Bachelor's Degree in Economics

Final Year Project

GREENWASHING IN THE SUSTAINABLE FINANCE SECTOR IN THE EUROPEAN UNION:

SCOPE OF THE PROBLEM AND POSSIBLE SOLUTIONS FOR THE GREEN ENERGY TRANSITION

Alex Torres Collantes

218069

Advisor: Oriol Amat i Salas

Project Code: EME05

Academic Year: 2023-2024

Abstract:

In recent years, we have seen how rising global temperatures and increasing inequalities progressively darken our perspective of the future. From human-made climate change to human-made unfairness, the solution to these many challenges does not seem simple.

The growing interest by investors for ESG funds, such as those financing new renewable energy projects and technologies, seems to indicate a growing collective will for finding a solution to these problems. However, greenwashing, or the act of lying about one's own ESG performance, seems to be dampening these efforts on all levels of our society.

The present study will seek to analyse the problem of greenwashing in the sustainable finance sector in the European Union, both qualitatively and quantitatively, in order to establish harmonised policy proposals both for public and private market actors that offer an effective solution to this challenge and its effects on the green energy transition.

Key words: Sustainability, Green Transition, Greenwashing, Climate Change, Environmental Economics, ESG, Sustainable Finance, Green Energy, Renewable Energy, European Union

“*A world is the sum of many things*
– the people, the dirt, the growing things,
the moons, the tides, the suns –
the unknown sum called nature,
a vague summation without any sense of the now.”

— Frank Herbert, *Dune*

“*There is in all things a pattern that is part of our universe.*
It has symmetry, elegance, and grace – these qualities
you find always in that the true artist captures.
You can find it in the turning of the seasons,
The way the sand trails along a ridge, in the branch clusters
of the creosote bush of the pattern of its leaves.
We try to copy these patterns in our lives and in our society,
seeking the rhythms, the dances, the forms that comfort.
Yet, it is possible to see peril in the finding of ultimate perfection.
It is clear that the ultimate pattern contains its own fixity.
In such perfection, all things move towards death.”

— Frank Herbert, *Dune*

“*A system maintains a certain fluid stability*
that can be destroyed by a misstep in just one niche.
A system has order, flowing from point to point.
If something dams that flow, order collapses.
The untrained might miss that collapse until it is too late.
That’s why the highest function of ecology
is the understanding of consequences.”

— Frank Herbert, *Dune*

INDEX

1. INTRODUCTION

In 1965, American science fiction writer Frank HERBERT[1], in his famous novel "*Dune*", imagined a future in which humanity depended on the changing climate of a singular world for its survival. Herbert was an ecologist at heart who comprehended the significance of climate and the environment in shaping the future of human civilization.

And even though our current civilization only yet spans one single world, our challenges share many similarities. We are at a crossroads in history, facing a problem of our own making that if left further unchecked may be the end of our civilization. It is therefore imperative that economics, as the science of resources, offers solutions that effectively tackle this problem, and one of many ways by which we can contribute to solving climate change is through sustainable finance. However, this nascent field faces a problem that is becoming increasingly more difficult to tackle and that is making efforts towards a green transition harder than expected: the problem of greenwashing.

Therefore, the goals of this thesis will be to (i) quantitatively establish the scope of the problem of greenwashing within the sector of sustainable finance, and to (ii) propose solutions to effectively tackle this problem through economic policy and regulation. In particular, I will focus my analysis on a selection of some of the main Environmental, Social and Governance (ESG)[2] venture capital (VC)[3] funds in the European Union.

1.1 Greenwashing in the sustainable finance sector: The 15 EU ESG VC funds

There are many perspectives through which the problem of greenwashing within the sector of sustainable finance may be analysed, such as a review of thousands of funds or of hundreds of private banking institutions. However, I have chosen to focus the present study on 15 of the main ESG VC domiciled funds in the European Union.

---

[1] Franklin Patrick Herbert Jr. (October 8th, 1920 - February 11th, 1986) wrote the Dune series of novels, being perhaps one of the most renowned works in the history of science fiction. Dune tells the story of humanity as it roams the stars tens of thousands of years into the future. (Source: Wikipedia)

[2] Environmental, Social and Governance (ESG) refers to a collection of sustainable development criteria and factors that help economic and business agents better understand how their decisions impact the environment and society as a whole. (Source: Corporate Finance Institute)

[3] Venture capital (VC) refers to a kind of private equity which is intended to finance those new projects and firms which seem to be very promising in the long-term, even if not yet in the short-term. Examples include now renowned companies such as Alphabet, Twitter, or Uber. (Source: Investopedia)

In particular, I will focus on those funds ascribed to Articles 8 and 9 of the EU Sustainable Finance and Disclosure Regulation (SFDR), for the following reasons: (a) because the limited scope both in time and resources of this thesis makes an in-depth analysis with hundreds or thousands of funds unfeasible[4], (b) because although limited in number, other comparable studies use similarly sized samples as well[5] and (c) because venture capital has not been studied in such level of detail by most other authors reviewed.

1.2 Literature review, data used and methodology

In order to analyse the problem of greenwashing in the sustainable finance sector in the EU, this thesis will utilize the following figures and approach:

(i) The publicly disclosed financial information of the selected 15 ESG venture capital funds ascribed to Articles 8 and 9 SFDR for FY 2023.
(ii) The relevant scientific literature and European legislation and proposals, as well as facts, statements, and other data of the recognised authorities on the matter.

This methodology has been selected after a careful review of the available literature on the topic has been performed, with most papers and reports studied similarly using both selected samples of funds as well as other relevant literature on the matter.

1.3 Order of contents

Lastly, and as for the order of contents of this thesis: at first, I will start by describing both greenwashing and the sustainable finance sector as well as the existing rules regarding ESG disclosures in the European Union (**Section 2**), then I will analyse the scope of the problem of greenwashing in this sector through the list of 15 ESG VC funds (**Section 3**), and then I will analyse possible solutions to the problem both through already existing proposals implemented by institutions and new ones of my own (**Section 4**). Lastly, I will conclude with the main results of the study and proposals (**Section 5**).

---

[4] See for example LI, W, LI, W, SEPPÄNEN, V, KOIVUMÄKI, T (2023, p. 826) and ZHANG, D (2023, pp. 1-3) for empirical studies with samples of hundreds of Chinese-traded firms and bonds.
[5] See for example *Perspectivas de la banca responsable. España 2023*. UPF BSM (n.d.). Summary retrieved 8th October 2023 from https://www.gabv.org/wp-content/uploads/2023/07/Perspectivas-de-la-banca-responsable-2023.-Resumen-ejecutivo-y-conclusiones.pdf

2. HISTORY, CONCEPTS AND CURRENT STATE OF AFFAIRS IN THE FIELDS OF SUSTAINABLE FINANCE AND GREENWASHING

2.1 The sustainable finance sector and the green transition: Brief global overview

Since 1896 we have known that greenhouse gases (GHGs)[6] have been causing global temperatures to rise at a faster rate than environmental and human systems can adapt to[7]. Even though climate changes through Earth's history are a natural occurrence, the current rapid increase in global temperatures has happened at a frequency unprecedented in the last 10.000 years[8]. The following figures show both the evolution of CO_2 parts per million concentrations in the atmosphere over the last 400.000 years as well as the global meteorological summer temperature anomaly (June-August) each year since 1880:

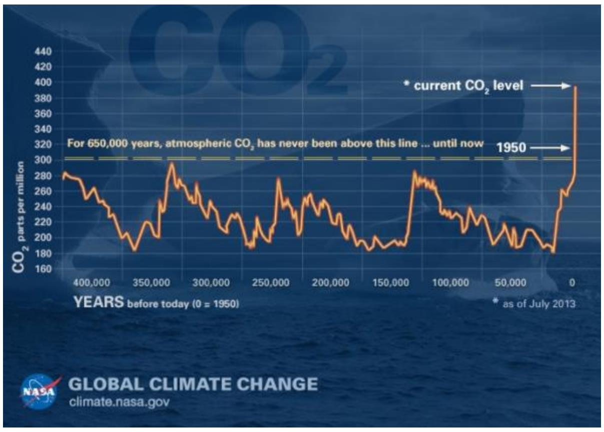

Figure 1. CO_2 atmospheric concentrations over time. Source: NASA Earth Observatory

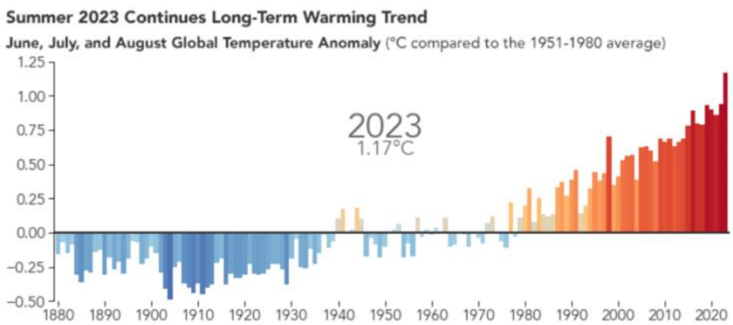

Figure 2. Temperature anomaly compared to 1951-1980 average. Source: NASA Earth Observatory

However, only recently have we started to feel the negative effects of this problem, with increasingly more erratic climate patterns and consistently more extreme and destructive weather events around the globe[9]. Just in 2022, the NOAA National Centres for Environmental Information (NCEI) recorded a total of 18 climate catastrophes in the United States alone, with all damages from these disasters totalling $165.1 billion USD[10],

[6] Greenhouse gases (GHGs) are those gases that cause the warming of Earth's atmosphere. These gases mainly include sulphur hexafluoride, methane, hydrofluorocarbons, carbon dioxide, perfluorocarbons, nitrous oxide and water vapour. (Source: European Environmental Agency)

[7] Swedish scientist Svante Arrhenius anticipated in 1896 that variations in atmospheric concentrations of carbon dioxide could affect Earth's temperature. A few decades later, in 1938, British engineer Guy Callendar linked global warming to these same variations. (Source: NASA Global Climate Change)

[8] *How do we know climate change is real?* NASA Global Climate Change (n.d.). Retrieved 12th October 2023 from https://climate.nasa.gov/evidence/

[9] *The Effects of Climate Change*. NASA Global Climate Change (n.d.). Retrieved 12th October 2023 from https://climate.nasa.gov/effects/

[10] *US Billion-Dollar Weather and Climate Disasters (2023)*. NOAA National Centers for Environmental Information (NCEI) (n.d.). Retrieved 12th October 2023 from https://www.ncei.noaa.gov/access/billions/

which if combined with the other 341 disasters recorded in the US alone since records began in 1980, the total costs surpass $2.475 trillion USD[11].

All of this has led many private and state actors to push for the inclusion of sustainable goals and green energy projects for the green transition within the financial sector. In this way, since the early 1990s alongside the creation of the United Nations Environment Programme Finance Initiative (UNEP FI)[12], the field of sustainable finance, that is, finance which integrates sustainability goals and green projects within its objectives and decisions, has seen a steady increase in size and importance worldwide[13].

Although the interest in sustainability and socially responsible goals has for the most part not been among the top concerns of most business and finance leaders, recent years have seen a clear change in priorities among investors and a growing interest among governments, private actors and the public in general for the promotion of the green energy transition and a more environmentally sustainable economic model. According to COOPER (2019), the following are a few milestones that show this growing interest:

(i) In 1997 the Global Reporting Initiative (GRI) was created, which sets international standards for precise environmental and social issues reporting for both private and public market actors and is already in use by nine out of ten of the biggest firms in the world[14].

(ii) In the year 2000 the UN Millennium Development Goals (MDGs) were approved, which would later form the basis for the elaboration and subsequent approval of the UN Sustainable Development Goals (SDGs)[15] in 2016[16], and which would eventually form the foundation of ESG investing and finance.

---

[11] *National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters Report (2023)*. National Oceanic and Atmospheric Administration (NOAA) (n.d.). Retrieved 12th October 2023 from https://www.ncei.noaa.gov/access/monitoring/monthly-report/national/202310

[12] The United Nations Environment Programme Finance Initiative (UNEP FI) was created as part of the Earth Summit celebrated in Rio de Janeiro, Brazil in 1992. Currently, more than 500 banks with $170 USD trillion in assets collaborate with the UNEP FI. (Source: UN Environment Programme Finance Initiative)

[13] *The Evolution of Sustainable Finance*. UN Environment Programme Finance Initiative (UNEP FI) (n.d.). Retrieved 12th October 2023 from https://www.unepfi.org/news/timeline/

[14] COOPER, S (2019, paragraph 8). *The evolution of sustainable finance*. Standard Chartered. Retrieved 18th October 2023 from https://www.sc.com/en/feature/the-evolution-of-sustainable-finance/

[15] The Sustainable Development Goals (SDGs) are 17 objectives for sustainable development with regards to poverty, the environment and human rights. (Source: United Nations Development Programme)

[16] COOPER, S (2019, paragraphs 6-7).

(iii) Several sustainability indexes were also created, such as the creation in 1999 of the Dow Jones Sustainability Index and in 2009 of the Asia-Pacific Index, as well as the UN Principles for Responsible Investment (PRI)[17] launched in 2006 and with its members collectively reaching $81.7 trillion USD in 2018[18].

(iv) Finally, and more recently, green and social bonds were developed[19], such as the issuance in 2007 by the European Investment Bank (EIB) of the first green bonds for projects intended to fight climate change and other such projects, with such sustainable financial tools reaching a collective $247 billion USD in 2018, with China alone issuing $25.5 billion USD in such bonds[20].

All in all, the sustainable finance sector has seen a steady increase in recent years, with sustainable finance products in the world, according to ZHANG and GARVEY (2023), reaching a collective $717 billion USD just in 2023. Even if there has been a certain deacceleration of the sector recently, this figure still exceeds previous year levels and is expected to reach a higher magnitude than in 2022.[21]

2.2 The European Union Sustainable Finance and Disclosure Regulation (SFDR)

The European Commission has long since recognized the worsening negative impacts of man-made climate change and has therefore pushed for both public and private market actors to increase their compromise with sustainability and socially responsible goals. In this way, the Commission has proposed a series of regulations and measures directed towards achieving this goal. In particular, after the approval of the Action Plan for Sustainable Finance (APFS)[22] on March 2018, the Commission later approved the

[17] The UN Principles for Responsible Investment (PRI) are a set of 6 principles accorded by the United Nations and some of the main representatives of the sector to help organisations around the world integrate sustainability into their investment decisions. (Source: Principles for Responsible Investment)

[18] COOPER, S (2019, paragraph 9).

[19] A green bond is a debt instrument issued by a financial institution or firm to finance those projects that improve biodiversity, the fight against climate change or other such projects. While traditional bonds may finance any kind of enterprise, green bonds are special in the sense that they must be directed exclusively towards green projects. Nowadays, green bonds are issued by multiple countries, with approximately $350 billion USD issued in 2020 and the US being the greatest issuer. (Source: Corporate Finance Institute)

[20] COOPER, S (2019, paragraph 11).

[21] ZHANG, C, GARVEY, P (2023). *Big swings in 2023, but global sustainable finance remains in rude health*. ING ESG Res. Retrieved 18th October 2023 from https://www.ingwb.com/en/insights/research-reports/big-swings-in-2023-but-global-sustainable-finance-remains-in-rude-health

[22] The Action Plan for Sustainable Finance (APFS) established the need to promote sustainable investment for a more sustainable economic model, as well as the need to deal with the risks derived from the climate crisis and to increase transparency. (Sources: Green Finance Platform and the European Commission)

Sustainable Finance and Disclosure Regulation (SFDR)[23], which would come into force on 10th March of 2021 to further the objectives as set by the APFS[24], especially those relating to financial transparency and the promotion of sustainable investment. This new regulation establishes a harmonised sustainability transparency system for financial market actors across member states. According to BUSCH (2023, p. 307), the regulation aims to offer a unified set of rules both for financial advisers and financial market participants (FMPs) on how to report sustainability-related risks and impacts with regards to their financial investments[25]. Moreover, the regulation classifies financial products according to their intended sustainability objectives, establishing an increasing set of levels of expected disclosure, with Articles 8 and 9 SFDR making a distinction between (i) those financial products that only aim to foster ESG characteristics and (ii) those that directly have as their goal sustainable investment, respectively[26].

Article 8 funds, also referred to as "light green" funds, must show that they foster ESG attributes by disclosing *"(a) information on how those characteristics are met*" and "*(b) if an index has been designated as a reference benchmark, information on whether and how it is consistent with those characteristics*"[27]. Meanwhile, Article 9 funds, also known as "dark green" funds, must show that they have sustainable investment as their goal, and that an index has been established as a reference benchmark, by disclosing *"(a) information on how the designated index is aligned with this objective*" and "*(b) an explanation as to why and how this index differs from a broad market index*"[28]. The difference mainly lies on whether they finance a sustainable investment as defined by the regulation, or merely an investment which has some positive impact on ESG goals[29]. This study will be concerned with those funds which fall under these definitions.

[23] 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. EUR-Lex. Retrieved 25th October 2023 from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088

[24] *Sustainability-related disclosure in the financial services sector*. *Policy making timeline*. European Commission (n.d.). Retrieved 29th December 2023 from https://finance.ec.europa.eu/sustainable-finance/disclosures/sustainability-related-disclosure-financial-services-sector_en

[25] BUSCH, D (2023, p. 307). *EU Sustainable Finance Disclosure Regulation*. Capital Markets Law Journal, Volume 18, Issue 3, July 2023, Pages 303-328. Retrieved 25th October 2023 from https://doi.org/10.1093/cmlj/kmad005

[26] It should also be noted that Article 6.1 SFDR sets an obligation for all financial market participants to make clear to other participants when their investment decisions face relevant sustainable risks, or at least provide reasons as to why they consider those risks to not be sufficiently significant (Article 6.2 SFDR).

[27] As established by Articles 8.1.a) and 8.1.b) SFDR, respectively.

[28] As established by Articles 9.1.a) and 9.1.b) SFDR, respectively.

[29] BUSCH, D (p. 309). Sustainable investment is defined by Article 2.(17) as two factors: (i) contributing to an ESG objective and (ii) doing no harm to these objectives and following good governance practices.

2.3 Conceptual framework and context of greenwashing within sustainable finance

2.3.1 Greenwashing: Concept and contextualization

Greenwashing has been defined in many ways, and it is not the intention of the present section to offer a detailed review of the concept, but rather, some definitions as offered by several other authors and authorities. As a starting point, the Cambridge English Dictionary defines greenwashing as the "*behaviour or activities that make people believe that a company is doing more to protect the environment than it really is*."[30], with the first recorded use of the word being in 1986[31].

As for other definitions, LYON and MAXWELL (2006, p. 6) defined greenwashing as the "*selective disclosure of positive information about a company's environmental or social performance, without full disclosure of negative information on these dimensions.*"[32] Meanwhile, the environmental marketing firm TerraChoice (2007, p. 1) defined it as "*the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service.*"[33]

NEMES, SCANLAN, SMITH et al (2022, p. 5) more recently defined it as "*the practice of falsely promoting an organisation's environmental efforts or spending more resources to promote the organisation as green than are spent to engage in environmentally sound practices.*"[34], while the environmental law charity ClientEarth currently defines it as "*where a company uses advertising and public messaging to appear more climate friendly and environmentally sustainable than it really is.*"[35]

---

[30] *Greenwashing*. Cambridge English Dictionary (n.d.). Retrieved 29th December 2023 from https://dictionary.cambridge.org/dictionary/english/greenwashing

[31] DE FREITAS NETTO, S V, SOBRAL, M F F, RIBEIRO, A R B ET AL (2020, p. 6). *Concepts and forms of greenwashing: a systematic review*. Environmental Science Europe. Volume 32, Article 19. Retrieved 29th December 2023 from https://doi.org/10.1186/s12302-020-0300-3

[32] LYON, T P AND MAXWELL, J W (2006, p. 6). *Greenwash: Corporate Environmental Disclosure Under Threat of Audit*. Ross School of Business, Paper No. 1055. Retrieved 29th December 2023 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=938988

[33] *The "Six Sins of Greenwashing". A study of Environmental Claims in North American Consumer Markets*. TerraChoice Environmental Marketing (2007, p. 1). Retrieved 28th October 2023 from https://sustainability.usask.ca/documents/Six_Sins_of_Greenwashing_nov2007.pdf

[34] NEMES, N, SCANLAN, S J, SMITH, P ET AL (2022, p. 5). *An Integrated Framework to Assess Greenwashing*. Sustainability 2022. Volume 14, Issue 8, 4431. Retrieved 29th December 2023 from https://doi.org/10.3390/su14084431

[35] *Greenwashing*. *What is greenwashing?* ClientEarth (n.d.). Retrieved 29th October 2023 from https://www.clientearth.org/what-we-do/priorities/greenwashing/

In essence, most seem to agree that greenwashing would be the action of deceiving the public as well as other market agents regarding one's own environmental performance through either (i) the non-disclosure of negative information regarding this performance or (ii) the disclosure of false positive information regarding this performance.

2.3.2 Current situation of greenwashing in the world and the European Union

Recent years have seen an increase in misleading or false environmental claims among not only financial market actors but market actors in general. According to the summary of the "*2022 report on greenwashing*" by RepRisk, the leading ESG analytics firm in the world[36], 25% of all reported sustainability risk episodes in 2022 were greenwashing-related, with such incidents increasing by 70% compared to previous years[37]. This seems to indicate a growing trend by companies to mislead the public when it comes to their real, green-related practices, which may be correlated with the parallel growing interest by investors and the public for green and sustainable finance.

The following figure shows the evolution over time of the number of greenwashing episodes reported per region for Africa, Asia, Europe, South and North America and Oceania just for the period of 2018 to 2022:

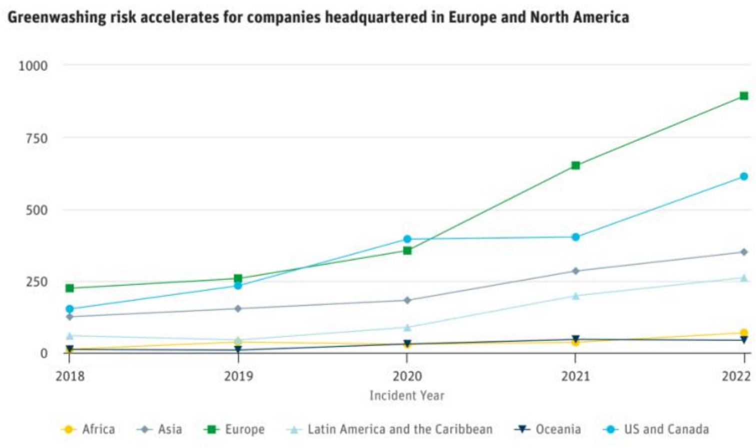

Figure 3. Evolution over time of greenwashing incidents per region.
Source: RepRisk ESG Data Science

[36] WALSER, G (2023). *RepRisk data shows increase in greenwashing with one in three greenwashing public companies also linked to social washing*. Business Wire. Retrieved 2nd January 2024 from https://www.businesswire.com/news/home/20231002910516/en/RepRisk-data-shows-increase-in-greenwashing-with-one-in-three-greenwashing-public-companies-also-linked-to-social-washing

[37] Facts and figures according to the summary "*On the rise: navigating the wave of greenwashing and social washing*" by RepRisk (n.d.). Retrieved on 29th October 2023 from https://www.reprisk.com/news-research/reports/on-the-rise-navigating-the-wave-of-greenwashing-and-social-washing/20adb3d8

More particularly in Europe, according to the European Commission report from 2020 "*Environmental claims in the EU. Inventory and reliability assessment.*", over 53.3% of the 150 analysed environmental claims in the European Union were found to be vague, misleading or unfounded, while 40% were found to be unsubstantiated[38]. All these figures seem to establish the growing importance of greenwashing as a challenge both globally and in the European Union, but in order to delve deeper, we must first see the European sustainable finance sector in particular, further developed in the next section.

2.4 Main facts and figures of the sustainable finance sector in the European Union

The European Union has long been at the forefront when it comes to sustainable finance and integrating ESG objectives with investment and market decisions. According to the summary of the report by the data consultancy firm MSCI, most financial assets under management in Europe, around €7 trillion out of €12 trillion EUR in total, are invested in ESG funds or strategies with some sustainability-related focus, which represents a 58.33% of all assets currently under management[39]. The following figure shows the degree of environmental and social Principal Adverse Impact (PAI) disclosure levels[40] by investable firms compared both globally and between several regions:

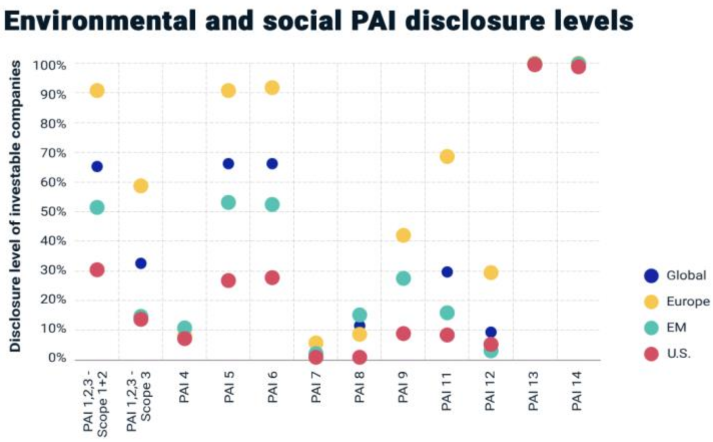

Figure 4. Environmental and social PAI disclosure levels per region.
Source: MSCI ESG Research

[38] *Environmental claims in the EU. Inventory and reliability assessment. Draft final report* (2023, pp. 8-9). Milieu Consulting SRL and IPSOS NV for the EU Commission (n.d.). Retrieved on 29th October 2023 from https://www.qualenergia.it/wp-content/uploads/2023/01/Envclaims_inventory_2020_final_publi.pdf

[39] Facts and figures according to the summary of MAHMOOD, R, SUBRAMANIAN, S, GUO, S (2023). "*Funds and the State of European Sustainable Finance*". MSCI ESG Research. Retrieved on 2nd November 2023 from https://www.msci.com/www/research-report/funds-and-the-state-of-european/03949903501.

[40] In March 2021, the EU established an obligation for all financial market participants (FMPs) to report on their Principal Adverse Impacts (PAIs), pursuant to Article 6 SFDR, periodically on their official websites. The PAIs are a set of risk criteria related to environmental and other such issues. (Source: Impact Institute)

As we can see in Figure 4, Europe leads in almost all PAI levels among the analysed regions, reaching around 90% levels in several PAI measures (1, 2, 3, 5 and 6), with both the US and emerging markets, as well as the global average, still lagging behind. Also, according to the latest report by the European Securities Market Authority (ESMA)[41], the sector of sustainable finance is at an all-time high, with assets owned by sustainable investment firms reaching a staggering €2.14 trillion EUR in 2022[42].

Of the 36.000 funds studied, ESMA found that the use of ESG words within fund names is rising, increasing in size by more than four times between 2013 and 2023, reaching 3% and 14% over the total, respectively[43]. This seems to imply that although still a minority, an increasing number of funds are using ESG names to identify themselves and signal their green commitments to potential investors[44]. Moreover, this tendency seemed to coincide with the approval of the Paris Agreement in 2016[45].

ESMA also found strong investor demand for ESG assets, with demand for funds with ESG words consistently exceeding demand for others[46]. The following figures show interest in ESG names over time as well as net inflows in both EU funds categories:

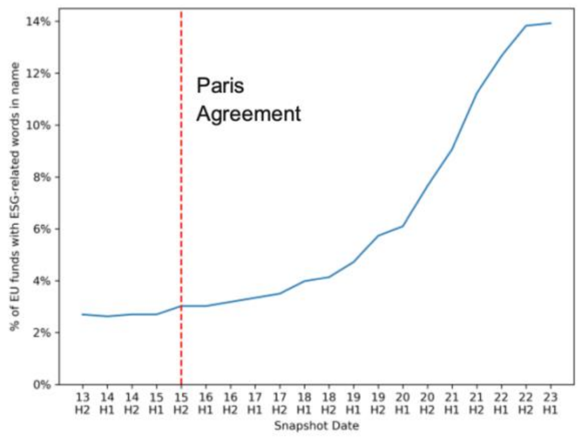

Figure 5. Use of ESG names in EU funds over time.
Source: European Securities Market Authority

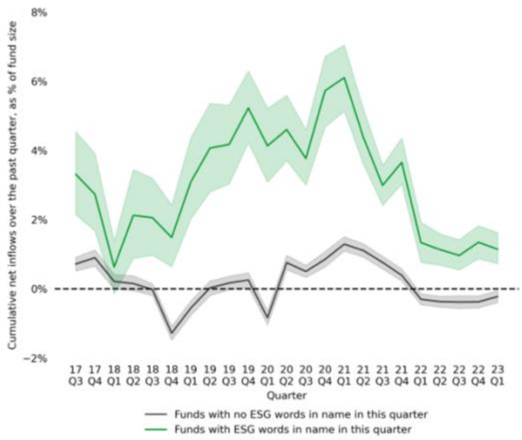

Figure 6. Net inflows with and without ESG names.
Source: European Securities Market Authority

---

[41] SEGAL, M (2023). *EU Market Regulator Finds 4x Increase in Use of ESG Language in Fund Names*. ESG today. Retrieved 2nd January 2024 from https://www.esgtoday.com/eu-market-regulators-greenwashing-study-finds-4x-increase-in-use-of-esg-language-in-fund-names/

[42] AMZALLAG, A, MAZZACURATI, J, MOSSON, N (2023, p. 4). *ESMA TRV Risk Analysis. ESG names and claims in the EU fund industry*. European Markets and Securities Authority, ESMA. Retrieved 5th November 2023 from https://www.esma.europa.eu/sites/default/files/2023-10/ESMA50-524821-2931_ESG_names_and_claims_in_the_EU_fund_industry.pdf

[43] AMZALLAG, A, MAZZACURATI, J, MOSSON, N (2023, p. 9).

[44] AMZALLAG, A, MAZZACURATI, J, MOSSON, N (2023, pp. 4, 11 and 16).

[45] AMZALLAG, A, MAZZACURATI, J, MOSSON, N (2023, p. 9).

[46] AMZALLAG, A, MAZZACURATI, J, MOSSON, N (2023, p. 10).

All these facts and figures allow us to establish the growing importance and size of the European Union's sector of sustainable finance, as well as its leading role in the world. They also allow us to appreciate how greenwashing practices within the sector may affect the green energy transition negatively as well as the European economy as whole, given the growing importance of sustainable finance as a means to further this transition, with such possible negative impact further developed in the next section.

2.5 The estimated impact of greenwashing in the sustainable finance sector

According to the "*EBA Progress Report on Greenwashing Monitoring and Supervision*" by the European Banking Authority (EBA), the number of reported greenwashing claims which affected European financial companies increased five-fold during the period from 2018 to 2022 alone[47]. Furthermore, the financial sector seems to be specially affected by such claims, representing almost a fifth of all greenwashing claims against European companies[48], relating to issues which affected both the environment through biodiversity degradation as well as regional populations directly[49].

The following figure shows the evolution of the number of greenwashing claims where European companies were involved for the period 2012-2022:

Figure 7. Number of alleged greenwashing incidents in the EU financial sector.
Source: EBA Progress Report on Greenwashing and RepRisk ESG Data Science

---

[47] *EBA Progress Report on Greenwashing Monitoring and Supervision*. European Banking Authority, EBA (n.d.) (2023, p. 23). EBA/REP/2023/16. Retrieved 11th November 2023 from https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2023/1055934/EBA%20progress%20report%20on%20greewnwashing.pdf
[48] *EBA Progress Report on Greenwashing*. European Banking Authority, EBA (n.d.) (2023, p. 23).
[49] *EBA Progress Report on Greenwashing*. European Banking Authority, EBA (n.d.) (2023, p. 23).

Additionally, private European banking institutions were specially affected by claims of greenwashing not only with regards to environmental issues, but also with social and governance issues, such as those related to human rights violations or financial misconduct[50]. However, environmental-related claims were the first on the list regarding private European banking institutions reported according to the study[51]. It would seem that not only is greenwashing on the rise in the European economy, but that the financial sector in particular is specially affected by such claims. This could be attributed to the complexity, compared to other sectors, of assessing effective environmental performance.

As for the empirical evidence of the quantitative effect of greenwashing on the sustainable finance sector, such evidence still seems to be limited[52]. However, some authors have tried to model these effects through econometric models, such as the one used by BALDI and PANDIMIGLIO (2022, pp. 10-13), where they found that among green bond issuers there was an inherent greenwashing risk, with an associated negative impact which increased the overall cost of the bonds (higher probabilities of greenwashing practices implied higher risk premiums for investors, with a subsequent reduced effect when monitoring was easier)[53]. The authors also found that greenwashing practices within the financial sector may be more difficult to detect by investors[54].

In any case, all these facts and figures allow us to establish that the financial sector, unlike other sectors, is especially vulnerable to climate-related greenwashing practices such as dubious claims and false statements on ESG investments and reporting, and that greenwashing practices may have adverse effects on the sector as a whole. However, a more practical approximation of greenwashing by ESG funds, in particular some of the main venture capital funds, could offer us greater insights on the scope of the challenge this problem represents for the sector, which will be further developed in the next section.

---

[50] *EBA Progress Report on Greenwashing*. European Banking Authority, EBA (n.d.) (2023, p. 24).
[51] *EBA Progress Report on Greenwashing*. European Banking Authority, EBA (n.d.) (2023, p. 24).
[52] BALDI, F AND PANDIMIGLIO, A (2022, p. 2) *The role of ESG scoring and greenwashing risk in explaining the yields of green bonds: A conceptual framework and an econometric analysis*. Global Finance Journal, Volume 52, 100711, ISSN 1044-0283. Retrieved 26th November 2023 from https://doi.org/10.1016/j.gfj.2022.100711, also mention this, referencing FLAMMER, C (2021, p. 503). *Corporate green bonds*. Journal of Financial Economics, Volume 142, Issue 2, Pages 499-516, ISSN 0304-405X. Retrieved 2nd January 2024 from https://doi.org/10.1016/j.jfineco.2021.01.010 as an example of finding little empirical evidence. FLAMMER (pp. 511 and 514) similarly tried to model similar effects, but his findings were inconsistent with greenwashing being the motive behind green bond issuance.
[53] BALDI, F AND PANDIMIGLIO, A (2022, pp. 11-12).
[54] BALDI, F AND PANDIMIGLIO, A (2022, p. 13).

3. QUANTITATIVE STUDY OF GREENWASHING IN SUSTAINABLE FINANCE IN THE EUROPEAN UNION THROUGH ESG FUND DATA

While the first two sections have described the problem of greenwashing in the European Union's sector of sustainable finance, the main facts and figures by recognized authorities and authors on the matter, and the many challenges this presents for the green transition; the present section will deal with a quantification of the problem from a more practical perspective, while the possible solutions will be developed in the next section.

When it comes to analysing the problem of greenwashing there are many perspectives through which it may be done (e.g., through the analysis of marketing strategies and statements by companies or fund managers[55]). In our case, the analysis was performed through the publicly disclosed portfolio composition and financial information of a selection of 15 ESG venture capital (VC) funds ascribed to Articles 8 and 9 SFDR domiciled in the EU, made publicly available through their official websites. Firstly, I will (i) compose a non-exhaustive list of such funds to be used as our sample, classifying them as either Article 8 or Article 9 funds, then I will (ii) establish the main and secondary indicators used for the analysis and then, finally, I will (iii) offer an overview of the main results obtained from the analysis and their implications, as well as its limitations.

3.1 The 15 ESG VC funds ascribed to Articles 8 and 9 SFDR in the European Union

As we already established, sustainable funds in the European Union can be classified as either "light green" or "dark green" funds. However, at the present time a complete and publicly accessible register of all existing Article 8 and 9 SFDR funds domiciled in the European Union does not exist. Instead, fund managers choose whether to classify their respective funds as falling or not under the regulation, with consulting and data analysis firms (e.g., *Morningstar*, *RepRisk* or *MSCI*) surveying limited samples of fund managers to ascertain the quantity of such funds and other data[56].

---

[55] See for example DE JONG, M D T, HARKINK, K M, BARTH, S (2018, pp. 89-90). *Making Green Stuff? Effects of Corporate Greenwashing on Consumers*. Journal of Business and Tech Comm, volume 32, Issue 1, Pages 77-112. Retrieved 3rd January 2024 from https://doi.org/10.1177/1050651917729863

[56] See for example SILANO, S (2021). *Finding ESG Funds Just Got Easier*. Morningstar Research. Retrieved 12th November 2023 from https://www.morningstar.co.uk/uk/news/211061/finding-esg-funds-just-got-easier.aspx. In this study, Morningstar surveyed a sample of 30 fund managers and obtained a dataset composed of 11.500 funds with which they later categorised between Articles 8 and 9 SFDR.

Therefore, and given the limited nature of the present thesis, the sample used in the study was obtained from a selection of funds among the non-exhaustive list of Articles 8 and 9 SFDR funds compiled and published on 26th July of 2023 by Sifted, backed by the Financial Times[57]. Of the 51 funds compiled, 15 were selected for the present study according to (a) declared target size of assets under management and (b) quality and availability of financial information published. Therefore, only those funds of significant size and sufficient available information were selected, basing the analysis of the present section on the financial information made public through their official websites.

The following is the list of the selected 15 ESG funds in the European Union classified according to their respective SFDR article, fund type[58], asset class[59] and size (in euros):

	Fund name	SFDR Article	Asset class	Fund type	Size
1.	Summa Equity Fund III	Article 9	Equity	VC	2.300 million
2.	Light Rock Growth Fund I	Article 9	Equity	VC	900 million
3.	HV Capital Fund IX	Article 8	Equity	VC	710 million
4.	World Fund	Article 9	Equity	VC	350 million
5.	Seaya Andromeda	Article 9	Equity	VC	300 million
7.	2150 Fund	Article 9	Equity	VC	268 million
8.	XAnge Fund	Article 8	Equity	VC	220 million
9.	Planet A Ventures Fund	Article 9	Equity	VC	160 million
10.	Extantia Fund	Article 9	Equity	VC	150 million
11.	ACE Swiss Tech Outliers Fund IV	Article 9	Equity	VC	108 million
12.	Ananda Impact Ventures Fund	Article 9	Equity	VC	108 million
13.	Sandwater Fund	Article 8	Equity	VC	100 million
14.	Butterfly Ventures Fund	Article 8	Equity	VC	100 million
15.	Serena Fund	Article 9	Equity	VC	85 million
Total assets under management by the selected funds (1-15)					**5.859 million**

Table 1. The 15 selected ESG VC funds ascribed to Articles 8 and 9 SFDR in the European Union.
Source: Sifted, a media start-up backed by the Financial Times

[57] PRATTY, F (2023). *All the Article 8 and Article 9 VC funds in Europe.* Sifted, backed by the Financial Times. Retrieved 12th November 2023 from https://sifted.eu/articles/article-8-article-9-venture-capital-sfdr
[58] Funds can be classified as either Exchange-Traded Funds (ETF), Mutual Funds (MF), Hedge Funds (HF) or Venture Capital Funds (VCF). ETFs trade daily on exchanges, generally tracking a specific index and being passively managed, while MFs trade at the end of the day and are actively managed. HFs use a variety of investment strategies, while VCs, on the other hand, generally focuses on investing in start-ups with potential for high growth (e.g., disruptive new technologies). (Source: Investopedia)
[59] Assets can be classified as either (i) fixed income, (ii) commodities, (iii) equities, (iv) cash equivalents, (v) cryptocurrencies, or (vi) financial derivatives such as futures and forwards. (Source: Investopedia)

3.2 Financial analysis and contrast of effective ESG fulfilment and disclosure rates

3.2.1 Main indicator used in the study: Effective ESG Fulfilment Scale (EEFS)

When it comes to establishing effective ESG reporting by investment funds, many indicators may be used, such as for example the degree of EU-Taxonomy alignment, used by MSCI Research[60]. However, for the present study I have decided to create the following indicator scale based on three consecutive levels of ESG reporting: (i) level 3 funds, which offer *clear and concise* financial information and data on their portfolio and investments, (ii) level 2 funds, which offer *some degree* of financial data and information on their portfolio and investments and (iii) level 1 funds, which offer *little to no degree* of financial data or information on their portfolio and investments:

EEFS Level	Description of characteristics
Level 3 funds	Offer clear and concise financial information and data on their portfolio composition and investments regarding effective ESG and sustainability-related investments.
Level 2 funds	Offer some degree of financial data and information on their portfolio composition and investments regarding effective ESG and sustainability-related investments.
Level 1 funds	Offer little to no degree of financial data or information on their portfolio composition and investments regarding effective ESG and sustainability-related investments.

Table 2. The 3 levels of the Effective ESG Fulfilment Scale (EEFS) and their description.
Source: Own creation by the author

As for the terminology used in the study, it should be noted that: (a) *clear and concise* should be understood as the respective fund publishing annual or monthly financial reports on its portfolio and investments and how these relate to their ESG objectives, (b) *some degree* as a certain level of information on their portfolio and investments and how these relate to their ESG objectives (e.g., offering a description of each company in which the respective fund holds equity and how each is contributing to their ESG objectives) and (c) *little to no degree* as offering none or barely any significant information on its portfolio and investments, or on how these relate to their ESG objectives.

---

[60] Such indicator is used by MAHMOOD, R, SUBRAMANIAN, S, GUO, S (2023, p. 8). *Funds and the State of European Sustainable Finance*. MSCI ESG Research. Retrieved on 2nd November 2023 from https://www.msci.com/documents/10199/f89743d6-037f-bb73-1750-d606482224b0. It mainly consists of how much funds are aligned (in %) with the EU Taxonomy, understood as the EU ESG categorisation.

3.2.2 *Formulas for the complementary quantitative indicators used: Average EEFS rate (AEEFS) and Total average EEFS rate (TAEEFS)*

Using the EEFS as a basis, two complementary indicators have been composed:

(i) The Average EEFS rate (1), which establishes in % the degree of effective public disclosure of ESG fulfilment by the selected funds, being 33% little to no disclosure (Level 1), 66% some disclosure (Level 2) and 100% full disclosure (Level 3)[61]:

$$Average\ EEFS\ rate = \frac{EFFS\ Level}{3} x100\% \tag{1}$$

(ii) The Total average EEFS rate (2), which establishes in % the total degree of effective public disclosure of ESG fulfilment by the selected funds on average:

$$Total\ average\ EEFS\ rate = \frac{Total\ sum\ of\ average\ EEFS\ rates}{Total\ number\ of\ funds} \tag{2}$$

3.3 Results of the analysis

The 15 selected funds have been analysed according to the EEFS, establishing the following classification according to (a) the general requirements as established by each respective level and (b) whether these have been met by each individual fund once revision of publicly available information on their official website has been performed:

	Fund name	SFDR Article	Observations	EEFS level
1.	Summa Equity Fund III	Article 9	Offers yearly reports and detailed information on its portfolio composition and its relation to its ESG objectives.	Level 3
2.	Light Rock Growth Fund I	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives, but not of the particular fund.	Level 2
3.	HV Capital Fund IX	Article 8	Offers a list of the companies within its portfolio and their	Level 2

[61] The Average EEFS rate, although simple and non-continuous, offers us a more quantitative measure of effective ESG fulfilment by the selected funds, and allows us to compose the Total AEEFS rate.

			relation to its ESG objectives, but not of the particular fund.	
4.	World Fund	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
5.	Seaya Andromeda	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
7.	2150 Fund	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
8.	XAnge Fund	Article 8	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
9.	Planet A Ventures Fund	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
10.	Extantia Fund	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
11.	ACE Swiss Tech Outliers Fund IV	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives, but not of the particular fund.	Level 2
12.	Ananda Impact Ventures Fund	Article 9	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
13.	Sandwater Fund	Article 8	Offers a list of the companies within its portfolio and their relation to its ESG objectives.	Level 2
14.	Butterfly Ventures Fund	Article 8	Offers detailed information on its portfolio and its relation to its ESG objectives, as well as its investment strategy requisites in relation to the SFDR.	Level 3
15.	Serena Fund	Article 9	Offers yearly reports and detailed information on its portfolio composition and its relation to its ESG objectives.	Level 3

Table 3. EEFS classification of the selected funds with respective SFDR Article and observations.
Source: Own creation by the author

As we can see, of the total of 15 selected funds: 3 were found to reach Level 3, 12 were found to reach Level 2, and none were found to fall under Level 1 on the EEFS. The following table shows the total, both in absolute figures as well as percentages of those funds which achieved the successive levels of transparency on the EEFS:

EEFS Level	Total (in absolute)	Total (in %)	Sum (in %)
Level 3 funds	3	20,00%	100,00%
Level 2 funds	12	80,00%	80,00%
Level 1 funds	0	00,00%	00,00%

Table 4. EEFS classification of selected funds, both in absolute and percentage measures.
Source: Own creation by the author

The following figure shows the classification of funds on the EEFS, where we can more clearly appreciate how only a minority (20%) reached Level 3 on the scale:

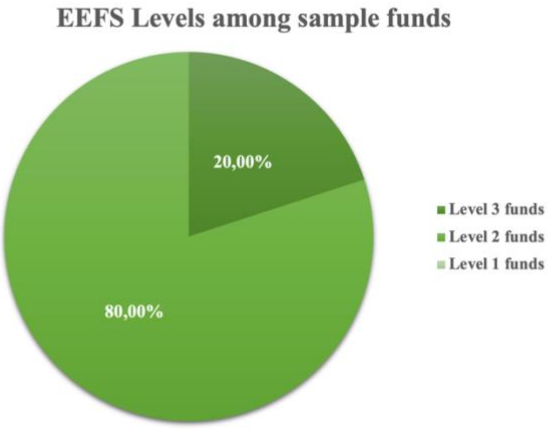

Figure 8. EEFS Levels achieved among sample funds.
Source: Own creation by the author

These results show that among the selected self-declared ESG funds ascribed to Articles 8 and 9 SFDR, a majority (80%) does not offer full detailed reports of either (i) the composition of their portfolio and investments or (ii) how these relate to their ESG objectives. This could be attributed to either (a) a lack of oversight on the part of public actors to increase transparency on ESG investments, or (b) a lack of incentives to invest time and resources to offer greater detailed transparency on the part of fund managers[62].

The following table offers a complete summary of the EEFS Level and Average EEFS (AEEFS) rate compounded for each individual fund, as well as the Total average EEFS (TAEEFS) rate for the whole of the sample:

	Fund name	SFDR Article	EEFS Level	AEEFS rate
1.	Summa Equity Fund III	Article 9	Level 3	100,00%
2.	Light Rock Growth Fund I	Article 9	Level 2	66,67%
3.	HV Capital Fund IX	Article 8	Level 2	66,67%
4.	World Fund	Article 9	Level 2	66,67%
5.	Seaya Andromeda	Article 9	Level 2	66,67%
7.	2150 Fund	Article 9	Level 2	66,67%
8.	XAnge Fund	Article 8	Level 2	66,67%
9.	Planet A Ventures Fund	Article 9	Level 2	66,67%
10.	Extantia Fund	Article 9	Level 2	66,67%

[62] As public disclosures and classifications still mostly depend on the fund's own self-declared reporting, there may not yet be enough incentives for a deeper level of periodic reporting by fund managers.

11.	ACE Swiss Tech Outliers Fund IV	Article 9	Level 2	66,67%
12.	Ananda Impact Ventures Fund	Article 9	Level 2	66,67%
13.	Sandwater Fund	Article 8	Level 2	66,67%
14.	Butterfly Ventures Fund	Article 8	Level 3	100,00%
15.	Serena Fund	Article 9	Level 3	100,00%
TOTAL Average EEFS (TAEEFS) rate				**68,89%**

Table 5. EEFS Levels, Average EEFS rates and Total Average EEFS rate for the selected funds.
Source: Own creation by the author

Although these results show that full detailed public disclosure of sustainable investments is still lacking, they also show that all funds do offer a certain degree of information on their ESG investments, as none of the selected funds were found to fall under Level 1. This may be attributable to the existence of some signalling incentives on the part of fund managers to show both to the public and investors that their investments are indeed ESG-related[63], even if harmonised penalties do not yet exist[64].

Finally, it should also be noted that although the whole sample reached a Level 2 classification overall (68,89% > 66%), some funds were found to not be in full compliance with the requirements of their respective article (e.g., several Article 9 funds falling under the Level 2 classification instead of the Level 3 classification).

Although the SFDR does not offer a minimum threshold under which a fund would be considered to be fully compliant with Article 8 or 9, we could establish that an AEEFS rate of 60% and 90% respectively could function as possible minimum thresholds[65], for the following reasons: (a) because greater thresholds could impose too great of a transparency burden and (b) because given that 66% and 100% are the averages achieved by Level 2 and Level 3 funds respectively, minimum thresholds of 60% and 90% seem acceptable requirements to be met by Article 8 and Article 9 funds, respectively.

[63] According to CONNELLY, B L, CERTO, S T, IRELAND, R D, AND REUTZEL, C R (2011, p. 40). *Signaling Theory: A Review and Assessment*. Journal of Management. Volume 37, Issue 1, Pages 39-67. Retrieved 3rd January 2024 from https://doi.org/10.1177/0149206310388419, within contexts of asymmetric information, signalling can serve as a way for companies to correct this asymmetry and attract consumers. AMZALLAG, A, MAZZACURATI, J, MOSSON, N (2023, pp. 4, 11 and 16) also mention signalling as a possible explanation for greenwashing claims regarding the use of ESG terms in fund names.
[64] As already mentioned, the obligations established under the SFDR do not yet have harmonised penalties with regards to self-declared classifications by fund managers and other such obligations. It will be up to each member state's own authorities to implement consequences for non-compliance.
[65] MSCI ESG Research uses a similar minimum threshold to classify funds through the EU-Taxonomy alignment indicator, establishing a minimum of 60% to consider a fund as aligned with the SFDR.

The following table shows the classification of sample funds among either Article 8 or Article 9 SFDR funds (both as absolute figures as well as in %), in relation with their computed respective Total average EEFS rates (TAEEFS) achieved:

SFDR Article	Total (in absolute)	Total (in %)	TAEEFS
Article 8	4	26,67%	75,00% > 60%
Article 9	11	73,33%	66,67% < 90%

Table 6. TAEFFS of total Article 8 and Article 9 SFDR funds respectively.
Source: Own creation by the author

As we can see, Article 8 funds seem to perform at a greater rate (75%), far surpassing the theoretical minimum threshold of 60%, while Article 9 funds, on the other hand, would not pass the minimum threshold of 90%. This may be attributed to several reasons: (a) the more constringent requisites of Article 9, coupled with the lack of proper penalties, do not offer sufficient incentives for greater transparency, or (b) a misrepresentation by fund managers of their respective fund's actual classification. In any case, the overall results show us that most funds in the sample do offer a sufficient level of transparency on their portfolio compositions and how these relate to their ESG objectives, even if some were found to be lacking, with Article 8 funds overperforming Article 9 funds.

3.4 Limitations of the analysis performed

Once a simplified overview of the situation of greenwashing in the sector of sustainable finance has been established, the limitations of this study should be made clear. These results show us the state of greenwashing in these selected 15 ESG VC funds and give us a preliminary idea of the shortcomings of effective ESG reporting in the overall industry, but they cannot be generalised for the whole of the European Union's sector of sustainable finance. A deeper quantitative study and greater sample, with thousands of funds and more metrics being analysed, would still need to be performed.

However, these results do allow us, in conjunction with the complementary literature already reviewed, to better understand the problem that greenwashing currently poses for the green energy transition, and further demonstrates the need for a proper harmonised ESG reporting and auditing system in the EU, further developed in the next section.

4. POSSIBLE SOLUTIONS TO ESG GREENWASHING THROUGH FUTURE POLICIES AND HARMONISED REGULATION

Once a quantitative overview of the problem of greenwashing in the sector of sustainable finance in the European Union has been performed, both through the main figures offered by the recognised authorities, as well as through a more practical study, I will dedicate the present section towards offering solutions from a double intertwined perspective: (i) a proposal for a standardised ESG Template for Articles 8 and 9 SFDR funds, and (ii) a proposal for an independent registry and audit authority on ESG reporting, which the Conclusions will summarize and expand upon further.

4.1 Proposal for a standardised ESG Template for Articles 8 and 9 SFDR funds

In 2019, the FinDatEx (Financial Data Exchange) was put in place by some of the main financial actors in Europe, both public and private, as a way to promote transparency between economic agents and stakeholders with regards to environmental impact disclosures through publicly available standardised templates[66]. In January 2021 the first template creation began, and in March 2022 the first finished template was published for all financial actors, which was further updated in October of the same year[67].

Among these actors, would be organisations such as the European Banking Federation (EBF) or the European Fund and Asset Management Association (EFAMA), which in turn compose FinDatEx's Steering Group, its main governing body composed by all organisations involved[68]. Other relevant working bodies would be, among others, the MiFID (Market in Financial Instruments) Technical Working Group or the ESG Technical Working Group, each tasked with the elaboration of different specific templates within the FinDatEx structure. Such templates would include but not be limited to the European Feedback Template (EFT) and the European ESG Template (EET)[69].

---

[66] *Mission statement and objectives*. Financial Data Exchange, FinDatEx (n.d.). Retrieved 19th November 2023 from https://findatex.eu/about/mission-statement-and-objectives

[67] *FinDatEx actualiza la plantilla EET para el intercambio de información sobre sostenibilidad, 2022*. FinReg360 (n.d.). Retrieved 19h November 2023 from https://finreg360.com/alerta/findatex-actualiza-la-plantilla-eet-para-el-intercambio-de-informacion-sobre-sostenibilidad/

[68] *Members and resources*. Financial Data Exchange, FinDatEx (n.d.). Retrieved 19th November 2023 from https://findatex.eu/about/members-and-resources

[69] *Governing bodies and workstreams*. Financial Data Exchange, FinDatEx (n.d.). Retrieved 19th November 2023 from https://findatex.eu/about/governing-bodies-&-workstreams

This European ESG Template or EET mainly consists of an Excel with several indicators for sustainable finance actors to fill in and then offer as public statements on their ESG reporting. However, this template is still completely voluntary for sustainable finance actors and is not subject to any kind of control or auditing by public authorities[70].

However, it does offer a strong base upon which to build such a standardised system of ESG reporting for sustainable finance actors within the European Union. Such a system could work in a similar way to how transfer pricing[71] documentation obligations[72] for company enterprises as set by the OECD Guidelines on Transfer Pricing[73] work:

(i) Those financial actors ascribed to Articles 8 and 9 SFDR would have to, by the end of each FY, present to an independent European authority and registry their documentation related to ESG reporting, mainly the FinDatEx template.

(ii) This authority would then, in turn, revise this information and make sure it is factually accurate and in accordance with the established regulation.

(iii) If any actor were found to be under the necessary thresholds to be considered an SFDR fund or were found to be submitting either inaccurate or false information, they would then be demoted from the classification, and may even face possible economic sanctions, notwithstanding possible amendments in the case of mistakes or errors when submitting the information.

(iv) All data collected would then be made public through this independent authority's own public website and resources, being readily available for all public and private actors to access and review on their own.

(v) Once the template is adopted by financial market actors, it could be further expanded to all companies over a certain yearly income (e.g., €1 billion EUR).

[70] *Mission statement and objectives*. Financial Data Exchange, FinDatEx (n.d.). Retrieved 19th November 2023 from https://findatex.eu/about/mission-statement-and-objectives

[71] Transfer pricing is a method by which multinational companies use tax variations between the various jurisdictions they operate in to pay less taxes overall. Profits are shifted from high tax countries to low tax countries to reduce the overall tax burden for the multinational group. (Source: Tax Justice Network)

[72] In order to ensure that inter-company transactions comply with the full arm's length principle, companies operating in multiple jurisdictions are usually required by each country where they operate in to elaborate documentation justifying their transactions as being within comparable market profit levels. Documentation obligations vary from country to country but usually require both a Master File for the main holding company with information on the whole multinational group, and Local Files and Country by Country Reports for each subsidiary with operations over a certain threshold. (Source: Price Waterhouse Coopers)

[73] OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. OECD, 2022. Retrieved 3rd January 2024 from https://www.oecd.org/tax/transfer-pricing/oecd-transfer-pricing-guidelines-for-multinational-enterprises-and-tax-administrations-20769717.htm

4.2 Proposal for an independent registry and audit authority on ESG reporting

As we have already established, no independent public authority on ESG reporting exists in the European Union, nor does any kind of complete and exhaustive registry of such entities[74]. Therefore, and in conjunction with the standardised templates, a potential solution to greenwashing in the sustainable finance sector could be to establish such an independent authority, which would in essence perform the following functions:

(i) Independent auditing at the end of each FY of the financial statements on ESG reporting by sustainable finance actors ascribed to Articles 8 and 9 SFDR.

(ii) Elaboration, in conjunction with the FinDatEx structure, of yearly improved and actualised standardised templates and documentation on ESG reporting.

(iii) Elaboration of a complete public registry of all sustainable finance actors ascribed to Articles 8 and 9 SFDR, similar to the public registries of commerce that most member states already have in place.

Just as with transfer pricing documentation obligations for multinational enterprises, sustainable finance actors ascribed to Articles 8 and 9 SFDR would have an enforceable obligation and would lose their recognition as such funds, and even possibly face sanctions, if they were found to not be in full compliance with such thresholds. Finally, it should be noted that on 6th April 2022 the SFDR was supplemented by the Commission Delegated Regulation (EU) 2022/1288 supplementing Regulation (EU) 2019/2088 of the European Parliament and of the Council[75]. According to Worldfavor, this regulation added as annexes (Annex 1) a harmonised template for financial market participants (FMPs) on ESG reporting[76], which in turn originated from the original draft text[77] published by the European Supervising Authorities (ESAs)[78] on 22nd October 2021.

---

[74] *Top 8 questions on SFDR answered. What happens if you are not compliant with the SFDR?* Worldfavor (n.d.). Retrieved 18th November 2023 from https://blog.worldfavor.com/top-8-questions-on-sfdr-answered

[75] Commission Delegated Regulation (EU) 2022/1288 of 6 April 2022 supplementing Regulation (EU) 2019/2088 of the European Parliament and of the Council. Eur-Lex. Retrieved 30th November 2023 from https://eur-lex.europa.eu/eli/reg_del/2022/1288/oj

[76] *SFDR Templates*. European Securities and Markets Authority, ESMA (n.d.). Retrieved 30th November 2023 from https://www.esma.europa.eu/document/sfdr-templates

[77] *Final Report on draft Regulatory Technical Standards.* European Securities and Markets Authority, ESMA (n.d.). Retrieved 28th October 2023 from https://www.esma.europa.eu/sites/default/files/2023-05/JC_2023_13_-_Final_report_on_ESG_disclosure_for_STS_securitisations.pdf

[78] The European Insurance and Occupational Pensions Authority (EIOPA), the European Securities and Markets Authority (ESMA), and the European Banking Authority (EBA). (Source: European Commission)

This template, which became mandatory for all FMPs with over 500 employees on 1st January of 2023, establishes an obligation to disclose their Principal Adverse Impact (PAIs) indicators through a public, free, and easily accessible statement on their websites (PAI statement)[79]. This statement, in turn, establishes a set of 14 core indicators and 31 additional ones, from which investors should report on the core 14 as well as 2 additional ones, one climate and environmental-related and one social and employee-related[80]. These requirements are not merely limited to these PAI indicators, but also require firms to (a) set up effective measures to identify and mitigate their PAIs, and (b) compare at a minimum the performance of the last five periods[81]. These reference periods go from 1st January to 31st December of each year, with the first beginning on 1st January of 2022[82].

Therefore, with these harmonised templates the European Union seems to be establishing a unified system of ESG auditing and reporting for financial market actors. This system would work in a decentralised manner, with each firm reporting on their PAIs and other relevant information through their official websites and in pre-contractual disclosures. However, and as we already established, a European independent registry and audit authority would still be necessary to ensure full compliance by firms, as well as a more complete template with more indicators, such as the EET offered by the FinDatEx. This system, as we have also established, could work in a similar way as already existing systems of financial disclosures work for other types of operations.

Furthermore, and after a few years of implementation have passed, this harmonised system of ESG reporting could be further expanded to all market actors above a certain minimum threshold (e.g, the already mentioned €1 billion EUR of yearly income or a certain number of yearly average employees, such as 100 employees). Although implementation costs would have to be balanced with the expected benefits of reduced greenwashing practices, this may prove to be a more permanent solution to this challenge not only for the sustainable finance sector, but for the European economy as a whole.

---

[79] *Top 8 questions on SFDR answered. What happens if you are not compliant with the SFDR?* Worldfavor (n.d.). Retrieved 18th November 2023 from https://blog.worldfavor.com/top-8-questions-on-sfdr-answered
[80] *SFDR reporting timeline: what you have to disclose and when*. Worldfavor (n.d.). Retrieved 1st December 2023 from https://blog.worldfavor.com/sfdr-reporting-timeline-what-you-have-to-disclose-and-when
[81] *SFDR reporting timeline: what you have to disclose and when*. Worldfavor (n.d.). Retrieved 1st December 2023 from https://blog.worldfavor.com/sfdr-reporting-timeline-what-you-have-to-disclose-and-when
[82] *SFDR reporting timeline: what you have to disclose and when*. Worldfavor (n.d.). Retrieved 1st December 2023 from https://blog.worldfavor.com/sfdr-reporting-timeline-what-you-have-to-disclose-and-when

5. CONCLUSIONS

At the beginning of this thesis, two intertwined goals were set: (i) to establish the quantitative scope of the problem of greenwashing within the European Union's sector of sustainable finance in general, and those funds ascribed to Articles 8 and 9 SFDR in particular; and (ii) to offer possible solutions to effectively tackle this problem through economic policy and regulation.

To achieve this, I have analysed the relevant literature and figures from the most relevant authorities on the matter to establish the current state of greenwashing in the sustainable finance sector within the European Union. I have also performed a quantitative, albeit simplified, financial analysis of the state of greenwashing within a selected sample of venture capital funds ascribed to Articles 8 and 9 SFDR, creating a classification of my own and two complementary indicators. Finally, I have also analysed two possible intertwined solutions to the problem: a standardised template for ESG reporting and an independent registry and auditing authority.

With regards to the first goal, we have established, both through the review of the relevant literature and reports from the relevant authorities on the matter, as well as the quantitative study performed through the selected sample of funds, how: (i) the European Union is the main driver of sustainable investments in the world among all analysed regions, (ii) how in spite of this leadership position, its financial sector is especially vulnerable to greenwashing claims and how these could be having a detrimental effect on the green transition and European economy as a whole, and (iii) how this greenwashing may be affecting those funds ascribed to Articles 8 and 9 SFDR.

With regards to these funds, we have seen (a) how the SFDR regulation works and those areas where it is still lacking and (b) how, from our selected sample of funds, even if the majority do offer some degree of information on their ESG investments, most still fail to offer complete and detailed information reports on the composition, size and relation with the ESG objectives of their respective portfolios.

With regards to the second goal, two related proposals regarding greenwashing issues in the sustainable finance sector have been reviewed: on the one hand, (i) a standardised template for ESG reporting and, on the other, (ii) an independent registry and audit authority for sustainable finance market actors.

With regards to these proposals, we have seen how this authority could work in a similar way to how already existing similar systems work, and how such a system is already being put partially in place by European institutions through standardised templates, which may form the basis of a future system of standardised and enforceable ESG reporting by financial market actors, and even perhaps market actors as a whole.

The study of greenwashing within the sustainable finance sector is extense and can take many forms, methods, and sample sizes. The present thesis has focused on a simple approach through the relevant literature and data, as well as a quantitative study of a limited sample of some of the main ESG VC funds in the EU. However, I believe that with enough time and resources, a proper quantitative study with a larger sample and more complex indicators could yield more accurate results on the state of greenwashing in the whole of the sustainable finance sector in the EU[83]. Moreover, it could also be interesting to construct a quantitative model to establish the quantitative effects of greenwashing on ESG funds' performance and whether there is an economic incentive[84].

In any case, it is clear that greenwashing is a significant challenge which affects all levels and sectors of our society, and which is a clear obstacle we must overcome through effective regulatory proposals. These proposals must, in turn, allow us to achieve the green energy transition before our climate troubles become too great. The financial sector could be the lever that makes us move forward in that transition, or the obstacle that does not allow us to advance any further. It could help us build a future where renewable energy, wonderous new technologies and a fairer and more just society become a reality, or a world where a privileged few enjoy the last fruits of a failed and fossil fuel-dependant system. Both the resources and technology are already within our reach, we merely need the collective and political will to choose to do better.

[83] See for example LI, W, LI, W, SEPPÄNEN, V, KOIVUMÄKI, T (2023, p. 826). *Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage*. Business Strat and the Environ. Vol 32, Issue 1, Pag 820–841. Retrieved from https://doi.org/10.1002/bse.3177

[84] See for example WU, M-W, SHEN, C-H (2013, pp. 3531-3532). *Corporate social responsibility in the banking industry: Motives and financial performance*. Journal of Bank and Fin, Vol 37, Issue 9, Pag 3529-3547, ISSN 0378-4266. Retrieved 3rd December 2023 from https://doi.org/10.1016/j.jbankfin.2013.04.023

6. BIBLIOGRAPHIC REFERENCES[85]

Scientific magazine articles, official reports and other electronic resources used

About us. UN Environment Programme Finance Initiative (UNEP FI) (n.d.). Retrieved 12th October 2023 from https://www.unepfi.org/about/

AMZALLAG, A, MAZZACURATI, J, MOSSON, N (2023, pp. 4-16). *ESMA TRV Risk Analysis. ESG names and claims in the EU fund industry*. European Markets and Securities Authority, ESMA. Retrieved 5th November 2023 from https://www.esma.europa.eu/sites/default/files/2023-10/ESMA50-524821-2931_ESG_names_and_claims_in_the_EU_fund_industry.pdf

BALDI, F AND PANDIMIGLIO, A (2022, pp. 2-13) *The role of ESG scoring and greenwashing risk in explaining the yields of green bonds: A conceptual framework and an econometric analysis*. Global Finance Journal, Volume 52, 100711, ISSN 1044-0283. Retrieved 26th November 2023 from https://doi.org/10.1016/j.gfj.2022.100711

BATES, M (2021). *The European ESG Template (EET) – what is it all about?* FE fundinfo. Retrieved 19th November 2023 from https://www.fefundinfo.com/en-gb/news/the-european-esg-template-eet-what-is-it-all-about/

BAZILLIER, R, VAUDAY, J (2013, pp. 5-6). *The Greenwashing Machine: is CSR more than Comm*. Retrieved 12th November 2023 from https://hal.science/hal-00448861v3

Billion-Dollar Weather and Climate Disasters. National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI) (n.d.). Retrieved 12th October 2023 from https://www.ncei.noaa.gov/access/billions/

BODELLINI, M (2023, pp. 28-32). *Greenwashing and the misapplication of articles 8 and 9 of the Sustainable Finance Disclosure Regulation*. ERA Forum, Volume 24, Pages 27–42. Retrieved 25th October 2023 from https://doi.org/10.1007/s12027-023-00739-8

[85] All the references to other works and resources used were made following the American Psychological Association's (APA) system of international referencing for bibliographic references.

BUSCH, D (2023, pp. 304-310). *EU Sustainable Finance Disclosure Regulation*. Capital Markets Law Journal, Volume 18, Issue 3, July 2023, Pages 303-328. Retrieved 25th October 2023 from https://doi.org/10.1093/cmlj/kmad005

Commission Delegated Regulation (EU) 2022/1288 of 6 April 2022 supplementing Regulation (EU) 2019/2088 of the European Parliament and of the Council. Eur-Lex. Retrieved 30th November 2023 from https://eur-lex.europa.eu/eli/reg_del/2022/1288/oj

CONNELLY, B L, CERTO, S T, IRELAND, R D, AND REUTZEL, C R (2011, p. 40). *Signaling Theory: A Review and Assessment*. Journal of Man. Volume 37, Issue 1, Pages 39-67. Retrieved 3rd January 2024 from https://doi.org/10.1177/0149206310388419

Consumer protection: enabling sustainable choices and ending greenwashing. Press release. European Commission (n.d.). Retrieved 29th October 2023 from https://cyprus.representation.ec.europa.eu/news/consumer-protection-enabling-sustainable-choices-and-ending-greenwashing-2023-03-22_en

COOPER, S (2019, paragraphs 6-11). *The evolution of sustainable finance*. Standard Chartered. Retrieved 18th October 2023 from https://www.sc.com/en/feature/the-evolution-of-sustainable-finance/

DE FREITAS NETTO, S V, SOBRAL, M F F, RIBEIRO, A R B ET AL (2020, p. 6). *Concepts and forms of greenwashing: a systematic review*. Environmental Science Europe. Volume 32, Article 19. Retrieved 29th December 2023 from https://doi.org/10.1186/s12302-020-0300-3

DE JONG, M D T, HARKINK, K M, BARTH, S (2018, pp. 89-90). *Making Green Stuff? Effects of Corporate Greenwashing on Consumers.* Journal of Business and Tech Comm, volume 32, Issue 1, Pages 77-112. Retrieved 3rd January 2024 from https://doi.org/10.1177/1050651917729863

EBA Progress Report on Greenwashing Monitoring and Supervision. European Banking Authority, EBA (n.d.) (2023, pp. 23-24). 2023/16. Retrieved 11th November 2023 from https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2023/1055934/EBA%20progress%20report%20on%20greewnwashing.pdf

Environmental claims in the EU. Inventory and reliability assessment. Draft final report (2023, pp. 8-9). Milieu Consulting SRL and IPSOS NV for the EU Commission (n.d.). Retrieved on 29th October 2023 from https://www.qualenergia.it/wp-content/uploads/2023/01/Envclaims_inventory_2020_final_publi.pdf

ESG (Environmental, Social, & Govern). Corporate Finance Institute (n.d.). Retrieved 12th October 2023 from https://corporatefinanceinstitute.com/resources/esg/esg-environmental-social-governance/

Europe leads as ESG investment funds surge 9%. FinTech Global (n.d.). Retrieved 5th November 2023 from https://fintech.global/2023/05/25/europe-leads-as-esg-investment-funds-surge-9/

Final Report on draft Regulatory Technical Standards. European Securities and Markets Authority, ESMA (n.d.). Retrieved 28th October 2023 from https://www.esma.europa.eu/sites/default/files/2023-05/JC_2023_13_-_Final_report_on_ESG_disclosure_for_STS_securitisations.pdf

FinDatEx actualiza la plantilla EET para el intercambio de información sobre sostenibilidad, 2022. FinReg360 (n.d.). Retrieved 19th November 2023 from https://finreg360.com/alerta/findatex-actualiza-la-plantilla-eet-para-el-intercambio-de-informacion-sobre-sostenibilidad/

FLAMMER, C (2021, pp. 503 and 511-514). *Corporate green bonds*. Journal of Financial Economics, Volume 142, Issue 2, Pages 499-516, ISSN 0304-405X. Retrieved 2nd January 2024 from https://doi.org/10.1016/j.jfineco.2021.01.010

FORRESTER, B, LAURA, W, LEE, J ET AL (2021). *Sustainable Finance Disclosure Regulation. Art 8 or "Light Green" Funds.* Deloitte. Retrieved 18th November 2023 from https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/Audit/IE_SustainableFinanceDisclosureReg_Article8Funds.pdf

Frank Herbert. Wikipedia (n.d.). Retrieved 14th October 2023 from https://en.wikipedia.org/wiki/Frank_Herbert

Funds and the State of European Sustainable Finance. Summary. MSCI ESG Research (n.d.). Retrieved on 2nd November 2023 from https://www.msci.com/www/research-report/funds-and-the-state-of-european/03949903501

Governing bodies and workstreams. Financial Data Exchange, FinDatEx (n.d.). Retrieved 19th November 2023 from https://findatex.eu/about/governing-bodies-&-workstreams

Greenwashing. Cambridge English Dictionary (n.d.). Retrieved 29th December 2023 from https://dictionary.cambridge.org/dictionary/english/greenwashing

Greenhouse gas. European Environment Agency (EEA) (n.d.). Retrieved 12th October 2023 from https://www.eea.europa.eu/help/glossary/eea-glossary/greenhouse-gas

Greenwashing. *What is greenwashing?* ClientEarth (n.d.). Retrieved 28th October 2023 from https://www.clientearth.org/what-we-do/priorities/greenwashing/

HAYES, A (2023). *Venture Capital: What Is Venture Capital and How Does It Work?* Investopedia. Retrieved 18th November 2023 from https://www.investopedia.com/terms/v/venturecapital.asp

How do we know climate change is real? NASA Global Climate Change (n.d.). Retrieved 12th October 2023 from https://climate.nasa.gov/evidence/

KREIVI, E (2023). *What is sustainable finance?* European Investment Bank. Retrieved 12th October 2023 from https://www.eib.org/en/stories/what-is-sustainable-finance

LIANG, H, SUN, L, TEO, M (2021, pp. 9-17). *Greenwashing: Evidence from hedge funds*. Singapore Management University. Retrieved 28th October 2023 from https://ink.library.smu.edu.sg/lkcsb_research/6737/

LI, W, LI, W, SEPPÄNEN, V, KOIVUMÄKI, T (2023, p. 826). *Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage*. Business Strategy and the Environment. Volume 32, Issue 1, Pages 820–841. Retrieved from https://doi.org/10.1002/bse.3177

LYON, T P AND MAXWELL, J W (2006, pp. 4-6). *Greenwash: Corporate Environm Disclosure Under Threat of Audit*. Ross School of Business, Paper No. 1055. Retrieved 29th December 2023 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=938988

MAHMOOD, R, SUBRAMANIAN, S, GUO, S (2023, pp. 4-11). *Funds and the State of European Sustainable Finance*. MSCI ESG Res. Retrieved on 2nd November 2023 from https://www.msci.com/documents/10199/f89743d6-037f-bb73-1750-d606482224b0.

Members and resources. Financial Data Exchange, FinDatEx (n.d.). Retrieved 19th November 2023 from https://findatex.eu/about/members-and-resources

Mission statement and objectives. Financial Data Exchange, FinDatEx (n.d.). Retrieved 19th November 2023 from https://findatex.eu/about/mission-statement-and-objectives

NASA Summer 2023 Temperature Media Resources. NASA Earth Observatory (n.d.). Retrieved 12th October 2023 from https://svs.gsfc.nasa.gov/14407

National Oceanic and Atmospheric Administration National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters Report (2023). NOAA (n.d.). Retrieved 12th October 2023 from https://www.ncei.noaa.gov/access/monitoring/monthly-report/national/202310

NEMES, N, SCANLAN, S J, SMITH, P ET AL (2022, p. 5). *An Integrated Framework to Assess Greenwashing*. Sustainability 2022. Volume 14, Issue 8, 4431. Retrieved 29th December 2023 from https://doi.org/10.3390/su14084431

OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. OECD, 2022. Retrieved 3rd January 2024 from https://www.oecd.org/tax/transfer-pricing/oecd-transfer-pricing-guidelines-for-multinational-enterprises-and-tax-administrations-20769717.htm

On the rise: navigating the wave of greenwashing and social washing. RepRisk (n.d.). Retrieved on 29th October 2023 from https://www.reprisk.com/news-research/reports/on-the-rise-navigating-the-wave-of-greenwashing-and-social-washing/20adb3d8

PARTINGTON, M (2023). *HV Capital closes ninth fund of €700m — its largest to date*. Sifted, a media start-up backed by the Financial Times. Retrieved 12th November 2023 from https://sifted.eu/articles/hv-capital-closes-ninth-fund-news

PEI-YI YU, E, VAN LUU E, HUIRONG CHEN, C (2020, pp. 3-14). *Greenwashing in environmental, social and governance disclosures*. Research in International Business and Finance, Volume 52, 101192, ISSN 0275-5319. Retrieved 28th October 2023 from https://doi.org/10.1016/j.ribaf.2020.101192

Perspectivas de la banca responsable. España 2023. Cátedra de Finanzas Sostenibles. UPF Barcelona School of Management (UPF BSM) (n.d.). Executive summary retrieved 8th October 2023 from https://www.gabv.org/wp-content/uploads/2023/07/Perspectivas-de-la-banca-responsable-2023.-Resumen-ejecutivo-y-conclusiones.pdf

PRATTY, F (2023). *All the Article 8 and Article 9 VC funds in Europe.* Sifted, a media start-up backed by the Financial Times. Retrieved 12th November 2023 from https://sifted.eu/articles/article-8-article-9-venture-capital-sfdr

Principal Adverse Impact in SFDR regulation explained, 2022. Impact Institute (n.d.). Retrieved 2nd November 2023 from https://www.impactinstitute.com/pai-proxy-data/

REGGIORI, T (2023). *Banks behind 70% jump in greenwash incidents in 2023*. Reuters. Retrieved 2nd November 2023 from https://www.reuters.com/sustainability/banks-behind-70-jump-greenwashing-incidents-2023-report-2023-10-03/

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 (Text with EEA relevance). PE/87/2019/REV/1. EUR-Lex. Retrieved 25th October 2023 from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088

SILANO, S (2021). *Finding ESG Funds Just Got Easier*. Morningstar Res. Retrieved 12th November 2023 from https://www.morningstar.co.uk/uk/news/211061/finding-esg-funds-just-got-easier.aspx

SFDR reporting timeline: what you have to disclose and when. Worldfavor (n.d.). Retrieved 1st December 2023 from https://blog.worldfavor.com/sfdr-reporting-timeline-what-you-have-to-disclose-and-when

SFDR Templates. European Securities and Markets Authority, ESMA (n.d.). Retrieved 30th November 2023 from https://www.esma.europa.eu/document/sfdr-templates

SFDR: What are articles 6, 8 and 9? Worldfavor Blog (n.d.). Retrieved 18th November 2023 from https://blog.worldfavor.com/sfdr-what-is-article-6-8-9

SEGAL, M (2023). *EU Market Regulator Finds 4x Increase in Use of ESG Language in Fund Names.* ESG today. Retrieved 2nd January 2024 from https://www.esgtoday.com/eu-market-regulators-greenwashing-study-finds-4x-increase-in-use-of-esg-language-in-fund-names/

SMITH, A (2023). *2022 US billion-dollar weather and climate disasters in historical context.* National Oceanic and Atmospheric Administration (NOAA). Retrieved 12th October 2023 from https://www.climate.gov/news-features/blogs/beyond-data/2022-us-billion-dollar-weather-and-climate-disasters-historical

SMITH, T (2023). *Seaya Ventures new sustainability fund gets Article 9 classification. But what does that mean?* Sifted, a media start-up backed by the Financial Times. Retrieved 12th November 2023 from https://sifted.eu/articles/seaya-ventures-sustainability-fund-article-9

Strategy for financing the transition to a sustainable economy. Publications. European Commission (n.d.). Retrieved 11th November 2023 from https://finance.ec.europa.eu/publications/strategy-financing-transition-sustainable-economy_en

Sustainability-related disclosure in the financial services sector. Policy making timeline. European Commission (n.d.). Retrieved 29th December 2023 from https://finance.ec.europa.eu/sustainable-finance/disclosures/sustainability-related-disclosure-financial-services-sector_en

Sustainable Development Goals. National Geographic (n.d.). Retrieved 18th October 2023 from https://education.nationalgeographic.org/resource/sustainable-development-goals/

Sustainable Finance Disclosure Regulation, 2023. Sustainable Investing. Robeco (n.d.). Retrieved 18th November 2023 from https://www.robeco.com/es-es/glosario/inversion-sostenible/sustainable-finance-disclosure-regulation

The European Commission's Action Plan on Financing Sustainable Growth. Green Finance Platform (n.d.). Retrieved 11th November 2023 from https://www.greenfinanceplatform.org/policies-and-regulations/european-commissions-action-plan-financing-sustainable-growth

The Evolution of Sustainable Finance. UN Environment Programme Finance Initiative (UNEP FI) (n.d.). Retrieved 12th October 2023 from https://www.unepfi.org/news/timeline/

The effects of climate change. NASA Global Climate Change (n.d.). Retrieved 12th October 2023 from https://climate.nasa.gov/effects/

The "Six Sins of Greenwashing". A study of Environm Claims in North American Consum Markets. TerraChoice Envir Mark (2007, p. 1). Retrieved 28th October 2023 from https://sustainability.usask.ca/documents/Six_Sins_of_Greenwashing_nov2007.pdf

Top 8 questions on SFDR answered. What happens if you are not compliant with the SFDR? Worldfavor (n.d.). Retrieved 18th November 2023 from https://blog.worldfavor.com/top-8-questions-on-sfdr-answered

TURNER, N (2023). *Article 8 and 9 assets hit €5 trillion as reclassifications slow*. ESG Clarity. Retrieved 18th November 2023 from https://esgclarity.com/article-8-and-9-assets-hit-e5trn-as-reclassifications-slow/

WALSER, G (2023). *RepRisk data shows increase in greenwash with one in three greenwash public comp also linked to soc wash*. Business Wire. Retrieved 2nd January 2023 from https://www.businesswire.com/news/home/20231002910516/en/RepRisk-data-shows-increase-in-greenwashing-with-one-in-three-greenwashing-public-companies-also-linked-to-social-washing

WARNOCK, E (2021). *Europe's biggest climate VC just came out of stealth with a €350m fund*. Sifted, a media start-up backed by the Financial Times. Retrieved 12th November 2023 from https://sifted.eu/articles/europe-largest-climate-vc

What are the effects of climate change on extreme weather? NASA Glob Clim Change (n.d.). Retrieved 12th October 2023 from https://climate.nasa.gov/extreme-weather/

What are the principles for responsible investment? UN Principles for Responsible Investment, UN PRI (n.d.). Retrieved 2nd January 2024 from https://www.unpri.org/about-us/what-are-the-principles-for-responsible-investment

What is a Green Bond? Corporate Finance Institute (n.d.). Retrieved 18th October 2023 from https://corporatefinanceinstitute.com/resources/esg/green-bond/

What is transfer pricing? Tax Justice Network (n.d.). Retrieved 3rd January 2024 from https://taxjustice.net/faq/what-is-transfer-pricing/

Transfer Pricing Documentation. Price Water Coop (n.d.). Retrieved 3rd January 2024 from https://www.pwc.com/mt/en/publications/transfer-pricing-documentation.html

WU, M-W, SHEN, C-H (2013, pp. 3531-3532). *Corporate social responsibility in the banking industry: Motives and financial performance*. Journal of Banking & Finance, Volume 37, Issue 9, 2013, Pages 3529-3547, ISSN 0378-4266. Retrieved 3rd December 2023 from https://doi.org/10.1016/j.jbankfin.2013.04.023

ZHANG, D (2023, pp. 1-3). *Does green finance really inhibit extreme hypocritical ESG risk? A greenwashing perspective exploration*. Energy Economics, Volume 121, 106688, ISSN 0140-9883. Retrieved 28th October 2023 from https://doi.org/10.1016/j.eneco.2023.106688

ZHANG, C, GARVEY, P (2023). *Big swings in 2023, but global sustainable finance remains in rude health*. ING ESG Res. Retrieved 18th October 2023 from https://www.ingwb.com/en/insights/research-reports/big-swings-in-2023-but-global-sustainable-finance-remains-in-rude-health

Sample funds' publicly available electronic resources and reports used[86]

Summa Equity. Reports. Retrieved from https://summaequity.com/annual-reports

Lightrock. Portfolio impact. Retrieved from https://www.lightrock.com

HV Capital. Companies. Retrieved from https://www.hvcapital.com/companies

World Fund. Portfolio. Retrieved from https://www.worldfund.vc/portfolio

Seaya Andromeda. Portfolio. Retrieved from https://seaya.vc/portfolio/

2150. Investments. Retrieved from https://www.2150.vc/investments/

XAnge, Siparex Group. Portfolio. Retrieved from https://www.xange.vc/portfolio/

PlanetA. Start-ups. Retrieved from https://planet-a.com/start-ups/

Extantia Flagship. Portfolio. Retrieved from https://extantia.com/portfolio/

Ace&Company. Portfolio. Retrieved from https://aceandcompany.com/portfolio/

Ananda Impact Ventures. Portfolio Retrieved from https://ananda.vc/portfolio/

Sandwater. Portoflio. Retrieved from https://sandwater.com/portfolio

Butterfly. Portfolio. Retrieved from https://butterfly.vc/portfolio/

Serena. Companies. Retrieved from https://www.serena.vc/our-portfolio/

Serena. Sustainability Report 2021-2022. Retrieved from https://www.serena.vc/wp-content/uploads/2022/12/Sustainability-Report-SERENA-2022-2023.pdf

[86] All official sample fund webpages were retrieved between the 18th and 19th November 2023.