Paris-aligned Benchmark according to Regulation (EU) 2016/1011 is available, the pre-contractual disclosures should include a detailed explanation of how the continued effort to achieve the goal is guaranteed in order to meet the Paris Agreement's long-term global warming goals. The ESA's have written a letter to the European Commission to clarify whether this requirement to track the benchmarks on a passive basis will be required. At the date of publication of this article the European Commission has not clarified this point.

Similarly as an Article 8 Fund that promotes a sustainable investment objective and has to incorporate the good governance criteria, an Article 9 Fund will have to incorporate good governance into the investment strategy i.e. assessment of sound management structures, employee relations, remuneration and tax for the underlying investments. Indeed, this has been confirmed by the ESA's.

In addition, an Article 9 Fund is required to assess the Fund portfolio against the principle of "do no significant harm" by considering the PAIs, and incorporating considerations of the minimum social safeguards specified in the Taxonomy Regulation[110] (Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment). It is

[108] The art. 11 SFDR will not become applicable until 1 January 2022, according to art. 20(3) SFDR

[109] Sustainable Finance Disclosure Regulation - Article 9 Funds or "Dark Green Funds". DELOITTE. The definition of Sustainable Investment as in the previous paragraphs. 2021.

[110] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. June 2020. PE/20/2020/INIT

expected that this will entail additional work on the risk assessment against social safeguards for Fund Managers seeking to offer Article 9 Funds.

## 3.6 The level 2 rules

While the SFDR includes information on disclosure obligations and product classifications, additional specifics on the regulation are still pending. According to recital 31 of the SFDR, ESAs should produce draft implementing technical standards that will determine the standard presentation of information connected to the promotion of environmental or social qualities, as well as sustainable investments in marketing communications. The ESAs are made up of three European authorities: the EBA, ESMA, and EIOPA.[111] In other words, the technical standards, also known as "RTS" and "Level 2," will provide further information about the regulation's substance, presentation, and methodology. In addition, these standards will give clarification and definitions for several of the terms used in the SFDR.

The RTS for the SFDR was initially intended to take effect on the same date as the regulation, i.e. 10 March 2021. However, it has been postponed and will not become effective until "a later stage," according to the EC, which will most likely be January 1, 2023[112].

## 3.7 Regulatory technical standards

The European Supervisory Authorities (ESAs)[113] have developed through the Joint Committee (JC) draft Regulatory Technical Standards[64] (RTS) with regard to the content, methodologies and presentation of sustainability-related disclosures under empowerments Articles 2a, 4(6) and (7), 8(3), 9(5), 10(2) and 11(4) of Regulation (EU) 2019/2088 (hereinafter Sustainable Finance Disclosure Regulation “SFDR”).

The draft RTS and its Annexes, reflect the responses to a Consultation paper (JC 2020 16[114]) published on 23 April 2020.

The draft RTS relate to several disclosure obligations under the SFDR regarding the publication of:

[111] See Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds [2019] OJ L334/1.

[112] It has been postponed several times

[113] The European Supervisory Authorities (ESAs) are the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA).

[114] Joint Committee of the European Supervisory Authorities. ESG disclosures. JC 2020 16. April 2020.

- The details of the presentation and content of the information in relation to the principle of 'do not significantly harm' as set out in Article 2(17) of the SFDR consistent with the content, methodologies, and presentation of indicators in relation to adverse impacts referred to in Article 4(6) and (7) SFDR (Article 2a SFDR).
- A statement on an entity's website of describing its due diligence policy in respect of the adverse impact of investment decisions on sustainability factors in relation to climate and other environment-related impacts (Article 4(6) SFDR) and adverse impacts in the field of social and employee matters, respect for human rights, anti-corruption and anti-bribery matters (Article 4(7) SFDR).
- Pre-contractual information on how a product with environmental or social characteristics meet those characteristics and if an index has been designated as a reference benchmark, whether and how that index is consistent with those characteristics (Article 8 SFDR).
- Pre-contractual information to show, where a product has sustainable investment objectives and a) has a designated index as a reference benchmark, how that index is aligned with the sustainable investment objective and an explanation as to why and how that designated index aligned with the objective differs from a broad market index (Article 9(1) SFDR); or b) if no index has been designated as a reference benchmark, an explanation on how those objectives are to be attained (Article 9(2) SFDR).
- Information on an entity's website to describe the environmental or social characteristics of financial products or the sustainable investment and the methodologies used (Article 10 SFDR).

On 15 March 2021 the ESAs also published their proposal for an RTS regarding the taxonomy-related articles of the SFDR. The ESAs have proposed that the new RTS changes will amend the previous RTS related to the SFDR instead of developing an entirely new ruleset and in order to minimize duplication and complexity.[115] The objective of the ESAs is that the RTS regarding the disclosure rules should act as one "single rulebook" for sustainability disclosures for both the original SFDR along with the additional amendments in the TR.[115]

## 3.8 The Risks for Greenwashing

The SFDR is one piece of the EU's sustainability plan that aims to help reaching the objectives of the Paris Agreement and the SDGs, such as making the financial market more sustainable.

[115]Joint Committee of the European Supervisory Authorities. Joint Consultation Paper Taxonomy-related sustainability disclosures: Draft regulatory technical standards with regard to the content and presentation of sustainability disclosures pursuant to Article 8(4), 9(6) and 11(5) of Regulation (EU) 2019/2088. JC (2021) 22, 6 (Joint Consultation Paper Taxonomy-related sustainability disclosures).

One of the threats against a sustainable financial market is, as have been stated before, the occurrence of greenwashing. Greenwashing could, as explained earlier, be described as recommending a financial product as sustainable, when that product in reality does not meet basic environmental or sustainability-related standards.

While greenwashing is not directly referenced in the SFDR, the ESAs have studied the topic in relation to the RTS and regard it as one example of misleading information to which the disclosures in art. 8 and 9 should not contribute.[64]

In addition, as part of the product-specific disclosures, the SFDR provides harmonized and explicit definitions for the terms sustainable investing, as well as light and dark green funds. As a result, the idea of SRI is no longer open to interpretation among financial actors, at least in the EU. Richardson discusses the significance of legitimacy in SRI and states his belief that

> "If SRI is simply a fungible concept at the discretion of fund managers or unelected trustees, its legitimacy will be undermined, and it risks degenerating into another example of corporate "greenwash".[116]

In other words, the absence of a distinct SRI idea may increase the risks of greenwashing among businesses. According to Richardson (2008)[116], the unified criteria supplied by the SFDR will most likely assist reduce the risks of greenwashing among firms. Jacobs and Finney (2019)[117] agree with this point of view. In a legal essay, they determined that different definitions of sustainability, as well as the proliferation of sustainability rankings and indices, induce consumer and investor uncertainty about the notion of sustainability. Furthermore, this ambiguity allows firms to portray their processes and products as sustainable while failing to meet customer or investor expectations, resulting in greenwashing. By establishing standardized rules for sustainability-related disclosures and terminology, investors will have a better understanding of what a sustainable product is, lowering the danger of greenwashing.

Richardson[116] goes on to say that stronger corporate sustainability reporting standards, as well as regulatory and governance reforms, are needed to boost SRI. While there have been voluntary codes and standards regulating both CSR and SRI, such as the PRI, Richardson implies that these have not been well integrated with the mainstream supervisory institutions for financial markets, and the fact that they are not mandatory undermines compliance and enforcement. Furthermore, the lack of a clear business justification may encourage corporations

[116] Richardson BJ. Socially Responsible Investment Law: Regulating the Unseen Polluters. Oxford University Press. 2008.

[117] Jacobs B.L., Finney B., Defining Sustainable Business - Beyond Greenwashing. 37 Virginia Environmental Law Journal 89, 99–100, 129. 2019.

to lag in their voluntary pledges, particularly during difficult economic times, which could lead to greenwashing.

With the approval of the SFDR, disclosure of FMPs' incorporation of sustainability factors in their investment process will no longer be a choice, but a legal duty. The fact that FMPs will be required to provide descriptions of their ESG integration as well as information on how this is done by complying with certain reporting requirements and completing mandatory reporting templates, I believe, will make it difficult for FMPs to market their products as sustainable if they are not in fact sustainable. Thus, the positive effects that the SFDR's product disclosures will have on the existence of greenwashing will assist to reaching the global goals of the Paris Agreement and the SDGs, which is one of the regulation's goals.

## 3.9 Some statistics

In this section I would like to highlight some statistics regarding the results of the Sustainable Finance Disclosure regulation in the field asset management. I want to thank MorningStar and their managers for their data.[118] [119]

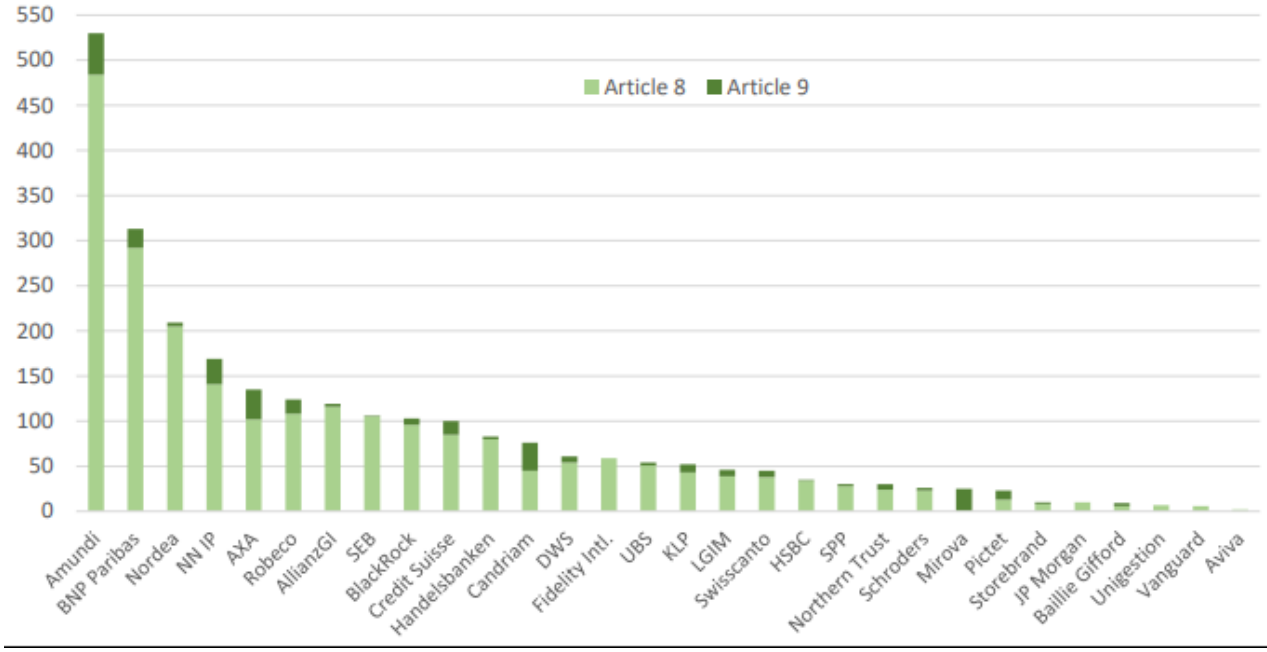
### 3.9.1 After 20 days from the introduction of SFDR.

In March 2021, Morningstar Research surveyed a sample of 30 asset managers to gain insights into the early implementation of the new regulation. They asked them the full list of funds currently classified under the Article 8 and 9 domiciled in Europe. The surveyed asset managers are of various nationalities and sizes, ranging from large European and US firms such as Amundi, UBS, BlackRock, and JPMorgan to boutique and sustainability-focused firms such as Candriam and Mirova. Exhibit 2 shows the number of Article 8 and 9 funds per fund manager surveyed.

[118] Bioy H., Stuart E., Petti A., SFDR - The First 20 Days. What the early batch of new disclosures are telling us so far. Morningstar Manager Research. 2021, Updated Version.

[119] Bioy H., Jmili S., Pettit A. SFDR: Four Months After Its Introduction. Article 8 and 9 Funds in Review. Morningstar Manager Research. 2021, Updated Version.

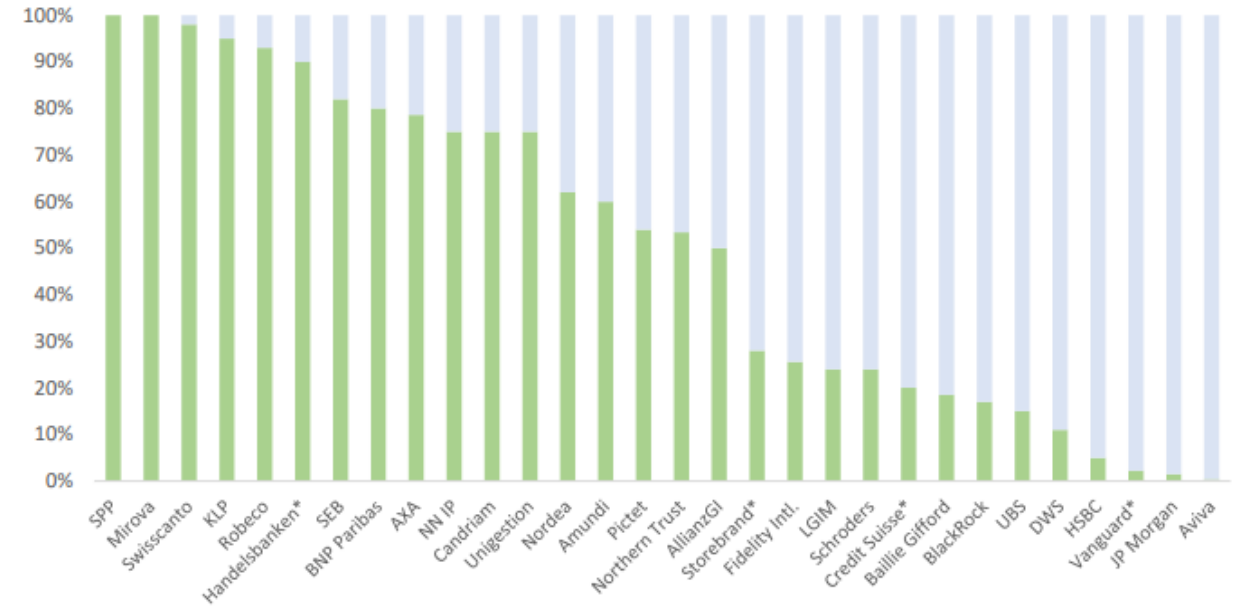
**Figure 6: Number of Article 8 and 9 Funds of 30 Surveyed Asset Managers**




Source: Morningstar

On an asset-relative basis, so correcting for size, the picture looks slightly different from when we look at absolute number of funds. Figure 7 shows the assets in Article 8 and 9 funds of the surveyed managers as a percentage of their total fund assets in scope of SFDR.

**Figure 7: Article 8 and 9 Fund Assets as a Percentage of Total Fund Assets in Scope of SFDR**




Source: Morningstar

Many of the surveyed managers, however, made it clear that this was just the first classification exercise and that they plan to bring additional funds into the Article 8 and 9 categories in the

coming months. Amundi, for example, is aiming to get 75% of its total fund assets categorised under Article 8 and 9 by the end of the year.

### 3.9.2 After 4 months from the introduction of SFDR.

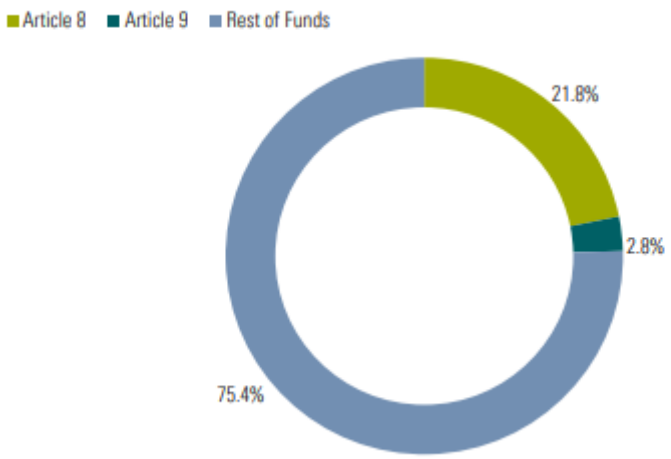
As of 10 July, based on SFDR data collected from prospectuses on 81.6% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds, Morningstar finds that 5,008 (21.8%) have been classified as Article 8, while 643 (2.8%) have been classified as Article 9. Combined the two categories represent close to a forth (24.6%) of the overall EU fund universe.

**Figure 8: SFDR Coverage by Domicile**

| Market | Number of Funds Reviewed | Number of Funds in Scope | Coverage as of 10 July |
|---|---|---|---|
| Luxembourg | 9,146 | 10,806 | 84.6% |
| France | 2,888 | 3,800 | 76.0% |
| Ireland | 2,645 | 3,971 | 66.6% |
| Germany | 1,561 | 1,809 | 86.3% |
| Spain | 1,525 | 1,670 | 91.3% |
| Italy | 1,024 | 1,165 | 87.9% |
| Sweden | 735 | 753 | 97.6% |
| Austria | 724 | 935 | 77.4% |
| Denmark | 671 | 760 | 88.3% |
| Belgium | 652 | 720 | 90.6% |
| Finland | 482 | 506 | 95.3% |
| Netherlands | 390 | 439 | 88.8% |
| Norway | 249 | 396 | 62.9% |
| Portugal | 232 | 263 | 88.2% |
| Liechtenstein | 45 | 67 | 67.2% |
| United Kingdom | 2 | 71 | 2.8% |
| Switzerland | 1 | 4 | 25.0% |
| Greece | - | 2 | 0.0% |
| Hong Kong | - | 2 | 0.0% |
| Malta | - | 3 | 0.0% |
| **Grand Total** | **22,972** | **28,145** | **81.6%** |

Source. Morningstar

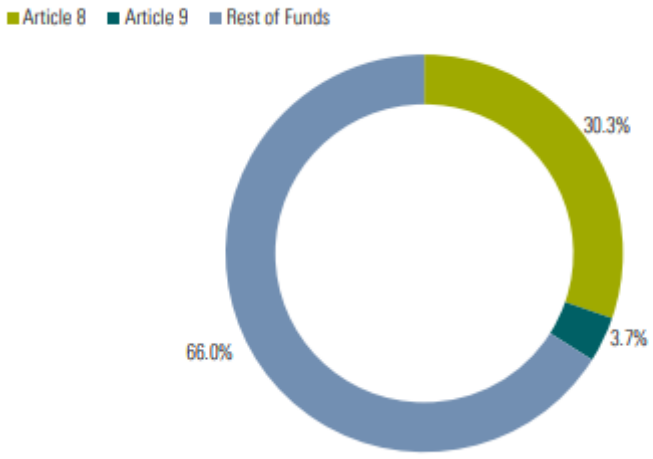
**Figure 9: SFDR Fund Type Breakdown (by N.of Funds).**




Source: Morningstar

In terms of assets, the two fund groups account for a bigger share of the EU universe: 34%, split into 30.3% for Article 8 funds and 3.7% for Article 9 products. Combined assets amount to shy of EUR 3 trillion (2.98 trillion).

**Figure 10: SFDR Fund Type Breakdown (by Assets).**




Source: Morningstar

## 3.10 Conclusion

The SFDR's standardization of sustainability-related disclosures aims to eliminate information asymmetry in principal-agent relationships and make it easier for investors to make investment decisions. The rule compels both FMPs and FAs to publish certain information on their websites, in pre-contractual papers, and in periodic reports about how they apply sustainability

risks in the investment process. The disclosures should be given at both the entity and product levels, with the product level disclosures requiring FMPs to classify their financial products in a specific way. If the product is classified as an art. 8 or an art. 9, this could result in additional disclosures. Clarification on the display of sustainability information, as well as further details to the relevant articles, will be supplied in the RTS, or Level 2, which is now being reviewed by the EC and whose applicability has been delayed to January 2023.

The following chapter, throughout the methodology of Event study will try to show how the investors reacted to the introduction of this regulation.

# Chap 4 CONSEQUENCES OF SFDR REGULATION: AN EVENT STUDY APPROACH

## 4.1 Introduction

This chapter 4 investigates the market reaction to the Sustainable finance disclosure regulation, using the methodology of Event Study.

The organization of this chapter will be as follows: a quick description of the primary changes brought about by the regulation will be followed by their potential impacts and therefore by the hypothesis formulation; then, the methodology will be discussed through a literature review. The research framework, such as the model and data discussion, will then follow. At the end, the main results will be highlighted and commented, trying to individuate their possible implications.

## 4.2 Empirical analysis

### 4.2.1 Theoretical background: an overview of the major changes of the SFDR

The theoretical background and so the changes introduced by the regulation have been already explained in the previous chapters. Since the goal of this work is to individuate the reaction of the investors to the introduction of the SFDR, before discussing the possible reactions, it is worth to mention the main changes brought by such regulation. The rules introduced by the Sustainable Finance Disclosure Regulation, compel both FMPs and FAs to publish certain information on their websites, in pre-contractual papers, and in periodic reports about how they apply sustainability risks in the investment process. The disclosures should be given at both the entity and product levels, with the product level disclosures requiring FMPs to classify their financial products in a specific way. If the product is classified as an art. 8 or an art. 9, this could result in additional disclosures. Among the requirements at the entity level, instead, the Article 4 of the Disclosure Regulation requires financial market participants ("FMPs") to publish and maintain on their websites, where they consider principal adverse impacts of investment decisions on sustainability factors, a statement on the due diligence policies with respect to those impacts, taking due account of the size, nature and scale of their activities and the types of financial products that they make available. Where a FMP does not consider the adverse impacts of investment decisions on sustainability factors, the FMP must publish and maintain on its website clear reasons for why it does not do so, including where relevant information as to whether and when they intend to consider such adverse impacts. With this regard, companies that have more than 500 employees are obliged to consider PAIs of

investment decisions on sustainability factors; while companies with less than 500 employees, may consider PAIs or explain why they do not do so.

Therefore, The SFDR's standardization of sustainability-related disclosures aims to eliminate information asymmetry in principal-agent relationships and make it easier for investors to make investment decisions.

### 4.2.2 Hypothesis development

The possible market reaction to the introduction of the Regulation is unclear.

In June 2020, PRI released an article[120] about the findings of a study[121] which examines the investors' reaction to mandatory non-financial disclosure. Overall, they discovered a negative market reaction across their sample events, which consisted of statutory non-financial disclosure announcement dates. They discovered, in particular, that the companies most affected by those announcements, were those with poor ESG performances. In this regard, imagining what transpired in the financial market following the implementation of the SFDR, I may picture a situation similar to the one depicted by those researchers in their study. Indeed, I expect that some investors will believe that the market is not ready for such a shift and, as a result, will be discouraged from investing in enterprises affected by such regulation. I expect investors to perceive the introduction of the SFDR to have real cash-flow or cost of capital implications for the affected companies and that they do not view the regulation as a simple compliance exercise with little material effect on business. In other words, investors may predict that the additional expenses that firms would incur in the future to comply with the legislation will be more than the projected gains. In this regard, I anticipate that returns will behave unfavourably across the dates of the regulation's enactment, particularly for businesses with poor ESG performance.

On the other hand, considering why the SFDR offers positive returns to firms who follow it, it is reasonable to expect that the investors most concerned with ESG principles will be enthusiastic following this rule, for a variety of reasons, including the impact on greenwashing. As a result, in this case, I anticipate that the regulation will have a positive impact on market returns around the event days for the most virtuous companies, such as those with positive ESG performance and those who have clearly explained their strategies for ESG investments and are already considering their potential material impact.

[120] https://www.unpri.org/pri-blog/how-equity-investors-react-to-mandatory-non-financial-disclosures/5988.article

[121] Armstrong C., Barth M., Jagolinzer A., Riedl E. Market reaction to the adoption of IFRS in Europe. Accounting Rev. 85(1):31–61. 2010.

Nonetheless, in recent years, there have been reports of dissatisfaction with the EU's efforts in the area of sustainability. Part of the critics argue that the Commission is not doing enough to address the environmental crisis[122], and that its policies are too lax. If this theory is used in the context of this study, it may imply that the majority of FMPs, who are theoretically touched by the legislation, are already doing what the regulation states. If this theory holds true, I anticipate that the SFDR's implementation will have no influence on market returns. In my opinion, this hypothesis is mild, and I indeed believe that the dissatisfaction caused by the lax standards is still translating into negative abnormal returns after the release of the regulation.

In any of those cases, the research hypothesis of this work can be formally summarized with this statement:

H1: There is no equity market reaction to news about the passage of the SFDR

### 4.2.3 Empirical Methodology: Event Study

An event study refers to a test of the impact of an economic or political event on stock prices by adopting different performance measures. Starting from the first event study of Dolley (1933)[123] on stock splits, both the methodology and the application area of event studies are developed. By conducting an event study, Beaver(1968)[124] also investigates the reaction of common stock investors to earnings announcements. Among several studies, early analyses of Ball and Brown (1968) [125], Fama, Fisher, Jensen and Roll (FFJR, henceforth) (1969)[126] and Brown and Warner (1980; 1985)[127] [128] are the major cornerstones. Indeed, the studies of Ball and Brown (1968)[125] and FFJR (1969)[126] introduce event studies whereas Brown and Warner (1980; 1985)[127] [128] describe how to conduct event studies.

This work infers investor perceptions of the Sustainable Finance Disclosure Regulation by analysing equity market reactions to events leading up to the regulation's enactment. In this regard, I take a similar approach to previous research that investigated investor opinions of new rules. This method involves first calculating the abnormal return for a three-day event window using a multifactor model that controls for market returns and changes in treasury rates, and

[122] See for example: Special Report 22/2021: Sustainable finance: More consistent EU action needed to redirect finance towards sustainable investment, European Court of Auditors or Ahlström, H., Monciardini, D. The Regulatory Dynamics of Sustainable Finance: Paradoxical Success and Limitations of EU Reforms. J Bus Ethics (2021).

[123] Dolley J.C. Common Stock Split-Ups Motives and Effects. Harvard Business Review. 12(1). 70-81. 1933.

[124] Beaver W. The Information Content of Annual Earnings Announcements. Journal of Accounting Research. 6, 67-92. 1968.

[125] Ball R., Brown P. An Empirical Evaluation of Accounting Income Numbers. Journal of Accounting Research. 6, 159-178. 1968.

[126] Fama E.F., Fisher L., Jensen M.C., Roll R. The adjustment of stock prices to new information. International Economic Review. 10(1), 1-21. 1969.

[127] Brown S.J., Warner J.B. Measuring Security Price Performance. Journal of Financial Economics. 8, 205-258. 1980.

[128] Brown S.J., Warner J.B. Using Daily Stock Returns. Journal of Financial Economics. 14, 3-31. 1985.

country-effect and then regressing this abnormal return on firm-specific characteristics to determine which firm characteristics explain the observed abnormal returns. Beatty et al. (1996)[129] analyse investor impressions of the implementation of fair value accounting using a similar technique. Dechow et al. (1996)[130] who study investor perceptions to stock based compensation accounting; Jain and Rezaee (2006)[131], Zhang (2007)[132] and Li et al. (2008)[133] who study investor perceptions to the Sarbanes Oxley Act and Armstrong et al. (2010)[134] who study investor perceptions to the adoption of IFRSs in Europe.

Despite its popularity in previous literature, there are several alternatives to the methodology used in this study. Brown and Warner (1980)[127], for example, provided three different methods for calculating anomalous returns when event dates are known: 1) mean-adjusted returns, 2) market-adjusted returns, and 3) market-and-risk-adjusted returns. When daily returns are employed, Dyckman et al. (1984)[135] and Brown and Warner (1985)[128] analyse the accuracy of these distinct event research approaches and find that the varied measures of abnormal returns perform equally. Brown and Warner (1985)[128] results are re-examined by Chandra et al. (1990)[136], who conclude that the market- and market-and-risk-adjusted return methodologies outperform the mean-adjusted return technique. They come to the conclusion that the good performance of the mean-adjusted return methodology in the Brown and Warner (1985)[128] study is a statistical artifact. Finally, Brown and Weinstein (1985)[137] evaluate abnormal returns created by multifactor models and conclude that multifactor models outperform the one factor market model when properly stated. Binder (1998, 122)[138] concludes from the preceding research that if the sample comprises of enterprises from unrelated industries, the one factor market model "works at least as well as the alternatives." Given that the sample for this study

[129] Beatty A., Chamberlain S., Magliolo J. An Empirical Analysis of Economic Implications of Fair Value Accounting for Investment Securities. Journal of Accounting and Economics 22 (1–3): 43–77. 1996.
[130] Dechow P. M., Hutton A. P., Sloan R. G. Economic Consequences of Accounting for Stock-based Compensation. Journal of Accounting Research 34: 1–20. 1996.
[131] Jain, P., Rezaee Z. The Sarbanes-Oxley Act of 2002 and Capital-Market Behavior: Early Evidence. Contemporary Accounting Research 23 (Fall): 629–654. 2006.
[132] Zhang I. Economic Consequences of the Sarbanes-Oxley Act of 2002. Journal of Accounting and Economics 44: 74–115. 2007.
[133] Li H., Pincus M., Rego S. O. Market Reaction to Events Surrounding the Sarbanes-Oxley Act of 2002 and Earnings Management. The Journal of Law &Economics 51: 111–134. 2008.
[134] Armstrong S. C., Barth E. M., Jagolinzer D., Riedl J. E., Market Reaction to the Adoption of IFRS in Europe. The Accounting Review 85 (1): 31–61. 2010.
[135] Dyckman, T., Philbrick D., Stephen J. A Comparison of Event Study Methodologies Using Daily Stock Returns: A Simulation Approach. Journal of Accounting Research 22: 1–33. 1984.
[136] Chandra R., Moriarity S., Lee Willinger G. A Reexamination of the Power of Alternative Return-Generating Models and the Effect of Accounting for Cross-Sectional Dependencies in Event Studies. Journal of Accounting Research 28 (2): 398–408. 1990.
[137] Brown S. J., Weinstein M. I. Derived Factors in Event Studies. Journal of Financial Economics 14: 491–495. 1985.
[138] Binder J. J. The Event Study Methodology Since 1969. Review of Quantitative Finance and Accounting 11: 111–137. 1998.

is made up of "Financial Market Participants" such as banks and insurance companies, I compute abnormal returns using a multifactor model that, in addition to controlling for market returns, also accounts for changes in interest rates. Indeed, a change in interest rates has a direct impact on what banks charge borrowers and what banks pay for funding in the banking business (Noonan, 2017)[139].

An event study that computes cumulative abnormal returns around each event date and then regresses the abnormal returns for each event date independently on a vector of explanatory variables would be another alternative to the Beatty et al. (1996)[129] model. This method implies that the event dates are independent of one another and that the abnormal returns observed on different event dates are driven by different company characteristics. I utilized the Beatty et al. (1996)[129] technique since I had many event dates in my context, all of which are relevant to the enactment of the SFDR. In this context, the Beatty et al. (1996)[129] methodology enables to identify the bank characteristic that is causing anomalous returns on average for all of the detected event dates.

### 4.2.4 Empirical Model

In the first set of tests I investigate the first research hypothesis concerning the market reaction around news events that led to the passage of the SFDR[140]. To do so, I begin with a multifactor model in which firm-specific returns are regressed on market return, on a variable capturing interest rate changes, and on an event indicator variable. To control for country fixed effect, I also introduce a dummy for the Country of Incorporation. The event indicator variable allows for mean shifts in returns on event days. For each company i, the following process is assumed to hold:

$$RET_{it} = \beta_1 + \beta_2 MKT\_RET_t + \beta_3 RISKFREE_t + \beta_4 EVENT\_D_t + \beta_5 i.COUNTRY_t + \beta_6\, i.YEAR_t + \varepsilon_{it} \quad (1)$$

*RET* is daily stock price return for firm *i* in day *t*, *MKT_RET* is STOXX EU 600 daily return, RISKFREE is the government bond daily spot rate, 3M maturity, issued by the AAA rated issuers in the Euro Area, and *EVENT_D* is an indicator variable that tags the event days listed in Table 1, i.COUNTRY is an indicator variable which controls for Country fixed-effects, and i.YEAR is another indicator variable which controls for year fixed-effect. I use a three-day event window[141] to test for nonzero excess returns for the events listed in Table 1, i.e., the

[139] Noonan L. Higher Interest Rates Point to More Bank Profits. Financial Times. 2017.

[140] For a similar approach see Chircop J., Fabrizi M., Parbonetti A. The impact of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 repo 'safe harbor' provisions on investors, The European Journal of Finance, 24:18, 1772-1798. 2018.

[141] The use of three-day event windows is well established in the literature. For example, Bushee and Goodman (2007); Krishnamurthy et al. (2006); Pinnuck (2005) and Ali et al (2004) all use three-day time windows in their research design.

variable EVENT_D assumes a value of 1 on the day preceding, the day of, and the day after the event dates. The sign and statistical significance of β4 captures the average abnormal returns arising from events related to the passage of the SFDR.

Given that any observed market reaction in Equation 1 might be due to confounding events unrelated to the introduction of the SFDR, in subsequent analysis I use a sample of firms "non-financials" as a control group, and I interact the variable EVENT_D with an indicator variable which takes the value of 1 if the company is in the sector "Financials" and the value of zero otherwise.

This approach gives me the possibility to control for confounding events unrelated to the sustainability disclosure but does not take into account that the abnormal returns might be due to some other firms' characteristics, not related to the regulation. To address this issue, I examine cross-sectional determinants of event market reaction. In order to do so, I conduct a two-step methodology, where in the 1st step I run the Equation 1 for each firm in the sample period and in the second stage I regress the firm-specific coefficient obtained on the dummy EVENT_D, on a vector of bank characteristics to control for the heterogeneity of the sampled firms. With this respect, Equation 2 is:

$$BETA_i = \beta_1 + \beta_2 EMPLOYEES\_N + \beta_3 ESG\_SCORE_i + \beta_4 MKT\_CAP_i + \beta_5 NI_i + \beta_6 D/E_i + \varepsilon_{it} \qquad (2)$$

In addition to Equation 2 I also implement the approach suggested by Sefcik and Thompson (1986)[142]. This methodology gives coefficients equal to the two-stage regression but yields valid standard errors since it accounts for heteroskedasticity and residual cross-correlation which arise when events impact all sampled firms at the same time. Specifically, the two-stage regression model assumes homoscedasticity of residuals and the absence of contemporaneous correlations across firms. The presence of time dependence in stock returns (Akgiray, 1989)[143] and event-date clustering likely violate such assumptions in the research setting, thus resulting in biased coefficient estimates (Bernard 1987[144]; Froot 1989[145]; Kolari and Pynnonen 2010[146]). To use the Sefcik and Thompson methodology, I create six-weighted portfolio returns, one for each firm characteristic and the intercept, which I subsequently use as the dependent variables in Equation 2. To create the weighted-portfolio of returns I create two matrices: Matrix R is a

[142] Sefcik E., Thompson R. An Approach to Statistical Inference in Cross-Sectional Models with Security Abnormal Returns As Dependent Variable. Journal of Accounting Research Vol. 24, No. 2. pp. 316-334. 1986.
[143] Akgiray V. Conditional Heteroscedasticity in Time Series of Stock Returns: Evidence and Forecasts. The Journal of Business 62 (1): 55–80. 1989.
[144] Bernard L.V. Cross-sectional dependence and problems in inference in market-based accounting research. Journal of Accounting Research 25 (1): 1-48. 1987.
[145] Froot A.K. Consistent covariance matrix estimation with cross-sectional dependence and heteroskedasticity in financial data. Journal of Financial and Quantitative Analysis 24 (3): 333-355. 1989.
[146] Kolari J.W., Pynnönen, S. Event study testing with cross-sectional correlation of abnormal returns. Review of Financial Studies 23: 3996–4025. 2010.

n x j matrix, where n is the number of trading days in the sample period and j the number of firms and Matrix F is a j x k matrix, where k consists of the five different firm characteristics plus the intercept. Finally, the weighted-portfolio of returns is calculated as $(F`F)^{-1}F`R`$[142].

### 4.2.5 Data

I obtained data from the REFINITIV EIKON DATASTREAM and elaborate them using STATA. I collect daily market data for the period from 1st January 2018 to the 31st December 2019. The events days are explained in Table 1. The sample of firms is constructed filtering it out for country of incorporation (to include only EU member States) and sector (TRBC Economic Sector on Datastream[147]). My sample of firms belonging to the sector "Financials" consists of 330 firms; when the control group of firms not belonging to that sector is considered, the sample becomes of 4503 firms; lastly, in order to conduct the cross sectional test, only "Financials" firms with more than 500 employees and of which ESG-Scores are available, are used, so that the sample counts 111 firms.

### 4.2.6 Empirical Results

Table 2, Panel A provides descriptive statistics of the variable used in Equation 1, which show an average RET -0.018% over the sample period.

<< Insert Table 2, Panel A here >>

The Pearson correlation matrix reported in Table 3 shows that the variable EVENT__D is significantly negatively correlated with RET, which suggests a negative impact on the market returns.

<< Insert Table 3 here>>

Table 4 reports the results of the model equation 1. Several columns show that the regression is run under different scenarios, in order to individuate which condition better highlights the effect of the variable dummy on the event dates. For example, column 1 shows the result of running the regression using all the companies included in the sector "Financials". Following the order, column 2, 3, 4, respectively show when the information about the number of employees is available, when that number is higher than 500 and when the number is lower than 500. The second group of results in Table 4, make a further screening on the number of firms used in the regression. In fact, it considers only companies with more than 500 employees, and then screens for the ESG information. Respectively, col.5 expresses the results of when the information about the ESG score is available, col.6 when the same information is unavailable, col.7 and col.8 when the ESG score is higher and lower the median value.

[147] https://www.refinitiv.com/en/financial-data/indices/trbc-business-classification

<<Insert Table 4 here>>

Looking at the numbers, we mention that, most importantly, when regression 1 is run on the biggest sample of firms belonging to the sector Financials, the coefficient on the variable EVENT_D seems to be not significant. Instead, when the sample becomes smaller, and I conduct a screening on the number of employees, the situation starts to become interesting. Indeed, column (2) and column (4), tell us that when the information on employees is available and, in particular, when the number of employees is bigger than 500, the coefficient on the EVENT_D becomes significantly negative, at the 0.01 level. This means that the returns of those companies are negatively impacted by the regulation, around the event days, meaning they perform worse than they would have done in the absence of the events.

With that in mind, I also wanted to see if there was a possible change on the effect of the Regulation for changes in the ESG-SCORE. Thus, Equation 1 is run differentiating for the presence of an ESG-SCORE and therefore, for the value of the ESGSCORE. The coefficient becomes significant when the information about the score is available and becomes even bigger, in absolute value, when the ESG-Score is bigger than median. It loses its significance when information about ESG-Score is not available.

Equation 1 does not tell us if the negative association might be due to cofounding events, that are not related to the passage of the Sustainable Finance Disclosure Regulation. In order to verify that, in the second step, I insert companies not classified in the sector Financials in the sample. Then, using another dummy variable I control for the sector Financials and Not-Financials. Table 2, Panel B expresses the descriptive statistics of the variables used when non-financial companies are included,

<<Insert Table 2, panel B here>>

The results of the iteration process show that the EVENT_D coefficient is significant only when the dummy EVENT_D is iterated with the dummy “Financials” 99.9% of the time, while the interaction term, when the dummy EVENT_D is iterated with the dummy non-financials, loses its significance. The results thus show that around the event days the companies ideally not impacted by the regulation do not show any abnormal returns. Instead, on the event days, the companies that are impacted by the regulation, they significantly perform worse than during the entire sample period; and this can be due to the news about the SFDR. The results of this control test are summarized in table 5.

<<Insert Table 5 here>>

When interpreting the results, note that the single-event results reflect an average return during the event window. The overall sample's abnormal return can be obtained by multiplying each of these reported figures by the number of days in the event window (three days in my study). Column (4) of regression 1 show that FMPs experienced an average -0.54% cumulative abnormal return during each three-day event window. Moreover column (7) tells that when ESG-Score is bigger than median, the companies experienced an average -0.75% cumulative abnormal return during each three-day event window.

To verify if the abnormal return are driven by firms' characteristics not directly connected to the Regulation, I conduct a cross-sectional test. The descriptive statistics of the sample used to conduct the Equation 2 are summarized in Table 6.

The sample is composed of 111 companies (the screening is done considering only companies in the sector Financials, with more than 500 employees, and whose ESG-Scores are available). Indeed the average number of employees is pretty big, 22443. Also the ESG-scores are not that bad, with the mean value of 55.68. The market capitalization as we can imagine, is huge, for which 8.4 is the ln of the average value, in million Euros. The value of net income is standardised for the total assets value, such that it composes an indicator of performance. Its average value if 0.014%. Last characteristics is the capital structure, expressed as D/E, with an average value of 2.3.

<<Insert table 6 here>>

Table 7 reports the Pearson Correlation between the variables.

We can see that the beta on the EVENT_D is negatively correlated with the dimension of the firm, either intended as the n.of employees or the market capitalization.

<<Insert Table 7 here>>

The results of the cross-sectional analysis are given in Table 8.

Panel (A) reports the results of the 2-stage process. They suggest a statistically significant association between the n. of employees and the market reaction coefficient, BETA. This results support the theory that bigger companies had a more negative market reaction than firms with less than 500 employees. Unfortunately, I cannot find a statistically significant association between the ESG-Score and the market reaction coefficient. Indeed, the coefficient seems to be positive, but absolutely not significant. This is in contrast with the results of Regression 1, when it is run on a sample of firms with more than 500 employees and then differentiating for the ESG_Score value (see column from 5 to 8 in table 4). Interestingly, the financial performance of firms might mitigate the negative abnormal returns around the event days.

These results of the cross-sectional test are confirmed, when I control for the heteroscedasticity and residual cross-correlation by adjusting returns using the Sefcik-Thompson methodology. As shown in Panel B of Table 8, the negative association between EMPLOYEES and adj_RET is statistically significant, further confirming that the n. of employees is driving the negative returns around the event dates.

<<Insert Table 8 here>>

## 4.3 Discussions

As already said, previous literature have examined the effect of the introduction of a regulation on investors. For example a bunch of prior research uses the event study approach to assess US investor perceptions regarding individual standards (e.g., fair value accounting in SFAS 115 by Beatty et al. 1996[129] and Cornett et al. 1996[148]; and stock-based compensation accounting in SFAS 123 by Dechow et al. 1996[130]). Other studies, to broad pieces of legislation (e.g., the Sarbanes-Oxley Act by Jain and Rezaee 2006[131], Zhang 2007[132], and Li et al. 2008[133]).

A more recent study examines the market impact of the adoption of IFRS standards in Europe[149].

Nevertheless, little is known about investors perception of non-financial disclosures, and even less on sustainable disclosure.

Regarding the topic of sustainability-related news reaction, some research try to investigate if and how investors value sustainability. An interesting study of Hartzmark and Sussman[150], by examining some funds' capital flows after the introduction of MorningStar sustainability rating, assesses that investor rewards money goes where the ratings are the highest. Indeed they saw that being categorized as high sustainability led to net inflows of more than $24 billion.

Nevertheless, my study does not suggest that the investor reaction to the introduction of the SFDR is positive. In fact, the stocks of companies impacted by the regulation seems to be negatively behaving when the news about the introduction of the regulation are published. In particular, this is true for big FMPs, having more than 500 employees.

This result led me imagine that the investors did not feel that the FMPs were ready to take on such transformation at the time the information about the regulation were felt. Surely, there was no positivism around the event days.

[148] Cornett M.M., Rezaee Z, Tehranian H. An investigation of capital market reactions to pronouncements on fair value accounting. Journal of Accounting and Economics 22.1-3. 119-154. 1996.

[149] Christopher S. Armstrong, Mary E. Barth M., Alan D. Jagolinzer, Edward J. Riedl; Market Reaction to the Adoption of IFRS in Europe. The Accounting Review 1 January 2010; 85 (1): 31–61.

[150] Hartzmark S.M., Sussman, A.B. Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows. The Journal of Finance, 74: 2789-2837. 2019.

In addition, the number of employees is a useful instrument to confirm and interpretate this result. As seen in the previous chapter, the Art.5 of the SFDR, tells us that there is a huge difference for those firms having less than 500 employees and those having more. Indeed, with what regard the PAIS (Principal Adverse Impact on Sustainability), companies that exceed the threshold of 500 employees are obliged to consider their PAIs and make a statement of their strategies on their website. The firms that are below that threshold, instead, have still the chance to "comply or explain", meaning that if they do not consider the PAIs, they can just explain why they do so.

As we can imagine, the size of a company, even if intended as n.of employees, is a measure of the magnitude of the impact that a firm can have in the financial market. (Indeed, as we can see from data, there is a positive correlation between n.of employees and Market Capitalization).

## 4.4 Conclusion

This case study investigates the market reaction to the introduction of the Sustainable Finance Disclosure Regulation, that is one of the instruments that the EU Commission has planned to adopt to make the capital market more sustainable.

This study does so, using the methodology of Event Study, examining the behaviour of the stocks' returns around the days of news regarding the introduction of the Regulation.

The results of the study suggest that the investors think that the Financial Market Participants were not ready to undergo on such transformation, and in particular they are discouraged to invest in companies with more than 500 employees, probably because the rules introduced by the regulation becomes stricter for those big corporations.

For further research, it will be interesting to investigate if the introduction of the classification among Article 6-8-9 is relevant for investors, imaging that for example, Article 9 funds perform better than the others.

**Table 1**

**News events leading to the passage of the Sustainable Finance Disclosure regulation of 2019**

| Date | Details of event |
|---|---|
| **31 January 2018** | Final report of the High-Level Expert Group on sustainable finance |
| **8 March 2018** | The European Commission released their action plan on Financing Sustainable Growth |
| **24 May 2018** | The European Commission delivered the first concrete actions to enable the EU financial sector to lead the way to a greener and cleaner economy |
| **7 March 2019** | The European Commission welcomed the political agreement reached by the European Parliament and EU Member States on new rules on disclosure requirements related to sustainable investments and sustainability risks[151] |
| **27 November 2019** | Adoption of the EU Regulation 2019/2088 on sustainability-related disclosures in the financial services sector. |

[151] https://ec.europa.eu/commission/presscorner/detail/en/ip_19_1571

**Table 2**

**Descriptive Statistics of the Variables used in Equation 1**

**Panel A: Descriptive Statistics of the variable used in Equation 1 considering only financial sector**

| Variable | N | p25 | Mean | p50 | p75 | SD |
|---|---|---|---|---|---|---|
| RET | 328900 | -0.21371 | -0.01814 | 0 | 0.139328 | 2.425 |
| MKT_CHANGE | 328900 | -0.33926 | 0.01295 | 0.059466 | 0.432902 | 0.746117 |
| RISKFREE | 328900 | -0.61201 | -0.58429 | -0.57441 | -0.54936 | 0.0528 |

Panel A: RET is the daily stock returns; MKT_CHANGE is the STOXX 600 EU daily return; RISKFREE is the government bond daily spot rate, 3M maturity issued by the AAA rated issuers in the Euro Area, taken from European Central Bank Data Warehouse; EVENT_D is an indicator variable which assumes the value of 1 on the day preceding, the day of, and the day after the event listed in Table 1 (where days are defined as trading days). The sample period is from January 1, 2018, to December 31, 2019.

**Panel B: Descriptive Statistics of the variable used in Equation 1 considering all sectors**

| Variable | N | p25 | Mean | p50 | p75 | SD |
|---|---|---|---|---|---|---|
| RET | 2346271 | -0.64037 | -0.0273 | 0 | 0.497266 | 2.799797 |
| MKT_CHANGE | 2346271 | -0.33926 | 0.0132 | 0.059466 | 0.432902 | 0.74607 |
| RISKFREE | 2346271 | -0.61227 | -0.58437 | -0.57441 | -0.54936 | 0.052912 |

Panel B: RET is the daily stock returns; MKT_CHANGE is the STOXX 600 EU daily return; RISKFREE is the government bond daily spot rate, 3M maturity issued by the AAA rated issuers in the Euro Area, taken from European Central Bank Data Warehouse; EVENT_D is an indicator variable which assumes the value of 1 on the day preceding, the day of, and the day after the event listed in Table 1 (where days are defined as trading days). The control for country is considered when the regression is run, but, for simplicity, it is omitted in these results. The sample period is from January 1, 2018, to December 31, 2019.

**Table 3**

**Pearson Correlation of the Variables used in Equation 1**

| Variable | RET | MKT_CHANGE | RISKFREE | EVENT_D |
|---|---|---|---|---|
| RET | 1 | | | |
| MKT_CHANGE | 0.0902*** | 1 | | |
| RISKFREE | 0.00801*** | 0.0265*** | 1 | |
| EVENT_D | -0.00459** | -0.0384*** | 0.0567*** | 1 |

* p<0.05, ** p<0.01, *** p<0.001

Table 3: Pearson Correlation matrix for the variables used in Equation 1. RET is the daily stock returns; MKT_CHANGE is the STOXX 600 EU daily return; RISKFREE is the government bond daily spot rate, 3M maturity issued by the AAA rated issuers in the Euro Area, taken from European Central Bank Data Warehouse; EVENT_D is an indicator variable which assumes the value of 1 on the day preceding, the day of, and the day after the event listed in Table 1 (where days are defined as trading days). The sample period is from January 1, 2018, to December 31, 2019. *, **, *** denote significance at the 5%, 1% and 0.1% level of significance respectively.

**Table 4**

**Results of Equation 1**

| Variable | (1) RET | (2) RET | (3) RET | (4) RET |
|---|---|---|---|---|
| MKT_CHANGE | 0.2925*** | 0.5134*** | 0.3370*** | 0.6377*** |
| | [51.761] | [21.759] | [11.898] | [19.868] |
| RISKFREE | 0.2624*** | 0.4731*** | 0.4757*** | 0.4713*** |
| | [3.283] | [6.128] | [3.611] | [5.041] |
| EVENT_D | -0.0213 | -0.0678*** | 0.0300 | -0.1363*** |
| | [-0.840] | [-2.595] | [0.629] | [-4.819] |
| CONSTANT | 0.1131** | 0.2591*** | 0.1995** | 0.2652 |
| | [2.042] | [5.479] | [2.579] | [4.759] |
| COUNTRY FE | YES | YES | YES | YES |
| YEAR FE | YES | YES | YES | YES |
| Observations | 328,900 | 170,833 | 70,566 | 100,267 |
| R-squared | 0.008 | 0.035 | 0.013 | 0.067 |

t-statistics in brackets
*** p<0.01, ** p<0.05, * p<0.1

| Variable | (5) RET | (6) RET | (7) RET | (8) RET |
|---|---|---|---|---|
| MKT_CHANGE | 0.8973*** | 0.2615*** | 1.0307*** | 0.7683*** |
| | [93.865] | [21.449] | [80.892] | [54.235] |
| RISKFREE | 0.3454** | 0.6535*** | 0.1066 | 0.5764*** |
| | [2.549] | [3.784] | [0.590] | [2.872] |
| EVENT_D | -0.1957*** | -0.0501 | -0.2486*** | -0.1444** |
| | [-4.575] | [-0.917] | [-4.364] | [-2.276] |
| CONSTANT | 0.1801** | 0.3863*** | 0.0485 | 0.098** |
| | [2.088] | [3.553] | [0.415] | [2.455] |
| COUNTRY FE | YES | YES | YES | YES |
| YEAR FE | YES | YES | YES | YES |
| Observations | 59,335 | 40,932 | 29,176 | 30,159 |
| R-squared | 0.131 | 0.013 | 0.185 | 0.091 |

t-statistics in brackets
*** p<0.01, ** p<0.05, * p<0.1

Table4: Results of the Equation 1, when it is applied several times.
(1) Regression with all the companies in the sector Financials
(2) Regression with sector=Financials and information about employees available
(3) Regression with sector=Financials and employees<500
(4) Regression with sector=Financials and employees>500
(5) Regression with sector=Financials and employees>500 and ESGscore is given
(6) Regression with sector=Financials and employees>500 and ESGscore is Not given
(7) Regression with sector=Financials and employees>500 and ESGscore>median
(8) Regression with sector=Financials and employees>500 and ESGscore<median

RET is the daily stock returns; MKT_CHANGE is the STOXX 600 EU daily return; RISKFREE is the government bond daily spot rate, 3M maturity issued by the AAA rated issuers in the Euro Area, taken from European Central Bank Data Warehouse; EVENT_D is an indicator variable which assumes the value of 1 on the day preceding, the day of, and the day after the event listed in Table 1 (where days are defined as trading days). The control for country is considered when the regression is run, but, for simplicity, it is omitted in these results. The sample period is from January 1, 2018, to December 31, 2019. *, **, *** denote significance at the 5%, 1% and 0.1% level of significance respectively. Errors are clustered by company.

**Table 5**

**Results of Equation 1 when non-financial firms are added**

| Variable | (1)<br>RET |
|---|---|
| MKT CHANGW | 0.4038*** |
| | [62.570] |
| RISKFREE | 0.5478*** |
| | [18.940] |
| 0b.EVENT_D#0b.FIN_D | 0.0000 |
| | [.] |
| 0b.EVENT_D#1.FIN_D | 0.0107* |
| | [1.708] |
| 1.EVENT_D#0b.FIN_D | 0.0005 |
| | [0.045] |
| 1.EVENT_D#1.FIN_D | -0.1673*** |
| | [-5.413] |
| CONSTANT | 0.3101*** |
| | [15.564] |
| COUNTRY FE | YES |
| YEAR FE | YES |
| Observations | 2,346,271 |
| R-squared | 0.012 |

Robust t-statistics in brackets
*** p<0.01, ** p<0.05, * p<0.1

Table 5: RET is the daily stock returns; MKT_CHANGE is the STOXX 600 EU daily return; RISKFREE is the government bond daily spot rate, 3M maturity issued by the AAA rated issuers in the Euro Area, taken from European Central Bank Data Warehouse; EVENT_D is an indicator variable which assumes the value of 1 on the day preceding, the day of, and the day after the event listed in Table 1 (where days are defined as trading days). FIN_D is an indicator variable which takes the value of 1 when the company belongs to the sector Financials, and 0 otherwise. The control for country is considered when the regression is run, but, for simplicity, it is omitted in these results. The results do not change when the control for year is considered. The sample period is from January 1, 2018, to December 31, 2019. *, **, *** denote significance at the 5%, 1% and 0.1% level of significance respectively. Robust t-statistics in brackets.

**Table 6**

**Descriptive Statistics of the variables used in the Cross-Sectional Test**

| Variable | N | Mean | p25 | p50 | p75 | SD |
|---|---|---|---|---|---|---|
| EMPLOYEES | 111 | 21442.91 | 3012.667 | 8528 | 21688.33 | 33462.79 |
| ESGSCORE | 111 | 55.67611 | 41.69308 | 58.40842 | 71.1491 | 20.39127 |
| MKT_CAP | 111 | 8.478057 | 7.490763 | 8.402737 | 9.601186 | 1.446448 |
| NI | 111 | 0.014194 | 0.003789 | 0.008084 | 0.014959 | 0.024221 |
| D/E | 111 | 2.307454 | 0.601721 | 1.390441 | 3.442705 | 2.349288 |

Table 6: Descriptive statistics of the variable used in the cross-sectional test. Employees in the average number of employees in 2018-2019; ESGSCORE is the score assigned by REUTERS and available in the Refinitiv Datastream; MKT_CAP is the natural log of the market capitalization expressed in million of euros; NI is the value of net income, standardized for the value of total assets; D/E is the ratio between total Debt and total Shareholder's Equity. All variables are taken as an average between all quarters in both 2018 and 2019 and winsorized at $1^{st}$ and $99^{th}$ percentile.

**Table 7**

**Pearson Correlation of the variables used in the Cross-Sectional Test**

| | BETA | EMPLOYEES | ESGSCORE | MKTCAP | NI | D/E |
|---|---|---|---|---|---|---|
| BETA | 1 | | | | | |
| EMPLOYEES | -0.291** | 1 | | | | |
| ESGSCORE | -0.12 | 0.597*** | 1 | | | |
| MKT_CAP | -0.00162 | 0.621*** | 0.696*** | 1 | | |
| NI | 0.386*** | -0.199* | -0.214* | 0.0173 | 1 | |
| D/E | -0.166 | 0.14 | 0.173 | 0.0988 | -0.244** | 1 |

* p<0.05, ** p<0.01, *** p<0.001

Table 7: Pearson Correlation of the variables used in the cross-sectional analysis. Employees in the average number of employees in 2018-2019; ESGSCORE is the score assigned by REUTERS and available in the Refinitiv Datastream; MKT_CAP is the natural log of the market capitalization expressed in million of euros; NI is the value of net income, standardized for the value of total assets; D/E is the ratio between total Debt and total Shareholder's Equity. All variables are taken as an average between all quarters in both 2018 and 2019 and winsorized at 1$^{st}$ and 99$^{th}$ percentile. *, ** and *** denote significance at the 5%, 1% and 0.1% level of significance respectively.

**Table 8**

**Cross-Sectional Test results**

| Panel A:2-stage Cross Sectional Test | | Panel B: Sefcick and Thomson | |
|---|---|---|---|
| | (1) | | (2) |
| Variable | BETA | Variable | Adj RET |
| EMPLOYEES | -0.0000*** | EMPLOYEES | -0.0000*** |
| | [-3.709] | | [-3.239] |
| ESGSCORE | 0.0006 | ESGSCORE | 0.0006 |
| | [0.262] | | [0.109] |
| MKT_CAP | 0.0554 | MKT_CAP | 0.554 |
| | [1.404] | | [0.689] |
| NI | 4.7926** | NI | 4.7926* |
| | [2.558] | | [1.921] |
| D/E | -0.0111 | D/E | -0.0111 |
| | [-0.819] | | [-0.711] |
| CONSTANT | -0.6588** | CONSTANT | -0.6588 |
| | [-2.248] | | [-1.318] |
| Observations | 111 | Observations | 521 |
| R-squared | 0.230 | | |

Robust t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

Table 8: Results of the Cross-Sectional analysis. Panel A shows the results of the two-stage regression, while Panel B shows the result of the Sefcik and Thompson (1986) which controls for heteroscedasticity and residual cross-correlation. In Panel A there is one observation for each bank (111 banks), while due to the methodological requirements of the Sefcik and Thompson (1986) adjustment in Panel B we have one observation for each trading day in our sample period (521 days). EMPLOYEES is the total number of employees; ESGSCORE is the score assigned by REUTERS and available in the Refinitiv Datastream; MKT_CAP is the natural log of the market capitalization expressed in million of euros; NI is the value of net income, standardized for the value of total assets; D/E is the ratio between total Debt and total Shareholder's Equity. All variables are taken from Definitiv Eikon Database. They are estimated as an average between all quarters in both 2018 and 2019 and winsorized at 1$^{st}$ and 99$^{th}$ percentile.

*, ** and *** denote significance at the 5%, 1% and 0.1% level of significance respectively.

# CONCLUSIONS

The purpose of this thesis has been the examination of a new Regulation set by the European Commission, that is part of the wider EU Action Plan towards a sustainable finance, and that aims to prevent greenwashing and clarify investors doubt around what is meant by sustainable investments.

Such regulation is called Sustainable Finance Disclosure Regulation or SFDR and entered into force on the 10th of March 2021. The SFDR delivers a harmonized set of disclosure rules regarding the integration of sustainability risks among FMPs and FAs and requires these actors to enhance their transparency concerning sustainability integration by publishing certain information on their websites, in pre-contractual documentation and in their periodic reports.

In particular, this thesis, using a methodology called Event Study, tries to investigate how the introduction of this regulation has been digested by the financial investors. It tries to check for abnormal returns around the news leading to the passage of the regulation, in order to verify the investor's sentiment toward the changes brought by it. The results of the Event Study surprisingly suggest that investors are not positive about this revolution and a discontent seems to perverse among the sector impacted by the regulation. In fact, I found a negative association between the event dates and the returns of the stocks hit by the regulation. Moreover, this returns could be explained by the number of employees, especially when it is higher than 500. This threshold becomes particularly significant in the art. 4(3), because it obliges companies that overcome it to publish their PAIS on their website. Differently from them, those companies that remain below the threshold can still explain why they don't complain with this rule.

This discontentment, in my opinion, could be due to two different reason: on one side it can be true that investors think that FMPs and FAs are not ready to undergo in such transformation, or that they, as investors, don't understand what the SFDR means. On the other side, others can think that the rules are not strict enough. For example for what concern the classification, between article 6,8 and 9 products, there is no clear threshold that must be respected, only "words are considered".

In the next future, I expect the EC to take some step forward and to try to strengthen the requirements for classification, making its fight against the phenomenon of greenwashing more tangible.

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