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Bridging the sustainability information gap: an assessment of the European sustainable finance framework

Hartman-Ohnesorge, L.G.L.

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Bridging the Sustainability Information Gap

Bridging the Sustainability Information Gap

An Assessment of the European Sustainable Finance Framework

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Lara Gisela Lieselotte Hartman-Ohnesorge

Promotores: prof. dr. R.P. Raas
prof. dr. W.A.K. Rank
E. Rogge MSc MA LLM PhD

Promotiecommissie: prof. dr. A.G. Castermans
prof. dr. V. Colaert (Katholieke Universiteit Leuven,
België)
prof. dr. H. Koster
prof. dr. C.W.M. Lieveerse (Radboud Universiteit)
dr. C.H.A. van Oostrum

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List of Abbreviations

AD	Accounting Directive
AFM	Dutch Authority for the Financial Markets
CapEx	Capital expenditure
Commission	European Commission
COP	Conference of Parties
CSDDD	Corporate Sustainability Due Diligence Directive
CSRD	Corporate Sustainability Reporting Directive
DNSH	Do no significant harm
E/S objective	Environmental or social objective
ESAP	European Single Access Point
ESG	Environmental, Social and Governance
ESGR	Regulation on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities
ESMA	European Securities and Markets Authority
ESRS	European Sustainability Reporting Standards
EU	European Union
EU SFF	European Sustainable Finance Framework
EuGBR	European Green Bond Standard Regulation
EUR	Euro
FA	Financial adviser
FMP	Financial market participant
FSB	Financial Stability Board
GHG	greenhouse gases
HLEG	High Level Expert Group on Sustainable Finance
IDD	Insurance Distribution Directive
IPCC	Intergovernmental Panel on Climate Change
KPI	Key performance indicator
L&E	Law & Economics
MiFID	Markets in Financial Instruments Directive
NCA	National competent authority
OpEx	Operating expenditure
PAI	Principal Adverse Impacts
PR	Prospectus Regulation
SDG	Sustainable Development Goal
SFDR	Sustainable Finance Disclosure Regulation
SMEs	Small- and medium enterprises
SPT	Sustainability performance target
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union

TSC	Technical screening criteria
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USD	United States Dollar

1 | The EU Sustainable Finance Framework Using Financial Markets to Reach Environmental Objectives

1 INTRODUCTION

Sustainable finance has been defined by the European Commission as “the process of taking due account of environmental and social considerations in investment decision-making, leading to increased investments in longer-term and sustainable activities.”¹ The need for sustainable finance is substantial. In 2021, the European Commission (“Commission”) estimated that there was an annual investment gap of EUR 350 billion to reach its 2030 target and an additional EUR 130 billion to realize its other environmental goals.² By 2023, this assessment had evolved significantly. Incorporating the RePowerEU plan, which promotes the production of clean energy and aims to reduce the European Union’s (“EU”) dependence on Russian fossil fuels, the Commission estimated that an additional annual investment of EUR 620 billion between 2023 and 2030 would be necessary.³ More specifically, the annual additional financing needed for transitioning to a climate-resilient future was estimated at EUR 477 billion in 2023.⁴ In this thesis, I analyse the European Sustainable Finance Framework, a collection of legislation that intends to close this financing gap by creating the informational infrastructure necessary for reorienting private capital toward sustainable economic activities.⁵

1 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 COM/2018/097 final (“Action Plan”).

2 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Empty: Strategy for Financing the Transition to a Sustainable Economy COM/2021/390 final, p. 1.

3 Communication from the Commission to the European Parliament and the Council: 2023 Strategic Foresight Report Sustainability and people’s wellbeing at the heart of Europe’s Open Strategic Autonomy COM/2023/376 final, p. 7.

4 Commission Staff Working Document Investment needs assessment and funding availabilities to strengthen EU’s Net-Zero technology manufacturing capacity SWD(2023) 68 final, p. 3.

5 The Commissions’ overview of the European Sustainable Finance Framework can be found in: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Empty: Strategy for Financing the Transition to a Sustainable Economy COM/2021/390 final, p. 2.

The European Sustainable Finance Framework (“EU SFF”) is comprised of the Corporate Sustainability Reporting Directive (“CSRD”)⁶ and European Sustainability Reporting Standards (“ESRS”),⁷ the Taxonomy Regulation (“TR”),⁸ the Sustainable Finance Disclosure Regulation (“SFDR”),⁹ the European Green Bond Standard Regulation (“EuGBR”),¹⁰ the EU Climate Benchmarks Regulation,¹¹ and the sustainability preferences under the Markets in Financial Instruments Directive II (“MiFID II”).¹² Together, these laws create the legal infrastructure intended to reorient private capital to more sustainable investments. The EU SFF is integrated into existing European financial regulation in two ways. First, some of the legislation directly amends existing financial regulations. Second, by employing the same regulatory strategies that are common in financial regulation. In particular, the EU SFF employs the strategy of enhancing disclosure requirements to foster better investment decisions. The foundational premise of the EU SFF is that increased transparency regarding the sustainability impact, risks, and opportunities enables investors to incorporate sustainability considerations into their investment decisions, increasing the allocation of capital to sustainable investments. In this thesis, I assess the effectiveness of EU SFF in achieving its intended aim of reorienting private capital to sustainable investments. For this, I have formulated the following research question:

To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?

-
- 6 Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (“CSRD”).
 - 7 Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards (“ESRS”).
 - 8 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 (“TR”).
 - 9 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 (“SFDR”).
 - 10 Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds (“EuGBR”).
 - 11 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.
 - 12 Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms.

In this introductory Chapter, I set out three foundational elements for my research. First, in paragraph 2, I discuss the key developments that led to the creation of the EU SFF. Second, I explain how I conceptualize the EU SFF in this research and discuss the three intersecting dimensions of the framework: economic objectives, financial regulations objectives, and environmental aims, in paragraph 3. Third, in paragraph 4, I explain my research question and the methodology that I used to conduct this research.

2 HISTORICAL DEVELOPMENTS

2.1 Introduction

The fundamental physical mechanisms of climate change have been known since the nineteenth century.¹³ Since the 1970s, climatologists have warned of the potentially disastrous consequences of climate change.¹⁴ Today, there is an overwhelming consensus that the recent and predicted global warming is largely caused by human activities, in particular, the emission of greenhouse gases (“GHG”).¹⁵ This is commonly referred to as anthropogenic climate

13 Already in 1827, Joseph Fourier worked on the theory of heat and proposed that the Earth’s atmosphere plays an important role in the planet’s temperature, see: Fleming J.R., “Joseph Fourier, the ‘greenhouse effect’, and the quest for a universal theory of terrestrial temperatures”, *Endeavour* 1999, vol. 23(2), p. 72. In 1859, the Irishman John Tyndall demonstrated that gases, such as CO₂, can absorb heat and wrote that “Thus the atmosphere admits of the entrance of the solar heat; but checks its exit, and the result is a tendency to accumulate heat at the surface of the planet.”, see: Hulme M., “On the origin of ‘the greenhouse effect’: John Tyndall’s 1859 interrogation on nature.”, *Weather* 2009, vol. 64(5), p. 121. In 1896, the Swedish scientist Svante Arrhenius was the first to attempt to calculate how increases in CO₂ would increase surface temperature, see: Anderson T.R., Hawkins E. & Jones P.D., “CO₂, the greenhouse effect and global warming: from the pioneering work of Arrhenius and Callendar to today’s Earth System Models”, *Endeavour* 2016, vol. 40(3), p. 178.

14 Bodansky D., “The United Nations Framework Convention on Climate Change: A Commentary”, *Yale Journal of International Law* 1993, vol. 18(2), p. 451.

15 Cook J., e.a. “Quantifying the consensus on anthropogenic global warming in the scientific literature”, *Environmental Research Letters* 2013, vol. 8(2), 024024. The study examined 11944 abstracts from peer-reviewed scientific literature published between 1991-2011, matching the topics ‘global warming’ or ‘global climate change’. In 4014 abstracts, a position was taken on the human contribution to climate change. Of those, 3896 endorsed that humans contribute to climate change (97,1%), 78 papers reject this conclusion (0,7%), and 40 were uncertain (0,3%). See also: Anderegg W.R.L., e.a., “Expert credibility in climate change”, *Proceedings of the National Academy of Sciences* 2010, vo. 107(27), p. 12107: 97-98% of the 200 most-published climate scientists endorse IPCC conclusion; Doran P.T. & Zimmerman M.K., “Examining the Scientific Consensus on Climate Change”, *Eos*, vol. 90(3), p. 22: of 3146 surveyed Earth scientists, 82% agreed that human activity contributed to climate change, whereas amongst the subset of Earth scientists with the greatest expertise in climate science, the agreement was 97,4%; Cook J., e.a., “Consensus on consensus: a synthesis of consensus estimates on human-caused global warming”, *Environmental Research Letters* 2016, vol. 11(4),

change, which can be opposed to climate change that is caused by natural drivers that are not influenced by human activity.¹⁶

The devastating effects of climate change have given rise to the need for financing that is aimed at “reducing emissions, and enhancing sinks of greenhouse gases and aims at reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impacts,” also known as climate finance.¹⁷ Climate finance is an important part of sustainable finance. A key turning point in climate finance is marked by the United Nations (“UN”) Paris Agreement, which entered into force in 2016. Before the Paris Agreement, there had been a focus on financing climate action through public resources, in particular through aid from developed to developing nations. This approach has shifted toward increasingly incorporating private capital. This shift reflects both the realisation that the need for climate finance exceeds the capacity of the public sector and the realisation that public climate finance is fruitless as long as private capital continues to finance economic activities that exacerbate anthropogenic climate change.

In paragraph 2.2, I outline the UN-level developments that led to the adoption of the Paris Agreement. This historical context at the UN level illustrates how the approach to climate finance has evolved from relying exclusively on public resources to integrating private investment. In paragraph 2.3, I examine the European policy landscape developments that ensued after the Paris Agreement. To provide a comprehensive understanding, I first provide an overview of European policy in the years before the Paris Agreement, which demonstrates how private investment gradually became a component of climate finance. This is followed by an analysis of the policy initiatives introduced after the conclusion of the Paris Agreement. While a broader regulatory framework for climate action exists, I limit my discussion to private financing of climate action, in line with the topic of this research.

048002: reviewing studies that review the consensus of climate change, a consensus on human-induced climate change of around 90-100% is found.

16 Höök M. & Tang X., “Depletion of fossil fuels and anthropogenic climate change – A review”, *Energy Policy* 2013, vol. 52, p. 797; Hulme M., e.a., “Relative impacts of human-induced climate change and natural climate variability”, *Nature* 1999, vol. 397, p. 688.

17 United Nations Framework Convention on Climate Change, Standing Committee on Finance, 2014 Biennial Assessment and Overview of Climate Finance Flows Report (2014), available at: https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/2014_biennial_assessment_and_overview_of_climate_finance_flows_report_web.pdf, accessed: 25 March 2025.

2.2 Climate Finance at the International Level

2.2.1 Climate Finance at the UN Level

The history of climate finance on an international level can be traced back to the 1972 United Nations Stockholm Declaration and Action Plan, which identified financial resources as one of four supporting measures of environmental assessments and management and recommended the establishment of an Environment Fund.¹⁸ This fund levelled off at around USD 30 million annually in the following years.¹⁹ Soon, this voluntary funding base was found to be too little to adequately perform its task.²⁰ In 1988, governments requested the World Meteorological Organization and the UN Environment Programme to set up the Intergovernmental Panel on Climate Change (“IPCC”), with the mandate to “provide internationally coordinated assessments of the magnitude, timing and potential environmental and socio-economic impact of climate change and realistic response strategies.”²¹ In the following year, the UN General Assembly adopted a resolution to establish an Intergovernmental Negotiating Committee to start preparations for negotiations on a framework convention on climate change.²² Shortly thereafter, the IPCC published its First Assessment Report, which predicted an average global mean temperature rise of 0.3°C per decade in the next century.²³ However, in a world heavily dependent on fossil fuels, the trade-off between combating climate change and fostering economic growth was – and still is – the most prominent obstacle to realizing a globally cohesive and effective policy on climate change.²⁴

18 Report of the United Nations Conference on the Human Environment, A/CONF.48/14/Rev.1 (Stockholm Declaration and Action Plan) (1972), Part I, Chapter II A. Framework for environmental action.

19 Report of the United Nations Conference on the Human Environment, A/CONF.48/14/Rev.1 (Stockholm Declaration and Action Plan) (1972), Part I, Chapter III, Resolution on International and Financial Arrangements, section III Environment Fund.

20 United Nations Report of the World Commission on Environment, Our Common Future, A/42/427 (Brundtland Report) (1987), Section 2.2.4 Increase the Revenue and Focus of the Environment Fund.

21 United Nations Resolution adopted by the General Assembly (43rd session), Protection of global climate for present and future generations of mankind, A/RES/43/53 (1988).

22 United Nations Resolution adopted by the General Assembly (44th session), Protection of global climate for present and future generations of mankind, A/RES/44/207 (1989), calling on states “to prepare as a matter of urgency a framework convention on climate, and associated protocols containing concrete commitments in the light of priorities that may be authoritatively identified on the basis of sound scientific knowledge, and taking into account the specific development needs of developing countries”.

23 Houghton J.T., Jenkins G.J. & Ephraums J.J. (eds.), *Climate Change: the IPCC Scientific Assessment*, Cambridge University Press 1990, at xvi, table 1.

24 Bodansky D., “The United Nations Framework Convention on Climate Change: A Commentary”, *Yale Journal of International Law* 1993, vol. 18(2), p. 451, p. 475.

Moreover, the diverging interests of states had a dampening effect on the willingness to commit resources to resolve the problem.²⁵

In 1992, the Intergovernmental Negotiating Committee drafted the United Nations Framework Convention on Climate Change (“UNFCCC”). The ultimate objective of the UNFCCC is to stabilize “(...) greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (...)”.²⁶ The framework convention does not set out a binding legal obligation to take action to limit anthropogenic climate change. Instead, it sets out the processes by which actions to reach its aims shall be negotiated.²⁷ For example, article 7 UNFCCC sets out the establishment of a Conference of Parties (“COP”) that “shall, within its mandate, make the decisions necessary to promote the effective implementation of the Convention.” Today, the UNFCCC has 198 parties, including the European Union.²⁸

Article 11 UNFCCC establishes a mechanism for the provision of financial resources that are necessary to realize the UNFCCC’s objectives. According to article 11 (2) UNFCCC, “[t]he financial mechanism shall have an equitable and balanced representation of all Parties within a transparent system of governance”. A key concept thus is that, while climate change impacts all nations, the contribution to resolve the problem should be based on the economic capacity and the historical emissions of a state – also known as the principle of Common But Differentiated Responsibilities.²⁹ The financial mechanism comprises the provision of resources on a grant or concessional basis, the specific arrangements of which have to be agreed upon by a COP.³⁰ However, as the UNFCCC is a framework convention, the financial mechanism does not contain any binding obligations to contribute financial resources to

25 See for an inventory of obstacles to the INC’s work: Bodansky D., “The United Nations Framework Convention on Climate Change: A Commentary”, *Yale Journal of International Law* 1993, vol. 18(2), p. 451, 475.

26 Article 2 UNFCCC.

27 An overview of the working of the UNFCCC can be consulted in: Freestone D., “The United Nations Framework Convention on Climate Change – The Basis for the Climate Change Regime”, in: Gray K.R., Tarasofsky R. & Carlarne C.P. (eds.), *The Oxford Handbook of International Climate Change Law*, Oxford University Press 2016, p. 97-119.

28 United Nations, Parties to the United Nations Framework Convention on Climate Change, available at: <https://unfccc.int/process/parties-non-party-stakeholders/parties-convention-and-observer-states>, accessed on 30 December 2024.

29 The principle of Common But Differentiated Responsibilities (CBDR) is mentioned both in article 3 (1) UNFCCC: “[t]he Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities” and article 4(1) UNFCCC: “All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall: (...)” See also: Stone C.D., “Common but Differentiated Responsibilities in International Law”, *American Journal of International Law* 2024, vol. 98(2), p. 276.

30 Article 11 UNFCCC.

climate change mitigation and adaptation. Instead, further mechanisms and funds were established in line with article 11 UNFCCC in various COPs, including the 2009 Copenhagen Accord which set out the goal to jointly mobilize USD 100 billion annually from “a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance” by 2020.³¹

2.2.2 Paris Agreement

On 4 November 2016, the Paris Agreement entered into force.³² The goal of the Agreement is “[h]olding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”³³ Similar to prior international efforts, climate finance in the Paris Agreement mainly revolves around public financial aid, as is reflected in articles 9, 10, and 11, which focus on resources to be provided in line with the principle of Common But Differentiated Responsibilities.

The Paris Agreement, however, also contains a novel type of financial commitment in article 2 (1) (c): “Making financial flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development.” The phrase “financial flows” is not defined in the Paris Agreement, but it can be assumed that the term encompasses both public and private financial capital. There are two reasons for this. The first is that article 2 of the Paris Agreement contains the general aims of the Agreement, which should be interpreted more broadly than public funding discussed in articles 9-11 of the Paris Agreement.³⁴ Second, a broad understanding is in line with the definition of climate finance used by the UNFCCC Standing Committee on Finance: financing that aims at “reducing emissions, and enhancing sinks of greenhouse gases and aims at reducing vulnerability of, and maintaining and

31 United Nations Report of the Conference of the Parties on its 15th session, held in Copenhagen from 7 to 19 December 2009: addendum, FCCC/CP/2009/11/Add.1 (Copenhagen Report) (2009), p. 7.

32 In the same year as the Paris Agreement was concluded, the UN General Assembly set out the Sustainable Development Goals (SDGs) in a resolution called the 2030 Agenda (United Nations Resolution adopted by the General Assembly (70th session), Transforming our world: the 2030 Agenda for Sustainable Development, A/RES/70/1 (2015)). SDG 13 is to “Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy.” This SDG has five targets, most of which are directed at resilience against and adaptation to climate-related disasters, integration of climate change measures into policy and planning, building knowledge and capacity, implementing the UNFCCC, and promoting mechanisms to raise capacity for planning and management.

33 Article 2 (1) (a) Paris Agreement.

34 Calster G. van & Reins L. (eds.), *The Paris Agreement on Climate Change: A Commentary*, Edgard Elgar 2021, p. 83.

increasing the resilience of, human and ecological systems to negative climate change impacts”, which is not limited to public financing alone.³⁵ Importantly, article 2 (1) (c) of the Paris Agreement can be seen as a step in recognizing that public funding can never suffice for effective climate mitigation and adaptation, especially as long as private capital continues to be used to fund economic activities that exploit environmental resources and contribute to climate change.

The inclusion of climate finance in article 2 of the Paris Agreement elevates it to one of the main objectives of the Agreement.³⁶ However, although climate finance has become an explicit aim, the Paris Agreement does not establish any binding obligations for its members. Rather than imposing the commitment to enhance climate finance, the alignment of financial flows is merely an aspiration. Nonetheless, article 2 (1) (c) of the Paris Agreement is a crucial development that has shaped the climate finance policy of the EU, including the EU SFF.

2.3 Sustainable Finance at EU Level

2.3.1 *From Public to Private Capital in Pre-Paris Agreement European Policy*

The gradual shift from public to private capital in climate finance can also be observed in policy pieces at EU level. For example, in 2009, the European Commission presented a blueprint on climate finance.³⁷ The blueprint focussed heavily on the financing need of developing countries, estimating this would be around EUR 100 million annually by 2020.³⁸ The Commission wrote that it is “very often wrongly assumed to be the necessary contribution from public budgets of developed countries” and stressed that to generate the necessary financial flows, a mix of sources must be called upon, including (1) domestic

35 United Nations Framework Convention on Climate Change, Standing Committee on Finance, 2014 Biennial Assessment and Overview of Climate Finance Flows Report (2014), available at: https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/2014_biennial_assessment_and_overview_of_climate_finance_flows_report_web.pdf, accessed on 31 March 2025.

36 Calster G. van & Reins L. (eds.), *The Paris Agreement on Climate Change: A Commentary*, Edgard Elgar 2021, p. 73-74.

37 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Stepping up international climate finance: A European blueprint for the Copenhagen deal COM(2009) 475 final.

38 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Stepping up international climate finance: A European blueprint for the Copenhagen deal COM(2009) 475 final.

public and private finance, (2) flows leveraged by the carbon market, and (3) international public finance.³⁹

In 2010, the Commission presented *Europe 2020: A strategy for smart, sustainable and inclusive growth*.⁴⁰ Written during the direct aftermath of the 2008 financial crisis, the report strongly emphasized economic and social progress and warned against a return to business as usual. One of the main priorities identified by the Commission was sustainable growth: “promoting a more resource efficient, greener and more competitive economy.”⁴¹ Moreover, the Commission emphasized the need to mobilize EU financial instruments and create a funding strategy that contained both public and private funding.⁴²

Commission communications and European Council conclusions from the late 00’s and early 10’s also stressed that private finance is key to scaling up climate finance.⁴³ Anticipating the Paris Agreement in 2014, the Council described private investments as a “key source” and having a complementary role, stressing the need for transparency and common understanding of climate finance.⁴⁴ Nonetheless, public financing initiatives were dominant at that time.⁴⁵

Until the Paris Agreement, private resources were part of the general policy on climate finance, but this was usually in the context of the financial commitments made to developing countries. The most important exception to this is the European Emission Trading System, which targets the climate position

39 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Stepping up international climate finance: A European blueprint for the Copenhagen deal COM(2009) 475 final, p. 4.

40 Communication from the Commission: EUROPE 2020 A strategy for smart, sustainable and inclusive growth COM(2010) 2020 final.

41 Communication from the Commission: EUROPE 2020 A strategy for smart, sustainable and inclusive growth COM(2010) 2020 final, p. 3.

42 Communication from the Commission: EUROPE 2020 A strategy for smart, sustainable and inclusive growth COM(2010) 2020 final, p. 14.

43 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: International climate policy post-Copenhagen: Acting now to reinvigorate global action on climate change COM(2010) 86 final, p. 11; Council of the European Union, Press Release: Outcome of the Council Meeting 3264th Council meeting Economic and Financial Affairs, 15 October 2013, 14714/13, para. 9.

44 Council of the European Union, Press Release: Outcome of the Council Meeting 3343rd Council meeting Economic and Financial Affairs, 7 November 2014, 15211/14, para. 5, 11.

45 These include the pledges of EU Member States to the Green Climate Fund, committing to the annual USD 100 billion goal from the Copenhagen/Cancun convention, the EU External Investment Plan, the EU flagship initiative Global Climate Change Alliance+, see: European Commission, “International climate finance – How the EU supports climate action in developing economies across the world”, available at: https://ec.europa.eu/clima/eu-action/international-action-climate-change/international-climate-finance_nl, accessed on 31 March 2025.

of private enterprises through tradeable emission allowances, thus forcing polluters to make a monetary commitment by either purchasing permits or reducing emissions.⁴⁶ This can be seen as a typical market-based solution to the efficiency problem at the core of climate change, as transferrable rights are attributed to the permission to pollute.⁴⁷

2.3.2 Private Sustainable Finance in Post-Paris European Policy

From 2015 onward, there has been a shift in how private investment is discussed in policy documents on climate finance. The Council of the European Union's conclusions, which establish the EU's political position, began to explicitly identify the private sector as a crucial actor in redirecting capital toward low-carbon and climate-resilient investments.⁴⁸ This shift in perspective was further stressed in subsequent Council conclusions, which emphasized the EU's efforts to align investment incentives with climate objectives, notably within the framework of the Capital Markets Union, which sets out the plans to create a single capital market within the EU.⁴⁹ The 2017 conclusion pushes on the need to develop a framework to achieve the aim of article 2 (1) (c) Paris Agreement by mobilising private finance.⁵⁰

The work of the Financial Stability Boards' ("FSB") Task Force on Climate Related Disclosures ("TCFD") also had significant influence on the shaping of EU policy for mobilising finance. The FSB includes the G20 states, the members of the Financial Stability Forum, and the European Commission and monitors international financial stability. In 2017, the FSB Task Force on Climate-related Financial Disclosures published a report on the impact of global warming on financial markets and developed recommendations for climate-related disclosures. The Task Force concluded that from climate change, two types of risks put pressure on long-term financial stability: transition risks and physical risks.⁵¹ Physical risks are those that relate to the physical damage caused by climate change, such as flooding, droughts, and storms.⁵² Transition

46 See in general: Bogojevic S., *Emission Trading Schemes: Markets, States and Law*, Bloomsbury Publishing 2013.

47 Weber R.H., "Emission Trading Schemes: A Coasean Answer to Climate Change?", in: Mathis K. & Huber B.R. (eds.), *Environmental Law and Economics*, Springer 2017, p. 355.

48 Council of the European Union, Press Release: Outcome of the Council Meeting 3421st Council meeting Economic and Financial Affairs, 10 November 2015, 13830/15, para. 7.

49 Council of the European Union, Press Release: Outcome of the Council Meeting 3488th Council meeting Economic and Financial Affairs, 11 October 2016, 13111/16, para. 11.

50 Council conclusion on Climate Finance, Outcome of the Council Meeting 3563rd Council meeting Economic and Financial Affairs, 10 October 2017, 12975/17.

51 Financial Stability Board, "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures", *Financial Stability Board* 2017, p. 5-6.

52 Financial Stability Board, "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures", *Financial Stability Board* 2017, p. 6. Note that the recommenda-

risks refer to financial risks that stem from the transition to a low-carbon economy.⁵³ Transition risks encompass legal and policy risks, such as changes in regulation and climate change litigation.⁵⁴ At the same time, the Task Force also emphasized that climate change mitigation and adaption provided for investment opportunities.⁵⁵ To adequately assess these risks and opportunities, financial markets need to be informed sufficiently about them. The Task Force thus developed recommendations on climate-related disclosures on the areas of governance, strategy, risk management, and metrics and targets, specifying what type of information a company should disclose on these.⁵⁶

In March 2018, the European Commission published the *Action Plan: Financing Sustainable Growth*, which refers to the work of the HLEG and FSB.⁵⁷ The Action Plan sets out strategies for connecting finance and sustainability. For this, the Commission defined the term sustainable finance as “the process of taking due account of environmental and social considerations in investment decision-making, leading to increased investments in longer-term and sustainable activities.”⁵⁸ The Action Plan thereby is exemplary for the policy shift from climate financing, focused specifically on the causes and consequences of climate change, to sustainable finance, which encompasses a broader spectrum of considerations that include social dimensions. The Action Plan has three overarching aims.⁵⁹ Within these three aims, a total of ten key actions are identified:

1. Reorienting capital flows toward a more sustainable economy
 - a. Establishing a clear and detailed EU taxonomy, a classification system for sustainable finance

tion to disclose climate-related financial risk does not specifically relate to disclosures in prospectuses but more generally to, for example, annual financial reporting.

53 Financial Stability Board, “Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures”, *Financial Stability Board* 2017, p. 5.

54 Pouikli K., “Editorial: a short history of the climate change litigation boom across Europe”, *ERA Forum* 2022, vol. 22, p. 569, 577-578.

55 Financial Stability Board, “Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures”, *Financial Stability Board* 2017, p. 6-7.

56 Financial Stability Board, “Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures”, *Financial Stability Board* 2017, p. 13 ff.

57 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 COM/2018/097 final.

58 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 COM/2018/097 final, p. 2.

59 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 COM/2018/097 final.

- b. Creating an EU Green Bond Standard and labels for green financial products
 - c. Fostering investment in sustainable projects
 - d. Incorporating sustainability in financial advice
 - e. Developing sustainability benchmarks
- 2. Mainstreaming sustainability into risk management
 - a. Better integrating sustainability in ratings and market research
 - b. Clarifying asset managers' and institutional investors' duties regarding sustainability
 - c. Introducing a 'green supporting factor' in the EU prudential rules for banks and insurance companies
- 3. Fostering transparency and long-termism
 - a. Strengthening sustainability disclosure and accounting rule-making
 - b. Fostering sustainable corporate governance and attenuating short-termism in capital markets

In June 2018, the Commission set up the HLEG, with the aim of aiding in the realisation of the Action Plan by developing “1) a unified classification system for sustainable economic activities, 2) an EU green bond standard, 3) benchmarks for low-carbon investment strategies, and 4) guidance to improve corporate disclosure of climate-related information.”⁶⁰ The final report was published at the beginning of 2018 and set out two main action points: that the contributions of finance to sustainable growth need to be enhanced and that financial stability must be maintained by broadening the perception of financial risks.⁶¹ This research focuses on the first aim of the Action plan: “to channel private financial flows into relevant economic activities.”⁶² The first aim has been further developed and refined in the 2021 Strategy for Financing the Transition to a Sustainable Economy.⁶³ Herein, the Commission sets out the legislative components of the EU SFF, which will be discussed in the paragraph 3.

Two years prior to the Strategy for Financing the Transition to a Sustainable Economy, the Commission published the Green Deal, a growth strategy for the EU for the coming 30 years which sets out the mechanisms by which

60 Technical Expert Group on Sustainable Finance, “Financing a Sustainable European Economy: Report on Climate-related Disclosures”, *European Commission* January 2019, p. 3.

61 High-Level Expert Group on Sustainable Finance, “Financing a Sustainable European Economy, Final Report”, *European Commission* 2018.

62 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Empty: Strategy for Financing the Transition to a Sustainable Economy COM/2021/390 final.

63 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Empty: Strategy for Financing the Transition to a Sustainable Economy COM/2021/390 final.

Europe should become climate neutral.⁶⁴ To this end, the Green Deal contains around 20 different proposals in a wide range of policy areas, including agriculture, industry, transport, research and innovation. The financing of the Green Deal is laid out in the Sustainable Europe Investment Plan.⁶⁵ The Green Deal and its financing parallels overlaps with the aforementioned Strategy for Financing the Transition to a Sustainable Economy. Together, these policy developments led to the adoption of the legislation that forms the EU SFF, which is discussed in the next paragraph.

In June 2023, the European Council tasked Enrico Letta to write a report on the future of the European Single Market, which was published in April 2024.⁶⁶ The report describes that European businesses face significant bureaucratic burdens “due to the overlapping regulations and administrative complexities generated by the EU’s complex multilevel governance system” but does not explicitly mention the sustainable finance legislation as part of this problem.⁶⁷ The Draghi report, published in September 2024, singles out the sustainable finance reporting requirements under the CSRD/ESRS as an excessive burden that slows the economic growth and competitiveness of the EU.⁶⁸ In a similar spirit, the Budapest Declaration of November 2024, wherein European Heads of State and Government have called for a simplification of the regulatory framework, in particular for SMEs, calls for a reduction of reporting requirements of at least 25%.⁶⁹ Following the start of the second

64 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 COM/2019/640 final; see also: Claey's G., e.a., “How to make the European Green Deal work”, *Breugel Policy Contribution* 2019; Krämer L., “Planning for Climate and the Environment: the EU Green Deal”, *Journal for European Environmental & Planning Law* 2020, vol. 17(3), p. 267, 269.

65 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Sustainable Europe Investment Plan European Green Deal Investment Plan COM/2020/21 final.

66 Letta, E., “Much more than a Market – Speed, Security, Solidarity Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens”, April 2024, available at: <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>.

67 Letta, E., “Much more than a Market – Speed, Security, Solidarity Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens”, April 2024, available at: <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>, p. 10.

68 European Commission, The Draghi report: A competitiveness strategy for Europe (Part A): A competitiveness strategy for Europe, September 2024, available at: https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en; European Commission, The Draghi report: In-depth analysis and recommendations (Part B): In-depth analysis and recommendations, September 2024 available at: https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en.

69 European Council, Press Release, Budapest Declaration on the New European Competitive-ness Deal, 8 November 2024, available at: <https://www.consilium.europa.eu/en/press/press-releases/2024/11/08/the-budapest-declaration/>, point 4.

mandate of the European Commission under Ursula von der Leyen on 1 December 2024, *A Competitiveness Compass for the EU* was published on 29 January 2025, which recognises the message of both the Letta and the Draghi report.⁷⁰ In the Competitiveness Compass, the Commission sets itself the goal to reduce reporting burdens “at least 25% for all companies and at least 35% for SMEs” and announces the publication of a series of Omnibus packages.⁷¹ Consequently, Omnibus I and II were published on 26 February 2025, containing proposals to amend the CSRD and CSDDD.⁷² On 17 April 2025, the so-called Stop the Clock Directive entered into, which postponed the application of the CSRD and CSDDD, creating time for amending those two Directives.⁷³

At the time of completion of this, 31 October 2025, the legal status of the EU SFF thus is facing substantive and far-reaching changes. Whereas the only legally binding amendment at this date is the Stop the Clock Directive, several impactful developments are on their way:

- The scope and content of the CSRD is under negotiation, with an expected 80% of companies being removed from the current scope⁷⁴
- The ESRS are under revision, with a planned elimination of sector-specific ESRS⁷⁵

70 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: A Competitiveness Compass for the EU COM(2025) 30 final.

71 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: A Competitiveness Compass for the EU COM(2025) 30 final, p. 17-18.

72 Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirements COM(2025) 80 final (Omnibus I); Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives 2006/43/EC, 2013/34/EU, (EU) 2022/2464 and (EU) 2024/1760 as regards certain corporate sustainability reporting and due diligence requirements COM(2025) 81 final (Omnibus II).

73 Article 1 and 2 Directive (EU) 2025/794 of the European Parliament and of the Council of 14 April 2025 amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirements.

74 Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirements COM(2025) 80 final (Omnibus I): “The number of undertakings subject to mandatory sustainability reporting requirements would be reduced by about 80%”.

75 Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirements COM(2025) 80 final (Omnibus I): “There would be no sector-specific reporting standards, so avoiding an increase in the number of prescribed datapoints that undertakings should report.”

- Delegated Acts under the Taxonomy Regulation are amended⁷⁶
- And the SFDR is expected to be overhauled in the fall of 2025.⁷⁷

This thesis evaluates the EU SFF in its legally binding form as of 31 October 2025, when no substantive modifications to the framework had been formally adopted.

3 THE EUROPEAN SUSTAINABLE FINANCE FRAMEWORK

3.1 Introduction

Based on the international and European policy initiatives that have ultimately resulted in the EU SFF, the conclusion may be reached that the EU SFF is primarily about sustainability as it stems from the necessity to take climate mitigation and adaptation measures. A closer look at the EU SFF, however, reveals that the framework is at least as much about general economic policy and financial markets regulation specifically as it is about sustainability. In this paragraph, I set out the building blocks of the EU SFF, first by discussing the overview of the framework released by the Commission in paragraph 3.2 and then by presenting my own conceptualisation of the EU SFF, which serves as the basis for this entire thesis in paragraph 3.3. Subsequently, I discuss how the EU SFF combines the three policy aims of economic progress, financial market regulation, and sustainability in paragraph 3.4.

3.2 Overview of the EU SFF Presented by the Commission

In *Strategy for Financing the Transition to a Sustainable Economy*, the Commission presents the EU SFF as consisting of three building blocks: 1. EU Taxonomy, 2. Disclosures, and 3. Tools, as can be seen in the following image that has been presented in the ‘Strategy for Financing the Transition to a Sustainable Economy’.

76 COMMISSION DELEGATED REGULATION (EU) .../... amending Commission Delegated Regulation (EU) 2021/2178 as regards the simplification of the content and presentation of information to be disclosed concerning environmentally sustainable activities and Commission Delegated Regulations (EU) 2021/2139 and (EU) 2023/2486 as regards simplification of certain technical screening criteria for determining whether economic activities cause no significant harm to environmental objectives.

77 European Parliament, Briefing, Review of Regulation (EU) 2019/2088 on sustainability-related disclosures in financial services, 9 October 2025, available at: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/774660/EPRS_BRI\(2025\)774660_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/774660/EPRS_BRI(2025)774660_EN.pdf).

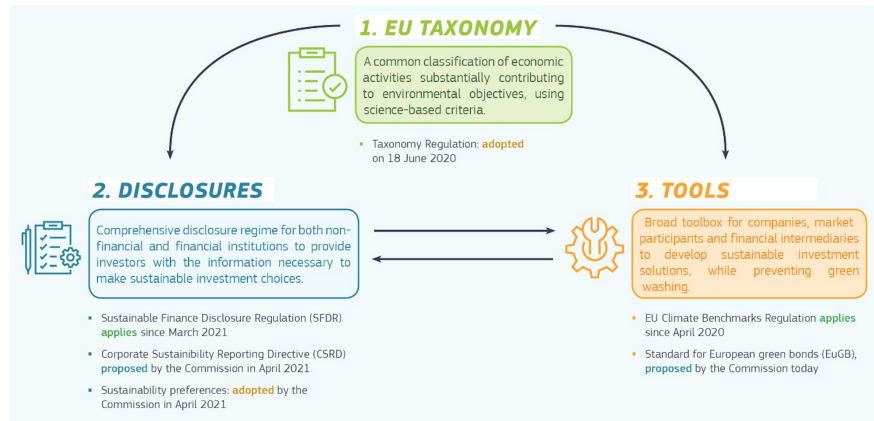


Figure 1: The Foundations of the EU Sustainable Finance Framework. Source: Commission Communication, *Strategy for Financing the Transition to a Sustainable Economy*, COM(2021) 390 final, p. 2.

The first building block of the EU SFF in the overview of the Commission is the Taxonomy, a classification system for environmentally sustainable economic activities. As a general rule, to qualify as an environmentally sustainable economic activity, the activity must contribute to the environmental objectives set out in the regulation.⁷⁸ The Taxonomy Regulation applies both to businesses subject to the CSRD and to businesses subject to the SFDR.⁷⁹ Moreover, when businesses issue bonds that are Taxonomy-aligned, they can use the label European Green Bond for these securities.

The second building block in the overview from the Commission is the disclosures, which aim to inform the market about the sustainability risks and impacts. Here, the Commission groups together three regulatory initiatives.⁸⁰ First, the SFDR, which applies to financial market participants and financial advisers, obliges them to disclose both on entity and product level the sustainability risks and the sustainability impacts of investments to their clients.⁸¹ These are financial businesses that act as intermediaries between the companies who are active in the real economy and are searching to raise capital on financial markets and investors who are investing in those real economy companies by purchasing their shares or other financial instruments. The second legislative initiative is the CSRD, integrated into the Accounting Directive ("AD"). The CSRD applies to European credit institutions, insurance companies, large companies, and listed companies and obliges them to report

⁷⁸ Article 3 TR.

⁷⁹ Article 1 (2) (c) TR.

⁸⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Empty: *Strategy for Financing the Transition to a Sustainable Economy* COM/2021/390 final, p. 2.

⁸¹ Article 1 and 2 and 6 SFDR.

their sustainability impacts, risks and opportunities in accordance with the rules described in the ESRS. These are the businesses that are active in the real economy, searching to raise capital on financial markets by issuing financial instruments, the issuers. The third legislative initiative is the Sustainability Preferences, integrated into the MiFID II framework⁸² and the Insurance Distribution Directive (“IDD”),⁸³ so that sustainability preferences are systematically considered when recommending financial instruments and products to clients.⁸⁴

The third building block is the tools, consisting of the EuGBR and the EU Climate Benchmarks, integrated into the Benchmark Regulation.⁸⁵ The EuGBR is a designation that issuers can use for their bonds if the proceeds are used to finance Taxonomy-aligned activities; the Benchmark Regulation contains rules on how to determine how aligned an investment portfolio is to either the EU Climate Transition Benchmark or the EU Paris-aligned Benchmark.

3.3 The Conceptualisation of the EU SFF Used in this Thesis

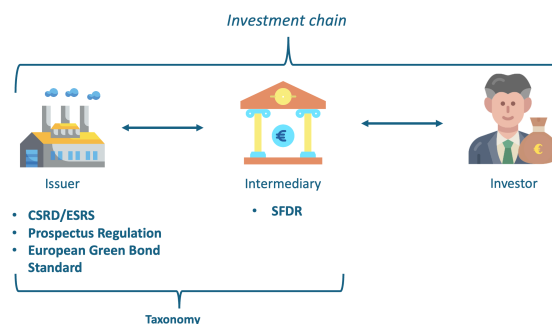


Figure 2: Conceptualisation of the EU SFF used in this thesis. Source: Own image.

82 Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms.

83 Commission Delegated Regulation (EU) 2021/1257 of 21 April 2021 amending Delegated Regulations (EU) 2017/2358 and (EU) 2017/2359 as regards the integration of sustainability factors, risks and preferences into the product oversight and governance requirements for insurance undertakings and insurance distributors and into the rules on conduct of business and investment advice for insurance-based investment products.

84 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: EU Taxonomy, Corporate Sustainability Reporting, Sustainability Preferences and Fiduciary Duties: Directing finance towards the European Green Deal COM/2021/188 final.

85 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.

In this thesis, I approach the EU SFF through the investment chain, which encompasses three actors: (i) the issuers, as the primary actors in whom capital is invested, (ii) the intermediaries, who facilitate the investment process, and (iii) the investors, whose capital is used to finance the issuers' business activities. This approach, which is visually represented in the image above, demonstrates how the EU SFF creates an information infrastructure that allows sustainability information to travel from issuers to investors, enabling them to make better informed investment decisions that incorporate sustainability information. By approaching the EU SFF through the investment chain and the information flow therein, this approach aids in the understanding of how the framework combines its two core objectives: (a) the investor-driven reallocation of capital by means of disclosures and (b) tangible environmental progress.

The inclusion of the Prospectus Regulation ("PR"), which is not a part of the Commissions' EU SFF, is necessary in this overview as the regulation plays a critical role in the transmission of information from issuer to intermediary: the PR mandates the publication of a prospectus by issuers upon issuing securities, which will likely contain sustainability information. It, therefore, becomes a critical instrument in the transmission of information from issuer to investor. Conversely, my approach excludes the sustainability preferences under MiFID II and the EU Climate Benchmarks, as these do not primarily concern the disclosure of information towards investors.⁸⁶

I have chosen to use this approach instead of the overview of the Commission for three reasons. First, it better clarifies the central idea of the EU SFF, namely that sustainability information is generated and regulated at different levels in the investment chain and that this flow of information enables investors to incorporate sustainability considerations into their investment decisions. After all, without sufficient sustainability information, the investor-driven reallocation of capital to sustainable investments is unlikely to take place.

Second, this approach clarifies how the three main categories of actors are affected by the EU SFF and how they relate to one another. Throughout this thesis, I use this categorisation of actors:

1. *The issuers* – the businesses that are active in the real economy and finance their activities by issuing securities. The issuers play a direct role in the transition to a climate-neutral society as they have a direct impact on sustainability matters through their business activities, for example, by

⁸⁶ For the same reason, other legislation that could be encompassed under the broad term sustainable finance is excluded from this research as it does not primarily concern the obligation to disclose sustainability information to investors. This exclusion applies to prudential legislation (including the management of ESG risks in capital requirements and ideas for green supporting or brown penalizing factors), as well as the Corporate Sustainability Due Diligence Directive, which primarily targets corporate behaviour rather than the disclosure of information to investors.

emitting GHG in their production processes. Ultimately, all sustainability information that investors receive should, therefore, reflect the sustainability impacts, risks, and opportunities at issuer level.

2. *The intermediaries* – the businesses that facilitate the exchange between investors and issuers. Intermediaries are not active in the real economy: they do not produce tangible goods or provide services in the real economy and may therefore have a more limited sustainability impact than the issuers active in the real economy. The intermediaries play an important role in safeguarding the integrity of the sustainability information about issuers and preventing relevant information from being deformed or lost. Although the group of intermediaries facilitating the exchange between issuers and investors is extremely wide, encompassing, for example, all parties involved in securities custody, my research focuses specifically on ‘financial advisers’ and ‘financial market participants’, who are directly regulated under the EU SFF.⁸⁷ The scope of my research deliberately excludes financial businesses that fulfil intermediary roles but fall outside EU SFF regulation.
3. *The investors* – the actors whose capital is used to finance the issuers. The investors are actors for whose benefit the EU SFF has been designed: they should be informed about the sustainability risks and effects of their investments, enabling them to make decisions that take sustainability considerations into account. Investors, thus, simultaneously are the market participants in need of protection and the market participants that yield the power to decide which projects receive funding. Although the group of investors is diverse in terms of professionalism, expertise, and information needs, the EU SFF does not differentiate between investor types. I adopt this approach in my conceptualization of the EU SFF.

The third advantage of my overview of the EU SFF is that it demonstrates how the different legislation applies to different actors. The issuers, to whose sustainability impact, risks, and opportunities the information flow ultimately should pertain, are regulated by the CSRD/ESRS, the PR, and the EuGBR. These are disclosure requirements that require issuers to generate information about themselves so that investors can make an investment decision on whether the securities issued by the issuer are a suitable investment for them. The intermediaries are regulated by the SFDR, which requires them to transmit sustainability information about the issuers to the investors. Both issuer and intermediary are affected by the Taxonomy, which unifies the definition of ‘environmentally sustainable economic activity’.

⁸⁷ Financial advisers and financial market participants are both defined terms in the sense of article 2 SFDR and are regulated under that Regulation.

3.4 The Three Dimensions of the EU SFF

The EU SFF, with its legislation on integrating sustainability disclosures into financial market regulation, may be characterised as primarily concerning environmental sustainability. However, this characterisation overlooks that the EU SFF comprises three policy dimensions: economic growth, the functioning of financial markets, and environmental sustainability.

3.4.1 *The Economic Dimension*

The economic dimension of the EU SFF can be observed in the characterisation of the framework as an internal market initiative. This economic framing is manifested in two ways. First, the rhetoric contained in the legislation and the policy documents surrounding the EU SFF focuses strongly on an economic narrative. Second, the constitutional basis of the EU SFF is article 114 of the Treaty on the Functioning of the European Union (“TFEU”), the creation of the internal market.

3.4.1.1 *Economic Narrative*

The economic narrative that supports the EU SFF is evident in all legislation contained in the EU SFF, as well as in surrounding policy documents. In the recitals to the SFDR, TR, and CSRD, the Commission stresses that a sustainable, resource-efficient and circular economy is a prerequisite to the long-term competitiveness of the EU.⁸⁸ The recitals contain references to various policy pieces ranging from the Green Deal to post-COVID-19 recovery plans, which primarily pertain to economic policy.⁸⁹ These references demonstrate that the EU SFF is seen as part of a growth strategy. The recitals list objectives such as “building an economy that works for the people” and “stability, jobs, growth and sustainable investment”, underlining the economic function of the EU SFF.⁹⁰ Through the economic lens, the EU SFF thus can be seen as the attempt to build a market for sustainable investing, not by relying solely on market powers but by shaping the legal infrastructure that is necessary to realize that market.⁹¹

3.4.1.2 *Legal Basis*

The framing of the EU SFF as an economic policy aimed at improving the functioning of the internal market forms the core of the constitutional

⁸⁸ Recital 2 and 9 SFDR, recital 1, 6, 9 TR, recital 1,2, 12 CSRD.

⁸⁹ Recital 1 CSRD.

⁹⁰ Recital 1 CSRD.

⁹¹ As Iris Chiu remarks that this in essence is the ordoliberalistic approach that is common in EU regulation, in : Chiu I., “Building a Single Market for Sustainable Finance in the EU – Idealism, Policy and Mixed Messages”, 2020, available at: <http://dx.doi.org/10.2139/ssrn.3631946>, p. 1.

legitimization of the EU SFF. The CSRD, TR, SFDR, and EuGBR all are based on article 114 TFEU. This article provides the legal basis for legislative action which pursues the objective of article 26 TFEU, namely the creation of the internal market as contained in article 3 of the Treaty on the European Union ("TEU").⁹² This can be contrasted to the legal basis of environmental action, articles 191-193 TFEU.⁹³ In the constitutional system of the EU, choosing the internal market as the legal basis for sustainable finance regulation instead of the environmental legal basis has a reason. According to the principle of conferral, the EU's power to act is limited by the competences that have been conferred upon it by the Member States in order to attain the objectives of the Union as set out in its treaties.⁹⁴ Importantly, the EU has an exclusive competence to act in the area of the functioning of the internal market by virtue of articles 2 (1) and 3 TFEU, whereas environmental action falls under shared competence (article 2 (2) and 4 TFEU). Thus, the economic framing of the EU SFF is not merely a political choice but also for the reason that in the constitutional system of the EU, the economic framing is necessary to have the power to enact such far-reaching legislation in the first place.

3.4.2 The Financial Regulation Dimension

The EU SFF primarily regulates the disclosure of sustainability information in financial markets and fits seamlessly into existing financial regulation. Financial market regulation exists to improve the financial system, which in turn supports the real economy.⁹⁵ Financial regulation can, therefore, be viewed as a sub-category of the general economic aim discussed in the previous section. The EU SFF primarily contains disclosure rules that serve two financial regulation aims: improving market efficiency in financial markets and protecting investors.

3.4.2.1 Efficient and Transparent Financial Markets

The EU SFF characterises the inability of financial markets to channel more private capital toward sustainable investments as an efficiency problem: Market

⁹² See also: Weatherhill S, *The Internal Market as a Legal Concept*, Oxford University Press 2017, p. 11 on the importance of article 114 TFEU. Article 3 TFEU: "The Union shall establish an internal market that works for the sustainable development of Europe, based, among other things, on balanced economic growth and a high level of protection and the improvement of the quality of the environment." Article 26 (2) TFEU defines this market as "an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured in accordance with the provision of the Treaties."

⁹³ Fisher E., Lange B. & Scotford E., *Environmental Law Text, Cases, and Materials*, Oxford University Press 2013, p. 128-138.

⁹⁴ Article 5 (2) TEU.

⁹⁵ Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 26-27.

failures prevent the efficient allocation of capital to environmentally sustainable economic activities. In particular, the lack of sustainability information is considered the primary obstacle preventing investors from incorporating sustainability into their investment decisions and consequently allocating capital toward sustainable activities. Hence, the EU SFF primarily contains disclosure rules.

The EU SFF regulates disclosures through two complementary strategies. First, by mandating the disclosure of comprehensive sustainability information that covers four dimensions of sustainability in relation to economic activities: (i) the negative sustainability impacts, (ii) the positive sustainability impacts, (iii) the financial risks emerging from sustainability considerations, and (iv) the financial opportunities arising from sustainability. This is also known as double materiality and is aimed at providing investors with neutral and comprehensive information that enables them to make their own assessment of the sustainability profile of the business or the economic activity. This type of disclosure can be found in the CSRD, ESRS, PR and SFDR. Second, it is also necessary that investors are informed about how the sustainability impact of an activity of business relates to external standards. The TR provide such a standard, containing clear and normative thresholds for qualifying activities as environmentally sustainable economic activities. Together, these complementary transparency strategies create the legal infrastructure for information transmission from issuer to investor, the EU SFF thus contributes to an efficient and transparent financial market.

3.4.2.2 *Investor Protection*

Another important core objective within the financial market dimension of the EU SFF is investor protection.⁹⁶ This aim is reflected in the recitals to all the legislation that is contained in the EU SFF.⁹⁷ The protection of investors overlaps both with the aim of economic efficiency and with EU consumer law in general, as is made explicit in recital 4 SFDR which lists other consumer protection laws and continues: “[...] those Directives and Regulations ensure the more uniform protection of end investors and make it easier for them to benefit from a wide range of financial products, while at the same time providing rules that enable end investors to make informed investment decisions.”⁹⁸ This approach aligns with the emphasis on addressing power imbalances

⁹⁶ Colaert V., “The changing nature of financial regulation: Sustainable finance as a new policy goal”, *Common Market Law Review* 2022, vol. 59(6), p. 1669, 1675, 1680-1681, 1686.

⁹⁷ For example: recitals 4, 5, 9, 10 SFDR; recitals 8, 12, 18, 28, 46, 50 CSRD; recitals 6, 9, 13, 18, 21 TR.

⁹⁸ Recital 4 SFDR.

between individuals and businesses, which is reflected in the EU's commitment to consumer empowerment since the 1992 Maastricht Treaty.⁹⁹

The economic efficiency paradigm supposes that the users of the financial system make rational choices, i.e. that the investor makes choices that are objectively in her own interest. However, in reality, biases and heuristics compromise the ability of investors to make decisions in a rational manner.¹⁰⁰ This means that making sustainability information available is not sufficient to ensure that rational choices are made and that investors act in their own interest. Both the TR and the SFDR play a crucial role in this context. The CSRD may guarantee that sustainability information is produced in the first place, but the TR and SFDR ensure that information is provided in a manner that is easily processable for investors. The TR does this by qualifying economic activities as environmentally sustainable or not, helping investors to understand the sustainability impact of their investment. The SFDR does so by prescribing the disclosure of sustainability risks, impacts, and opportunities of investment decisions to investors, essentially processing information generated on the basis of the CSRD. This purpose of the SFDR is also stressed in recital 19, which states that it is necessary that "financial market participants and financial advisers provide the information necessary to enable end investors to make informed investment decisions."¹⁰¹ Without such guidance, investors would be, according to the recitals, confused by diverging disclosure rules,¹⁰² have difficulty comparing products,¹⁰³ and experience information asymmetries in principal-agent relationships.¹⁰⁴ The financial regulation dimension of the EU SFF is thus not only about the efficient functioning of financial markets but also about empowering investors through accessible sustainability information.

3.4.3 The Environmental Dimension

While the legal basis of the EU SFF is article 114 TFEU, the realisation of the EU's internal market, and not 191 – 193 TFEU, the legal basis for environmental action, the environmental dimension of the framework is at least as prominent as the economic and the financial regulation dimensions. The EU SFF has been

99 Ramsay I., "Consumer Law and The Search for Empowerment", *Canadian Business Law Journal* 1991, vol. 19, p. 397, 405; Ramsay I., *Consumer Law and Policy*, Hart Publishing 2007, p. 40-41.

100 For example: Daniel K. & Titman S., "Market Efficiency in an Irrational World", *Behavioral Finance* 1999, vol. 55(6), p. 28.

101 The term 'end investor' appears 18 times in recitals to the SFDR (however, the term does not appear in the articles of the SFDR).

102 Recital 9 SFDR.

103 Recital 9 SFDR.

104 Recital 10 SFDR.

enacted as a direct response to the pressing need to finance climate mitigation and adaptation measures, reflecting the environmental and climate policies established at both international and European levels discussed in paragraph 2. Moreover, the overarching objective of the framework is to enable the orientation of private capital towards a sustainable economy to achieve a climate-neutral Europe in 2050.¹⁰⁵

It is important to keep stressing that the EU SFF refrains from imposing direct obligations on its regulated entities – issuers and financial intermediaries – to adopt sustainable practices. Similarly, investors retain full autonomy over their investment decisions, with no mandatory requirements in the EU SFF to direct capital toward sustainable activities. Instead, the environmental dimension of the EU SFF operates through both substantive environmental norms and disclosure requirements. The substantive norms can be found primarily in the TR: by establishing the detailed criteria for qualifying economic activities as environmentally sustainable, the regulation is not only a disclosure regulation but also creates substantive environmental norms. Next to this, the disclosure requirements that are contained throughout the framework serve the environmental aims through two nuanced mechanisms. First, the disclosures that issuers have to make on the basis of the EU SFF force them to confront their own sustainability impact. The extensive disclosure rules contained in the CSRD/ESRS obligate businesses to assess their own sustainability position, which in itself may already increase awareness and foster action.¹⁰⁶ Second, the disclosures enable external parties, in particular investors, to factor the sustainability impact of businesses into their decision-making process.¹⁰⁷ This transparency mechanism, which is the core of the EU SFF, thus creates market incentives that may discourage investments in less sustainable businesses while encouraging capital flows toward more sustainable alternatives. Businesses that have an adverse impact on sustainability may thus expect financial repercussions from the market. This market-driven accountability mechanism, therefore, may effectively transform the

¹⁰⁵ For example: recital 1, 2, 3 SFDR; recital 1, 2, 3 CSRD; recital 1, 2, 3, 4 TR.

¹⁰⁶ For example: Alsayegh M.F., Abdul Rahman R. & Homayoun S., “Corporate Economic, Environmental, and Social Sustainability Performance Transformation through ESG Disclosure”, *Sustainability* 2020, vol. 12(9), 3910. The authors find that disclosing the implementation of environmental and social strategies resulted in higher environmental and social performance.

¹⁰⁷ For example: Li Y., e.a., “The impact of environmental, social, and governance disclosure on firm value: The role of CEO power”, *The British Accounting Review* 2018, vol. 50(1), p. 60. The authors find a positive association between ESG disclosure levels and firm value “suggesting that improved transparency and accountability and enhanced stakeholder trust play a role in boosting firm value.” Kahn P.A., Johl S.K. & Johl S.K., “Does adoption of ISO 56002-2019 and green innovation reporting enhance the firm sustainable development goal performance? An emerging paradigm”, *Business Strategy and the Environment* 2021, vol. 30(7), p. 2922. The authors find that ‘green reporting’ boosts responsible investment because responsible investor assume that green innovation generates more revenue.

disclosure requirements of the EU SFF into direct economic incentives to take environmental action. This hope is also expressed in recital 13 TR, which states that the disclosure requirements “would incentivise investee companies to make their business models more environmentally sustainable”. The seemingly only procedural disclosure rules contained in the EU SFF thus may have real environmental consequences by virtue of the interplay between market dynamics and environmental objectives.

4 RESEARCH QUESTION & METHODOLOGY

4.1 Research Question

4.1.1 *Research question*

In this research, I evaluate the effectiveness of the EU SFF in achieving its objective: enabling investors to better integrate sustainability considerations into their investment decisions, with the ultimate aim of reorienting capital toward sustainable investments. At its core, the EU SFF aims to reach its ultimate sustainability objective by enhancing transparency. This mechanism is designed to transform procedural disclosure rules into legislation that generates tangible environmental impacts by facilitating informed investment decisions. Based on this premise of environmental impact through financial regulation, I have formulated the following research question: *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?*

To answer this question, I analyse how the disclosure obligations that arise from the EU SFF shape the flow of sustainability information from issuer to investor. This analysis is based on the premise that the flow of information must be sufficiently functional in order to reach the desired market-driven accountability, and thus environmental effects. After all, if investors do not receive sufficient sustainability information to incorporate sustainability considerations into their investment decision, the investor-driven reallocation of capital to sustainable investments is unlikely to take place.

To assess whether this flow of information enables investors to make informed investment decisions that integrate sustainability considerations, I employ Law & Economics theory (“L&E”). L&E sets out criteria for successful market regulation and thereby serves as a qualitative methodology for evaluating legislation. At the same time, L&E is rooted in strong normative foundations. In section 4.2.3, I discuss how L&E is used as the qualitative method in this research. In Chapter 2, I further discuss the normative foundations of L&E for my research. After I have set out the normative framework in Chap-

ter 2, I evaluate the constituent parts of the EU SFF through the L&E perspective and assess whether they meet the conditions that L&E sets out. I first assess the ongoing sustainability disclosures on the basis of the CSRD, ESRS, and TR in Chapter 3. This will be followed by a discussion of the initial disclosures on the basis of the PR and EuGBR in Chapter 4. In Chapter 5, I evaluate the disclosures of sustainability information by intermediaries to investors on the basis of the SFDR. To this end, I have formulated three sub-questions that I address in Chapters 3, 4, and 5, respectively:

1. How effective are the ongoing disclosure requirements from the CSRD/ESRS and article 8 TR in reducing information asymmetries regarding sustainability between issuers and investors?
2. How effective are the initial disclosure requirements from the Prospectus Regulation and the European Green Bond Regulation in reducing information asymmetries regarding sustainability between issuers and investors?
3. How effective are the disclosure requirements from the Sustainable Finance Disclosure Regulation in reducing the principal-agent problem between intermediaries and investors?

By analysing the individual parts of the framework, I am also able to oversee how the different parts interact with each other. This enables me to evaluate the framework's overall effectiveness, which will be the topic of Chapter 6. On the basis of this evaluation, I identify possible shortcomings and suggest improvements in line with L&E theory that would enhance the effectiveness of the EU SFF.

4.1.2 *Relevance and Originality*

The plan for the EU SFF was first conceived in the European Commissions' *Action Plan: Financing Sustainable Growth* in 2018, partially in response to the objective of article 2 (1) (c) Paris Agreement: "Making financial flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development". Subsequently, the SFDR was published in November 2019, the TR in June 2020, the CSRD in December 2022, and the EuGBR in 2023. The earliest piece of legislation, the SFDR, applies since March 2021. The CSRD is the last legislation of the EU SFF to apply, only from the financial year starting on 1 January 2024 onward or later, depending on the type of business.¹⁰⁸ In total, the legislation of the EU SFF encompasses well over 1,000

¹⁰⁸ Large businesses that are public-interest entities and employ more than 500 employees, will have to comply with the sustainability reporting rules for the financial year starting on or after 1 January 2024. This date remained unchanged under the so-called Stop the Clock Directive. However, the original schedule for reporting has been postponed by two years for other businesses that fall under the scope of the CSRD.

pages in the Official Journal of the European Union, which contains the official publication of EU legal acts.¹⁰⁹ With parts of the EU SFF applying to all European issuers, intermediaries and financial advisors, the framework significantly impacts EU financial markets.

The framework's extensive scope, complexity, and novelty justify this research that evaluates whether the EU SFF is capable of achieving two of its core objectives: to enable investors to make informed investment decisions that integrate sustainability considerations and thereby to reorient capital towards sustainable activities. This evaluation is crucial for the legitimacy of the EU SFF under EU law, in particular in the light of the principle of proportionality, which mandates that "content and form of Union action shall not exceed what is necessary to achieve the objectives of the Treaties."¹¹⁰ If the framework is not suitable for achieving its desired outcomes, it may be in violation of the competence of the European legislator to have enacted this framework.¹¹¹

The academic relevance of this research lies in the approach to analysing and evaluating the EU SFF. Over the last couple of years, many articles have been written on parts of the EU SFF. Most of these articles focus on individual legislative developments within the EU SFF and do not contain comprehensive evaluations of the framework in its entirety. Books that have appeared on the topic are mostly edited volumes, containing chapters by different authors on distinct topics within the EU SFF. Examples are:

- Beekhoven van den Boezem F., Jansen C., & Schuiling B. (eds.), *Sustainability and Financial Markets*, Wolters Kluwer 2019
- Smits R. (ed.), *Sustainable Finance and Climate Change*, Edgar Elgar 2024
- Busch D., Ferrarini G. & Grünewald S.N. (eds.), *Sustainable finance in Europe: corporate governance, financial stability and financial markets*, Springer Nature Switzerland 2024
- Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025

While these books provide valuable insights into specific aspects of sustainable finance legislation and market developments, they lack a comprehensive evaluation of the EU SFF as an integrated regulatory framework. In October 2024, T. Zukas published the monograph *Regulating Sustainable Finance in*

¹⁰⁹ This includes: CSRD (66 pages), ESRS (284 pages), TR (31 pages), CDR 2021/2139 (349 pages), CDR 2021/2178 (59 pages), CDR 2022/1214 (45 pages), CDR 2023/2486 (164 pages), SFDR (16 pages), CDR 2023/363 (25 pages), CDR 2022/1288 (74 pages), EuGBR (68 pages).

¹¹⁰ Article 5 TEU.

¹¹¹ The legislation in the EU SFF is based on article 114 TFEU, which provides the legal basis for measures that contribute to the functioning of the internal market. Although this is an exclusive competence according to article 3 TFEU, the proportionality principle applies nonetheless.

Europe.¹¹² This book is the first comprehensive discussion of legislation from the EU SFF to my knowledge, discussing the SFDR, TR, MiFID II Sustainability Preferences, and the CSRD. Zukas's overarching focus, however, is distinct from the research in this thesis: instead of evaluating the flow of information from issuer to investor from an L&E perspective, he focuses on one of the other central objectives of the EU SFF, namely to minimize greenwashing. This means that the selection of legislation, as well as the general perspective taken in the book, differs from the approach taken in this research.

Ultimately, the relevance and originality of this work lie in the fact that this research analyses and evaluates not only the seemingly distinct legislative components within the EU SFF but also the framework in its entirety. By examining the relationships between the distinct pieces of legislation and evaluating the framework's overall effectiveness, I not only address the fundamental question about the framework's legitimacy but also provide practical recommendations for its improvement.

4.1.3 *Scope and Limitations*

4.1.3.1 *Legislation*

In this thesis, I approach the EU SFF through the investment chain as discussed in paragraph 3.3. For this, I focus specifically on the legislation that determines what sustainability information enters into the investment chain through disclosure obligations. Based on this approach, I have come to a slightly different selection of legislation for my analysis than what is included in the EU SFF as envisaged by the Commission, as discussed in paragraph 3.2. First, I include the PR, which contains the obligation to publish a prospectus when issuing securities, in my research, despite it not being a part of the EU SFF. The reason for this is that I evaluate the disclosure requirements that influence the generation of sustainability information in the investment chain. The open norms of the PR are likely to require the inclusion of sustainability information in the prospectus, thereby requiring the generation of new information. The importance of the PR in shaping the sustainability information that enters the investment chain, therefore, makes it essential to include it in the evaluation of the framework's effectiveness.

The second difference is my exclusion of the EU Climate Benchmarks and the Sustainability Preferences in MiFID II. Both of these do create disclosure obligations. Under the MiFID II sustainability preferences, firms providing investment advice and portfolio management must incorporate clients' sustainability preferences into their suitability assessments and disclose how they

112 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024.

do so.¹¹³ Whilst this is not generating sustainability disclosures, it does mean that investment firms reach out to investors with sustainability information and thus likely contribute to better informing investors on the sustainability impact of their investment. The MiFID II sustainability preferences thereby serve the same policy goal as the rest of the EU SFF: enabling a more informed investment choice in order to reorient capital to more sustainable investing.¹¹⁴ However, other than the legislation that I analyse in this research, which concerns the generating of sustainability information throughout the investment chain, the MiFID II sustainability preferences concern the advisory process between an investment firm and a client and presumes that the relevant sustainability information has already been generated based on other disclosure requirements.¹¹⁵ Therefore, without dismissing the important role of the MiFID II sustainability preferences in influencing how well-informed investors are, it falls outside the more narrow focus of this thesis.

The EU Climate Transition Benchmark Regulation contains requirements for labelling a benchmark as an EU Climate Transition Benchmark or an EU Paris-aligned Benchmarks.¹¹⁶ The idea behind this is that investors use benchmarks to measure the sustainability performance of their investment portfolios. The EU Climate Transition Benchmark Regulation sets out methodological requirements that benchmarks must meet to obtain the label of EU Climate Transition Benchmark or EU Paris-aligned Benchmark, which contributes to increasing transparency on why a particular benchmark with that label can be considered low-carbon. This is particularly relevant in light of the multitude of low-carbon benchmarks that have emerged in the market, with differing

113 Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms (MiFID II sustainability preferences). See: Colaert V., “On the Sustainability of the MiFID II and IDD Investor Protection Frameworks”, in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025, p. 317.

114 This is reflected in recitals 1-3 Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms (MiFID II sustainability preferences).

115 See also: recital 5 Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms (MiFID II sustainability preferences).

116 Article 3 (1) (23a) and (23b) 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.

degrees of ambition and methodologies.¹¹⁷ The reliability of this label also can increase market confidence in such a benchmark and help prevent greenwashing.¹¹⁸ These benchmark-labels contain relevant sustainability information for investors, enabling them to make better informed investment decisions. They, therefore, like the MiFID II sustainability preferences, play an important role in reorient capital to more sustainable investing. However, the EU Climate Transition Benchmark Regulation, too, falls outside of the narrow scope of this thesis as it regulates how the providers of these benchmark-labels construct their label on the basis of sustainability information that has already been generated and disclosed. In that sense, the EU Climate Transition Benchmark does not contain the requirement to disclose “novel” information about sustainability risks, impacts and opportunities.

For the same reason, other legislation that could be encompassed under the broad term sustainable finance is excluded from this research as it does not primarily concern the obligation to disclose sustainability information to investors. This exclusion applies to prudential legislation (including the management of ESG risks in capital requirements and ideas for green supporting or brown penalizing factors), the primary focus of which is on risk management rather than transparency.

I also exclude the Corporate Sustainability Due Diligence Directive (“CSDDD”). The CSDDD sets out rules for businesses and their value-chains on human rights and environmental impacts, and includes the obligation to disclose these matters both on their website and in an annual statement that may be the annual sustainability report which is required under the CSRD.¹¹⁹ The CSDDD thus contributes to the generation of information that feeds into the information flow between issuer and investor, and this information flow should be partially covered under the CSRD. It is however not the primary intent of the CSDDD to establish this flow of information, but rather to create rules on identifying and ending negative impacts. In other words, the CSDDD should primarily be viewed as conduct regulation instead of a disclosure mechanism.

In focussing only on the legislation that has as its intent to generate and transmit sustainability information between issuer and investor (via inter-

117 Recital 9 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.

118 Recital 10 and 11 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.

119 Article 1 jo. article 16 Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859 (CSDDD).

mediaries), I thus come to examining the CSRD/ESRS, the Taxonomy Regulation, the Prospectus Regulation, the EuGBR, and the SFDR. This corresponds to the EU SFF's primary intent: to create an information infrastructure to reorient capital flows to environmentally sustainable economic activities. At the same time, I recognize that the information that investors receive is influenced by a broader web of relevant regulation, which, however, fall outside the narrow scope of this research.

4.1.3.2 Empirical Assumptions

In this thesis, I examine whether the EU SFF *enables* investors to make better informed investment decisions. I deliberately do not examine whether better informed investors will actually invest more sustainably. The latter question requires empirical research, which falls outside of the scope of my legal research.

However, it is important to address the empirical assumption that lies at the core of the EU SFF: that improved sustainability information leads to more sustainable investing. This assumption underpins the entire EU SFF and is relied upon by the European Commission in order to justify it. While I do not empirically test this assumption, I do acknowledge that there are both arguments that support and arguments that challenge the theoretical underpinning of the EU SFF. Two core arguments that support the presumption that increased access to sustainability information leads to more sustainable investing are as follows.

First, improving transparency regarding the sustainability impacts, risks and opportunities will enable investors to take these into consideration and thus to allocate capital more sustainably. Even if there is no guarantee that they will do so, there is empirical evidence that suggests that investors who are better informed on the sustainability impact of their investments, will take these into account in their investment decisions.¹²⁰ Additionally, there are empirical studies that support the assumption that investors who are better informed on sustainability impact do in fact invest more sustainably, for financial and non-financial reasons.¹²¹

120 For example: Eccles R.G., Kastrapeli M.D. & Potter S.J., "How to Integrate ESG into Investment Decision-Making: Results of a Global Survey of Institutional Investors", *Journal of Applied Corporate Finance* 2017, vol. 29(4), p. 125. The authors found that the biggest barrier to integrating ESG information into investment decisions for institutional investors is a lack of high-quality ESG data. Similar: Jonsdottir B., e.a., "Barriers to Using ESG Data for Investment Decisions", *Sustainability* 2022, Vol. 14(9), 5157; Amel-Zadeh A. & Serafeim G., "Why and How Investors Use ESG Information: Evidence from a Global Survey", *Financial Analysts Journal* 2018, vol. 74(3), p. 87.

121 For example: Heeb F., e.a., "Do Investors Care about Impact?", *The Review of Financial Studies* 2023, vol. 36(5), p. 1737. The authors conducted a study to examine how much extra investors would pay for sustainable investments based on their social impact. The key findings were that (1) investors showed significant willingness to pay more for sustainable investments in general, but (2) they didn't pay significantly more for investments with

Second, the EU SFF increases not only the availability of sustainability information but also the reliability of that information through mandatory disclosure requirements accompanied by financial supervision. This may increase the willingness to invest sustainably compared to a market with purely voluntary sustainability disclosures, where concerns about greenwashing may deter sustainable investing.¹²² This too supports the presumption that the availability of sustainability information through the EU SFF can facilitate the reorientation of capital toward sustainable economic activities.

At the same time, four important factors indicate that the presumption that more sustainability information leads to more sustainable investing may not work entirely as envisaged: the financial motivation to invest, ideological motives, market substitution effects, and information processing costs. First, investors who are driven purely by financial motivations in their investment decisions may choose not to invest sustainably if such investments do not yield higher returns than non-sustainable investments. Note that the evidence is

higher social impact. Investors felt positive emotions when choosing sustainable investments, regardless of the actual impact level. The researchers concluded that investors' willingness to pay extra for sustainable investments seems to be driven more by emotional factors rather than a careful calculation of the actual social impact achieved. Jansson M. & Biel A., "Motives to engage in sustainable investment: a comparison between institutional and private investors", *Sustainable Development* 2011, vol. 19(2), p. 135. This study compared sustainable investing motivations across 60 fund managers, 453 private investors, 71 institutional investors. Private and institutional investors were primarily motivated by environmental and social values (self-transcendent values). Fund managers were mainly motivated by expected long-term financial returns. Different secondary motivations emerged: private investors also considered long-term returns, whilst institutional investors focused on risk reduction. Additionally, a significant misalignment was found: investment institutions misunderstood their clients' preferences by overemphasizing the importance of financial returns and underestimating how much their clients valued ethical, environmental, and social factors. Hartzmark S.M. & Sussman A.B., "Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows", *The Journal of Finance* 2019, vol. 74(6), p. 2789. This study examines how investors react to sustainability ratings in U.S. mutual funds. The researchers found that investors believed sustainable funds would perform better in the future. However, the actual data showed no evidence that high-sustainability funds outperformed low-sustainability ones. The researchers conclude that investors' preferences for sustainable funds were driven by two factors (1) emotional positive associations with sustainability that led to optimistic performance expectations and (2) non-financial motivations for choosing sustainable investments. Bauer R., Ruof T. & Smeets P., "Get Real! Individuals Prefer More Sustainable Investments", *The Review of Financial Studies* 2021, vol. 34(8), p. 3976. This research examines how pension fund members view sustainable investing through two large field surveys. Around 66% of members supported increased company engagement on UN Sustainable Development Goals (SDGs). The main driver for this support was members' social preferences – meaning they valued societal benefits beyond pure financial returns.

¹²² See: ESMA, Progress Report on Greenwashing, Response to the European Commission's request for input on "greenwashing risks and the supervision of sustainable finance policies", 31 May 2023, ESMA30-1668416927-2498.

mixed on whether sustainable investments actually yield higher financial returns.¹²³

Second, there may be investors who purposefully do not invest sustainably due to ideological reasons. For these investors, increased sustainability information may have effects opposite to those envisaged in the EU SFF. In this context, it is important to recognize the recent political backlash against the green transition in Europe, including the Omnibus initiative,¹²⁴ as well as developments in the US.¹²⁵ These developments indicate that there is currently some political resistance to climate and sustainability policies, which may create an environment in which some investors could deliberately avoid sustainable investments for ideological reasons.

Third, even if a substantial part of investors decides to invest more sustainably, this may be offset by those who jump into the financing gap left by sustainable investors.¹²⁶ The risk here is that unsustainable investment opportunities will become relatively cheaper, because they are less wanted, which can attract investors who do not care about sustainability impact.¹²⁷

Fourth, the EU SFF presumes that investors will incorporate available sustainability information into their investment decision. This presumption however is not as absolute as it may appear. Processing the disclosed information is not “free” but comes at a cost for the investor.¹²⁸ In particular,

123 Bolton P. & Kacperczyk M., “Do investors care about carbon risk?”, *Journal of Financial Economics* 2021, vol. 142(2), p. 517: “We find that stocks of firms with higher total carbon dioxide emissions (and changes in emissions) earn higher returns, controlling for size, book-to-market, and other return predictors.” Note that other research suggest that in fact there is a negative relationship between high carbon emissions and profitability; businesses with high emissions tend to be less profitable than businesses with low emissions. See for example: Oestereich A.M. & Tsiakas I., “Carbon emissions and firm profitability”, *Journal of Sustainable Finance & Investment* 2024, vol. 14(4), p. 766; Chava S., “Environmental externalities and cost of capital”, *Management Science* 2014, vol. 60(9), p. 2223. The observed lower profitability does not contradict the fact that businesses profit from externalising their environmental costs. The difference in profitability that is shown in these papers, might stem from various other factors, including industry-specific characteristics, regulatory pressures, or operational inefficiencies that are unrelated to environmental externalities.

124 Jones E. & Youngs R., “Confronting Backlash Against Europe’s Green Transition”, Carnegie Endowment for International Peace, 11 September 2025, available at: <https://carnegieendowment.org/research/2025/09/climate-backlash-europe-green-transition-farmers-protests?lang=en>, accessed on: 1 October 2025; Bosetti V., e.a., “Green backlash and right-wing populism”, *Nature Climate Change* 2025 vol. 15, p. 822-828.

125 Selby J., “The Trump presidency, climate change, and the prospect of a disorderly energy transition”, *Review of International Studies* 2019, vol. 45(3), p. 471-490; Ettinger A. & Collins A.M., “Trumpism and the rejection of global climate governance”, *International Relations* 2025, vol. 39(1) p. 76-100.

126 Colaert V., “The changing nature of financial regulation: Sustainable finance as a new policy goal”, *Common Market Law Review* 2022, vol. 59(6), p. 1688.

127 Colaert V., “The changing nature of financial regulation: Sustainable finance as a new policy goal”, *Common Market Law Review* 2022, vol. 59(6), p. 1688.

128 Grossman S.J. & Stiglitz J.E., “On the impossibility of informationally efficient markets”, *The American Economic Review* 1980, vol. 70(3), p. 393-408.

investors must first monitor the market in order to become aware of the disclosures, then they must obtain the information and extract what is relevant for them (acquisition costs), and lastly they must analyse what that information means to them (integration costs).¹²⁹ Given these costs, it may be rational for investors to ignore certain information.¹³⁰ This risk may be exacerbated when the information is more complex to analyse, which arguably is the case for the extensive disclosures that are generated under the EU SFF.

It follows that there are serious concerns regarding the presumption that more transparency will lead to more informed investment decisions and thus to more sustainable investments. Given the arguments in favour and against this presumption, it is not certain the EU SFF will indeed lead to more sustainable investments, though it is also unlikely that it will lead to less sustainable investments. Even though the presumption is fundamental to the approach of the EU SFF, there are three reasons why I do not further address the question and take as a given that, in general terms, more sustainability information will lead to more sustainable investing. First, the empirical nature of this presumption falls outside the scope of the legal approach that I take in this thesis. In order to determine how investors act when receiving more sustainability information requires a different approach and method than chosen in this specific research.

Second, the presumption reflects a policy rationale of the European Commission that is beyond my task to question: in this legal thesis, I assess whether the legislative instruments of the EU SFF are adequate in light of their objective of enabling investors to make a more well-informed investment decision and not whether the underlying policy objective is empirically correct. Moreover, as I discuss in Chapter 2, from a Law & Economics perspective, more sustainability information should in theory lead to more sustainable investing.

Third, and most importantly, this research remains valuable regardless of whether the presumption that more sustainability information leads to more sustainable investing is proven to be (partially) flawed in an empirical sense. The research question *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?* focusses on the first part of the two-step reasoning that (1) more transparency leads to better informed investment decisions, which (2) lead to a reorientation of capital flows. This two-step reasoning means that if the first part is unfulfilled,

129 Blankespoor E., Haan E. de & Miranovic I., "Disclosure processing costs, investors' information choice, and equity market outcomes: A review", *Journal of Accounting and Economics* 2020, vol. 70(2-3), 101344.

130 Sims C.A., "Implications of rational inattention", *Journal of Monetary Economics* 2003, Vol. 50(3), p. 665-690; Blankespoor E., Haan E. de & Miranovic I., "Disclosure processing costs, investors' information choice, and equity market outcomes: A review", *Journal of Accounting and Economics* 2020, vol. 70(2-3), 101344.

the second part cannot be realized either: if the legal infrastructure to generate sustainability information is defective, investors will not be enabled to make better informed investment decisions in the first place. The legal infrastructure thus must be sufficient regardless of whether empirically speaking (all) investors will invest more sustainably when receiving more sustainability information. The value of this research lies in analysing the first prerequisite, the legal infrastructure to generate sustainability information, which is a necessary (but not the only) prerequisite for the success of the EU SFF in achieving its policy aims.

4.1.3.3 Terminology

Two key terms in this research are sustainability and sustainable finance. Given the widespread usage of these terms within and outside this research, it is important to define the terms in the context of this thesis. In the Commission's *Action Plan: Financing Sustainable Growth*, sustainable finance is defined as "the process of taking due account of environmental and social considerations in investment decision-making, leading to increased investments in longer-term and sustainable activities."¹³¹ Subsequently, the terms environmental and social considerations are explained. Environmental considerations are defined as "climate change mitigation and adaptation, as well as the environment more broadly and related risks (e.g. natural disasters)", whereas social considerations include "issues of inequality, inclusiveness, labour relations, investment in human capital and communities".¹³²

Academic literature offers alternative approaches to defining sustainable finance. For example, in *What Do We Mean by Sustainable Finance? Assessing Existing Frameworks and Policy Risks*, Migliorelli extensively debates multiple conceptions of 'sustainable finance' and related terms. He defines it as "finance to support sectors or activities that contribute to the achievement of, or the improvement in, at least one of the relevant sustainability dimensions".¹³³ Alternatively, Zukas conceptualizes sustainable finance through the three ESG dimensions: environmental, social, and governance.¹³⁴ Yet another approach is taken by Fatemi and Fooladi, who propose a new paradigm that promotes a sustainable value creation framework within which all social and environ-

¹³¹ 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* COM/2018/097 final, p. 2.

¹³² 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* COM/2018/097 final, p. 2.

¹³³ Migliorelli M., paper "What Do We Mean by Sustainable Finance? Assessing Existing Frameworks and Policy Risks", *Sustainability* 2021, vol. 13(2), 975, p. 2.

¹³⁴ Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 18-21.

mental costs and benefits are accounted for.¹³⁵ These divergent perspectives illustrate the diverse understandings of the concept of sustainable finance.

In this research, I focus on sustainable finance within the parameters of the EU SFF, for which the definition in the Commission's *Action Plan: Financing Sustainable Growth* serves as a starting point.¹³⁶ However, even within this framework, the scope of sustainable finance varies across legislation. For example, the CSRD takes a comprehensive ESG approach, demanding disclosures on environmental, social, and governance topics. The SFDR focuses primarily on environmental and social characteristics, with good governance practices as a supplementary dimension of sustainable investing. Conversely, the TR has a narrower focus on environmentally sustainable economic activities. This heterogeneity, even within the EU SFF, is exemplary for the difficulty of formulating one singular definition of sustainable finance.

In this research, I acknowledge that sustainability encompasses environmental, social, and governance (ESG) aspects. However, when referring to 'sustainability', I primarily mean its environmental dimension, as defined in article 3 of the TR. Article 3 TR sets out the definition for environmentally sustainable economic activities, which are activities that contribute to six objectives: (1) climate change mitigation and (2) adaptation, (3) the sustainable use and protection of water and marine resources, (4) the transition to a circular economy, (5) pollution prevention and control, and (6) the protection and restoration of biodiversity and ecosystems.¹³⁷ The reason for this limited focus is that the environmental dimension of sustainability aligns with the foundations of the EU SFF: the need to finance climate change mitigation and adaptation measures, which form the basis of the international and national policies discussed in paragraphs 2 and 3 of this chapter. In line with this narrower interpretation of sustainability, I, in principle, use 'sustainable finance' to describe the financing of environmentally sustainable economic activities as set out in the TR. However, as noted earlier, the CSRD and SFDR adopt a broader view of 'sustainability matters,' encompassing social and governance aspects. Depending on the context and when discussing these regulations, I may follow a wider interpretation.

4.1.3.4 Timeframe

This research encompasses the legislative development of the EU SFF from its inception in the 2018 *Action Plan: Financing Sustainable Growth* through to

¹³⁵ Fatemi A.M. & Fooladi I.J., "Sustainable Finance: A new paradigm", *Global Finance Journal* 2013, vol. 24(2), p. 101.

¹³⁶ 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* COM/2018/097 final, p. 2.

¹³⁷ Article 9 TR.

31 October 2025. Legislative developments beyond this date fall outside the scope of my analysis.

4.2 Methodology

4.2.1 Introduction

This thesis contains doctrinal legal research, which consists of two steps: first, locating the sources and second, interpreting and analysing them.¹³⁸ More specifically, the interpretation and analysis of the sources is based on L&E as a qualitative research method, as I discuss in paragraph 4.2.3. This research method provides a relatively rigid framework for evaluating the EU SFF, which raises the question on the multiple dimensions through which the topic of sustainability can be approached and the relationship between the research method and the complexity of anthropogenic climate change.

4.2.2 Locating the Sources

The primary sources for this research are the legislation that comprises the EU SFF. To interpret the legislation, I have relied on a multitude of sources. On the one hand, I have used publications by governmental entities. These include the recitals to the legislation, as well as policy publications by, *inter alia*, the European Commission and financial supervisors such as the European Securities and Markets Authority (“ESMA”), and national supervisors such as the Dutch Authority for the Financial Markets (“AFM”).¹³⁹ On the other hand, I have relied on academic publications, consulted via the university library of Leiden University, Goethe University Frankfurt, and University of Vienna, and the online databases. Instead of a comprehensive overview of all published literature on sustainable finance, I have selected only the resources directly relevant to my research topic and question.

4.2.3 Law & Economics as a Qualitative Research Method

This research evaluates whether the EU SFF enables investors to make informed investment decisions that integrate sustainability considerations. The methodology of this evaluation comprises two distinct phases. First, a

138 Hutchinson T. & Duncan N., “Defining and Describing What We Do: Doctrinal Legal Research”, *Deakin Law Review* 2012, vol. 17(1), p. 83, 110.

139 Recitals to EU legislation do not confer rights upon individuals and thus are not a primary source of law. However, by explicating the relevant legal and factual circumstances, the recitals serve a legitimizing and an explanatory function. See also: Heijer M. der, Os van den Abeelen T. van & Maslyka A., “On the use and misuse of recitals in European Union law”, *Amsterdam Law School Research Paper* No. 2019-31.

positivistic inquiry into the substantive content of the EU SFF legislation, in which I set out the content of the relevant legislation.¹⁴⁰ Second, an evaluative analysis using L&E as a qualitative research method.¹⁴¹

L&E evaluates rules and institutions in terms of economic efficiency. In L&E, the market is seen as a vehicle of social progress and general welfare, whereby the law serves as a tool to address market failures that inhibit the market from functioning efficiently. By using L&E as a method, I apply the principles of L&E to analyse how the EU SFF functions as a regulatory intervention that is designed to optimize market efficiency. The analysis thus rests on the presumption that financial markets are currently unable to efficiently allocate capital to sustainable investment due to specific market failures. The EU SFF is thus evaluated as a regulatory intervention aimed at minimizing these market failures. The normative dimension of this is elaborately discussed in Chapter 2.

In Chapters 3 – 5, I use L&E as the basis to evaluate the separate policy pieces that constitute the EU SFF. To use L&E as a method, I employ three steps. First, I identify which market failure is addressed by a specific piece of legislation within the EU SFF. Typically, this is stated in the recitals of the legislation. Second, I set out qualitative criteria to determine whether the legislation is successful in addressing the market failure that it aims to minimize. The third step is to evaluate whether the legislation meets those parameters. By employing this approach to the individual legislation that I analyse in this research, I am also able to draw general conclusions on how successful the EU SFF is through the lens of L&E. Moreover, it enables me to identify specific shortcomings and formulate recommendations.

The idea to use L&E as a qualitative research method, was conceived during the seminar *Methods of Law & Economics* (Paris, 30 June – 1 July 2022), organised by Droit et Croissance. During this seminar, Professor Simone Sepe set out the theoretical foundations of L&E and its methodological applications in legal research, which have significantly shaped the approach taken in this research.¹⁴²

4.2.3.1 Perspectives

One point of critique on using L&E as a qualitative method and as the normative foundation of the evaluation of the EU SFF could be that it takes a narrow, wealth-driven perspective. The EU SFF is ultimately about contributing to the adaptation and mitigation of the effects of anthropogenic climate change.

¹⁴⁰ Barak A., *Purposive Interpretation in Law*, Princeton University Press 2005, p. 3.

¹⁴¹ Paccès A.M. & Visscher L., “Methodology of Law and Economics”, in: Klink B. van & Taekema S. (eds.), *Law and Method. Interdisciplinary research into Law*, Mohr Siebeck 2011, p. 85-107.

¹⁴² Powerpoint presentation of Droit et Croissance Conference 30 June – 1 July 2022, available at: <https://droitetcroissance.fr/wp-content/uploads/2015/01/Slides-Simone-Sepe.pdf>.

Within the legal field, three dominant views on anthropogenic climate change have taken hold, namely climate change as (1) an environmental problem, (2) an economic problem, and (3) an ethical problem.¹⁴³ The economic perspective, central to this research, is said by some to “simply [seek] to maximize aggregate economic value and does not address the ethical issues raised by climate change”.¹⁴⁴ The juxtaposition of the economic perspective and the ethical perspective reveals a common sentiment: that the market and the environment do not go hand in hand. Although this research is built on an L&E normative framework, I aim to overcome this juxtaposition. As I elaborately discuss in Chapter 2, an efficient market should prioritize collective well-being in a broad understanding that accounts for all value, especially including those of non-tradeable goods such as the environments, which are so crucial to the maximization of our collective welfare. Moreover, however valid the critique on the market in its role of contributing to anthropogenic climate change, this should not be a reason to dismiss serious attempts to improve this economic system, as the EU SFF is attempting to do.

4.2.3.2 Complexity

Another critique on the formalistic L&E method is that it does not capture the complexity of how the law functions in reality.¹⁴⁵ The EU SFF attempts to influence the real economy and its effect on climate change through regulating financial markets. However, both climate change and financial markets are extremely complex. As a physical phenomenon, climate change is both interconnected and multidimensional.¹⁴⁶ It takes place on a global scale, but its sources and effects are not spread homogeneous around the globe. Moreover, climate change still borders on the limits of our scientific knowledge.¹⁴⁷ Similarly, financial markets and their regulation are extremely complex.¹⁴⁸ This raises the question of whether a relatively rigid evaluative framework such as L&E can ever suffice to reach valid conclusions and recommendations on the EU SFF. In fact, I believe that in light of the complex reality that the EU SFF aims to regulate, it is of particular importance to formulate a robust analytical framework for evaluating the EU SFF. In a speech in 2012, the then Executive Director of Financial Stability of the Bank of England, Andrew

143 Bodansky D., Brunnée J. & Rajamani L., *International Climate Change Law*, Oxford University Press 2017, p. 4-10.

144 Bodansky D., Brunnée J. & Rajamani L., *International Climate Change Law*, Oxford University Press 2017, p. 7.

145 Salter M. & Mason J., *Writing a Law Dissertation: An Introduction and Guide to the Conduct of Legal Research*, Pearson Education 2007, p. 112-114.

146 Dryzek J., *The Politics of the Earth*, Oxford University Press 2005, p. 8.

147 Fisher E., Lange B. & Scotford E., *Environmental Law Text, Cases, and Materials*, Oxford University Press 2013, p. 32-45.

148 See in general: Chapter 4 “The Limits of Financial Regulation”, Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 80-98.

Haldane, reflected on how complex and detailed regulation both increases the likelihood of errors by those who must comply with it and can increase regulatory arbitrage and advocates more straightforward regulation.¹⁴⁹ Similarly, an analytical framework that pre-emptively attempts to cater for all eventualities and shies away from rigid intellectual foundations and evaluative criteria may ultimately fail in exposing structural deficiencies and formulating practical points of improvement.

4.2.4 Artificial Intelligence Disclosure

At the time of writing, Leiden University has not established guidelines on the use of AI in academic research. However, research by Perkins and Roe found that there is a consensus among academic publishers that the use of AI tools must be disclosed.¹⁵⁰ In line with the principle of transparency that is part of the general academic integrity policy of Leiden University, I therefore disclose that I have relied on Claude AI and Grammarly for textual improvements to my writing during the final editorial stage of my research in the winter of 2024-2025.¹⁵¹ The reason for choosing these specific tools is that they do not use user input to train their models.¹⁵² All substantive parts of this research, including the ideas, structural organisation, and content, are entirely my own original work. While I have used Claude AI for specific fragments where I deemed linguistic improvements beneficial, I have not used Claude AI for the manuscript as a whole. I have relied on Grammarly to check spelling and grammatical mistakes in the entire manuscript. All AI suggestions were carefully evaluated, and only a selection of the language improvements have been incorporated into the manuscript.

149 See also on complex regulation: Haldane A.G., "The dog and the frisbee", speech at Jackson Hole Symposium on 31 August 2012, available at: <https://www.bis.org/review/r120905a.pdf>, accessed on: 7 July 2023, p. 14; Fleisher V., "Regulatory Arbitrage", *Texas Law Review* 2010, vol. 89(2), p. 227.

150 Perkins M. & Roe J., "Academic publishing guidelines on AI usage: A ChatGPT supported thematic analysis", *F1000Research* 2024, available at: [10.12688/f1000research.142411.2](https://doi.org/10.12688/f1000research.142411.2).

151 Leiden University, Academic integrity, available at: <https://www.staff.universiteitleiden.nl/research/quality-and-integrity/academic-integrity/academic-integrity/law/institute-of-private-law?cf=law&cd=institute-of-private-law#honesty,scrupulousness,transparency,independence,responsibility>, accessed on: 28 February 2025. Claude is a large language model that has been developed by Anthropic. Claude models have been pre-trained to predict the next word in a text. The version that I have used, Claude 3.5 Sonnet, has been trained on data up until April 2024. As I have only used Claude for textual improvements and never for substantive feedback, it is in no way relevant to my writing data that has been generated since April 2024 is not used by the model. Grammarly is an AI program that corrects grammar, spelling, and punctuation mistakes.

152 Claude Pro FAQ's, "I would like to input sensitive data into Free Claude.ai or Claude Pro. Who can view my conversations?", available at: <https://support.anthropic.com/en/articles/8325621-i-would-like-to-input-sensitive-data-into-free-claude-ai-or-claude-pro-who-can-view-my-conversations>, accessed on: 28 February 2025.

2 | The Normative Framework

1 INTRODUCTION

This thesis examines how successful the EU Sustainable Finance Framework (“EU SFF”) is from a Law & Economics (“L&E”) perspective. L&E is a legal school of thought that uses economic theory to analyse the law. The idea behind L&E is that the law should improve welfare through ensuring the efficient functioning of the market. On the one hand, relying on the market exhibits a fundamental respect for the autonomy of the market participants. On the other hand, there is a well-defined public goal: in an efficient market, resources are used in the most efficient manner, benefitting society as a whole. L&E thus encompasses a specific relationship between private and public law – one in which the market, made up of voluntary private transactions, may be regulated by public law if it does not produce the envisioned policy goal. This feature is mirrored in the EU SFF, which regulates how private parties transact in financial markets.

In this Chapter, I examine how L&E provides a compelling moral foundation for public regulation. To do this, I first examine the background of L&E, specifically focusing on three major legal movements that preceded it (para. 2). In the discussion of the historical background, I focus on how these movements perceive the relationship between law and the market. This helps to better understand the particular relationship between law and the market in L&E. Then I elaborate on the two central aspects of L&E: efficient markets as a tool for increasing welfare (para. 3), and welfare as a moral foundation for public regulation (para. 4). Within this latter paragraph, I argue that the term ‘welfare’ should be interpreted as “the value of everything in society” as this provides a robust justification for public regulation of private markets in general, and more specifically, for the EU SFF.

2 HISTORICAL BACKGROUND

2.1 Introduction

L&E uses economic ideas as the prism through which to analyse the law and is embedded in a rich legal historical background. It is one of the schools of thought that emerged out of legal realism, an intellectual movement that

gained popularity in the (early) twentieth century as the antithesis to positivism and formalism. L&E exhibits characteristics of both legal realism as well as positivism and formalism. For example, central to L&E is the formalist idea of the private market as a motor for societal progress, whilst at the same time, L&E is perceptive to public law intervention in that market. To understand the emergence and context of L&E, the intellectual movements from which it stems are discussed in this paragraph.

2.2 Legal Positivism and Legal Formalism

Legal positivism was explicitly developed by Bentham (1748-1832) and Austin (1790-1859), based on the foundations laid by Hume and Hobbes, and finds its origins in the rejection of English common law.¹ English common law is the body of law developed through precedents and based on general unwritten custom since Anglo-Saxon times.² From this, classical common law theory developed, which has two significant features on the relationship between law and state, described in Blackstone's four-volume Commentaries on the Laws of England (1765-1769).³ First, the authority of the law is based on common and immemorial custom.⁴ The authority of common law thus rests upon the usage and continued acceptance by the public, establishing a strong moral foundation for the authority of law, particularly when compared to law enacted by a non-democratic sovereign.⁵ The second feature is an explicit rejection of the *lex scripta*, the codification of rules of law, as such law merely

1 Green L. & Adams T., "Legal Positivism", in: Zalta E.N. & Nodelman U. (eds.), *The Stanford Encyclopedia of Philosophy* (2022 edition), available at: <https://plato.stanford.edu/>, accessed on: 4 August 2022. Whereas the Bentham, Hume and Hobbes can be considered political philosophers in a more general sense, Austin's work is of a legal nature.

2 English common law is an independent system of definitions, principles, and logic, reflecting a special type of abstracted reasoning. Postema G.J., *Bentham and the Common Law Tradition* (2nd edition), Oxford University Press 2019, p. 62; Sebok A.J., *Legal Positivism in American Jurisprudence*, Cambridge University Press 1998, p. 24-26.

3 During the 16th and 17th century, law became a powerful tool to control and direct society to serve the ends of the sovereign. As a response, Classical common law theory emerged. See: Postema G.J., *Bentham and the Common Law Tradition* (2nd edition), Oxford University Press 2019, p. 3; MacMillan K., "English Law and its Expansion", in: Pihlajamäki H., e.a. (eds.), *The Oxford Handbook of European Legal History*, Oxford University Press 2018, p. 831; Blackstone W., *Commentaries on the Law of England*, Book 1, Clarendon Press 1768, p. 67-68.

4 Blackstone W., *Commentaries on the Law of England*, Book 1, Clarendon Press 1768, p. 67: "[I]n our law the goodness of a custom depends upon it's having been used time out of mind, or, in the solemnity of our legal phrase, time whereof the memory of man runneth not to the contrary. This it is that gives it it's weight and authority."

5 Postema G.J., *Bentham and the Common Law Tradition* (2nd edition), Oxford University Press 2019, p. 4-13.

contained the arbitrary will of the legislator and because codified rules were too rigid to be useful.⁶

In contrast, classical legal positivism strongly emphasises the importance of legislative institutions and the role of coercive force in law, based on three ideas.⁷ First, the separability principle, which contains the notion that there is no necessary connection between law and morality.⁸ Law is seen as a social phenomenon that may coincide with certain moral principles but morality in itself does not validate (or invalidate) laws and, *vice versa*, the existence of a law does not establish a moral principle.⁹ Therefore, the authority of the law has to be established without recourse to some moral or historical source. Second, classical legal positivism developed the command theory.¹⁰ In the command theory, laws are ‘commands’, applying to a general class of the public (as opposed to a specific individual), combined with the ability to enforce a sanction if the command is not complied with.¹¹ Third, the ‘source thesis’, which states that the validity of a law is directly dependent upon the source.¹² The only valid source in legal positivism is the sovereign, as opposed to immemorial and continued custom under classical common law theory.¹³

6 Blackstone W., *Commentaries on the Law of England*, Book 1, Clarendon Press 1768, p. 68: “all these [general rules of law] are doctrines that are not set down in any written statute or ordinance, but depend merely upon the immemorial usage, that is, upon common law, for their support.” See also Postema G.J., *Bentham and the Common Law Tradition* (2nd edition), Oxford University Press 2019, p.15-16; Sebok A.J., *Legal Positivism in American Jurisprudence*, Cambridge University Press 1998, p. 29.

7 Sebok A.J., *Legal Positivism in American Jurisprudence*, Cambridge University Press 1998, p. 30-32.

8 For example: Hart H.L.A., “Positivism and the Separation of Law and Morals”, *Harvard Law Review* 1958, vol. 71(4), p. 593.

9 The separability thesis in essence rejected Blackstone’s appeal to natural law in his construction of common law as an independent and rational system. See: Postema G.J., *Bentham and the Common Law Tradition* (2nd edition), Oxford University Press 2019, p. 62. On this point, Bentham has argued that the reliance on natural law equates standards of law with the personal opinion of the judge: “When a man disapproves of a mode of conduct considered independently of any actual System of Jurisprudence he says there is a Law of Nature against it.... If he cannot tell why he disapproves of it he begins talking of a Rule of Right, a Fitness of Things, a Moral Sense or some other imaginary standard which howsoever varied in description, is from first to last nothing but his own private opinion in disguise.” Bentham Manuscripts in the University College, London Library, UC lxix. 102., quoted in: Postema G.J., *Bentham and the Common Law Tradition* (2nd edition), Oxford University Press 2019, p. 263.

10 Sebok A.J., *Legal Positivism in American Jurisprudence*, Cambridge University Press 1998, p. 31.

11 Austin J., *The Province of Jurisprudence Determined*, Cambridge University Press 2009, (first published in 1832), p. 21-25; Bix B., “John Austin”, in: Zalta E.N. & Nodelman U. (eds.), *The Stanford Encyclopedia of Philosophy* (2022 edition), available at: <https://plato.stanford.edu/>, accessed on: 4 august 2022.

12 Sebok A.J., *Legal Positivism in American Jurisprudence*, Cambridge University Press 1998, p. 31-32.

13 Austin J., *The Province of Jurisprudence Determined*, Cambridge University Press 2009, (first published in 1832), p. 18-20.

The ideas of legal positivism were not confined to English jurisprudence and also had a tremendous impact on American legal theory, albeit under the name of legal formalism, which in time became a distinct movement from the English classical legal positivism.¹⁴ Formalism perceived law as a system that contains internal and autonomous truths separate from political and social institutions.¹⁵ Formalism thus understands the law from a standpoint internal to the law itself, which contains its own moral order.¹⁶ Cohen accordingly described this development as “the fiction that the law is a complete and closed system, and that judges and jurists are mere automata to record its will or phonographs to pronounce its provisions.”¹⁷ Decision-making thus should take place exclusively on the basis of the law instead of other decision-making factors, such as for example the circumstances in which parties contracted.¹⁸ The law itself was conceived as a body of pre-existing rules either contained in legal materials or to be deduced from those materials by logical operation.¹⁹

2.3 Legal Realism

The formalistic approach was rejected by the legal realists, who advocated a broader approach to understanding the role of law.²⁰ Legal realism thus rejects the ‘deductivism’ that characterises legal formalism – the idea that logical deduction from existing rules of law is the only content of law – and the resulting doctrinal rigidity and legal conservatism that characterises legal formalism.²¹

14 Sebok A.J., *Legal Positivism in American Jurisprudence*, Cambridge University Press 1998, p. 42-45.

15 Weinrib E.J., *The Idea of Private Law*, Oxford University Press 2012, p. 22.

16 Unger R.M., “The Critical Legal Studies Movement”, *Harvard Law Review* 1983, vol. 96(3), p. 561, 565.

17 Cohen M.R., “Positivism and the limits of Idealism in the Law”, *Columbia Law Review* 1927, vol. 27(3), p. 237-238.

18 Schauer F., “Formalism”, *The Yale Law Journal* 1988, vol. 97(4), p. 509-510.

19 Posner R.A., *How Judges Think*, Harvard University Press 2010, p. 41. Leiter B., “Positivism, Formalism, Realism”, *Columbia Law Review* 1999, vol. 99(4), p. 1138, 1145-1146. A caricatural description would be that legal formalists perceive the judiciary as a giant syllogism machine, in which the law forms the objective truth and major premise and the facts of the case the minor premise, which logically applied to the major premise should result in the right outcome of a case; source: Neuborne B., “Of Sausage Factories and Syllogism Machines: Formalism, Realism, and Exclusionary Selection Techniques”, *New York University Law Review* 1991, vol. 67(2), p. 491, 421.

20 Freeman M.D.A., *Lloyd’s Introduction to Jurisprudence* (8th edition), Sweet & Maxwell 2008, p. 986-987. Also: Llewellyn K.N., “Some Realism About Realism: Responding to Dean Pound”, *Harvard Law Review* 1931, vol. 44(8), p. 1222.

21 Quevedo S.M., “Formalist and Instrumentalist Legal Reasoning and Legal Theory”, *California Law Review* 1985, vol. 73(1), p. 119. As the author puts it, formalism misconstrues how law actually operates in the broader context of the legal system and disregards the “law as both

The legal realists aimed to discern what influenced law, especially in its application by judges.²² For this, they studied the motivations behind cases and discerned that various factors influenced the law, including social, political, and historical circumstances, personalities, economic conditions, business interests, and ideologies.²³ By this, the realists concluded that a judge always reached within the reality of the specific circumstances of the case. Over time, three distinct features of legal realism emerged.²⁴

First, the law is not universal but is constantly changing, as is society itself.²⁵ In this changing society, law should be a means to a social end and not an end in itself. Second, the realists distrusted the belief that general legal rules and concepts could be a realistic representation of actual human behaviour.²⁶ Law is based on human experiences and politics, dependent on historical and geographical realities rather than a universal, hidden, system to uncover by deduction.²⁷ Moreover, the realists doubted that general rules and concepts were the most important factor in judging cases.²⁸ Realism, therefore, took a more prescriptive approach to adjudication: it could be observed that judges not only applied the facts of the case to the applicable legal principle but that decisions were influenced by other matters.²⁹ Third, legal realism advocated a novel manner to study the law.³⁰ Instead of searching for the internal logic of existing rules, realism emphasised that there is a difference between what the law is, and what the law ought to be. The movement thus created room for normative evaluations of the law. These evaluations can be based on a broad number of factors and methods, such as policy goals and empirical evidence. Singer sums up the three features of realism in a single quote: “(t)he legal realists wanted to replace formalism with a pragmatic attitude towards law generally.”³¹

a part of a larger social system and a tool for making that system more coherent, workable, and fair.”

22 Dias R.W.M., *Jurisprudence* (5th edition), Buttersworth London 1985, p. 448-449.

23 Dias R.W.M., *Jurisprudence* (5th edition), Buttersworth London 1985, p. 448-449.

24 Llewellyn K.N., “Some Realism About Realism: Responding to Dean Pound”, *Harvard Law Review* 1931, vol. 44(8), p. 1222.

25 Llewellyn K.N., “Some Realism About Realism: Responding to Dean Pound”, *Harvard Law Review* 1931, vol. 44(8), p. 1222, 1236-1237.

26 Llewellyn K.N., “Some Realism About Realism: Responding to Dean Pound”, *Harvard Law Review* 1931, vol. 44(8), p. 1222, 1236-1237.

27 Singer J.W., “Legal Realism Now”, *California Law Review* 1988, vol. 77(2), p. 465, 474.

28 Llewellyn K.N., “Some Realism About Realism: Responding to Dean Pound”, *Harvard Law Review* 1931, vol. 44(8), p. 1222, 1236-1237.

29 Leiter B., “Positivism, Formalism, Realism”, *Columbia Law Review* 1999, vol. 99(4), p. 1138, 1148.

30 Llewellyn K.N., “Some Realism About Realism: Responding to Dean Pound”, *Harvard Law Review* 1931, vol. 44(8), p. 1222, 1236-1237.

31 Singer J.W., “Legal Realism Now”, *California Law Review* 1988, vol. 77(2), p. 465, 474.

Ultimately, the realists failed to formulate a functional normative legal framework. Instead, it led to the development of various schools of thought developed over the last century, including L&E.³²

2.4 Law & Economics

The field of modern L&E emerged in the early 1960s and is often pinpointed to the publications of Ronald Coase's *The Problem of Social Costs* and Guido Calabresi's *Some Thoughts on Risk Distribution and the Law of Torts*.³³ Coase's article discusses the problem of externalities and how, in the absence of transaction costs, arbitrage between parties is a more efficient way to advance welfare than the regulation of activities that cause externalities. Calabresi's article reflects on the theoretical justification of various manners of distributing risks and losses. Although L&E scholarship frequently involves empirical research, these two papers are of a doctrinal nature, demonstrating that L&E encompasses qualitative research as well. While L&E research spans a broad range of variations, it is unified by the characteristic that (micro-)economic concepts and theories are used to analyse and evaluate laws and institutions.³⁴

The normative foundation of L&E rests on the premise that efficient markets enhance social welfare. This premise reflects elements from both legal positivism and formalism and from legal realism. The central concept of the market as a self-regulating system that naturally gravitates toward an efficient equilibrium which in principle precludes public law intervention, is typically formalistic. Equally formalistic is the presumption that efficient markets benefit societal welfare.

At the same time, L&E questions these formalistic premises in its analysis and evaluation of legal rules in relation to the market. In L&E, the focus is

32 Other schools of thought that stem from legal realism, are, among others: Critical Legal Studies, Feminist legal Theory, Law & Society, Legal Process, Rights theory. See: Singer J.W., "Legal Realism Now", *California Law Review* 1988, vol. 77(2), p. 465, 504.

33 Coase R.H., "The Problem of Social Cost", *The Journal of Law & Economics* 1960, vol. 3, p. 1; Calabresi C., "Some Thoughts on Risk Distribution and the Law of Torts", *The Yale Law Journal* 1961, vol. 70(4), p. 499. See also: Posner R.A., *The Economics of Justice*, Harvard University Press 1981; Rowley C.K., "An intellectual history of law and economics: 1939-2003", in: Parisi F. & Rowley C.K. (eds.), *The Origins of Law and Economics*, Edward Elgar 2005, p. 3.

34 Parisi F., "Methodological debates in law and economics: the changing contours of a discipline," in: Parisi F. & Rowley C.K. (eds.), *The Origins of Law and Economics*, Edward Elgar 2005, p. 34 Coleman J.L., *Markets, Morals, and the Law*, Oxford University Press 1998, p. 67-68. Coleman discusses three common types of L&E research: (1) descriptive L&E research, which focusses on economic efficiency as an explanatory tool for rationalizing existing legal rules, (2) positive L&E research, which uses abstract market models to conceptualize traditional legal problems, (3) normative L&E research, which evaluates legal rules in terms of their economic efficiency.

on identifying and addressing impediments to optimal market function. This reflects the legal realism dimension of L&E: efficient markets may be the central premise of how resources are allocated but the concept of efficient markets is not seen as a realistic representation of reality. Moreover, L&E sees the law as a tool to improve efficient markets, and thus enhance welfare, which means that the law is seen as a means to an end and not as an internally coherent and closed system.

Two central concepts in L&E are efficient markets and welfare. These concepts serve as the analytical framework for evaluating whether public regulation of private markets is justified. The first concept, the 'efficient market' is how the market is supposed to function. A good understanding of this concept is important in order to understand not only how markets are supposed to work, but also to identify possible market failures that warrant regulatory intervention. In the next paragraph, I explore the concept of efficient markets, its relation to climate change, and specifically, its relation to the problem of a lack of sustainable finance and the EU SFF. The second concept, welfare, is the normative justification for public regulation of the market. This concept will be discussed in paragraph 4.

3 ON EFFICIENT MARKETS

3.1 Introduction

In L&E, efficient markets are the tool by which to achieve welfare. In this paragraph, I discuss two common notions of efficiency: Pareto efficiency and Kaldor-Hicks efficiency. When this efficiency cannot be realized due to so-called market failures, public intervention in the market may be justified according to L&E. I therefore discuss three market failures that play a central role in this research. First, climate change is the result of the market failure of externalities. Second, the two market failures that are central to the EU SFF are information asymmetries and the principal-agent problem.

3.2 On Efficiency

L&E is based on the premise that efficient markets enhance social welfare. Efficiency centres on the idea that resources are scarce and that an economy should be efficient in the manner that it allocates resources and produces output. In that way, the scarce resources will be optimally distributed and

thus be put to optimal use.³⁵ This is referred to as allocative and productive efficiency.³⁶

Table 1: Conditions for an efficient market. Source: Own image.

Category	Condition
Market structure	There is perfect competition
	Trading is cost-free
Market participants	Market participants have full information, which is symmetric for all
	Market participants are rational, act in their own interest and have fixed preferences
Relationship public & private domain	Private costs equal social costs
	Private goods

In principle, L&E presumes that markets allocate resources efficiently when circumstances are ideal, which are summarised in the table shown below.³⁷ Resources are allocated efficiently when prices equal marginal costs. The marginal cost is the lowest point at which a seller can put the good onto the market without incurring a loss. At this point, there should be no over-production on the supply side: any unsold goods would result in a loss since the sold goods generate no excess profits that compensate for the costs of the unsold goods. This is efficient as no rational producer would produce more than the demand. Vice versa, there should be no larger demand than supply for the good at that price – had there been a larger demand, this would have led to higher prices. The increase in price would have made it profitable to produce more of the good, which would have increased the availability, reduced the price, and so on. This was already described by Adam Smith, who explored the relationship between market price and supply and demand. He argued that the lowest price at which a good can be put on the market, is its natural price, the costs of producing the good.³⁸ According to Smith, in a competitive market, the actual market price will always converge toward the natural price: it is the lowest price for which the good can be sold without

35 Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 53; Kim A., “Decentralization and the Provision of Public Services: Framework and Implementation”, *The World Bank Policy Research Working Paper* 2008, WSP4503, p. 8.

36 Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 53.

37 Based on: Coyle D., *Markets, State, and People*, Princeton University Press 2020, p. 12, 16; Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 55-61; Krugman P. & Wells R., *Economics* (5th edition), Macmillan 2018.

38 Smith A., *An Inquiry into the Nature and Causes of the Wealth of Nations*, Book I, 1776, Chapter VII, p. 72-73.

the seller making a loss.³⁹ In a competitive market, supply and demand thus should settle at an equilibrium that is allocatively efficient. However, in any given market, there are many such equilibria where supply and demand meet. This raises the question of which equilibrium is to be preferred. There are two variations on efficiency to answer this question: Pareto-efficiency and Kaldor-Hicks efficiency.

3.2.1 Pareto Efficiency

In 1896, Pareto published his formula for a social optimum.⁴⁰ According to Pareto, a reallocation of resources is Pareto-superior if at least one person is better off, without anyone being worse off.⁴¹ A state of the market is considered to be Pareto-optimal if no further reallocation can increase the welfare of another person without anyone being worse off. Rational persons should all contract toward Pareto-optimal points, at which no one loses but some gains are to be realized.⁴² It follows from this concept that markets will gravitate toward Pareto-optimal outcomes, as parties should contract with each other until the point is reached where no further improvement for at least one person is possible without decreasing the position of another – a Pareto efficient equilibrium.⁴³ From this theory follows the first theorem of welfare economics: any equilibrium in a perfect market is Pareto efficient.⁴⁴ This is what is also colloquially known as the Invisible Hand – the idea that markets reach optimal outcomes in the absence of public regulation.⁴⁵

3.2.2 Kaldor-Hicks Efficiency

In 1939, both Kaldor and Hicks published their improvements of the Pareto optimum, which became collectively known as Kaldor-Hicks efficiency.⁴⁶ In essence, their argument is that if the gains made by those better off exceed the losses of those worse off, there is an increase in the aggregate wealth.⁴⁷

39 Aspromourgos T., “Adam Smith’s Treatment of Market Prices and Their Relation to Supply and Demand”, *History of Economic Ideas* 2007, vol. 15(3), p. 27, 29.

40 Pareto V., *Cours d’économie politique*, Volume 2, F. Rouge 1896; Coleman J.L., *Markets, Morals, and the Law*, Oxford University Press 2022, p. 81-86.

41 Pareto V., *Cours d’économie politique*, Volume 2, F. Rouge 1896; Coleman J.L., *Markets, Morals, and the Law*, Oxford University Press 2022, p. 81-86.

42 Coleman J.L., *Markets, Morals, and the Law*, Oxford University Press 2022, p. 81-86.

43 Coleman J.L., *Markets, Morals, and the Law*, Oxford University Press 2022, p. 81-86.

44 Discussed in, for example, Arrow K. J. & Debreu G., “Existence of an Equilibrium for a Competitive Economy”, *Econometrica* 1954, 22(3), p. 265, 266.

45 Coleman J.L., *Markets, Morals, and the Law*, Oxford University Press 2022, p. 81-86.

46 Hicks J.R., “The Foundations of Welfare Economics”, *The Economic Journal* 1939, vol. 49(196), p. 696.

47 Kaldor N., “Welfare Propositions of Economics and Interpersonal Comparisons of Utility”, *The Economic Journal* 1939, vol. 49(195), p. 549–52.

Moreover, those who are better off can hypothetically compensate those who are worse off.⁴⁸ However, the question of compensation is primarily a political question, as it is impossible to model which particular distribution of wealth maximizes social welfare.⁴⁹ Importantly, the Kaldor-Hicks efficiency recognizes that enhancing welfare may coincide with individual losses.

Kaldor-Hicks efficiency embraces the notion that a market can be Pareto efficient but have an objectionable distribution of resources (for example, with a minority owning almost all resources). After all, a change in the allocation of resources is desirable if the total gains exceed the total losses of those worse off, resulting in an increase in the aggregate wealth.⁵⁰ Other than the Pareto efficiency, Kaldor-Hicks efficiency rejects the notion that efficiency is necessarily reached by market mechanics themselves: there is no incentive for those parties who lose out to negotiate themselves into a losing position. However, a policymaker can use the concept of Kaldor-Hicks efficiency to increase total welfare by redistributing resources, without risking to impair the market forever: according to the second theorem of welfare, the market will find a new equilibrium after the intervention through the price mechanism.⁵¹

3.3 Market Failures

The idea central to L&E that the market allocates resources efficiently, can be seen as a typically formalistic presumption. However, L&E departs from this formalistic notion by identifying impediments that hinder the market from achieving efficient outcomes. From an L&E perspective, public regulation may be justified when such impediments occur in order to ensure the efficient working of the market and the maximization of welfare. These impediments, although of endless variations, are often categorised into so-called types of market failures. The following table provides an overview of categories of market failures, in the last column, that are often cited in general literature on why markets fail to achieve efficient outcomes.⁵²

48 Kaldor N., "Welfare Propositions of Economics and Interpersonal Comparisons of Utility", *The Economic Journal* 1939, vol. 49(195), p. 549–52.

49 Kaldor N., "Welfare Propositions of Economics and Interpersonal Comparisons of Utility", *The Economic Journal* 1939, vol. 49(195), p. 549–52. Also: Calabresi G., "The Pointlessness of Pareto: Carrying Coase Further", *The Yale Law Journal* 1991, vol. 100(5), p. 1211.

50 Kaldor N., "Welfare Propositions of Economics and Interpersonal Comparisons of Utility", *The Economic Journal* 1939, vol. 49(195), p. 549–52.

51 Discussed in, for example Arrow K. J. & Debreu G., "Existence of an Equilibrium for a Competitive Economy", *Econometrica* 1954, 22(3), p. 265. Also: Coyle D., *Markets, State, and People*, Princeton University Press 2020, p. 11.

52 Based on inter alia: Coyle D., *Markets, State, and People*, Princeton University Press 2020, p. 12, 16; Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 55–61; Krugman P. & Wells R., *Economics* (5th edition), Macmillan 2018.

Table 2: Conditions for efficient markets and common categories of market failures. Source: Own image.

Category	Condition	Failure
Market structure	There is perfect competition	Imperfect competition
	Trading is cost-free	Transaction costs
Market participants	Market participants have full information, which is symmetric for all	Information asymmetries, principal-agent problem
	Market participants are rational, act in their own interest and have fixed preferences	Biases in individual decision-making, non-rational behavior
Relationship public & private domain	Private costs equal social costs	Externalities
	Private goods	Free riding & tragedy of the commons

In the context of this research, which focuses on evaluating whether the EU SFF enables investors to make better informed investment decisions that integrate sustainability considerations, two market failures are particularly relevant: information asymmetries and the principal-agent problem.⁵³ This is because the EU SFF specifically addresses these two market failures – explicitly in recital 10 to the SFDR and implicitly with its focus on the provision of information to *inter alia* investors in the recitals of the CSRD and Taxonomy.⁵⁴ However, the overarching problem that the EU SFF addresses, namely the systemic underfunding of sustainable economic activities, and on an even higher level the problem of anthropogenic climate change, are two interlinked problems that both are consequences of the market failing to deliver efficient outcomes. Climate change can be linked to all market failures listed above, but it is generally seen as an externalities problem. In the next paragraph, I therefore expand upon anthropogenic climate change as the result of externalities (para. 3.4). Thereafter, I discuss the two market failures that the EU SFF is specifically attempting to remedy (para. 3.5). I have chosen not to discuss the other market failures listed in the table above because it is not the central objective of the EU SFF to remedy these.

⁵³ By addressing these two market failures, the EU SFF also addresses, at least in part, the market failure of transaction costs. See also: Colaert V., “The changing nature of financial regulation: Sustainable finance as a new policy goal”, *Common Market Law Review* 2022, vol. 59(6), p. 1669, 1671.

⁵⁴ Recital 10 SFDR: “This Regulation aims to reduce information asymmetries in principal-agent relationships (...)”.

3.4 Climate Change as a Market Failure

The dominant manner of explaining the relationship between climate change and markets is that anthropogenic climate change is the result of the market failure to adequately price and internalise the costs of environmental externalities.⁵⁵ Externalities are uncompensated costs (or benefits) imposed on third parties, also referred to as social costs.⁵⁶ Anthropogenic climate change has been conceptualised as an externalities problem for many decades, for example in the 1969 paper of Ayres and Kneese *Production, Consumption, and Externalities*, mentioned in the previous Chapter.⁵⁷ Two more recent authoritative publications on the topic are Stern's *The Economics of Climate Change: The Stern Review* and Nordhaus' *Climate Change: The Ultimate Challenge for Economics*.⁵⁸

Externalities are uncompensated costs or benefits imposed on third parties.⁵⁹ In relation to environmental harm, the parties derive economic value from activities such as the production and consumption of goods but do not carry the costs of environmental degradation that are caused by their activities, as these are externalised. This causes a divergence between the benefits for the direct parties to the activity and the general costs that are borne by society. From a market efficiency perspective, the market thus has failed to accurately price the activity as the price that is incurred by the parties does not encompass the full costs. As a result, parties are incentivised to continue their harmful activities as they do not carry the costs, even though this is detrimental to public welfare. This misalignment is particularly evident in the context of anthropogenic climate change, as the parties to carbon-intensive activities reap the economic benefits of the activity whilst the environmental costs are externalised to society and future generations.

Environmental impact economic activities are justified when their societal benefits exceed the aggregate social costs, which requires a cost-benefit analysis that encompasses both private and societal costs and benefits. This raises the question of determining optimal emission levels that maximize social welfare.

55 Climate change as an externalities problem can be found in most introductory economics textbooks. See: Liu J.C.-E., Bauman Y. & Chuang Y., "Climate Change and Economics 101: Teaching the Greatest Market Failure", *Sustainability* 2019, vol.11(5), p. 1340. The authors analysed 27 commonly used introductory economics textbooks and found that most books touched on the subject, and all of those conceptualize climate change as a problem negative externalities.

56 See for an introductory economic discussion: Krugman P. & Wells R., *Economics* (5th edition), Macmillan 2018, chapter 8.

57 Ayres R. U. & Kneese A. V., "Production, Consumption, and Externalities" *The American Economic Review* 1969, vol. 59(3) p. 282.

58 Stern N., *Stern Review: The Economics of Climate Change*, Cambridge University Press 2006; Nordhaus W.D., "Climate Change: The Ultimate Challenge for Economics", *American Economic Review* 2019, vol. 109(6), p. 1991.

59 See for an introductory economic discussion: Krugman P. & Wells R., *Economics* (5th edition), Macmillan 2018, chapter 8.

In principle, such an optimum must balance the social benefits against their full social costs.⁶⁰ In a perfectly efficient market, the optimal level should be reached through market forces alone. Evidently, this is not the case. Moreover, the optimal level of emissions is subject to debate as the cost of carbon emissions is impossible to pinpoint. For example, Nordhaus estimated in 2017 that the social costs of one ton of carbon dioxide emitted in the year 2010 was USD 31, whereas Stern estimated the social cost of carbon emissions at USD 300 per ton in 2006.⁶¹ However, there is broad scholarly consensus that current emission levels substantially exceed socially optimal thresholds and that the market is thus failing to adequately price emissions.

In economics, two general solutions have been proposed for the market failure of externalities.⁶² The first solution is imposing a so-called Pigovian tax on the harmful activity.⁶³ As a result of the tax, harmful activities should become as expensive as when the social costs have been internalised.⁶⁴ This should restore the market equilibrium to that which would exist if all costs had been accounted for. The other solution is for private parties to resolve the problem of externalities between themselves without government intervention.⁶⁵ This can be either done through contract or through litigation.⁶⁶ After all, if the market is not yet at its social optimum, there must be room for improvement.⁶⁷

The problem with climate change is that it has a number of features that distinguish it from other externalities, which means that the solutions just mentioned are not adequate. Stern discusses how climate change as an externality differs from other externalities: the global scope of both emissions and their impacts transcends national boundaries, while the long-term effects create a lag between cause and effect.⁶⁸ Moreover, there is uncertainty about the environmental and economic consequences of climate change, and the potentially irreversible character of climate change impedes traditional cost-

60 Krugman P. & Wells R., *Economics* (5th edition), Macmillan 2018, p. 461.

61 Nordhaus W.D., "Revisiting the social costs of carbon", *Earth, Atmospheric, and Planetary Sciences* 2017, vol. 114(7), p. 1518 -1523; Stern N., *Stern Review: The Economics of Climate Change*, Cambridge University Press 2006.

62 Coyle D., *Markets, State, and People*, Princeton University Press 2020, p. 31.

63 Pigou A.C., *The Economics of Welfare* (4th edition), Macmillan and Co. 1932, p. 224.

64 In the context of climate change, carbon pricing can be seen as a Pigovian tax. See also: Nordhaus W.D., "Climate Change: The Ultimate Challenge for Economics", *American Economic Review* 2019, vol. 109(6), p. 1991.

65 Coase R.H., "The Problem of Social Cost", *The Journal of Law & Economics* 1960, vol. 3, p. 1.

66 Endres A., *Environmental Economics – Theory and Policy*, Cambridge University Press 2012, p. 50.

67 Regan D.H., "The Problem of Social Cost Revisited," *Journal of Law & Economics* 1972, vol. 15, p. 427, 428-429.

68 Stern N., *Stern Review: The Economics of Climate Change*, Cambridge University Press 2006, chapter 2.

benefit analysis.⁶⁹ Additionally, climate change is mainly an externalities problem but contains elements of all other market failures as well.⁷⁰ The complex nature of climate change as a market failure makes it particularly difficult to address through traditional policy solutions. No single policy tool can effectively tackle all these interconnected challenges at once. As a result, policy tends to focus on addressing specific parts of the problem, such as, in the context of this thesis, the reorientation of capital flows from unsustainable toward sustainable activities.

3.5 Underinvestment in Sustainable Activities as a Market Failure

The externality problem also distorts investment flows: businesses that generate positive environmental externalities do not get compensated for the value of their societal benefits, whilst businesses that create negative externalities profit by avoiding the true costs of environmental harm.⁷¹ Therefore, in a market that does not internalise the costs of environmental harm, carbon-intensive businesses that externalize environmental costs may categorically realize more financial profits than sustainable businesses that internalise them.⁷² This directly impacts investment decisions: as returns may be higher for carbon-intensive industries, investors who are seeking to maximize the return on their investment may be incentivised to invest in carbon-intensive industries instead of low-carbon alternatives. After all, carbon-intensive industries realize artificially high returns as they do not internalise the costs of pollution. The persistent failure of markets, in general, to adequately price carbon thus is

69 Stern N., *Stern Review: The Economics of Climate Change*, Cambridge University Press 2006, chapter 2.

70 For example, the problem of free-riding and the tragedy of the commons is extremely relevant, see: Hardin G., "The Tragedy of the Commons", *Science* 1968, vol. 162(3859), p. 1243, 1245; Fisher E., Lange B. & Scotford E., *Environmental Law Text, Cases, and Materials*, Oxford University Press 2013, p. 26-27.

71 See also: Schoenmaker D. & Schramade W., *Corporate Finance for Long-Term Value*, Springer International Publishing 2023, p. 162-164.

72 Bolton P. & Kacperczyk M., "Do investors care about carbon risk?", *Journal of Financial Economics* 2021, vol. 142(2), p. 517: "We find that stocks of firms with higher total carbon dioxide emissions (and changes in emissions) earn higher returns, controlling for size, book-to-market, and other return predictors." Note that other research suggest that in fact there is a negative relationship between high carbon emissions and profitability; businesses with high emissions tend to be less profitable than businesses with low emissions. See for example: Oestereich A.M. & Tsiakas I., "Carbon emissions and firm profitability", *Journal of Sustainable Finance & Investment* 2024, vol. 14(4), p. 766; Chava S., "Environmental externalities and cost of capital", *Management Science* 2014, vol. 60(9), p. 2223. The observed lower profitability does not contradict the fact that businesses profit from externalising their environmental costs. The difference in profitability that is shown in these papers, might stem from various other factors, including industry-specific characteristics, regulatory pressures, or operational inefficiencies that are unrelated to environmental externalities.

mirrored in financial markets, which creates a self-reinforcing circle of unsustainable economic activities as these may attract capital that would have been invested in sustainable alternatives if the market had better priced environmental impacts. The market for sustainable financing thus, is facing similar problems as the economy in general as both fail to adequately price environmental costs and benefits. It follows that the market for sustainable financing is failing to realize an optimal allocation of resources too as it is equally struggling with the market failure of externalities, which results in the underinvestment in sustainable activities.

As with climate change, the problem of underinvestment in sustainable activities is more complex than merely the externalities paradigm and combines multiple market failures. Whereas the internalization of environmental costs theoretically should restore the market equilibrium, there are multiple and complex obstacles.⁷³ In addition to the problems listed in the paragraph above that prevent adequate resolution of the climate crisis, externality analysis is difficult due to varying time horizons of environmental impacts and other uncertainties, rendering it time-consuming and costly, which limits its relevance to investors.⁷⁴ It is therefore not surprising that the policy responses to the problem of underinvestment in sustainable activities, including the EU SFF, address not the problem of externalities in the real economy or in financial markets, but focus on more specific impediments to sustainable investing.

The EU SFF rests on the assumption that inadequate information is a significant barrier for sustainability-oriented investors. This follows, for example, from the Action Plan: “[a] lack of clarity among investors regarding what constitutes a sustainable investment is a contributing factor behind this investment gap (...).”⁷⁵ The EU SFF thus aims to facilitate sustainable investment by improving the flow of sustainability information. Whether and why investors want to invest sustainably, has been extensively examined in academic literature.⁷⁶ These studies show that there is a great variety in investor

73 See also: Schoenmaker D. & Schramade W., *Principle of Sustainable Finance*, Oxford University Press 2019, chapter 2.

74 Schoenmaker D. & Schramade W., *Principle of Sustainable Finance*, Oxford University Press 2019, p. 198-199.

75 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 COM/2018/097 final, para. 1.1.

76 For example: Heeb F., e.a., “Do Investors Care about Impact?”, *The Review of Financial Studies* 2023, vol. 36(5), p. 1737. The authors conducted a study to examine how much extra investors would pay for sustainable investments based on their social impact. The key findings were that (1) investors showed significant willingness to pay more for sustainable investments in general, but (2) they didn’t pay significantly more for investments with higher social impact. Investors felt positive emotions when choosing sustainable investments, regardless of the actual impact level. The researchers concluded that investors’ willingness to pay extra for sustainable investments seems to be driven more by emotional factors rather than a careful calculation of the actual social impact achieved. Jansson M. & Biel A.,

preferences on sustainability. When investors incorporate sustainability considerations into their investment decisions, this is for various reasons, including expectations about long-term returns of sustainable investing, efforts to reduce financial risks, and non-pecuniary motivations.⁷⁷ The EU SFF aims to address the varied needs of these investors by addressing two market failures: information asymmetries and the principal-agent problem.

3.5.1 Information asymmetries

3.5.1.1 General Law & Economics Theory

The primary market failure that is addressed in the EU SFF, is information asymmetries. Information asymmetries refer to those situations where one party, usually the buyer, is less well-informed about a financial product than the seller.⁷⁸ As the buyer depends on the information released by the seller,

“Motives to engage in sustainable investment: a comparison between institutional and private investors”, *Sustainable Development* 2011, vol. 19(2), p. 135. This study compared sustainable investing motivations across 60 fund managers, 453 private investors, 71 institutional investors. Private and institutional investors were primarily motivated by environmental and social values (self-transcendent values). Fund managers were mainly motivated by expected long-term financial returns. Different secondary motivations emerged: private investors also considered long-term returns, whilst institutional investors focused on risk reduction. Additionally, a significant misalignment was found: investment institutions misunderstood their clients’ preferences by overemphasizing the importance of financial returns and underestimating how much their clients valued ethical, environmental, and social factors. Hartzmark S.M. & Sussman A.B., “Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows”, *The Journal of Finance* 2019, vol. 74(6), p. 2789. This study examines how investors react to sustainability ratings in U.S. mutual funds. The researchers found that investors believed sustainable funds would perform better in the future. However, the actual data showed no evidence that high-sustainability funds outperformed low-sustainability ones. The researchers conclude that investors’ preferences for sustainable funds were driven by two factors (1) emotional positive associations with sustainability that led to optimistic performance expectations and (2) non-financial motivations for choosing sustainable investments. Bauer R., Ruof T. & Smeets P., “Get Real! Individuals Prefer More Sustainable Investments”, *The Review of Financial Studies* 2021, vol. 34(8), p. 3976. This research examines how pension fund members view sustainable investing through two large field surveys. Around 66% of members supported increased company engagement on UN Sustainable Development Goals (SDGs). The main driver for this support was members’ social preferences – meaning they valued societal benefits beyond pure financial returns.

77 For example: Heeb F., e.a., “Do Investors Care about Impact?”, *The Review of Financial Studies* 2023, vol. 36(5), p. 1737; . Jansson M. & Biel A., “Motives to engage in sustainable investment: a comparison between institutional and private investors”, *Sustainable Development* 2011, vol. 19(2), p. 135; Hartzmark S.M. & Sussman A.B., “Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows”, *The Journal of Finance* 2019, vol. 74(6), p. 2789; Bauer R., Ruof T. & Smeets P., “Get Real! Individuals Prefer More Sustainable Investments”, *The Review of Financial Studies* 2021, vol. 34(8), p. 3976.

78 Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 55.

this places him in a vulnerable position.⁷⁹ Buyers, aware of this, are incentivised to mediate the effects of this vulnerability, leading to what is known as the adverse selection problem.⁸⁰ This was famously described by George Akerlof in *The Market for "Lemons"*, in which he gave the example of used cars to show how information asymmetries inhibit the price mechanism from functioning properly.⁸¹ As buyers of used cars are aware of the fact that sellers will not properly inform them of the defects of the specific car, they are unable to properly price the value of a specific car.⁸² They thus will want to pay at most the average price of a used car. This incentivises the sellers to put on the market only cars that are less valuable than an average used car – the information asymmetry thus is to the detriment of those players who offer higher quality products, who will be driven out of the market.⁸³ Buyers, aware of this, will in turn be incentivised to pay even less as the average quality of products is decreasing. The market thus gets captured in a negative price-quality spiral, which ultimately undermines the entire market.⁸⁴

3.5.1.2 Sustainable Investing

This mechanism obviously applies to financial markets as well and is one of the main motivations for information regulation in the first place.⁸⁵ As buyers of financial products depend on information provided by the sellers of those products, a large part of financial regulation is concerned with imposing a duty to disclose relevant information on the sellers – in this context issuers and intermediaries. Minimizing the obligation to investigate in financial markets is classically supported by the argument that the information asymmetry between issuers and investors is so large and the incentives for issuers to manipulate information so strong that a voluntary disclosure system would lead to disclosures based on the private interests of the issuers, which would undermine an efficient market.⁸⁶

79 Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 55.

80 Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 266.

81 Akerlof G.A., "The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism", *The Quarterly Journal of Economics* 1970, vol. 84(3), p. 488.

82 Akerlof G.A., "The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism", *The Quarterly Journal of Economics* 1970, vol. 84(3), p. 488, 489-490.

83 Akerlof G.A., "The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism", *The Quarterly Journal of Economics* 1970, vol. 84(3), p. 488, 489-490.

84 Summaries are contained in: Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 266 and Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, p. 55-56.

85 See also: Partnoy F., "Financial Systems, Crises, and Regulation", in: Moloney N., e.a. (ed.), *The Oxford Handbook of Financial Regulation*, Oxford University Press 2015, p. 68-94.

86 Coffee J.C., "Market Failure and the Economic Case for a Mandatory Disclosure System", *Virginia Law Review* 1984, vol. 70(4), p. 717-753; Fox M.B., "Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment", *Virginia Law Review* 1999, vol. 85(7), p. 1335-1420. The seminal work on the balance between the duty to disclose and

With the overarching aim of aligning financial flows to a climate neutral future and with increasing interest in sustainable financial products, the flow of information from issuers to investors must contain relevant sustainability information.⁸⁷ Otherwise, in line with L&E theory, investors are not equipped to adequately assess the (value of) a sustainable investment, which may deter them from allocating capital to sustainable economic activities. Moreover, in the context of environmental information, investors are aware that there is a risk that sellers are withholding information on the negative sustainability performance of an investment, which may be an extra deterrence from allocating capital toward sustainable activities.⁸⁸ Without a standardised framework for sustainability information, investors face multiple information asymmetry issues that impede the efficient allocation of capital to sustainable economic activities. These, *inter alia*, include:

1. The challenge of identifying what information is material to investment decisions;
2. The lack of a standard understanding of what can be considered sustainable;⁸⁹
3. The multitude of methodologies and frameworks for labelling an investment as sustainable;⁹⁰
4. The 'downstream' challenge – how does sustainability information reach end-investors in a market where investment takes place via intermediaries?⁹¹

These are just a few challenges that impede investors' ability to accurately assess and compare both the financial value and the sustainability profile of investments, thereby distorting the pricing mechanism of the market. The resulting inadequate price for sustainable and other investments undermines the efficient allocation of capital toward sustainable economic activities, leading to the current investment gap.

Issuers have a large advantage over investors in accessing their own business-specific sustainability information, which is why sustainability information should be disclosed on a mandatory instead of voluntary basis.

the obligation to investigate in contract theory is: Kronman A.T., "Mistake, Disclosure, Information, and the Law of Contracts", *Journal of Legal Studies* 1978, vol. 7(1), p. 1-34.

87 Rogge E. & Ohnesorge L., "The Role of ESG Rating Agencies and Market Efficiency in Europe's Climate Policy", *Hastings Environmental Law Journal* 2022, vol. 28(2), p. 113, 120-121.

88 Sellhorn T. & Wagner V., "Chapter 12: The forces that shape mandatory ESG reporting", in: Kuntz T. (ed.), *Research Handbook on Environmental, Social and Corporate Governance*, Edgar Elgar 2024, p. 283.

89 Rhodes M.J. & Teerooven S., "Information Asymmetry and Socially Responsible Investment", *Journal of Business Ethics* 2010, vol. 95(1) p. 145, 147-148.

90 Berg F., Kölbel J.F. & Rigobon R., "Aggregate Confusion: The Divergence of ESG Ratings", *Review of Finance* 2022, vol. 26(6), p. 1315.

91 Rhodes M.J. & Teerooven S., "Information Asymmetry and Socially Responsible Investment", *Journal of Business Ethics* 2010, vol. 95(1) p. 145, 147-148.

While some investors may have strong incentives to investigate the sustainability position of issuers, for example in order to diminish climate risks, accessing this information without mandatory disclosures remains exceptionally difficult.⁹² Moreover, sustainability information differs from purely financial information in an important way: it has a public dimension, as sustainability impacts extend beyond the private relationship between contracting parties. These two arguments support applying the same mandatory approach to disclosures for sustainability information as is used for financial information. Additionally, the information asymmetries give rise to another market failure: the principal-agent problem.

3.5.2 The Principal-Agent Problem

3.5.2.1 General Law & Economics Theory

The EU SFF also addresses the principal-agent problem. In the principal-agent theory, the principal, here the investor, delegates some of its decision-making power to the agent, a financial intermediary.⁹³ While this delegation makes sense in complex financial markets, it also creates the inherent risk that the agent does not (fully) act in the interest of the principal.⁹⁴ This is called the principal-agent problem, which has two prerequisites: that the principal and the agent have different interests and that there is information asymmetry between them.⁹⁵

The principal-agent problem stands in the way of an efficient allocation of resources in financial markets. First, prior to concluding a contract, it can lead to the adverse selection problem described in the previous section as investors are aware of the fact that intermediaries may exploit the information asymmetry between them.⁹⁶ The investor may attempt to overcome this vulnerability either by withdrawing from the market or by screening the intermediary, which increases costs.⁹⁷ Second, after the conclusion of the contract,

92 For example: Krueger P., Sautner Z., Starks L.T., "The Importance of Climate Risks for Institutional Investors", *The Review of Financial Studies* 2020, Vol. 33(3), p. 1067-1111.

93 Ross S.A., "The Economic Theory of Agency: The Principal's Problem" *The American Economic Review* 1973, vol. 63(2), p. 134-39; Jensen M. C. & Meckling W.H., "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics* 1976, vol. 3(4), p. 305, 308.

94 See: E Fama E.F. & Jensen M.C., "Separation of Ownership and Control", *The Journal of Law & Economics* 1983, vol. 26(2), p. 301; Shavell S., "Risk Sharing and Incentives in the Principal and Agent Relationship", *The Bell Journal of Economics* 1979, vol. 10(1), p. 55.

95 For example, Shah S.N., *The Principal-Agent Problem in Finance*, CFA Institute Research Foundation 2014, p. 2-5.

96 Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 266; Akerlof G.A., "The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism", *The Quarterly Journal of Economics* 1970, vol. 84(3), p. 488.

97 Dahlman C.J., "The Problem of Externality", *Journal of Law & Economics* 1979, vol. 22(1), p. 141, 147-148.

the investor is exposed to the principal-agent problem and may incur monitoring costs to ensure the intermediary acts in accordance with his interests.⁹⁸ Both types of costs distort the market price of financial products, hindering the efficient working of the market.

3.5.2.2 Sustainable Investing

The principal-agent problem plays an important role in hindering sustainable investing.⁹⁹ As I already pointed out, the principal-agent problem has two prerequisites: information asymmetries and diverging interests between the principal and the agent. Consider the following two issues that can arise in sustainable finance.

First, the investors and intermediaries may have different time-horizons for risk management. For an investor, sustainable investments may serve as a tool for risk mitigation, as incorporating sustainability considerations can help identify and mitigate long-term risks that can affect the financial performance of the investment.¹⁰⁰ However, intermediaries frequently are predisposed toward short-termism, which can lead to the undervaluation of long-term risks, particularly those related to sustainability.¹⁰¹ A possible driver of this short-termism may be the short-term asset evaluations and incentives that financial intermediaries are exposed to, such as (bi-)annual or even quarterly reported earnings, which may pressure managers to boost short-term stock prices

98 Holmström B., "Moral Hazard and Observability" *The Bell Journal of Economics* 1979, vol. 10(1), p. 74; Jensen M. C. & Meckling W.H., "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics* 1976, vol. 3(4), p. 305, 308; Dahlman C.J., "The Problem of Externalities", *Journal of Law & Economics* 1979, vol. 22(1), p. 141, 147-148.

99 Sellhorn T. & Wagner V., "Chapter 12: The forces that shape mandatory ESG reporting", in: Kuntz T. (ed.), *Research Handbook on Environmental, Social and Corporate Governance*, Edgar Elgar 2024, p. 284.

100 Jansson M. & Biel A., "Motives to engage in sustainable investment: a comparison between institutional and private investors", *Sustainable Development* 2011, vol. 19(2), p. 135. See also: Krueger P., Sautner Z. & Starks L.T., "The Importance of Climate Risks for Institutional Investors", *The Review of Financial Studies* 2020, vol. 33(3) p. 1067.

101 Bianchini G., e.a., "Short-termism pressures from financial markets", ESMA Report on Trends, Risks and Vulnerabilities, ESMA 2020, No. 1., p. 60, available at: https://www.esma.europa.eu/sites/default/files/trv_2020_1-short_termism_pressures_from_financial_markets.pdf, accessed on 14 April 2025; Fried J.M. & Wang C.C.Y., "Short-Termism and Capital Flows", *The Review of Corporate Finance Studies* 2019, vol. 8(1), p. 207; Ofir M. & Elmakiess T., "The Eco-Agency Problem and Sustainable Investment", *LSE Legal Studies Working Paper* 2023, no. 26, available at: <https://ssrn.com/abstract=4652981>, accessed on: 30 October 2024; Lydenberg S., "System-Level Considerations and the Long-Term Investor: Definitions, Examples, and Actions", *The Investment Integration Project* 2017, available at: https://www.tiiproject.com/wp-content/uploads/2017/03/Systems_Level_Considerations_Long_Term_Investor.pdf, accessed on: 31 October 2024.

instead of considering longer-term horizons.¹⁰² The different time horizons of investors and intermediaries can be seen as an example of diverging interests. The undervaluation of long-term risks by the intermediary constitutes a direct cost resulting from this principal-agent problem, while the intermediaries' short-termism may also stand in the way of research and development necessary to transition to a climate-neutral society, which requires long-term vision and investment, which can be considered an implicit cost of the principal-agent problem.¹⁰³

Second, greenwashing is another clear example of the principal-agent problem in sustainable finance. Greenwashing is defined by the ESAs as "a practice where sustainability-related statements, declarations, actions, or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a financial product, or financial services. This practice may be misleading to consumers, investors, or other market participants."¹⁰⁴ Greenwashing at its core is a classical principal-agent problem: there is both a misalignment of interest and information asymmetries between investor and intermediary.¹⁰⁵ Whilst investors have an interest in investing sustainably, intermediaries are primarily interested in acquiring and keeping the investor as a client. The preference to invest sustainably may be driven by many motivations, as noted above, however, there is clear empirical evidence that some investors are even willing to forego returns for sustainability impact.¹⁰⁶

102 Bianchini G., e.a., "Short-termism pressures from financial markets", ESMA Report on Trends, Risks and Vulnerabilities, ESMA 2020, No. 1., p. 60-61, available at: https://www.esma.europa.eu/sites/default/files/trv_2020_1-short_termism_pressures_from_financial_markets.pdf, accessed on 14 April 2025; Fried J.M. & Wang C.C.Y., "Short-Termism and Capital Flows", *The Review of Corporate Finance Studies* 2019, vol. 8(1), p. 208.

103 Roe M.J., "What is Stock Market Short-Termism?", *European Corporate Governance Institute – Law Working Paper* 2022, no. 658, available at: <https://ssrn.com/abstract=4194910>, accessed: 31 October 2024.

104 ESMA, Progress Report on Greenwashing, Response to the European Commission's request for input on "greenwashing risks and the supervision of sustainable finance policies", 31 May 2023, ESMA30-1668416927-2498, p. 11. A comprehensive overview of definitions can be found in: Freitas Netto S.V. de, e.a., "Concepts and forms of greenwashing: a systematic review", *Environmental Sciences Europe* 2020, vol. 32(19), available at: <https://doi.org/10.1186/s12302-020-0300-3>. See also: Marquis C., e.a., "Scrutiny, Norms, and Selective Disclosure: A Global Study of Greenwashing", *Organization Science* 2016, vol. 27(2), p. 483; Delmas, M. A. & Burbano V. C., "The Drivers of Greenwashing", *California Management Review* 2011, vol. 54(1), p. 64.

105 Sellhorn T. & Wagner V., "Chapter 12: The forces that shape mandatory ESG reporting", in: Kuntz T. (ed.), *Research Handbook on Environmental, Social and Corporate Governance*, Edgar Elgar 2024, p. 284.

106 For example: Heeb F., e.a., "Do Investors Care about Impact?", *The Review of Financial Studies* 2023, vol. 36(5), p. 1737: authors showed significant willingness to pay more for sustainable investments in general. Cambridge Institute for Sustainability Leadership, *Walking the talk: Understanding consumer demand for sustainable investing*, October 2019, available at: <https://www.cisl.cam.ac.uk/system/files/documents/cisl-vie-report-single-pages.pdf>: investors are willing to sacrifice up to 2,5% on the returns of their investment if that investment is

At the same time, intermediaries may possess more information on the sustainability risks, impacts and opportunities of the investment than investors.

The information asymmetries combined with the diverging interests of investors and intermediaries create the risk that the intermediary exploits the vulnerability of the investor by presenting investment opportunities as more sustainable than they are in order to win or keep more investors as clients. Aware of the risk of greenwashing, investors are consequently faced with the choice of either withdrawing from sustainable investing or incurring extra costs to select and monitor intermediaries that act in their interests. Both options distort the market price of financial products and form a serious hindrance to sustainable investing.

3.6 Conclusion

According to Adam Smith, the natural price equals the cost of producing the good. Moreover, in a competitive market, the market price will converge toward the natural price. However, this equilibrium only enhances welfare if the natural price encompasses all production costs, including the externalities that are not accounted for in market economies.

However, the current economic system fails to fulfil the presumption of classical economic theory that the market price equals the natural price, increasing welfare. The widespread externalization of environmental impacts leads to artificially high profits for environmentally harmful economic activities, which distorts the market price = natural price premise. This also affects sustainable finance, as the market for capital mirrors the pricing inefficiency in the real economy: investing in carbon-intensive industries may be artificially advantageous compared to investing sustainably. From an L&E perspective, this externalities-driven market failure prevents optimal resource allocation, undermining welfare maximization.

The problem of externalities and climate change cannot be resolved by traditional methods such as a tax on polluting activities or arbitrage between parties due to its complex and transnational nature. Consequently, the EU SFF focuses on more specific obstacles to sustainable investing: the lack of

sustainable. Note that while this may not seem like a significant sacrifice from the perspective of investors, the difference may be substantial from the perspective of the issuer. The difference in required returns can, for example, significantly impact an issuer's cost of capital, potentially affecting their competitiveness in the market and their ability to finance long-term sustainable projects.

Puylaert G. & Zijlstra W., "Rapport: Consument accepteert meer risico en lager rendement voor duurzame belegging", AFM 2020, available at: <https://www.afm.nl/nl-nl/sector/actueel/2020/september/consument-accepteert-meer-bij-duurzame-belegging>, p. 4-5: investors are willing to forego returns on sustainable investments.

adequate sustainability information, which results in information asymmetries and the principal-agent problem. Both market failures distort the adequate pricing of investments, undermining the efficient allocation of capital to sustainable economic activities via the market.

Although the EU SFF does not directly address the core problem of the discrepancy between the market price (formed by supply and demand) and the natural price (which accounts for all costs of the economic activity), the framework is a crucial component for the market price to better approximate the natural price. As a framework, the EU SFF ensures that parties to a transaction become better informed about the external costs of their economic transactions. This information enables participants to more effectively consider these costs in their decision-making processes.

A fundamental challenge is that the approximation of the natural price via enhanced transparency depends on the parties' willingness to account for the external costs of their economic transactions. However, compared to a situation in which parties lack any relevant sustainability information about their transactions, the EU SFF increases the likelihood of market prices approaching natural prices, as participants are no longer entirely blind to the environmental consequences of their transactions. From an L&E perspective, which sees markets as the tool for achieving an efficient allocation of resources, it is thus important to address these two market failures of information asymmetries and the principal-agent problem. I therefore assess in Chapters 3–5 whether the legal framework indeed overcomes the current deficiencies in sustainability information for investments, in line with my research question: *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?*

4 ON WELFARE

4.1 Introduction

The theory of efficient markets explains how markets achieve optimal outcomes and why intervention in certain cases is necessary to eliminate obstacles to reaching that optimum. Whereas efficiency can be seen as instrumental to achieving welfare, the theory of efficient markets does not address the underlying normative justification for public regulation: what is the moral foundation of enabling market efficiency through public regulation?

The normative argument of L&E is that public regulation promotes welfare, which justifies intervening in markets. This raises the question of what is meant by the promotion of welfare. And why is it a desirable legal value? There are two major interpretations of the promotion of welfare: a) the promotion of

subjective utility or happiness, and b) the promotion of objective economic wealth. In this section, I first describe both interpretations of welfare (para 4.2.1 and 4.2.2). Subsequently, I analyse three points of criticism in order to explore the limitations of both interpretations of welfare. I conclude by adopting and defending the wealth-based interpretation of welfare as the justification for the EU SFF in the context of this research (para. 4.3).

The interpretation of welfare in L&E has been the subject of more academic deliberation than I can capture within the confined space of this paragraph. Therefore, I have chosen to primarily draw on four articles that approach the debate from distinct angles:

- Posner’s ‘Utilitarianism, Economics, and Legal Theory’ (1979) presents a defence of a wealth-based interpretation of welfare.¹⁰⁷
- Coleman’s ‘Efficiency, Utility, and Wealth Maximization’ (1980) focuses on Posner’s economic argumentation regarding efficiency.¹⁰⁸
- Dworkin’s ‘Is Wealth a Value?’ (1980) approaches the matter from a rights-based perspective.¹⁰⁹
- Weinrib’s ‘Utilitarianism, Economics, and Legal Theory’ (1980) analyses the logical and theoretical soundness of Posner’s essay.¹¹⁰

Together, these four articles form a comprehensive framework for analysing the meaning of welfare in L&E. All have been written by influential academics and have been cited many times since their publication, demonstrating their role in shaping the academic debate on the interpretation of welfare in L&E. They represent a variety of perspectives and have greatly influenced my own view on the various interpretations of a wealth-based approach, as well as its benefits and drawbacks.

4.2 What is Welfare?

4.2.1 *The Maximalization of Happiness*

Utilitarianism focuses on the maximization of the “surplus of pleasure over pain”.¹¹¹ Two aspects of this are the promotion of happiness and its aggrega-

107 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103.

108 Coleman J.L., “Efficiency, Utility, and Wealth Maximization”, *Hofstra Law Review* 1980, vol. 8(3), p. 509.

109 Dworkin R.K., “Is Wealth a Value?”, *The Journal of Legal Studies* 1980, vol. 9(2) p.191.

110 Weinrib E.J., “Utilitarianism, Economics, and Legal Theory”, *University of Toronto Law Journal* 1980, vol. 30(3), p. 307.

111 Sidgwick H., *Methods of Ethics* (7th edition), Macmillan and Co. 1907, p. 413.

tion across society.¹¹² The first element, the promotion of happiness, depends on the individual utility that an action has for a person – on an individual level, utilitarianism thus is a subjective approach to welfare. Utility, according to Bentham, is “that property in any object whereby it tends to produce benefit, advantage, pleasure, good, or happiness” or “to prevent the happening of mischief, pain, evil, or unhappiness to the party whose interest is considered”.¹¹³ It is intimately connected with the individual preferences of a specific (group of) person(s).¹¹⁴ Utilitarianism does not judge these individual preferences according to some moral standard.¹¹⁵ This means that there is strict impartiality on the righteousness of the action.¹¹⁶ The absence of judgement signifies that utilitarianism promotes equality and neutrality: the lack of judgement between individual preferences implies that there is no preference for a particular type of person.¹¹⁷ For example, the preferences of a scholar are no better than the preferences of a gambler; accordingly, a scholar is no better than a gambler.

The drawback of equality and neutrality is that they provide no guidance as to what a person should do, except to increase happiness. Aware of this, Bentham wrote about how to measure pain and pleasure, formulating indicators such as the intensity, duration, certainty, and proximity of pleasure or pain,¹¹⁸ and rules such as “[e]ach portion of wealth has a corresponding portion of happiness”.¹¹⁹ One obvious problem with these types of ‘rules’ is that they negate the neutrality and equality that make utilitarianism an attractive philosophy in the first place. Another problem is that these rules are incongruent with reality. Nonetheless, Bentham’s attempts to formulate a methodology paved the way for introducing utility into the discussion on law, economics, and ethics.¹²⁰ Utilitarianism has been highly influential,

112 Weinrib E.J., “Utilitarianism, Economics, and Legal Theory”, *University of Toronto Law Journal* 1980, vol. 30(3), p. 307, 309.

113 Bentham J., *An Introduction to the Principles of Morals and Legislation*, Volume 1, 1823, p. 3, 4.

114 Bentham J., *An Introduction to the Principles of Morals and Legislation*, Volume 1, 1823, p. 4.

115 Weinrib E.J., “Utilitarianism, Economics, and Legal Theory”, *University of Toronto Law Journal* 1980, vol. 30(3), p. 307, 309.

116 Mill J.S., *Utilitarianism*, Parker, Son, and Bourn, West Strand 1863, chapter II, paragraph 18.

117 Weinrib E.J., “Utilitarianism, Economics, and Legal Theory”, *University of Toronto Law Journal* 1980, vol. 30(3), p. 307, 309.

118 Bentham J., *An Introduction to the Principles of Morals and Legislation*, Volume 1, 1823, p. 49-51

119 Bentham J., *Theory of Legislation*, Trübner & Co 1864, p. 103

120 Mitchell W.C., “Bentham’s Felicific Calculus”, *Political Science Quarterly* 1918, vol. 33(2), p. 161, 163-164. An overview of the most important developments on economic utility theory following Bentham can be found in: Stigler G.J., “The Development of Utility Theory I”, *Journal of Political Economy* 1950, vol. 58(4), p. 307. As the lack of a method to measure individual utility in a way that was congruent with reality remained, utility thence developed into a preference theory, explaining the shifting preferences of individuals when faced with sets of alternatives. This approach is dominant in modern day microeconomics in which consumer choice is analysed.

which is unsurprising in the light of the *prima facie* appeal of “surplus of pleasure over pain”, equality, and neutrality that utilitarianism embodies.¹²¹ As a matter of fact, economic approaches to law have regularly been equated with utilitarianism.¹²² And even though the lack of a method of measuring happiness remains a practical difficulty, this shortcoming also represents an argument for the liberalisation and democratisation of markets: if governments cannot know the preferences of their subjects, it is most ethical to let citizens bargain for their own preferences in a free market.

4.2.2 Wealth Maximization

Welfare can also be approached in a more objective sense.¹²³ In his famous essay *Utilitarianism, Economics, and Legal Theory*, Posner defines ‘wealth’ as the “value of everything in society in dollars”.¹²⁴ Posner stresses that the maximization of wealth is not merely a proxy for expressing the maximization of happiness. He gives the following example: if A is happier with money than B, then from a utilitarian perspective it would make sense to give B’s money to A, increasing the total happiness. From a wealth maximizing principle, redistribution would not make sense as it does not increase wealth.¹²⁵

Posner’s definition has two components: (1) value and (2) everything in society. One commonly used method of determining the value of something is by its price; what people are willing to buy or sell it for. This limits the calculation of total wealth to real markets.¹²⁶ It is a method that for example is reflected in metrics such as the gross domestic product.¹²⁷ However, calculating total value through real market prices conflicts with the second part of Posner’s definition of wealth: “everything in society”. An exclusive

121 Sidgwick H., *Methods of Ethics* (7th edition), Macmillan and Co. 1907, p. 413; Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 104. The utilitarian objective of promoting welfare and has for example influenced (theory of) criminal punishment, tort and contract law.

122 For example: Hart H.L.A., “American Jurisprudence Through English Eyes: The Nightmare and the Noble Dream”, *Georgia Law Review* 1977, vol. 11(5), p. 969, 987-988; Epstein R.A., “Review: The Next Generation of Legal Scholarship?”, *Stanford Law Review* 1978, vol. 30(3), p. 635, 645.

123 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 119.

124 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 119.

125 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 131.

126 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 119.

127 GDP is calculated by adding up the value added at basic prices of all industries. See: Eurostat, “How is GDP calculated?”, available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Beginners:GDP_-_Calculating_GDP#How_is_GDP_calculated.3F, accessed on: 16 January 2025.

reliance on explicit market prices – and thus only goods that are actually traded – fails to capture substantial parts of value and thus is no accurate method of determining wealth. Posner therefore proposes that for valuing everything in society, real market prices should only be the starting point. For goods that are not traded (or even tradeable), a hypothetical market price should be determined.¹²⁸

Posner argues that replacing the maximization of happiness with the maximization of wealth is more closely aligned to our intuitive moral value system and provides a firmer foundation for rights than utilitarianism.¹²⁹ Posner comes to this conclusion by addressing three fundamental limitations of the happiness-based interpretation of welfare – however, these three limitations apply to the wealth-based interpretation as well. In the next paragraph, I discuss these three limitations in relation to both interpretations in order to deeper explore the meaning of welfare.

4.2.3 Criticism and Limitations

Both utilitarianism and the wealth-maximization paradigm face fundamental limitations as a normative foundation for public regulation of markets. In this section, I discuss three challenges that apply to both interpretations of welfare: (1) the boundary problem, (2) the immeasurability problem, and (3) the problem of ‘moral monstrosity’. The basis for this section stems from Posner’s *Utilitarianism, Economics, and Legal Theory* (1979), who defends a wealth-based interpretation of welfare over a happiness-based interpretation. However, I demonstrate that these three limitations apply to both interpretations of welfare.

4.2.3.1 The Boundary Problem

The boundary problem concerns the question of what is to be included in the maximization of welfare.¹³⁰ Two constraints that any policymaker will want to set, are the subjects to be included in determining welfare and the time frame to be used. Who should a government consider for the maximization of welfare – its own population only or should all humans be included? And should future generations be encompassed in the maximization of welfare – a question particularly relevant in light of the long-term effects of anthropogenic climate change?¹³¹ For example, how to deal with the

128 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 119-120.

129 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 121-127.

130 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 112-113, 128.

131 Weisbach D & Sunstein C.R., “Climate Change and Discounting the Future: A Guide for the Perplexed”, *Yale Law & Policy Review* 2008, vol. 27(2), p. 433.

(scientific) uncertainty of the fate of future generations?¹³² And what about the fact that governments may rely on democratic legitimacy as a normative foundation, which would be undermined if the welfare of persons not being current citizens were considered?¹³³ These kinds of questions demonstrate that there are both practical and philosophical problems concerning welfare maximization.

Both a utilitarian and a wealth-based approach to welfare seem to provide an answer to the boundary problem. On utilitarianism, Posner notes that if maximizing welfare is taken seriously, the broadest possible relevant population should be considered.¹³⁴ Excluding certain groups simply is counter-productive to maximizing happiness. Posner also admits that a wealth-based approach does not lead to a different or more practical solution.¹³⁵ After all, he defined the wealth-based approach as pertaining to “everything is society”, consequently defying notions of political boundaries.¹³⁶ Since both the happiness and the wealth-approach struggle to resolve questions of national boundaries and temporal limitations, the boundary problem fails to establish the superiority of either welfare interpretation.

4.2.3.2 The Immeasurability Problem

A second problem is the lack of a method for calculating either happiness or wealth. This measurement problem appears less significant for happiness in a liberal market system, as individuals can pursue their subjective heterogeneous preferences through voluntary transactions, negating the need to know or measure levels of individual satisfaction.¹³⁷ The problem with this market-based solution is that it is confined to the bilateral relationship between the transacting parties. It does not consider the effects of the transaction on outsiders, whilst reality demonstrates that voluntary transactions impact the utility

132 See for a passionate plea on including uncertain futures in utilitarianism: Mulgan T., *Utilitarianism*, Cambridge University Press 2020.

133 Song S., “The boundary problem in democratic theory: why the demos should be bounded by the state”, *International Theory* 2012, vol. 4(1), p. 39; Goodin R.E., “Enfranchising All Affected Interests, and Its Alternatives.” *Philosophy & Public Affairs* 2007, vol. 35(1), p. 40. The author argues that democratic decision making should include all interests that are affected by the decision.

134 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 113.

135 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 128.

136 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 128.

137 Posner R.A., “Utilitarianism, Economics, and Legal Theory”, *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 113-114. Also: Coleman J.L., “Efficiency, Utility, and Wealth Maximization”, *Hofstra Law Review* 1980, vol. 8(3), p. 509, 512-515.

of others.¹³⁸ However, to establish whether a transaction increases total happiness, including the external effects on third parties, it is necessary to establish an objective method to measure and compare individual utility.¹³⁹ This objectivation however is incompatible with the subjective nature of happiness as a measure of welfare.

Posner therefore argues that a wealth-based system should be used to determine welfare as policymakers can more easily estimate monetary value than the subjective happiness of citizens.¹⁴⁰ One problem with this is that policymakers may face many practical and philosophical challenges when determining 'the value of everything', including discounting the future and distributional issues.¹⁴¹ Second, as Weinrib points out, Posner's idea that governments should estimate prices when transaction costs hinder the working of real markets can easily be reversed.¹⁴² If governments are so good at establishing the accurate price of goods, then should not the government-coordinated pricing and allocation of resources be prioritized over actual markets in which price formation is both subject to transaction costs and fraught with personal preferences?¹⁴³

Nonetheless, there are practical reasons to prefer a wealth-based interpretation of welfare, especially in the context of environmental policymaking. First of all, monetary metrics provide a framework for cost-benefit analysis and thus for decision-making.¹⁴⁴ This is particularly important for environmental externalities that remain unpriced in a classical market system. By expressing environmental impacts in monetary terms, a better comparison between the economic benefits of certain activities and their environmental impact is enabled. And while determining hypothetical values of environmental impacts

138 Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 114. In general: Coase R.H., "The Problem of Social Cost", *The Journal of Law & Economics* 1960, vol. 3, p. 1.

139 Coleman J.L., "Efficiency, Utility, and Wealth Maximization", *Hofstra Law Review* 1980, vol. 8(3), p. 509, 512-515.

140 Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 130.

141 Frank R.H. "Why Is Cost-Benefit Analysis so Controversial?" *The Journal of Legal Studies* 2000, vol. 29(S2), p. 913.

142 Posner writes: "But, to repeat, the imposition of duties is appropriate in an economic view only in the exceptional case where market transaction costs are prohibitive." Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 130.

143 Weinrib E.J., "Utilitarianism, Economics, and Legal Theory", *University of Toronto Law Journal* 1980, vol. 30(3), p. 307, 323-325.

144 Atkinson G. & Mourato S., "Environmental Cost-Benefit Analysis", *Annual Review of Environment and Resources* 2008, vol. 33, p. 317; Pearce D., "Cost benefit analysis and environmental policy", *Oxford Review of Economic Policy* 1998, vol. 14(4), p. 84.

presents methodological challenges, the alternative of balancing economic benefits against unquantified environmental costs is more problematic.¹⁴⁵

Moreover, framing environmental impacts in monetary terms enables a neutral pathway forward in the increasingly polarised political landscape in which ideological considerations appear to be an important obstacle to climate action.¹⁴⁶ Whereas a subjective happiness-based approach to welfare reinforces these politicized responses to the climate crisis, a wealth-based approach to welfare creates space for a more objective approach to environmental problems by approaching climate policy through cost-benefit analysis instead of as a political value question.

4.2.3.3 Moral Monstrousness

The pursuit of total rather than average welfare – whether defined through happiness or wealth – raises fundamental ethical concerns about sacrificing individual rights for collective benefit.¹⁴⁷ Nonetheless, Posner argues that wealth maximization is preferable to happiness maximization as the pursuit of wealth would be more aligned to our intuitive value system.¹⁴⁸ According to Posner, those who pursue wealth exhibit behaviour such as hard work, honesty, and altruism, whereas those who pursue happiness exhibit traits such as laziness, cruelty, and hedonistic self-indulgence.¹⁴⁹ However, Posner's association between the pursuit of wealth and 'protestant values' appears to be based on his personal value system; there is no empirical evidence for the correlation between the pursuit of wealth and ethical behaviour. Weinrib therefore criticises Posner's assessment, writing that the "converse relationship between the market and morality is also at least possible."¹⁵⁰ The question thus is: does the pursuit of wealth cause ethical behaviour which is subsequently reflected in (the regulation of) the market, or are our ethical intuitions reflected in the law, which shapes the market and regulates the pursuit of wealth? The fact that there are many areas of law that regulate the

145 Examples of papers that attempt to quantify the costs of carbon: Tol R.S.J., "Social cost of carbon estimates have increased over time", *Nature Climate Change* 2023, vol. 13(6), p. 532; Dietz S. & Frank V., "Cumulative carbon emissions and economic policy: In search of general principles", *Journal of Environmental Economics and Management* 2019, vol. 96, p. 108.

146 For example: Kulin J., Johansson Sevä I. & Dunlap R. E., "Nationalist ideology, rightwing populism, and public views about climate change in Europe", *Environmental Politics* 2021, vol. 30(7), p. 1111.

147 Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 116.

148 Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 121-124.

149 Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 121-124.

150 Weinrib E.J., "Utilitarianism, Economics, and Legal Theory", *University of Toronto Law Journal* 1980, vol. 30(3), p. 307, 308. Also: Pistor K., *The Code of Capital: How the Law Creates Wealth and Inequality*, Princeton University Press 2019, p. 158-187.

market but that do not reflect a wealth-maximizing attitude, indicates that the latter relationship is closer to the truth.¹⁵¹

Maximizing welfare requires trade-offs: rights of an 'innocent person' may be limited to increase overall welfare. This can more easily be justified in a utilitarian society than in a wealth-based society. After all, there is some argument to be made that an individual may be sacrificed to increase overall happiness.¹⁵² For example, an individual's polluting property may be eradicated to increase the happiness of those suffering from the pollution, rendering them happier. It is, however, more difficult to justify infringing someone's personal rights to make other people richer.¹⁵³ It is simply unjustifiable to trade off the rights of one person against the wealth of another. The only way in which wealth can be a justifiable policy goal is if it is instrumental to pursuing another goal. As Dworkin writes, it is necessary to "specify the independent goal or value that it supposes is advanced instrumentally by maximizing social wealth."¹⁵⁴ This would, however, be contrary to Posner's proposal, who explicates that monetary value is not a substitute or proxy for something else. At the same time, Posner's proposal to define wealth as the "value of everything in society in dollars" somewhat conflicts with the idea that monetary value is not just a proxy.¹⁵⁵ Moreover, by arguing that the pursuit of wealth stimulates ethical behaviour, Posner seems to agree that it is not the money in itself that is righteous, but the behaviour that the pursuit of money is inducing. Thus, even in Posner's view, the role of wealth maximization seems to be an instrumental one.

4.3 Welfare and Efficiency in this Thesis

4.3.1 Introduction

In L&E, public regulation of markets is justified when markets fail to achieve efficient allocation of resources. The normative justification for this is that inefficient markets do not optimally increase welfare. In the previous paragraph, I discussed two interpretations of welfare – the subjective happiness approach and the objective wealth approach. I have discussed the various limitations that both interpretations of welfare face as a justification for public regulation and have come to the conclusion that the wealth-based interpretation

151 Examples include rules on protecting weaker parties, rules on workers rights, or against pollution. All of these are not (primarily) based on the collective maximization of wealth but on other moral foundations such as human dignity and respect for nature.

152 Dworkin R.K., "Is Wealth a Value?", *The Journal of Legal Studies* 1980, vol. 9(2) p.191, 202.

153 Dworkin R.K., "Is Wealth a Value?", *The Journal of Legal Studies* 1980, vol. 9(2) p.191, 202.

154 Dworkin R.K., "Is Wealth a Value?", *The Journal of Legal Studies* 1980, vol. 9(2) p.191, 206.

155 Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 119.

is a better justification for public regulation of markets than the pursuit of subjective utility from an L&E perspective, in particular in the context of the issue at stake in this thesis: anthropogenic climate change and the underinvestment in environmentally sustainable economic activities.

In this thesis, I follow Posner's definition of welfare: "the value of everything", which I also refer to as an integrated approach to welfare because it extends beyond transactional relationships.¹⁵⁶ Because this definition of welfare extends beyond the binary relationship of parties to a transaction, efficiency must necessarily be understood in the Kaldor-Hicks sense.¹⁵⁷ In the next pages, I outline four reasons for this choice.

Before presenting my arguments, I would like to point out the fundamental difference between my and Posner's views. In Posner's essay, the pursuit of wealth via free markets seems to be an ethical goal in and by itself. I do not share this conviction: I believe that the pursuit of wealth via the market is a 'mere' tool for other goals. As pointed out by Weinrib, money has no moral value in itself – the pursuit of wealth is merely a proxy for the pursuit of well-being.¹⁵⁸ Neither do I share Posner's conviction that his theory has the capacity to solve (almost) all societal problems. For example, Posner argues that his welfare definition does not only deal with how to distribute resources equitably but also solves problems pertaining to matters such as fundamental rights. As pointed out above, the relationship between markets and ethical values is a fraught one. Some ethical questions, especially those that are only remotely related to resource allocation, may demand different philosophical frameworks. I believe that these frameworks should not only coexist but have a rightful place within an integrated wealth approach to welfare, as I explain in para. 4.3.4.

4.3.2 *Anthropogenic Climate Change and Underinvestment Necessitate an Integrated Approach to Welfare*

The improvement of welfare via free markets converges around the idea that voluntary transactions enable individuals to improve their position. These individual improvements increase total welfare, but only as long as the effects

156 Following Posner's proposal. Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 119.

157 If the gains made by those better off, exceed the losses of those worse off, there is an increase in the aggregate wealth; Hicks J.R., "The Foundations of Welfare Economics", *The Economic Journal* 1939, vol. 49(196), p. 696.

158 Weinrib explains that, if anything, wealth is a neutral value. Conversely, it could be argued that happiness is an inherently good quality – pleasure over pain – and maximizing it has at least some moral claim. The same cannot be said for money – more of it is not morally superior to less, just as a rich person is not morally superior to a poor one. Weinrib E.J., "Utilitarianism, Economics, and Legal Theory", *University of Toronto Law Journal* 1980, vol. 30(3), p. 307, 311.

of the transaction are confined to the persons who are party to it. As soon as the transaction creates negative externalities, a divergence emerges between the welfare gains of participants and the welfare losses of non-participants.¹⁵⁹

If we take welfare seriously, it must necessarily extend beyond the relationship between parties and encompass all possible externalities. After all, a transaction that increases the wealth of the parties but creates negative externalities exceeding that increase, decreases total welfare. Posner acknowledges this through his comprehensive definition of welfare as “everything in society,” elevating our understanding from a bilateral perspective to an all-encompassing view. This broader conception of welfare provides both a framework for understanding anthropogenic climate change and the underinvestment in environmentally sustainable economic activities and suggests potential solutions.

First, the aspect of understanding anthropogenic climate change and the underinvestment in environmentally sustainable economic activities through the lens of welfare. Anthropogenic climate change exemplifies the disconnection between transaction participants and society at large. While parties engaging in climate-affecting economic activities profit from externalising costs, society suffers by bearing the negative externalities. This dynamic is repeated in investing, where investors in climate-affecting economic activities profit from externalising costs too, whilst sustainable economic activities are underfunded as investors may not realize the same benefit of externalising part of the costs. An integrated definition of welfare that extends beyond the transactional dimension helps to oversee this problem. This can be opposed to the utilitarian definition of welfare, which is unsuitable to grasp this problem as it inherently rejects the valuation of the externalities and is restricted to the pricing-process between the parties.

Second, the integrated approach to welfare also advances a solution: markets generating net societal disadvantage must be regulated, as welfare-decreasing market outcomes fundamentally contradict the core economic objective of maximizing social well-being. Thus, this framework necessitates the Kaldor-Hicks interpretation of efficiency, where actions producing externalities are permissible solely when their aggregate benefits demonstrably exceed their social costs.

The second element of Posner’s definition – measuring welfare “in dollars” rather than utilitarian happiness – is crucial for addressing externalities. First, there is no metric for happiness. This is not a problem as long as the effects on happiness are exclusively viewed through the bilateral, internal perspective: as people can voluntarily negotiate their positions, there is no need to know what makes them happy. However, as soon as externalities enter the equation, a reliable metric becomes indispensable, both to value the effects outside the

159 See paragraph 3.2 of this chapter on efficiency. Also: Coase R.H., “The Problem of Social Cost”, *The Journal of Law & Economics* 1960, vol. 3, p. 1.

bilateral relationship and to compare external gains or losses to those made within the transaction; the effects inside of the relationship will have to be defined as well. A counterargument could be that it is impossible to determine the value of things that are not subject to real market transactions. This argument, however, does not stand for two reasons. First, there are increasingly precise estimations for the costs of climate change and the underinvestment in sustainable economic activities. Examples include early articles such as *Production, Consumption, and Externalities*¹⁶⁰ from 1969 on the necessity to take into account the environmental costs of production, the 2006 *Stern Review*,¹⁶¹ and recent studies.¹⁶² Second, even approximate monetary valuations provide a firmer foundation for policy-making than no metric at all.

4.3.3 Free Markets Respect Individual Freedom

One of the inconsistencies in Posner's plea for the pursuit of wealth pointed out by Weinrib, is that if efficient resource allocation is paramount, then governments should allocate resources whenever they can do so more efficiently than markets, which essentially entails a move away from market-based efficiency.¹⁶³ Nonetheless, this thesis maintains Posner's position that actual markets should serve as the foundation for price determination and resource allocation.

To rely on private markets as the primary pricing mechanisms respects the fundamental value of economic freedom. As stated in paragraph 4.1, I do not assume L&E is able to provide an answer to all societal problems. Certain values, including the freedom to shape one's private life, should be preserved even if a state-controlled allocation of resources would be more efficient.¹⁶⁴ After all, as Weinrib puts it, actual markets respect individuals, whereas hypothetical markets sacrifice individuals.¹⁶⁵ Thus, market-based pricing mechanisms remain justified for traded goods as long as they achieve reasonable accuracy in valuation. While this presents a clear challenge in the case of externalities, particularly regarding climate change, it aligns with a wealth-

160 Ayres R. U. & Kneese A. V., "Production, Consumption, and Externalities" *The American Economic Review* 1969, vol. 59(3) p. 282.

161 Stern N., *Stern Review: The Economics of Climate Change*, Cambridge University Press 2006.

162 Newman R. & Noy I., "The global costs of extreme weather that are attributable to climate change", *Nature Communications* 2023, vol. 14(6103), available at: <https://doi.org/10.1038/s41467-023-41888-1>.

163 Posner writes: "But, to repeat, the imposition of duties is appropriate in an economic view only in the exceptional case where market transaction costs are prohibitive." Posner R.A., "Utilitarianism, Economics, and Legal Theory", *The Journal of Legal Studies* 1979, vol. 8(1), p. 103, 130.

164 See for example: Friedman M., *Capitalism and Freedom*, The University of Chicago Press 1962, chapter 1-2.

165 Weinrib E.J., "Utilitarianism, Economics, and Legal Theory", *University of Toronto Law Journal* 1980, vol. 30(3), p. 307, 323.

based welfare approach to employ public regulation as a corrective mechanism for such market failures.

4.3.4 *Balancing Interests*

A wealth-based approach to ‘the value of everything’ creates room for public discourse on the inherent and economic value of non-tradeable goods such as a stable climate and other sustainability matters. That is because when governments attempt to quantify the value of non-tradeable goods, they must develop processes and frameworks for doing so. These frameworks can – and should – involve multiple stakeholders and perspectives, and thus create the opportunity for deep reflection on these matters beyond a market perspective.

Conversely, the utilitarian approach of maximizing happiness has as the central cornerstone the subjective and heterogeneous valuation of individuals. While this approach at face value appears to be more democratic than publicly imposed valuations of non-tradeable goods, this subjective approach excludes the possibility of having a meaningful public discourse on the inherent value of non-tradeable goods.

4.3.5 *De-polarization of the Debate*

Anthropogenic climate change is sometimes referred to as a “super wicked problem” – time is running out, the solution has to be found by those who cause it, the central authority needed to address the problem is deficient, and the problem is irrationally pushed into the future.¹⁶⁶ Moreover, the solution depends on how the problem is framed whilst different stakeholders have radically different views of how to approach the problem. This latter is unequivocally the case when it comes to climate change: the topic is both political and polarized.¹⁶⁷ This is not surprising, given the many ethical questions that are involved in the matter.

Evaluating the EU SFF through the L&E lens creates the opportunity to have a more value-neutral discussion about the topic. By choosing the wealth-based approach to welfare instead of the happiness approach, the justification for public regulation lies in the fact that a regulatory intervention measurably increases welfare in an economic sense. In other words, regulatory intervention

166 Levin K., e.a., “Overcoming the tragedy of super wicked problems: constraining our future selves to ameliorate global climate change”, *Policy Science* 2012, vol. 45, p. 123. See also: Lazarus R.J., “Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future”, *Cornel Law Review* 2009, vol. 94(5), p. 1153; Coyne R., “Wicked problems revisited”, *Design Studies* 2005, vol. 26(1), p. 5.

167 McCright A.M. & Dunlap D.E., “The Politicization of Climate Change and Polarization in the American Public’s Views of Global Warming, 2001–2010”, *The Sociological Quarterly* 2011, vol. 52(2), p. 155; Falkenberg M., e.a., “Growing polarization around climate change on social media”, *Nature Climate Change* 2022, vol. 12, p. 1114.

is justified by the positive outcome of a cost-benefit analysis. While cost-benefit analysis is no value-neutral foundation for public regulation, it offers a more objective basis for policy decisions than purely utilitarian considerations.

5 CONCLUSION

To answer the research question *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?* I rely on L&E. In this Chapter, I explore to fundamental dimensions of L&E: how does it perceive the market mechanism as a tool for increasing welfare and how does it justify public regulation of markets? The answers to these two questions signify both how I evaluate to what extent the EU SFF enables informed investment decisions that integrate sustainability considerations, and how the EU SFF and my suggested improvements are justified public interventions in financial markets.

In L&E, the market is perceived as a tool for the efficient allocation of resources, whereas market failures fulfil the role of indicating and explaining inefficiencies in the functioning of the market. For anthropogenic climate change, the predominant market failure is the systematic externalisation of the costs of GHG emissions. This also affects private investments: as businesses who externalise GHG emissions profit from not having to compensate those costs, while investors who invest in those businesses inadvertently profit from this externalisation too. L&E thus provides a lens through which to understand the problem of underinvestment in sustainable economic activities. At the same time, the problem of anthropogenic climate change and underinvestment transcends the market failure of externalities. This is why the EU SFF focuses on two different, more solvable market failures: information asymmetries and principal-agent problem. This approach aligns with L&E theory, especially in its understanding of how markets function and why investors may be deterred from investing sustainably.

The justification to resolve the market failures of information asymmetries and principal-agent problem in sustainable investing – and by extension, the justification for the state intervention in private economic relationships – lies in the core objective of L&E to increase welfare. I argue that welfare must necessarily encompass an integrated approach to welfare that extends beyond transactional binary relationships since the core of the problem of anthropogenic climate change and underinvestment in sustainable economic activities, the problem of externalities, also transcends transactional relationships. Welfare therefore must be understood as ‘the value of everything’ – a holistic concept that encompasses broader societal and environmental considerations.

Therefore, I conclude that the EU SFF finds its theoretical justification in its aim to increase welfare through an all-encompassing lens. The regulatory framework and the improvements that I propose on the basis of this research thus are strategic interventions in private markets for realigning economic incentives with overall societal well-being.

3 | Ongoing Disclosures for Issuers

How Effective are the Corporate Sustainability Reporting Directive and Article 8 Taxonomy Regulation in Reducing Information Asymmetries?

1 INTRODUCTION

In Chapter 1, I have introduced the EU Sustainable Finance Framework. This framework aims to channel more private capital into sustainable investments, ultimately facilitating the transition to a low-carbon society. To evaluate this framework, I have formulated the research question *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?* I approach this evaluation from a Law & Economics perspective (“L&E”). For this, I use a simplified model of financial markets which consists of three actors: issuers, intermediaries, and investors. Together, they represent the investment chain through which capital should be allocated to sustainable investments. This investment chain also encompasses the pathway through which sustainability information must flow from issuer to investor in order to enable the investor to integrate that information into the investment decision.

In Chapter 2, I have set out the normative framework for evaluating the EU SFF based on L&E. L&E identifies several market failures that frustrate the efficiency of the market, including information asymmetries, and the principal-agent problem, which hinder the efficient allocation of capital to sustainable investments. The intervention of the EU SFF aims to address these market failures by regulating the flow of sustainability information in financial markets. This public intervention in the market is justified by the aim to increase overall welfare. ‘Welfare’ means ‘the value of everything in society’. Therefore, all costs and benefits of economic activities must be accounted for, not only those that apply to the parties directly involved with the activity. This is essential because sustainability impacts are typically unaccounted for in traditional pricing mechanisms, yet they significantly affect general welfare.

In this Chapter, I focus on issuers and the market failure that the EU SFF is attempting to remedy at this point in the investment and information chain: information asymmetries between issuers and the market. When investors lack sustainability information about an issuer, they cannot factor sustainability considerations into their investment decisions. As I explained in Chapter 2, this can ultimately inhibit reorienting capital from sustainable investments and thus prevent the maximization of welfare. The primary mechanism to

overcome these information asymmetries is the disclosure of sustainability information by issuers. Issuer disclosure is regulated by two complementary disclosure regimes. On the one hand, the Corporate Sustainability Reporting Directive (“CSRD”) and article 8 of the Taxonomy Regulation (“TR”) require businesses to publish sustainability information about the entire business on an annual basis (Chapter 3). On the other hand, issuers must make initial disclosures when issuing securities that focus on the particular investment which is being offered (Chapter 4). Together, these two disclosure regimes should enable investors to make an informed investment decision. The central question that I aim to answer in this chapter is:

How effective are the ongoing disclosure requirements from the CSRD/ESRS and article 8 TR in reducing information asymmetries regarding sustainability between issuers and investors?

2 REDUCING INFORMATION ASYMMETRIES

As discussed in the previous chapter, this thesis relies on an integrated approach to welfare: all costs and benefits of the potential transaction must be accounted for, not only those that apply to the parties to the transaction.¹ To enable investors to take into account all positive and negative impacts on sustainability matters, and thus to allocate capital efficiently, all relevant information must be available to the investors, i.e. the information asymmetry between the business and the investor must be minimized.² To evaluate how successful the ongoing issuer disclosure rules are in reducing information asymmetries, I rely on three factors. Is the information that is disclosed:

1. Complete, meaning that (a) the qualitative information covers all four aspects of the double materiality principle and (b) quantitative data is included in the disclosures; and
2. Coherent, meaning that core terminology and concepts are defined and used coherently throughout the legislation; and
3. Accurate, meaning that qualifying a financial product as sustainable either (a) is based on the Taxonomy Regulation or (b) is warranted by procedural safeguards that ensure the qualification is supported by scientific evidence.

2.1 Complete

The traditional method that is used to enable investors to make an informed investment decision, is complete disclosure of relevant information by issuers.

1 Paragraph 3 and 4 of Chapter 2.

2 Paragraph 3.4.1 of Chapter 2.

This is reflected in the approach taken in instruments such as the Prospectus Regulation and the Directive on annual financial statements.³ The same logic applies in the context of sustainability information: to empower investors to reorient capital to environmentally sustainable economic activities, it is necessary that they can form a complete picture of how the issuer impacts sustainability. To evaluate how successful the EU SFF is in realizing complete disclosure in relation to sustainability matters, I focus on two aspects: whether the qualitative information covers all four aspects of the double materiality principle and whether the disclosures include quantitative data.

2.1.1 Qualitative Disclosures

Qualitative data are necessary to allow for detailed insight into the business's relation to sustainability. However, such qualitative disclosures create challenges for the completeness of the information, as well as its comparability between businesses.⁴ In the context of sustainability information, the double materiality principle serves as a selection mechanism for determining which information to disclose, with the starting point that 'material' information must be disclosed.⁵ The concept of materiality itself has evolved through various definitions. Consider these three examples: the Prospectus Regulation requires the disclosure of "necessary information which is material to an investor for making an informed assessment of: (a) the assets and liabilities, profits and losses, financial position, and prospects of the issuer and any guarantor, (b) the rights attaching to the securities, and (c) the reasons for the issuance and its impact on the issuer."⁶ The US Securities and Exchange Commission defines materiality as "matters as to which an average prudent investor ought reasonably to be informed before purchasing the security registered"⁷ while the

3 Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC; Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC; Armour J., e.a., *Principles of Financial Regulation*, Oxford University Press 2016, Chapter 8.

4 Ott C., "Capital market effects of climate-related disclosure", in: Rimmel G., e.a. (eds.), *Research Handbook on Sustainability Reporting*, Edgar Elgar 2024, p. 252.

5 Bernstein L.A., "The Concept of Materiality", *The Accounting Review* 1967, vol. 42(1), p. 86, 88. See also: Baumüller J. & Schaffhauser-Linzatti M., "In search of materiality for non-financial information – reporting requirements of the Directive 2014/95/EU", *Nachhaltigkeits-ManagementForum | Sustainability Management Forum* 2018, vol. 26, p. 101.

6 Article 6 (1) PR. Serière V. de, "The Contents of the Prospectus: Non-Financial Information and materiality", in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 195.

7 Rule 3-06, Regulation S-X by the Securities and Exchange Commission under the Securities Act (1993).

American Accounting Association considers material “An item [...] if there is reason to believe that knowledge of it would influence the decisions of an informed investor.”⁸ Central to the notion of materiality, is that it has the power to influence an investment decision. However, it remains an elusive concept in practice.⁹

For sustainability disclosures, the double materiality principle provides practical guidance by identifying four key areas for disclosure: (1) financially material positive impacts, (2) financially material negative impacts, (3) impact-material positive effects, and (4) impact-material negative effects.¹⁰ Financial materiality encompasses how sustainability factors influence a business’s financial performance and market position, while impact materiality addresses how the business’s operations affect environmental and social sustainability outcomes.¹¹ Both the financial and the impact dimension are necessary information in the materiality paradigm, as investors who incorporate sustainability considerations into their investment decisions are driven by various motivations, including the effort to reduce financial risk and non-pecuniary motivations such as contributing to climate change action.¹²

Financial materiality in the context of sustainability matters aligns with traditional disclosure practices. However, impact materiality presents new challenges. I, therefore, focus on whether the information that has to be dis-

8 American Accounting Association, *Accounting and Reporting Standards for Corporate Financial Statements and Preceding Statements and Supplements*, American Accounting Association 1957, p. 8.

9 See for the historical development of the concept of materiality: Edgley C., “A genealogy of accounting materiality”, *Critical Perspective on Accounting* 2014, vol. 25(3), p. 255.

10 For example: Communication from the Commission: Guidelines on non-financial reporting: Supplement on reporting climate-related information C/2019/4490; Baumüller J. & Sopp K., “Double materiality and the shift from non-financial to European sustainability reporting: review, outlook and implications”, *Journal of Applied Accounting Research* 2022, vol. 2023(1), p. 8; Mezzanotte F.E., “Examining the Reasons for Impact Materiality in EU Corporate Sustainability Reporting”, *European Business Law Review* 2024, vol. 35(7) p. 925; Bossut M., e.a., “What information is relevant for sustainability reporting? The concept of materiality and the EU Corporate Sustainability Reporting Directive”, *Sustainable Finance Research Platform Policy Brief 7/2021*, available at: https://wpsf.de/wp-content/uploads/2021/09/WPSF_PolicyBrief_7-2021_Materiality.pdf, accessed on: 10 January 2025, p. 5-6.

11 Mezzanotte F.E., “Examining the Reasons for Impact Materiality in EU Corporate Sustainability Reporting”, *European Business Law Review* 2024, vol. 35(7) p. 925, 927-932; Chiu I. H.-Y., “The EU Sustainable Finance Agenda: Developing Governance for Double Materiality in Sustainability Metrics”, *European Business Organization Law Review* 2022, vol. 23(1), p. 87.

12 For example: Heeb F., e.a., “Do Investors Care about Impact?”, *The Review of Financial Studies* 2023, vol. 36(5), p. 1737; Jansson M. & Biel A., “Motives to engage in sustainable investment: a comparison between institutional and private investors”, *Sustainable Development* 2011, vol. 19(2), p. 135; Hartzmark S.M. & Sussman A.B., “Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows”, *The Journal of Finance* 2019, vol. 74(6), p. 2789; Bauer R., Ruof T. & Smeets P., “Get Real! Individuals Prefer More Sustainable Investments”, *The Review of Financial Studies* 2021, vol. 34(8), p. 3976.

closed in relation to the business's impact on sustainability meets the following three criteria:

1. The information encompasses both positive and negative impacts. Whilst there may be an incentive for businesses to only disclose positive impacts, the EU SFF should prevent this as it limits the ability of investors to make informed comparisons and restricts their investment strategies.¹³
2. The information extends beyond a binary classification system such as sustainability labels. While labels help investors to interpret information, they can also give rise to two problems. First, the label may be too inclusive or exclusive: activities may not receive the label 'sustainable' even though they are not necessarily unsustainable and vice versa.¹⁴ The second problem of a binary system is that it impairs the ability of investors to compare opportunities within one category.¹⁵
3. The disclosures are guided by specific materiality and disclosure standards. While open-ended impact disclosures might seem ideal in light of the previous two criteria, they can lead to a great variety in the type and content of information that is disclosed, which undermines the ability of investors to compare the impacts between businesses.¹⁶ Therefore, impact materiality should not only contain a range but should also be guided by specific materiality standards.¹⁷

2.1.2 Quantitative Disclosures

Complete disclosure also requires the disclosure of quantitative data. This is essential both because it allows for granular information and because it does

13 Ehlers T., Goa D. & Packer F., "A taxonomy of sustainable finance taxonomies", *Bank for International Settlements Papers* 2021, no 118, available at: <https://www.bis.org/publ/bppdf/bispap118.pdf>, accessed on: 25 January 2025, p. 15-16; Tröger T. & Steuer S., "The Role of Disclosure in Green Finance", *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, accessed on 25 January 2025, p. 17-18. See also: Eurosystem, "Eurosystem reply to the European Commission's public consultations on the Renewed Sustainable Finance Strategy and the revision of the Non-Financial Reporting Directive", *European Central Bank* 2020, p. 20, paragraph 1.13: "Develop a 'brown' taxonomy".

14 Platform on Sustainable Finance, "The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition", *European Commission* March 2022, p. 17.

15 Ehlers T., Goa D. & Packer F., "A taxonomy of sustainable finance taxonomies", *Bank for International Settlements Papers* 2021, no 118, available at: <https://www.bis.org/publ/bppdf/bispap118.pdf>, accessed on: 25 January 2025, p. 15-16.

16 Eccles R.G., e.a., "The Need for Sector-Specific Materiality and Sustainability Reporting Standards", *Journal of Applied Corporate Finance* 2012, vol. 24 (2), p. 65.

17 Eccles R.G., e.a., "The Need for Sector-Specific Materiality and Sustainability Reporting Standards", *Journal of Applied Corporate Finance* 2012, vol. 24 (2), p. 65.

not contain normative values.¹⁸ Moreover, qualitative data is subject to discretion and may be manipulated or misinterpreted.¹⁹ Even when information is disclosed in the form of labels or categories, which are seemingly objective and make cross-sector comparisons easier, they necessarily contain normative judgements on the boundary of sustainable and unsustainable and do not allow for gradual distinctions within a category.²⁰ Therefore, quantitative data is necessary, ideally in standardised formats, as this is easy to analyse and incorporate into decision-making processes.²¹ To further the example used above, if both the nursery school and the coal power plant would qualify as unsustainable in a gradual classification system, there still may be significant differences between the sustainability profile of the two investments. However, if no quantitative raw data is provided to the investors, they will not be able to compare the sustainability profiles of these two investments, which impedes an informed investment decision.

2.2 Coherent

One of the central characteristics of good law is that it is coherent, i.e. principles and propositions must be logically consistent.²² I primarily focus on the following aspects of coherence in my evaluation: whether the terminology and concepts used throughout the different pieces of legislation (CSRD, Taxonomy Regulation, and ESRS) are consistently and precisely defined.²³ If so, the legislation can enhance legal certainty by avoiding disagreements on questions of interpretation.²⁴ After all, when the meaning of terms is vague, the sustainability information disclosed to the investor is at the risk of becoming meaningless. Hence, definitions are necessary to minimize ambiguity and ensure legal certainty.²⁵ Moreover, the legislation should be structured in a coherent and therefore accessible manner.

18 Tröger T. & Steuer S., "The Role of Disclosure in Green Finance", *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, accessed on 25 January 2025, p. 17-18.

19 Ott C., "Capital market effects of climate-related disclosure", in: Rimmel G., e.a. (eds.), *Research Handbook on Sustainability Reporting*, Edgar Elgar 2024, p. 252.

20 Tröger T. & Steuer S., "The Role of Disclosure in Green Finance", *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, accessed on 25 January 2025, p. 17-18.

21 Ott C., "Capital market effects of climate-related disclosure", in: Rimmel G., e.a. (eds.), *Research Handbook on Sustainability Reporting*, Edgar Elgar 2024, p. 252.

22 Kress K., "Coherence", in: Patterson D. (ed.), *A Companion to Philosophy of Law and Legal Theory* (2nd edition), Wiley-Blackwell 2010, p. 521.

23 Balkin J.M., "Understanding Legal Understanding: The Legal Subject and the Problem of Legal Coherence", *The Yale Law Journal* 1993, vol. 103(1), p. 105, 114.

24 Endicott T., "Law is Necessarily Vague", *Legal Theory* 2001, vol. 7(4), p. 379-380.

25 See: Roznai Y., "'A Bird is Known by its Feathers' – On the Importance and Complexities of Definitions in Legislation", *Theory and practice of legislation* 2014, vol. 2(2) p. 145.

Another fundamental aspect of coherence is whether uniform indicators are used throughout the information provided.²⁶ This is necessary to enable investors to make meaningful comparisons between investment opportunities.²⁷ I examine whether businesses must use mandatory methodologies in their disclosures or whether they retain discretion to use their own methodologies, which can undermine the ability of investors to compare information between businesses. Moreover, I address the availability of one specific indicator: whether sustainability effects on the business and impacts by the business on sustainability matters are expressed in financial terms.²⁸ By assigning a monetary value to environmental impacts, investors can better weigh impacts and effects against each other and compare them to other firms.²⁹

2.3 Accurate

The absence of information asymmetries implies that the issuer and investor have access to the same information.³⁰ It is implied that this information is materially correct. When an investment is categorized as sustainable under the EU SFF, this qualification should therefore only be made based on scientific evidence.³¹ After all, if the label ‘sustainable’ can be used for unsustainable activities, capital may be allocated to projects that do not contribute to the transition.

Assessing the scientific accuracy of the categorization made under the EU SFF is beyond the scope of this research. For this research, the scientific correctness of the categorisation of ‘environmentally sustainable economic activity’ under the Taxonomy Regulation will be assumed. After all, the Taxonomy Regulation is based on scientific evidence that has been evaluated by experts and relevant stakeholders.³² Nonetheless, it should be noted that the scientific basis for certain classifications in the EU SFF is not uncontroversial. For example, labelling the production of electricity through burning fossil gas as

26 See also: recital 33 CSRD.

27 Chiu I. H.-Y., “The EU Sustainable Finance Agenda: Developing Governance for Double Materiality in Sustainability Metrics”, *European Business Organization Law Review* 2022, vol. 23(1), p. 87.

28 See also: Partiti E., “From disclosures to classification regime and sustainability due diligence. Tackling the flaws of the Sustainable Finance Disclosure Regulation”, *TILEC Discussion Paper* 2023-05, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4387626, accessed on 25 January 2025, p. 8.

29 Recital 44 CSRD; see also: Natural Capital Coalition, *Natural Capital Protocol*, 2016, available at: https://capitalscoalition.org/capitals-approach/natural-capital-protocol/?fwp_filter_tabs=guide_supplement, accessed on 25 January 2025.

30 See paragraph 3.4.1 of Chapter 2.

31 See also: Financial Stability Board, “Report on Promoting Climate-Related Disclosures”, *Financial Stability Board* 7 July 2021, p. 39-40.

32 Recital 38 TR; article 19 (1) (f) and 19 (5) TR.

an environmentally sustainable economic activity, has been met with criticism from the scientific and political community.³³

Whenever financial products can be promoted as sustainable without having to comply with the criteria of the Taxonomy regulation, scientific accuracy will in principle not be assumed. If such a situation arises under the EU SFF, there should be other procedural safeguards to ensure that the statement is scientifically accurate. I thus review whether any such safeguards are in place.

3 THE CORPORATE SUSTAINABILITY REPORTING DIRECTIVE

3.1 Introduction

In this paragraph, I analyse the disclosure requirements for issuers that have been introduced by the CSRD. As a general rule, article 19a of the CSRD obligates certain businesses to publish a so-called sustainability report that accompanies its annual financial statement.³⁴ In this report, information “necessary to understand the undertaking’s impacts on sustainability matters, and information necessary to understand how sustainability matters affect the undertaking’s development, performance and position” must be made available. The subject matters that should be covered by the sustainability report are contained in article 19a (2) CSRD and will be examined in this paragraph.

The reporting requirements from the CSRD are further elaborated in the European Sustainability Reporting Standards (“ESRS”), discussed in paragraph 4 of this Chapter.³⁵ Whenever a business is subject to article 19a CSRD, article 8 of the TR will apply to that business as well.³⁶ According to that article, the business must include in its sustainability reporting information on how and to what extent the business activities qualify as environmentally

33 For example: CJEU, Action brought on 7 October 2022, T-625/22, (Austria v European Commission); Letter from Minister for Climate and Energy for the Netherlands, Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology for Austria, Minister for Energy and Digital Development for Sweden, Minister for Climate, Energy and Utilities for Denmark, “Statement fossil gas-based activities in the EU Taxonomy”, 31 January 2022, available at: <https://www.government.nl/documents/letters/2022/01/31/statement-fossil-gas-based-activities-in-the-eu-taxonomy>, accessed on 25 January 2025; Nicolás E.S., “EU gas and nuclear rules derided as ‘biggest greenwash ever’”, *euobserver* (newspaper), 14 January 2022, available at: <https://euobserver.com/green-economy/ard798d6c5>, accessed on: 25 January 2025.

34 Article 19a (1) Directive 2013/34/EU (Accounting Directive) as amended by article 1 (4) CSRD. NB.: the legislation refers to a “management report”, which should *inter alia* include sustainability-related information.

35 Article 19a (1) Directive 2013/34/EU as amended by article 1 (4) CSRD.

36 Article 1 (2) (c) TR.

sustainable in the sense of the TR, as discussed in paragraph 5 of this Chapter.³⁷

3.2 Background and Aims

The CSRD is integrated into the decade-old framework that harmonises annual accounts and reports throughout the EU and that finds its origins in the Fourth Directive, published in 1978, with the aim to coordinate the fragmented landscape of annual accounting throughout the Union, together with the Seventh Directive on consolidated reporting and the Eight Directive on audits.³⁸ The objective of these Directives was to provide an accurate overview of the current economic situation of (groups of) companies.³⁹ The Fourth Directive applied to all limited liability companies in the Union and ensured general access to the core economic data of those companies.⁴⁰ In essence, this data was comprised of the balance sheet, the profit and loss accounts, and the notes on the accounts, which together formed the annual accounts.⁴¹ The information was intended for both creditors as well as investors and shareholders – two groups with notably different interests.⁴² Although the Directives contained some substantive rules, they mainly regulated the format of the annual accounts.⁴³ This left a relatively wide margin of discretion to the Member States regarding the substantive requirements for annual reporting, leading to a somewhat fragmented reporting landscape.⁴⁴

³⁷ Article 8 TR.

³⁸ Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54 (3) (g) of the Treaty on the annual accounts of certain types of companies; Seventh Council Directive 83/349/EEC of 13 June 1983 based on the Article 54 (3) (g) of the Treaty on consolidated accounts; Eighth Council Directive 84/253/EEC of 10 April 1984 based on Article 54 (3) (g) of the Treaty on the approval of persons responsible for carrying out the statutory audits of accounting documents; Dorresteyn A.F.M., e.a., *European Corporate Law* (2nd edition), Kluwer Law International 2009, p. 64.

³⁹ See e.g. preamble to the Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54 (3) (g) of the Treaty on the annual accounts of certain types of companies.

⁴⁰ Article 1 Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54 (3) (g) of the Treaty on the annual accounts of certain types of companies; Grundman S., *European Company Law: Organization, Finance and Capital Markets* (2nd edition), Intersentia 2012, p. 361.

⁴¹ Article 2 Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54 (3) (g) of the Treaty on the annual accounts of certain types of companies.

⁴² Grundman S., *European Company Law: Organization, Finance and Capital Markets* (2nd edition), Intersentia 2012, p. 357-358.

⁴³ For example, article 7 Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54 (3) (g) of the Treaty on the annual accounts of certain types of companies, prohibiting the set-off between assets and liabilities within the balance sheet.

⁴⁴ Grundman S., *European Company Law: Organization, Finance and Capital Markets* (2nd edition), Intersentia 2012, p. 358.

The regime was replaced in 2013 by the Accounting Directive.⁴⁵ Two important aims of this Directive are to reduce the regulatory burden on small- and medium-sized enterprises (“SMEs”)⁴⁶ and to harmonize financial statements more strictly throughout the EU, enabling easier cross-border comparison and increasing transparency.⁴⁷ In light of the former aim, the Directive categorizes companies into micro-, small-, medium-sized, and large undertakings, to which the reporting requirements apply in increasing levels of intensity.⁴⁸

The Accounting Directive continues the work of the Fourth and Seventh Directive, stipulating the content and format of the annual financial statement.⁴⁹ The annual financial statement must include: the balance sheet, the profit and loss account, and the notes to the financial statements.⁵⁰ If the reporting business is a listed company, then it must prepare its financial statements in accordance with the International Financial Reporting Standards (previously known as International Accounting Standards).⁵¹

Article 19 of the Accounting Directive contains the obligation to make public a management report.⁵² This management report must include “a fair review of the development and performance of the undertaking’s business and of its position, together with a description of the principal risks and uncertainties that it faces” and should comprise a “balanced and comprehensive analysis of the development and performance of the undertaking’s business and of its position, consistent with the size and complexity of the business.”⁵³ The preamble to the Accounting Directive mentions that the information in the management report should include an analysis of *inter alia* environmental matters that are important to the performance or position of the business.⁵⁴ This is reflected in article 19, which states that the management report should

45 Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC (Accounting Directive).

46 Recitals 1-2, 11-13 Accounting Directive.

47 For example, recitals 3, 4, 19, 21 Accounting Directive.

48 Article 3 Accounting Directive.

49 Beckman H., “The New EU-Directive on Annual and Consolidated Financial Statements and Related Management Reports”, *European Company Law* 2013, vol. 10(6), p. 199.

50 Article 4 Accounting Directive. See also: Vicari A., *European Company Law*, De Gruyter 2021, Chapter 8: Accounting and financial statements, p. 195.

51 By virtue of Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards.

52 Article 22 and 29 Accounting Directive contain the obligation to publish a management report in the context of consolidated reporting, which will further be omitted from this chapter.

53 Article 19 (1) Accounting Directive.

54 Preamble 26 Accounting Directive.

include, where appropriate, information on environmental matters (an obligation from which SMEs may be exempted at Member State discretion).⁵⁵

To enhance Corporate Social Responsibility, the Accounting Directive was amended in 2014 by the Non-Financial Reporting Directive (“NFRD”), which expanded the extent of information to be included in the management report for certain companies.⁵⁶ For this, the NFRD introduced a new article 19a to the Accounting Directive (as well as a new article 29a on consolidated management reports, further omitted). The scope of article 19a was limited to businesses that fulfil three cumulative criteria: that they are a large undertaking in the sense of article 3 (4) of the Accounting Directive;⁵⁷ that they are a public-interest entity in the sense of article 2 (1) of the Accounting Directive;⁵⁸ and that they have more than 500 employees during the financial year.⁵⁹ Regarding environmental, social, employee, anti-corruption and bribery matters, as well as respect for human rights, these businesses should include in their management report information that is necessary for an understanding of the business’s “development, position and impact”.⁶⁰ For this, the business should publish a description of its business model; its policies and the outcome of those policies relating to *inter alia* environmental matters; principal risks that the business is exposed to and how these risks are being managed; and relevant non-financial key performance indicators.⁶¹ Alternatively, businesses could publish a reasoned explanation for not releasing a non-financial statement.⁶² It is important to note that the NFRD, other than Accounting Directive does for the financial statements, did not determine a specific reporting standard: it merely directed Member States to allow for the use of “national, Union-based or international frameworks.”⁶³

The NFRD had three significant drawbacks. First, the scope of application was relatively limited. Based on the criteria in the Directive itself, only around 2000 businesses would fall within the scope of the NFRD. However, taking into account how the NFRD has been transposed into national law, a total

55 Article 19 (1) and (4) Accounting Directive.

56 Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups (“NFRD”); Preambles 2 and 3 NFRD.

57 Large undertakings shall be undertakings which on their balance sheet dates exceed at least two of the three following criteria: (a) balance sheet total: EUR 25 000 000; (b) net turnover: EUR 50 000 000; (c) average number of employees during the financial year: 250.

58 More importantly, issuers of transferable securities, credit institutions, insurance undertakings and firms designated by Member States as public-interest entities.

59 Article 19a (1) NFRD.

60 Article 19a (1) NFRD.

61 Article 19a (1) NFRD.

62 Article 19a (1) NFRD.

63 Article 19a (1) NFRD.

of around 11 700 companies were obliged to publish a non-financial report.⁶⁴ Second, the reporting topics were formulated in a generic manner, which could result in insufficiently reliable and incomparable information, a problem exacerbated by the absence of a mandatory reporting standard.⁶⁵ Third, in an attempt to fix this problem, the Commission published Guidelines specifying the information to be published, which however were non-binding.⁶⁶ Consequently, the information disclosed in the non-financial reports did not sufficiently meet the needs of investors. To overcome these information asymmetries between issuers and investors, the CSRD was introduced in 2022. As discussed in Chapter 1, the CSRD reflects the three main aims that resonate throughout the EU SFF: to protect investors and enable well-informed investment decisions;⁶⁷ to enhance market efficiency and economic growth;⁶⁸ and to realize more sustainable investments to transition to a climate-neutral society.⁶⁹ More specifically, the CSRD aims to overcome the problems that have been identified under the NFRD and provide for a disclosure framework on par with financial reporting, including an EU-wide standard for reporting.⁷⁰ This is especially necessary in light of the growing amount of sustainability reporting standards that businesses can use for sustainability reporting and the absence of a mandatory framework under the NFRD, which results in divergent sustainability disclosures, undermining the comparative value of such reporting. The aim of the CSRD therefore not only is to enhance sustainability reporting in general but also to harmonise the content of the disclosures so that the users of the information are better enabled to compare businesses.⁷¹ Accordingly, the CSRD amends the Accounting Directive and

64 Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting COM/2021/189 final, Explanatory Memorandum, p. 1.

65 European Commission, Proposal for a Regulation as regards disclosure of non-financial information by certain undertakings and groups, Inception Impact Assessment, Ares(2020)580716, p. 2. See also: Ohnesorge L.G.L. & Rogge E., "Europe's Green Policy: Towards a Climate Neutral Economy by Way of Investors' Choice", *European Company Law* 2021, vol.18(1), p. 34, 35-36.

66 Communication from the Commission: Guidelines on non-financial reporting (methodology for reporting non-financial information) C/2017/4234; Communication from the Commission: Guidelines on non-financial reporting: Supplement on reporting climate-related information C/2019/4490.

67 Recitals 8, 12, 18, 28, 46, 50 CSRD.

68 Recital 1, 2, 12 CSRD.

69 Recital 1, 2, 3, etc. CSRD.

70 *Inter alia* recitals 13, 14, 38 CSRD.

71 La Torre M., e.a., "Harmonising non-financial reporting regulation in Europe: Practical forces and projections for future research" *Meditari Accountancy Research* 2018, vol. 26(4), p. 598; Breijer R. & Orij R.P., "The Comparability of Non-Financial Information: An Exploration of the Impact of the Non-Financial Reporting Directive(NFRD, 2014/95/EU)", *Accounting in Europe* 2022, vol. 19(2), p. 332.

effectively replaces the NFRD.⁷² The information that is generated under the CSRD is aimed at investors, as well as civil society, NGOs and other stakeholders.⁷³ This can be seen as a shift away from the traditional shareholder-focused approach that was dominant in the Accounting Directive.⁷⁴ Moreover, by including sustainability information in the annual accounts, the legislator recognizes that investors, too, find this information relevant, for example, because they regard climate change as an important issue for risk management or because they face pressure from their clients.⁷⁵

In the next paragraphs, I outline the legal obligations that are contained in the CSRD. The substantive reporting obligations in the CSRD are relatively abstract as they primarily serve as a basis for the ESRS, which will be discussed in para. 4.

3.3 Scope

Article 1 (1) CSRD amends article 1 of the Accounting Directive, which sets out the scope of that Directive.⁷⁶ According to article 1 (1) CSRD, businesses that have to comply with article 19a CSRD are: “undertakings regardless of their legal form, provided that those undertakings are large undertakings, or

72 The CSRD amends three more pieces of legislation: Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April 2014 on specific requirements regarding statutory audit of public-interest entities and repealing Commission Decision 2005/909/EC; Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC; Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC.

73 Recital 9 CSRD.

74 Aluchna M., “Sustainability reporting in light of the European Union regulations: integrating theory and policy”, in: Rimmel G., e.a. (eds.), *Research Handbook on Sustainability Reporting*, Edgar Elgar 2024, p. 489. See also: Baumüller J. & Sopp K., “Double materiality and the shift from non-financial to European sustainability reporting: review, outlook and implications”, *Journal of Applied Accounting Research* 2022, vol. 2023(1), p. 8.

75 Ott C., “Capital market effects of climate-related disclosure”, in: Rimmel G., e.a. (eds.), *Research Handbook on Sustainability Reporting*, Edgar Elgar 2024, p. 254-255. On the different motives of investors to use sustainability information, see also: Heeb F., e.a., “Do Investors Care about Impact?”, *The Review of Financial Studies* 2023, vol. 36(5), p. 1737; Jansson M. & Biel A., “Motives to engage in sustainable investment: a comparison between institutional and private investors”, *Sustainable Development* 2011, vol. 19(2), p. 135; Hartzmark S.M. & Sussman A.B., “Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows”, *The Journal of Finance* 2019, vol. 74(6), p. 2789.

76 Groot C. de, Koster H. & Oostrum C.H.A van, “Corporate Sustainability Reporting Directive: naar herziening van de Europese duurzaamheidsverslaggeving”, *Maandblad voor Accountancy en Bedrijfseconomie* 2022, vol. 96(3/4), p. 61, 62-64.

small and medium-sized undertakings, except micro undertakings, which are public-interest entities as defined in point (a) of point (1) of Article 2 of this Directive.”⁷⁷ Article 2 (1) of the Accounting Directive defines public-interest entities as companies whose transferable securities are admitted to trading on a regulated market, credit institutions, insurance companies, and entities designated as public-interest entities by a Member State. In addition, article 19a (1) CSRD defines the scope for sustainability reporting as: “[l]arge undertakings, and small and medium-sized undertakings, except micro undertakings, which are public-interest entities as defined in point (a) of point (1) of Article 2[.]” From this, it follows that the sustainability reporting rules of article 19a apply to:

1. Credit institutions and insurance undertakings;
2. Designated public-interest enterprises;
3. Large undertakings⁷⁸ that exceed at least two of the following three criteria on their balance sheet dates:
 - a. balance sheet total: EUR 25 000 000;
 - b. net turnover: EUR 50 000 000;
 - c. average number of employees during the financial year: 250;
4. Medium undertakings⁷⁹ that are no small undertakings and that do not exceed two or more of the following limits:
 - a. balance sheet total: EUR 25 000 000;
 - b. net turnover: EUR 50 000 000;
 - c. average number of employees during the financial year: 250
and that are governed by the law of a Member State and whose transferable securities are admitted to trading on an EU-regulated market, i.e.: European listed companies or that otherwise qualify as a public-interest entity;
5. Small undertakings⁸⁰ that do not exceed two or more of the following limits:
 - a. balance sheet total: EUR 5 000 000 – 7 500 000;
 - b. net turnover: EUR 10 000 000 – 15 000 000;

⁷⁷ Article 1 (1) CSRD, amending article 1 AD under paragraph 3. The scope is repeated in article 19a CSRD.

⁷⁸ Article 3 (4) Directive 2013/34/EU, amended by Commission Delegated Directive (EU) 2023/2775 as regards the adjustments of the size criteria for micro, small, medium-sized and large undertakings or groups.

⁷⁹ Article 3 (3) Directive 2013/34/EU, amended by Commission Delegated Directive (EU) 2023/2775 as regards the adjustments of the size criteria for micro, small, medium-sized and large undertakings or groups.

⁸⁰ Article 3 (2) Directive 2013/34/EU, amended by Commission Delegated Directive (EU) 2023/2775 as regards the adjustments of the size criteria for micro, small, medium-sized and large undertakings or groups.

- c. average number of employees during the financial year: 50.
and that are governed by the law of a Member State and whose transferable securities are admitted to trading on an EU-regulated market, i.e.: European listed companies or that otherwise qualify as a public-interest entity.

In summary, the sustainability reporting requirements apply to: (i) credit institutions; (ii) insurance companies; (iii) all large companies; and (iv) all listed companies regardless of their size. The scope applies regardless of the legal form of the company.⁸¹ Note that the Commission proposed to reduce the scope of the CSRD/ESRS to large businesses with over 1,000 employees and a turnover exceeding EUR 50 million or a balance sheet exceeding EUR 25 million.⁸² The Council proposed a net turnover threshold of over EUR 450 million in addition to the 1,000 employee threshold.⁸³ With the European Parliament voting against the proposal in October 2025, the future scope of the CSRD is unclear during the finalisation of this manuscript, although a dramatic reduction may be expected.⁸⁴

3.4 Definitions

The CSRD adds two new definitions to article 2 Accounting Directive that are directly relevant to sustainability reporting: sustainability matters and sustainability reporting. The term sustainability matters is defined as “environmental, social and human rights, and governance factors, including sustainability factors defined in point (24) of Article 2 [SFDR]”.⁸⁵ The sustainability factors in the SFDR are: “environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters”.⁸⁶ Combining the list from the CSRD and the SFDR, sustainability matters thus entail: environmental factors and matters, social and human rights factors and matters, governance factors and matters, employee matters, respect for human rights, anti-corruption and anti-bribery matters.

Notably, sustainability factors as defined in the SFDR closely resemble the original article 19a as first introduced in the NFRD, which required reporting on: “environmental, social and employee matters, respect for human rights,

⁸¹ Article 1 (3) Directive 2013/34/EU as amended by article 1 (1) CSRD.

⁸² Omnibus-I COM(2025)80, p. 3-4; Omnibus-II COM(2025)81.

⁸³ Council of the European Union, Press Release: Simplification: Council agrees position on sustainability reporting and due diligence requirements to boost EU competitiveness, 23 Juni 2025, 523/23.

⁸⁴ European Parliament, Press Release, MEPs to vote on simplified sustainability and due diligence rules in November, 22 October 2025, available at: <https://www.europarl.europa.eu/news/en/press-room/20251016IPR30956/meps-to-vote-on-simplified-sustainability-and-due-diligence-rules-in-november>, accessed on: 23 October 2025.

⁸⁵ Article 1 (2) CSRD, amending article 2 (17) Directive 2013/34/EU.

⁸⁶ Article 2 (24) SFDR.

anti-corruption and bribery matters.” The fact that the subject matter of reporting under the NFRD has first been copied into the definition of sustainability factors under the SFDR, which now has been copied into the definition of sustainability matters under the CSRD, indicates how closely interwoven these instruments are.⁸⁷ Working with the same definition framework had also been an explicit aim according to preamble 28 CSRD: reference to the same terms should prevent a mismatch between the needs of the users of sustainability information and the data that is disclosed by businesses reporting under the CSRD.⁸⁸ On the one hand, that aim is fulfilled by including the SFDR definition of sustainability factors in the CSRD definition of sustainability matters. On the other hand, it would have been a more elegant solution to simply use the same definition in both instruments without the distinction between matters and factors, a distinction that is not explained in the first place.

Another important term defined in the CSRD is sustainability reporting, which means reporting information related to sustainability matters in accordance with Articles 19a, 29a and 29d.⁸⁹ Next to describing the action of reporting, this phrase is also used to indicate the part of the management report that has to be drawn up according to article 19a.⁹⁰

3.5 Sustainability Reporting: Article 19a (1) – (4)

3.5.1 Introduction

Article 19a CSRD contains elaborate general instructions for sustainability reporting, spanning well over three pages in the Official Journal.⁹¹ Article 19a (1) contains the primary obligation to draw up a sustainability report, which must be identifiably within the management report. Moreover, this report must be drawn up in accordance with the principle of double materiality (19a (1)). The topics of sustainability reporting are set out in article 19a (2) (a) – (h). The information to be disclosed should relate to the relevant short-, medium-, and long-term horizons and should include information not only about the business itself but also about its value chain and supply chain.⁹² Next to the reporting topics, exemptions and derogations can be found in

⁸⁷ See also: Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 73-74

⁸⁸ Recital 28 CSRD.

⁸⁹ Article 1 (2) CSRD, amending article 2 (18) Directive 2013/34/EU.

⁹⁰ In this thesis, I use the term sustainability report to indicate that part of the management report.

⁹¹ The Official Journal of the European Union is the official publication for EU legal acts, other acts and official information from EU institutions, bodies, offices and agencies, online available via: <https://eur-lex.europa.eu/oj/direct-access.html>.

⁹² Article 19a (2) last paragraph and (3) first paragraph CSRD.

article 19a (3), (6)-(10), and article 19a (4) specifies the applicable reporting standards. In the following sections, I discuss the reporting topics set out in articles 19a (2) (a) – (h).

3.5.2 Reporting Topics

3.5.2.1 Article 19a (2) (a) CSRD: Business Model and Strategy

Article 19a (2) (a) under (i) and (ii) CSRD mandates a description of the undertaking's business model, including "the resilience of the undertaking's business model and strategy in relation to risks related to sustainability matters" and "the opportunities for the undertaking related to sustainability matters." These two requirements thus focus on the financial risks and opportunities of the business in relation to sustainability. Article 19a (2) (a) under (iii) – (v) contains the requirement to disclose the business model and strategy in relation to plans to ensure that the business model and strategy are aligned to limiting global warming to 1.5 degrees and climate neutrality, including the business' coal-, oil-, and gas-related activities; how the business takes account of both the interests of its stakeholders and its impact on sustainability matters; and how strategies on sustainability have been implemented.⁹³

3.5.2.2 Article 19a (2) (b) CSRD: Time-Bound Targets

The business must describe any time-bound targets relating to sustainability matters that it has set.⁹⁴ This should include targets for the absolute reductions in greenhouse gas ("GHG") emissions for 2030 and 2050, the progress being made on those targets, and the scientific evidence on which these targets are based.⁹⁵

3.5.2.3 Article 19a (2) (c) CSRD: Governance

According to article 19a (2) (c) CSRD, the business should describe the position of the administrative bodies, the management, and the supervisory bodies in relation to sustainability matters. This description should include information about (access to) expertise and skill in sustainability matters. This disclosure requirement has been introduced to meet the needs of the users of the information on the corporate culture of the business.⁹⁶

3.5.2.4 Article 19a (2) (d) CSRD: Policies

Article 19a (2) (d) CSRD requires: "a description of the undertaking's policies in relation to sustainability matters." This point is not further explicated in the Directive. Recital 30 merely states that article 19a comprises five reporting

⁹³ See also: recital 30 CSRD.

⁹⁴ Article 19a (2) (b) CSRD.

⁹⁵ On this reporting topic, no rationale or explanation is provided in the recitals.

⁹⁶ Recital 50 CSRD.

areas: “business model; policies, including due diligence processes implemented; the outcome of those policies; risks and risk management; and key performance indicators relevant to the business”.

3.5.2.5 Article 19a (2) (e) CSRD: Incentive Schemes

Article 19a (2) (e) CSRD requires the disclosure of information on the existence of incentive schemes that reward members of the administrative, management and supervisory bodies for sustainability performance must be included in the sustainability reporting.⁹⁷

3.5.2.6 Article 19a (2) (f) CSRD: Due Diligence Processes

Under article 19a (2) (f) CSRD, three due diligence matters need to be described: (i) due diligence process; (ii) actual or potential adverse impacts; and (iii) actions taken to prevent those impacts. Due diligence is a broad concept, defined in recital 31 as the business’s processes to “identify, monitor, prevent, mitigate, remediate or bring an end to the principal actual and potential adverse impacts connected with their activities and identifies how undertakings address those adverse impacts”. According to the recital, these processes encompass the entire value chain of the business.⁹⁸ ‘Impacts’ is equally defined in a broad manner, including those that are “directly caused” by the firm, those to which the business contributes, and those which are “otherwise linked” to the value chain of the business.⁹⁹

Recital 31 aligns this reporting requirement with the UN Guiding Principles on Business and Human Rights, a framework for preventing and addressing human rights violations committed by commercial enterprises.¹⁰⁰ Guiding Principles 17-22 of this framework address human rights due diligence, stressing that businesses should conduct due diligence processes throughout their value chains.¹⁰¹ Principle 18 prescribes that businesses should identify and assess actual and potential human rights impacts. This is somewhat similar to the text in article 19a (2) (f) and recital 31 of the CSRD, but it should be kept in mind that the subject matter of the CSRD is altogether much broader and different to the UN Principles, which are limited to the topic of human rights. Hence, only a little guidance can be deducted from these principles. The obligation to describe due diligence processes can also be seen in con-

⁹⁷ On this reporting topic, no rationale or explanation is provided in the recitals.

⁹⁸ Recital 31 CSRD.

⁹⁹ Recital 31 CSRD.

¹⁰⁰ See also: United National Guiding Principles on Business and Human Rights, “Implementing the United Nations “Protect, Respect, and Remedy” Framework”, [ST/JHR/PUB/11/4 (2011).

¹⁰¹ United National Guiding Principles on Business and Human Rights, “Implementing the United Nations “Protect, Respect, and Remedy” Framework”, [ST/JHR/PUB/11/4 (2011), Commentary to Principle 17, p. 17-19.

nection to the Corporate Sustainability Due Diligence Directive (“CSDDD”).¹⁰² Whereas the CSRD does not (and cannot) refer to this proposal, the proposed CSDDD does refer to the CSRD.¹⁰³ In the Explanatory Memorandum of the proposal for the CSDDD, the Commission reveals its intent that the CSDDD should complement the CSRD by construing a “substantive corporate duty for some companies to perform due diligence to identify, prevent, mitigate and account for external harm resulting from adverse human rights and environmental impacts in the company’s own operations, its subsidiaries and in the value chain.”¹⁰⁴ As the CSDDD is not a disclosure framework but a directive that requires businesses to identify and address harmful impacts on human rights and the environment that occur in their business activities, including their business chains, it is omitted from this research.¹⁰⁵

3.5.2.7 Article 19a (2) (g) CSRD: Risks

Article 19a (2) (g) CSRD mandates a description of the principal risks related to sustainability matters that the business is exposed to. This reporting requirement seems, at first glance, similar to the one under (a) point (i) – the business’s resilience and strategy regarding risks related to sustainability matters. (f) specifies that the description of principal risks should include a description of the dependencies on those matters and how the business manages those risks. This could imply – in combination with recital 46, which refers to principal risks and the need to specify geographical and other contextual information – that article 19a (2) (g) requires a more thorough description of risks than (a).

3.5.2.8 Article 19a (2) (h) CSRD: Indicators

Article 19a (2) (h) requires that for the disclosures made under (a) – (g), relevant indicators are included. Without explicit elaboration, it is not entirely clear what the requirement entails. However, recital 30 CSRD mentions that reporting should include key performance indicators, which could mean that the disclosures under (a) – (g) must be accompanied by quantifiable metrics that track the progress in light of the sustainability goals, policies and risks of the business. Alternatively, this could be an attempt to harmonize information between businesses by mandating the use of uniform indicators and/or

¹⁰² Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859.

¹⁰³ Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937 COM/2022/71 final, Explanatory Memorandum, p. 4.

¹⁰⁴ Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937 COM/2022/71 final, Explanatory Memorandum, p. 4.

¹⁰⁵ Recital 16 CSRD.

aligning indicators in sustainability reporting with those used in other Union laws.¹⁰⁶

3.6 Value chain

Article 19a CSRD not only requires businesses to disclose information about themselves but also requires disclosure of information on the business's value chain. Firstly, this is included in article 19a (2) (f) point (ii) in relation to principal actual or potential adverse impacts. Secondly, article 19a (3) prescribes that the information to be revealed under 19a (1) and (2) should refer – where applicable – to the business's own operations and its value chain. The value chain consists of products and services, business relationships and the supply chain.¹⁰⁷ The obligation to disclose this information encompasses both the value chain within the EU and the business's value chain in third countries.¹⁰⁸

3.7 Double Materiality

Article 19a (1) CSRD prescribes that the management report must include information necessary to understand how the business impacts sustainability matters, and information necessary to understand how sustainability matters affect the development, performance, and position of the business, referred to as the concept of double materiality. This concept, originally implied in the NFRD, requires businesses to disclose two perspectives of sustainability impacts:¹⁰⁹ (1) how the business impacts sustainability matters, and (2) how sustainability matters affect the business.¹¹⁰

To illustrate the double materiality principle, consider a steel factory located in an estuary. Under the double materiality principle, the business would need to disclose: (1) how it impacts sustainability matters by reporting *inter alia* on how its production processes cause the emission of GHG gases and other waste, and (2) how sustainability matters impact the business, for example

106 Recital 33 CSRD, recital 41 CSRD. It is argued by *inter alia* La Torre that the CSRD is primarily aimed at harmonizing the content of disclosures rather than to provide a stricter framework for disclosures. La Torre M., e.a., "Harmonising non-financial reporting regulation in Europe: Practical forces and projections for future research" *Meditari Accountancy Research* 2018, vol. 26(4), p. 598. See also: Pizzi S., Venturelli A. & Caputo F., "Regulating Sustainability Reporting in Europe: De Jure Harmonisation or De Facto Standardisation?", *Accounting in Europe* 2025, vol. 22(1), p. 51.

107 Recital 33 CSRD.

108 Recital 33 CSRD.

109 Recital 29 CSRD. Communication from the Commission: Guidelines on non-financial reporting: Supplement on reporting climate-related information C/2019/4490, p. 6.

110 Recital 29 CSRD.

how rising sea levels threaten the factory's physical infrastructure and operational continuity.

While the double materiality principle is central to the CSRD, the Directive does not provide a precise definition of the concept.¹¹¹ Instead, the double materiality principle and its application is worked out in detail in the ESRS.¹¹² As the CSRD itself is silent on the application of the double materiality principle, this paragraph only provides a brief overview, with a more comprehensive discussion in the context of the ESRS in paragraph 4 of this Chapter. According to the ESRS, the starting point for sustainability reporting is the identification of impacts, risks, and opportunities that are material to the relevant stakeholders.¹¹³ Relevant stakeholders are divided into two groups: the affected stakeholders (such as (in)direct business relationships across the value chain) and other users (such as investors and creditors, as well as social partners, NGOs, and civil society).¹¹⁴

For impact materiality, the business must report the material actual or potential, positive and negative impacts on sustainability matters, on a short-, medium-, and long-term basis, including those of its value chain.¹¹⁵ To determine whether something is material, the business should take into account how severe the impact is and additionally, in the case of potential impacts, the likelihood of the impact materializing.¹¹⁶ The severity should be determined on the basis of the scale, scope, and irremediability of the impact.¹¹⁷ According to recital 44 CSRD, it may be useful to express the impact of the business on sustainability matters in monetary terms, for example, the estimated value of the damage caused by the GHG emissions.¹¹⁸ However, impact materiality primarily is a qualitative disclosure concept.

The obligation to report on financial materiality focuses on sustainability matters that (could) trigger financial effects for the business, both positive and negative.¹¹⁹ These include effects on the business' "development, financial position, financial performance, cash flows, access to finance or cost of capital

111 It is merely mentioned in recitals 29, 37, 39 CSRD.

112 ESRS 1, para. 3 Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards ("CDR 2023/2772"); Baumüller J. & Sopp K., "Double materiality and the shift from non-financial to European sustainability reporting: review, outlook and implications", *Journal of Applied Accounting Research* 2022, vol. 2023(1), p. 8, 20.

113 ESRS 1, para. 3.2 point 25 CDR 2023/2772.

114 ESRS 1, para. 3.1 CDR 2023/2772.

115 ESRS 1, para. 3.4 CDR 2023/2772.

116 ESRS 1, para. 3.4 CDR 2023/2772.

117 ESRS 1, para. 3.4 CDR 2023/2772.

118 This idea is also reflected in the work of the Natural Capital Coalition, *Natural Capital Protocol*, 2016, available at: https://capitalcoalition.org/capitals-approach/natural-capital-protocol/?fwp_filter_tabs=guide_supplement, accessed on 25 January 2025.

119 ESRS 1, para. 3.5 CDR 2023/2772.

over the short-, medium- or long-term.”¹²⁰ To determine whether an impact is material, the business should take into account the likelihood of occurrence in combination with the potential severity of the effects.¹²¹

Note that the two dimensions of the double materiality concept in the CSRD are both interconnected and distinct from each other. The interconnectedness can be observed in the following example: a business that is heavily polluting by discharging waste toxins into the air should disclose this first and foremost under impact materiality. At the same time, this behaviour becomes financially material due to potential financial consequences, such as civil liability risks.¹²² At an abstract level, the interconnectedness may be even more obvious, for example, the emission of GHG increases climate change risks, which may have negative financial impacts on the businesses that cause the emissions in the first place.¹²³ However, impact materiality and financial materiality may often not align for individual businesses. For example, a business that does not cause any environmental impact may still be located in an area prone to flooding, which must be reported on under financial materiality. Moreover, the focus of the two concepts of materiality is fundamentally different: impact materiality focuses on outgoing effects regardless of their financial implications whereas financial materiality is explicitly limited to financial effects on the business.

3.8 Exemptions

Article 19a CSRD contains five types of exemptions. The most important exemption is the lighter disclosure regime of article 19a (6) for small- and medium-sized undertakings that do fall within the scope of article 19a because they are public-interest companies.¹²⁴ This exemption thus applies to small- and medium-sized issuers, Member-State designated public-interest entities, credit institutions, and insurance companies.¹²⁵ In line with the idea that

¹²⁰ ESRS 1, para. 3.5 CDR 2023/2772.

¹²¹ ESRS 1, para. 3.5 CDR 2023/2772.

¹²² Example based on Rb. Rotterdam, 27 September 2023, ECLI:NL:RBROT:2023:8987 (Gemeente Dordrecht e.a. v Chemours Netherlands e.a.). This case provides a concrete example of how environmental impact can translate into financial materiality. The Rotterdam court ruled that Chemours’ emission of PFOA (Per- and Polyfluoroalkyl Substances) was unlawful, establishing the defendants liability for damages caused to the municipality.

¹²³ The interconnectedness of impact and financial materiality is illustrated in Gourdel R., e.a., “The double materiality of climate physical and transition risks in the euro area”, *Journal of Financial Stability* 2024, vol. 71, 101233, p. 3.

¹²⁴ Article 19a (1) CSRD, referring to article 2 (1) (a), which defines public interest companies.

¹²⁵ Small- and medium sized credit institutions must fall within the definition of small and non-complex institutions defined in point (145) of article 4 (1) of Regulation (EU) No 575/2013. Small- and medium sized (re)insurance companies must fall within the definition of captive insurance undertakings defined in point (2) of article 13 of Directive 2009/138/EC of the European Parliament and of the Council and captive reinsurance undertakings defined in point (5) of Article 13 of that Directive.

businesses should not be burdened excessively,¹²⁶ the reporting requirements have been limited to:

1. a brief description of the undertaking's business model and strategy;
2. a description of the undertaking's policies in relation to sustainability matters;
3. the principal actual or potential adverse impacts of the undertaking on sustainability matters, and any actions taken to identify, monitor, prevent, mitigate or remediate such actual or potential adverse impacts;
4. the principal risks to the undertaking related to sustainability matters and how the undertaking manages those risks;
5. key indicators necessary for the disclosures referred to in points (a) to (d).

The second type of exemption can be found in the fourth paragraph of article 19a (3), which contains an exemption for information that could endanger the commercial position of the business.¹²⁷ This exemption can be linked to recital 34, according to which the disclosure requirements should not require a business to make public intellectual capital, intellectual property, know-how, or trade secrets. The exemption may only be invoked in "exceptional cases" – when the bodies of the business are of the justified opinion that an omission of "impeding developments" or "matters in the course of negotiation" is necessary to safeguard the business's commercial position.¹²⁸ Moreover, omitting such information from the sustainability report should not prejudice the ability of the users of the information to form a balanced understanding of the business.¹²⁹

Third, in groups, certain entities may be exempted.¹³⁰ In particular, subsidiaries need not publish a sustainability report if the parent undertaking draws up a consolidated management report in accordance with articles 29 and 29a CSRD in which the subsidiary is included.¹³¹

Fourth, there are exemptions that apply only in the first few years after the CSRD has entered into force. Firstly, for the first three years after the national implementation measures entered into force (ranging from 2024 to 2029, depending on the type of firm), a business that does not have access to all necessary information on its value chain may explain the efforts that it made to obtain this information, the reasons for not obtaining the information, and its plans for obtaining the information.¹³² Secondly, for financial

¹²⁶ Recital 21 CSRD.

¹²⁷ Recital 33 CSRD.

¹²⁸ Article 19a (3) fourth paragraph CSRD.

¹²⁹ Article 19a (3) fourth paragraph CSRD.

¹³⁰ Article 19a (9) CSRD.

¹³¹ Article 19a (9) CSRD, recitals 25-26 CSRD. See also: Roozen C.M. & Vereijken-Van den Bosch S.F.W., "Vrijstellingen in de CSRD", *Verslaggeving, accountancy en toezicht* 2023, nr. 5/6, p. 163.

¹³² Article 19a (3) second paragraph CSRD.

years starting before 1 January 2028, small- and medium-sized public-interest entities – who would have to comply with the reporting regime from the financial year 2026 – may decide not to include the information mandated under 19a (1) and (2) CSRD in their management report but instead explain why the sustainability reporting was not provided.¹³³ Effectively, this entails a postponement of 2 years for the application of the sustainability reporting requirements for small- and medium-sized businesses that fall within the scope of the Directive.

Lastly, article 19a CSRD does not apply to financial products listed in points (b) and (f) of point (12) of Article 2 of the SFRD.¹³⁴ Those ‘products’ are an alternative investment fund (AIF) and a UCITS. However, the undertakings that manage these funds may fall under the obligation to draw up a sustainability report if they fulfil the scope requirements of the CSRD.¹³⁵

3.9 Single Electronic Format

The information that had to be disclosed on the basis of the national transposition of the Accounting Directive did not have to be made available in any electronic format on the basis of Union law.¹³⁶ This has resulted in a fragmented disclosure system, which hinders access to that information. To empower investors to easily access and compare the information disclosed under the CSRD, article 29d CSRD has been introduced.¹³⁷ The article mandates that the management report must be prepared in the ‘electronic reporting format’ that has been specified through the CDR 2019/815.¹³⁸ Article 3 CDR 2019/815 mandates that issuers prepare their annual financial statements in XHTML format – one of the languages in which web pages are formulated.¹³⁹ Thus, all sustainability reporting under the CSRD will be in

¹³³ Article 19a (7) and article 5 CSRD.

¹³⁴ Article 1 (1) CSRD, amending article 1 (4) AD.

¹³⁵ Answer to question 12, Commission Notice on the interpretation of certain legal provisions in Directive 2013/34/EU (Accounting Directive), Directive 2006/43/EC (Audit Directive), Regulation (EU) No 537/2014 (Audit Regulation), Directive 2004/109/EC (Transparency Directive), Delegated Regulation (EU) 2023/2772 (first set of European Sustainability Reporting Standards, first ESRS delegated act), and Regulation (EU) 2019/2088 (Sustainable Finance Disclosures Regulation, SFDR) as regards sustainability reporting.

¹³⁶ Recital 55 CSRD.

¹³⁷ Recital 55 CSRD.

¹³⁸ Article 1 Commission Delegated Regulation (EU) 2018/815 of 17 December 2018 supplementing Directive 2004/109/EC of the European Parliament and of the Council with regard to regulatory technical standards on the specification of a single electronic reporting format.

¹³⁹ XHTML stands for Extensible HyperText Markup Language. Files in this markup are well suited to be viewed online.

the same electronic format, greatly increasing access to sustainability information.¹⁴⁰

The CSRD mandates centralized information disclosure across the European Union through the European Single Access Point (“ESAP”), established by Regulation (EU) 2023/2859 and set to become operational by 10 July 2027.¹⁴¹ The ESAP aims to facilitate easy access to information, enabling sound, informed, and environmentally responsible investment decisions that support efficient market functioning.¹⁴² Disclosing sustainability reporting via the ESAP should increase the availability of sustainability reporting throughout the Union.

3.10 Transposition and Entry Into Force

The CSRD has been transposed into the national law of Member States. Article 5 CSRD contains rules on when businesses will have to comply with the national rules implementing the CSRD.

Large businesses that are public-interest entities and employ more than 500 employees, will have to comply with the sustainability reporting rules for the financial year starting on or after 1 January 2024.¹⁴³ This date remained unchanged under the so-called Stop the Clock Directive. However, the original schedule for reporting has been postponed by two years for other businesses that fall under the scope of the CSRD: other large undertakings that would have to start reporting from the financial year starting on 1 January 2025 onward now have to start reporting for the financial year starting on or 1 January 2027.¹⁴⁴ The remaining firms only have to start reporting for the financial year starting on or after 1 January 2028 (instead of 1 January 2026).¹⁴⁵ Member States should have implemented the first three articles of

140 See also: Dinant J., “Een uniform elektronisch verslaggevingsformaat voor de jaarlijkse financiële verslaggeving”, *Tijdschrift voor Jaarrekeningenrecht* 2022, nr. 1, p. 12.

141 Recital 55 and 56 CSRD. Article 1 Regulation (EU) 2023/2859 of the European Parliament and of the Council of 13 December 2023 establishing a European single access point providing centralised access to publicly available information of relevance to financial services, capital markets and sustainability (“ESAP Regulation”).

142 Recital 1 ESAP Regulation. See also: Heldring M. & Horck M.F., “Een Wondermiddel in de Zoektocht naar ESG-Data?”, in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022, p. 329-345.

143 Article 5 (2) (a) point (1) CSRD.

144 Article 1 (a) sub (i) Directive (EU) 2025/794 of the European Parliament and of the Council of 14 April 2025 amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirements.

145 Article 1 (a) sub (ii) Directive (EU) 2025/794 of the European Parliament and of the Council of 14 April 2025 amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirements.

the CSRD (which contain *inter alia* articles 19a and 29a CSRD) by 6 July 2024.¹⁴⁶

3.11 Auditing and Assurance

The CSRD introduces new auditing and assurance rules to ensure that sustainability reporting complies with the Directive (and the ESRS).¹⁴⁷ Although non-financial reporting had already been more regulated under the NFRD, that Directive did not require any assurance of the information disclosed: auditors merely needed to confirm that a separate report had been published that contained non-financial information.¹⁴⁸ Clearly, a lack of assurance of the contents of the sustainability report undermines its credibility, which is why the CSRD amends Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts to include rules on the assurance of sustainability reporting.¹⁴⁹ According to the new article 26a of Directive 2006/43/EC, the Commission will adopt delegated acts setting out limited assurance standards by 1 October 2026.¹⁵⁰ For limited assurance, the auditor merely must declare that no material misstatements have been identified in the sustainability report, which is a less intensive type of assurance.¹⁵¹ By 1 October 2028, the Commission should adopt delegated acts with rules on reasonable assurance, a more extensive type of assurance where the auditor provides a

146 Article 5 (1) CSRD. The Netherlands missed the implementation deadline of 6 July 2024. On the implementation process: Rietveld S., “De implementatie van de CSRD in Nederland: enkele ondernemingsrechtelijke implicaties”, *Tijdschrift Ondernemingsrechtpraktijk* 2024, nr. 8, p. 19, 21-22.

147 Article 3 CSRD. Ruohonen J. & Kullas H., “The Assurance of Corporate Sustainability Reports and the Renewed Role of Certified Auditors”, *European Company and Financial Law Review* 2024, vol. 21(3-4), 2024, p. 442; Bos D.E., “Zekerheid en onzekerheid: Onafhankelijkheid van externe accountants bij de voorbereiding op verplichte duurzaamheidsrapportage”, *Tijdschrift voor Jaarrekeningenrecht* 2023, nr. 5/6, p. 145.

148 Article 19a 5 NFRD: “Member States shall ensure that the statutory auditor or audit business checks whether the non-financial statement referred to in paragraph 1 or the separate report referred to in paragraph 4 has been provided.” The Netherlands has chosen to have the sustainability report assured by accountants (article 8 Implementatiebesluit richtlijn duurzaamheidsrapportering (2024)); Rietveld S., “De implementatie van de CSRD in Nederland: enkele ondernemingsrechtelijke implicaties”, *Tijdschrift Ondernemingsrechtpraktijk* 2024, nr. 8, p. 19, 25-26.

149 Recital 60 CSRD.

150 Article 3 CSRD amending article 26a Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC.

151 Recital 60 CSRD. Rietveld S., “De implementatie van de CSRD in Nederland: enkele ondernemingsrechtelijke implicaties”, *Tijdschrift Ondernemingsrechtpraktijk* 2024, nr. 8, p. 19, 25-26.

positive statement that the report matches the criteria set out in the legislation.¹⁵² Increasing the level of intensity of assurance over the years should provide the assurance market with time to develop their expertise in this area.¹⁵³ This is important because the level of limited insurance is significantly lower than reasonable assurance, which may affect investors' confidence about the correctness of the information.¹⁵⁴

One concern that is expressed in publications on the new assurance regime, is the combination of the extensive reporting framework under the CSRD/ESRS, the nature of sustainability reporting which is distinct from traditional financial reporting, and the limited time that external auditors have to become acquainted with the CSRD/ESRS.¹⁵⁵ Although the CSRD also provides rules that concern the quality of the auditors providing assurance, including rules on (continued) education, training, professional ethics, confidentiality, and independence, these additional requirements may also increase the regulatory burden of sustainability reporting.¹⁵⁶

Another concern is that auditors fulfil a gatekeeping role, as they effectively assure which businesses sufficiently comply with the sustainability reporting regime.¹⁵⁷ However, this gatekeeping function may be compromised by the fact that the auditors are paid by the businesses whose sustainability reports they audit, creating a conflict of interest: rather than making a fully independent assessment of the firm, auditors may be incentivized to assess their clients' sustainability reports favourably.¹⁵⁸ This is why, in general, the (in)-

152 Article 3 CSRD amending article 26a Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC. Recital 60-61 CSRD.

153 Recital 60 CSRD.

154 Ruohonen J. & Kullas H., "The Assurance of Corporate Sustainability Reports and the Renewed Role of Certified Auditors", *European Company and Financial Law Review* 2024, vol. 21(3-4), 2024, p. 442.

155 Bos D.E., "Zekerheid en onzekerheid: Onafhankelijkheid van externe accountants bij de voorbereiding op verplichte duurzaamheidsrapportage", *Tijdschrift voor Jaarrekeningenrecht* 2023, nr. 5/6, p. 145; Kamp-Roelands A.E.M., "Assurance bij duurzaamheidsinformatie. Wat betekent dit voor ondernemingen?", *Tijdschrift voor Financieel Recht* 2021, nr. 8/9, p. 286; Velte P., "Prüfung von Nachhaltigkeitsberichten nach der Corporate Sustainability Reporting Directive (CSRD) durch den Wirtschaftsprüfer – Fluch oder Segen?" *Schmalenbach IMPULSE* 2023, vol. 3(1), p. 1.

156 Article 3 CSRD amending articles 6, 7, 12, 14a, and 25b 26a Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC.

157 Dell'Erba M. & Doronzo M., "Sustainability Gatekeepers: ESG Ratings and Data Providers", *University of Pennsylvania Journal of Business Law* 2023, vol. 25(2), p. 355.

158 Dell'Erba M. & Doronzo M., "Sustainability Gatekeepers: ESG Ratings and Data Providers", *University of Pennsylvania Journal of Business Law* 2023, vol. 25(2), p. 355; Rogge E. & Ohnesorge L., "The Role of ESG Rating Agencies and Market Efficiency in Europe's Climate Policy", *Hastings Environmental Law Journal* 2022, vol. 28(2), p. 113.

dependence of audit firms is strictly regulated both at the national and European level.¹⁵⁹ The gatekeeping discussion is analysed more extensively in Chapter 4 in relation to external reviewers for European Green Bonds, which are explicitly regulated under the EuGBR – unlike the general regulation of the independence of auditors of sustainability reports, which is not part of the CSRD framework.¹⁶⁰ Instead, the general rules on *inter alia* the professional ethics, independence and objectivity of auditors from Directive 2006/43/EC on statutory audits of annual accounts apply *mutatis mutandis* to the assurance of sustainability reporting.¹⁶¹

3.12 Commentary

3.12.1 Complete

In paragraph 2, I outlined the criteria for evaluating completeness: (a) assessing whether qualitative information covers all four aspects of the double materiality principle, and (b) verifying the inclusion of quantitative data. For the first criterion, I evaluate whether the information (i) encompasses both positive and negative impacts, (ii) extends beyond a binary classification, and (iii) is guided by specific materiality and disclosure standards.

The CSRD itself provides insufficient detail to adequately assess these criteria. The Directive primarily establishes the overarching framework for sustainability reporting, delineating procedural boundaries through personal scope, exemptions, and entry into force. The substantive reporting requirements, however, are contained in the ESRS. Regarding the evaluative criterion of qualitative information, the CSRD merely stipulates disclosure of material actual or potential, positive and negative impacts on sustainability matters, spanning short-, medium-, and long-term horizons, including those within the value chain. The directive is even less explicit regarding quantitative

159 See for various manners in which to safeguard the independence of auditors: Gelter M. & Gurrea-Martínez A., “Addressing the Auditor Independence Puzzle: Regulatory Models and Proposal for Reform”, *Vanderbilt Journal of Transnational Law* 2020, vol. 53 (3), p. 787. One example of EU regulation on this is: Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April 2014 on specific requirements regarding statutory audit of public-interest entities and repealing Commission Decision 2005/909/EC. This regulation sets out the conditions for carrying out statutory audits of Public interest entities, which includes rules on fee structures, the prohibition of certain non-audit services such as legal advice or the preparation of the accounts, and independence requirements for, *inter alia*, senior management and partners of the audit firm.

160 Paragraph 4.6.1 of Chapter 4.

161 Article 25b CSRD; articles 21-24a Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC.

disclosures. While it lists topics to be disclosed and mandates the inclusion of relevant indicators, the CSRD remains generic, setting conditions for the ESRS rather than prescribing specific disclosure requirements. To fully comprehend the CSRD's effectiveness in terms of completeness, it is necessary to read the directive in conjunction with the ESRS.

3.12.2 Coherent

In paragraph 2, I set out that I evaluate coherency by assessing whether core terminology and concepts are defined and used coherently throughout the legislation. Moreover, I assess whether sustainability effects on the business and impacts by the business on sustainability matters are both expressed in financial terms.

A handful of observations can be made regarding the first point. Firstly, the CSRD uses the term sustainability matters, defined as “environmental, social and human rights, and governance factors, including sustainability factors defined in point (24) of Article 2 [SFDR]”.¹⁶² The sustainability factors in the SFDR are: “environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters”.¹⁶³ The CSRD definition thus adds “governance factors” but is repetitive for the remaining elements.¹⁶⁴ It would have been more coherent to simply use the same definition in both instruments without the distinction between matters and factors, a distinction that is not explained in the first place.¹⁶⁵ This would be possible without loss of meaning by either defining sustainability matters as “sustainability factors as defined in point (24) of Article 2 [SFDR] and governance factors” or by interpreting sustainability factors to include governance factors. Indeed, interpreting “social and employee matters, respect for human rights, anti-corruption and anti-bribery matters” to include governance does not seem a stretch.

Secondly, it appears that AIFs and UCITSs are excluded from the scope of the CSRD but not from the application of the SFDR or Taxonomy Regulation, which is not explained in the Directive and seems incoherent in light of the entire framework.

Thirdly, the CSRD is written in a somewhat awkward manner that does not always contribute to an easy reading. For example, the scope of the regulation is contained in article 1 and repeated redundantly in article 19a; the reporting topics are relatively elaborate but do not contain any substantive rules (which can be found in the ESRS). Moreover, the order and content of

¹⁶² Article 1 (2) CSRD, amending article 2 (17) AD.

¹⁶³ Article 2 (24) SFDR.

¹⁶⁴ See also: Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 73-74.

¹⁶⁵ See paragraph 3.4 of this Chapter.

the topics are not reflected as such in the ESRS, which follow the structure of the Taxonomy Regulation, raising the question of why such an elaborate list of topics needed to be included in the CSRD in the first place.¹⁶⁶ In general, the impression thus arises that the CSRD could have been written more succinctly and coherently without losing any force.

The second criterion I formulated for coherency is that not only financial materiality (how the business is impacted by sustainability matters) but also impact materiality (how the business impacts sustainability matters) is expressed *inter alia* in monetary terms so that investors can make a meaningful assessment of the environmental costs caused by the business and better compare environmental costs between businesses. The idea of financially valuing sustainability impacts is reflected in recital 44 CSRD, which mentions the Commission's support for the sector-led development of standardised natural capital accounting.¹⁶⁷ It is also expressed in article 29b CSRD, which contains the Commission's task to adopt the ESRS. According to that article, the Commission will take into account, to the greatest extent possible, existing standards and frameworks for natural capital accounting and greenhouse gas accounting.¹⁶⁸ However, the CSRD contains no rules that make mandatory any form of financially valuing the (societal) costs of sustainability impacts by the business.

3.12.3 Accurate

In paragraph 2, I set out that I evaluate accuracy by assessing whether the qualification of a financial product as sustainable is either (a) based on the Taxonomy Regulation or (b) warranted by procedural safeguards that ensure the qualification is supported by scientific evidence. These criteria cannot be applied in the context of the CSRD as the purpose of the Directive is not to determine whether a financial product – or a business or an economic activity – is sustainable. Nonetheless, it is obviously still imperative that the information to be disclosed under the CSRD – and the ESRS – be accurate and reliable.¹⁶⁹ For this, the external auditing of the sustainability report plays a central role. As I explained in para. 3.11, this new auditing regime is facing a number of challenges, in particular a current gap in expertise that may close over time.

¹⁶⁶ Article 29b CSRD. See paragraph 4.2 of this Chapter.

¹⁶⁷ This idea is also reflected in the work of the Natural Capital Coalition, *Natural Capital Protocol*, 2016, available at: https://capitalscoalition.org/capitals-approach/natural-capital-protocol/?fwp_filter_tabs=guide_supplement, accessed on: 25 January 2025.

¹⁶⁸ Article 29b (5) (a) CSRD.

¹⁶⁹ See also: Financial Stability Board, "Report on Promoting Climate-Related Disclosures", *Financial Stability Board* 7 July 2021, p. 39-40.

3.13 Conclusion

The CSRD is an enormous and bold step forward in diminishing information asymmetries in terms of scope, content, and accessibility of relevant information for investors: all listed companies regardless of their size have to disclose sustainability information, the topics of reporting have been clarified and extended, and through the ESAP this information will be easily accessible. Moreover, by the integration of the materiality principle, the explicit intent is to provide investors with the information that they need to make an informed investment decision. In general terms, the CSRD thus is a successful step toward complete information.

Regarding the content of sustainability reporting, the CSRD is mainly of a procedural nature: it contains indications on what the ESRS should look like rather than prescribing substantive reporting requirements itself. On some points, these procedural rules seem to be formulated in an overly complicated manner, with unnecessary repetitions or elaboration and an obsolete distinction between “sustainability matters” and “sustainability factors”. In terms of coherence, the CSRD thus would have benefited from some sharp final editing.

One thing that could enhance the effectiveness of the CSRD is the obligation to value the costs of sustainability impacts by the business. By assigning a monetary value to environmental impacts, investors can use a standardised metric to weigh impacts and effects against each other and compare them to other businesses.¹⁷⁰ However, the CSRD only mandates monetary indicators for financial materiality, i.e. the impact of sustainability matters on the business, but not vice versa. This may impede a good valuation of the sustainability impacts and effects of the investment opportunity.

Given that the CSRD contains relatively generic rules on the content of sustainability reporting, para. 4 and para. 5 delve into the ESRS and article 8 of the Taxonomy Regulation to come to a deeper analysis of the successfulness of reducing information asymmetries regarding sustainability information in ongoing disclosures.

4 THE EUROPEAN SUSTAINABILITY REPORTING STANDARDS

4.1 Background and Requirements for the Development of the ESRS

Businesses that have to publish a sustainability report on the basis of article 19a CSRD, must do so in accordance with the sustainability reporting standards

170 Recital 44 CSRD. See also: Natural Capital Coalition, *Natural Capital Protocol*, 2016, available at: https://capitalscoalition.org/capitals-approach/natural-capital-protocol/?fwp_filter_tabs=guide_supplement, accessed on: 25 January 2025.

that have been adopted pursuant to article 29b CSRD.¹⁷¹ Those standards, the ESRS, have been adopted in a Commission Delegated Regulation which entered into force on 3 August 2023 and which follows the CSRD schedule for entry into application.¹⁷² There are several reasons to justify the introduction of mandatory reporting standards. First, the NFRD has shown that generically formulated reporting requirements lead to insufficiently reliable and incomparable information.¹⁷³ Moreover, in that same context, it became clear that voluntary guidelines are insufficient to realize substantive harmonization in the way that businesses disclose information.¹⁷⁴ This is particularly obstructive for investors who cannot compare businesses if the substantive disclosures are too discrepant.

Second, a mandatory standard enables external assurance of the information, for example, by accountants.¹⁷⁵ As already mentioned, external assurance is important because it increases investors' confidence about the correctness of the information.¹⁷⁶ Furthermore, mandatory disclosure standards facilitate supervision and enforcement.¹⁷⁷ Lastly, they are an important condition for effective digitalization of the reported information.¹⁷⁸

It should be noted that a number of popular sustainability reporting standards and frameworks existed before the adoption of the ESRS, such as the GRI Standards and the United Nations Global Compact reporting framework.¹⁷⁹ Nonetheless, the EU has decided to develop its own standards. This

171 Article 19a (4) CSRD.

172 Article 2 CDR 2023/2772.

173 European Commission, Proposal for a Regulation as regards disclosure of non-financial information by certain undertakings and groups, Inception Impact Assessment, Ares(2020)580716. See also: Ohnesorge L.G.L. & Rogge E., "Europe's Green Policy: Towards a Climate Neutral Economy by Way of Investors' Choice", *European Company Law* 2021, vol.18(1), p. 34, 35-36.

174 Communication from the Commission: Guidelines on non-financial reporting (methodology for reporting non-financial information) C/2017/4234; Communication from the Commission: Guidelines on non-financial reporting: Supplement on reporting climate-related information C/2019/4490.

175 Recital 37 CSRD.

176 Ruohonen J. & Kullas H., "The Assurance of Corporate Sustainability Reports and the Renewed Role of Certified Auditors", *European Company and Financial Law Review* 2024, vol. 21(3-4), 2024, p. 442.

177 Recital 37 CSRD. Supervision and enforcement depend on the national implementation of the CSRD. In case of The Netherlands, the Autoriteit Financiële Markten will supervise the sustainability reporting by issuers (article 2-4 Wet toezicht financiële verslaggeving (version 2025)). See also: Dinant J., "De duurzaamheidsverslaggeving van beursgenoteerde ondernemingen en het toezicht van de AFM" *Tijdschrift voor Jaarrekeningenrecht* 2024, nr. 5/6, p. 188.

178 Recital 37, 55 CSRD.

179 The Global Reporting Initiative (GRI) Standards provide for reporting on economic, environmental and social impacts. Available at The Global Reporting Initiative (GRI) Standards, available at: <https://www.globalreporting.org/how-to-use-the-gri-standards/gri-standards-english-language/>, visited on: 25 January 2025. The UN Global Compact reporting frame-

is mainly motivated by the fact that the existing standards do not meet the specific needs that arise in the context of the CSRD. In particular, the reporting standards need to be aligned to other EU sustainable disclosure obligations, most importantly those arising on the basis of the SFDR and the Taxonomy Regulation.¹⁸⁰ Moreover, they should reflect the EU's sustainability ambitions in general.¹⁸¹

The CSRD sets out a number of requirements that the ESRS have to meet. First of all, the information to be disclosed by means of the ESRS must cover the needs of financial market participants who need to comply with the SFDR.¹⁸² Furthermore, article 29b (2) CSRD prescribes that the ESRS must ensure the quality of the information that is disclosed, which must be understandable, relevant, verifiable, comparable and represented in a faithful manner. At the same time, the ESRS should not impose a disproportionate administrative burden on the businesses that have to comply with them.¹⁸³

Second, article 29b (2) CSRD specifies the subject matters of the sustainability reporting standards. These are divided into three main groups: (i) environmental factors, (ii) human rights and social factors, and (iii) governance factors.¹⁸⁴ Within the area of environmental factors, article 29b (2) (a) CSRD specifies six environmental factors on which businesses must disclose information: climate change mitigation; climate change adaptation; water and marine resources; resource use and the circular economy; pollution; biodiversity and ecosystems. These environmental factors coincide with the environmental objectives from article 9 Taxonomy Regulation. Remarkably, the list of topics that can be deduced from article 19a (2) CSRD (reporting on sustainability matters in relation to the business model and strategy, time-bound targets, governance, etc.) is not reflected in article 29b (2) CSRD, which raises the question how the articles relate to each other (the CSRD does not resolve that tension). With respect to the reporting topics from article 29b (2) CSRD, the reporting standards must specify both forward-looking, retrospective, qualitative and quantitative information, and cover the value chain of the business where appropriate.¹⁸⁵ However, article 29b (4) CSRD recognizes that busi-

work provides the disclosure for ESG information in a businesses annual communication on progress. Available at: United Nations Global Compact reporting framework, "The Communication on Progress", available at: <https://unglobalcompact.org/participation/report>, visited on: 25 January 2025.

180 Recital 38 CSRD.

181 Recital 38 CSRD; more specifically, they should reflect the EU's sustainability ambitions formulated in the Green Deal and in Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law').

182 Article 29b (1) second paragraph CSRD.

183 Article 29b (2) CSRD.

184 Article 29b (2) (a), (b), and (c) CSRD respectively.

185 Article 29b (3) and article 19a (3) and 29b (4) CSRD.

nesses might experience difficulties when gathering information about other businesses throughout their value chain. This is especially so when businesses in the value chain are not subject to the CSRD themselves and thus do not generate the kind of information that has to be reported under the Directive, for example, because they are SMEs or because they are located outside the EU's jurisdiction.¹⁸⁶ Therefore, the sustainability reporting standards should not mandate the reporting of information on businesses throughout the value chain that exceeds the information that those businesses have to report themselves.¹⁸⁷

Third, article 29b (5) CSRD specifies that the reporting standards ought to take into account other sustainability accounting frameworks and initiatives as well as relevant European legislation, as listed under (b) – (j) of that article. Other sustainability accounting frameworks include the International Sustainability Standards Board (ISSB), the Global Reporting Initiative, the Sustainability Accounting Standards Board, the International Integrated Reporting Council, the International Accounting Standards Board, and the Task Force on Climate-related Financial Disclosures.¹⁸⁸ This is particularly important for businesses that are active both within and outside of the EU, and which may have to report under multiple frameworks.¹⁸⁹ Interoperability between the ESRS and other frameworks reduces the regulatory burden that is imposed on those businesses.¹⁹⁰ European legislation that the ESRS must take into account include the SFDR and delegated acts adopted pursuant to that Regulation, and the criteria, indicators, and methodologies set out in the delegated acts adopted on the basis of the Taxonomy Regulation.¹⁹¹

In order to draft the ESRS, the European Financial Reporting Advisory Group (EFRAG), a non-profit association based in Belgium, was commissioned to prepare a first draft of the standards (so-called independent technical

¹⁸⁶ Recital 53 CSRD.

¹⁸⁷ Article 29b (4) CSRD.

¹⁸⁸ Recital 39 CSRD also stresses the need to ensure sufficient alignment to global standard-setting initiatives. Listed in recital 43 CSRD are some of the specific standards that should be taken into account, including the work of the International Sustainability Standards Board (ISSB), the Global Reporting Initiative, the Sustainability Accounting Standards Board, the International Integrated Reporting Council, the International Accounting Standards Board, the Task Force on Climate-related Financial Disclosures, the Carbon Disclosure Standards Board.

¹⁸⁹ Recital 43 CSRD.

¹⁹⁰ For example the ESRS-ISSB Interoperability Guidance which explains the alignment of the respective standards with a specific focus on climate-reporting IFRS Foundation and EFRAG: "ESRS-ISSB Standards Interoperability Guidance", *IFRS Foundation and EFRAG* 2024. See on the ISSB in relation to the CSRD: Baks L.J.M., Dijk L.K. van & Hijink J.B.S., "Reuzenstapen op het terrein van duurzaamheidsverslaggeving: de Europese CSRD en oprichting van de ISSB", *Ondernemingsrecht* 2022/36, afl. 6, p. 219.

¹⁹¹ Article 29b (5) (b) and (c) CSRD respectively.

advice).¹⁹² On these drafts, ESMA, EBA and EIOPA have provided their opinions, *inter alia* to guarantee the coherence between the ESRS and the regulatory technical standards that are drafted pursuant to the SFDR.¹⁹³ Following modifications by the Commission to better reflect *inter alia* the (double) materiality principle, the ESRS have been adopted by means of delegated acts.¹⁹⁴ The ESRS are contained in Annex I Commission Delegated Regulation (EU) 2023/2772, which supplements the Accounting Directive, of which the CSRD is a part.¹⁹⁵

4.2 General Structure

Table 3: Categories of reporting standards in the ESRS. Source: Own image.

Cross-cutting standards	Topical standards			Sector-specific standards
	Environment	Social	Governance	
ESRS 1 General requirements	ESRS E1 Climate change	ESRS S1 Own workforce	ESRS G1 Business conduct	Note that under the Omnibus-I proposal, the plan to design sector-specific standards may be abandoned. ¹⁹⁶
ESRS 2 General disclosures	ESRS E2 Pollution	ESRS S2 Workers in the value chain		
	ESRS E3 Water and marine resources	ESRS S3 Affected communities		
	ESRS E4 Bio-diversity and ecosystems	ESRS S4 Consumers and end-users		
	ESRS E5 Resource use and circular economy			

¹⁹² Article 29b (1) CSRD and recital 3 Commission Delegated Regulation (EU) 2023/2772. As van Dijk & Hijink remark, EFRAG thereby is the de-facto standard-setter for sustainability reporting. Given the relative lack of experience of EFRAG in sustainability reporting in combination with the limited time for drafting the ESRS, the authors express their doubts on the feasibility of the task: Dijk L.K. van & Hijink J.B.S., “‘Corporate Sustainability Reporting’: over de Europese aanzet voor het fundament van duurzaamheidsverslaggeving”, *Tijdschrift voor Financieel Recht* 2021, nr. 8/9, p. 276, 281-283.

¹⁹³ Recital 39 CSRD.

¹⁹⁴ Article 29b (1) and article 49 CSRD.

¹⁹⁵ Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards (“ESRS”).

¹⁹⁶ Omnibus-II COM(2025)81, p. 4, 15.

The ESRS cover categories of reporting standards: the cross-cutting standards, the topical standards, and the sectors-specific standards, which are systematically represented in the table above.¹⁹⁷

The cross-cutting standards, which consist of ESRS 1 (General requirements) and ESRS 2 (General disclosures), apply to all businesses and across the topical standards and the sector-specific standards.¹⁹⁸ ESRS 1 sets out general principles and requirements that must be respected when disclosing information under the other ESRS.¹⁹⁹ These pertain to issues such as the qualitative characteristics of information, double materiality, due diligence, value chain, time horizons, and the preparation and presentation of information. ESRS 2 contains general disclosures that the business must make in conjunction with the relevant disclosure requirements under the topical standards, including general rules on preparing a sustainability report, governance, strategy, impact risks and opportunity management, and metrics and targets.

The topical standards, of which currently ten exist, are categorised into Environmental, Social, and Governance standards and equally apply to all businesses and in conjunction with ESRS 2.²⁰⁰ These topical standards cover the sustainability matters and are subdivided into sub-topics and sub-sub-topics.²⁰¹ For example, ESRS E3 is on the topic of Water and marine resources, which is subdivided into the sub-topic Water and the sub-topic Marine resources, which are further subdivided into Water consumption, Water withdrawals, etc.²⁰² For the topical standards, the business need not meet all the requirements listed therein. Instead, at a minimum, the business needs to describe for all topical standards its description of the processes that it used to identify and assess material impacts, risks and opportunities. Only if the result of this assessment is that there are material impacts, risks or opportunities in relation to that topical standard, must the standard be further complied with.

The sector-specific standards apply to businesses that are within the same sector, as such businesses often have similar profiles.²⁰³ Sector-specific

197 ESRS 1 para. 4. The structure of the ESRS is also described in: Eijkelenboom E.V.A., “European Sustainability Reporting Standards: Een overzicht van Europese duurzaamheidsrapportageverplichtingen”, *Tijdschrift voor Venootschapsrecht, Rechtspersonenrecht en Ondernemingsbestuur* 2022, afl. 5, p. 155, 157-159; Hijink J.B.S., “De betekenis van de corporate sustainability reporting directive voor de bancaire sector”, in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023.

198 ESRS 1 para. 5. See also: Vereijken-van den Bosch S., “De CSRD: beoogde gedragsverandering of louter transparantie?”, *Ondernemingsrecht* 2024, afl. 15, p. 510, 511.

199 On ESRS 1 and ESRS 2: Müller S. & Warnke L. “Entwürfe der allgemeinen Regelungen der Europäischen Nachhaltigkeitsstandards (E-ESRS 1 und 2)”, *Zeitschrift für Internationale Rechtslegung* 2022, Heft 6, p. 247.

200 ESRS 1 para. 8.

201 See overview ESRS 1 Appendix A AR 16.

202 See overview ESRS 1 Appendix A AR 16.

203 Recital 53 CSRD.

standards should enable investors to make a meaningful comparison between businesses with a similar profile within a given sector.²⁰⁴ The sector-specific standards, which are currently still in development, contain standards that are specifically aligned to activities classified under specific NACE codes.²⁰⁵ NACE codes are a system of classifying economic activities in the EU and are also the basis for the categorisation of economic activities in the delegated acts to the TR.²⁰⁶ Note that under the Omnibus-I proposal, the plan to design sector-specific standards may be abandoned.²⁰⁷

4.3 Commentary

The Commission Delegated Regulation containing the ESRS on cross-cutting and topical standards comprises 284 pages of text in the Official Journal. Rather than providing a comprehensive overview of its contents, I assess how they relate to the criteria that I set out in paragraph 2 of this chapter: will the information disclosed under the ESRS be complete, coherent, and accurate?

4.3.1 Complete

In paragraph 2, I outlined the criteria for evaluating completeness: (a) assessing whether qualitative information covers all four aspects of the double materiality principle, and (b) verifying the inclusion of quantitative data.

4.3.1.1 Qualitative Disclosures and the Concept of Materiality

The double materiality principle is embedded into the ESRS framework by virtue of ESRS 1 and 2. The ESRS demand the disclosure of “material impacts, risks and opportunities” in relation to sustainability matters.²⁰⁸ The term “impacts, risks and opportunities” (IRO) reflects the double materiality principle that lies at the core of CSRD reporting. The term “impacts” refers to the business’s positive and negative impacts on sustainability (so-called impact

²⁰⁴ Recital 53 CSRD.

²⁰⁵ Article 29b (1) second and third paragraph CSRD. For example EFRAG, Development of the EFRAG ESRS for Oil and Gas sector, available at: <https://www.efrag.org/en/projects/oil-gas-og-standard-setting/research-phase>, accessed on: 13 December 2024. NACE is the acronym of the French term *Nomenclature statistique des activités économiques dans la Communauté européenne*; Statistical classification of economic activities in the European Community.

²⁰⁶ Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains.

²⁰⁷ Omnibus-II COM(2025)81, p. 4, 15.

²⁰⁸ ESRS 1 para. 2.

materiality).²⁰⁹ The phrase “risks and opportunities” refers to the business’s sustainability related financial risks and opportunities (so-called financial materiality).²¹⁰ As both impact materiality and financial materiality encompass negative and positive impacts, the ESRS in principle provide for the disclosure of a full spectrum of information. Moreover, double materiality can be seen as a method to identify detailed information on the relationship between the business and sustainability matters, both financial and in terms of impact.²¹¹ In principle, the disclosures thus meet the double materiality criterion. To assess whether qualitative disclosures enable investors to integrate sustainability considerations into their investment decisions, I previously outlined three sub-criteria for qualitative information in the context of the double materiality principle.²¹² These criteria are whether the information disclosed (i) encompasses both positive and negative impacts, (ii) extends beyond a binary classification, and (iii) is guided by specific materiality and disclosure standards.

(i) *Positive and Negative Impacts*

By its very nature, the double materiality principle provides businesses with some flexibility on what to include in their sustainability report. The primary reason for this is that double materiality also serves as a selection mechanism when determining what information to include in the sustainability report.²¹³ After all, only material information must be included in the sustainability report. Without sufficient guidance on how to assess whether information is material, the concept can be used to minimize disclosures by applying a high threshold for materiality. Especially in relation to negative impacts, there is a clear incentive for businesses to find that their impacts are non-material, namely to avoid reputational damage.²¹⁴

The ESRS provide some guidance on the materiality threshold to be observed by the reporting business. ESRS 1 prescribes that materiality for actual negative impacts by the business on sustainability matters is based on the severity and the likelihood of the impact, whereby severity is based on the scale, scope and irremediable character of the impact.²¹⁵ Similarly, financial materiality is based on the likelihood of occurrence and the potential mag-

209 ESRS 1 para. 14 (a).

210 ESRS 1 para. 14 (b).

211 Herold C., Grottel G. & Klein L., “Die Wesentlichkeitsanalyse gemäß den European Sustainability Reporting Standards (ESRS)”, *Zeitschrift für Internationale Rechtslegung* 2023, Heft 11, p. 459.

212 See paragraph 2.2.1 of this Chapter.

213 ESRS 1 para. 26. Eijkelenboom E.V.A., “European Sustainability Reporting Standards: Een overzicht van Europese duurzaamheidsrapportageverplichtingen”, *Tijdschrift voor Vennootschapsrecht, Rechtspersonenrecht en Ondernemingsbestuur* 2022, afl. 5, p. 155158.

214 ESRS 1 para. 5.

215 As well as related forms of financial damage such as litigation risk.

216 ESRS 1 para. 45.

nitude of the financial effects.²¹⁶ Both are elaborated in Appendix A, which however is limited to qualitative descriptions of terms such as “scale” and “scope”.²¹⁷ ESRS 1 thus gives little guidance on the exact limits of what constitutes material information. This is exacerbated by the fact businesses can report on an aggregated basis, which may obscure information: especially tail-risks or risks and impacts that only apply in relation to a specific site or asset of the business may seem immaterial when businesses aggregate information.²¹⁸ To prevent this, ESRS 1 prescribes that businesses must disaggregate the report by country or even by significant site or significant asset if aggregation could lead to obscuring material information or when material impacts, risks and opportunities are highly dependent on a specific location or asset.²¹⁹ The standard, however, fails to specify what “significant” sites, “significant” assets, or even the term “obscure” entails, again leaving room for interpretation.

Another notable weakness of the double materiality concept is the description of stakeholders to whom the information must be relevant. In principle, information that is not material to the stakeholders of the business must be omitted, whereas information that is material must be included – even when that information relates to facts or circumstances that are not listed in the ESRS.²²⁰ Surprisingly, “nature” may be considered a silent stakeholder but businesses are not obligated to take natural environments into account when conducting their materiality assessment.²²¹ As a matter of fact, all types of stakeholders that must be taken into account in order to determine whether an impact, risk or opportunity is material is of an anthropogenic nature.²²² This means that (negative) impacts on sustainability matters that lack any anthropogenic dimension – such as dumping waste in a desert – may be considered immaterial and thus need not be disclosed. This is surprising as limiting the minimum application of materiality to anthropogenic stakeholders is contradictory to the aims of the policy framework that the CSRD and the ESRS are part of, namely to promote a broader perspective on the interaction between mankind and nature.²²³ Moreover, various models for integrating “nature” as a stakeholder have been developed, for example as an inspiration,

216 ESRS 1 para. 51.

217 ESRS 1 Appendix A AR 9 – 15.

218 See: Bressan G., e.a., “Asset-level climate physical risk assessment is key for adaptation finance”, 2 November 2023, available on: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4062275, accessed on: 26 August 2023.

219 ESRS 1 para. 54.

220 ESRS 1 para. 11.

221 ESRS 1 Appendix A AR 7.

222 ESRS 1 para. 22.

223 One can also argue that the aims ultimate of the Paris Agreement, the EU Green Deal, and the EU SFF to limit global warming, to prevent pollution, to preserve biodiversity, etc., is to serve humans.

an advisor, a director, or a shareholder.²²⁴ This means that businesses can rely on various approaches to include nature as a stakeholder, which raises the question of the necessity of excluding nature as a stakeholder in the ESRS. The exclusion is also surprising in light of the materiality principle as one of the motivations of investors to invest sustainably, is to have a positive sustainability impact. For those investors, the nature perspective may be material.

There is one important exception to the materiality principle that applies throughout the ESRS: regardless of the outcome of the materiality assessment, the business must disclose its process for identifying and assessing material impacts, risks and opportunities (referred to as IRO-1) for all disclosure requirements in the topical ESRS that are jointly applicable with ESRS 2.²²⁵ ESRS 2 para. 53 describes what information must be included under IRO-1. For example, the business must disclose the methodologies and assumptions used in its materiality assessment, as well as a description of how it identifies, assesses and prioritises the business's impacts on people and the environment.²²⁶ The topical ESRS (to be applied in conjunction with IRO-1) contain additional disclosure requirements for the description of the process for the materiality assessment under the respective ESRS. For example, ESRS E1 on climate change requires that the business discloses the process to identify material impacts, risks and opportunities, which must include a description of how the business identifies climate-related physical and transition risks as well as the process of the business to identify the impact on climate change, including the undertaking's GHG emissions.²²⁷ These disclosure requirements are elaborated in Appendix A to ESRS E1, AR 10-16, which provides detailed guidance on what must be included in the process for the materiality assessment.

The materiality principle thus can be seen as a double-edged sword. On the one hand, it requires a high level of disclosure of all relevant information, on the other hand, it serves as a selection mechanism and may create opportunities for materiality-washing – the purposeful omission of information by designating it as immaterial. Whether the materiality principle is used to form a complete picture of the business's impacts, risks and opportunities or whether it is used to minimize disclosures will very much depend on the attitude of the business. The ESRS attempts to prevent the latter by excluding the process of the materiality assessment itself from any materiality rule so that businesses cannot conceal how they decided that certain information need not be dis-

224 An overview can be found in: Lambooy T., e.a., "Nature as a stakeholder: including nature in corporate governance practices to meet the EU corporate sustainability reporting directive", *Mednarodno inovativno poslovanje* 2024, vol. 12(2), p. 1.

225 ESRS 2 para. 2 (a); Herold C., Grottel G. & Klein L., "Die Wesentlichkeitsanalyse gemäß den European Sustainability Reporting Standards (ESRS)", *Zeitschrift für Internationale Rechtslegung* 2023, Heft 11, p. 459.

226 ESRS 2 para. 53.

227 ESRS E1 para. 20.

closed. Therefore, I conclude that the granular regulatory framework for the ESRS contains sufficient constraints to prevent businesses from hiding their negative sustainability impacts.

(ii) *Beyond a Binary Classification and (iii) Specific Materiality and Disclosure Standards*

In general, the ESRS is a qualitative reporting system that transcends a binary nature for determining whether a certain activity is sustainable or not – this would also not be in line with the aim of the CSRS/ESRS to provide comprehensive sustainability information. The topical ESRS contain specific disclosure standards and methodologies. However, as will also be discussed in the next section, the detailedness varies greatly between the topical standards. For example, there are a relatively high number of mandatory standards for the disclosure of GHG emissions in the topical standard on climate change.²²⁸ The standards on pollution and biodiversity are more open-ended and do not contain such a high level of mandatory methodologies. This, however, makes sense given that pollution and biodiversity loss can manifest themselves in much more diverse forms than GHG emissions, which requires a more flexible framework for disclosures. The ESRS thus seeks a balance between harmonized disclosures for areas in which this is possible and adaptive disclosure for more diverse sustainability impacts. Thereby, investors will receive harmonized – and thus comparable – information on topics that are easy to compare, and more individualized information on topics that will likely vary between businesses to start with.

4.3.1.2 *Quantitative Data*

The topical ESRS prescribe metrics to be used in the disclosure of quantitative data. These differ grossly between the topical ESRS. ESRS E1 on climate change contains more than thirty pages of guidance on quantitative data disclosure, including clearly delineated requirements such as to disclose in metric tons of CO₂ its scope 1, 2, and 3 emissions as well as its energy mix.²²⁹ This can be contrasted with the metrics and targets section for ESRS E4 on biodiversity, which covers nine pages with little guidance on what metrics to use exactly. An obvious explanation for the disparity in the level of detail between the different topical standards is that there is much more scientific knowledge and consensus on what metrics should be used to produce reliable quantitative data in relation to climate change than there exists in relation to some of the other reporting areas, such as biodiversity.²³⁰

228 ESRS E1-6; ESRS E1-5.

229 ESRS E1-6; ESRS E1-5.

230 See for example: Watson A.J., “Certainty and Uncertainty in Climate Change Predictions: What Use are Models?”, *Environmental and Resource Economics* 2008, vol. 39, p. 37;

Even where the ESRS do not prescribe what metrics to use, the business must disclose which metrics it chooses to rely on for its assessments.²³¹ The fact that the ESRS does not always prescribe what metrics exactly must be disclosed means that businesses can choose their own metrics. Obviously, this poses a certain risk to the integrity of the information disclosed. Two particular risks are 1) the obfuscation of material impacts and 2) a lack of comparability between businesses.

ESRS 2 para. 5 point 77 prescribes a number of safeguards to prevent the disclosure of meaningless or confounding metrics. A business always has to:

- “a) disclose the methodologies and significant assumptions behind the metric, including the limitations of the methodologies used;
- b) disclose whether the measurement of the metric is validated by an external body other than the assurance provider and, if so, which body;
- c) label and define the metric using meaningful, clear and precise names and descriptions;
- e) when currency is specified as the unit of measure, use the presentation currency of its financial statements.”²³²

Moreover, if a business is to ascertain certain impacts, it may rely on reasonable assumptions and estimates such as sector averages, as long as the use of assumptions and estimates does not undermine the usefulness of the information.²³³

It can, therefore, be concluded that, in general, the ESRS prescribes the disclosure of impacts through quantitative metrics. These methodologies to establish the metrics are mandatory for areas of high scientific consensus, in other areas, the ESRS allow businesses discretion in selecting methodologies or relying on reasonable assumptions and sector averages. The safeguards contained in ESRS 2 para. 5 point 77 functions as a safeguard against the obfuscation of information, and ensures that the user of the information has enough contextual information to interpret the disclosures. This, however, does not address the comparability problem between businesses. However, given the lack of scientific consensus on methodologies in combination with the wide variety of impacts for certain reporting areas, it is both pragmatic and justified to leave room for the business to employ the methodologies that best fit their specific circumstances.

Thuiller W., e.a., “Uncertainty in ensembles of global biodiversity scenarios”, *Nature Communications* 2019, vol. 10, 1446.

²³¹ ESRS 2 para. 75, 77.

²³² ESRS 2 para. 5 point 77.

²³³ ESRS 1, para. 87-89.

4.3.2 Coherent

In paragraph 2, I set out the criterion for coherence: whether the core terminology and concepts are defined and used coherently throughout the legislation. Additionally, I assess whether a monetary metric is assigned to sustainability information that is disclosed under both sides of the double materiality regime.

4.3.2.1 Terminology and Concepts

The ESRS contain two cross-cutting standards: ESRS 1 contains general concepts and principles that apply throughout the ESRS framework, whereas ESRS 2 contains general disclosures that the business must make in conjunction with the relevant disclosure requirements under the topical standards. The use of these two cross-cutting standards that apply in conjunction with the topical and sectoral standards, creates coherency throughout the reporting standards. Moreover, the topical standards are all generally structured along the same lines:

- Objectives
- Interaction with other ESRS
- Disclosure requirements
- ESRS 2 General disclosures
- Impact, risk and opportunity management
- Metrics and targets
- Appendix A
- ESRS 2 General disclosures
- Impact, risk and opportunity management
- Metrics and targets

In addition, terms that are defined are printed in bold italics, signalling to the reader that the term is harmonized throughout the standards and can be found in Annex II (Acronyms and glossary of terms).²³⁴ However, not all definitions that are used in the ESRS are equally meaningful. One important definition for which this may be the case is the definition of the term value chain. As businesses must report data on their value chain, the exact demarcation of the term must be set out clearly. The current definition is:

“The full range of activities, resources and relationships related to the undertaking’s business model and the external environment in which it operates.

A value chain encompasses the activities, resources and relationships the undertaking uses and relies on to create its products or services from conception to delivery, consumption and end-of-life. Relevant activities, resources and relationships include:

- a) those in the undertaking’s own operations, such as human resources;

²³⁴ ESRS Annex II.

- b) those along its supply, marketing and distribution channels, such as materials and service sourcing and product and service sale and delivery; and
- c) the financing, geographical, geopolitical and regulatory environments in which the undertaking operates.

Value chain includes actors upstream and downstream from the undertaking. Actors upstream from the undertaking (e.g., suppliers) provide products or services that are used in the development of the undertaking's products or services. Entities downstream from the undertaking (e.g., distributors, customers) receive products or services from the undertaking.²³⁵

Although this definition certainly provides guidance, it does not contain clear demarcations: terms such as “related to the undertaking’s business model” are vague and the use of the word “includes” suggests a non-limitative listing, leaving room for interpretation. Important questions such as how deep or extensive the value chain should be interpreted are simply not addressed.²³⁶ As already discussed in the previous paragraph on completeness, the same problem applies in the context of the definition of materiality, the exact interpretation of which will ultimately depend on the business applying the concept, and the circumstances under which a business is allowed to disclose information on an aggregated basis.²³⁷ That central terms such as “value chain” and “materiality” contain a certain level of ambiguity has also been signalled by numerous respondents to the public consultation on the draft ESRS by the Commission in the feedback period 9 June – 7 July 2023 and has not been resolved in the final rendering of the ESRS.²³⁸ These types of am-

²³⁵ ESRS Annex II.

²³⁶ Institut der Wirtschaftsprüfer in Deutschland, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429908, submitted on 7 July 2023, p. 5, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429908_en, accessed on: 3 August 2023; KPMG, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429737, submitted on 7 July 2023, p. 6, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429737_en, accessed on: 3 August 2023. See also: French Banking Federation, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3430035, submitted on 7 July 2023, p. 4, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3430035_en, accessed on: 3 August 2023; European Banking Federation, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429751, submitted on 7 July 2023, p. 6, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429751_en, access on: 3 August 2023.

²³⁷ See paragraph 4.3.1 of this Chapter.

²³⁸ For comments on “value chain”, see *inter alia*: Institut der Wirtschaftsprüfer in Deutschland, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429908, submitted on 7 July 2023, p. 5, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429908_en, accessed on: 3 August 2023; KPMG, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429737,

biguities can potentially undermine one of the central aims of the CSRD, namely the comparability of sustainability information across and within market sectors.²³⁹ Whereas there thus is a distinct strive for coherency throughout the standards, the ambiguity of some of the definitions potentially weakens the coherency of the ESRS.

The question that arises, is whether it is desirable to formulate a more closed definition of both terms. As discussed in para. 2.1.1, materiality is by its nature an elusive concept, as it requires a business to anticipate the information needs of the user. Not only can these needs never be fully known, but they are also dependent on the context. Similarly, the concept of value chains may not be suitable for clear demarcation lines. Given these issues, the elabor-

submitted on 7 July 2023, p. 6, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429737_en, accessed on: 3 August 2023. See also: French Banking Federation, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3430035, submitted on 7 July 2023, p. 4, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3430035_en, accessed on: 3 August 2023; European Banking Federation, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429751, submitted on 7 July 2023, p. 6, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429751_en, access on: 3 August 2023.

For comments on “materiality”, see inter alia:

Institut der Wirtschaftsprüfer in Deutschland, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429908, submitted on 7 July 2023, p. 6, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429908_en, accessed on: 3 August 2023; French Banking Federation, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3430035, submitted on 7 July 2023, p. 5-6, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3430035_en, accessed on: 3 August 2023; European Banking Federation, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429751, submitted on 7 July 2023, p. 6, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429751_en, access on: 3 August 2023. Government of the Netherlands, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3430010, submitted on 7 July 2023, p. 1, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3430010_en, visited on 3 August 2023; EY Europe LLP, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429805, submitted on 7 July 2023, p. 2-3, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429805_en, visited on 3 August 2023; European Banking Federation, Feedback on Draft delegated regulation – Ares(2023)4009405 (Draft ESRS), Feedback reference F3429751, submitted on 7 July 2023, p. 5, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13765-European-sustainability-reporting-standards-first-set/F3429751_en, visited on 3 August 2023.

239 Recital 9 CSRD.

ate guidelines in the ESRS should provide guidance but ultimately leave the exact scope of these concepts to the business.

4.3.1.2 *Expressing Impacts, Risks and Opportunities in Monetary Terms*

The ESRS require businesses to report both material sustainability-related impacts of the business (impact materiality) and material sustainability-related risks and opportunities (financial materiality), as previously discussed.²⁴⁰ As the latter concept revolves around the financial effects that sustainability matters may have on the firm, risks and opportunities are expressed in monetary terms: businesses must disclose *inter alia* the influence of material risks and opportunities on the business's cash flow, financial performance, and financial position.²⁴¹

There is no general requirement to value the sustainability-related impacts of the business in monetary terms. ESRS E1 on climate change mitigation and adaptation contains the obligation to disclose whether the business applies a (voluntary) internal carbon pricing scheme.²⁴² If a business applies such a scheme, it should disclose among other things the assumptions to determine the price and how the scheme relates to scope 1, 2, and 3 emissions.²⁴³ It should also disclose how the carbon prices and their use relate to the financial statement of the business.²⁴⁴ This means that the vast majority of impacts of the business on sustainability matters are not priced.

4.3.3 *Accurate*

In paragraph 2, I set out that I evaluate accuracy by assessing whether the qualification of a financial product as sustainable is either (a) based on the Taxonomy Regulation or (b) warranted by procedural safeguards that ensure the qualification is supported by scientific evidence. These criteria cannot be applied in the context of the ESRS as the purpose of those standards is not to determine whether a financial product – or a business or an economic activity – is sustainable. Nonetheless, it is obviously still imperative that the information to be disclosed under the ESRS be accurate and reliable.²⁴⁵ For this, the qualitative safeguards and the external auditing of the sustainability report play a central role.

²⁴⁰ Paragraph 4.3.1 of this Chapter.

²⁴¹ ESRS 2 para. 48. Also: ESRS E1 para. 64 ff.

²⁴² ESRS E1 para. 62.

²⁴³ ESRS E1 para. 63.

²⁴⁴ ESRS E1 Appendix A AR 65.

²⁴⁵ See also: Financial Stability Board, "Report on Promoting Climate-Related Disclosures", *Financial Stability Board* 7 July 2021, p. 39-40.

4.3.3.1 Qualitative Safeguards

ESRS 1 sets out rules on the qualitative baseline that the disclosures must meet.²⁴⁶ These consist of five key characteristics: relevance, faithful representation, comparability, verifiability, and understandability. For each of these characteristics, ESRS 1 formulates guidance in Appendix B. For example, faithful representation means that the information must be complete, neutral, and free from error, whereas verifiability means that external knowledgeable and independent observers should be able to confirm the truthfulness of the information.²⁴⁷ Although defining these characteristics should contribute to safeguarding the integrity of the information disclosed under the ESRS, these rules suffer from a similar problem as discussed above in relation to ‘value chain’ and ‘materiality’. Terms such as ‘neutral’ and ‘relevant’ are not unambiguous and thus can only guarantee the reliability of the information to a certain extent.

4.3.3.2 Verification and Auditing

The ESRS fall under the auditing and assurance regime that is set out in the CSRD, as discussed in para. 3.11.3 of this Chapter. The verification and auditing of the sustainability report may pose a number of challenges. Firstly, there may be logistical challenges for auditors as ESRS require know-how that must be quickly developed within a limited time.²⁴⁸ Secondly, the lack of precise descriptions of some of the key concepts such as ‘materiality’ and ‘value chain’ may be challenging for auditors when determining whether they have been properly complied with.²⁴⁹ Thirdly, the fact that some ESRS leave it to the business to decide by which metric to report means that auditors not only have to check whether the reporting on that metric is accurate but also whether the metric is appropriate in the first place.²⁵⁰ Lastly, the complex and detailed regulation both increases the likelihood of errors by those who must comply with it and can increase regulatory arbitrage.²⁵¹

246 ESRS 1 para. 19-20 and ESRS 1 Appendix B.

247 ESRS 1 Appendix B QC 5 and QC 14.

248 Bos D.E., “Zekerheid en onzekerheid: Onafhankelijkheid van externe accountants bij de voorbereiding op verplichte duurzaamheidsrapportage”, *Tijdschrift voor Jaarrekeningenrecht* 2023, nr. 5/6, p. 145; Kamp-Roelands A.E.M., “Assurance bij duurzaamheidsinformatie. Wat betekent dit voor ondernemingen?”, *Tijdschrift voor Financieel Recht* 2021, nr. 8/9, p. 286; Velte P., “Prüfung von Nachhaltigkeitsberichten nach der Corporate Sustainability Reporting Directive (CSRD) durch den Wirtschaftsprüfer – Fluch oder Segen?” *Schmalenbach IMPULSE* 2023, vol. 3(1), p. 1.

249 Paragraph 4.3.1 under ‘Qualitative disclosures and the concept of materiality’ and paragraph 4.3.2 under ‘Terminology and concepts’ of this Chapter.

250 Paragraph 4.3.1 under ‘Quantitative data’ of this Chapter.

251 See also on complex regulation: Haldane A.G., “The dog and the frisbee”, speech at Jackson Hole Symposium on 31 August 2012, p. 14, available at: <https://www.bis.org/review/r120905a.pdf>, accessed on: 7 July 2023; Fleisher V., “Regulatory Arbitrage”, *Texas Law Review* 2010, vol. 89(2), p. 227.

4.4 Conclusion

The ESRS give substance to the framework for sustainability reporting set out in the CSRD by introducing granular reporting requirements. The standards demand qualitative and quantitative disclosures, as well as disclosure of the methodologies used to measure certain outcomes – and meet the standard of completeness set out at the beginning of this chapter. The structure used throughout the ESRS – with two general standards that apply throughout the topical standards – and the clear signalling of defined terms (in bold italics) make for a coherent framework and accessible reading of the standards, regardless of their extensive size (almost 300 pages). The ESRS thus form an impressive step toward sustainability reporting that is on par with financial reporting and can only be seen as greatly contributing to the reduction of information asymmetries.

A few critical notes must be made. Firstly, the ESRS contain open norms. The most important one is “materiality”, which is decisive for whether or not information must be disclosed, and which is not defined in an absolute manner. This can potentially undermine the comparability of sustainability information and carries the risk of materiality washing – not reporting certain impacts or risks by designating them as immaterial. Whereas these are real risks, it is nonetheless not desirable to formulate an absolute definition: whether a certain matter is material depends heavily on the circumstances, warranting a flexible approach. An open-ended norm thus is pragmatic and justifiable.

The second point of critique is that the ESRS does not make “nature” a mandatory stakeholder in the materiality analysis. Consequently, if a certain impact has no anthropogenic consequences, it need not be considered material even if the consequences for nature are dire. This is directly contradictory to the aim of disclosing impacts on sustainability matters which include environmental factors.²⁵² To fulfil the objective of the CSRD, it thus would make sense to include nature as a mandatory stakeholder.

The third point of critique is that the ESRS, in line with the CSRD, do not make it mandatory to quantify impacts in monetary terms. From an L&E perspective, it is important to gain an understanding of all costs and benefits of actions of a business, not only of the costs and benefits for the business itself. Whereas the CSRD lays down that the Commission, in the adoption of the ESRS, should take into account existing standards and frameworks for natural capital accounting and for greenhouse gas accounting, the ESRS only contain a small section about the disclosure of voluntary internal carbon pricing schemes.²⁵³ This means that the users of sustainability reports are presented with incoherent information: whereas they may get a good picture of the costs and benefits of the business, they are not informed of the costs and benefits

²⁵² Article 2 (17) CSRD.

²⁵³ Article 29b (5) (a) CSRD; ESRS E1 para. 62 – 63.

that the business imposes on society in financial terms. This makes it difficult to assess whether an investment is efficient from a societal perspective.

Lastly, it should be noted that the sheer length and complexity of the ESRS may give rise to problems of lack of expertise, especially during the first years after its entry into application. Sustainability reporting and assurance will impose high costs on businesses, especially when the processes for gathering the information have to be designed for the first time. One risk that follows from this is regulatory arbitrage, such as moving to a non-EU jurisdiction or exploiting loopholes such as materiality washing.

5 ARTICLE 8 TAXONOMY REGULATION

5.1 Introduction

Businesses that have to make public an annual sustainability report pursuant to the CSRD, not only must draw up their disclosures in line with the ESRS but also must include in their report how and to what extent their activities relate to the classification system for environmentally sustainable activities under the Taxonomy Regulation.²⁵⁴ Specifically, article 8 TR requires that businesses subject to the CSRD disclose what proportion of their turnover, capital expenditure, and operating expenditure is derived from or related to environmentally sustainable activities in the sense of articles 3 and 9 TR.²⁵⁵ To comply with this obligation, the business must first establish which of its activities qualify as environmentally sustainable in the sense of the Regulation (para. 5.2). Subsequently, the business must communicate this information in accordance with the prescribed standards (para. 5.3).

5.2 Is the activity Taxonomy-aligned?

In order to assess what proportion of its activities is Taxonomy-aligned, a business must determine to what extent its activities meet the criteria set out in article 3 TR.²⁵⁶ Article 3 TR lists the four core criteria for qualifying as 'environmentally sustainable economic activities' (sub a and d overlap):

²⁵⁴ Article 8 TR.

²⁵⁵ Article 8 (2) TR; Kröner-Rosmalen S., "De taxonomieverordening", in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 30; Partiti E., "Green asset ratio and taxonomy disclosures for credit institutions", in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 123.

²⁵⁶ Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 52-55; Poulle J.-B., e.a., *EU Banking and Financial Regulation*, Edgar Elgar 2024, p. 634-642; Oliveira Neves

- a) Contribute to one or more environmental objectives set out in article 9 TR in accordance with articles 10-16 TR, including the technical screening criteria ("TSC") based thereupon;
- b) Do no significant harm ("DNSH") to any of the environmental objectives;
- c) Respect minimum safeguards on human and workers' rights (art. 18 TR);
- d) Comply with technical screening criteria that have been established by the Commission in accordance with Article 10(3), 11(3), 12(2), 13(2), 14(2) or 15(2) TR.

5.2.1 Contribute to One or More Environmental Objectives

5.2.1.1 Level 1

Article 9 TR contains six environmental objectives:

- a) climate change mitigation;
- b) climate change adaptation;
- c) the sustainable use and protection of water and marine resources;
- d) transition to a circular economy;
- e) pollution prevention and control;
- f) the protection and restoration of biodiversity and ecosystems.

The objectives of article 9 TR are further specified in the subsequent articles 10-15 TR. All of these articles follow a similar structure. First, a general definition is provided in paragraph 1:

"An economic activity shall qualify as contributing **substantially** to climate change mitigation where that activity contributes substantially to the stabilization of greenhouse gas concentrations in the atmosphere..."; "An economic activity shall qualify as contributing **substantially** to climate change adaptation where that activity: (a) includes adaptation solutions that either **substantially** reduce the risk of the adverse impact of the current climate and the expected future climate on that economic activity or **substantially** reduce that adverse impact, ..."; etcetera [emphasis added].²⁵⁷

These definitions are relatively broadly formulated and do not provide definite criteria to determine whether or not a specific activity qualifies as significantly contributing to the respective environmental objectives from article 9 TR. For this, each of the articles 10-15 TR instruct the Commission to draft technical

R. de, "The EU Taxonomy Regulation and Its Implications for Companies", in: Câmara P. & Morais F. (eds.), *The Palgrave Handbook of ESG and Corporate Governance*, Palgrave 2022, p. 249-265; Oostrum C.H.A. van, "Groene begripsverwarring: de Taxonomieverordening nader onderzocht", *Ondernemingsrecht* 2020/131, afl. 13/14, p. 745; Gruijters R.J., "De Europese Taxonomieverordening", *Maandblad voor Ondernemingsrecht* 2020, nr. 10/11, p. 297.

²⁵⁷ Article 10 (1) and 11 (1) TR respectively.

screening criteria to determine which economic activity qualifies as contributing substantially to the relevant environmental objectives.²⁵⁸

5.2.1.2 Level 2

The TSC have been divided into two delegated acts:

1. The Climate Delegated Act (CDR (EU) 2021/2139),²⁵⁹ which is complemented by the Complementary Climate Delegated Act (CDR (EU) 2022/1214)²⁶⁰ and amended by CDR 2023/2485.²⁶¹
2. The Environmental Delegated Act (CDR (EU) 2023/2486).²⁶²

The Climate Delegated Act covers the first two objectives of article 9 TR: climate change mitigation and climate change adaptation. The Environmental Delegate Act covers the other four objectives: the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems.²⁶³ Within the Delegated Acts, the economic activities are categorized in accordance with the NACE-code system – an EU classification

258 Article 10 (3), 11 (3), 12 (2), 13 (2), 14 (2) and 15(2) TR.

259 Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives.

260 Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities.

261 Commission Delegated Regulation (EU) 2023/2485 of 27 June 2023 amending Delegated Regulation (EU) 2021/2139 establishing additional technical screening criteria for determining the conditions under which certain economic activities qualify as contributing substantially to climate change mitigation or climate change adaptation and for determining whether those activities cause no significant harm to any of the other environmental objectives.

262 Commission Delegated Regulation (EU) 2023/2486 of 27 June 2023 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Commission Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities.

263 Articles 1-4 CDR (EU) 2021/2139.

system for economic activities, the current version of which was established in 2006.²⁶⁴

Per activity, the TSC contain first a description of the activity including the NACE codes that the activity is associated with. For example, the activity “Acquisition and ownership of buildings” in the Climate Delegated Act is described as “Buying real estate and exercising ownership of that real estate” and can be associated with NACE code L68.²⁶⁵ This is followed by the criteria for substantially contributing to the applicable environmental objective. For “Acquisition and ownership of buildings”, with respect to the objective of climate change mitigation, this includes (but is not limited to) that a building built before 31 December 2020 has an Energy Performance Certificate class A.²⁶⁶ Lastly, the DNSH-criteria are listed for the relevant economic activity. Note that only some activities have specific DNSH-criteria – more often, the ‘generic criteria for DNSH’ listed in Appendices A-E have to be complied with.

Note that according to article 3 (a) TR, the environmental objectives from article 9 TR need to be complied with in accordance with articles 10-16 TR. Whereas articles 10-15 TR, as just discussed, expand on the various environmental objectives of article 9 TR, article 16 TR introduces an altogether different category of Taxonomy-aligned activities: enabling activities. An enabling economic activity qualifies as Taxonomy-aligned in the sense of article 3 (a) TR if it directly enables one of the activities under articles 10-15 TR, and fulfils two additional criteria from article 16 (a) and (b) TR. First, the enabling activity may not lead to a lock-in of assets that undermine long-term environmental goals. Second, the activity must have a positive environmental impact.

5.2.2 *Do No Significant Harm*

Next to qualifying as an activity that significantly contributes to the respective environmental objectives from article 9 TR, the activity may not do significant harm to any of the other environmental objectives.²⁶⁷ Article 17 TR provides general descriptions of significant harm in respect of the six environmental objectives: “**significant** greenhouse gas emissions”; “**increased** adverse impact”; “detrimental to the **good** status”; “**significant** inefficiencies”; “**significant** long-term harm”; etcetera [emphasis added].²⁶⁸ The TR does not define what is

264 Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains.

265 Point 7.7 of Annex I CDR 2021/2139.

266 Point 7.7 of Annex I CDR 2021/2139.

267 Article 3 and 9 and 17 TR; Kröner-Rosmalen S., “De taxonomieverordening”, in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 42.

268 Article 17 (1) (a)-(d) TR.

meant by the term “significant”. Instead, the Commission is instructed to adopt a delegated act to: “supplement Article 17 by establishing, for each relevant environmental objective, technical screening criteria for determining whether an economic activity in respect of which technical screening criteria have been established pursuant to point (a) of this paragraph causes significant harm to one or more of those objectives.”²⁶⁹ The Commission has given effect to this by including the DNSH criteria along with the specific requirements for activities that qualify as environmentally sustainable in the TSC.²⁷⁰

5.2.3 Example

To illustrate the process of determining whether an activity is Taxonomy-aligned, I analyse the qualification of the production of electricity by burning fossil gas. To qualify as an environmentally sustainable economic activity, article 3 TR must be fulfilled.

First, according to article 3 (a) and (d) TR, electricity production by burning fossil gas must contribute to one of the environmental objectives from article 9 TR. Both (a) climate change mitigation and (b) climate change adaptation seem a potential match. These two objectives are further outlined in articles 10 and 11 TR respectively. As these two articles have a similar structure, I limit myself to article 10 TR. According to article 10 TR, in order to qualify under article 3 and 9 (a) TR, the activity must substantially contribute “to the stabilization of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system (...) through the avoidance or reduction of greenhouse gas (...)”.²⁷¹ The article goes on to the list activities by which this stabilization of greenhouse gas is to be reached. For the production of electricity by burning fossil gas, that could be (b) “improving energy efficiency, except for power generation activities as referred to in Article 19 (3)”. Article 19 (3) excludes power generation using solid fossil fuels from qualifying as environmentally sustainable economic activities. Fossil gas thus is not excluded. On the basis of the Taxonomy Regulation, producing electricity by burning fossil gas therefore could qualify as a climate change mitigation – and thus as a Taxonomy-aligned activity. Further, the activity must fulfil the requirements that supplement article 10 TR, set out in the Climate Delegated Act CDR 2021/1214.²⁷² Point 4.29 sets

269 Article 10 (3), 11 (3), 12 (2), 13 (2), 14 (2) and 15 (2) TR respectively, under (b).

270 CDR 2021/2139; CDR 2022/1214; CDR 2023/2485; CDR 2023/2486.

271 Article 10 (1) TR.

272 Critique on the choice to include nuclear and fossil gas in the TSC can be found in: Fouquet D., “Taxonomy for Sustainable Finance: A Difficult Topic for Europe, a Worrying Development for Our Democratic Principles”, *Renewable Energy Law and Policy Review* 2022, vol. 11(1), p. 5; Fouquet D., “The Healing Force of Renewables Calls for a Nuclear Free Taxonomy in Times of Aggression.” *Renewable Energy Law and Policy Review* 2022, vol. 10(3/4), 2022, p. 1; CJEU, Action brought on 7 October 2022, T-625/22, (Austria v European Commis-

out the criteria under which burning fossil gas can qualify as Taxonomy-aligned.²⁷³ These include emission thresholds, but also requirements pertaining to the purpose of the firm, for example, that it replaces high electricity production from solid or liquid fossil fuels and that it is designed and constructed to use renewable or low-carbon gaseous fuels to which it will switch in the future.²⁷⁴ Moreover, there are rules on independent verification by a third party.

Second, according to article 3 (b) TR, activity must also meet the DNSH criteria in order to satisfy article 3 (b) TR. The last part of point 4.29 of the CDR 2021/1214 contains a schedule setting out the criteria for the DNHS test that applies to the activity of electricity generation from fossil gaseous fuels – in which reference is made to the standards contained in the appendices of Annex I of CDR 2021/2139, which contain qualitative criteria and threshold values.

Third and last, to satisfy article 3 (c) TR, the activity must meet the minimum safeguards set out in article 18 TR: the activity must be aligned with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work, and the International Bill of Human Rights.

5.3 What Must Be Communicated in the Annual Accounts?

Once the business has established which of its activities are environmentally sustainable economic activities in the sense of article 3 TR, it must disclose this in its annual accounts. These disclosures are primarily regulated by article 8 TR. Article 8 requires disclosure of:

- How the business's activities are associated with article 3 TR activities;²⁷⁵
- To what extent the business engages in article 3 TR activities,²⁷⁶ which is to be expressed in three key performance indicators ("KPI"):
- The proportion of turnover derived from 3 TR activities (turnover KPI);

sion); Letter from Minister for Climate and Energy for the Netherlands, Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology for Austria, Minister for Energy and Digital Development for Sweden, Minister for Climate, Energy and Utilities for Denmark, "Statement fossil gas-based activities in the EU Taxonomy", 31 January 2022, available at: <https://www.government.nl/documents/letters/2022/01/31/statement-fossil-gas-based-activities-in-the-eu-taxonomy>, accessed on: 25 January 2025.

²⁷³ Under either 1 (a) or (b) of point 4.29 Technical screening criteria 1 (b) CDR 2021/1214.

²⁷⁴ Point 4.29 Technical screening criteria 1 (b) CDR 2021/1214 amendments.

²⁷⁵ Article 8 (1) TR.

²⁷⁶ Article 8 (1) TR.

- The proportion of capital expenditure related to 3 TR (CapEx KPI);
- The proportion of operating expenditure related to 3 TR (OpEx KPI).²⁷⁷

5.3.1 Commission Delegated Regulation 2021/2178

CDR 2021/2178 further sets out the content and presentation of the disclosures that have to be made pursuant to article 8 TR, including the methodology to generate the information.²⁷⁸ To fulfil the disclosure requirement of article 8 TR a business must identify all its economic activities, and categorize them.²⁷⁹ Based on Annex I point 2 (a) and (d) CDR 2021/2178, the following categorisation seems most sensible: first, identify all economic activities that the business employs along the lines of the NACE-code categorisation. Then divide these activities into two groups: those that are Taxonomy-aligned, and those which are not. The Taxonomy-aligned activities then must be subdivided into: (1) ‘normal’ Taxonomy-aligned activities; (2) enabling activities; and (3) transitional activities. When making this categorisation, businesses must describe how these activities comply with 3 TR.²⁸⁰ For this, the CDR 2021/2178 introduces definitions that are relevant to the Taxonomy Regulation as a whole, though not contained in the TR itself. These include:

- “(2) ‘Taxonomy-aligned economic activity’ means an economic activity that complies with the requirements laid down in Article 3 of Regulation (EU) 2020/852;
- (3) ‘transitional economic activity’ means an economic activity that complies with the requirements laid down in Article 10(2) of Regulation (EU) 2020/852;
- (4) ‘enabling economic activity’ means an economic activity that complies with the requirements laid down in Article 16 of Regulation (EU) 2020/852;
- (5) ‘taxonomy-eligible economic activity’ means an economic activity that is described in the delegated acts adopted pursuant to Article 10(3), Article 11(3), Article 12(2), Article 13(2), Article 14(2), and Article 15(2), of Regulation (EU) 2020/852, irrespective of whether that economic activity meets any or all of the technical screening criteria laid down in those delegated acts;
- (6) ‘taxonomy-non-eligible economic activity’ means any economic activity that is not described in the delegated acts adopted pursuant to Article 10(3), Article 11(3), Article 12(2), Article 13(2), Article 14(2) and Article 15(2), of Regulation (EU) 2020/852;”

²⁷⁷ Article 8 (2) (a) – (b) TR.

²⁷⁸ Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation.

²⁷⁹ Annex I point 2 (a) and (d) CDR 2021/2178.

²⁸⁰ Annex I point 1.2.2.1 (a) and (b) CDR 2021/2178.

Once the business has categorised all its activities, it can calculate the three KPIs which have to be disclosed.

5.3.2 Turnover KPI

The turnover KPI provides information on the percentage of the business's turnover, or revenue, that is derived from Taxonomy-aligned activities. This KPI thus contains information on the proportion of money the business is making through Taxonomy-aligned activities.²⁸¹ The turnover KPI is calculated by dividing the net turnover derived from Taxonomy-aligned activities by the total net turnover.²⁸² The net turnover derived from Taxonomy-aligned activities is defined as: "the part of the net turnover derived from products or services, including intangibles, associated with Taxonomy-aligned economic activities."²⁸³ However, the second paragraph excludes from this numerator:

"the part of the net turnover derived from products and services associated with economic activities that have been adapted to climate change in line with Article 11 (1), point (a) of Regulation (EU) 2020/852 and in accordance with Annex II to Delegated Regulation (EU) 2021/2139, unless those activities:

- (a) qualify as enabling activities in accordance with Article 11(1), point (b) of Regulation (EU) 2020/852; or
- (b) are themselves Taxonomy-aligned."²⁸⁴

This exclusion is puzzling. Article 11 (1), point (a) TR contains a description of climate change adaptation activities, which are elaborated in Annex II of CDR 2021/2139 by virtue of article 11 (3) TR. Any activity that qualifies under article 11 (1), point (a), is an activity that is Taxonomy-aligned. These activities thus are first excluded from the net turnover derived from Taxonomy-aligned activities, only to be included again in the net turnover derived from Taxonomy aligned activities under (b). This part of the exclusion thus seems self-defeating and obsolete.

5.3.2 CapEx and OpEx KPI

The CapEx and OpEx provide information on the proportion that the business is spending on Taxonomy-aligned activities. The Capital Expenditure KPI focuses on spending on tangible and intangible assets of the business – it thus

²⁸¹ Note that special rules apply for financial businesses, see: article 3-7 CDR 2021/2178.

²⁸² Annex I point 1.1.1. CDR 2021/2178. The net turnover is based on the definition from the Accounting Directive: "the amounts derived from the sale of products and the provision of services after deducting sales rebates and value added tax and other taxes directly linked to turnover" and calculated in accordance with the relevant IAS standards.

²⁸³ Annex I point 1.1.1. CDR 2021/2178.

²⁸⁴ Annex I point 1.1.1. CDR 2021/2178.

gives a picture of the business's long-term assets such as buildings, machines, and intangible assets.²⁸⁵ This can be contrasted with the Operating Expenditure, which are the costs associated with running the business on a day-to-day basis, including research and development, building renovations, short-term leases, maintenance, etc.²⁸⁶ The CapEx and OpEx are calculated by dividing the Taxonomy-related capital or operating expenses by the total capital or operating expenses of the relevant financial year.²⁸⁷

The Taxonomy-related expenses contain three categories. First, expenses on assets or processes that are associated with Taxonomy-aligned activities.²⁸⁸ Second, expenses in a so-called CapEx plan to expand Taxonomy-aligned economic activities or to allow Taxonomy-eligible activities to become Taxonomy-aligned.²⁸⁹ Third, expenditures related to the purchase of output from Taxonomy-aligned economic activities and to individual measures enabling target activities to become low-carbon or lead to GHG reduction, and some other specific measures, some of which are Taxonomy-aligned.²⁹⁰

5.4 Commentary

5.4.1 Complete

In paragraph 2, I set out two markers for completeness: whether (a) the qualitative information covers all four aspects of the double materiality principle and (b) quantitative data is included in the disclosures. In the previous paragraphs, I discussed that the CSRD/ESRS in principle meet this criterion. Whereas this may lead to the disclosure of complete information and reduce information asymmetry, one risk is that the overload of information released under the CSRD is hard to interpret.²⁹¹ This risk is partially tempered by

²⁸⁵ Annex I point 1.1.2.1 CDR 2021/2178.

²⁸⁶ Annex I point 1.1.3.1 CDR 2021/2178.

²⁸⁷ Article 3-7 CDR 2021/2178. Special rules apply for financial businesses.

²⁸⁸ Annex I point 1.1.2.1 and 1.1.3.1 CDR 2021/2178, both under point (a).

²⁸⁹ Annex I point 1.1.2.1 and 1.1.3.1 CDR 2021/2178, both under point (b).

²⁹⁰ Annex I point 1.1.2.1 and 1.1.3.1 CDR 2021/2178, both under point (c).

²⁹¹ This problem was already addressed years ago. On information overload in relation to decision-making in general: Casey C.J., "Variations in Accounting Information Load: The Effect on Loan Officers' Predictions of Bankruptcy", *The Accounting Review* 1980, vol. 55(1), p. 36; Eppler M.J. & Mengis J., "The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines", *The Information Society* 2004, vol. 20(5), p. 325; Laud R.L. & Schepers D.H., "Beyond Transparency: Information Overload and a Model for Intelligibility", *Business and Society Review* 2009, vol. 114(3), p. 365.

On information overload in relation to non-financial reporting: Baumüller J. & Schaffhauser-Linzatti M., "In search of materiality for nonfinancial information – reporting requirements of the Directive 2014/95/EU", *NachhaltigkeitsManagementForum | Sustainability Management Forum* 2018, vol. 26, p. 101, 102.

article 8 TR, which demands disclosure of what proportion of turnover, capital expenditure and operating expenditure is Taxonomy-aligned. These numbers give a quick overview of how sustainable the business is, supplementing the lengthy information in the sustainability report. Article 8 TR, therefore, complements the expansive ongoing disclosures in the sustainability report that are made on the basis of the CSRD/ESRS by providing immediate insight into the business's sustainability performance.

5.4.2 Coherent

In paragraph 2, I set out the criteria to evaluate coherency, namely by assessing whether core terminology and concepts are defined and are used coherently throughout the legislation. In general, the structure of the TR is relatively complex, as determining whether an economic activity is environmentally sustainable requires a business to evaluate criteria that are contained in the TR itself as well as in separate Delegated Acts. Moreover, two coherency issues stand out.

First, much of the text in articles 10-15 TR is obsolete. Whereas these articles appear to define what an environmentally sustainable economic activity is, the actual criteria for determining whether an activity is an environmentally sustainable economic activity are contained in the TSC that are contained in the Climate Delegated Act and the Environmental Delegated Act. This raises the question what the purpose of the descriptive parts in articles 10-15 TR is. For example, article 10 (1) TR on economic activity that qualify as contributing substantially to climate change mitigation includes a long list of activities such as improving energy efficiency and increasing clean or climate-neutral mobility, which however seem to have a mere illustrative purpose. After all, to qualify as economic activity that contributes substantially to climate change mitigation, the activity has to meet the criteria set out in the TSC, rendering the list of activities in article 10 TR irrelevant from a legal point of view. The activities in the TSC on climate change mitigation, however, do not refer back to any specific category under article 10 TR: there is no activity that specifically qualifies as improving energy efficiency or increasing clean or climate-neutral mobility.²⁹² The descriptions of activities in articles 10-15 TR thus appear to be only that: descriptions – not actual criteria. Given the already complicated structure of the Taxonomy Regulation, it would have been better to not include

²⁹² As a matter of fact, the only activities that are specifically mentioned in the Annexes of the CDR are those described in article 10 (1), point (i) and article 11 (1), point (b) TR. These two activities are both enabling activities: both article 10 (1), point (i) and article 11 (1), point (b) TR refer to article 16 which contains the requirements for enabling activities. From this, it can be deduced that an enabling activity in the sense of article 16 TR can only be Taxonomy-aligned if it applies in conjunction with one of the articles 10-15, and fulfils the relevant TSC. An activity that only complies with article 16 TR thus is not an 'enabling activity' in the sense of that article, and thus not Taxonomy-aligned.

these descriptions under articles 10-15 TR and instead to directly refer to the TSC in the Delegate Acts.

Second, the definitions that are introduced at the beginning of CDR 2021/2178 only apply within the context of that Delegated Regulation, which is on disclosures under article 8 TR. As this CDR introduces definitions that are useful for the entire TR – terms such as Taxonomy-aligned economic activity, enabling economic activity, and Taxonomy-eligible economic activity – it would have been better to either include these in the TR itself or to broaden their scope so that they apply to the entire TR framework.

Next to this, some smaller incoherencies have surfaced. Firstly, article 3 TR lists four criteria whereby criterion (d) to fulfil the TSC is already contained in criterion (a) to contribute to one or more environmental objectives set out in article 9 TR in accordance with articles 10-16 TR, which includes complying with the TSC. Criterion (d) thus is obsolete. Second, the definition of net turnover derived from Taxonomy-aligned activities in CDR 2021/2178 excludes activities that comply with article 11 (1) point (a) TR, only to include them again a few lines later. These types of textual incoherencies make the framework difficult to read and use, which increases the regulatory burden on businesses that have to comply with the article 8 TR.

5.4.3 *Accurate*

In paragraph 2, I set out that I evaluate accuracy by assessing whether the qualification of an activity as sustainable is either (a) based on the Taxonomy Regulation or (b) warranted by procedural safeguards that ensure the qualification is supported by scientific evidence.

In principle, article 8 TR fits seamlessly with the evaluation criteria that I formulated, as it requires disclosure on how Taxonomy-aligned a business is with respect to turnover, operating expenditure, and capital expenditure. It should however be noted that both the CapEx and OpEx include two categories of expenses that strictly speaking are not Taxonomy-aligned. First, expenses on the CapEx plan,²⁹³ and second expenses on individual measures enabling target activities to become low-carbon or lead to GHG reduction.²⁹⁴

Both of these expenditures in principle pertain to activities or measures that are not yet taxonomy-aligned. Including these under the CapEx and OpEx is however justifiable as these expenses should eventually result in Taxonomy-aligned activities. This justification however only endures if there are enough safeguards to guarantee that the expenses really do result in Taxonomy-aligned activities. For the CapEx plan, this seems to be the case: the upgrade of Taxo-

²⁹³ Annex I point 1.1.2.2 and 1.1.3.2 CDR 2021/2178, both first subparagraph under point (b).

²⁹⁴ Annex I point 1.1.2.2 and 1.1.3.2 CDR 2021/2178, both first subparagraph under point (c).

onomy-eligible activities should take place within the next five years – or ten years if this is objectively justified.²⁹⁵

Regarding the individual measures, the safeguards are more lenient: for the CapEx, the target activities should become “low-carbon or to lead to greenhouse gas reductions, notably, activities listed [in the TSC].”²⁹⁶ For the OpEx, the expenses should be on individual measures “to become low-carbon or to lead to greenhouse gas reductions as well as individual building renovation measures as identified [in the TSC].”²⁹⁷ This means that individual measures need not necessarily result in Taxonomy-aligned activities, as long as they are sufficient to become “low-carbon” or to lead to “greenhouse gas reductions” – two undefined terms. This is puzzling as it seems to open up the possibility of including expenses that do not lead to Taxonomy-aligned results. If that were the case, the numbers disclosed under the CapEx and OpEx KPI actually could represent something slightly different than what article 8 TR informs us that it would, namely the proportion of expenditure related to Taxonomy-aligned activities. It would therefore be better to include a deadline for individual measures to become Taxonomy-aligned in the sense of article 3 TR, as with the CapEx plan.

5.5 Conclusion

Article 8 TR applies to businesses that must publish a sustainability report on the basis of the CSRD. On the basis of article 8 TR, these businesses have to disclose how Taxonomy-aligned they are: how and to what extent their activities are Taxonomy-aligned and what percentage of their turnover and capital and operating expenses are derived from or spent on activities that meet the criteria for environmentally sustainable economic activity of article 3 TR? This information supplements the information that is disclosed in line with the ESRS. While the disclosures on the basis of the ESRS are neutral and descriptive, the disclosures under article 8 TR are normative – they inform the user how sustainable the business is. This is crucial in narrowing the information gap between businesses and investors.

Although the disclosures of article 8 TR seem relatively straightforward (what part of the business activities and expenses is Taxonomy-aligned), the process of identifying these KPIs is quite complex: it requires businesses to navigate both the TR itself, with its adjacent Technical Screening Criteria in the Climate Delegated Act and the Environmental Delegated Act, as well as CDR 2021/2178 on how to calculate the turnover, CapEx, and OpEx KPI. In that context, it is not very helpful that both the Taxonomy Regulation and

²⁹⁵ Annex I point 1.1.2.2 and 1.1.3.2 CDR 2021/2178, second subparagraph.

²⁹⁶ Annex I point 1.1.2.2 CDR 2021/2178, first subparagraph point (c).

²⁹⁷ Annex I point 1.1.3.2 CDR 2021/2178, first subparagraph point (c).

CDR 2021/2178 suffer from repetitious, unnecessary, and confusing sections. This includes the superfluous criterion (d) under article 3 TR, the lengthy descriptions of environmentally sustainable economic activities under articles 10-15 TR, and the vagueness surrounding the calculation of the individual measures to become low-carbon or to lead to greenhouse gas reductions under CDR 2021/2178.

6 CONCLUSION

In this chapter, I analysed how successful the EU SFF is in minimizing information asymmetries between issuers and investors by introducing new ongoing disclosure requirements for EU-listed companies in the annual reports that those businesses have to disclose on the basis of the Accounting Directive by focussing on the question: *How effective are the ongoing disclosure requirements from the CSRD/ESRS and article 8 TR in reducing information asymmetries regarding sustainability between issuers and investors?*

The sustainability disclosures under the CSRD/ESRS and article 8 TR complement each other. On the one hand, the CSRD/ESRS contains detailed requirements to disclose material actual or potential, positive and negative impacts on sustainability matters by the business as well as impacts on the business. These disclosures thus should provide a (very) elaborate overview of the business' relation to sustainability. On the other hand, article 8 TR requires businesses to disclose the proportion of turnover derived from and the proportion of spending on environmentally sustainable economic activities, providing a succinct overview of how the business's financial position relates to sustainability.

A drawback of this structure is that businesses must comply with two complex but distinct legal frameworks. Nonetheless, it should be relatively straightforward to generate the article 8 TR disclosures after drawing up a sustainability report in line with the CSRD/ESRS. After all, the ESRS (broadly) follow the structure of the TR, ensuring that all the information required to assess whether activities meet the thresholds outlined in the TSC should ideally have been compiled during the sustainability reporting process.

To assess how successful these ongoing disclosure requirements are in reducing information asymmetries between issuers and investors, I formulated three assessment criteria – whether the information disclosed is complete, coherent, and accurate. For *completeness*, I focussed on whether (a) the qualitative information covers all four aspects of the double materiality principle and (b) quantitative data is included in the disclosures. *Coherency* was assessed by determining whether core terminology and concepts were defined and used coherently throughout the legislation. I judged *accuracy* by assessing whether the qualification of an activity as sustainable is either (a) based on the Taxo-

nomy Regulation or (b) warranted by procedural safeguards that ensure the qualification is supported by scientific evidence.

In general, new ongoing disclosure requirements are an enormous leap toward reducing information asymmetries between issuers and investors. The information disclosed meets the criteria of completeness and accuracy. The open norm of materiality mandates disclosures for all information potentially material to users, which should, in principle, comprehensively address investors' informational needs. One improvement to increase the completeness of the sustainability report is to include "nature" as one of the stakeholders whose information needs must be addressed. However, as investors are included among those stakeholders, the open norm of materiality should in principle be sufficient for their needs.

The CSRD/ESRS is built on the principle of double materiality, requiring issuers to disclose both financial and impact-related material information. While the inherent openness of double materiality introduces a risk of materiality washing – wherein businesses might strategically omit certain impacts or risks by declaring them immaterial – the ESRS incorporates safeguards. Most importantly, businesses must explicitly disclose their process for identifying and assessing material impacts, risks, and opportunities across all applicable topical standards, even when the assessment concludes that specific impacts are immaterial. Furthermore, the ESRS mandate quantitative disclosures of impacts, often using mandatory methodologies. When businesses have discretion to use other methodologies or estimates, the ESRS require sufficiently contextual disclosures to enable meaningful interpretation by the investor.

It can therefore be concluded that although materiality remains an inherently flexible concept, the ESRS contain sufficient safeguards to prevent the obfuscation of material information and ensure investors can make well-informed investment decisions integrating sustainability considerations. Additionally, disclosures under article 8 TR provide investors with information on how Taxonomy-aligned the business is, thereby reinforcing the accuracy of reported sustainability information.

Throughout this Chapter, I have also identified some shortcomings that may undermine the ongoing disclosures and therefore negatively affect the transmission of sustainability information from issuer to investor. These shortcomings predominantly relate to the second criterion: coherency. The legislative framework consisting of the CSRD and ESRS on the one hand and article 8 TR with delegated acts for TSC and KPI on the other hand, is already very complex and difficult to navigate. Hence, the existence of various types of incoherencies that I identified form a significant challenge.

The first issue is the presence of textual inconsistencies that undermine an easy understanding of the law. Examples are the repetition of the scope in article 1 and article 19 CSRD, and the lengthy but legally insignificant descriptions of economic activities in articles 10-15 TR. Second, the structure

of sustainability reporting that can be deduced from article 19a (2) (a) – (h) CSRD, which contains reporting topics, does not match the structure of the ESRS – which is (broadly) aligned to the TR. Reading the CSRD thus does not prepare one at all for writing a sustainability report. Third, incoherencies that arise from illogical definitions or ambiguous definitions where specificity is necessary. For example, there is no convincing reason why the CSRD distinguishes ‘sustainability matters’ and ‘sustainability factors’ when their definitions are almost identical. Another example is the ambiguous definitions of individual measures in the calculation of the CapEx and OpEx, effectively broadening Taxonomy-aligned expenses beyond those strictly in line with the TR. Whereas these incoherencies may appear to be only textual, they may carry substantial risks. Firstly, an incoherent framework is difficult to use and can cause unnecessary expenses. Secondly, it can lead to inconsistent disclosures between businesses, undermining the comparability of information. Thirdly, it can increase the risk of deliberate obfuscation of negative information and render information meaningless to investors. Hence, I suggest that the legislature critically assess the inconsistencies that I have identified throughout this chapter and revise the legislation to achieve a more coherent and precise framework.

The second type of coherence I evaluated concerns whether both sides of the double-materiality principle are expressed in financial terms: not only should businesses disclose their sustainability-related risks and opportunities in financial terms, but they should also translate their impacts on sustainability into financial terms. From an L&E perspective, this is desirable as investment decisions require financial rationalization. By monetizing environmental impacts, investors gain a more standardized and comparative framework for assessing business performance. Although the idea of valuing the costs of sustainability impacts is reflected in the recitals of the CSRD – and the ESRS contain the obligation to disclose whether the business applies a (voluntary) internal carbon pricing scheme – there is no general requirement to value the sustainability-related impacts of the business in monetary terms. Consequently, the market is left to determine the economic value of sustainability impacts – a problematic approach given the inherent limitations for investors in accurately valuing non-tradeable goods such as environmental ecosystems and climate stability. I therefore recommend that the legislator introduce a robust mandatory method within the CSRD framework for determining the costs of environmental impacts.

Regardless of this critique, I can only conclude that the ongoing sustainability disclosures under the EU SFF are a significant advancement from an L&E perspective: they lead to the generation of detailed and relevant sustainability information that meets investors’ needs and thereby significantly contribute to closing the asymmetry on sustainability information between issuers and investors.

4 Initial Disclosures for Issuers

How Effective are the Prospectus Regulation and the European Green Bond Standard in Reducing Information Asymmetries?

1 INTRODUCTION

1.1 Previous Chapters

In Chapters 1 and 2, I explained that the aim of the EU Sustainable Finance Framework (“EU SFF”) is to channel more private capital into sustainable investments, ultimately facilitating the transition to a climate-neutral society. This objective aligns with enhancing market efficiency and increasing overall welfare. The primary mechanism of the EU SFF to realize its aim is to enable investors to invest more sustainably by providing them with sustainability information on their potential investments. My research aims to answer the question: *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?* I therefore evaluate legislation that provides investors with sustainability information. To make this evaluation, I use Law & Economics (“L&E”) as a qualitative method: I identify which market failures impede the efficient functioning of the market and analyse whether the legislation addresses these market failures. For this, I use a simplified model of financial markets, consisting of issuers, intermediaries, and investors. These three actors represent the investment chain through which capital should be allocated to sustainable investments.

Chapter 3 focusses the information that is provided to investors on the basis of ongoing disclosure requirements from the Corporate Sustainability Reporting Directive (“CSRD”), the European Sustainability Reporting Standards (“ESRS”) and article 8 Taxonomy Regulation (“TR”), which apply to issuers. I evaluated whether these ongoing disclosures overcome information asymmetries between issuer and investor regarding sustainability information. I concluded that in general terms, the CSRD and article 8 TR are an enormous step toward reducing information asymmetries but that some improvements can be made in terms of coherency.

1.2 This Chapter

In this Chapter, I examine the regulatory framework that governs the disclosure of sustainability information in securities issuance – the initial disclosure requirements. I evaluate whether the initial disclosure requirements sufficiently reduce sustainability-related information asymmetries regarding the specific securities that are being issued. This focus can be contrasted with the ongoing disclosure obligations in the annual report that focus on the business in its entirety that I discussed in the previous Chapter. The initial and ongoing disclosures serve complementary roles, with the former focusing on the specific securities issued and the latter on the issuer as a whole. My analysis focuses on the question: *How effective are the initial disclosure requirements from the Prospectus Regulation and the European Green Bond Regulation in reducing information asymmetries regarding sustainability between issuers and investors?*

The analysis in this Chapter encompasses two pieces of legislation: the Prospectus Regulation (“PR”) and the European Green Bond Regulation (“EuGBR”). While only the EuGBR forms part of the EU Sustainable Finance Framework, the PR’s role in regulating initial disclosures makes both instruments essential for understanding the disclosure of sustainability information to investors. The PR, as the primary legislation governing initial disclosures, establishes rules for publishing prospectuses – documents containing information necessary for informed investment decisions regarding publicly offered securities, including initial public offerings.¹ The rationale behind this is to remove the information asymmetries that exist between issuers and investors and enhance the efficient functioning of that market.²

The PR’s scope encompasses securities offered to the public or admitted to trading on regulated markets. Notably, even when issuers qualify for exemptions from prospectus requirements due to offering securities exclusively to qualified investors, many voluntarily publish prospectuses.³ Consequently, most offered securities are accompanied by a prospectus. This makes the PR an essential part of this Chapter’s analysis of sustainability information in initial disclosures.

The EuGBR provides a voluntary standard enabling issuers of European Green Bonds to signal that their proceeds are allocated to Taxonomy-aligned activities. For this, the Regulation introduces *inter alia* requirements for alloca-

1 Article 6 Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC (Prospectus Regulation); Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 282.

2 Recital 3, 7 PR.

3 A prospectus may for example be required by qualified investors when they want to have the opportunity to quickly sell the assets on the regulated market in the case of a financial emergency. This insight was revealed to me in conversation with my thesis supervisors.

tion of proceeds, transparency requirements, as well as requirements for the external reviews of those bonds. While both the PR and EuGBR govern initial disclosures, this Chapter will demonstrate the limited interaction between these instruments.

Beyond the EuGBR, issuers may rely on market standards for the issuances of sustainable financial instruments, such as the ICMA Green Bond Principles and the Sustainability-Linked Bond Principles.⁴ These market-based standards operate independently from the EU legislative framework. As they do not directly inform the effectiveness of EU legislation in reducing sustainability-related information asymmetries between issuers and investors, they fall outside the scope of this Chapter.

In this Chapter, I limit my analysis to bonds, which are transferable debt securities where the issuer is obligated to repay both principal and interest to the holder.⁵ The reason to focus my discussion on bonds is because they are particularly well-suited for financing sustainable projects, as their proceeds can be allocated to specific purposes – unlike shares, which finance an issuer's entire business. Often, bonds that finance sustainable projects are referred to as 'green' bonds.⁶ However, I use the broader term 'sustainable bond' to refer to bonds with an explicit sustainability objective and the term 'conventional bond' to refer to bonds without such an objective.

To answer the question: *How effective are the initial disclosure requirements from the Prospectus Regulation and the European Green Bond Regulation in reducing information asymmetries regarding sustainability between issuers and investors?* I use the same normative framework as in Chapter 3 to guide my analysis (para. 2). In paragraph 3, I assess whether the disclosures that must be made under the PR sufficiently reduce information asymmetries on sustainability information. For this, I focus on those provisions under which sustainability information might be disclosed and consider the information needs that different types of investors may have. In paragraph 4, I analyse the EuGBR and reflect on its prospective popularity – on 2 April 2025, only four issuances

4 ICMA, *Green Bond Principles*, June 2021. The Principles require bond proceeds to be used for eligible Green Projects and provide a non-exhaustive list including renewable energy, energy efficiency, and pollution prevention and control. Rather than establishing definitive eligibility criteria, ICMA references various sustainable finance taxonomies (including the EU Taxonomy) as reference points for project qualification. Consequently, when issuers follow ICMA guidelines or other market-based initiatives, the specific prospectus requirements remain undefined. See also: ICMA, *Social Bond Principles*, June 2021; ICMA, *Sustainability-Linked Bond Principles*, June 2020; ICMA, *The Sustainability-Linked Bond Principles Voluntary Process Guidelines*, June 2024.

5 Wood P., *Law and Practice of International Finance*, Sweet & Maxwell 2008, p. 159-165.

6 See for example the definition in ICMA, *Green Bond Principles*, June 2021, p. 3: "Green Bonds are any type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects (see Use of Proceeds section below) and which are aligned with the four core components of the GBP."

had taken place that complied with the EuGBR.⁷ Paragraph 5 contains the conclusion to the Chapter as well as general recommendations to better align the initial disclosure regime to the aims of the EU SFF.

2 NORMATIVE FRAMEWORK

As discussed in Chapter 2, this thesis relies on an integrated approach to welfare: all costs and benefits of the potential transaction must be taken into consideration, as well as sustainability costs that are traditionally not accounted for.⁸ To enable investors to consider all costs of their investment decision, the information asymmetry between the business and the investor must be minimized, including those asymmetries relating to sustainability information.⁹ To evaluate how successful the issuer disclosure rules are in reducing information asymmetries on sustainability information, I let the same three factors guide my analysis as in Chapter 3, which provides an elaborate explanation of and justification for the use of these criteria. In short, I evaluate whether the information that is disclosed is:

1. Complete, meaning (a) that the qualitative information covers all four aspects of the double materiality principle and (b) that quantitative data is included in the disclosures; and
2. Coherent, meaning that core terminology and concepts are defined and used coherently throughout the legislation; and
3. Accurate, meaning that qualifying a financial product as sustainable either (a) is based on the Taxonomy Regulation or (b) is warranted by procedural safeguards that ensure the qualification is supported by scientific evidence.

3 THE PROSPECTUS REGULATION

3.1 Introduction

The Prospectus Regulation obliges issuers to publish a prospectus – a document that sets out information on the issuer and the securities that are issued. This document will often contain sustainability information. Although the PR is

7 Leung K., “European Investment Bank sets example with EU Green Bond issuance” (blog-post), *Institute for Energy Economics and Financial Analysis* 14 April 2025, available at: <https://ieefa.org/resources/european-investment-bank-sets-example-eu-green-bond-issuance>, accessed on: 16 April 2025. European Investment Bank, EIB’s inaugural bond under European Green Bond Standard – EUR 3bn benchmark, 2 April 2025, available at: <https://www.eib.org/en/investor-relations/press/all/fi-2025-09-eib-eugbs-eur-2037>, accessed on: 16 April 2025.

8 Paragraph 3.2-3.4 of Chapter 2.

9 Paragraph 3.4 of Chapter 2.

not part of the EU SFF, most securities that are relevant to this research will have a prospectus. The PR thus plays an important role in transmitting sustainability information to investors and therefore is part of my analysis.

In the following paragraphs, I briefly outline the background, objectives, and requirements to publish a prospectus. Currently, the PR does not explicitly demand the publication of sustainability information. This will change after the entry into force of the Listing Act (Regulation), which amends the PR to include the obligation to clarify whether bonds are advertised as taking into account or pursuing ESG factors or objectives (para. 3.9). Apart from that requirement, issuers may be required to make public sustainability information under the open norms of the general materiality principle (para. 3.6), the 'use of proceeds' section (para. 3.7), and the risk factors (para. 3.8). I evaluate how these disclosures align with the criteria established in the normative framework.

3.2 Background and Aims

The history of the current prospectus regime spans more than fifty years. In 1966, the Segré Report investigated how to establish a European capital market and how to overcome the discrepancy between available capital on the one hand and the limited market for investing capital on the other hand.¹⁰ Following this report, three directives were introduced: Directive 79/279/EEC on the conditions for the admission of securities to official stock exchange listings,¹¹ Directive 80/390/EEC on the requirements for the drawing up, scrutiny, and distribution of the listing particulars to be published for the admission to a stock exchange listing,¹² and Council Directive 82/121/EEC on information to be published on a regular basis by publicly traded companies.¹³ Another decade passed before the obligation to issue a prospectus was harmonised by Directive 89/298/EEC.¹⁴ In 2003, the Prospectus Directive

10 Segré C., "The development of a European capital market. Report of a Group of Experts appointed by the EEC Commission", *EU Commission – Working Document* November 1966, available at: <https://aei.pitt.edu/31823/>, accessed on: 19 March 2024; Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 4-5.

11 Council Directive 79/279/EEC of 5 March 1979 coordinating the conditions for the admission of securities to official stock exchange listing.

12 Council Directive 80/390/EEC of 17 March 1980 coordinating the requirements for the drawing up, scrutiny and distribution of the listing particulars to be published for the admission of securities to official stock exchange listing.

13 Council Directive 82/121/EEC of 15 February 1982 on information to be published on a regular basis by companies the shares of which have been admitted to official stock-exchange listing.

14 Council Directive 89/298/EEC of 17 April 1989 coordinating the requirements for the drawing-up, scrutiny and distribution of the prospectus to be published when transferable securities are offered to the public.

was published, containing extensive material requirements for the publication of prospectuses.¹⁵ The national laws that transposed these requirements into Member States' legal frameworks became applicable throughout the EU no later than 1 July 2005.¹⁶ From this point onward, there thus was a substantively harmonized framework for the publication of prospectuses in the EU. In 2019, the Prospectus Directive was repealed by the Prospectus Regulation, which spans more than 70 pages and is supported by four delegated regulations.¹⁷ This current PR will be amended by the Listing Act (Regulation), which contains a number of measures to simplify the listing rules for issuers, particularly for small- and medium-sized issuers.¹⁸

According to recital 7 PR, the aim of the regulation is “to ensure investor protection and market efficiency, while enhancing the internal market for capital.” The PR intends to achieve this by providing information to the investor that is necessary to make an informed investment decision in light

15 Directive 2003/71/EC of the European Parliament and of the Council of 4 November 2003 on the prospectus to be published when securities are offered to the public or admitted to trading and amending Directive 2001/34/EC.

16 Article 29 Directive 2003/71/EC of the European Parliament and of the Council of 4 November 2003 on the prospectus to be published when securities are offered to the public or admitted to trading and amending Directive 2001/34/EC.

17 For an overview of the history, see: Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 4-21; Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 3-6. Commission Delegated Regulation (EU) 2019/979 of 14 March 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council with regard to regulatory technical standards on key financial information in the summary of a prospectus, the publication and classification of prospectuses, advertisements for securities, supplements to a prospectus, and the notification portal, and repealing Commission Delegated Regulation (EU) No 382/2014 and Commission Delegated Regulation (EU) 2016/301; Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the format, content, scrutiny and approval of the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Commission Regulation (EC) No 809/2004; Commission Delegated Regulation (EU) 2020/1272 of 4 June 2020 amending and correcting Delegated Regulation (EU) 2019/979 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council with regard to regulatory technical standards on key financial information in the summary of a prospectus, the publication and classification of prospectuses, advertisements for securities, supplements to a prospectus, and the notification portal; Commission Delegated Regulation (EU) 2021/528 of 16 December 2020 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the minimum information content of the document to be published for a prospectus exemption in connection with a takeover by means of an exchange offer, a merger or a division.

18 Regulation (EU) 2024/2809 of the European Parliament and of the Council of 23 October 2024 amending Regulations (EU) 2017/1129, (EU) No 596/2014 and (EU) No 600/2014 to make public capital markets in the Union more attractive for companies and to facilitate access to capital for small and medium-sized enterprises.

of the nature of the issuer and the securities being offered.¹⁹ According to the recital, “[t]he appropriate way to make that information available is to publish a prospectus.”²⁰ As such, the prospectus is seen as a solution to the information asymmetries between issuers and investor. The current PR has little information in its recitals on sustainability-related information, except in recital 54 PR, which states that “[a]mong others, environmental, social and governance circumstances can also constitute specific and material risks for the issuer and its securities and, in that case, should be disclosed.” The Listing Act (Regulation), which will amend the PR, does consider that sustainability information plays a role for informed investment decisions and thus should be included in a prospectus – but also contains the caveat that the amended prospectus rules should not overlap with requirements laid down in other Union law.²¹

3.3 Scope

There are two events that trigger the obligation to publish a prospectus: offering securities to the public and admitting them to trading on a regulated market.²² The first trigger is contained in article 3 (1) PR: securities shall only be offered to the public in the EU after publication of a prospectus in accordance with the PR.²³ The second event that triggers the obligation to publish a prospectus is the admission of securities to a regulated market operating within the EU (article 3 (3) PR).²⁴ Prior to its publication, the prospectus must be approved by the relevant competent authority, which checks whether it complies with the relevant rules of the Prospectus Regulation.²⁵

¹⁹ Recital 7 PR.

²⁰ Recital 7 PR.

²¹ Recital 23 Listing Act Regulation.

²² Lieverse K., “The Obligation to Publish a Prospectus and Exemptions”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 1147-150.

²³ ‘Securities’ is defined in article 2 (a) PR; ‘offer of securities to the public’ is defined in article 2 (c) PR. The most notable exceptions to the rule to publish a prospectus are that no prospectus need be published whenever (1) the securities are only offered to qualified investors, (2) the securities are offered to less than 150 persons per Member State, (3) the nominal value of an individual security exceeds EUR 100 000, or (4) the securities can only be acquired for a total consideration of at least EUR 100 000 per investor.

²⁴ This obligation does not apply in the case of any of the events listed in article 1 (5) PR. These includes, for example, the event in which the securities that are admitted to trading on the market are fungible with securities already admitted to trading on the same regulated market, provided that they represent less than 20% of the securities already admitted over a period of 12 months.

²⁵ Article 20 PR.

3.4 Format

The Prospectus Regulation allows for several different prospectus formats.²⁶ First of all, article 6 (3) PR sets out that a prospectus may be drawn up as a single document or as separate documents. In the latter case, the prospectus is to be divided into three parts: (i) a registration document that contains information on the issuer, (ii) a securities note detailing information on the securities offered, and (iii) a summary.²⁷ Next to this, the Prospectus Regulation introduces three additional formats: the Universal Registration Document,²⁸ the simplified disclosure regime for secondary issuances,²⁹ and the EU Growth Prospectus.³⁰

3.5 Sustainability Information in the Prospectus: General Observations

3.5.1 Introduction

The PR currently lacks explicit sustainability disclosure requirements. This will partially be addressed by the Listing Act, which will introduce a limited number of explicit sustainability disclosures in the prospectus per 5 June 2026.³¹ However, the current absence of explicit requirements does not mean that a prospectus never needs to contain sustainability information. This is confirmed in recital 54 PR, which states that “[a]mong others, environmental, social and governance circumstances can also constitute specific and material risks for the issuer and its securities and, in that case, should be disclosed.” Under the current PR, sustainability disclosures can be mandatory on the basis of the materiality principle, the use of proceeds section, and the risk factors.³² This framework is supplemented by ESMA’s non-binding guidelines that

26 See Fischer-Appelt D., “Prospectus Formats and Shelf Registration”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 296.

27 Article 6 (3) and 10 PR.

28 Article 9 PR.

29 Article 14 PR.

30 Article 15 PR.

31 Article 4 (3) Listing Act. The Listing Act introduces a limited number of explicit sustainability disclosures in article 13 PR.

32 Note that some issuers rely on a voluntary framework when deciding what sustainability information to disclose. This can be a framework developed by the issuer itself, such as the Sustainability Bonds Framework from the Dutch Entrepreneurial Development Bank FMO. It can be a market-based standard such as the ICMA Green Bond and the Sustainability-Linked Bond Principles. Or it can be the European Green Bond standard, developed by the EU legislator. These voluntary frameworks contain rules on what information that is made available in the prospectus.

specifically address sustainability disclosures for non-equity securities with sustainability objectives.³³

In paragraphs 3.6 and 3.7, I analyse what sustainability disclosures must be made for both sustainable bonds and conventional bonds (bonds that do not explicitly pursue sustainability objectives). This analysis is informed by three elements. First, the central role of the materiality principle from article 6 PR (para 3.5.2). Second, the influence of investor types on sustainability disclosures (para 3.5.3). Third, there is divergence between the disclosures for sustainable and conventional bonds (para 3.5.4).

3.5.2 The Central Role of the Materiality Principle

According to article 6 (1) PR, the prospectus must contain all “necessary information which is material to an investor for making an informed assessment of: (a) the assets and liabilities, profits and losses, financial position, and prospects of the issuer and of any guarantor, (b) the rights attaching to the securities, and (c) the reasons for the issuance and its impact on the issuer.”³⁴ Article 6 PR thus establishes the principle of materiality – an open norm – as the baseline for what must be disclosed in the prospectus.³⁵ However, the PR does not define what ‘materiality’ exactly encompasses and what its demarcation lines are.³⁶ This lack of a definition is understandable, as alleged breaches of the materiality principle are adjudicated in national courts under national (tort) laws.³⁷ While an EU-level definition would ensure maximum harmonization of the interpretation of the PR, it would also entail EU sub-

33 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441. In principle, a public statement is not legally binding but it does indicate how ESMA interprets the open norms in the PR in light of sustainability disclosures.

34 Serière V. de, “The Contents of the Prospectus: Non-Financial Information and materiality”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 195.

35 Serière V. de, “The Contents of the Prospectus: Non-Financial Information and materiality”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 199.

36 In the previous Chapter, the principle of ‘materiality’ was central to determining the content of the annual sustainability report under the CSRD. However, it cannot be assumed that the concept of ‘materiality’ in the PR is the same as in that directive. See also: Schulzke K.S. & Berger-Walliser G., “Toward a Unified Theory of Materiality in Securities Law”, *Columbia Journal of Transnational Law* 2017, vol. 56(6), p. 6. Neither can it be assumed that the term materiality in the PR is the same as in other legislation such as the Market Abuse Regulation (Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC).

37 Serière V. de, “The Contents of the Prospectus: Non-Financial Information and materiality”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 202.

stantive tort interpretation, which may exceed the EU's legislative competence.³⁸ Nevertheless, this the lack of a precise definition creates uncertainty regarding the exact boundaries of materiality under article 6 (1) PR.

One indicator on the scope of materiality can be derived from recital 65 PR, which addresses information disclosure after prospectus publication but before trading commencement on a regulated market. This recital refers to information "which could influence the assessment of the investment".³⁹ This formulation substantively aligns with the Dutch Supreme Court's interpretation of materiality in the context of the question of whether an incomplete or incorrect statement in a prospectus is sufficiently material to be considered misleading.⁴⁰ The Court considered that materiality in that context concerned information of which: "it may reasonably be assumed that that statement, read in the context within which it is being made, is of material interest to the investment decision of the average investor".⁴¹ Therefore, I understand materiality in the context of article 6 (1) PR to encompass information that could influence the investment decision of an investor.⁴²

In general, two types of sustainability information can be distinguished:

1. *Material sustainability impact information*: information about business's positive and negative impacts on sustainability matters.
2. *Financially material information*: information on the business's sustainability-related financial risks and opportunities.

This distinction is based on the concept of double materiality as it is used in the ongoing sustainability disclosures on the basis of the CSRD/ESRS.⁴³ I have identified two factors that influence the scope and the type of sustainability information that must be included in the prospectus: (a) the type of investors and (b) the type of bonds that are issued.

38 Serière V. de, "The Contents of the Prospectus: Non-Financial Information and materiality", in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 202.

39 Recital 65 PR.

40 Hoge Raad, 27 November 2009, ECLI:NL:HR:2009:BH2162 (Vereniging van Effectenbezitters v. World Online International n.v.), para. 4.10.4.

41 Hoge Raad, 27 November 2009, ECLI:NL:HR:2009:BH2162 (Vereniging van Effectenbezitters v. World Online International n.v.), para. 4.10.4. Translation: Serière V. de, "The Contents of the Prospectus: Non-Financial Information and materiality", in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 202.

42 This interpretation also somewhat aligns to two US notions of materiality that were also discussed in paragraph 2.1.1 of Chapter 3: "matters as to which an average prudent investor ought reasonably to be informed before purchasing the security registered" by the US Securities and Exchange Commission, and "An item [...] if there is reason to believe that knowledge of it would influence the decisions of an informed investor" by the American Accounting Association. Both these definitions of materiality focus too on the question whether the information could influence the investment decision of an investor.

43 Article 19a (1) CSRD; paragraph 3.7 of Chapter 3.

3.5.3 Investor Categories: Impact Investors and Value-Driven Investors

According to article 6 (1) PR, the investors' perspective is leading in determining what material information is. It may be assumed that financial information is always material to investors, which means that financial material sustainability information – information on the business's sustainability-related financial risks and opportunities – should always be disclosed in the prospectus.⁴⁴

This leaves the question of whether a prospectus should include material sustainability impact information unanswered. This depends on whether the sustainability impact information is material to the investor. In principle, different types of investors have different information needs. When it comes to sustainability information, research has shown that, in general, investors take sustainability information into account in their investment decision-making process.⁴⁵ However, when investors incorporate sustainability considerations into their investment decisions, they do this for various reasons, including expectations about long-term returns from sustainable investing, efforts to reduce financial risks, and non-pecuniary motivations.⁴⁶ The variation in investor motivation can be expressed in two archetypal investor categories:

1. *Impact investors*, who are motivated by sustainability impact.
2. *Value-driven investors*, who are motivated by financial motivations.

This distinction, which is made frequently in literature, is important to understand what type of sustainability information is material to investors.⁴⁷ For

44 See: G Strampelli G., "The Contents of the Prospectus: Rules for Financial Information", in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 167.

45 For example: Eccles R.G., Kastropeli M.D. & Potter S.J., "How to Integrate ESG into Investment Decision-Making: Results of a Global Survey of Institutional Investors", *Journal of Applied Corporate Finance* 2017, vol. 29(4), p. 125; Amel-Zadeh A. & Serafeim G., "Why and How Investors Use ESG Information: Evidence from a Global Survey", *Financial Analysts Journal* 2018, vol. 74(3), p. 87.

46 For example: Heeb F., e.a., "Do Investors Care about Impact?", *The Review of Financial Studies* 2023, vol. 36(5), p. 1737; Jansson M. & Biel A., "Motives to engage in sustainable investment: a comparison between institutional and private investors", *Sustainable Development* 2011, vol. 19(2), p. 135; Hartzmark S.M. & Sussman A.B., "Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows", *The Journal of Finance* 2019, vol. 74(6), p. 2789; Bauer R., Ruof T. & Smeets P., "Get Real! Individuals Prefer More Sustainable Investments", *The Review of Financial Studies* 2021, vol. 34(8), p. 3976.

47 Starks L.T., "Presidential Address: Sustainable Finance and ESG Issues – Value versus Values", *The Journal of Finance* 2023, vol. 78(4), p. 1837; Lopez de Silanes F., e.a., "Institutional Investors and ESG Preferences", *Corporate Governance: An International Review* 2024, vol. 32(6), p. 1060; Hong H.G. & Shore E.P., "Corporate Social Responsibility", *Annual Review of Financial Economics* 2023, vol. 15, p. 327; Hong H.G. & Shore E.P., "Corporate Social Responsibility", *Annual Review of Financial Economics* 2023, vol. 15, p. 327: Authors investigate whether shareholder interest in CSR is driven primarily by pecuniary motives or non-pecuniary ones and found confirmation for the latter motivation as the main driver.

impact investors, sustainability impact information will be material as it enables them to evaluate the sustainability aims of the investment and how seriously the issuer is committed to those goals. For value-driven investors, sustainability impact information will be less material. Instead, they will predominantly focus on financially material information, for example, the risk that investments in fossil fuel-intensive industries prematurely devalue due to changes in technology and legislation, commonly referred to as ‘stranded assets’.⁴⁸ As mentioned above, financially material information should always be disclosed in the prospectus, regardless of the type of investor that the prospectus is aimed at. It can, therefore, be concluded that how much sustainability impact information needs to be disclosed under article 6 (1) PR depends on how much investors care about sustainability impact. This is a gliding scale, as is shown in the figure below.

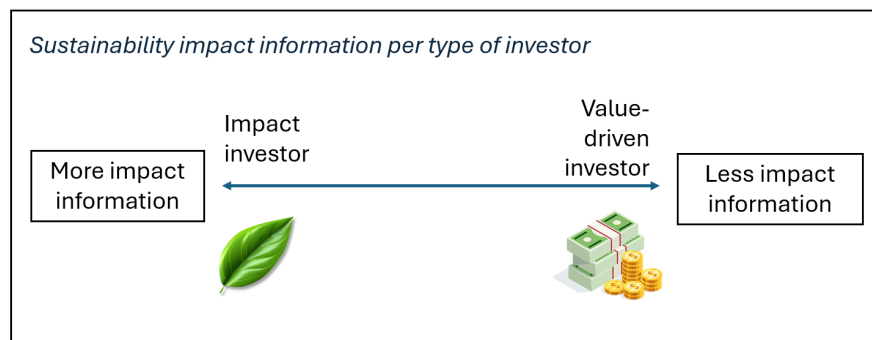


Figure 3: Sustainability impact information per type of investor. Source: Own image.

3.5.4 Sustainable and Conventional Bonds: Two Disclosure Regimes?

Regardless of whether a bond is specifically designated as sustainable or not, all financially material information is to be disclosed, including sustainability-related financial risks and opportunities.⁴⁹ This is because the primary purpose of an investment is financial, as also follows from article 6 (1) PR.⁵⁰ However, for bonds that pursue sustainability aims, the investment is characterised by an additional purpose that reaches beyond financial gains:

48 For example: Ploeg F. van der & Rezai A., “Stranded Assets in the Transition to a Carbon-Free Economy”, *Annual Review of Resource Economics* 2020, vol. 12, p. 218.

49 The disclosures thus are ‘issuer-oriented’ in nature, see: Chiu I. & P. Schammo, “Integrating Sustainable Finance into the Prospectus Regulation” in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025.

50 See: Strampelli G., “The Contents of the Prospectus: Rules for Financial Information”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 167.

to positively impact sustainability matters. This can be observed in the two most common types of sustainable bonds: sustainable use of proceeds bonds and sustainability-linked bonds. For sustainable Use-of-proceeds bonds, the proceeds of the bonds are to be used exclusively for a pre-defined sustainable project.⁵¹ Sustainability-linked bonds are bonds whose financial or structural features are dependent on whether the issuer meets a predetermined sustainability performance target (“SPT”).⁵² Next to the fact that sustainability is one of the central characteristics of sustainable bonds, these bonds are aimed at impact investors, to whom, as argued in the previous paragraph, sustainability impact information is material. Therefore, sustainability impact information – information on businesses’ positive and negative impacts on sustainability – should be included in the prospectus for sustainable bonds next to financially material information.

It follows that, as the sustainability disclosures in the prospectus are regulated by the open norm of materiality, different types of bonds and different types of investors require different information to be disclosed. In particular, the information will be different for sustainable bonds and conventional bonds, which effectively means that two disclosure regimes are emerging under the PR. One is for sustainable bonds, for which both material sustainability impact information and financially material information should be disclosed. The other is for conventional bonds, for which primarily financially material information should be disclosed. In the next sections, I elaborate the substantive sustainability disclosures for both regimes under the materiality principle, the use of proceeds sections, and the risk factors.

3.6 Prospectus Disclosures for Sustainable Bonds

3.6.1 Materiality

Sustainable bonds may target both impact investors and value-driven investors. Therefore, the information that has to be disclosed under article 6 (1) PR will include both material sustainability impact information and financially material information.

3.6.1.1 Material Sustainability Impact Information

A prospectus for sustainable bonds should at least disclose sustainability impact information that enables investors to evaluate the sustainability aims

51 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 4.

52 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 4; ICMA, *The Sustainability-Linked Bond Principles Voluntary Process Guidelines*, June 2024, June 2024, p. 3.

of the investment and how seriously the issuer is committed to those goals. The reason for this is that impact investors aim to realize a positive impact on sustainability with their investment and will thus base their investment decisions on that information.⁵³ A number of disclosures can be identified that should be made as a minimum. Most of these disclosures stem from the non-binding ESMA Public Statement, “Sustainability disclosure in prospectuses”, and the non-binding Guidelines by the Dutch Financial Markets Supervisor AFM for prospectuses of sustainable bonds (indicated by the respective footnotes in the list below).

1. Information on the scope and sustainability objectives of the project that is financed by the bonds, including:⁵⁴
 - a. A clear definition of the sustainability objectives;
 - b. Information on how the project relates to those objectives;
 - c. How feasible the project and the attainment of goals is;
 - d. The level of Taxonomy-alignment of the project that is financed by the bonds.⁵⁵
2. Information on the implementation plans of the sustainability objectives, including:
 - a. How the business exactly plans to achieve its objectives through the project;
 - b. Whether there is flexibility for deviation from the sustainability objectives, and what the parameters for deviation are.⁵⁶

53 This follows from applying article 6 (1) PR to the information needs of impact investors.

54 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 6.

55 Autoriteit Financiële Markten, “Which information does the AFM require in a prospectus for the issuance of sustainable bonds?”, available at: <https://www.afm.nl/en/sector/effectenuitgevende-ondernemingen/prospectustoezicht/duurzame-obligaties>, accessed on: 31 May 2024.

56 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 6.

3. Policies for sustainability impact assessment for the project, including:
 - a. Quantitative and qualitative information;⁵⁷
 - b. How sustainability progress will be monitored over time.
4. Information on feedback mechanisms to keep investors informed on the progress of the project and the sustainability objectives.⁵⁸
5. The use of external experts.⁵⁹
6. The sustainability impact of the issuer as a whole, including the level of Taxonomy-alignment of the issuer.

While points (1) – (5) concern the specific project that is financed by the bonds, point (6) concerns the issuer as a whole. Nonetheless, this is material information for impact investors, as these may decide to refrain from investing in a sustainable project if the issuer behind that project has low sustainability ambitions in general.

3.6.1.2 Financially Material Information

For both value-driven and impact investors, sustainability information relating to the financial performance of the bond and issuer should be disclosed on the basis of the principle of materiality under article 6 (1) PR. This is especially relevant for sustainability-linked bonds, where the achievement of the pre-formulated sustainability performance targets (SPTs) can have direct financial

57 The Dutch Financial Markets Supervisor AFM requires that the prospectuses for sustainable bonds contain *inter alia*:

- sustainability terminology is sufficiently explained;
- any claims about sustainability are substantiated and include quantitative information;
- the issuer describes how it plans to achieve its claims, including progress on these achievements;
- in the case of emission targets, that actual reductions are identified separately from forms of CO2 compensation schemes, that the entire value chain is considered, and that scope 1, 2, and 3 are specified;
- the intended impact is described at issue level or portfolio level;
- alignment to ESG market standards and Taxonomy-alignment is indicated;
- the relationship to the issuers transition plan and sustainability goals is explained;
- if the issuer has its own green bond framework, information on this framework is provided.

Source: Autoriteit Financiële Markten, “Which information does the AFM require in a prospectus for the issuance of sustainable bonds?”, available at: <https://www.afm.nl/en/sector/effectenuitgevende-ondernemingen/prospectustoezicht/duurzame-obligaties>, accessed on: 31 May 2024. The last two sentences provide evidence that this is how the supervisor interprets the materiality norm in this context: “It is important that all material information regarding the sustainable bonds is included in the prospectus and described as specific as possible. Only when all material information is included in the prospectus, potential investors are enabled to make an informed investment decision.”

58 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 7.

59 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 6.

consequences for the investor.⁶⁰ For these bonds, it should be disclosed how the attainment of the sustainability objective is related to financial implications for the investor and how it will be measured whether the sustainability objectives have been met. The sustainability performance is also relevant for other sustainable bonds, as failure to reach sustainability objectives can have financial consequences, for example, because of a negative impact on the value of the bond on the secondary market.⁶¹ Next to this, issuers should also disclose any sustainability-related risks, which will be further discussed in paragraphs 3.6.3 and 3.7.3.

3.6.2 Use of Proceeds

A prospectus must contain the reasons for the offer and how the proceeds of the issuance will be used. This obligation is elaborated in delegated regulation 2019/980, which sets out more details on what to disclose in different sections of the prospectus for various types of securities.⁶² For retail bonds, this includes “Reasons for the offer to the public or for the admission to trading. Where applicable, disclosure of the estimated total expenses of the issue/offer and the estimated net amount of the proceeds. These expenses and proceeds shall be broken into each principal intended use and presented in order of priority of such uses [...]”⁶³ As issuers of sustainable bonds intend to use the proceeds for sustainable projects, there will be sustainability disclosure requirements under the ‘use of proceeds’ item.

3.6.2.1 Material Sustainability Impact Information

Sustainability impact information under the ‘use of proceeds’ item should be information that enables investors to evaluate how the proceeds are supposed to positively impact sustainability. This overlaps with information already identified in the previous section:

60 Kölbel J.F. & Lambillon A.-P., “Who Pays for Sustainability? An Analysis of Sustainability-Linked Bonds”, *Swiss Finance Institute Research Paper* 2022, No. 23-07.

61 See also Feldhütter P., Halskov K. & Krebbers A., “Pricing of sustainability-linked bonds”, *Journal of Financial Economics* 2024, vol. 162, 103944.

62 Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the format, content, scrutiny and approval of the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Commission Regulation (EC) No 809/2004.

63 For retail non-equity securities, this obligation is contained in item 3.2 Annex 14 of CRD 2019/980, which sets out the contents of the securities note. In essence, the same disclosure requirements apply when the prospectus is drawn up as a single document (article 24 CDR 2019/980).

1. Information on the scope and sustainability objectives of the project that is financed by the bonds and how the proceeds will be used to finance that project.⁶⁴
2. Information on how the performance of the investment will be assessed, including:
 - a. Sustainability impact assessment for the project in quantitative and qualitative terms;⁶⁵
 - b. How sustainability progress will be monitored over time;⁶⁶
 - c. How Taxonomy-aligned the project is.
3. Information on the use of proceeds, including:⁶⁷
 - a. The management of the proceeds;⁶⁸
 - b. How the proceeds are segregated from the general cash flow of the firm;⁶⁹
 - c. For sustainability-linked bonds: the legal mechanism between sustainability performance and financial obligations.⁷⁰

3.6.2.2 Financially Material Information

As discussed in the previous paragraph, whether the project is realised is likely to have financial implications for the value of the investment. The ‘successfulness’ of the bond depends not only on realizing a profitable project but also on achieving the projects sustainability aims: a sustainable bond that is unsuccessful in realizing its aims, may lose value on the secondary market.⁷¹

64 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 4. The public statement requires the “disclosure about the use and the management of the proceeds and information enabling investors to assess the sustainability ambition underpinning the process for project evaluation and selection” under the ‘use of proceeds’ section for sustainable Use of proceeds bonds. And information on how progress on impact will be measured and what feedback will be provided to investors, could be included in “information [...] underpinning the process for project evaluation and selection.”

65 Autoriteit Financiële Markten, “Which information does the AFM require in a prospectus for the issuance of sustainable bonds?”, available at: <https://www.afm.nl/en/sector/effectenuitgevende-ondernemingen/prospectustoezicht/duurzame-obligaties>, accessed on: 31 May 2024.

66 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 4.

67 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 4.

68 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 4, 6.

69 Chiu I. & P. Schammo, “Integrating Sustainable Finance into the Prospectus Regulation” in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025.

70 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 8.

71 See also: Feldhütter P., Halskov K. & Krebbers A., “Pricing of sustainability-linked bonds”, *Journal of Financial Economics* 2024, vol. 162, 103944.

Information on how the success of the investment will be measured, including feedback mechanisms, thus also qualifies as financially material information.⁷²

3.6.3 Risk Factors

The obligation to include risk factors in the prospectus can be found in article 7 and 16 PR and is elaborated upon in CDR 2019/980.⁷³ A risk factor describes risks that are “specific to the issuer and/or to the securities and which are material for making an informed investment decision.”⁷⁴ To determine whether a specific risk is material, both the probability of the risk materializing and the magnitude of the expected negative impact should be taken into account.⁷⁵ This elaboration of the concept of materiality in relation to risk factors in article 16 (1) PR is intended to create a more limited disclosure obligation than the general principle of materiality from Article 6 PR.⁷⁶ The legislator specifically intends for issuers to only disclose more relevant and meaningful risks in the risk factors and aims to prevent risk factors from becoming a tool for limiting the potential liability of the issuer.⁷⁷ This need not mean that sustainability information should be excluded from the risk factors. On the contrary, from recital 54 PR follows explicitly that environmental risks may be included in the risk factors (“environmental, social and governance circumstances can also constitute specific and material risks for the issuer and its securities and, in that case, should be disclosed”). This is

72 Note that ESMA’s statement gives guidance on what to include in the ‘use of proceeds’ section of sustainable Use of proceeds bonds. However, there is no clear reason why this should not apply to sustainability-linked bonds, as the intent of those types of bonds too is to realize certain sustainability targets with the proceeds.

73 Article 16 PR; article 24 (1) CRD 2019/980; section 3 Annex 6 CRD 2019/980. For example, for retail bonds in item 2.1 Annex 14 CDR 2019/980.

74 Article 16 (1) PR.

75 Article 16 PR. Guideline 1 ESMA, Guidelines On Risk factors under the Prospectus Regulation, 1 October 2019, ESMA31-62-1293. Note that this had not been explicitly prescribed in the predecessor to the Prospectus Regulation, resulting in the inclusion of generic, unrealistic or theoretical risks, which could make it difficult for investors to gain a good understanding of the risk profile of their investment – see: Evenhuis S.C. & Reutelingsperger T., “De nieuwe Prospectusverordening: risicofactoren en samenvattingen in een nieuw jasje”, *Tijdschrift voor Financieel Recht* 2019, nr. 7/8, p. 385, 386; Ten Have R., “The Summary and Risk Factors”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 277-278.

76 Recital 54 PR; Serière V. de, “The Contents of the Prospectus: Non-Financial Information and materiality”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 207.

77 Recital 54 PR; Serière V. de, “The Contents of the Prospectus: Non-Financial Information and materiality”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 207.

confirmed by the ESMA guidelines on the specificity, materiality and presentation of risk factors.⁷⁸

3.6.3.1 Material Sustainability Impact Information

From the perspective of an impact investor, a central risk is that the sustainability objectives of the project that is financed by the bonds are not realized. Therefore, if any “risks specific concerning the viability and achievement of the sustainable project” should be disclosed.⁷⁹ However, this disclosure is limited. The reason for this is that one of the functions of the prospectus is to limit accountability for the issuer when a risk materializes, as the issuer can argue that the investor had been made aware of and accepted the risk.⁸⁰ However, the prospectus should not be misused to negate liability for the risk of greenwashing.⁸¹ Therefore, risks of not realizing the sustainability objectives should only be disclosed in a limited manner that does not create the opportunity for the issuer to cast those objectives aside.

Another risk that may call for disclosure is that the proceeds are not sufficiently segregated from the general cash flow of the business.⁸² This could result in the funds being used for the business in general instead of for the intended project. This latter risk is especially relevant for sustainable bonds as the fundamental purpose of a sustainable bond is to allocate funds to sustainable projects. If the proceeds sponsor the entire issuer, this effectively

78 Guideline 7, ESMA, Guidelines On Risk factors under the Prospectus Regulation, 1 October 2019, ESMA31-62-1293. It follows from Guideline 7 that the business determines the relevant categories. In the list of examples provided by ESMA, one such category is “Environmental, social and governance risks”.

79 For sustainability-linked bonds, ESMA expects disclosures on the viability of the project, in particular regarding the KPI and sustainability targets, including potential conflicts of interest in the selection and monitoring of those KPIs. The greenwashing problem identified by the AFM is less relevant in this context as the proceeds of SLB’s need not necessarily be used for the financing of sustainable projects. ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 6.

80 Ten Have R., “The Summary and Risk Factors”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 267-268.

81 Point 1 of Autoriteit Financiële Markten, “Which information does the AFM require in a prospectus for the issuance of sustainable bonds?”, available at: <https://www.afm.nl/en/sector/effectenuitgevende-ondernemingen/prospectustoezicht/duurzame-obligaties>, accessed on: 31 May 2024.

82 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 6. ESMA names two risks that may call for disclosure in relation to use of proceeds bonds, namely risks regarding the allocation and management of proceeds and risks concerning the viability and achievement of the sustainable project.

negates the bonds' distinctive sustainable character.⁸³ Therefore, issuers should disclose how the proceeds are managed.⁸⁴

3.6.3.2 Financially Material Information

There are a number of sustainability-related risks that may be financially relevant. First, regarding the specific project: if the sustainability aims are not realized, this may have consequences for the value of the bond on the secondary market.⁸⁵ In general, it may, therefore, be necessary to disclose information on the specific risks to the realisation of the project, with the limitation that this disclosure should not be misused to negate liability for greenwashing.⁸⁶ In the case of a sustainability-linked bond, not realizing the sustainability objective will also have direct financial consequences, for example, because the interest rate on the bonds is adjusted.⁸⁷

Second, if the issuer is exposed to sustainability risks, in particular transition and physical risks, this too can have an impact on the value of the specific investment. These risks, which will be elaborated in paragraph 3.7.3, must be disclosed as well.

3.6.4 Summary

It follows from the analysis in the previous sections that the PR mandates extensive sustainability disclosures for sustainable bonds. These mandatory disclosure obligations can be categorized into two distinct but interconnected dimensions, which partially overlap: (i) material sustainability impact information and (ii) financially material information. The minimum disclosure requirements that emerge on the basis of the PR are:

Material sustainability impact information

1. Information on the scope and sustainability objectives of the project that is financed by the bonds, including:
 - a. A clear definition of the sustainability objectives;

83 Chiu I. & P. Schammo, "Integrating Sustainable Finance into the Prospectus Regulation" in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025.

84 ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 4, 6.

85 See also: Feldhütter P., Halskov K. & Krebbers A., "Pricing of sustainability-linked bonds", *Journal of Financial Economics* 2024, vol. 162, 103944.

86 Point 1 of Autoriteit Financiële Markten, "Which information does the AFM require in a prospectus for the issuance of sustainable bonds?", available at: <https://www.afm.nl/en/sector/effectenuitgevende-ondernemingen/prospectustoezicht/duurzame-obligaties>, accessed on: 31 May 2024.

87 Therefore, the legal mechanism between sustainability performance and financial obligations should also be disclosed. ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441, p. 8.

- b. Information on how the project relates to those objectives;
 - c. How feasible the project and the attainment of goals are;
 - d. The level of Taxonomy-alignment of the project that is financed by the bonds.
- 2. Information on the implementation plans of the sustainability objectives, including:
 - a. How the business plans to achieve its objectives through the project;
 - b. Whether there is flexibility for deviation from the sustainability objectives, and what the parameters for deviation are.
- 3. Policies for sustainability impact assessment of the project, including:
 - a. Quantitative and qualitative information;
 - b. How sustainability progress will be monitored over time.
- 4. Information on feedback mechanisms to keep investors informed on the progress of the project and the sustainability objectives.
- 5. Information on the use of proceeds, including:
 - a. The management of the proceeds;
 - b. How the proceeds are segregated from the general cash flow of the firm;
 - c. For sustainability-linked bonds: the legal mechanism between sustainability performance and financial obligations.
- 6. The use of external experts.
- 7. The sustainability impact of the issuer as a whole, including the level of Taxonomy-alignment of the issuer.

Financially material information

- 8. Information on the implementation plans of the sustainability objectives, including:
 - a. How the business plans to achieve its objectives through the project;
 - b. Whether there is flexibility for deviation from the sustainability objectives, and what the parameters for deviation are.
- 9. Policies for sustainability impact assessment for the project, including:
 - a. Quantitative and qualitative information;
 - b. How sustainability progress will be monitored over time.
- 10. Information on feedback mechanisms to keep investors informed on the progress of the project and the sustainability objectives.
- 11. Information on the specific risks to the realisation of the project, with the limitation that this disclosure should not be misused to negate liability for greenwashing.
- 12. Information on the use of proceeds, including:
 - a. The management of the proceeds;
 - b. How the proceeds are segregated from the general cash flow of the firm;
 - c. For sustainability-linked bonds: the legal mechanism between sustainability performance and financial obligations.

- 13. Transition risks at project and issuer level.
- 14. Physical risks at project and issuer level.

3.7 Prospectus Disclosures for Conventional Bonds

3.7.1 *Materiality*

For conventional bonds that do not explicitly pursue sustainability objectives, there may still be material sustainability information to disclose under article 6 (1) PR. As discussed in para. 3.5.3, the scope of article 6 (1) PR depends on the investors' information needs. For conventional bonds, it is less likely that investors are driven by the motivation to positively impact sustainability. Nonetheless, the fact that value-driven investors are not primarily motivated by the desire to positively impact sustainability factors does not mean that sustainability information cannot be material to their investment decisions. As will be discussed in the next two sections, there are several reasons to include sustainability information in the prospectus for conventional issuances, such as: (1) to enable investors to pursue their overall ESG-strategy, (2) ESG scores impact the value of an investment, and (3) for risk assessment purposes.

3.7.1.1 *Material Sustainability Impact Information*

Non-retail investors – specifically investment firms, credit institutions, and insurance companies – are subject to disclosure requirements under the CSRD and TR. The CSRD mandates these entities to publish an annual sustainability report.⁸⁸ This includes the obligation to disclose sustainability information about their investments on an aggregate basis. In particular, these investors must comply with article 8 TR.⁸⁹ This means that these investors have to disclose the proportion of the turnover, capital expenditure, and operating expenditure derived from or related to environmentally sustainable activities in the sense of articles 3 and 9 TR.⁹⁰ To comply with these two disclosure obligations, non-retail investors thus need to know how Taxonomy-aligned their investments are. Issuers of conventional bonds, whose bonds may be purchased by non-retail investors subject to the obligation under article 8 TR,

⁸⁸ Article 19a (2) (d) CSRD.

⁸⁹ Article 8 TR applies to firms that have to comply with article 19a CSRD, see: paragraph 5.1 of Chapter 3.

⁹⁰ Article 8 (2) TR. The exact content and presentation of this information, including the methodology to generate the information, is set out in Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation.

should therefore disclose how Taxonomy-aligned the business is in its entirety, or, in the case that the project that is financed by the bond has a distinct sustainability profile, how Taxonomy-aligned that project is.

3.7.1.2 Financially Material Information

In principle, issuers of conventional bonds should disclose any available ESG scores, as these impact the value of an investment. This has been researched in a meta-study by the NYU Stern Center for Sustainable Business that examined the relationship between ESG and financial performance in over 1,000 research papers from 2015-2020.⁹¹ The authors found a positive relationship between ESG and financial performance in 58% of the corporate studies. Additionally, 13% of the studies showed a neutral impact, 21% had mixed results, and 8% demonstrated a negative relationship.⁹² Therefore, if the issuer has access to ESG scores, these should be included in the prospectus.

However, this disclosure principle is complicated by the fact that not all ESG scores are equally reliable.⁹³ Moreover, methodological inconsistencies between different ESG scoring frameworks diminish the value of ESG scores for investors as a basis for comparing different investments.⁹⁴ Consequently, ESG scores should be accompanied by essential contextual information, particularly:

1. information on the rating agency that provided the scoring and whether that agency is regulated under the ESG Rating Regulation, which introduces rules on the integrity, transparency, good governance, and independence of ESG rating activities and requires authorisation from ESMA;⁹⁵ and

91 Whelan T., e.a., “ESG and Financial Performance”, *Centre for Sustainable Business NYU-Stern* 2021, available at: <https://www.stern.nyu.edu/sites/default/files/assets/documents/ESG%20Paper%20Aug%202021.pdf>, accessed on: 21 June 2024.

92 Whelan T., e.a., “ESG and Financial Performance”, *Centre for Sustainable Business NYU-Stern* 2021, available at: <https://www.stern.nyu.edu/sites/default/files/assets/documents/ESG%20Paper%20Aug%202021.pdf>, accessed on: 21 June 2024: The authors also found positive results in 59 reviewed climate change or low carbon studies related to financial performance.

93 Berg F., Kölbel J.F. & Rigobon R., “Aggregate Confusion: The Divergence of ESG Ratings”, *Review of Finance* 2022, vol. 26(6), p. 1315. See also: Billio M., e.a., “Can you trust ESG ratings? A deep dive into trust, transparency, and regulatory challenges”, *SAFE Finance Blog* 16 April 2024, available at: <https://safe-frankfurt.de/news-latest/safe-finance-blog/details/can-you-trust-esg-ratings-a-deep-dive-into-trust-transparency-and-regulatory-challenges.html>, accessed on: 16 April 2025.

94 Berg F., Kölbel J.F. & Rigobon R., “Aggregate Confusion: The Divergence of ESG Ratings”, *Review of Finance* 2022, vol. 26(6), p. 1315.

95 Regulation (EU) 2024/3005 of the European Parliament and of the Council of 27 November 2024 on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities, and amending Regulations (EU) 2019/2088 and (EU) 2023/2859 (“ESGR”). See also: Kreft T. & Schemmer E., “Die Regulierung von ESG-Rating-Anbietern in der EU”, *Europäische Zeitschrift für Wirtschaftsrecht* 2024, Heft 24, p. 1133. See also: Paragraph 4.6.2-4.6.3 of this Chapter.

2. how Taxonomy-aligned the issuer of the bonds is.

The first element provides transparency regarding the credibility of the ESG rating itself. The second element establishes a reference point for evaluating the ESG rating in relation to the criteria established in the EU Taxonomy framework. Additionally, any sustainability information necessary to fully understand the financial risks that an issuer is facing should be disclosed, in particular transition and physical risk, will be discussed in para. 3.7.3.

3.7.2 *Use of Proceeds*

As conventional bonds do not explicitly intend for the proceeds to be used to positively impact sustainability, there is no reason to assume that the issuer must substantiate how sustainable the project is that is financed by the bonds under the 'use of proceeds' item. It thus is unlikely that the 'use of proceeds' item of a conventional issuance will include sustainability information.

3.7.3 *Risk factors*

Disclosures should be made on specific sustainability risks that may affect the value of the investment. These risks fall into two categories: physical risks and transition risks.⁹⁶ Physical risks are those that relate to the physical damage caused by climate change, such as floods, droughts, and storms.⁹⁷ This can have financial implications for issuers when, for example, their production is directly affected or their supply chains are disrupted.⁹⁸ The potential disruption of supply chains is problematic, as these often encompass a much further geographical area than the production site of an issuer, increasing the risk that climate-related physical risks affect the issuer.

Transition risks refer to financial risks that stem from the transition to a low-carbon economy.⁹⁹ Transition risks encompass legal and policy risks, such as changes in regulation and climate change litigation, which has

96 For example: Financial Stability Board, "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures", *Financial Stability Board* 2017, p. 6. Note that the recommendation to disclose climate-related financial risk in the report does not specifically relate to disclosures in prospectuses but more generally to, for example, annual financial reporting.

97 Financial Stability Board, "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures", *Financial Stability Board* 2017, p. 6.

98 Financial Stability Board, "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures", *Financial Stability Board* 2017, p. 6.

99 Financial Stability Board, "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures", *Financial Stability Board* 2017, p. 5.

increased in the last few years.¹⁰⁰ A related transition risk is reputational risk – that consumers or investors are less interested in products or investments that have a negative impact on sustainability factors.¹⁰¹ Another transition risk is the risk that technological innovation renders certain production processes obsolete.¹⁰² In general, transition risk is especially pressing for investments in fossil fuel-intensive industries, as these face both legal and policy, reputational, and technological risks.¹⁰³ This increases the risk that investments in those issuers turn out to be investments ‘stranded asset’ – assets that suffer from (excessive) write-downs or devaluation before the end of their anticipated economic lifetime.¹⁰⁴

3.7.4 Summary

For conventional bonds, the following sustainability information should, at a minimum, be included in the prospectus:

Material sustainability impact information

1. Taxonomy-alignment of the issuer;
 - a. If the proceeds of the bonds are used to finance a specific project, Taxonomy-aligned the project that is financed by the proceeds of the bonds.

Financially material information

2. Available ESG scores.
3. Physical sustainability risks.
4. Transition risks.

100 Pouikli K., “Editorial: a short history of the climate change litigation boom across Europe”, *ERA Forum* 2022, vol. 22, p. 569, 577-578. Examples include: Hof Den Haag, 12 November 2024, ECLI:NL:GHDHA:2024:2099 (Shell v Vereniging Milieudefensie e.a.); Tribunal Administratif de Paris, 14 October 2021, N°s 1904967, 1904968, 1904972, 1904976/4-1, (Notre Affaire à Tous e.a. v France); Essen Oberlandesgericht, Claim filed on 23 November 2015, Case No. 2 O 285/15 (Luciano Lliuya v RWE AG).

101 Financial Stability Board, “Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures”, *Financial Stability Board* 2017, p. 6.

102 Financial Stability Board, “Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures”, *Financial Stability Board* 2017, p. 6.

103 This would also be in line with recital 54 PR: “Among others, environmental, social and governance circumstances can also constitute specific and material risks for the issuer and its securities and, in that case, should be disclosed.”

104 Grantham Research Institute on Climate Change and the Environment, “What are stranded assets”, 27 July 2022, available at: <https://www.lse.ac.uk/granthaminstitute/explainers/what-are-stranded-assets/>, accessed on: 23 September 2024. See also: Ploeg F. van der & Rezai A., “Stranded Assets in the Transition to a Carbon-Free Economy”, *Annual Review of Resource Economics* 2020, vol. 12, p. 218.

The list of sustainability information that has to be included in the prospectus for conventional bonds thus is much more concise than the sustainability information to be included in the prospectus for sustainable bonds. For sustainable issuances, some guidance can be found in ESMA's non-binding "Sustainability disclosure in prospectuses", as well as the non-binding guidelines by the Dutch Financial Markets Supervisor AFM for prospectuses of sustainable bonds. Conversely, there are no guidelines for the sustainability information that should be included in the prospectus for conventional bonds. This is problematic, as conventional bonds encompass the largest share of the market, and sustainability risks – physical and transition – are highly relevant to these bonds. I reflect on these shortcomings more extensively in the evaluation of the prospectus regulation as a means to provide investors with sustainability information (para. 3.11) and the conclusion of this chapter (para. 5).

3.8 Minimum ESG Disclosures Listing Act Regulation

On 14 November 2024, the Listing Act Regulation was published in the Official Journal of the European Union.¹⁰⁵ The aim of this Regulation is to ease the rules for small and medium-sized businesses that want to access market-based financing.¹⁰⁶ The current regulatory regime, including the PR, can be an obstacle for those types of businesses to access market-based financing, as the regulatory burden is excessively high.¹⁰⁷ Therefore, the Listing Act amends a number of existing laws, including the PR.

From the moment onward that the Listing Act Regulation applies, a number of sustainability disclosures have to be made in the prospectus.¹⁰⁸ These disclosures differ for equity securities and non-equity securities. For equity securities, the issuer must comply with three new disclosure obligations. First, the key information to be contained in the prospectus summary should include whether the activities of the issuer are Taxonomy-aligned (new art. 7 (6) (a) PR).¹⁰⁹ Second, the prospectus should declare whether the issuer must draw up a sustainability report on the basis of the CSRD (new art. 13 (1) (f) PR).¹¹⁰ Third, the sustainability report should be included (by reference) in the pro-

¹⁰⁵ Regulation (EU) 2024/2809 of the European Parliament and of the Council of 23 October 2024 amending Regulations (EU) 2017/1129, (EU) No 596/2014 and (EU) No 600/2014 to make public capital markets in the Union more attractive for companies and to facilitate access to capital for small and medium-sized enterprises ("Listing Act Regulation").

¹⁰⁶ Recitals 2, 3 Listing Act Regulation.

¹⁰⁷ Recital 3 Listing Act Regulation.

¹⁰⁸ This will be from 5 June 2026 onward for most requirements introduced by the Listing Act Regulation. Article 4 Listing Act Regulation.

¹⁰⁹ Article 1 (7) d Listing Act Regulation.

¹¹⁰ Article 1 (10) a (ii) Listing Act Regulation.

spectus (new article 19 (a) (f) PR). All these requirements will be further elaborated in Commission Delegated Acts.¹¹¹

For non-equity securities, such as bonds, the issuer must disclose whether the bonds are advertised as taking into account ESG factors or are pursuing ESG objectives (new article 13 (1) (g) PR).¹¹² If the bonds are European Green Bonds, the factsheet that has to be drawn up under article 10 EuGBR has to be incorporated by reference (new article 13 (1a) (a) PR).¹¹³ Issuers of sustainability-linked bonds or bonds marketed as environmentally sustainable under the EuGBR can also decide to include the relevant optional disclosure in the prospectus.¹¹⁴

The disclosure requirements of the Listing Act thus are straightforward: especially the requirements for equity securities and those for European Green Bonds overlap with transparency requirements that the issuer is already subject to on the basis of other legislation – the CSRD, TR, and the EuGBR. This is not surprising as one of the main aims of the Listing Act is to increase access to capital markets.¹¹⁵ In line with this objective, the Listing Act aims to reduce regulatory requirements for SMEs and, in general, tries not to overburden issuers with new (sustainability) disclosure requirements. Moreover, recital 23 Listing Act Regulation makes explicit that overlap with other legislation should be avoided. As the EuGBR already provides for an extensive disclosure framework for European Green Bonds, the legislator thus may have concluded that it is not necessary to introduce extensive disclosure requirements in the prospectus.

As I discussed in paragraphs 3.5 – 3.7, a prospectus will have to make a number of sustainability disclosures, for both sustainable and conventional bonds. It is unfortunate that these disclosures, which are based on open norms and therefore not harmonised, are not included in the Listing Act, as I further discuss in the evaluation in 3.10. The only substantively new requirement is that issuers of non-equity securities must disclose whether the bonds are advertised as taking into account ESG factors or are pursuing ESG objectives (new article 13 (1) (g) PR).¹¹⁶ Although now formulated as a straightforward disclosure requirement (yes or no), it remains to be seen what information must exactly be disclosed under the Delegated Acts that will further refine this requirement.

111 Article 1 (17) a (iii) Listing Act Regulation.

112 Article 1 (10) a (ii) Listing Act Regulation.

113 Article 1 (10) b Listing Act Regulation.

114 Article 1 (10) b Listing Act Regulation.

115 Recital 2 Listing Act Regulation.

116 Article 1 (10) a (ii) Listing Act Regulation.

3.9 Supervision

Given the lack of explicit mandatory sustainability disclosure requirements in the PR, the question arises of how compliance should be supervised and whether supervision can be a tool to ensure that the (diverging) information needs on sustainability of investors are met. Compliance with the PR is supervised by the national competent authority (“NCA”) as a prospectus may only be published after the approval of the NCA.¹¹⁷ The NCA must *inter alia* check whether a prospectus is complete, as a prospectus must contain all information that is ‘necessary information which is material to an investor for making an informed assessment’.¹¹⁸ In other words, the NCA must ensure that the prospectus contains all the material sustainability information that has been identified in the previous paragraphs 3.5-3.7. In order to support NCAs in their assessment of completeness, ESMA has published Guidelines ‘On disclosure requirements under the Prospectus Regulation’, which, however, contain no information on sustainability disclosures.¹¹⁹ The fact that the term ‘materiality’ is undefined and that the EU does not regulate prospectus liability for material omissions means that it is ultimately up to national courts to determine whether a certain omission constitutes a breach of the materiality rule.¹²⁰ ESMA’s ‘Final Report on Greenwashing’ focusses on challenges regarding the monitoring and detection of greenwashing risks and occurrences, as well as taking supervisory actions.¹²¹ Regarding prospectus supervision, ESMA recognizes that, given the lack of specific sustainability disclosure requirements, there is a risk of diverging interpretations both among market players and their supervisors.¹²² Two important measures that ESMA has taken to overcome this problem are the facilitation of discussions of supervisory cases and exchanges of experiences among NCAs, and issuing public statements such as ‘Sustainability disclosure in prospectuses’, referenced multiple times in the previous paragraphs.¹²³ However, this is insufficient to fully resolve the divergence in supervisory approaches that is caused by the absence of explicit regulation of sustainability disclosures.¹²⁴ Firstly,

117 Article 3 PR.

118 Article 6 (1) PR.

119 ESMA, Guidelines On disclosure requirements under the Prospectus Regulation, 4 March 2021, ESMA32-382-1138: information on how ESG matters affect the issuers’ earnings, cash flow and material business assets and liabilities should be included (p. 16).

120 Serière V. de, “The Contents of the Prospectus: Non-Financial Information and materiality”, in: Busch D., Ferrarini G. & Franx J.P. (eds.), *Prospectus Regulation and Prospectus Liability*, Oxford University Press 2020, p. 202.

121 ESMA, Final Report on Greenwashing, 4 June 2024, ESMA36-287652198-2699.

122 ESMA, Final Report on Greenwashing, 4 June 2024, ESMA36-287652198-2699, p. 28.

123 ESMA, Final Report on Greenwashing, 4 June 2024, ESMA36-287652198-2699, p. 29. ESMA, Public Statement, Sustainability disclosure in prospectuses, 11 July 2023, ESMA32-1399193447-441.

124 ESMA, Final Report on Greenwashing, 4 June 2024, ESMA36-287652198-2699, p. 30.

‘Sustainability disclosure in prospectuses’ is relatively high-level and does not cover all material sustainability disclosures that I identified in the previous paragraphs. Secondly, it only focuses on disclosures for sustainable Use of proceeds bonds and sustainability-linked bonds. This means that there is no guidance on sustainability disclosures for other types of issuances, such as conventional bonds. Given the limited guidance from ESMA on what sustainability disclosures must be included in the prospectus, in combination with the fact that it is ultimately to national courts to determine whether a certain omission constitutes a breach of the materiality rule, it is unlikely that a coherent framework will be formed by case law on sustainability disclosures in prospectuses.

3.10 Evaluation

3.10.1 Complete

To empower investors to make an informed investment decision that incorporates sustainability information, it is necessary that they can form a complete picture of how the issuer relates to impacts sustainability. To evaluate how successful the EU SFF is in realizing complete disclosure in relation to sustainability matters, I focus on two aspects: (1) whether the qualitative information covers all four aspects of the double materiality principle and (2) whether the disclosures include quantitative data. In Chapter 3, paragraph 2, I explain why these two criteria are essential for investors to reach a well-informed investment decision.

3.10.1.1 Double Materiality

As I analysed in paragraphs 3.5-3.7, it is highly likely that any prospectus will contain sustainability information on the basis of the open norms of materiality, the use of proceeds, and the risk factors. The type of sustainability information, however, depends on two factors: the type of investor that is likely to be addressed by the prospectus and the type of securities that are issued. On investor type, the general rule can be formulated that the more likely that the prospectus addresses impact investors, the more likely that the prospectus should include information on the sustainability impact of the investment. On type of issuance, the rule can be formulated that sustainable securities must disclose more impact information than conventional issuances, as the former have an explicit sustainability objective and thus are more likely to attract impact investors. This has led to the following overview of sustainability information that should be included in the prospectus:

Table 4: Sustainability information that should be included in the prospectus. Source: Own image.

	Material sustainability impact information: information about business's positive and negative impacts on sustainability matters	Financially material information: information on the business's sustainability related financial risks and opportunities
Sustainable bonds	1. Scope and sustainability objectives of the project • Clear definition of the sustainability objectives • How the project relates to those objectives • Feasibility of objectives • Taxonomy-alignment of the project 2. Implementation plans of the sustainability objectives • How the business exactly plans to achieve its objectives • Flexibility for deviation from the sustainability objectives 3. Policies for sustainability impact assessment for the project • Quantitative and qualitative information • How progress will sustainability progress will be monitored 4. Information on feedback mechanisms 5. Information on the use of proceeds • The management of the proceeds • How the proceeds are segregated from the general cash flow of the firm • For sustainability-linked bonds: the legal mechanism between sustainability performance and financial obligations 6. The use of external experts 7. The sustainability impact of the issuer, including the level of Taxonomy-alignment	1. Scope and sustainability objectives of the project • Clear definition of the sustainability objectives • How the project relates to those objectives • Feasibility of objectives • Taxonomy-alignment of the project 2. Implementation plans of the sustainability objectives • How the business exactly plans to achieve its objectives • Flexibility for deviation from the sustainability objectives 3. Policies for sustainability impact assessment for the project • Quantitative and qualitative information • How progress will sustainability progress will be monitored 4. Information on feedback mechanisms 5. Information on the specific risks to the realisation of the project, with the limitation that this disclosure should not be misused to negate liability for greenwashing. 6. Information on the use of proceeds • The management of the proceeds • How the proceeds are segregated from the general cash flow of the firm • For sustainability-linked bonds: the legal mechanism between sustainability performance and financial obligations 7. Transition risks at project and issuer level 8. Physical risks at project and issuer level

	Material sustainability impact information: information about business's positive and negative impacts on sustainability matters	Financially material information: information on the business's sustainability related financial risks and opportunities
Conventional bonds	1. Taxonomy-aligned of the issuer • If the proceeds of the bonds are used to finance a specific project, Taxonomy-aligned the project that is financed by the proceeds of the bonds	1. Available ESG scores 2. Physical sustainability risks 3. Transition risks

It follows from this overview that, in principle, the open norms in the PR lead to disclosures under both sides of the double materiality regime. However, these disclosures far from meet the criteria that I formulated in chapter 3 for determining whether the information is sufficient for investors. Firstly, the impact information should encompass both positive and negative impacts. Whilst there may be an incentive for businesses to only disclose positive impacts, the EU SFF should prevent this as it limits the ability of investors to make informed comparisons and restricts their investment strategies.¹²⁵ Secondly, the disclosures should be guided by specific materiality and disclosure standards. While open-ended impact disclosures might seem ideal as they provide for flexibility, they can lead to great variety in the type and content of information that is disclosed, which undermines the ability of investors to compare the impacts between businesses.¹²⁶ Moreover, open norms increase the risk of 'materiality washing' – not reporting certain impacts or risks by designating them as immaterial.

Lacking any explicit disclosure requirements, the PR fails to meet these criteria that are essential for generating complete, reliable and comparable information. This is also not resolved by ESMA's non-binding 'Sustainability disclosure in prospectuses', as the disclosures are limited to sustainability-linked bonds and Use-of-proceeds bonds. Neither will the Listing Act resolve this problem, as it only reiterates disclosures that issuers already have to make on the basis of other legislation such as the CSRD, TR, and EuGBR but does not explicate the material information of the table above.

125 Ehlers T., Goa D. & Packer F., "A taxonomy of sustainable finance taxonomies", *Bank for International Settlements Papers* 2021, no 118, available at: <https://www.bis.org/publ/bppdf/bispap118.pdf>, p. 15-16; Tröger T. & Steuer S., "The Role of Disclosure in Green Finance", *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 17-18. See also: Eurosystem, "Eurosystem reply to the European Commission's public consultations on the Renewed Sustainable Finance Strategy and the revision of the Non-Financial Reporting Directive", *European Central Bank* 2020, p. 20.

126 Eccles R.G., e.a., "The Need for Sector-Specific Materiality and Sustainability Reporting Standards", *Journal of Applied Corporate Finance* 2012, vol. 24 (2), p. 65.

3.10.1.2 Quantitative Disclosures

The inclusion of quantitative information in the prospectus is essential both because it allows for granular information and because it does not contain normative values.¹²⁷ It enables the investor to better understand qualitative disclosures, and it enhances the ability to compare information between issuers. As there is a need for quantitative sustainability disclosures, this should, in principle, be included in the prospectus on the basis of article 6 (1) PR. However, lacking any explicit sustainability disclosures, it is highly unlikely that issuers will make these disclosures in a harmonised manner, which undermines part of the purpose – comparing investments. This is problematic, as research has shown that lack of reliable data is a significant barrier for institutional investors to consider ESG information in their sustainability decisions.¹²⁸

3.10.2 Coherent

The second criterion that I assess is whether the sustainability information disclosed is coherent, meaning that core terminology and concepts are defined and used coherently throughout the legislation. In the absence of any explicit sustainability disclosure requirements, this criterion is not fulfilled. Neither are the ESMA Guidelines on Greenwashing and the Public Statement ‘Sustainability disclosure in prospectuses’ sufficient to create any coherency. Neither is it resolved by the Listing Act, as this Regulation is more limited in scope and content than the disclosures that I identified for the Prospectus Regulation. This is highly problematic, as the lack of harmonized disclosures undermines the comparative value of any sustainability information that is included in the prospectus.

On a higher level, the Prospectus regime is characterized by coherence between the information disclosed in the annual accounts and the prospectus.¹²⁹ A large part of the prospectus concerns financial information: this is already clear from article 6 PR, which contains general disclosure topics, which include “the assets and liabilities, profits and losses, financial position, and prospects of the issuer and of any guarantor.”¹³⁰ For example, Annex

127 T Tröger T. & Steuer S., “The Role of Disclosure in Green Finance”, *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steueretrogerfinal.pdf, p. 17-18.

128 Eccles R.G., Kastrapeli M.D. & Potter S.J., “How to Integrate ESG into Investment Decision-Making: Results of a Global Survey of Institutional Investors”, *Journal of Applied Corporate Finance* 2017, vol. 29(4), p. 125-133. By conducting a global survey of 582 institutional investors, the authors found that the biggest barrier to integrating ESG factors in investment decision-making processes is the lack of high quality data about the ESG performance of companies (p. 130).

129 ESMA, Guidelines On disclosure requirements under the Prospectus Regulation, 4 March 2021, ESMA32-382-1138, p. 10: “The Guidelines relating to the disclosure of financial information have a close relationship with financial reporting.”

130 Article 6 (1) (a) PR.

6 of CDR 2019/980, that contains the disclosure requirements for the registration document of retail non-equity securities (as discussed earlier in this chapter), includes extensive requirements for the inclusion of financial information, often with reference to audited financial information, i.e., the financial statements prepared in accordance with applicable accounting standards and Directive 2014/56/EU on statutory audits of annual accounts and consolidated accounts. This is the same for other types of securities: the financial information to be disclosed in the prospectus is directly linked to the financial information to be disclosed in the annual accounts. This evidences that the prospectus and the annual financial statements fulfil a complementary role when it comes to informing investors: whereas the first provides information on the issuer and the securities at the moment of entering the market, the latter provide ongoing information on the issuer's financial situation.

As has been discussed in Chapter 3, the annual reporting regime has been extended under the EU SFF with the CSRD, which requires issuers to disclose information "necessary to understand the undertaking's impacts on sustainability matters, and information necessary to understand how sustainability matters affect the undertaking's development, performance and position" on an annual basis.¹³¹ Thus, the annual statements now provide ongoing information both on the financial situation of the issuer and on the sustainability matters. It is therefore incoherent that only the financial information is incorporated extensively into the prospectus whilst the sustainability information is merely included in open norms. This incoherency not only undercuts the disclosure of material sustainability information, weakening the efficient functioning of the market, but can undermine the complementary function that these two disclosure frameworks fulfil.

3.10.3 *Accurate*

The last criterion that I use to assess whether the PR is successful in reducing information asymmetries on sustainability matters, is whether the disclosed information is accurate, meaning that qualifying a financial product as sustainable either (a) is based on the Taxonomy Regulation or (b) is warranted by procedural safeguards that ensure the qualification is supported by scientific evidence. As I analysed in paragraphs 3.6 – 3.7, Taxonomy-alignment of the issuer should be disclosed for both sustainable and conventional bonds as this information qualifies as material in the sense of article 6 (1) PR. However, in general, it can be concluded that the PR itself contains few explicit procedural safeguards to ensure that sustainability information that is included in the prospectus is supported by scientific evidence. This is problematic, as the lack of explicit regulation may cause issuers to intentionally or unintentionally misrepresent sustainability information, potentially resulting in a distorted

131 Article 19a CSRD.

impression of how sustainable the project that is being financed by the bonds actually is.¹³²

3.11 Conclusion

The prospectus is one of the central instruments to inform investors on the securities that they are investing in, and therefore, it plays an important role in the transmission of sustainability information between issuer and investor. Although the PR is not formally part of the EU SFF and contains no explicit sustainability disclosure requirements, a prospectus should nonetheless include sustainability information based on open norms: the materiality principle, use of proceeds, and risk factors, as I have demonstrated in paragraphs 3.6 – 3.7. The scope of required disclosures varies according to two key factors: first, the distinct information needs of different investor types, particularly impact investors versus value-driven investors; and second, the nature of the security being issued, as sustainability information that is material for sustainable bonds may differ from that required for conventional bonds. In essence, this leads to the emergence of two disclosure regimes: one for sustainable issuances and one for conventional ones. In section 3.10.1, I have compiled a table of the minimum disclosures mandated under the PR.

Although the PR thus mandates sustainability disclosures in the prospectus, these do not meet the criteria that I formulated for reducing information asymmetries in order to enable investors to make informed investment decisions and compare investment opportunities. The main reason for this is that the lack of explicit disclosure requirements undermines the criteria of completeness, coherency, and accuracy. This results in four major issues.

First, due to the lack of explicit disclosures, the risk of incomplete information is exacerbated. This may happen accidentally, with businesses not fully overseeing their sustainability impacts, risks and opportunities. It may also happen on purpose: whilst issuers should disclose both positive and negative impacts on sustainability matters, there is a clear incentive to primarily focus on the former, undermining the ability of the investor to form a complete picture of the impacts of the business. In an extreme case, the lack of explicit regulation can even lead to ‘materiality washing’, purposefully hiding negative information by designating it as non-material.

Second, the lack of explicit mandatory sustainability disclosures in the PR creates another risk, as described by Chiu and Schammo.¹³³ Issuers may com-

¹³² Which, in turn, creates a liability risk for the issuer whereby national courts will determine whether the misrepresentation is sufficiently severe to constitute a tort or other breach.

¹³³ Chiu I. & P. Schammo, “Integrating Sustainable Finance into the Prospectus Regulation” in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025.

municate a higher commitment to sustainability goals outside of the prospectus than inside the prospectus, using the prospectus as a means to limit accountability.¹³⁴ This concern is supported by the UK Financial Conduct Authority, which analysed a sample of green bond issues and found that “while prospectus disclosures clearly state that an issuer is not obligated to use the proceeds in a specific manner, the Use-of-proceeds bond framework document often implies a stronger commitment.”¹³⁵ The lack of mandatory sustainability disclosures thus also increases the risk that issuers limit accountability and potentially engage in greenwashing. This is exacerbated by the lack of explicit procedural safeguards to ensure that sustainability information included in the prospectus is supported by scientific evidence.

Third, the lack of explicit requirements undermines the comparative value of the sustainability information disclosed in prospectuses. As issuers have no mandatory format to follow, both the qualitative and quantitative sustainability information contained in prospectuses will vary substantially between issuers. This directly undermines the ability of investors to compare investment opportunities.

Fourth, other than the previous three issues, which are mainly relevant for sustainable bonds as they undermine investors’ ability to assess the level of sustainability commitment of the sustainable bond and compare sustainable bonds to each other on that point, a particular problem arises for conventional bonds. For these bonds, the sustainability disclosures that have to be made on the basis of the open norms are far more succinct and mainly focus on risks. As sustainability risks are becoming more relevant, it is crucial that these are well integrated into the prospectus. However, with no explicit requirements, the risk is substantial that this information will be omitted accidentally or purposefully. This fundamentally undermines the ability of investors to form a complete picture of the risks of an investment.

It can be concluded that the information needs of investors are not met by the PR, as the disclosures are most likely incomplete, possibly inaccurate, and definitely incoherent across the market. It will be difficult to assess the sustainability position of an issuer based on a prospectus, and even more challenging to compare investment opportunities in terms of sustainability. This issue is further underscored by the fact that institutional investors have

134 I Chiu I. & P. Schammo, “Integrating Sustainable Finance into the Prospectus Regulation” in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025.

135 Financial Conduct Authority, “ESG integration in UK capital markets: Feedback to CP21/18”, Feedback Statement FS22/4, June 2022, available at: <https://www.fca.org.uk/publications/feedback-statements/fs22-4-esg-integration-uk-capital-markets>, accessed on: 1 July 2024.

cited the lack of reliable information as one of the most important reasons for not considering sustainability information in their investment decisions.¹³⁶

The deficiencies in the sustainability information contained in prospectuses seem particularly unnecessary, given that issuers subject to the CSRD will be required to extensively generate this information annually.¹³⁷ The Listing Act will mandate that issuers of securities incorporate their annual sustainability report – based on the CSRD – into the prospectus. However, for other securities such as bonds, without an explicit requirement to integrate that information into the prospectus, these information asymmetries are likely to persist.

4 THE EUROPEAN GREEN BOND STANDARD

4.1 Introduction

One issue that prevents investors from investing in more environmentally sustainable economic activities is the inability to quickly identify which bonds pursue sustainable objectives.¹³⁸ To address this, issuers can issue European Green Bonds, which have been introduced in November 2023 by means of EU Green Bond Standard Regulation (“EuGBR”) and are part of the EU SFF.¹³⁹ This “gold standard” contains initial and ongoing transparency requirements, is backed by the Taxonomy-regulation, and features a rigid system of requirements for external reviewers.¹⁴⁰

136 Eccles R.G., Kastrapeli M.D. & Potter S.J., “How to Integrate ESG into Investment Decision-Making: Results of a Global Survey of Institutional Investors”, *Journal of Applied Corporate Finance* 2017, vol. 29(4), p. 125-133. By conducting a global survey of 582 institutional investors, the authors found that the biggest barrier to integrating ESG factors in investment decision-making processes is the lack of high quality data about the ESG performance of companies (p. 130).

137 See: paragraph 3.3 for the scope of the CSRD (The CSRD applies to, in short, (i) credit institutions; (ii) insurance companies; (iii) all large companies; and (iv) all listed companies regardless of their size. Excluded issuers are *i.a.* non-listed SMEs and listed micro-enterprises).

138 Recital 3 EuGBR.

139 Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds (“EuGBR”).

140 Lidman E., “The EU Framework on ESG”, in: Kuntz T. (ed.), *Research Handbook on Environmental, Social and Corporate Governance*, Edgar Elgar 2024, p. 387-388; Mulder W.F., “EU Green Bond Standard”, in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022, p. 347-365; Lieveise C.W.M. & Schoonewille T.G., “Duurzaam financieren: green bonds” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 214; Renner M., “Die geplante „European Green Bond“-Verordnung und ihre (international-)privatrechtliche Durchsetzung”, *Zeitschrift für Bankrecht und Bankwirtschaft* 2023, Band 35, Heft 1, p. 23.

To evaluate whether the EuGBR contributes to an efficient allocation of resources by reducing information asymmetries between investors and issuers, I first discuss the background and aims of the EuGBR (para. 4.2) and its scope (para. 4.3). In paragraphs 4.4 – 4.7, I focus on the rules for the labels usage, transparency requirements, external review criteria, and the system of supervision. To evaluate the EuGBR (para. 4.8), I rely on the normative framework from paragraph 2: whether the information disclosed pursuant to the EuGBR is complete, coherent, and accurate. I also assess the (prospective) popularity of the standard.¹⁴¹ The reason for this is that the EuGBR will not reduce information asymmetries if it is not used in practice, even if it meets the criteria of completeness, coherency, and accuracy.

4.2 Background and Aims

Sustainable bonds encompass a significant market in financial instruments. The exact size of that market depends on what definition is used. The Climate Bond Initiative – which defines sustainable debt to include green, social, sustainability, sustainability-linked, and transition bonds – estimated that the total amount of new sustainable debt in 2022 amounted to USD 858.5 billion.¹⁴² The size of the ‘green’ bond market – defined as those bonds dedicated to environmental benefits – in that year amounted to USD 487.1 billion according to the Climate Bond Initiative.¹⁴³ According to Bloomberg, the issuance of impact bonds – green, social, sustainable and sustainability-linked bonds – amounted to USD 939 billion in 2023.¹⁴⁴ Regardless of the exact definitions used to measure the market volume, it is clear that the sustainable debt market is significant. Moreover, what qualifies as sustainable debt is mainly privately regulated through initiatives such as the popular ICMA Green Bond Principles¹⁴⁵ and the Sustainability-Linked Bond Principles.¹⁴⁶ These principles do not use a closed definition of ‘green’ or ‘sustainable,’ nor do they provide unequivocal requirements for third-party verification. This has led

141 See also: Lieverse C.W.M. & Schoonewille T.G., “Duurzaam financieren: green bonds” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, para. 8.3.6.

142 The Climate Bond Initiative, “Sustainable Debt Global State of the Market 2022”, 2022, available at: https://www.climatebonds.net/files/reports/cbi_sotm_2022_03e.pdf, accessed on: 15 May 2024, p. 4.

143 The Climate Bond Initiative, “Sustainable Debt Global State of the Market 2022”, 2022, available at: https://www.climatebonds.net/files/reports/cbi_sotm_2022_03e.pdf, accessed on: 15 May 2024, p. 5.

144 Gardiner J. & Freke T., “Green bonds reached new heights in 2023”, Bloomberg 8 February 2024, available at: <https://www.bloomberg.com/professional/insights/trading/green-bonds-reached-new-heights-in-2023/#:~:text=A%20total%20of%20%24190%20billion,bonds%20were%20issued%20in%202021>, accessed on: 15 May 2024.

145 ICMA, *Green Bond Principles*, June 2021.

146 ICMA, *Sustainability-Linked Bond Principles*, June 2020.

to a multitude of definitions for ‘sustainable’, private labels, and differing approaches among third-party verifiers.¹⁴⁷ Paradoxically, the multitude of definitions, labels, and external review methods may negatively impact the market in sustainable investments as the fragmented disclosure framework, in combination with information overload, forms a serious obstacle for reaching an investment decision.¹⁴⁸

The EU aims to counteract these negative effects with the EuGBR. The objective of the EuGBR is to create uniform and specific requirements for the use of the designation ‘European Green Bond’ or ‘EuGB’, increase alignment with the Paris Agreement, and lay down rules for the external reviewers who certify such bonds.¹⁴⁹ Additionally, the EuGBR provides optional disclosure templates for environmentally sustainable bonds and sustainability-linked bonds (further omitted from this research).¹⁵⁰ The widespread use of the EuGBR should enable investors to more easily identify and compare investment opportunities that contribute to the goals laid down in the Paris Agreement and thereby increase investments in environmentally sustainable economic activities.¹⁵¹

4.3 Scope

The EuGBR applies to all issuers who intend to use the designation ‘European Green Bond’ or ‘EuGB’.¹⁵² It can be used by private issuers as well as public issuers such as sovereigns.¹⁵³ Moreover, issuers are not limited to the EU,

147 Ehlers T. & Packer F., “Green bond finance and certification”, *Bank for International Settlements Quarterly Review*, September 2017, available at: https://www.bis.org/publ/qrtrpdf/r_qt1709h.pdf, p. 89, 93-95.

148 Pyka M., “The EU Green Bond Standard: A Plausible Response to the Deficiencies of the EU Green Bond Market?”, *European Business Organization Law Review* 2023, vol. 24, p. 623, 626. On information overload in relation to decision-making in general: Casey C.J., “Variations in Accounting Information Load: The Effect on Loan Officers’ Predictions of Bankruptcy”, *The Accounting Review* 1980, vol. 55(1), p. 36; Eppler M.J. & Mengis J., “The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines”, *The Information Society* 2004, vol. 20(5), p. 325; Laud R.L. & Schepers D.H., “Beyond Transparency: Information Overload and a Model for Intelligibility”, *Business and Society Review* 2009, vol. 114(3), p. 365. On information overload in relation to non-financial reporting: Baumüller J. & Schaffhauser-Linzatti M., “In search of materiality for nonfinancial information – reporting requirements of the Directive 2014/95/EU”, *NachhaltigkeitsManagementForum | Sustainability Management Forum* 2018, vol. 26, p. 101, 102.

149 Recitals 6, 7, 8 EuGBR. See also: Lieverse C.W.M. & Schoonewille T.G., “Duurzaam financieren: green bonds” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023.

150 Articles 20-21 EuGBR.

151 Recital 8 EuGBR.

152 Article 1 (a) EuGBR.

153 Recital 3 EuGBR. In principle, the EU thus has chosen for a single standard for both private and sovereign bonds.

and any issuer may choose to make use of the EuGBR except those from a very limited number of jurisdictions that are non-cooperative for tax purposes or high-risk countries.¹⁵⁴ In principle, the EU thus has chosen a single standard for both private and sovereign bonds, although sovereign issuers have slightly more flexibility in the use of proceeds than private issuers.¹⁵⁵

4.4 Use of Proceeds

The main rule of the EuGBR is that the proceeds of a bond must be allocated to an environmentally sustainable economic activity, as defined in the TR, in order to qualify as a 'European Green Bond' or 'EuGB'.¹⁵⁶ Article 3 TR lists the criteria for qualifying as 'environmentally sustainable economic activities':

1. Contribute to one or more environmental objectives set out in article 9 TR in accordance with articles 10-16 TR, including the technical screening criteria based thereupon;
2. Do no significant harm to any of the environmental objectives;
3. Respect minimum safeguards on human and workers' rights (art. 18 TR).

This means that the activity financed by the bonds must meet the strict technical screening criteria ("TSC") set out in the delegated regulations to the TR, as well as the 'do no significant harm' criteria and minimum workers' rights standards.¹⁵⁷ Note that Taxonomy-aligned activities encompass three types of activities: (1) 'normal' Taxonomy-aligned activities; (2) enabling activities; and (3) transitional activities.¹⁵⁸ As discussed in Chapter 3, European issuers

154 Article 9 EuGBR. The non-cooperative jurisdictions for tax purposes are, per 8 October 2024: American Samoa; Anguilla; Fiji; Guam; Palau; Panama; Russia; Samoa; Trinidad and Tobago; The US Virgin Islands; Vanuatu (Annex I to the Council conclusions on the revised EU list of non-cooperative jurisdictions for tax purposes). High-risk countries are, per 23 September 2016: Afghanistan; Bosnia and Herzegovina; Guyana; Iraq; Lao PDR; Syria; Uganda; Vanuatu; Yemen; Iran; Democratic People's Republic of Korea (Annex to Delegated Regulation (EU) 2016/1675).

155 Article 4 (3) EuGBR. For a discussion on the advantages and disadvantages of a single standard for both corporate and sovereign issuers, see: Badenhop N., "Green Bonds: An assessment of the proposed EU Green Bond Standard and its potential to prevent greenwashing", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, European Parliament 2022, PE 703.359, p. 46-49.

156 Article 4 EuGBR; Maragopoulos, N., "Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance", in: Ramos Muñoz D.R. & Smoleňska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 31-34.

157 See: paragraph 5.2 of Chapter 3.

158 See paragraph 5.3.1 of Chapter 3. 'Transitional economic activity' means an economic activity that complies with the requirements laid down in Article 10 (2) TR; 'enabling economic activity' means an economic activity that complies with the requirements laid down in Article 16 TR.

that fall within the scope of the CSRD will already have to familiarize themselves with the Taxonomy Regulation in order to fulfil their annual reporting obligations under the CSRD.¹⁵⁹ This is not the case for non-European issuers, who may be more deterred by the regulatory complexity of the EuGBR than European issuers.

While alignment with the TR is assessed *ex post* under the CSRD obligations, the EuGBR requires *ex ante* alignment of an activity that has not yet been undertaken. In order to qualify as a European Green Bond, the issuer must, therefore, draw up a plan detailing how the capital raised will ultimately contribute to a Taxonomy-aligned economic activity, the so-called CapEx plan.¹⁶⁰ In this CapEx plan, two main categories of expected spending must be distinguished. First, capital expenditure refers to spending on tangible and intangible assets of the business, such as buildings, machines, and technology.¹⁶¹ Second, operating expenditure, which are the costs associated with running the business on a day-to-day basis, including research and development, building renovations, short-term leases, maintenance, etc.¹⁶² The CapEx plan thus provides an overview of how the spending ultimately results in a Taxonomy-aligned activity.

There are two situations in which issuers may allocate 15% of the proceeds to non-Taxonomy aligned activities. The first situation is that there are no TSC yet in force for the activity that the issuer intends to finance.¹⁶³ In this situation, the issuer must ensure that the activity meets the generic 'do no significant harm' criteria set out in CDR 2021/2139, which contains the TSC for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives.¹⁶⁴ This exemption is especially significant in the first years after the entry into force of the TR and the EuGBR as the development of TSC is an ongoing process with certain economic activities yet to be fully addressed. The second situation pertains to climate financing under the UNFCCC and development assistance under the OECD.¹⁶⁵ For both, the issuers are under a best efforts obligation to ensure that the activities financed still meet the relevant TSC.¹⁶⁶

159 See: paragraph 3.3 for the scope of the CSRD (The CSRD applies to, in short, (i) credit institutions; (ii) insurance companies; (iii) all large companies; and (iv) all listed companies regardless of their size. Excluded issuers are i.a. non-listed SMEs and listed micro-enterprises). See paragraph 5.2 for the applicability of the TR on issuers subject to the CSRD.

160 Article 7 and 2 (13) EuGBR and Annex I point 1.1.2.1 CDR 2021/2178.

161 Annex I point 1.1.2.1 CDR 2021/2178.

162 Annex I point 1.1.3.1 CDR 2021/2178.

163 Article 5 (1) (a) EuGBR.

164 Article 5 (3) EuGBR.

165 Article 5 (1) (b) EuGBR.

166 Article 5 (4) EuGBR.

It follows that the application of the main rule that the proceeds of the bonds must be spend 100% Taxonomy-aligned is rather rigid. This is also reflected in article 6, which limits the use of proceeds for financial assets. This is only allowed if there are no more than three subsequent financial assets in succession, the proceeds from the financial asset last in sequence is used to finance an activity that meets the Taxonomy requirements, and if external reviewers can effectively review the final allocation of proceeds.¹⁶⁷

4.5 Transparency Requirements

In addition to the use of proceed requirements, the EuGBR establishes extensive transparency requirements. Firstly, the issuer must make public a European Green Bond factsheet and pre-issuance review prior to issuing the bonds. Secondly, annual allocation reports and post-issuance reviews of allocation reports must be made available. Thirdly, an impact report must be published once during the lifetime of the bonds and after full allocation of the proceeds. The obligation to publish a prospectus pursuant to the Prospectus Regulation also applies for European Green Bonds.¹⁶⁸

4.5.1 Factsheet and Pre-Issuance Review

Prior to issuing the bonds, the issuer must complete a European Green Bond factsheet.¹⁶⁹ The information that must be included in the factsheet is set out in Annex I to the EuGBR. In essence, the factsheet must contain very detailed information on the allocation of the proceeds to Taxonomy-aligned activities and how the bonds are expected to contribute to environmentally sustainable economic activities in the sense of the TR, as well as the environmental impact of the bonds.¹⁷⁰ All information contained in the factsheet must be approved by an external reviewer.¹⁷¹ As the EuGBR only applies to Taxonomy-aligned bonds, all this information should be substantiated by scientific evidence on how the project financed by the proceeds should meet the TR requirements.

The information contained in this factsheet qualifies as ‘regulated information’ in the sense of the Prospectus Regulation.¹⁷² This means that the infor-

¹⁶⁷ Article 6 EuGBR.

¹⁶⁸ Article 9 EuGBR.

¹⁶⁹ Article 10 EuGBR. Maragopoulos, N., “Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 36.

¹⁷⁰ Annex I EuGBR.

¹⁷¹ Article 10 (1) (b) EuGBR.

¹⁷² Article 14 (3) EuGBR.

mation from the factsheet must be made available in the Prospectus.¹⁷³ This obligation not only stems from the EuGBR but has also been incorporated in the PR by means of the Listing Act, which *inter alia* aims to ensure consistency between information disclosed on the basis of the PR on the one hand, and information to be disclosed on the basis of the EuGBR on the other hand.¹⁷⁴ Hence, according to (the new) article 13 (1a) PR, the factsheet for a European Green Bond must be incorporated by reference into the prospectus.¹⁷⁵ Moreover, the factsheet must be published on the website of the issuer.¹⁷⁶ From 10 January 2030, both factsheet and pre-issuance review must also be made accessible on the European single access point ESAP.¹⁷⁷ This, too, is aligned to the obligation to make accessible information disclosed under the Prospectus Regulation – notably, the prospectus – via the ESAP.¹⁷⁸

4.5.2 Allocation reports and post-issuance review

After issuing the bonds, the issuer must draw up an annual allocation report to demonstrate that the proceeds are allocated to environmentally sustainable economic activities as set out in article 4 EuGBR.¹⁷⁹ The allocation report must contain the information set out in Annex II to the EuGBR. In particular, the report should give insight into the progress that is made on the CapEx plan.¹⁸⁰ The information in the allocation report must be reviewed by an external reviewer, and both the report and review must be made available on the website of the issuer.¹⁸¹

Note that issuers are in general obligated to make available a (half-)yearly financial and management report and review that provides “a true and fair view of the assets, liabilities, financial position and profit or loss of the issuer” on the basis of the rules that apply to issuers whose securities are admitted to trading on a regulated market (Directive 2004/109/EC).¹⁸² However, other than with the factsheet and pre-issuance review, which are explicitly incorpor-

173 Article 19 (1) (c) PR and article 2 (1) (k) Directive 2004/109/EC.

174 Recital 26 Listing Act Regulation.

175 Article 1 (10) (b) Listing Act Regulation.

176 Article 15 (1) EuGBR.

177 Article 15a EuGBR.

178 Article 1 Regulation (EU) 2023/2859 (ESAP Regulation).

179 Article 11 EuGBR. Maragopoulos, N., “Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance”, in: Ramos Muñoz D.R. & Smoleňska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 37.

180 If the obligation to have such a plan applies, which is likely.

181 Article 11 (4), article 13 (1) EuGBR.

182 Article 5 (2) (c) Directive 2004/109/EC. NB.: Although the Directive mandates the publication of (half-)yearly financial reports, this obligation often exists on a quarterly basis on the basis of national law or the rules of the regulated market to which the securities are admitted or on the own initiative of the issuer in accordance with article 6 (3) Directive 2004/109/EC.

ated into the prospectus-regime, the allocation reports and post-issuance review are stand-alone obligations from the EuGBR and is not explicitly linked to Directive 2004/109/EC. Nonetheless, it can be expected that the disclosures to be made via the allocation report may accompany the (half-)yearly management report. From 2030 onward, the post-issuance reviews and the annual allocation reports must also be accessible on the ESAP.¹⁸³ This obligation, too, runs parallel to the obligation to make available the (half-yearly) financial and management report and review via the ESAP.¹⁸⁴

4.5.3 Impact Report

After the full allocation of the proceeds of the bonds, and at least once during the lifetime of the bonds, the issuer must draw up an impact report on the environmental impact of the use of the bond proceeds.¹⁸⁵ This impact report must contain the information specified in Annex III, which includes an estimation of the positive and negative environmental impacts in aggregated form, as well as the relevant metrics, methodologies, and assumptions. Other than the factsheet and the allocation report, it is not mandatory to have the impact report reviewed by an external reviewer.¹⁸⁶ The impact report, too, must be made available on the issuer's website and from 2030 onward be made accessible on the ESAP.¹⁸⁷ A second difference from the factsheet and allocation report is that no similar obligation applies to issuers on the basis of other Union law: there is no specific legal obligation to disclose the impact of the allocation of proceeds of 'regular' bonds, as this information is (to some extent) included in the (half-)yearly financial and management report. The reason for this could be that 'normal' bonds may not be as intimately linked to realizing a specific and scientifically measurable (environmental) objective, whereas European Green Bonds carry the explicit promise to result in Taxonomy-aligned activities. For these bonds, it thus may be more necessary to have some form of check that the proceeds have not only been spent in an economically justifiable manner but also in line with the environmental objectives that initially intended to be achieved. It thus is all the more surprising that the impact report need not be reviewed by an external reviewer.

183 Article 15a EuGBR.

184 Article 1 Regulation (EU) 2023/2859 (ESAP Regulation).

185 Article 12 EuGBR. Maragopoulos, N., "Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance", in: Ramos Muñoz D.R. & Smoleňska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 38.

186 Article 12 (3) EuGBR.

187 Article 15 (1) (h), article 15a (1) EuGBR.

4.6 External Reviewers

Most information that issuers disclose under the EuGBR must be reviewed by an external reviewer, who must “ensure that their reviews provide an opinion based on a thorough analysis of all information available to them.”¹⁸⁸ Specifically, the pre-issuance fact sheet and the post-issuance allocation reports require mandatory external review, while such review is optional for the impact report. This approach aligns with other prominent green bond frameworks, such as the CBI Climate Bond Standard and the ICMA Green Bond Principles, which similarly incorporate external review mechanisms.¹⁸⁹ The rationale behind this practice is that independent external reviewers can validate the “greenness” of the bond, thereby mitigating investors’ concerns about greenwashing and self-labelling.¹⁹⁰ Moreover, research suggests that issuers who seek external reviews are likely to be more sustainable compared to those who do not seek such validation.¹⁹¹

The reliance on external reviewers, however, presents potential risks. I discuss some of these risks by (partially) relying on literature that has been written on Credit Rating Agencies (CRAs), given the parallels between CRAs and external reviewers.¹⁹² Both are independent entities that provide the market with independent information, and both can significantly influence the market in which they operate.¹⁹³ Moreover, both operate under the so-called “issuer-pays” model that can potentially compromise their independence and create a conflict of interest.¹⁹⁴ This has the potential to undermine the purpose of the green bond label itself – while external reviews are meant to

188 Article 31 (1) EuGBR. The EuGBR does not contain a specific standard of assurance.

189 See also: Brückbauer F., e.a., “Does the European Union need another green bond standard?”, ZEW – Leibniz-Zentrum für Europäische Wirtschaftsforschung, Mannheim Policy Brief No. 10/2023, available at: <https://hdl.handle.net/10419/279678>. Note that external review is voluntary but encouraged for the ICMA Green Bond Principles.

190 Simeth N., “The value of external reviews in the secondary green bond market”, *Finance Research Letters* 2022, vol. 46, 102306, p. 6. See also: Lewandowski W. & Smoleńska A., “Member States Sovereign Green Bond Issuance and the Development of Local Green Bond Markets in the EU”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 75.

191 Dinh T., Eugster F. & Husmann A., “Corporate Green Bonds: The Role of External Reviews for Investment Greenness and Disclosure Quality *Swiss Finance Institute Research Paper* 2023, No. 22-23.

192 Rogge E. & Ohnesorge L., “The Role of ESG Rating Agencies and Market Efficiency in Europe’s Climate Policy”, *Hastings Environmental Law Journal* 2022, vol. 28(2), p. 113, 130-133.

193 Rose P., “Certifying the ‘Climate’ in climate bonds”, *Capital Markets Law Journal* 2019, vol. 14(1), p. 59, 61; Escrig-Olmedo, E., e.a., “Rating the Raters: Evaluating how ESG Rating Agencies Integrate Sustainability Principles”, *Sustainability* 2019, vol. 11, 915.

194 See generally on conflict of interest for CRAs: Bai L., “On Regulating Conflicts of Interest in the Credit Rating Industry”, *N.Y.U. Journal of Legislation & Public Policy* 2010, vol. 13, p. 253. Also: Verheij D.J., *Credit rating agency liability in Europe*, Eleven International Publishing 2021, p. 84.

increase investor confidence in the credibility of the bond, awareness of the potential conflict of interest may actually erode investor trust in the independence of the external reviewer.¹⁹⁵ This challenge is also recognized by the European Commission, which has introduced elaborate requirements for external reviewers under the EuGBR. I discuss the challenges surrounding the independence of external reviewers and legislative responses in more detail in the following sections.

4.6.1 Gatekeeping and Conflicts of Interest

External reviewers play a dual role in the EuGBR framework. The primary role of external reviewers is to verify information disclosed by the issuer.¹⁹⁶ By performing this task, they help reduce information asymmetries by ensuring that investors can trust in the accuracy of the disclosures of the issuer.¹⁹⁷ This verification function is fundamental for market efficiency. As I discussed in Chapter 2, when investors cannot reliably assess the accuracy of the information that is disclosed about a product, such as the sustainability information that is disclosed for a bond, they cannot accurately determine its market value.¹⁹⁸ The second role that external reviewers perform is that of professional gatekeepers.¹⁹⁹ What is meant by this is that through their verification services, external reviewers effectively determine which bonds are genuine European Green Bond and therefore should be invested in, and which bonds do not qualify as European Green Bond and should thus be avoided by investors seeking to invest in environmentally sustainable economic activities.²⁰⁰ This gatekeeping role makes external reviewers essential for the functioning of the EU SFF by ensuring that capital is allocated to projects that genuinely help transition to a climate-neutral future. They are thus an integral part of the market is sustainable finance.²⁰¹

195 For example: Allman E. & Lock B., “External reviews and green bond credibility”, *Journal of Climate Finance* 2024, vol. 7, 100036.

196 For example: Allman E. & Lock B., “External reviews and green bond credibility”, *Journal of Climate Finance* 2024, vol. 7, 100036.

197 For example: Lewandowski W. & Smoleńska A., “Member States Sovereign Green Bond Issuance and the Development of Local Green Bond Markets in the EU”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 75.

198 See: paragraph 3.4.1 of Chapter 2 on Information Asymmetries and the “Lemon Problem”.

199 García E.C. & Agostini F., “The Green Bonds Market in the Light of European Commission’s Proposal: Implications for Greenwashing Liability”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 155; Coffee J.C., “Understanding Enron: “It’s About Gatekeepers, Stupid””, *The Business Lawyer* 2002, vol. 57(4), p. 1403, 1405.

200 Smyth S., e.a., “From gatekeepers to constructors: Credit rating agencies and the financialization of housing associations”, *Critical Perspectives on Accounting* 2020, Vol. 71, 102093, p. 5.

201 Smyth S., e.a., “From gatekeepers to constructors: Credit rating agencies and the financialization of housing associations”, *Critical Perspectives on Accounting* 2020, Vol. 71, 102093, p. 5.

The reason why the EuGBR relies on external reviewers rests on the presumption that they face fewer incentives to manipulate sustainability information than the issuers of European Green Bonds. After all, issuers have a clear motivation to mispresent their compliance with the standard when they do not meet the criteria set in the EuGBR: failing to meet the standards will not only deter investors but also can create reputational damage for the issuer – although misrepresentation in itself also creates reputational and liability risks.²⁰² Not being able to meet the requirements of the EuGBR thus has direct financial consequences for issuers of European Green Bonds. Conversely, external reviewers should face fewer direct financial consequences from negative assessments, which leads to the presumption that their reviews carry greater credibility than the issuer disclosures.²⁰³ What complicates this line of reasoning is the fact that the external reviewers are paid by issuers and thus depend financially on the issuers whom they evaluate.²⁰⁴ This creates an inherent conflict of interest: rather than providing independent, potentially negative reports, external reviewers may be incentivized to cater to the needs of the issuers upon whom they are financially dependent. Against this, it can be argued that in the long run, an external reviewer that compromises its integrity risks reputational damage.²⁰⁵ This reputational risk should, in theory, discourage reviewers from prioritizing issuer's preferences over an objective assessment.²⁰⁶

The experience with CRAs has led to the identification of other circumstances that undermine this model of external reviews, in particular, the lack of competition and inadequate supervision.²⁰⁷ These are practical problems related to how the market for external reviewers operates, which may or may not arise

202 Coffee J.C., "Understanding Enron: 'It's About Gatekeepers, Stupid'", *The Business Lawyer* 2002, vol. 57(4), p. 1403, 1405.

203 García E.C. & Agostini F., "The Green Bonds Market in the Light of European Commission's Proposal: Implications for Greenwashing Liability", in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 154-158.

204 This is referred to as the issuer-pays model, which is common for third-party verifiers. For a discussion on ESG ratings and the issuer-pays model, see: Lovo S. & Olivier J., "Who should pay for ESG ratings?", *HEC Paris Research Paper Forthcoming* 2025, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5106010.

205 For example: White L.J., "The Credit Rating Agencies and Their Role in the Financial System", in: E. Brousseau (ed.), *Oxford Handbook on Institutions, International Economic Governance, and Market Regulation*, Oxford University Press (forthcoming) June 2018, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3192475.

206 For example: L White L.J., "The Credit Rating Agencies and Their Role in the Financial System", in: E. Brousseau (ed.), *Oxford Handbook on Institutions, International Economic Governance, and Market Regulation*, Oxford University Press (forthcoming) June 2018, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3192475.

207 See for an inventory of reasons why the gatekeeper system failed in the context of the global financial crisis of 2008: Coffee J.C., "Understanding Enron: 'It's About Gatekeepers, Stupid'", *The Business Lawyer* 2002, vol. 57(4), p. 1403, 1409-1416.

in the context of EuGBR reviewers. However, early research on ESG verifiers suggests that similar concerns may materialize. For example, Avetisyan and Hockerts find that the market for ESG verifiers suffers from lack of competition and concentrates among a handful of large players.²⁰⁸ Rose points out another practical problem, namely that there may be a general lack of scientific knowledge and expertise required to conduct sustainability reviews as the market is still developing.²⁰⁹

There thus are a number of concerns that underscore why it is necessary that EuGBR contains robust regulation for external reviewers. This framework should be informed by the following three points. First, external reviewers should possess the capacity to produce high-quality, objective reviews. Second, the regulatory framework must contain sufficient safeguards against potential conflicts of interest and to the gatekeeper role that external reviewers fulfil. Third, without a properly functioning mandatory external review system, the credibility of the European Green Bond will be weakened, and the EuGBR could become a failure. The success of the external review system will thus largely dictate the success of the EuGBR and its intended objective of facilitating more investments in environmentally sustainable economic activities.

4.6.2 Regulation of External Reviewers under the EuGBR

Articles 22 – 43 EuGBR contain the rules that apply to external reviewers. In this paragraph, I highlight three key components.

First, all external reviewers must register with ESMA and satisfy the conditions set in article 23 EuGBR.²¹⁰ These entry-requirements *inter alia* focus on organisational capacity by addressing elements such as the experience of the senior management and members of the board regarding “quality assurance, quality control, the performance of pre-issuance, post-issuance and impact report reviews”, as well as the number of analysts employed by the external reviewer and their level of knowledge, experience and training.²¹¹ While article 23 EuGBR establishes in general that external reviewers must have sufficient capacity to perform the reviews, the requirements will be further detailed in regulatory technical standards.²¹² Notably, the registration regime

208 Avetisyan E. & Hockerts K., “The Consolidation of the ESG Rating Industry as an Enactment of Institutional Retrogression”, *Business Strategy and the Environment* 2017, vol. 26(3), p. 316.

209 Rose P., “Certifying the ‘Climate’ in climate bonds”, *Capital Markets Law Journal* 2019, vol. 14(1), p. 59, 63, 70-73.

210 Article 22 (1) EuGBR. See also: Maragopoulos, N., “Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance”, in: Ramos Muñoz D.R. & Smoleňska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 40-42.

211 Article 23 (2) (a) and (b) EuGBR.

212 Article 23 (6) EuGBR.

will only commence on 21 June 2026.²¹³ Before that period, a transitional regime will apply, which merely requires the issuer to notify ESMA and provide the information specified under article 23 (1) EuGBR.²¹⁴ During the transition period, the external reviewers are under a best efforts obligation to comply with article 24-38.²¹⁵

Second, the EuGBR imposes significant organisational and governance requirements on external reviewers.²¹⁶ For example, external reviewers must implement systems to monitor and evaluate the adequacy of their procedures, ensure their personnel possesses appropriate qualifications and receives adequate training, and maintain permanent compliance mechanisms.²¹⁷ Again, these requirements will be elaborated in regulatory technical standards.²¹⁸ Of particular significance is article 35 EuGBR, which concerns the management of conflicts of interest. While the regulation does not define what is meant by a conflict of interest, it does establish several measures to minimize the risk of any such conflict. These include:

- The duty to conduct pre-contractual assessment of whether there is an actual or potential conflict of interest.²¹⁹
- The obligation to disclose any actual or potential conflict of interest regarding analysts, employees, shareholders, contractually related persons, and any person approving the reviews.²²⁰
- The prohibition to issue a review when an actual or potential conflict of interest was identified.²²¹
- The fees charged for the review may not depend on the results of the work performed.²²²
- Analysts and employees of the external reviewer are bound by secrecy.²²³
- Measures against fraud, theft, or misuse.²²⁴

The EuGBR does not demand that different external reviewers be used for the pre- and post-issuance verification. Lewandowski and Smoleńska point

213 Article 69 EuGBR.

214 Article 69 EuGBR. These are mainly logistical details, such as the full name, address and legal entity identifier of the applicant.

215 Article 23 (2) last paragraph EuGBR.

216 Article 26 – 36 EuGBR. See also: Maragopoulos, N., “Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 42-44.

217 Articles 26 – 29 EuGBR.

218 Article 26 EuGBR. ESMA shall submit the draft regulatory technical standards to the Commission by 21 December 2025.

219 Article 35 (2) EuGBR.

220 Article 35 (1) EuGBR.

221 Article 35 (2) EuGBR.

222 Article 35 (3) EuGBR.

223 Article 35 (4) EuGBR.

224 Article 35 (5) EuGBR.

out that using the same reviewer for pre- and post-issuance verification may create a conflict of interest, while the use of different reviewers adds an additional level of control.²²⁵

Third, the EuGBR contains rules on third-country external reviewers based on the principle of equivalence.²²⁶ The EuGBR does not require that the reviewer be located in the EU. This makes sense given that non-EU issuers may use the EuGBR and that the projects which are financed by the bonds may also be located outside of the EU. Instead, the regulation contains a third-country regime for external reviewers on the basis of the principle of equivalence.²²⁷ In essence, the principle of equivalence entails that the Commission can issue an equivalence decision stating that a third country is considered to be equivalent to the EU in regard to a particular service, the consequence of which is that a provider of such a service from that country has access to the EU market.²²⁸ In general, EU law currently recognizes 40 different mechanisms for equivalence decisions.²²⁹ In the EuGBR, the equivalence decision for external reviewers is regulated in articles 39 – 43. The Commission may consider the regulatory framework of the third country equivalent to that of the EU if the external reviewers in that country are subject to registration or authorization requirements, effective supervision and enforcement, adhere to organizational requirements regarding internal control, and follow suitable conduct of business rules.²³⁰

It is worth noting that parallel to the EuGBR, the EU also intends to regulate other ESG rating providers by means of the Regulation on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities (“ESGR”).²³¹ According to this regulation, ESG rating providers established in the EU require authorization from ESMA.²³² Moreover, this regulation

225 Lewandowski W. & Smoleńska A., “Member States Sovereign Green Bond Issuance and the Development of Local Green Bond Markets in the EU”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 66, 75.

226 Maragopoulos, N., “Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 44-45.

227 Recital 45 EuGBR.

228 Schürger J., *Equivalence and Substituted Compliance in Financial Markets Law*, Oxford University Press 2023, Chapter 2. See also: Commission Staff Working Document: EU equivalence decisions in financial services policy: an assessment SWD(2017) 102 final.

229 Schürger J., *Equivalence and Substituted Compliance in Financial Markets Law*, Oxford University Press 2023, Chapter 2.

230 Article 40 (2) EuGBR.

231 Regulation (EU) 2024/3005 of the European Parliament and of the Council of 27 November 2024 on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities, and amending Regulations (EU) 2019/2088 and (EU) 2023/2859 (“ESGR”). See also: Kreft T. & Schemmer E., “Die Regulierung von ESG-Rating-Anbietern in der EU”, *Europäische Zeitschrift für Wirtschaftsrecht* 2024, Heft 24, p. 1133.

232 Article 5 ESGR.

will introduce rules on the integrity, transparency, good governance and independence of ESG rating activities.²³³ Regardless of the fact that the ESGR and the regulation of external reviewers in the EuGBR topically overlap and contain similar requirements regarding the integrity, transparency, governance, and independence of third-party verifiers, the ESGR does not apply to the external reviewers under the EuGBR.²³⁴ This will effectively result in two regimes for third-party verifiers: one for the external reviewers for European Green Bonds and one for ESG rating providers for other sustainable financial products, such as sustainable bonds.

4.6.3 Potential Issues

As I discussed in paragraph 4.6.1, the success of the external review system under the EuGBR depends on (1) external reviewers having sufficient capacity to produce high-quality reviews, (2) robust safeguards against conflicts of interest, and (3) external reviewers effectively fulfilling their gatekeeper role to maintain the credibility of European Green Bonds. In general, the rules contained in articles 22 – 43 of the EuGBR should ensure that these points are sufficiently met. Given the extensive scope of external reviewer regulation under the EuGBR, the question arises whether the Regulation strikes an appropriate balance between market integrity and operational feasibility or whether it imposes a disproportionate regulatory burden on external reviewers. This impression is confirmed by the responses to a consultation that ESMA held regarding its draft technical standards to which 15 parties responded.²³⁵ All respondents expressed concerns about the regulatory burden imposed by the external review system and its additional draft technical standards. As one respondent formulated it: “implementation of the criteria proposed by ESMA could be disproportionate in terms of effort and cost, particularly for small audit firms, leading to a low number of accreditations and concentration of the EU green bond assurance market.”²³⁶ This concern seems in part validated by the fact that per 31 January 2025, only 14 external reviewers had registered themselves with ESMA.²³⁷

²³³ Article 1 ESGR.

²³⁴ Article 2 (2) (h) ESGR.

²³⁵ ESMA, Consultation Paper, Technical Standards on the European Green Bond Regulation, 26 March 2024, ESMA84-2037069784-2116.

²³⁶ Compagnie Nationale des Commissaires aux Comptes-CNCC, Reply to Consultation Paper on technical standards on the European Green Bonds Regulation 26 March – 14 June 2024, available at: <https://www.esma.europa.eu/press-news/consultations/consultation-european-green-bond-regulation>, p.4.

²³⁷ List of firms that have notified ESMA and meet the obligations under Article 69 or Article 70 of Regulation (EU) 2023/2631, available at: <https://www.esma.europa.eu/esmas-activities/investors-and-issuers/external-reviewers-european-green-bonds>, accessed on: 4 February 2025.

The ESMA consultation process highlights a number of factors that play a role in the regulatory burden that is caused by the extensive requirements for external reviewers, which can be summarised into three main concerns. Firstly, compliance burden may discourage new businesses from entering the market for external reviewers, as well as discourage existing players from expanding their business into providing external reviews for European Green Bonds. The latter group, often audit firms, are already subject to detailed regulatory regimes, so it is cumbersome to comply with a new, additional regime for providing services. A second and related problem is that the external reviewers will be supervised directly by ESMA. However, it is to be expected that mainly audit firms will provide external review services. Audit firms, in general, are subject to supervision by national competent authorities. Splitting the supervision of audit firms between NCAs and ESMA may be an additional reason for auditors not to engage in the provision of external review services as the supervisory architecture becomes increasingly complex. Thirdly, audit firms may be deterred from providing external review services if they also provide 'normal' ESG ratings that will be regulated by the ESG Rating Regulation as this would again entail a parallel regulatory regime. One negative consequence could thus be that the market for external reviewers will concentrate among a handful of players, which can render external reviews as a service more expensive. As already mentioned, there are currently only 14 external reviewers registered with ESMA, confirming this concern. A low number of external reviewers, in turn, can deter issuers from making use of those services and thus decide not to issue European Green Bonds.

The regulatory challenge, therefore, lies in finding the right balance between market integrity and operational viability. The regulation of external reviewers must be robust enough to ensure sufficient capacity for providing the reviews and minimizing conflicts of interest. However, the framework must not be disproportionately burdensome that it effectively undermines the market in external reviewers, and thus in European Green Bonds.

4.7 Supervision

In principle, the national competent authority ("NCA") of the home Member State is responsible for supervising whether the issuer complies with the transparency requirements from articles 10 – 15a EuGBR.²³⁸ Supervision of issuers under the EuGBR thus runs parallel to supervision of issuers under the PR. External reviewers are, however, directly supervised by ESMA, which

238 Article 44 (1) EuGBR; García E.C. & Agostini F., "The Green Bonds Market in the Light of European Commission's Proposal: Implications for Greenwashing Liability", in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 140-142.

has the power to withdraw the registration of an external reviewer, prohibit them from carrying out their activities, and to impose fines.²³⁹ This results in a three-layer system of review regarding the creditability of a European Green Bond: (i) external reviewers conduct the pre- and post-issuance reviews, (ii) NCA's supervise the issuers, and (iii) ESMA supervises the external reviewers.²⁴⁰

One rationale for dividing the supervision of issuers and external reviewers between the NCA and ESMA is to lower transaction and supervisory costs.²⁴¹ The idea is that the information that has to be disclosed by the issuer in the factsheet on the basis of article 10 EuGBR must be contained in the prospectus of the issuer, which is approved by the NCA.²⁴² Moreover, it can be expected that the annual allocation reports of the EuGBR will be made available alongside the (half-)yearly management reports that issuers have to disclose, which is also a matter of national supervision.²⁴³ It makes sense that the impact report too will fall under the supervision of the NCA, as the report is intimately linked with the factsheet and the annual allocation reports. The supervision of the reports that have to be made available under the EuGBR, thus can follow the already present infrastructure for prospectus and (half-)yearly financial and management reports with the NCAs. The reasoning seems to be that there is no available infrastructure yet for the supervision of external reviewers, which are a new type of business. Therefore, it may be efficient to have these supervised by ESMA, as this centralizes the expertise.²⁴⁴ Moreover, ESMA already directly supervises credit rating agencies, indicating that there is expertise in this type of oversight.²⁴⁵ However, as indicated in responses to ESMA's consultation on draft Technical Standards, auditing firms will likely dominate the external review market.²⁴⁶ These auditing firms are supervised by NCAs. This dual supervision – NCAs for auditing activities, ESMA for external review activities – may be inefficient from the perspective of the auditing firm as it is facing two supervisory regimes.

239 Article 59 (1) EuGBR; García E.C. & Agostini F., "The Green Bonds Market in the Light of European Commission's Proposal: Implications for Greenwashing Liability", in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 140-142.

240 García E.C. & Agostini F., "The Green Bonds Market in the Light of European Commission's Proposal: Implications for Greenwashing Liability", in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 155.

241 Recitals 42, 53 EuGBR.

242 Article 14 (3) EuGBR; article 31 PR.

243 Article 19 Directive 2004/109/EC (Accounting Directive).

244 Recital 42 EuGBR.

245 Article 4, 21 Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies.

246 ESMA, Consultation Paper, Technical Standards on the European Green Bond Regulation, 26 March 2024, ESMA84-2037069784-2116.

4.8 Evaluation

4.8.1 Complete

The criteria that I formulated in paragraph 2 to evaluate completeness are (a) that the qualitative disclosures covers all four aspects of the double materiality principle and (b) that quantitative data is included in the disclosures data.²⁴⁷ However, for the EuGBR, this test is not appropriate since the Regulation does not enable the investor to form a complete picture of the sustainability situation of the issuer or the activity that is financed by the bonds. Instead, the EuGBR focusses on one specific piece of information: whether the proceeds of the bonds issued are used for Taxonomy-aligned activities. Therefore, in the specific context of the EuGBR, I consider the information to be complete if it (a) clearly communicates whether the bonds are Taxonomy-aligned and (b) enables the investor to monitor whether the issuer fulfils its commitment of Taxonomy-alignment.

4.8.1.1 Taxonomy-Alignment

The first criterion is fulfilled. As the qualification European Green Bond can only be used for bonds of which the proceeds must be allocated to Taxonomy-aligned activities, the EuGBR enables investors to determine at a glance whether a bond is Taxonomy-aligned. The EuGBR thus can be seen as a tool that makes it easier to interpret information in the factsheet, the Prospectus, and other sources. One important aspect of completeness in the light of information asymmetries is that complete disclosures should enable the investor to compare different investment opportunities. To this, the EuGBR somewhat contributes: it enables an easier comparison on the point of whether a bond is Taxonomy-aligned. The EuGBR thus divides the market in a binary manner: investments are either Taxonomy-aligned or they are not. In a market susceptible to information overload due to disclosures made on the basis of the prospectus and the CSRD – which can form a serious obstacle to reaching an (investment) decision – the EuGBR label is exceptionally easy to interpret and is therefore an incredibly valuable tool.²⁴⁸

²⁴⁷ See: paragraph 2 of this Chapter, also: paragraph 2.1 of Chapter 3.

²⁴⁸ On information overload in relation to decision-making in general: Casey C.J., "Variations in Accounting Information Load: The Effect on Loan Officers' Predictions of Bankruptcy", *The Accounting Review* 1980, vol. 55(1), p. 36; Eppler M.J. & Mengis J., "The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines", *The Information Society* 2004, vol. 20(5), p. 325; Laud R.L. & Schepers D.H., "Beyond Transparency: Information Overload and a Model for Intelligibility", *Business and Society Review* 2009, vol. 114(3), p. 365. On information overload in relation to non-financial reporting: Baumüller J. & Schaffhauser-Linzatti M., "In search of materiality for nonfinancial information – reporting requirements of the Directive 2014/95/EU", *NachhaltigkeitsManagementForum | Sustainability Management Forum* 2018, vol. 26, p. 101, 102.

While acknowledging the value of the EuGBR, there are drawbacks to this manner of transmitting information in the form of a binary labelling system that may limit investors' abilities to compare businesses and consequently diminish their range of investment strategies.²⁴⁹ The label may be too inclusive or exclusive: activities may not receive the label 'sustainable' even though they are not necessarily unsustainable and vice versa.²⁵⁰ Moreover, a binary system may impair the ability of investors to compare opportunities within one category.²⁵¹ This is especially problematic in regard to investment opportunities that are not Taxonomy-aligned and EuGBR certified. These investments encompass the vast majority of the market but lack an interpretative tool that is as easily accessible and reliable as the EuGBR. It would be helpful if a wider range of (mandatory) labels would exist to help investors to quickly discern the sustainability position of other investments. The traffic light system used by the Climate Bond Initiative in their Climate Bond Taxonomy can be used as an example for this.²⁵² To indicate in how far an asset is aligned with the Climate Bond Taxonomy, four categories exist: green for full compatibility; orange for potential compatibility if certain criteria are met; red for incompatible; and grey to indicate that the compatibility has yet to be determined.²⁵³ A similar system is discussed in the report "The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition" by the Platform on Sustainable Finance – an advisory body established under article 20 of the Taxonomy Regulation.²⁵⁴ An alternative approach would be to mandate disclosure of the precise percentage of proceeds allocated to Taxonomy-aligned activities for all bonds, for example, via the PR. This granular disclosure requirement would enable investors to make more nuanced comparisons between investment opportunities, and overcome the limitations of the current binary classification into European Green Bonds that are by definition Taxonomy-aligned and all other bonds.

249 Ehlers T., Goa D. & Packer F., "A taxonomy of sustainable finance taxonomies", *Bank for International Settlements Papers* 2021, no 118, available at: <https://www.bis.org/publ/bppdf/bisap118.pdf>, p. 15-16.

250 Platform on Sustainable Finance, "The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition", *European Commission* March 2022, p. 17.

251 Ehlers T., Goa D. & Packer F., "A taxonomy of sustainable finance taxonomies", *Bank for International Settlements Papers* 2021, no 118, available at: <https://www.bis.org/publ/bppdf/bisap118.pdf>, p. 15-16.

252 The Climate Bond Initiative, "Climate Bonds Taxonomy – A guide to climate aligned assets & projects", September 2018, available at: <https://www.climatebonds.net/files/files/CBI-Taxonomy-Sep18.pdf>, accessed on: 6 May 2024.

253 The Climate Bond Initiative, "Climate Bonds Taxonomy – A guide to climate aligned assets & projects", September 2018, available at: <https://www.climatebonds.net/files/files/CBI-Taxonomy-Sep18.pdf>, accessed on: 6 May 2024, p. 1.

254 Platform on Sustainable Finance, "The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition", *European Commission* March 2022.

4.8.1.2 Monitoring of Commitment

The second criterion, the availability of monitoring tools for the investor to ascertain compliance with the Taxonomy-aligned spending, is also fulfilled. The EuGBR requires the proceeds of the bond to be spent on Taxonomy-aligned activities that have not yet been undertaken. Therefore, in essence, the label initially merely contains a promise that the proceeds will be spent in a Taxonomy-aligned manner. To qualify as a European Green Bond, the issuer must draw up a plan detailing how the capital raised will ultimately contribute to a Taxonomy aligned economic activity, the so-called CapEx plan.²⁵⁵ To enhance the credibility of the bond, it is therefore important that there are sufficient monitoring tools for the investor to ascertain that the issuer is indeed on track with the Taxonomy-aligned activity.²⁵⁶ Here, the annual allocation report plays an important role, which must, among other things, give insight into the progress that is made on the CapEx plan.²⁵⁷ The information in the allocation report must be reviewed by an external reviewer, and both the report and review must be made available on the website of the issuer.²⁵⁸ In addition to the annual allocation report, the issuer must draw up an impact report on the environmental impact of the use of the bond proceeds after the full allocation of the proceeds of the bonds and at least once during the lifetime of the bonds.²⁵⁹ Other than the allocation report, the impact report need not be verified by an external reviewer.

The ongoing reporting of the issuer on the progress made on the CapEx plan, as well as the allocation report, provide investors with substantive tools to monitor the issuers. However, the fact that impact reports do not require external verification may potentially limit the ability of investors to fully assess the environmental outcomes of their investments. Nevertheless, these reporting obligations represent a significant step forward in ensuring that investors have sufficient monitoring tools to assess whether the issuer is fulfilling its sustainability commitments.

²⁵⁵ Article 7 and 2 (13) EuGBR and Annex I point 1.1.2.1 CDR 2021/2178.

²⁵⁶ Lewandowski W. & Smoleńska A., “Member States Sovereign Green Bond Issuance and the Development of Local Green Bond Markets in the EU”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023.

²⁵⁷ If the obligation to have such a plan applies, which is likely.

²⁵⁸ Article 11 (4), article 13 (1) EuGBR.

²⁵⁹ Article 12 EuGBR. Maragopoulos, N., “Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance”, in: Ramos Muñoz D.R. & Smoleńska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 38.

4.8.2 *Coherent*

To determine whether the information disclosed under the EuGBR is coherent, I evaluate whether core terminology and concepts are defined and used coherently throughout the legislation. While the core terminology and concepts in the EuGBR are generally clearly defined and used consistently, four coherency issues can be observed.

First, as the EuGBR is intimately linked to the Taxonomy Regulation, deficiencies in the core terminology and concepts of the TR that I discussed in Chapter 3 reverberate throughout the EuGBR. The most problematic one is the definition of the term ‘Taxonomy-aligned economic activity’. This term is not defined in the TR itself but in CDR 2021/2178. The term is used frequently in the EuGBR, for example, in the annexes that contain the format for the factsheet, allocation report and impact report. However, the EuGBR does not explicitly connect the term ‘Taxonomy-aligned economic activity’ to CDR 2021/2178. This means that strictly speaking, the term is not properly defined – as it is neither defined in the EuGBR itself nor in the Taxonomy Regulation to which the annexes refer. While the broader legal framework makes the intended meaning clear, namely that it is to be understood in the sense of CDR 2021/2178, it would be better to define it in article 2 EuGBR.

Second, an inconsistency exists in the integration of EuGBR disclosures with existing reporting frameworks. While the factsheet can be directly incorporated into the prospectus in accordance with article 14 (3) EuGBR, there is no equivalent rule compelling the issuer to include the annual allocation reports in the (half-)yearly management report, even though this would be obvious and practical as it would integrate the EuGBR into existing disclosure frameworks.

A third incoherency exists in the external review requirements. These reviews are mandatory for both the pre-issuance factsheet and annual allocation reports. They are, however, not required for the impact report published after full proceeds allocation. This raises questions on the consistency of the regulatory approach to transparency and verification.

Finally, at a higher level of abstraction, the planned introduction of the ESGR will create two parallel regimes for the verification of sustainability information: a general one that applies to all issuers in the EU for the use of ESG rating providers and one that specifically applies to the providers of external reviews under the EuGBR.

4.8.3 *Accurate*

According to the criteria that I set out in the normative framework in paragraph 2, the EuGBR is considered accurate if it either (a) is based on the Taxonomy Regulation or (b) the quality of the information is warranted by sufficient procedural safeguards.

Evidently, this criterion is fulfilled: the designation ‘European Green Bond’ or ‘EuGB’ can only be used when the proceeds of the bond are allocated to activities that qualify as environmentally sustainable economic activities under the TR.²⁶⁰ Deviation from this is only possible in line with article 5 EuGBR, under which 15% of the proceeds may be allocated to an activity that does not comply with the TR – either because no TSC exist for this activity or because it pertains to climate financing under the UNFCCC and development assistance under the OECD.²⁶¹ In the first case, the issuer still has to meet the generic ‘do no significant harm’ criteria from the TR. In the second case, the issuer must make a best effort to meet relevant TSC.²⁶² It thus can be concluded that the label ‘EuGB’ or ‘European Green Bond’ accurately reflects alignment with the Taxonomy Regulation.

Moreover, the accuracy of the information disclosed under the EuGBR is guaranteed by external reviewers who must provide a positive opinion on the pre-issuance factsheet before issuing European Green Bonds and who review the annual allocation reports.²⁶³ In general, the extensive regulation of the external reviewers should suffice to guarantee that their reviews are accurate and do not suffer from, for example, a lack of expertise or conflicts of interest. One point of concern is that there is no mandatory review for the impact report that has to be drawn up after the proceeds have been fully allocated.²⁶⁴ It is not clear why the impact report has been exempted from mandatory review, but it seems that this is a missed opportunity. One function of the impact report is to hold the issuer accountable when the proceeds have not been spent according to plan. However, if investors can only be certain that the plan is Taxonomy-aligned but there is no external verification that the proceeds have been spent according to plan, the integrity of the label may be affected. Therefore, the impact report, too, should be subject to a mandatory external review that should indicate clearly whether the proceeds have been used to realize the Taxonomy-aligned economic activities set out in the pre-issuance factsheet.

4.8.4 Usability

To evaluate how successful the EuGBR is in reducing information asymmetries, it is necessary to assess an additional criterion: the (prospective) popularity of the standard.²⁶⁵ If the standard is not (widely) used by issuers, its informat-

²⁶⁰ Article 3 EuGBR.

²⁶¹ Article 5 (1) (b) EuGBR.

²⁶² Article 5 EuGBR.

²⁶³ Article 10 (1) (b) and article 11(4) EuGBR.

²⁶⁴ Article 12 (3) EuGBR.

²⁶⁵ See also: Lieverse C.W.M. & Schoonewille T.G., “Duurzaam financieren: green bonds” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, para. 8.3.6.

ive value is greatly diminished, as well as its capacity to reduce information asymmetries.

The primary advantage of the EuGBR over market-based labels is that it is a very robust framework. The mandatory allocation of the proceeds of the bond to Taxonomy-aligned activities distinguishes the EuGBR from market-based standards, which have a more flexible approach to the allocation of proceeds. For example, the ICMA Green Bond Principles do not use absolute thresholds to qualify an activity as sustainable.²⁶⁶ Moreover, the EuGBR demands that both the pre-issuance factsheet and the allocation reports are verified by external reviewers, who are themselves subject to strict regulation. This can be contrasted to market-based labels, which do not have a similarly strict regime for external verification. For example, external review is encouraged but not mandatory under the ICMA Green Bond Principles.²⁶⁷ All this greatly reduces the opportunity for greenwashing and increases the credibility of the European Green Bond label.²⁶⁸ The EuGBR thus really represents the “gold standard” when it comes to sustainable investing. Hence, European Green Bonds are likely to appeal to sustainability-minded investors, especially those subject to public accountability such as governments and public investment banks, as well as institutions with explicit environmental commitments, including numerous Dutch pension funds.²⁶⁹ This expected demand for European Green Bonds is a positive indication for the future usage of the standard.

Unfortunately, the factors that make European Green Bonds attractive for investors – the strict use of proceeds requirements, the extensive initial and ongoing disclosures, and external verification of the disclosed information – may also be exactly what makes these bonds less popular for issuers. Taxonomy-alignment and the extensive disclosure requirements represent a high regulatory burden, which may make issuing European Green Bonds more expensive than using an alternative standard.²⁷⁰ Another problem that may negatively impact the usage of the EuGBR is that the Taxonomy requirements are so strict that it may be difficult to find eligible projects, especially outside of the EU. Moreover, issuers face the risk that they lose the European Green

266 ICMA uses ‘eligible Green Project’ categories – a list that is both open-ended and contains generic descriptions such as: “Renewable energy (including production, transmission, appliances and products)”, ICMA, *Social Bond Principles*, June 2021, p. 6.

267 An external review is one of ICMA’s key recommendations to heighten transparency, ICMA, *Social Bond Principles*, June 2021, p. 7. See also: ICMA, *Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews*, June 2022.

268 Ziegenbalg M., “EU Green Bond Standard: stringent requirements bring greater clarity”, *Bundesanstalt für Finanzdienstleistungsaufsicht* 19 January 2024, available at: <https://www.bafin.de>, accessed on: 16 May 2024.

269 Pensioen Federatie, “Responsible investing”, available at: <https://www.pensioenfederatie.nl/website/responsible-investing#:~:text=Virtually%20all%20the%20Dutch%20pension,in%20the%20years%20to%20come>, accessed on: 13 May 2024.

270 Gianfrate G. & Peri M., “The green advantage: Exploring the convenience of issuing green bonds”, *Journal of Cleaner Production* 2019, vol. 219, p. 127, 132.

Bond label during the maturation of the bond, in the case that the project is no longer on track with Taxonomy-alignment.²⁷¹ Although losing the label in that situation is justified, the potential reputational damage may be an extra deterrent to issuing such bonds in the first place. Using the EuGBR will especially be burdensome for third-country issuers, who do not have to map out which of their activities are Taxonomy-aligned on the basis of the CSRD and therefore cannot exploit any synergy between the EuGBR and other disclosure requirements that they are subject to.

This problem is exacerbated by the strict regulation of external reviewers. As explained in para. 4.6.1, external reviewers are essential in turning the EuGBR into a success by the gatekeepers' function that they fulfil. While the stringent regulation of these reviewers is, therefore, logically justified, the demanding requirements imposed by the EuGBR and the relevant RTS may have unintended consequences. In particular, the requirements can discourage businesses from providing external review services, which can potentially diminish the market for this service and consequently drive up the costs. This can lead to the paradoxical situation in which the strict rules of the EuGBR, intended to increase its credibility, actually end up impeding the widespread adoption of the standard.

4.9 Conclusion

The introduction of the European Green Bond is a positive development for the ability of investors to discern whether an investment opportunity is sustainable: the use of the designation 'European Green Bond' enables investors quickly to ascertain whether a potential investment will be Taxonomy-aligned. This is a welcome development in a market that is at the risk of suffering from information overload.

On the question of whether the EuGBR is successful in contributing to the efficient allocation of capital to environmentally sustainable economic activities, the verdict is somewhat nuanced. As set out at the beginning of this chapter, I evaluate this question by assessing whether the law decreases information asymmetries and enables investors to better compare investment opportunities. For this, I have focussed on four criteria: whether the EuGBR ensures complete disclosure, whether the legal framework is coherent, whether the information disclosed is accurate, and whether the European Green Bond is expected to become a popular standard. In the previous paragraphs, I have argued that, in general, the EuGBR is coherent and accurate – albeit that external review should be made mandatory for the impact report as well.

271 Maragopoulos, N., "Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance", in: Ramos Muñoz D.R. & Smoleňská A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 34.

On the criterion of completeness, the EuGBR fails to convey a spectrum of information as the label is binary, only indicating that an investment is Taxonomy-aligned (or not, in the absence of the label). However, a binary system may impair the ability of investors to compare opportunities within one category. This is especially problematic for the investment opportunities that are not European Green Bonds, which encompass the vast majority of the market. As I discussed in paragraph 3, the PR neither decreases information asymmetries regarding sustainability information for this market, as it contains open norms that are too wide to serve as a reliable basis for sustainability disclosures. For this entire market, the EuGBR does not contribute to reducing information asymmetries. To accommodate comparisons between investment opportunities and to decrease information asymmetries more effectively, it would be better to introduce a labelling system that encompasses all investment opportunities. This could, for example, be done by a traffic light system as proposed by the Platform on Sustainable Finance. Such a system would need to be mandatory as there is little incentive for non-Taxonomy aligned issuers to participate.

On the criterion of (prospective) popularity, the EuGBR does not score particularly well. On 2 April 2025, the European Investment Bank issued priced EUR 3 billion of bonds that complied with the EuGBR.²⁷² This, however, was only the fourth issuance of European Green Bonds in the first three months since the EuGBR came became applicable in December 2024.²⁷³ This number has risen to 13 issuances of European Green Bonds by September 2025, nine months after the EuGBR became applicable.²⁷⁴ While it may be too early to draw any definite conclusions about the popularity of the standard, it is likely that the label will only see limited use due to the regulatory burden imposed and the limited projects that qualify as Taxonomy-aligned.²⁷⁵ This is exacerbated by the stringent criteria for the mandatory external reviews,

272 European Investment Bank, EIB's inaugural bond under European Green Bond Standard – EUR 3bn benchmark, 2 April 2025, available at: <https://www.eib.org/en/investor-relations/press/all/fi-2025-09-eib-eugbs-eur-2037>, accessed on: 16 April 2025.

273 Leung K., "European Investment Bank sets example with EU Green Bond issuance" (blog-post), *Institute for Energy Economics and Financial Analysis* 14 April 2025, available at: <https://ieefa.org/resources/european-investment-bank-sets-example-eu-green-bond-issuance>, accessed on: 16 April 2025.

274 Webb D., "EU Green Bonds stocktake: Strong investor demand but technical hurdles persist", *Responsible Investor* 24 September 2025, available at: <https://www.responsible-investor.com/eu-green-bonds-stocktake-strong-investor-demand-but-technical-hurdles-persist/>, accessed on: 25 November 2025.

275 Per 20 February 2025, an ABN AMRO report found that only three European Green Bond issuances had taken place. However, given that this was only two months after the EuGBR entered into force, it may be too early to reach any conclusions based on that number. See: Barros Fritz L. de, "Uptick of EU GBS will be limited and restricted to a few sectors", *ABN AMRO ESG Strategist* 20 February 2025, available at: <https://www.abnamro.com/research/en/our-research/esg-strategist-uptick-of-eu-gbs-will-be-limited-and-restricted-to-a-few>, accessed on: 16 April 2025.

which can discourage businesses from providing external review services. The conclusion that EuGBR may not be widely adopted is also drawn in a report by ABN AMRO bank published on 20 February 2025.²⁷⁶ The report specifically identified the Taxonomy-alignment requirement as a principal obstacle for potential issuers, alongside the observation that European Green Bonds must generally satisfy more stringent criteria than alternative frameworks such as the ICMA Green Bond Principles.²⁷⁷ Moreover, the report highlighted that among currently outstanding euro-denominated green bonds, merely 9% would satisfy the Taxonomy alignment requirements, indicating that the eligible issuer base for European Green Bonds is slim.²⁷⁸ Furthermore, those issuers that could potentially issue European Green Bonds were concentrated among two sectors: utilities and financial services, which suggests that widespread adoption across economic sectors is unlikely.²⁷⁹ However, given the short amount of time that has passed since the entry into force of the EuGBR and the publication of this report, it may be too early to draw any definite conclusions yet about the popularity of the standard. In paragraph 5.2.2, I discuss that a mandatory and more varied system of labelling, such as the traffic light system mentioned above, in combination with a more balanced approach to the regulation of external reviewers, could help increase the popularity of European Green Bonds.

5 CONCLUSION

5.1 Evaluation

In this chapter, I analysed the sustainability information that investors receive from issuers in initial disclosures. These disclosures are primarily made on the basis of two instruments: the PR, which requires the publication of a

276 Barros Fritz L. de, “Uptick of EU GBS will be limited and restricted to a few sectors”, *ABN AMRO ESG Strategist* 20 February 2025, available at: <https://www.abnamro.com/research/en/our-research/esg-strategist-uptick-of-eu-gbs-will-be-limited-and-restricted-to-a-few>, accessed on: 16 April 2025.

277 Barros Fritz L. de, “Uptick of EU GBS will be limited and restricted to a few sectors”, *ABN AMRO ESG Strategist* 20 February 2025, available at: <https://www.abnamro.com/research/en/our-research/esg-strategist-uptick-of-eu-gbs-will-be-limited-and-restricted-to-a-few>, accessed on: 16 April 2025.

278 Barros Fritz L. de, “Uptick of EU GBS will be limited and restricted to a few sectors”, *ABN AMRO ESG Strategist* 20 February 2025, available at: <https://www.abnamro.com/research/en/our-research/esg-strategist-uptick-of-eu-gbs-will-be-limited-and-restricted-to-a-few>, accessed on: 16 April 2025.

279 Barros Fritz L. de, “Uptick of EU GBS will be limited and restricted to a few sectors”, *ABN AMRO ESG Strategist* 20 February 2025, available at: <https://www.abnamro.com/research/en/our-research/esg-strategist-uptick-of-eu-gbs-will-be-limited-and-restricted-to-a-few>, accessed on: 16 April 2025.

prospectus and is no part of the EU SFF, and the EuGBR, which is a voluntary label that mandates the disclosure of sustainability information when an issuer qualifies its bonds as European Green Bonds. My analysis focusses on the question: *how effective are the initial disclosure requirements from the Prospectus Regulation and the European Green Bond Regulation in reducing information asymmetries regarding sustainability between issuers and investors?* I evaluated whether the information disclosed under both regulations is complete, coherent, and accurate.

At the end of paragraph 3, I concluded that since the PR does not contain any explicit disclosure requirements on the topic of sustainability, disclosures in a prospectus are most likely incomplete, possibly inaccurate, and definitely incoherent across the market. It will, therefore, be difficult for investors to assess the sustainability position of an issuer based on a prospectus, and even more challenging to compare investment opportunities in terms of sustainability. Therefore, the PR cannot be considered a successful legislative instrument for reducing information asymmetries between issuer and investor in relation to sustainability information.

In paragraph 4, I concluded that although the information disclosed under the EuGBR is coherent and accurate, it is not complete, as the label indicates that the proceeds are used for Taxonomy-aligned economic activities, rather than conveying a spectrum of sustainability impacts. However, this limitation should be viewed in the context of the aim of the Regulation: the EuGBR was not designed to provide comprehensive sustainability information but to succinctly indicate that a bond is used exclusively for the financing of Taxonomy-aligned activities. A great concern, however, is the regulatory burden that is imposed by the EuGBR on issuers that choose to use the label. Issuing a European Green Bond is much more burdensome than relying on a market-based standard for sustainable bonds. Moreover, the stringent requirements for mandatory external reviews under the EuGBR may hinder businesses from providing this service. The combination of these two factors, the stringent criteria for the bond itself and the limited availability of external reviewers, has the potential to undermine the widespread use of the label, which can seriously undermine the effectiveness of the EuGBR in contributing to the reduction of information asymmetries.

The limited success of both instruments in reducing information asymmetries is not surprising. After all, the PR is no part of the EU SFF, while the EuGBR focusses on a very limited segment of the market. Unfortunately, this also means that there is little synergy between the instruments: because the EuGBR only has such a limited reach, it is not capable of resolving the lacunae of the PR regarding sustainability information.

Therefore, the question of whether the current legislative regime on initial disclosures effectively reduces information asymmetries between businesses and investors on the topic of sustainability must be answered negatively. This means that there is a significant risk that the market failure of information

asymmetry between issuer and investor in general persists in initial disclosures. From an L&E perspective, this may warrant regulatory intervention. In this next paragraph, I propose two measures to minimize this risk.

5.2 Recommendations

From the previous paragraphs, it follows that the initial disclosure regime under the PR and EuGBR is not suitable to successfully address information asymmetries on sustainability. The source of this problem is that, on the one hand, the PR predates the EU SFF and has not incorporated explicit sustainability disclosures, and on the other hand, the EuGBR has too limited a reach to resolve this shortcoming of the PR. To overcome this shortcoming, I propose two actions: (1) introducing explicit mandatory disclosures of sustainability information in the prospectus and (2) striking a better balance between rigid requirements for issuing European Green bonds and useability of the standard.

5.2.1 *Mandatory Disclosure of Sustainability Information in the Prospectus*

To resolve the issues of incomplete, incoherent and inaccurate disclosures of sustainability information in prospectuses, I propose that explicit minimum mandatory disclosures of sustainability information be introduced in the PR. These minimum mandatory disclosures can best be introduced in a CDR as the Prospectus Regulation itself is too general to include specific content requirements. For example, CDR 2019/980 on the format, content, scrutiny and approval of the prospectus could be added to include disclosure of sustainability information. Sustainability information should be disclosed in the registration document (annex 6) if it concerns the issuer and in the securities note (annex 14) if it concerns the securities.

The mandatory disclosure should distinguish between issuances of conventional bonds and sustainable bonds since the information needs of investors differ for these categories, as explained in para. 3. I propose that the disclosures that I identified and summarized in paragraph 3.10, as shown in the table below.

Table 4: Sustainability information that should be included in the prospectus. Source: Own image.

	Material sustainability impact information: information about business's positive and negative impacts on sustainability matters	Financially material information: information on the business's sustainability-related financial risks and opportunities
Sustainable bonds	1. Scope and sustainability objectives of the project • Clear definition of the sustainability objectives • How the project relates to those objectives • Feasibility of objectives • Taxonomy-alignment of the project 2. Implementation plans of the sustainability objectives • How the business exactly plans to achieve its objectives • Flexibility for deviation from the sustainability objectives 3. Policies for sustainability impact assessment for the project • Quantitative and qualitative information • How progress will sustainability progress will be monitored 4. Information on feedback mechanisms 5. Information on the use of proceeds • The management of the proceeds • How the proceeds are segregated from the general cash flow of the firm • For sustainability-linked bonds: the legal mechanism between sustainability performance and financial obligations 6. The use of external experts 7. The sustainability impact of the issuer, including the level of Taxonomy-alignment	1. Scope and sustainability objectives of the project • Clear definition of the sustainability objectives • How the project relates to those objectives • Feasibility of objectives • Taxonomy-alignment of the project 2. Implementation plans of the sustainability objectives • How the business exactly plans to achieve its objectives • Flexibility for deviation from the sustainability objectives 3. Policies for sustainability impact assessment for the project • Quantitative and qualitative information • How progress will sustainability progress will be monitored 4. Information on feedback mechanisms 5. Information on the specific risks to the realisation of the project, with the limitation that this disclosure should not be misused to negate liability for greenwashing. 6. Information on the use of proceeds • The management of the proceeds • How the proceeds are segregated from the general cash flow of the firm • For sustainability-linked bonds: the legal mechanism between sustainability performance and financial obligations 7. Transition risks at project and issuer level 8. Physical risks at project and issuer level

	Material sustainability impact information: information about business's positive and negative impacts on sustainability matters	Financially material information: information on the business's sustainability-related financial risks and opportunities
Conventional bonds	1. Taxonomy-aligned of the issuer • If the proceeds of the bonds are used to finance a specific project, Taxonomy-aligned the project that is financed by the proceeds of the bonds	1. Available ESG scores 2. Physical sustainability risks 3. Transition risks

As discussed in paragraphs 3.6-3.8, these disclosures should already be made under the current PR, as they respond to the information needs of investors and thus fall into the scope of the general materiality principle from article 6 (1) PR. However, explicitly including these disclosures in the PR will resolve most of the issues that currently stand in the way of an efficient transmission of sustainability information from issuers to investors in relation to prospectuses. First of all, explicit minimum disclosure requirements clarify what should be included under the open materiality norm and will contribute to the completeness of the information. Second, it will ensure a baseline-level coherency of both terminology and concepts. This is especially so regarding the disclosure of the level of Taxonomy-alignment, which will provide investors with valuable information and enable them to compare different investment opportunities across the market on sustainability. Third, the information will be accurate as it is based on the Taxonomy framework. Lastly, there will be coherence with the ongoing disclosure regime in the CSRD and thereby also coherence with the ongoing and initial financial disclosures.

In general, these disclosures also should not impose a disproportionate burden on issuers as they have to gather most of this information anyway. As explained in the previous Chapter, issuers are subject to the CSRD, which means 1) they have to publish an elaborate sustainability report that will most likely contain most of the information identified in the table above and 2) that they have to comply with article 8 TR. Under article 8, issuers will have to describe to what extent the business engages in Taxonomy-aligned activities, which is to be expressed in three key performance indicators:

- The proportion of turnover derived from Taxonomy-aligned activities;
- The proportion of capital expenditure related to Taxonomy-aligned activities;
- The proportion of operating expenditure related to Taxonomy-aligned activities.

The disclosures for sustainable bonds appear to bring about a higher regulatory burden than those for conventional bonds due to their extensive nature. This is justifiable for two reasons. First, these disclosures simply explicate what is contained in the principle of materiality of art. 6 PR. Second, harmonization

is essential not only for investors' ability to compare but also to create a level playing field between sustainable issuers. Currently, there is a risk that issuers keep sustainability disclosures to a minimum for sustainable bonds in order to evade commitment and decrease costs. This can undermine investors' trust in the market. Moreover, it disadvantages those issuers who try to best meet the needs of investors. Creating a level playing field by explicitly introducing sustainability disclosures in the prospectus would resolve this tension.

5.2.2 Softening the EuGBR Criteria

As indicated above, the main problem in the interaction between the prospectus and the EuGBR is the limited usability of the EuGBR. Whilst the instrument provides complete information, is coherent, and is accurate, it does little to diminish information asymmetries in the market as the EuGBR may not be an attractive label for issuers due to the extremely burdensome criteria imposed by the Regulation. However, when issuers prefer market-based labels over the EuGBR, investors may suffer from information overload as a common frame of reference is absent. I propose two measures to increase the usability of European Green Bonds: a multiple-category model for sustainability impacts and alignment between the rules for external reviewers under the EuGBR and the ESG Rating Regulation.

5.2.2.1 Traffic Light System

Currently, it is only possible to issue green bonds if the proceeds of the bond are used entirely for Taxonomy-aligned activities. This is a high threshold to pass, which could be softened by introducing a multiple-category model that encompasses a more nuanced categorisation of sustainability impacts, for example, a five-category model.

High negative impact	Low negative impact	Neutral impact & non-eligible activities	Low positive impact - non-aligned but positive impact	High positive impact - fully Taxonomy-aligned
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Figure 4: Five-category model

Proposals for such systems can be found in the Climate Bond Taxonomy by the Climate Bond Initiative and in "The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transi-

tion” by the Platform on Sustainable Finance.²⁸⁰ Such a system has two significant benefits. First, it enhances the ability of investors to better compare investment opportunities as investors receive more nuanced information that is nonetheless easy to comprehend. Second, this system creates the opportunity to broaden the European Green Bonds label to encompass activities with a positive sustainability impact that do not meet the strict criteria of the Taxonomy-Regulation. In the five-category model, this would entail the light and dark green categories. This expansion would better serve the overarching objective of channelling private investment toward sustainable activities by increasing the range of activities eligible for the EuGBR label. However, introducing a multiple-category model for sustainability impacts would also require extensive revision of the current regulatory framework. Firstly, the TR itself would need to be updated in order to create clarity on what the categories would entail. To realize this for all activities in the delegated acts to the Taxonomy Regulation would require an enormous legislative effort.

Secondly, for such a labelling system to work optimally, it must be made mandatory for all economic activities. The primary reason for this is that a voluntary system creates no incentive for issuers to adopt labels that indicate negative impacts. Without market-wide adoption, the model’s comparative value is significantly diminished, as investors cannot effectively evaluate investment opportunities across the market. Obviously, it is to be expected that there will be considerable resistance from the market to adopt a mandatory system. However, this concern can be addressed with two counterarguments. First, issuers already (more or less) possess the data to determine what category their economic activities fall into due to the data that they have to collect on the basis of the CSRD. After all, the CSRD demands that issuers determine how Taxonomy-aligned their activities are, even at asset or site level, if appropriate.²⁸¹ The second argument to introduce a multiple-category labelling system through the TR is that the regulatory burden for issuers of European Green Bonds will become less disproportionate to the regulatory burden for issuer conventional bonds. Currently, the issuers of European Green Bonds face a much higher regulatory burden, partly due to the requirement to only finance Taxonomy-aligned activities. This effectively creates an incentive to not issue those bonds, which inhibits the market in European Green Bonds to grow, which in turn, undermines the flow of private capital to sustainable activities. This disadvantage should be mitigated as much as possible, and

280 The Climate Bond Initiative, “Climate Bonds Taxonomy – A guide to climate aligned assets & projects”, September 2018, available at: <https://www.climatebonds.net/files/files/CBI-Taxonomy-Sep18.pdf>, accessed on: 6 May 2024; Platform on Sustainable Finance, “The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition”, *European Commission* March 2022.

281 ESRS 1 para. 54 on level of disaggregation.

a multiple-category system could be a step toward a more balanced regulatory burden for both conventional bonds and European Green Bonds.

5.2.2.2 Harmonized Regime for External Reviewers and ESG Ratings

Currently, there are two regimes for external reviewers: one governing ESG rating providers under the ESG Rating Regulation and another for external reviewers under the EuGBR. While these regimes overlap substantially, they operate as mutually exclusive frameworks due to the explicit exclusion of external reviewers from the ESG Rating Regulation's scope. Moreover, external reviews may be conducted by auditing firms, but these same firms are prohibited from providing ESG ratings under the ESG Rating Regulation. The existence of these parallel regimes can potentially limit issuers from engaging established ESG rating agencies for external reviews under the EuGBR, which may restrict the pool of available external reviewers. This, in turn, can increase the costs of issuing EuGBR, as there may be limited competition on the market for external reviewers. One solution to this would be to introduce an equivalence regime for ESG rating providers under the ESG Rating Regulation that would enable ESG rating providers to conduct external reviews for European Green Bonds without having to comply with the specific external reviewer criteria from the EuGBR.

5 | The Sustainable Finance Disclosure Regulation

Overcoming the Principal-Agent Problem in Sustainable Investing

1 INTRODUCTION

1.1 Previous Chapters

In Chapters 1 and 2, I explained that the aim of the EU Sustainable Finance Framework (“EU SFF”) is to channel more private capital into sustainable investments, ultimately facilitating the transition to a low-carbon society. This objective aligns with enhancing market efficiency and increasing overall welfare. One of the primary mechanisms of the EU SFF to realise its aim of enabling investors to invest more sustainably is by providing them with sustainability information on their potential investments. My research aims to answer the question: *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?* To answer this question, I use Law & Economics (“L&E”) as a qualitative method: I identify which market failures impede the efficient functioning of the market and analyse whether the legislation addresses these market failures. For this, I use a simplified model of financial markets, consisting of issuers, intermediaries, and investors. These three actors represent the investment chain through which capital should be allocated to sustainable investments. In Chapters 3 and 4, I focussed on the direct flow of information between issuers and investors: what sustainability information is provided by issuers to investors on the sustainability of their investment? Chapter 3 focuses on the information that is provided to investors on the basis of ongoing disclosure requirements from the Corporate Sustainability Reporting Directive (“CSRD”) and article 8 Taxonomy Regulation (“TR”), which apply to issuers. Chapter 4 discusses the initial disclosures that are made by issuers to investors, when assets are sold for the first time, on the basis of the Prospectus Regulation (“PR”) and the European Green Bond Standard Regulation (“EuGBR”). Together, the ongoing and initial disclosure requirements significantly contribute to overcoming the information asymmetries on sustainability information that exist between issuers and investors. There is however room for improvement: the ongoing disclosure framework of the CSRD and TR is complex, making compliance costly and possibly overloading investors with information. The initial disclosure regime is not embedded sufficiently in the

EU SFF: the PR, predating the EU SFF, is not aligned with the TR. This creates the risk that the information contained in prospectuses is incomplete and/or incoherent. The EuGBR is aligned with the EU SFF but has a very limited scope of application and may not be relied upon much by issuers. Overcoming these issues is vital to decreasing the information asymmetries between issuers and investors on sustainability information.

1.2 This Chapter

In this Chapter, I assess the question: How effective are the disclosure requirements from the Sustainable Finance Disclosure Regulation in reducing the principal-agent problem between intermediaries and investors? The focus of this Chapter expands on the previous two chapters, in which it was presumed that investors rely on information that is directly provided to them by issuers. This chapter concerns the situation in which investors and issuers are matched with the help of a third party – an intermediary. While any party that assists in the functioning of the market could be described as a financial intermediary – from market makers to credit rating agencies to traditional investment firms I limit myself to the financial intermediaries that fall within the scope of the Sustainable Finance Disclosure Regulation (“SFDR”), as that Regulation is the central subject of investigation in this chapter.¹ In paragraph 3.3 on the scope of the SFDR, I elaborate on the exact delineation of the parties that are subject to this regulation. Here it suffices to say that the focus is on financial businesses that advise investors and/or manage capital on behalf of the investor. These businesses help ‘end investors’ – physical or legal persons who hold shares for their own account – to engage in financial transactions.

The SFDR aims to resolve one of the main market failures that can arise when investors rely on intermediaries: the so-called principal-agent problem.² For this, the SFDR focuses on reducing information asymmetries between investors and intermediaries in the area of sustainability risk and impact. To assess whether the SFDR is successful at minimizing the principal-agent problem in the context of sustainability information, I have formulated three criteria in the normative framework contained in paragraph 2. Subsequently, I discuss and analyse the main obligations that follow from the SFDR. These obligations will be evaluated in paragraph 4 using the criteria that I outline in my normative framework.

1 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 (SFDR).

2 Recital 10 SFDR.

2 NORMATIVE FRAMEWORK

In Chapter 2, I explained that in the principal-agent theory, the principal delegates some of its decision-making power to the agent.³ In the context of this chapter, the principal is the investor. The investor tasks the intermediary, the agent, to make investment decisions on his behalf or to provide investment advice. There is a certain risk involved in this delegation of power, namely that the agent does not (fully) act in the interest of the principal. This is called the principal-agent problem, which has two prerequisites: that the principal and the agent have different interests and that there is information asymmetry between them.⁴

The principal-agent problem puts pressure on the efficient allocation of capital, and thus on the financing of the transition to a climate-neutral society, in a number of ways.⁵ First, prior to concluding a contract with an intermediary, intermediaries who are aware of the information asymmetries between them and the investor may exploit this vulnerability, which can lead to an adverse selection problem.⁶ The investor may attempt to overcome this vulnerability by conducting research before selecting an intermediary, which increases information costs.⁷ Second, after the conclusion of the contract, the investor may incur monitoring costs to verify whether the intermediary is carrying out its tasks in the investor's best interests.⁸ The costs that the investor incurs prior to and after the conclusion of the contract, transaction costs, undermine the efficient allocation of resources.⁹ In general, a large part of financial regulation therefore aims to decrease transaction costs by minimizing the principal-agent problem.¹⁰ The SFDR, more specifically, aims to minimize the principal-agent problem in relation to sustainability information.¹¹ In this Chapter, I evaluate how effective the SFDR is to that end.

Before I set out the criteria for my assessment, I briefly summarize the principal-agent problem in the context of sustainability information. As I

3 Jensen M. C. & Meckling W.H., "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics* 1976, vol. 3(4), p. 305, 308.

4 Shah S.N., *The Principal-Agent Problem in Finance*, CFA Institute Research Foundation 2014, p. 2-5.

5 See: paragraph 3.4.1 of Chapter 2.

6 Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 266; Akerlof G.A., "The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism", *The Quarterly Journal of Economics* 1970, vol. 84(3), p. 488.

7 Dahlman C.J., "The Problem of Externality", *Journal of Law & Economics* 1979, vol. 22(1), p. 141, 147-148.

8 Jensen M. C. & Meckling W.H., "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics* 1976, vol. 3(4), p. 305, 308; Dahlman C.J., "The Problem of Externality", *Journal of Law & Economics* 1979, vol. 22(1), p. 141, 147-148.

9 See: paragraph 3.3 and 3.4.1 of Chapter 2.

10 For example, the duty to act in the best interest of the client in article 24 MiFID II.

11 Recital 10 SFDR.

already pointed out, the principal-agent problem has two prerequisites: information asymmetries and diverging interests between principal and agent. Regarding the information asymmetries, it can be assumed that the intermediary has (access to) more sustainability information on the investment than the investor.¹² With regard to diverging interests between principal and agent in the context of sustainability information, two key issues can be identified. First, the investors and intermediaries may have a different time horizon for risk management. When intermediaries prioritize short-termism, long-term risks, including sustainability-related risks, may be underestimated.¹³ Also, short-termism stands in the way of the research and development necessary to transition to a climate-neutral society, which requires long-term vision and investment.¹⁴ Second, the increased demand for sustainability disclosures and the increasing demand for sustainable investment opportunities can be an incentive for intermediaries to present investment opportunities as more sustainable than they are in order to win or keep more investors as clients. This risk is referred to as greenwashing, which is defined by the ESAs as “a practice where sustainability-related statements, declarations, actions, or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a financial product, or financial services. This practice may be misleading to consumers, investors, or other market participants.”¹⁵ Greenwashing is a principal-agent problem because, at its core, the interest of the intermediary diverges from those of the investor: whereas the investor may be interested in aligning its investment strategy to specific sustainability aims, the intermediary is primarily interested in acquiring and keeping the investor as a client.

To reduce the principal-agent problem, there are two categories of solutions: decreasing the information asymmetry or better aligning the interests of the principal and the agent. The SFDR focuses on the former: decreasing informa-

12 After all, the investor relies on the intermediary to collect and analyse information instead of doing this herself.

13 Fried J.M. & Wang C.C.Y., “Short-Termism and Capital Flows”, *The Review of Corporate Finance Studies* 2019, vol. 8(1), p. 207; Ofir M. & Elmakiess T., “The Eco-Agency Problem and Sustainable Investment”, *LSE Legal Studies Working Paper* 2023, no. 26, available at: <https://ssrn.com/abstract=4652981>; Lydenberg S., “System-Level Considerations and the Long-Term Investor: Definitions, Examples, and Actions”, *The Investment Integration Project* 2017, available at: https://www.tiiproject.com/wp-content/uploads/2017/03/Systems_Level_Considerations_Long_Term_Investor.pdf.

14 Roe M.J., “What is Stock Market Short-Termism?”, *European Corporate Governance Institute – Law Working Paper* 2022, no. 658, available at: <https://ssrn.com/abstract=4194910>.

15 ESMA, Progress Report on Greenwashing, Response to the European Commission’s request for input on “greenwashing risks and the supervision of sustainable finance policies”, 31 May 2023, ESMA30-1668416927-2498, p. 11. A comprehensive overview of definitions can be found in: Freitas Netto S.V. de, e.a., “Concepts and forms of greenwashing: a systematic review”, *Environmental Sciences Europe* 2020, vol. 32(19), available at: <https://doi.org/10.1186/s12302-020-0300-3>. Also: Marquis C., e.a., “Scrutiny, Norms, and Selective Disclosure: A Global Study of Greenwashing”, *Organization Science* 2016, vol. 27(2), p. 483.

tion asymmetries.¹⁶ I use three criteria to assess how successful the SFDR is in realizing this aim. As these are similar to the assessment criteria for reducing information asymmetries that I have formulated in Chapter 3, I only provide a brief overview here:

1. Complete, meaning that the information disclosed covers all necessary areas of sustainability information. For this, I rely on the double materiality principle and will therefore assess whether the disclosed information covers positive and negative sustainability impact and sustainability risk.
2. Standardised, meaning (a) that the information is harmonised between intermediaries to enable the investor to make a meaningful comparison between intermediaries, and (b) that information is standardized for financial products to enable comparisons.
3. Accurate, meaning (a) that the information flow from issuer to intermediary is consistent to prevent that information is obscured or lost in translation and (b) that the information is sufficiently supported by scientific consensus.

Since the principal-agent problem is relevant both prior to and after the conclusion of the contract between the principal and agent, I take both dimensions into account.

3 THE SUSTAINABLE FINANCE DISCLOSURE REGULATION

3.1 Introduction

The SFDR entered into force on 10 March 2021 and establishes harmonized rules for financial market participants (“FMPs”) and financial advisers (“FAs”) on the disclosure of how they integrate sustainability risks, consider adverse sustainability impacts in their processes, and provide sustainability-related information regarding financial products.¹⁷ The SFDR focuses on the transparency of processes, for example, the disclosure of policies – it does not qualify activities as sustainable or non-sustainable and does not contain thresholds or closed definitions.¹⁸ It was the first piece of legislation from the EU SFF that was published and entered into force.¹⁹ The Regulation applies both

¹⁶ Recital 10 SFDR.

¹⁷ Article 1 and article 20 SFDR. For a general introduction on the SFDR: Poulle J.-B., e.a., *EU Banking and Financial Regulation*, Edgar Elgar 2024, Chapter 69 Sustainable Finance Disclosure Regulation (SFDR), p. 625–633.

¹⁸ For a discussion on the implication of the lack of absolute thresholds: Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>.

¹⁹ The SFDR was published in 2019. The Taxonomy Regulation was published in 2020, the CSRD in 2022.

before the conclusion of a contract between investor and intermediary (*ex ante*; para. 3.5) and after the conclusion of such a contract (*ex post*, para. 3.6). Disclosure requirements exist both at entity and at product level.

3.2 Aims and Practice

According to recital (10), the aim of the SFDR is “to reduce information asymmetries in principal-agent relationships with regard to the integration of sustainability risks, the consideration of adverse sustainability impacts, the promotion of environmental or social characteristics, and sustainable investment.”²⁰ To realize this aim, the SFDR creates a disclosure framework for how sustainability risks and impacts are integrated into decision-making processes on entity and product level. The SFDR is part of the EU SFF, which means that one of its overarching objectives is to contribute to a climate-resilient economy.²¹ At the same time, the regulation fits seamlessly into a wider framework of European financial regulation that aims to protect investors who rely on an intermediary to make their investments.²² With a focus on both investor protection and climate transition, the topics of disclosure that the SFDR aims at are, on the one hand, sustainability risk and, on the other hand, impact on sustainability by investments.²³ Although the term is not mentioned, this parallels the double materiality principle of the CSRD, which requires issuers to disclose both how they impact sustainability factors and how they are impacted by sustainability factors.²⁴

3.2.1 Labelling or Transparency Regime?

The SFDR requires FMPs and FAs “to disclose specific information regarding their approaches to the integration of sustainability risks and the consideration of adverse sustainability impacts.”²⁵ This aligns with the aim of reducing the information asymmetries in the principal-agent relationship between intermediary and investor instead of a requirement to put on the market financial products with a sustainability profile that is mandated by the legislator.²⁶ The legislative approach is thus to be transparent about how sustainability risk is integrated and adverse impacts are considered, not any man-

20 Recital 10 SFDR.

21 Recitals 1-3 SFDR.

22 Recital 4 SFDR. These include the regulation of UCITS, credit institutions, investment firms, insurance undertakings, among others.

23 Recitals 5, 10, 12, 13, 14 SFDR.

24 Lange J. de, “EU Sustainable Finance Regulation: A missed opportunity for transformative change?”, *Tijdschrift voor Financieel Recht* 2024, nr. 6, p. 85, 92.

25 Recital 8 SFDR.

26 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 26.

datory thresholds or changes in sustainability policy.²⁷ These transparency requirements vary for different articles and prescribe different intensity and focus of disclosures when products are put on the market as having no sustainability characteristics (articles 6 and 7), promoting environmental or social characteristics (article 8), or having sustainable investment, a term defined in article 2 (17) SFDR, as their core objective (article 9). Whereas there is a significant amount of discretion for FMPs and FAs to categorise and explain why a product falls under article 8 or 9 SFDR, there are also extensive limitations to this categorisation – for example, it is not possible to randomly qualify a financial product as having sustainable investment as its core objective.²⁸ This means that the product categorisation of the SFDR has some similarity to a labelling regime, with articles 8 and 9 products referring to a certain degree of sustainability.²⁹

However, the SFDR is not intended to be a labelling regime.³⁰ This has been communicated by the Commission and ESMA multiple times.³¹ That the Commission does not see the SFDR as a labelling system is, for example, made clear in the explanatory memorandum in the draft delegated act for MiFID II sustainability preferences from April 2021, which focuses on the distinction between procedural transparency and material impact in sustainable investing.³² Under the MiFID II sustainability preferences, firms providing investment advice and portfolio management must incorporate clients' sustainability preferences into their suitability assessments.³³ However, when a client

27 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 27.

28 Arriba-Sellier N. de & Caenegem A. van, "Sustainability-related Materiality in the SFDR", *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 2.

29 Eurosif, "EU Sustainable Finance & SFDR: making the framework fit for purpose Eurosif Policy Recommendations for Article 8 & 9 product labels", June 2022, p. 10; Ramos Muñoz D., Lamandini M. & Siri M., "The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, *European Parliament* 2024, No. PE 754.212, p. 10.

30 In his chapter on the SFDR, Zukas shows how various official key players like the Commission and ESMA have tried for the first few years to clearly communicate that the SFDR is not a labelling regime: Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 28-33. See also: Ramos Muñoz D., Lamandini M. & Siri M., "The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, *European Parliament* 2024, No. PE 754.212, p. 10.

31 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 28-33.

32 COMMISSION DELEGATED REGULATION (EU) .../... amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms C/2021/2616 final, p. 3.

33 Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment

expresses sustainability preferences, this should be interpreted as a desire for investments with substantive environmental or social impact rather than merely receiving transparency about sustainability policies.³⁴ The explanatory memorandum, therefore, also stresses that the fact that a financial product has been classified as an article 8 or 9 product under the SFDR is not sufficient to determine that the product materially meets a client's sustainability preferences. Instead, the firm should conduct a substantive analysis of whether the financial product meets the sustainability preferences of the client.³⁵ This implies that articles 8 and 9 SFDR should not be treated as sustainability labels but as procedural transparency requirements. This is why the sustainability preferences in MiFID II do not refer to article 8 or 9 products but to financial instruments that contain a proportion of sustainable investments as defined in article 2 (17) SFDR or have a minimum proportion of Taxonomy-aligned investments.³⁶

That the SFDR is not intended as a label but as procedural transparency regime also aligns with the architecture of the EU SFF. After all, the EU SFF already contains a label for sustainable investments: the European Green Bond, which I discuss in the previous Chapter. This label is indeed based on the presumption that it is the label itself that carries material information. This is guaranteed by the fact that in order to qualify as a European Green Bond, the issuer must meet material thresholds: the activities financed must be Taxonomy-aligned.

Although the intention of the SFDR is a disclosure regime, the practical market impact has been different: it has effectively created an informal labelling

firms (MiFID II sustainability preferences). See: Colaert V., "On the Sustainability of the MiFID II and IDD Investor Protection Frameworks", in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025, p. 317. See also: Raas R.P., "Duurzaamheidsvoorkeuren: Een hernieuwde kennismaking", in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022; Rijsbergen M.P.M. van & Rogge E., "De integratie van duurzaamheid in MiFID II ken-uw-cliënt- en productontwikkelingsbepalingen", in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023 Wallinga M.W., "Ook MiFID II in het teken van duurzaamheid" in: Wallinga M.W., Nuijten S.M.C., & Karagianni A., *Europeanisering van financieel recht. Preadvies voor de Vereniging voor Financieel Recht*, Wolters Kluwer 2024; Jorritsma J.J., "De uitbreiding van de ken-uw-cliëntverplichting met de duurzaamheidsvoorkeuren van de belegger", *Tijdschrift voor Financieel Recht* 2023, nr. 3, p. 60.

34 COMMISSION DELEGATED REGULATION (EU) .../... amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms C/2021/2616 final, p. 3.

35 COMMISSION DELEGATED REGULATION (EU) .../... amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms C/2021/2616 final, p. 3.

36 Article 1 MiFID II sustainability preferences.

system.³⁷ For example, financial products for which information is disclosed on the basis of article 8 or 9 SFDR are being marketed, as an ‘article 8’ or ‘article 9’ fund or as ‘light green’ or ‘dark green’ funds.³⁸ The market practice has become undeniable, culminating in the 2022 speech of ESMA’s chair Verena Ross, in which she recognised the factual market practice:³⁹ “While SFDR was designed to enhance transparency around sustainability, we have noted that in practice the disclosures are often being used as product classification. Status as “Article 8” or “Article 9” funds are being used in marketing material by fund managers as quality labels for sustainability.”⁴⁰

This raises the question of why it is relevant whether the SFDR is a labelling regime or a procedural transparency regime. The answer lies in how these two types of regulatory approaches function and what rules they require to be effective. As Tröger and Steuer explain, labels and procedural transparency serve distinct purposes.⁴¹ Labels imply a normative assessment based on a predefined set of criteria or thresholds, which creates a binary classification system that is based on compliance with the criteria or thresholds.⁴² In contrast, procedural transparency requirements focus on disclosing qualitative or quantitative data that enable an informed investment decision that is based on their own assessment of the information that has been provided.⁴³ This distinction has significant implications for how each type of disclosure should be structured. While a procedural transparency regime should provide rules to ensure the disclosure of comprehensive and relevant information that meets the investor’s needs, for example, by a double materiality approach, a labelling regime should focus on establishing material thresholds. This difference is relevant for evaluating whether the criteria from the normative framework

37 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 28-33.

38 Ramos Muñoz D., Lamandini M. & Siri M., “The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)”, *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, European Parliament 2024, No. PE 754.212, p. 10; Becker M.G., Martin F. & Walter A., “The power of ESG transparency: The effect of the new SFDR sustainability labels on mutual funds and individual investors”, *Finance Research Letters* 2022, vol. 47, part B, 102708.

39 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 28-33.

40 ESMA, Verena Ross, Key priorities for EU retail fund investors, Irish Funds Annual Global Funds Conference, 31 May 2022, ESMA34-466-284, p. 7.

41 Tröger T. & Steuer S., “The Role of Disclosure in Green Finance”, *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8.

42 Tröger T. & Steuer S., “The Role of Disclosure in Green Finance”, *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8; Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 2-3.

43 Tröger T. & Steuer S., “The Role of Disclosure in Green Finance”, *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8.

that I set out in paragraph 2 are met, as will become clear in the concluding paragraph.

3.3 Scope

The SFDR has an extensive scope.⁴⁴ According to article 1 SFDR, the regulation applies to financial market participants ("FMP") and financial advisers ("FA"). Note that the SFDR uses its own system of definitions instead of adopting existing definitions from MiFID II, despite considerable substantive overlap between the definitions used in the two pieces of legislation.⁴⁵ FMP is defined in article 2 and applies to ten types of financial businesses:

- "(a) an insurance undertaking which makes available an insurance-based investment product (IBIP);
- (b) an investment firm which provides portfolio management;
- (c) an institution for occupational retirement provision (IORP);
- (d) a manufacturer of a pension product;
- (e) an alternative investment fund manager (AIFM);
- (f) a pan-European personal pension product (PEPP) provider;
- (g) a manager of a qualifying venture capital fund registered in accordance with Article 14 of Regulation (EU) No 345/2013;
- (h) a manager of a qualifying social entrepreneurship fund registered in accordance with Article 15 of Regulation (EU) No 346/2013;
- (i) a management company of an undertaking for collective investment in transferable securities (UCITS management company); or
- (j) a credit institution which provides portfolio management."⁴⁶

FAs are businesses that provide investment advice: "the provision of personal recommendations to a client, either upon its request or at the initiative of the investment firm, in respect of one or more transactions relating to financial instruments."⁴⁷ The scope of the SFDR, thus is as broad as possible.

44 Glander H., Lüthmann D. & Jesch T.A., "Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)", *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 487; Siemers B.T.B., "Informatieverschaffing over duurzaamheid door beleggingsinstellingen", *Tijdschrift voor Financieel Recht* 2021, nr. 1/2, p. 16, 18; Oostrum C. van, "Sustainability Through Transparency and Definitions: A Few Thoughts on Regulation (EU) 2019/2088 and Regulation (EU) 2020/852", *European Company Law* 2021, vol. 18(1), p. 15, 16-17.

45 Article 4 MiFID II.

46 Article 2 SFDR.

47 Article 1 and article 2 (11) SFDR: "'Financial adviser' means: an insurance intermediary which provides insurance advice with regard to IBIPs; an insurance undertaking which provides insurance advice with regard to IBIPs; a credit institution which provides investment advice; an investment firm which provides investment advice; an AIFM which provides investment advice in accordance with point (b)(i) of Article 6(4) of Directive 2011/

The unifying aspect among these businesses is that they make or influence investment decisions on behalf of end investors, which creates principal-agent relationships. This is most obvious for investment firms and credit institutions that provide portfolio management – managing portfolios in accordance with mandates given by clients on a discretionary client-by-client basis where such portfolios include one or more financial instruments listed under article 2 (1) (b) and (j) SFDR, respectively.⁴⁸ The principal-agent dynamic, however, extends beyond direct portfolio management. For instance, AIFMs, which manage collective investment undertakings that raise capital and invest according to predefined policies, factually have been delegated the decision-making power by the shareholders in the investment fund. Similarly, FAs have not been delegated decision-making power by investors, but their advice significantly influences the decision-making of the investor, which effectively establishes a principal-agent relationship.⁴⁹

Two factors play a role in the large scope of application of the SFDR: the broad definitions of FMPs and FAs as just discussed, and the fact that the SFDR applies to FMPs and FAs, regardless of whether their explicit engagement with sustainability objectives. However, substantively, there are limitations to the scope as well. First of all, the SFDR contains varying levels of transparency obligations, depending on whether and how FMPs and FAs engage with sustainability.⁵⁰ For example, FMPs that do not offer products falling under articles 8 or 9 SFDR are subject to less stringent disclosure requirements compared to those marketing products with environmental or social characteristics or sustainable investment objectives. In other words, the SFDR contains voluntary norms that only apply when FMPs choose to offer products that fall under those articles.

61/EU; or a UCITS management company which provides investment advice in accordance with point (b)(i) of Article 6(3) of Directive 2009/65/EC.” Investment advice is defined in article 4 (1) (4) of Directive 2014/65/EU (MiFID II).

48 The principal-agent dynamic extends beyond direct portfolio management. Take for example the alternative investment fund manager (AIFM) under article 2 (1) (e) SFDR. An AIFM manages an alternative investment fund, which is a collective investment undertaking that raises capital from investors with a view to investing it in accordance with a predefined investment policy for the benefit of those investors. From a legal point of view, the end investor is a shareholder in the alternative investment fund that is managed by the AIFM. Economically speaking, the end investor has delegated the power to make investment decisions on his behalf to the AIFM. Thus, also for the types of financial businesses from article 2 (1) SFDR with whom there is no direct contractual relationship by which the investor delegates the power to take investment decisions on his behalf, practically speaking there is a principal-agent relationship.

49 See: Accounting Insights, “Understanding the Principal-Agent Problem, Concepts, Relationships, Solutions”, 19 July 2024, available at: <https://accountinginsights.org/understanding-the-principal-agent-problem-concepts-relationships-solutions/>, accessed on: 1 November 2024.

50 Siemers B.T.B., “Informatieverschaffing over duurzaamheid door beleggingsinstellingen”, *Tijdschrift voor Financieel Recht* 2021, nr. 1/2, p. 16, 18.

Next to this, the substantive scope differs for FMPs and FAs, with FMPs being subject to more substantive articles of the SFDR than FAs, as is shown in the table below.⁵¹ Additionally, there is a *de minimis* exception for FAs, exempting them from the SFDR when they employ fewer than persons.⁵² This means that although the SFDR has a substantial scope, it nonetheless maintains a level of proportionality that corresponds to the degree of engagement with sustainability by the FMPs and FAs.⁵³ These substantive differences will be discussed more elaborately in paragraphs 3.5 – 3.7, which contain the disclosure requirements that apply on the basis of the SFDR. However, the core difference is that FA need not make disclosures at product level on sustainability impact (article 7) and for products that promote environmental and social characteristics (article 8), or that have sustainable investment as their objective (article 9).

Table 5: SFDR disclosures

	Disclosures at entity level			Disclosures at product level						Marketing communications
	Art. 3	Art. 4	Art. 5	Art. 6	Art. 7	Art. 8	Art. 9	Art. 10	Art. 11	Art. 13
FMP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FA	Y	Y	Y	Y	N	N	N	N	N	Y

3.4 Definitions and Concepts

The SFDR intends to inform investors about the sustainability impact and sustainability risks.⁵⁴ To do so, the Regulation relies on four sustainability-related definitions and concepts that are used throughout the various disclosure requirements and which I explain in the next paragraphs:

1. sustainable investment as defined in article 2 (17) SFDR;
2. sustainability risk, which entail risks that could have a material negative impact on the value of the investment, as defined in article 2 (22) SFDR;
3. sustainability factor, which are the factors defined in article 2 (24) SFDR;

51 Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 487.

52 Article 17 (1) SFDR. This does not apply to the obligation to factor sustainability risk into advisory processes, see recital 6 SFDR.

53 Siemers B.T.B., “Informatieverschaffing over duurzaamheid door beleggingsinstellingen”, *Tijdschrift voor Financieel Recht* 2021, nr. 1/2, p. 16, 18.

54 Recitals 5, 8, 10 SFDR.

4. the principal adverse impacts, which are the “impacts of investment decisions and advice that result in negative effects on sustainability factors”.⁵⁵

3.4.1 Sustainable Investment

Article 2 (17) defines ‘sustainable investment’. To qualify as a sustainable investment under the SFDR, the investment must thus comply with three cumulative criteria:⁵⁶

1. contribute to an environmental or social objective (“E/S objective”);
2. do no significant harm (“DNSH”) to those objectives;
3. good governance practices.

3.4.1.1 Contribute to an environmental or social objective (E/S objective)

When it comes to the E/S objective criterion, the definition in article 2 (17) SFDR contains a material description of what E/S objectives entail:

“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.”

The definition of sustainable investment in article 2 (17) SFDR lacks specific thresholds. Thresholds could easily have been implemented by aligning the term ‘environmental objective’ in article 2 (17) SFDR with its counterpart in article 9 of the Taxonomy Regulation, which establishes concrete thresholds

⁵⁵ Recital 20 SFDR.

⁵⁶ Article 2 (17) SFDR: “‘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 objectives and that the investee companies follow good governance practices, in particular with respect to sound management structures, employee relations, remuneration of staff and tax compliance.” [emphasis added].

through the technical screening criteria.⁵⁷ However, the missing link between article 2 (17) SFDR and article 9 TR is not a legislative mistake.⁵⁸ Instead, as has been recognized by the ESAs in 2020, although TR-alignment would have been beneficial for the comparability of sustainable investments and combating greenwashing, the SFDR is purposefully not aligned with the TR to cater for a broader range of economic activities than those contained in the TR.⁵⁹

In the current substantive approach to defining E/S objectives, the FMP must substantiate why the investment can be considered to have E/S objectives.⁶⁰ After all, the description in article 2 (17) SFDR contains the clear legislative intent that a product which does not objectively contribute to E/S objectives cannot qualify as a sustainable investment. This legislative approach aligns with the procedural transparency nature of the SFDR.

3.4.1.2 Do No Significant Harm and the Principal Adverse Impacts

The second criterion of ‘sustainable investment’ in article 2 (17) SFDR is that the investment does no significant harm to an E/S objective. Article 2a SFDR tasks the ESAs to develop the DNSH-criterion, which has been done by CDR 2022/1288. According to recital 10 CDR 2022/1288, financial products that have sustainable investment as their objective fulfil the DNSH criterion by considering the Principal Adverse Impacts, which are discussed below. However, as I discuss in paragraph 3.6.4 on article 9, it is not mandatory to consider the PAI in order to fulfil the DNSH-criterion on the basis of the articles contained in the SFDR and CDR 2022/1288; FMP have the option to fulfil the DNSH-criterion by considering the PAI but may also rely on their own assessment, as long as they are transparent about doing so.⁶¹

This raises the question of how the DNSH criterion should be interpreted when no PAI are considered. Notably, the TR also contains a DNSH criterion, for which specific disclosures have been formulated in the Technical Screening

57 Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 10-11; Kuipers W.B. & Klerk J.E., de, “Hoe duurzaam belegd is de impact van de “SFDR”?”, *Ondernemingsrecht* 2021, afl. 17, p. 809, 819; Nagel S., Lorenz L. & El-Qalqili J., “Nachhaltige Investitionen im System der Offenlegungs-VO und Taxonomie-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht*, 2022, Heft 5, p. 360, 363.

58 Nagel S., Lorenz L. & El-Qalqili J., “Nachhaltige Investitionen im System der Offenlegungs-VO und Taxonomie-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht*, 2022, Heft 5, p. 360, 363.

59 Joint ESAs Consultation on ESG Disclosures, 23 April 2020, JC 2020 16, p. 8.

60 Article 9 SFDR and article 19 CDR 2022/1288. Boogaard R.J., “Classificatie van financiële producten op grond van artikel 8 en 9 SFDR”, *Tijdschrift voor Financieel Recht* 2022, nr. 1, p. 13, 16-17.

61 Glander H., Kropf C. & Lühmann D., “Praktische Umsetzung der Pflichten aus der Offenlegungs-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 32.

Criteria (“TSC”).⁶² The SFDR or CDR 2022/1288 do not specifically link the DNSH criterion for ‘sustainable investment’ in the SFDR to that in the TR. However, recital 36 of the TR indicates that the DNSH criteria in the TR and the SFDR should be consistent. This aligns with the intent that the information generated on the basis of the TR should supplement the SFDR.⁶³ Glander, Kropf & Lühmann conclude from this that the legislative intent is that the DNSH criteria between the two regulations are interpreted coherently.⁶⁴ However, I argue that this is necessarily the case. First, if coherence was the intent, then this intent has not been translated into any real obligations in either the SFDR or the TR – a mere indication in the recitals is insufficient to constitute the obligation to apply the two DNSH criteria coherently. Secondly, articles 8 and 9 SFDR, which mandate DNSH-disclosures, are further worked out in articles 5 and 6 TR, from which follows that the DNSH-criteria from the TR only must be considered for information on explicitly Taxonomy-aligned investments. Third, the type of information that is disclosed under the SFDR, which is a procedural transparency regime, aligns better with a more open-ended approach to a DNSH criterion that allows FMP the discretion to choose a DNSH method that best fits their needs.⁶⁵ This can be opposed to the TR, which contains a quantitative qualification of environmentally sustainable economic activities, which therefore necessitates more specific DNSH criteria.⁶⁶

3.4.1.3 Minimum safeguards: Good governance practices

The ‘good governance practices’ criterion in article 2 (17) SFDR refers to four categories: sound management structures, employee relations, remuneration of staff, and tax compliance. According to a Commission FAQ, this criterion is considered to be satisfied if the criteria of article 18 of the Taxonomy Regulation are complied with.⁶⁷ These are in alignment with the OECD Guidelines

⁶² See paragraph 5.2.2 in Chapter 3.

⁶³ Recital 19 TR.

⁶⁴ Glander H., Kropf C. & Lühmann D., “Praktische Umsetzung der Pflichten aus der Offenlegungs-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 30.

⁶⁵ Recitals 5, 8, 10 SFDR. See the discussion in paragraph 3.2 of this Chapter on Labelling or transparency regime. Related: Tröger T. & Steuer S., “The Role of Disclosure in Green Finance”, *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8; Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 2-3.

⁶⁶ Recitals 5, 8, 10 SFDR. See the discussion in paragraph 3.2 of this Chapter on Labelling or transparency regime. Related: Tröger T. & Steuer S., “The Role of Disclosure in Green Finance”, *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8; Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 2-3.

⁶⁷ Commission Notice on the interpretation and implementation of certain legal provisions of the EU Taxonomy Regulation and links to the Sustainable Finance Disclosure Regulation 2023/C 211/01 C/2023/3719, p. 5.

for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights.⁶⁸ This is thus the only one of the three criteria for ‘sustainable investment’ under the SFDR that is explicitly aligned to the TR.⁶⁹

In general, given that the first two criteria of ‘sustainable investment’ from the SFDR – namely to contribute to an E/S objective and the DNSH criterion – do not contain any thresholds to qualify as sustainable, they can be seen as easier to comply with than the criteria for ‘environmentally sustainable economic activities’ and DNSH under the Taxonomy Regulation. The third criterion for ‘sustainable investment’ of the SFDR, good governance practices, is fulfilled when the minimum safeguards from article 18 TR are fulfilled.⁷⁰ Therefore, the Commission considers that investments that qualify as ‘environmentally sustainable’ under the TR (Taxonomy-aligned investments) automatically qualify as ‘sustainable investments’ under the SFDR – but not vice versa.⁷¹

3.4.2 Sustainability Risk

The term ‘sustainability risk’ is defined in article 2 (22) as “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.” Even though the SFDR demands disclosure of sustainability risks in articles 3, 5, and 6, there is no further guidance in the regulation itself, its delegated regulations, and the consolidated Q&A on the SFDR by the joint ESAs on how to establish what qualifies as a sustainability risk.⁷² Neither are the definitions linked to, for example, ‘financial materiality’ under the European Sustainability Reporting Standards (“ESRS”).⁷³ According to the ESRS, a sustainability impact is financially material “when it could reasonably be expected to affect the undertaking’s financial position, financial performance, cash flows, its

68 Including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights (1998).

69 See also: Glander H., Kropf C. & Lühmann D., “Praktische Umsetzung der Pflichten aus der Offenlegungs-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 31.

70 This would follow from article 18 (2) TR according to Commission Notice on the interpretation and implementation of certain legal provisions of the EU Taxonomy Regulation and links to the Sustainable Finance Disclosure Regulation 2023/C 211/01 C/2023/3719, p. 5.

71 Commission Notice on the interpretation and implementation of certain legal provisions of the EU Taxonomy Regulation and links to the Sustainable Finance Disclosure Regulation 2023/C 211/01 C/2023/3719, p. 5.

72 Klerk J.E. de & Velden J.W.P.M. van der, “SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 72-73.

73 Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards (ESRS). See specifically: ESRS 1, section 3.3 and 3.5 Financial Materiality.

access to finance or cost of capital over the short-, medium- or long-term.”⁷⁴ The ESRS also provide some guidance on how the open norm of ‘material’ should be delineated by assessing both the likelihood of occurrence and the potential magnitude of the financial effects.⁷⁵

Partiti notes that when considering sustainability risk, this can be done through various methods, including, for example, assessing how aligned a portfolio is with sustainability targets or by modelling the impact of ESG risk on their risk profile and expected returns.⁷⁶ The lack of guidance on ‘sustainability risk’ thus means that FMPs and FAs will have to develop their own interpretation of this term. Nonetheless, this may be less problematic than the open-endedness of ‘sustainable investment’. There are two reasons for this. First, because ‘sustainability risk’ is not (misguidingly) used to label certain financial products as sustainable. Second, the identification of and dealing with sustainability risk fits into a broader, already existing framework of dealing with financial risk in general (see para. 3.6.2).

3.4.3 Sustainability Factors

The term ‘sustainability factors’ is defined in article 2 (24) SFDR as “environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters.” Sustainability factors are relevant for the disclosure of ‘principal adverse impacts of investment decisions on sustainability factors’, discussed in the next paragraph. These are contained in Tables 1, 2, and 3 of Annex I CDR 2022/1288. It is not entirely clear whether the indicators contained in this table should be seen as a limitative list of sustainability factors. Two indicators that the list is not limitative are, first, that Table 1 contains a section for FMPs to indicate other indicators for PAI on sustainability factors.⁷⁷ Second, the broad definition of sustainability factors in article 2 (24) SFDR, in combination with the procedural transparency nature of the SFDR in general, points toward the fact that the sustainability factors that are listed

⁷⁴ ESRS 1, section 3.3.

⁷⁵ ESRS 1, section 3.5, point 51.

⁷⁶ Partiti E., “Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence”, *European Business Organizational Law Review* 2024, vol. 25, p. 299, 314-15.

⁷⁷ Annex I Commission Delegated Regulation (EU) 2022/1288 of 6 April 2022 supplementing Regulation (EU) 2019/2088 of the European Parliament and of the Council with regard to regulatory technical standards specifying the details of the content and presentation of the information in relation to the principle of ‘do no significant harm’, specifying the content, methodologies and presentation of information in relation to sustainability indicators and adverse sustainability impacts, and the content and presentation of the information in relation to the promotion of environmental or social characteristics and sustainable investment objectives in pre-contractual documents, on websites and in periodic reports (CDR 2022/1288).

in Tables 1, 2, and 3 CDR 2022/1288 should not be considered a limitative list.

3.4.4 Principal Adverse Impacts

The Principal Adverse Impacts (“PAI”) – sometimes referred to as principal adverse sustainability impacts – are “impacts of investment decisions and advice that result in negative effects on sustainability factors”.⁷⁸ They play a role in a number of disclosure requirements: the disclosure of PAI at entity level (article 4), PAI at financial product level (article 7), and the DNSH analysis for article 8 and 9 on product level.⁷⁹ These articles are primarily focused on FMPs. When the PAI are considered, the FMP can or must make use of the PAI statement prescribed in Commission Delegated Regulation (“CDR”) 2022/1288.⁸⁰ The obligation to disclose how PAI have been taken into account is worked out in more detail in Chapter II on ‘Transparency about adverse impacts on sustainability factors’ in CDR 2022/1288.⁸¹ The two most important elements of the PAI are (1) the description of the PAI itself (article 6 CDR 2022/1288) and (2) the description of the policies to identify and prioritize the PAI (article 7 CDR 2022/1288). To describe the PAI, Table 1 of Annex I of CDR 2022/1288 must be completed, which contains the mandatory indicators for identifying and describing the PAI.⁸² Tables 2 and 3 contain voluntary indicators. Table 1 has four important sections:

1. Summary, a description of a maximum of two pages, containing, inter alia, that the PAI are considered and a summary thereof;⁸³
2. Description of the PAI, containing a description of the policies to identify and prioritise PAI, and how those policies are kept up to date and applied, including the methodologies to select the indicators for the PAI and an explanation of how those methodologies consider the probability and severity of the PAI;⁸⁴
3. Indicators applicable to investments in investee companies. For this, FMP must “complete all the fields that relate to the indicators related to principal adverse impacts of their investment decisions on sustainability factors”,⁸⁵ which are contained in Table 1. Moreover, FMPs must add information

⁷⁸ Recital 20 SFDR.

⁷⁹ See: ESMA, Concepts of sustainable investments and environmentally sustainable activities in the EU Sustainable Finance framework, 22 November 2023, ESMA30-379-2279, p. 5.

⁸⁰ Article 2a and 4 (6) and (7) SFDR. Consolidated version of 20 February 2023 of CDR 2022/1288 has been used for this Chapter.

⁸¹ Article 2a and 4 (6) and (7) SFDR. Consolidated version of 20 February 2023 of CDR 2022/1288 has been used for this Chapter.

⁸² Siemers B.T.B., “De verklaring belangrijkste ongunstige effecten conform de SFDR”, *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 278.

⁸³ Article 5 CDR 2022/1288.

⁸⁴ Article 7 CDR 2022/1288.

⁸⁵ Article 6 CDR 2022/1288.

on “one or more” additional indicators on climate and environment from Table 2,⁸⁶ and for social and employee matters, respect for human rights, anti-corruption and anti-bribery matters, from Table 3.⁸⁷ Tables 2 and 3 thus are not entirely voluntary either.⁸⁸ FMPs may also add their own PAI where appropriate. For each indicator, the FMP must describe the impact in a specific year and the previous year, explain the impact and describe what actions have been taken and what actions are planned for the next reference period. Moreover, FMPs must describe whether and to what extent international standards and business conduct codes have been followed, as well as the degree of alignment with the Paris Agreement, where relevant.⁸⁹

4. Engagement policies, which describe, where applicable, their policies on shareholder engagement and summaries of other engagement policies to reduce principal adverse impacts. Of particular interest is the requirement to disclose “how those engagement policies will be adapted where there is no reduction of the principal adverse impacts over more than one period reported on.”⁹⁰ De Klerk & van der Velden argue that this implies a material obligation to take action when an indicator has worsened during the reporting period.⁹¹ However, I find that this interpretation may exceed the intent of the CDR: when examined within the broader context of the SFDR and CDR 2022/1288, it seems more likely that this is a procedural disclosure obligation than a substantive obligation to act.

86 Indicators in Table 2 include, for example, tonnes of inorganic pollutants equivalent per million EUR invested, expressed as a weighted average; share of securities in investments not issued under Union legislation on environmentally sustainable bonds.

87 Article 6 CDR 2022/1288. Indicators in Table 3 include, for example, share of investments in investee companies without a workplace accident prevention policy; number of workdays lost to injuries, accidents, fatalities or illness of investee companies expressed as a weighted average.

88 Siemers B.T.B., “De verklaring belangrijkste ongunstige effecten conform de SFDR”, *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 279.

89 Article 9 CDR 2022/1288.

90 Article 8 (2) (b) CDR 2022/1288.

91 Klerk J.E. de & Velden J.W.P.M. van der, “SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, para. 3.2.7.1. This seems also implied in: Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 9.

To better illustrate this, the beginning of Table 1 is shown in the image below:

Table 1

Statement on principal adverse impacts of investment decisions on sustainability factors

Financial market participant [<i>Name and, where available, LEI</i>]					
Summary [<i>Name and, where available, LEI</i>] considers principal adverse impacts of its investment decisions on sustainability factors. The present statement is the consolidated statement on principal adverse impacts on sustainability factors of [<i>name of the financial market participant</i>] [<i>where applicable, insert 'and its subsidiaries, namely [list the subsidiaries included]'</i>]. This statement on principal adverse impacts on sustainability factors covers the reference period from [<i>insert '1 January' or the date on which principal adverse impacts were first considered</i>] to 31 December [<i>year n</i>]. [<i>Summary referred to in Article 5 provided in the languages referred to in paragraph 1 thereof</i>]					
Description of the principal adverse impacts on sustainability factors [<i>Information referred to in Article 7 in the format set out below</i>]					
Indicators applicable to investments in investee companies					
Adverse sustainability indicator	Metric	Impact [year n]	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
CLIMATE AND OTHER ENVIRONMENT-RELATED INDICATORS					
Greenhouse gas emissions	1. GHG emissions	Scope 1 GHG emissions			
		Scope 2 GHG emissions			
		Scope 3 GHG emissions			

Figure 5: The beginning of Table 1, showing Summary, Description of PAI, and Indicators applicable to investments in investee companies. The first indicator, 1. GHG emissions, is shown in the picture. This is followed by another 17 indicators

Producing a PAI statement encompasses a significant effort, given the extensive requirements set out in CDR 2022/1288. However, while the format is prescriptive, the PAI statement does not contain material commitments, such as, for example, to exclude investments that have a negative impact on sustainability factors.⁹² Instead, the PAI framework mandates that FMPs scrutinize the effect of their investment decisions while maintaining transparency regarding any mitigation strategies – or the lack thereof.⁹³ In a way, the formats for the PAI statement reminiscence the European Sustainability Reporting Standards from the CSRD, which set out detailed formats for the disclosures in the annual sustainability report. Both frameworks provide comprehensive guidance on content requirements while abstaining from imposing mandatory

92 Labeur R.E., “Vermogensbeheerders & duurzaamheidstransparantie”, in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022p. 283-284.

93 Labeur R.E., “Vermogensbeheerders & duurzaamheidstransparantie”, in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022p. 283-284.

thresholds. A crucial distinction emerges, however, in that the ESRS incorporate a general materiality threshold which is absent from the PAI. Note that, although neither the SFDR nor CDR 2022/1288 explicitly mandates action on PAIs, Partiti argues that to show that they consider PAI, FMP are de facto forced to actively engage with the PAI.⁹⁴ Furthermore, Partiti suggests that this could even lead to FMPs engaging with investee companies to minimize adverse impacts.⁹⁵

One question that arises is how voluntary the indicators in Tables 1, 2, and 3 are.⁹⁶ This is not entirely clear.⁹⁷ Table 1 seems to be mandatory for FMPs required to produce PAI statements, though the absence of mandatory thresholds permits FMPs to designate specific indicators as inapplicable, unknown, or lacking associated action plans.⁹⁸ Tables 2 and 3, containing additional indicators, appear to have a quasi-mandatory status, with Article 6 CDR 2022/1288 requiring the completion of at least one indicator. Recital 4 CDR 2022/1288 implies that this should be the indicator with the most significant impact.⁹⁹

Another point that merits closer inspection concerns the methodology by which FMPs must gather information for their PAI statements.¹⁰⁰ The indicators specifically address investments in investee companies, necessitating that FMPs disclose information about these entities rather than about themselves. However, this presents significant complexities. In principle, the annual sustainability report that investee companies must disclose on the basis of the CSRD should provide sufficient data for FMPs to populate the adverse sustain-

94 Partiti E., "Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence", *European Business Organizational Law Review* 2024, vol. 25, p. 299, 316.

95 Partiti E., "Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence", *European Business Organizational Law Review* 2024, vol. 25, p. 299, 316.

96 Siemers argues that Table 1, at least, is mandatory, in: Siemers B.T.B., "De verklaring belangrijkste ongunstige effecten conform de SFDR", *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 277.

97 Siemers B.T.B., "De verklaring belangrijkste ongunstige effecten conform de SFDR", *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 277; Glander H., Lühmann D. & Jesch T.A., "Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)", *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 490-491.

98 Siemers B.T.B., "De verklaring belangrijkste ongunstige effecten conform de SFDR", *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 277.

99 Siemers B.T.B., "De verklaring belangrijkste ongunstige effecten conform de SFDR", *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 277.

100 Glander H., Lühmann D. & Jesch T.A., "Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)", *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 491.

ability indicators.¹⁰¹ After all, the CSRD explicitly aims to ensure that FMPs “have the information they need from investee undertakings to be able to comply with their own sustainability disclosure requirements” under the SFDR.¹⁰²

However, a number of practical problems may arise in this context. First, the jurisdictional scope for investee companies remains unrestricted – FMPs may invest in entities both within and outside the EU. Consequently, while CSRD sustainability reports will be available for some companies, others will produce sustainability reporting, if at all, according to different standards.¹⁰³ Furthermore, even within the ESRS framework, certain standards lack mandatory methodologies, potentially resulting in diverse compliance approaches among investee companies.¹⁰⁴ Such non-uniform data present significant challenges for FMPs attempting to aggregate information into comprehensive PAI indicators.¹⁰⁵ This regulatory complexity poses particular difficulties for smaller FMPs.¹⁰⁶ Even when FMPs manage to aggregate this heterogeneous information, the absence of standardized metrics in certain PAI indicators may lead different FMPs to produce varying types of disclosures. This, in turn, may diminish the comparative value of the PAI statement to investors.¹⁰⁷

There thus are four challenges inherent in the current PAI Statement requirements: (i) the extensive regulatory burden imposed by the PAI statement, (ii) the voluntary nature of certain aspects, including the absence of material thresholds or a materiality threshold, (iii) the challenges surrounding data collection and standardisation across different jurisdictions and reporting

101 Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 8.

102 Recital 21 CSRD; Roelofsen E.P., “Wat is de toekomst van het IMVB-convenant voor pensioenfondsen in het licht van de verplichtingen uit hoofde van artikel 4 van de SFDR?”, *Tijdschrift voor Pensioenvraagstukken* 2021, afl. 4, p. 10, 14.

103 Roelofsen E.P. & Taha R., “Over nut en noodzaak van de Principal Adverse Impact (PAI) indicatoren in de SFDR-regelgeving”, *Tijdschrift voor Financieel Recht* 2023, nr. 11, p. 372, 376-377; Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 490-491.

104 See: paragraph 4.3.1 on Quantitative data in Chapter 3.

105 Roelofsen E.P. & Taha R., “Over nut en noodzaak van de Principal Adverse Impact (PAI) indicatoren in de SFDR-regelgeving”, *Tijdschrift voor Financieel Recht* 2023, nr. 11, p. 372, 376-377; Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485.

106 Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485.

107 Roelofsen E.P. & Taha R., “Over nut en noodzaak van de Principal Adverse Impact (PAI) indicatoren in de SFDR-regelgeving”, *Tijdschrift voor Financieel Recht* 2023, nr. 11, p. 372, 376-377.

frameworks for investee companies, and (iv) the comparative value of the PAI statement for investors. These reverberate through the disclosure requirements under the SFDR that either mandate or provide optionality for PAI statement disclosure, as I discuss in this Chapter.

3.5 Ex Ante Disclosures at Entity Level

3.5.1 Introduction

As I explained in paragraph 2, the principal-agent problem is relevant prior to and after the conclusion of a contract between the investor and the intermediary. Prior to the conclusion of the contract, intermediaries may exploit the information asymmetry between them and the investor, which can lead to an adverse selection problem.¹⁰⁸ The investor can attempt to overcome this vulnerability by conducting research before selecting an intermediary, which increases information costs. This inhibits the efficient functioning of the market. In this section, I discuss the two main disclosure obligations that the SFDR introduces to reduce information asymmetries before the conclusion of the contract at entity level: the disclosure of sustainability impact (article 4) and sustainability risk (article 3).¹⁰⁹ Taken together, these two disclosure obligations can be seen as a reflection of the double materiality principle at entity level: they pertain to both the negative impact of the FMP or FA on sustainability factors and the negative impact of sustainability risks on the FMP or FA. They are, however, limited to the negative dimension of the double materiality principle, as the positive impacts on sustainability factors, as well as the opportunities that arise for FMP and FA through sustainability factors, are not included in these disclosures.

3.5.2 Article 4 – Sustainability Impact at Entity Level

Article 4 SFDR concerns the disclosure of due diligence policies on the consideration of principal adverse impacts of investment decisions on sustainability factors at the level of the FMP or FA.¹¹⁰ These disclosures are

108 Veil R. (ed.), *European Capital Markets Law* (2nd edition), Hart Publishing 2017, p. 266; Akerlof G.A., “The Market for “Lemons”: Qualitative Uncertainty and the Market Mechanism”, *The Quarterly Journal of Economics* 1970, vol. 84(3), p. 488.

109 A portfolio managed in the sense of article 4 (1) (8) MiFID II.

110 See: Krakuhn J., Stiefel K., Gilles E., “Die nachhaltige Finanzwirtschaft: Ausgewählte Reportingpflichten auf der Internetseite von Kreditinstituten und Versicherungsunternehmen nach der Offenlegungsverordnung und dem finalen Entwurf des technischen Regulierungsstandards”, *Zeitschrift für International Rechnungslegung* 2021, Heft 3, p. 133, 136; Roelofsen E.P., “Wat is de toekomst van het IMVB-convenant voor pensioenfondsen in het licht van de verplichtingen uit hoofde van artikel 4 van de SFDR?”, *Tijdschrift voor Pensioenvraagstukken*

voluntary: they must only be made whenever the FMP or FA considers principal adverse impacts.¹¹¹ When FMPs or FAs do not consider those, they merely must publish clear reasons for why they do not do so.¹¹² For FMPs with more than 500 employees, the publication of these due diligence policies are mandatory.¹¹³

To disclose adverse sustainability impacts at entity level, FMPs and FAs must publish on their websites a statement on the businesses' due diligence policies concerning those impacts.¹¹⁴ These policies should be contained in a section titled 'Statement on principal adverse impacts of investment decisions on sustainability factors'.¹¹⁵ The purpose of this section is to provide information on how the FMP or FA, in general, considers the PAI of investment decisions on sustainability factors.¹¹⁶ This section must include at least:

- “(a) information about their policies on the identification and prioritisation of principal adverse sustainability impacts and indicators;
- (b) a description of the principal adverse sustainability impacts and of any actions in relation thereto taken or, where relevant, planned;
- [...]
- (d) a reference to their adherence to responsible business conduct codes and internationally recognised standards for due diligence and reporting and, where relevant, the degree of their alignment with the objectives of the Paris Agreement.”¹¹⁷

Note that the obligation to disclose the due diligence procedures on principal adverse impacts on entity level, thus also includes the obligation to disclose the PAI itself.¹¹⁸

The exact contents of the 'Statement on principal adverse impacts of investment decisions on sustainability factors' are further specified in articles 4 – 10 for FMPs and articles 11 – 13 for FAs of CDR 2022/1288. The information in the statement should pertain to the preceding year and must include the information in Table 1 Annex I of CDR 2022/1288: the 'Description of the principal adverse impacts on sustainability factors'.¹¹⁹ This means that the FMPs and FAs that publish such a statement, must make a PAI assessment

2021, afl. 4, p. 10, 13-14; Labeur R.E., “Vermogensbeheerders & duurzaamheidstransparantie”, in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022, p. 283-284.

111 Article 4 (1) sub (a) and article 4 (5) sub (a) SFDR for FMP and FA respectively.

112 Article 4 (1) sub (b) and article 4 (5) sub (b) SFDR for FMP and FA respectively.

113 Article 4 (1) and (3) SFDR.

114 Article 4 (1) (a) SFDR.

115 Article 4 (1) and (3) CDR 2022/1288; article 11 CDR 2022/1288.

116 Article 4 (1) SFDR.

117 Article 4 (2) SFDR.

118 Roelofsen E.P., “Wat is de toekomst van het IMVB-convenant voor pensioenfondsen in het licht van de verplichtingen uit hoofde van artikel 4 van de SFDR?”, *Tijdschrift voor Pensioenvraagstukken* 2021, afl. 4, p. 10, 13-14.

119 Article 4 (1) and (2) CDR 2022/1288.

on entity level. Additionally, the policies and methods to identify and prioritise the PAI must be described.¹²⁰

As mentioned in paragraph 3.4.4 the PAI framework lacks explicit material thresholds for qualifying negative impacts or a general materiality threshold enabling FMPs and FAs to disregard immaterial impacts, article 4 (1) (a) SFDR appears to include a materiality principle – although the term ‘principal’ adverse impacts suggests a materiality threshold.¹²¹ The article requires FMPs and FAs to publish website statements on due diligence policies regarding PAI, “taking due account of their size, the nature and scale of their activities and the types of financial products they make available.” This seems to be a general materiality principle, which however begets two questions. First, the provision leaves ambiguous the precise reference point for materiality assessment. It remains unclear whether FMPs and FAs may exclude investment decisions based on their relative monetary significance within their product portfolio, or whether materiality should be evaluated primarily through the lens of environmental impact. Second, the methodology for conducting materiality assessments remains undefined. Other than, for example, the CSRD/ESRS, there is no guidance in the SFDR on this question. Given the multiple implicit materiality norms contained in the term ‘principal’ adverse impacts and in article 4 (1) (a) SFDR, thus leads to the conclusion that there is room for FMPs or FAs to publish an ‘incomplete’ statement on the sustainability impacts at entity level, depending on how the FMP or FA interprets the various materiality norms.¹²²

For FMPs with fewer than 500 employees, publishing adverse sustainability impacts at entity level is voluntary. When they do not choose to make public this information, they must state the reasons for this decision, including information on whether and when they plan to publish adverse sustainability impacts on entity level.¹²³ Article 4 thus contains a ‘comply-or-explain regime’ for FMPs with fewer than 500 employees.¹²⁴ For FAs, the ‘comply-or-explain’ regime applies regardless of their size – the disclosures thus are of a voluntary

¹²⁰ Article 7 CDR 2022/1288.

¹²¹ Partiti E., “Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence”, *European Business Organizational Law Review* 2024, vol. 25, p. 299, 315-316.

¹²² Siemers concludes that it should not be possible to publish a negative statement that PAI were not considered in combination with an incomplete Statement on the consideration of adverse impacts that does not include all relevant information. Siemers B.T.B., “De verklaring belangrijkste ongunstige effecten conform de SFDR”, *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 277.

¹²³ Article 4 (1) (b) SFDR; the statement explaining why they do not consider adverse impacts must be in line with article 12 CDR 2022/1288.

¹²⁴ Busch D., “The EU Sustainable Finance Disclosure Regulation”, *Capital Markets Law Journal* 2023, vol. 18(3), p. 303, 313.

nature.¹²⁵ FAs that publish ‘Statement on principal adverse impacts of investment decisions on sustainability factors’ do not have to make their own assessment of PAI of the financial products that they advise on. Rather, they must publish how they use the information that is disclosed by FMPs in the selection of the products that they advise on.¹²⁶ The disclosures of FAs thus directly depend on the disclosures of FMP. This means that when an FA advises on products for which the FMP has not made a PAI assessment, the FA lacks the necessary information to make disclosures under article 11 CDR 2022/1288.¹²⁷

For FMPs with more than 500 employees, disclosing adverse sustainability impacts at entity level is mandatory.¹²⁸ As Siemers points out, this threshold seems misaligned with the aim of making disclosures mandatory for FMPs that have a high impact: whether FMPs have a high impact depends less on the number of employees and more on the size of the investments.¹²⁹ Moreover, the question arises regarding how the entity-level disclosures from article 4 SFDR relate to the entity-level disclosures of sustainability impact that must be made pursuant to the CSRD. Article 4 SFDR disclosures are mandatory for FMPs with more than 500 employees, which also fall within the scope of the CSRD.¹³⁰ The CSRD requires a much broader assessment of sustainability impact at entity level, which is to be disclosed in the annual sustainability report that is part of the management report.¹³¹ Even though the type of disclosure and the aim of the CSRD differ from the website disclosure that is demanded by article 4 SFDR, it may be inefficient to require FMPs with more than 500 employees to make two distinct assessments of their sustainability impact at entity level. Nonetheless, the information that investee companies generate on the basis of the CSRD hopefully provides enough details to enable the FMP to make the PAI Statement.¹³²

125 Article 4 (5) SFDR; the statement explaining why they do not consider adverse impacts must be in line with article 13 CDR 2022/1288.

126 Article 11 (3) (a) CDR 2022/1288.

127 Which is easily manageable under the “comply or explain” regime for FAs under article 4 (5) SFDR.

128 Article 4 (1) and (3) SFDR. Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 488.

129 Siemers B.T.B., “De verklaring belangrijkste ongunstige effecten conform de SFDR”, *Tijdschrift voor Financieel Recht* 2022, nr. 11, p. 276, 277.

130 Article 1 (1) CSRD, amending article 1 AD. The scope is repeated in article 19a CSRD.

131 See: paragraph 3 of Chapter 3.

132 Roelofsen E.P., “Wat is de toekomst van het IMVB-convenant voor pensioenfondsen in het licht van de verplichtingen uit hoofde van artikel 4 van de SFDR?”, *Tijdschrift voor Pensioenvraagstukken* 2021, afl. 4, p. 10, 14.

3.5.3 Article 3 – Sustainability Risk at Entity Level

According to article 3 SFDR, FMPs and FAs must publish on their website information about their policies on the integration of sustainability risks in their investment decision-making process or investment advice.¹³³ This article applies to all FMPs and FAs regardless of their size, in contrast to the entity-level disclosure of sustainability impact from article 4 SFDR which only must be disclosed by FMPs with more than 500 employees. As I already discussed in para. 3.4.2, the definition of ‘sustainability risk’ is “environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters” but there is no further guidance on how this term should be interpreted.¹³⁴ Neither is there guidance on how the policies on the integration of this risk should be disclosed. This also stands in contrast with the disclosures in article 4 SFDR on sustainability impact at entity level, for which elaborate directions can be found in CDR 2022/1288. This lack of guidance means that FMPs and FAs have discretion in fulfilling the obligation from article 3 SFDR, which can put pressure on the degree of standardisation of sustainability risk disclosures on entity level across the sector.¹³⁵

Another issue, which was also touched upon in the previous paragraph on sustainability impact, is the relationship with the CSRD. Article 3 SFDR applies to all FMPs and all FAs, and although not all of them will have to comply with the CSRD, a significant portion of them likely will.¹³⁶ Under the CSRD, businesses must make public “the resilience of the undertaking’s business model and strategy in relation to risks related to sustainability matters”. Moreover, the ESRS, which set out in detail what to disclose under the CSRD, demand the disclosure of material risks in relation to sustainability matters.¹³⁷ In particular, the business must disclose its process, methodologies and assumptions for identifying and assessing material risks for all disclosure

133 Article 3 (1) and (2) SFDR for FMPs and FAs respectively.

134 Article 2 (24) SFDR.

135 See also: Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 26; Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 488-489.

136 See paragraph 3.3 of Chapter 3 on the scope of the CSRD. As I explained in Chapter 3, the CSRD applies (i) credit institutions; (ii) insurance companies; (iii) all large companies; (iv) all listed companies regardless of their size, as follows from article 19a CSRD. It is likely that many FMPs and FAs will have to comply with the CSRD because they are large undertakings that exceed the size thresholds, or because they are credit institutions, insurance undertakings, or public-interest entities that are explicitly covered regardless of size. Additionally, asset managers that are listed on European financial markets fall within the scope of the CSRD even if they are SMEs.

137 ESRS 1 para. 2.

requirements in the topical ESRS.¹³⁸ For example, ESRS E1 on climate change requires that the business discloses the process to identify material risks, including a description of how the business identifies climate-related physical and transition risks.¹³⁹ While it seems efficient to use the CSRD disclosures as a basis for the SFDR disclosures, the question arises whether the CSRD's focus on the business model and strategy sufficiently covers the SFDR's focus on policies regarding the investment decision-making process. Moreover, the CSRD disclosures are limited by the general principle of materiality that is central to that directive, whereas article 3 SFDR does not contain any reference to a materiality norm.¹⁴⁰ The value of entity-level disclosures has also been subject to a targeted consultation by the Commission. In this consultation, the majority of FMPs and FAs responded that they did not consider the SFDR the right place to include entity-level disclosures (in contrast to respondents who were NGOs).¹⁴¹ A large majority of respondents expressed the need for better streamlined and simplified disclosure requirements across the EU SFF, and in particular between the SFDR and the CSRD disclosure obligations at entity level.¹⁴²

3.6 Ex Ante Disclosures at Product Level

3.6.1 Introduction

Articles 6-10 of the SFDR establish disclosure requirements at the product level. The definition of 'financial product' under article 2 (12) SFDR, financial products includes portfolios, Alternative Investment Funds (AIFs), and UCITS. What unites these 'products', is that they comprise multiple individual invest-

138 ESRS 2 para. 2 (a). The disclosure requirements from ESRS 1 are jointly applicable with the disclosure ESRS 2, which *inter alia* describe what information must be disclosed under the material risk sections; ESRS 2 para. 53.

139 ESRS E1 para. 20.

140 Glander H., Lühmann D. & Jesch T.A., "Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)", *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 488-489.

141 European Commission, Targeted consultation on the implementation of the Sustainable Finance Disclosures Regulation (SFDR), 14 September 2023 – 22 December 2023, Summary report: public and targeted consultations on the implementation of the Sustainable Finance Disclosures Regulation (SFDR), 3 May 2024, available at: https://finance.ec.europa.eu/document/download/0f2cfde1-12b0-4860-b548-0393ac5b592b_en?filename=2023-sfdr-implementation-summary-of-responses_en.pdf, p. 7.

142 European Commission, Targeted consultation on the implementation of the Sustainable Finance Disclosures Regulation (SFDR), 14 September 2023 – 22 December 2023, Summary report: public and targeted consultations on the implementation of the Sustainable Finance Disclosures Regulation (SFDR), 3 May 2024, available at: https://finance.ec.europa.eu/document/download/0f2cfde1-12b0-4860-b548-0393ac5b592b_en?filename=2023-sfdr-implementation-summary-of-responses_en.pdf, p. 2.

ments. The fact that the ‘products’ consist of multiple investments, is challenging for sustainability disclosures as the impact or risk must be disclosed on an aggregated basis instead of the impact or risk in relation to individual securities. The SFDR establishes three distinct categories of financial products, each with its own disclosure requirements:

1. Products with no specific sustainability characteristics (Articles 6 and 7)
2. Products that promote environmental or social characteristics (Article 8)
3. Products that have sustainable investment as their core objective (Article 9)

Similar to the entity level disclosures, the double materiality principle is also reflected in the product level disclosures, with article 6 focusing on sustainability risk, i.e. the (potential) negative impacts of sustainability on the product, article 7 focusing on the negative impact of the product on sustainability factors, and articles 8 and 9 focusing on the positive impact on sustainability.

3.6.2 Article 6 – Sustainability Risk at Product Level

Article 6 SFDR requires the pre-contractual disclosure to include: (a) how sustainability risks are integrated into investment decisions or advice, and (b) the likely impacts of sustainability risks on the returns of the available financial products.¹⁴³ In essence, article 6 SFDR thus establishes two distinct types of disclosures: a procedural requirement to disclose the process of integrating sustainability risk under (a) and a substantive requirement to assess and disclose how these risks impact product value under (b). While the article thus may be framed as a procedural transparency requirement, it appears to implicitly require FMPs and FAs to conduct a risk assessment and disclose the outcomes. However, when FMPs or FAs find that the risks are not relevant to the investment decision or advice, they merely need to disclose the reasons therefor.¹⁴⁴ This, however, should not be equated to the comply-or-explain approach under article 4 SFDR, as article 6 SFDR contains a strict materiality threshold: only when risks are not relevant may they be dismissed.

The disclosures under article 6 SFDR must be made in line with the applicable sectoral legislation governing the pre-contractual disclosures for each type of FMP or FA.¹⁴⁵ For example, investment firms providing portfolio management services must make the SFDR disclosures in accordance with article 24 (4) of MiFID II.¹⁴⁶ That article requires investment firms to provide appropriate information in a timely manner on *inter alia* the investment strategies

¹⁴³ Article 6 (1) and (2) SFDR; Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 41.

¹⁴⁴ Last sentence of article 6 (1) and (2) SFDR respectively.

¹⁴⁵ This follows from article 6 (3) SFDR; Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 36.

¹⁴⁶ Article 6 (3) (h) SFDR.

used. This must also include information on and warnings about the risks associated with investments and investment strategies.¹⁴⁷ Article 6 (3) SFDR thus ties the disclosures of sustainability risk at product level into the sectoral disclosure framework that applies to FMP and FA. One question that arises in this context, is whether article 6 SFDR creates a standalone obligation or merely clarifies the scope of existing financial risk disclosure requirements under sectoral legislation.¹⁴⁸ In particular, the question arises whether article 6 SFDR imposes additional disclosure obligations on FMPs and FAs or simply confirms that the term ‘risk’ under Article 24 (4) (b) MiFID II encompasses sustainability-related financial risks.¹⁴⁹

On the one hand, the latter interpretation appears more convincing, as it seems reasonable to include sustainability-derived financial risks in MiFID II as the fundamental purpose of the risk disclosure is to enable clients to comprehend investment risks in order to make an informed investment decision.¹⁵⁰ This would also seem in line with the fact that CDR 2017/565, which supplements MiFID II concerning the organizational requirements for investment firms, includes, where relevant, information on sustainability factors (although not sustainability risk) in investment advice under article 24 (4) MiFID II.¹⁵¹ On the other hand, article 6 SFDR contains a significantly more elaborate obligation than the disclosure of “guidance on and warnings of the risks associated with investments in those instruments or in respect of particular investment strategies.”¹⁵² After all, the FMP or FA must disclose under (a) how sustainability risks are integrated into investment decisions or advice, which implies a level of risk management on behalf of the FMP or FA, and under (b) conduct a risk assessment and disclose the outcomes. The requirements from article 6 SFDR thus are much more comprehensive than the

¹⁴⁷ Article 24 (4) (b) MiFID II.

¹⁴⁸ Klerk J.E. de & Velden J.W.P.M. van der, “SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 76: the authors argue that better alignment between article 6 SFDR and the sectoral legislation would have been desirable.

¹⁴⁹ A similar discussion in relation to the interpretation of the term ‘klimaatrisico’ (climate risk) in risk management on the basis of articles 3:10 and 3:17 Wft (Dutch implementation of MiFID) can be found in: Nuijten S.M.C., Vermeulen S.A.M. & Eerden F.W.J. van der, “Alleen samen krijgen we klimaatverandering onder controle? Over handhaving van duurzaamheidsverplichtingen voor financiële ondernemingen”, *Tijdschrift voor Financieel Recht* 2021, nr. 8/9, p. 314, 318-319, 322.

¹⁵⁰ Recital 3, 78 MiFID II.

¹⁵¹ Article 52 (3) (c) CDR 2017/565 (consolidated version of 2 August 2022).

¹⁵² Article 24 (4) (b) SFDR; Salerno M.E., “Integrating Sustainability in the MiFID II Package-Based Regulations: Effects on Financial Intermediaries’ Accountability and Potential Conflict Between Regulatory Objectives”, in: Ramos Muñoz D.R. & Smoleňska A. (eds.), *Greening the Bond Market: A European Perspective*, Springer International 2023, p. 175-203.

disclosures that have to be made under article 24 (4) MiFID II.¹⁵³ Consequently, article 6 SFDR is best understood as complementary to the sectoral disclosure obligations regarding financial risks.

3.6.3 Article 7 – (Negative) Sustainability Impact at Product Level

Article 7 SFDR contains the obligation to disclose whether, and if so, how negative sustainability impacts are considered at product level. Whereas under article 6 SFDR all FMPs and FAs must disclose sustainability risk at product level, the obligation to disclose sustainability impact only applies to FMPs that comply with article 4 (1) (a) or 4 (3) or (4) SFDR.¹⁵⁴ This means that all FMPs that disclose sustainability impact at entity level, whether voluntarily or because they are required to do so due to their size, must also disclose sustainability impact at product level in line with article 7 SFDR.¹⁵⁵ The information has to be disclosed according to article 6 (3) SFDR, which, as discussed in the previous paragraph, prescribes that the disclosure should be included in the sectoral pre-contractual disclosure framework that applies to the FMP.¹⁵⁶ For example, investment firms providing portfolio management services must disclose sustainability impact at product level in accordance with Article 24 (4) of MiFID II.

When a financial product does consider principal adverse impacts, FMPs have to explain *how* the financial product considers principal adverse impacts on sustainability factors.¹⁵⁷ While FMPs may use CDR 2022/1288 for PAI disclosure, as examined in paragraph 3.4.4, this may be challenging.¹⁵⁸ That is because CDR 2022/1288 lacks guidance on how to consider PAI at product level: articles 4-10 CDR 2022/1288 concern the disclosures of PAI at entity-level disclosures; articles 14 – 49 contain rules on pre-contractual disclosures at product level for article 8 and 9 products, which however do not pertain to

153 See also: Nuijten S.M.C., Vermeulen S.A.M. & Eerden F.W.J. van der, “Alleen samen krijgen we klimaatverandering onder controle? Over handhaving van duurzaamheidsverplichtingen voor financiële ondernemingen”, *Tijdschrift voor Financieel Recht* 2021, nr. 8/9, p. 314, 318-319, 322.

154 Article 7 (1) SFDR. If an FMP does not consider sustainability impacts at entity level in line with article 4 (1) (b) SFDR, that FMP should, according to article 7 (2) SFDR, include for each financial product a statement that it does not consider the adverse impacts and the reasons therefor. Glander H., Kropf C. & Lühmann D., “Praktische Umsetzung der Pflichten aus der Offenlegungs-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 36.

155 FMPs with more than 500 employees must disclose the negative sustainability impact at entity level, for other FMPs and for FAs there is a comply or explain regime.

156 Article 7 (1) SFDR.

157 Article 7 (1) (a) SFDR.

158 Article 7 (1) last sentence SFDR. Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 2)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 11, p. 545, 546.

PAI at all. Consequently, FMPs must develop their own method to determine product-level principal adverse impacts on sustainability factors.

To illustrate why this is challenging, consider an individual asset management portfolio, a financial product in the sense of the SFDR, that contains 100 distinct investments, each with unique sustainability impacts. To comply with article 7 SFDR, the FMP must develop a method to aggregate these individual impacts into a coherent portfolio-level assessment. There are three primary challenges when developing such a method. First, the issuers of the individual investments that are contained in the portfolio are not obligated to assess PAI according to CDR 2022/1288 metrics. FMPs must therefore devise methodologies to translate available information – primarily CSRD disclosures (if at all available) and Taxonomy alignment data (if applicable) – into principal adverse impacts. This may be even more complicated for investments that are issued outside the scope of the CSRD and/or TR and those issued outside of the EU, for which no such data may be available. A second challenge is that not all individual investments in the portfolio may be investments in issuers in the real economy with direct economic impact measurement capabilities, such as derivatives, index funds, or exchange-traded funds, complicating meaningful PAI assessment. A third challenge is how to weigh the different impacts across the portfolio given the dynamic nature of portfolio composition.

It is crucial to note that the SFDR mandates disclosure of the methodologies for considering principal adverse impacts at product level, rather than actual PAI assessment outcomes. However, the absence of specific guidance within both the SFDR and CDR 2022/1288, combined with the aforementioned complexities, creates substantial challenges for FMPs in establishing robust methodologies. Moreover, whilst the considerable discretion afforded to FMPs in methodology may align with the procedural transparency nature of the SFDR, it may also diminish the comparative value of these disclosures for investors.

3.6.4 Articles 8 and 9 – Products that Promote Environmental or Social Characteristics and Products that have Sustainable Investments as their Objective

Articles 8 and 9 SFDR contain the respective disclosures for products that contain investments that promote E/S characteristics in companies with good governance practices (article 8) and products that have sustainable investments as their objective and follow a designated reference benchmark (article 9). The articles only apply to FMPs. The prescribed disclosures must be made along the pre-contractual sectoral disclosure requirements applicable to FMPs.¹⁵⁹ For example, investment firms providing portfolio management services must make article 8 and 9 SFDR disclosures in accordance with article 24 (4) of

¹⁵⁹ Article 8 (1) and 6 (3) SFDR; article 9 (1) and 6 (3) SFDR.

MiFID II.¹⁶⁰ Furthermore, this information must be published on the FMP's website in accordance with article 10 SFDR.

While articles 7, 8 and 9 SFDR all address the sustainability impact of financial products, they have a different focal point: whereas article 7 SFDR focuses on the negative impact on sustainability factors, articles 8 and 9 focus on the disclosure of positive impacts. This positive focus has led to article 8 and products to be referred to as light green products (article 8) and dark green products (article 9).¹⁶¹ This can be contrasted to the financial products under articles 6 and 7 SFDR, with no sustainability ambition, sometimes referred to as grey or colourless products.¹⁶²

When FMPs make available article 8 or 9 SFDR products, the scope of the disclosure requirements will increase substantively compared to the disclosures under articles 6 and 7 SFDR. For article 8 SFDR products, FMPs must disclose how the E/S characteristics are achieved, whether and through what methodology an index has been designated as a reference benchmark, and how this designated index demonstrates consistency with the E/S characteristics promoted by the financial product.¹⁶³ Similarly, for article 9 SFDR products, the FMP must disclose how the sustainable investment objective of the product is aligned to the designated reference benchmark and how that benchmark relates to a broad market index.¹⁶⁴ For both articles 8 and 9 products, the disclosure requirements have been elaborated in CDR 2022/1288 in articles 14 – 17 and articles 18 – 19 respectively.¹⁶⁵ Moreover, Annexes II and III of CDR 2022/1288 provide templates according to which these pre-contractual disclosures can be made, respectively for articles 8 and 9 SFDR.¹⁶⁶ To analyse

¹⁶⁰ Article 8 (2) and 9 (2) SFDR respectively.

¹⁶¹ Even the ESAs have referred to these products as light green and dark green, in: Joint ESAs Consultation on Taxonomy-related sustainability disclosures, 15 March 2021, JC 2021 22, p. 5. Also, for example: Ramos Muñoz D., Lamandini M. & Siri M., "The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, European Parliament 2024, No. PE 754.212, p. 10.

¹⁶² Steuer S., "Grüne Transparenz und nachhaltige Verwirrung – Die produktbezogenen Informationsvorschriften der SFDR", *Zeitschrift für Bankrecht und Bankwirtschaft* 2022, vol. 34(1), p. 31, 35.

¹⁶³ Article 8 (1) SFDR.

¹⁶⁴ Article 9 (1) SFDR.

¹⁶⁵ An elaborate analysis of the disclosure classification of financial products under article 8 and 9 SFDR, as well as the applicable transparency requirements, can be found in: Boogaard R.J., "Classificatie van financiële producten op grond van artikel 8 en 9 SFDR", *Tijdschrift voor Financieel Recht* 2022, nr. 1, p. 13.

¹⁶⁶ Boogaard R.J., "Classificatie van financiële producten op grond van artikel 8 en 9 SFDR", *Tijdschrift voor Financieel Recht* 2022, nr. 1, p. 13.

¹⁶⁷ Annex II CDR 2022/1288 as amended by Annex I CDR 2023/363.

these disclosures in the next sections, I have summarised the most important disclosures on the basis of articles 8 and 9 SFDR in the table shown on the next page, derived from articles 14 – 19 and Annexes II and III of CDR 2022/1288.

Table 6: Article 8 and 9 SFDR disclosures from Annexes II and III of CDR 2022/1288. Source: Own image.

Article 8 and 9 SFDR disclosures from Annexes II and III of CDR 2022/1288		
	Article 8 pre-contractual disclosures ¹⁶⁷	Article 9 pre-contractual disclosures ¹⁶⁸
1	Statement that the financial product does not have sustainable investment as objective but promotes E/S characteristics ¹⁶⁹ - Minimum proportion of sustainable investments in %	Statement that the product has sustainable investment as objective ¹⁷⁰ - Percentage of sustainable investments with environmental objective - Percentage of sustainable investment with social objective
2	E/S characteristics - What E/S characteristics are promoted by this financial product? - What sustainability indicators are used to measure the attainment of E/S characteristics promoted by this product?	Indication of sustainable investment objectives - What is the sustainable investment objective of this financial product? - Indicators for measuring attainment objectives
3	DNSH: in principle not mandatory in the sense of art. 3 TR of art. 2 (17) SFDR ¹⁷¹ - If the product contains a minimum proportion of sustainable investments, then mandatory in the sense of 2 (17) SFDR for those investments - If the product contains taxonomy-aligned investments, then mandatory on the basis of article 3 TR for those investments.	DNSH: mandatory in the sense of article 2 (17) SFDR ¹⁷² - If the product contains taxonomy-aligned investments, then mandatory on the basis of article 3 TR for those investments.

¹⁶⁸ Annex III CDR 2022/1288 as amended by Annex II CDR 2023/363.

¹⁶⁹ Article 14 CDR 2022/1288.

¹⁷⁰ Article 18 CDR 2022/1288.

¹⁷¹ Glander H., Kropf C. & Lühmann D., "Praktische Umsetzung der Pflichten aus der Offenlegungs-VO", *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 35.

¹⁷² Glander H., Kropf C. & Lühmann D., "Praktische Umsetzung der Pflichten aus der Offenlegungs-VO", *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 35.

Article 8 and 9 SFDR disclosures from Annexes II and III of CDR 2022/1288		
4	Minimum Safeguards: in principle not mandatory ¹⁷³ - If the product contains a minimum proportion of sustainable investments, then mandatory in the sense of 2 (17) SFDR for those investments - If the product contains taxonomy-aligned investments, then mandatory on the basis of article 3 and 18 DTR for those investments.	Minimum Safeguards: mandatory in the sense of article 2 (17) SFDR ¹⁷⁴ - If the product contains taxonomy-aligned investments, then mandatory on the basis of article 3 and 18 DTR for those investments.
5	Does this financial product consider PAI? [Y/N]	
6	Investment strategy – what are the binding elements to select E/S characteristics?	Investment strategy – what are the binding elements to select the sustainable investment objectives?
7	Planned asset allocation ¹⁷⁵ – to what extent are sustainable investments with an environmental objectives Taxonomy-aligned? <i>See: Figure 6</i>	Planned asset allocation - to what extent are sustainable investments with an environmental objectives Taxonomy-aligned? <i>See: Figure 7</i>
8	To what minimum extent are sustainable investments with an environmental objective aligned with the EU Taxonomy? ¹⁷⁶ <i>See: Figure 8</i>	
9	What is the minimum share of sustainable investments that are not Taxonomy-aligned? (SFDR sustainable but not TR sustainable?) ¹⁷⁷ [e.g. 0%]	
10	What investments are not sustainable, what is their purpose & are there any minimum E/S safeguards?	
11	Is a specific index designated to determine alignment with E/S characteristics or sustainable investment objectives?	

173 Glander H., Kropf C. & Lühmann D., "Praktische Umsetzung der Pflichten aus der Offenlegungs-VO", *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 35.

174 Glander H., Kropf C. & Lühmann D., "Praktische Umsetzung der Pflichten aus der Offenlegungs-VO", *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 35.

175 Article 16 CDR 2022/1288.

176 Article 15, 17 CDR 2022/1288.

177 Article 19 CDR 2022/1288.

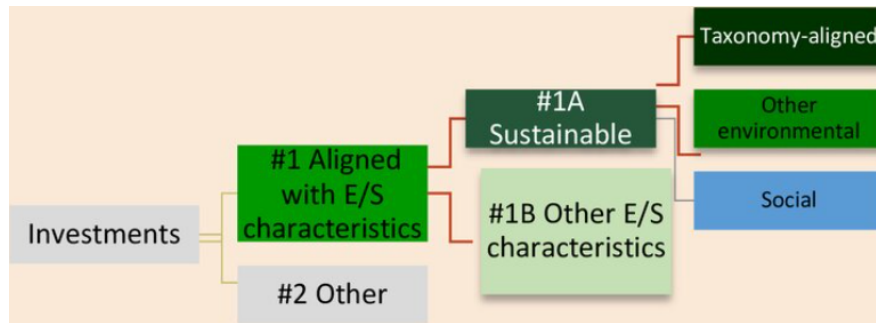


Figure 6: Planned asset allocation article 8 SFDR. Source: Annex II CDR 2022/1288 as amended by Annex I CDR 2023/363

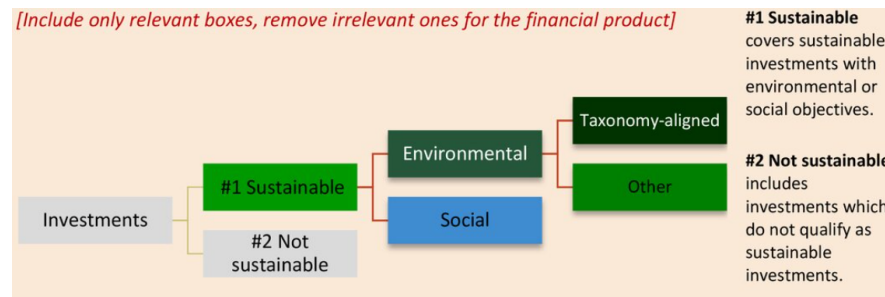


Figure 7: Planned asset allocation article 9 SFDR. Source: Annex II CDR 2022/1288 as amended by Annex I CDR 2023/363.

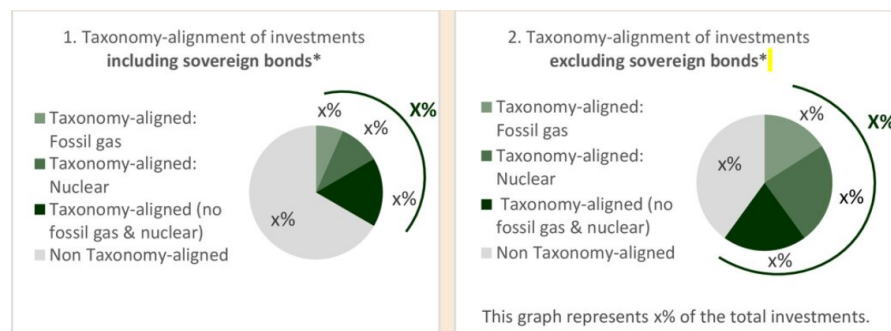


Figure 8: Minimum Taxonomy-alignments. Source: Annex II CDR 2022/1288 as amended by Annex I CDR 2023/363.

3.6.4.1 Articles 8 and 9 SFDR as Procedural Transparency Framework

As discussed in paragraph 3.2 of this Chapter, the SFDR is intended as a procedural transparency regime that enables investors to form their own judgement of an investment on the basis of the information provided to them.¹⁷⁸ Therefore, the disclosure requirements under articles 8 and 9 SFDR should primarily be analysed through the lens of a transparency regime. In line with the regulatory approach of a procedural transparency regime, this analysis should focus on how the SFDR requires the disclosing of qualitative or quantitative data that enable an informed investment decision.¹⁷⁹ What is crucial under this regulatory approach, is that the disclosures are comprehensive and relevant, which is realised by using the double materiality principle as the organising principle for disclosures.¹⁸⁰ Additionally, the disclosures should be neutral and not contain normative judgements as this impedes the ability of the investor to make their own assessment of the information provided.¹⁸¹

– Double Materiality

While the double materiality principle necessitates disclosure of both positive and negative impacts, risks, and opportunities, the current regulatory framework exhibits a significant bias toward positive sustainability impact disclosures: FMPs must describe what E/S characteristics or the sustainable investment objective of the financial product are, including what indicators are used to measure these. Conversely, the disclosure of negative impacts is limited. For article 8 SFDR products that neither pursue sustainable investment objectives nor contain Taxonomy-aligned investments, there are no mandatory requirements for material DNSH disclosures, minimum safeguards, or PAI considerations. While article 9 SFDR products face more stringent requirements, including mandatory DNSH and minimum safeguards disclosures, FMPs can still avoid the disclosure of PAI considerations by simply indicating that these have not been taken into account. This creates a situation in which articles 8

178 In his chapter on the SFDR, Zukas shows how various official key players like the Commission and ESMA have tried for the first few years to clearly communicate that the SFDR is not a labelling regime: Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 28-33; Partiti E., "Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence", *European Business Organizational Law Review* 2024, vol. 25, p. 299, 300.

179 Tröger T. & Steuer S., "The Role of Disclosure in Green Finance", *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8.

180 Paragraph 2 of this Chapter.

181 Tröger T. & Steuer S., "The Role of Disclosure in Green Finance", *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8; Partiti E., "Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence", *European Business Organizational Law Review* 2024, vol. 25, p. 299, 301.

and 9 SFDR emphasise positive sustainability impacts and potentially overlooking adverse effects.¹⁸² This asymmetry is also highlighted in the Annual Commission Report on Principal Adverse Impact disclosures of 30 October 2024, in which it is stressed that there are financial products for which article 8 or 9 disclosures have been made (positive impact) but no article 7 disclosures (negative impact).¹⁸³ This discrepancy stems from the differing applicability criteria: whether mandatory disclosures have to be made under article 7 SFDR depends on the size of the FMP or FA, whereas the duty to disclose information under article 8 and 9 SFDR depends on whether the FMP chooses to rely on either of the articles. An additional shortcoming in light of the double materiality principle is that articles 8 and 9 SFDR products need not per se disclose the financial risks and opportunities of sustainability factors for the financial product. The reason for this is that the same application criterion of article 7 SFDR also applies to article 6 SFDR: disclosing financial risk at product level is dependent on the size of the FMP. For the disclosure of financial opportunities, there is no transparency requirement at all in the SFDR.

– *Neutral Information*

A regulatory approach that aims at procedural transparency also provides for neutral information and avoids normative judgments to facilitate independent investor assessment.¹⁸⁴ In general, articles 8 and 9 SFDR achieve this by using open-ended concepts and focusing on the disclosure of methods, which encompasses a neutral approach to, i.e., the product's design, investment methodologies and other elements.¹⁸⁵ For article 8 products, the central criterion, the promotion of environmental or social characteristics, remains undefined in the SFDR. Instead, CDR 2022/1288 mandates the FMP to explain what characteristics are promoted, specify measurement indicators, optionally reference benchmarks, and disclose to what extent assets are Taxonomy-aligned.¹⁸⁶ Similarly, article 9 SFDR, requires that the product has sustainable

182 Ramos Muñoz D., Lamandini M. & Siri M., "The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, European Parliament 2024, No. PE 754.212, p. 29.

183 Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68.

184 Tröger T. & Steuer S., "The Role of Disclosure in Green Finance", *ECGI Law Working Paper* 2021, available at: https://www.ecgi.global/sites/default/files/working_papers/documents/steuertrogerfinal.pdf, p. 7-8; Partiti E., "Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence", *European Business Organizational Law Review* 2024, vol. 25, p. 299, 301.

185 Commission Decision, on the adoption of the answers to be provided to questions submitted by the European Supervisory Authorities under Article 16b(5) of Regulation (EU) No 1093/2010, Regulation (EU) No 1094/2010, Regulation (EU) No 1095/2010 of the European Parliament and of the Council in the period from 1 January 2021 to 30 January 2021, 14 July 2021, Ares(2021)4556843, Annex, p. 5, 7.

186 Annex II CDR 2022/1288 as amended by Annex I CDR 2023/363.

investment as defined in article 2 (17) SFDR as its objective. While article 2(17) establishes that investments must pursue E/S objectives, avoid significant harm to other E/S objectives, and maintain minimum safeguards, it purposefully refrains from strictly delineating E/S objectives.¹⁸⁷ The disclosure requirements under article 9 SFDR and CDR 2022/1288 can therefore be seen as a framework in which the FMP can explain its rationale for their product classification.¹⁸⁸

The procedural nature of articles 8 and 9 SFDR becomes even more evident when comparing it to the TR. Articles 8 and 9 SFDR share a number of conceptual similarities with the TR, particularly the concept of ‘environmental objectives’ (art. 3 jo 9 TR), the DNSH criterion (art. 3 and 17 TR), and minimum safeguards (art. 18 TR). However, SFDR products need not substantively satisfy these TR standards.¹⁸⁹ Instead, the focus remains on delivering methodologically neutral information, enabling investors to conduct unbiased assessments.

There are three notable exceptions to the procedural transparency approach of articles 8 and 9 SFDR. First, there is the fundamental question of why a procedural transparency framework even necessitates categorising financial products into two different categories.¹⁹⁰ After all, such categorisation by law seems unnecessary for a regulatory strategy that is focused on providing neutral information to investors in order to enable them to make their own assessment.¹⁹¹ Second, financial products under articles 8 or 9 SFDR containing Taxonomy-aligned investments must satisfy the TR’s material thresholds. This exception is logically consistent, as SFDR’s procedural nature cannot supersede TR requirements for products claiming environmental sustainability under that regulation. Third, article 8 products not only must promote E/S characteristics, but also restrict investments to companies demonstrating good governance practices.¹⁹² Other than the disclosures pertaining to the E/S

187 Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 16.

188 Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 16.

189 Nagel, Lorenz & El-Qalqili relate this to the Commissions choice to not make the qualification of an article 8 or 9 SFDR product dependent on meeting a pre-determined percentage of Taxonomy-aligned investment, see: Nagel S., Lorenz L. & El-Qalqili J., “Nachhaltige Investitionen im System der Offenlegungs-VO und Taxonomie-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht*, 2022, Heft 5, p. 360, 364.

190 Steuer S., “Grüne Transparenz und nachhaltige Verwirrung – Die produktbezogenen Informationsvorschriften der SFDR”, *Zeitschrift für Bankrecht und Bankwirtschaft* 2022, vol. 34(1), p. 31, 32.

191 Steuer S., “Grüne Transparenz und nachhaltige Verwirrung – Die produktbezogenen Informationsvorschriften der SFDR”, *Zeitschrift für Bankrecht und Bankwirtschaft* 2022, vol. 34(1), p. 31, 32.

192 Article 8 (1) SFDR.

characteristics, this requirement seems to be of a substantive nature. Steuer convincingly argues that this criterion therefore does not align with the intent of the SFDR.¹⁹³ I agree with this assessment: given the SFDR's aim to enhance transparency on how sustainability is considered in investment decisions, a substantive requirement to limit investments to companies with good governance practices is misaligned to the general regulatory strategy pursued by the regulation. Additionally, it is incongruent to have this as a substantive requirement, while the disclosures under article 8 SFDR do not need to substantively meet the minimum safeguards from article 2 (17) SFDR.¹⁹⁴

3.6.4.2 Articles 8 and 9 SFDR as Product Labels

The product categorisation of the SFDR is in practice used – or at least perceived – as a labelling regime for light green (article 8) and dark green (article 9) products that refer to a certain degree of sustainability.¹⁹⁵ This use of the SFDR raises the question however whether articles 8 and 9 SFDR are suitable for this practice.

As mentioned before, the regulatory strategy of the SFDR is procedural transparency. This can be contrasted to labelling, which is aimed at reducing the complexity of data and providing a pre-defined normative affirmation of quality.¹⁹⁶ To achieve its aim, the label must be based on clear and pre-defined indicators.¹⁹⁷ It is clear that articles 8 and 9 SFDR do not meet this criterion. There are a number of factors that play a role. First of all, the core categorization criteria – promotion of E/S objectives, sustainable investment objective – are open-ended.¹⁹⁸ Second, the articles do not contain material thresholds: for example, there is no minimum percentage Taxonomy-alignment,

193 Steuer S., “Grüne Transparenz und nachhaltige Verwirrung – Die produktbezogenen Informationsvorschriften der SFDR”, *Zeitschrift für Bankrecht und Bankwirtschaft* 2022, vol. 34(1), p. 31–37.

194 Steuer S., “Grüne Transparenz und nachhaltige Verwirrung – Die produktbezogenen Informationsvorschriften der SFDR”, *Zeitschrift für Bankrecht und Bankwirtschaft* 2022, vol. 34(1), p. 31, 37.

195 Eurosif, “EU Sustainable Finance & SFDR: making the framework fit for purpose Eurosif Policy Recommendations for Article 8 & 9 product labels”, June 2022, p. 10. Ramos Muñoz D., Lamandini M. & Siri M., “The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)”, *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, *European Parliament* 2024, No. PE 754.212, p. 33–34. Even the ESAs have referred to these products as light green and dark green, in: Joint ESAs Consultation on Taxonomy-related sustainability disclosures, 15 March 2021, JC 2021 22, p. 5.

196 Steuer S. & Tröger T.H., “The Role of Disclosures in Green Finance”, *Journal of Financial Regulation* 2022, vol. 8(1), p. 1, 6.

197 Steuer S. & Tröger T.H., “The Role of Disclosures in Green Finance”, *Journal of Financial Regulation* 2022, vol. 8(1), p. 1, 6.

198 See paragraph 3.4.1 of this Chapter on the definition of “sustainable investment”.

nor mandatory PAI assessments.¹⁹⁹ Instead, articles 8 and 9 SFDR require transparency of methodologies and explaining the rationale for categorising the product under either article. Third, as articles 8 and 9 SFDR are product categories on an aggregated level, for example on portfolio level, there are significant challenges for data collection: sustainability information may be unavailable for certain investments, while available data may lack standardized formats, compromising the reliability of portfolio-level sustainability impact assessments that would be necessary for accurate labels.²⁰⁰

The use of articles 8 and 9 SFDR as labels thus is misaligned to the regulatory strategy that is employed under in those articles, namely comprehensive and neutral transparency. This gives rise to three specific problems: the label may not align to the investors preference; it may be hard to differentiate between article 8 and 9 as labels; there is an increased risk of greenwashing.

– *Mismatch with Investor Preference*

The use of article 8 and 9 SFDR as labels, increases the risk that investors may not understand that the classification as ‘article 8’ or ‘article 9’ does not correspond to a definite degree of sustainability. Consider, for example, the fact that an article 8 fund may have non-sustainable investments, a possibility explicitly acknowledged in Annexes I and II of CDR 2022/1288, which require disclosure of such investments.²⁰¹ After all, the idea of the SFDR is that FMP can justify their classification choice, without mandating investment exclusions.²⁰² An investor who is not aware of this may mistakenly believe that the label ‘article 8’ signifies predetermined sustainability thresholds or specific investment exclusions.

This is confirmed in a study done by Scheitza and Busch, in which more than 1000 ‘article 9’ funds were analysed.²⁰³ The authors found that the degree of sustainability ambition varied across the funds, with 60% of the funds focussing on positive sustainability impact, whereas 40% of the funds merely pursued a general ESG strategy.²⁰⁴ A similar study by Chesney and

199 Glander H., Kropf C. & Lühmann D., “Praktische Umsetzung der Pflichten aus der Offenlegungs-VO”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 35. Colaert V., “On the Sustainability of the MiFID II and IDD Investor Protection Frameworks”, in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025, p. 323.

200 Steuer S. & Tröger T.H., “The Role of Disclosures in Green Finance”, *Journal of Financial Regulation* 2022, vol. 8(1), p. 1, 42.

201 Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 2)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 11, p. 545, 546.

202 See also recitals 19 and 20 CDR 2022/1288.

203 Scheitza L. & Busch T., “SFDR Article 9: Is it all about impact?”, *Finance Research Letters* 2024, vol. 62, part A, 105179.

204 Scheitza L. & Busch T., “SFDR Article 9: Is it all about impact?”, *Finance Research Letters* 2024, vol. 62, part A, 105179, p. 4.

Lambillon equally found that there is a great variety in article 9 SFDR funds.²⁰⁵ The problem that this causes, is that when investors who are unaware of this diversity may invest in financial products that do not reflect their sustainability preferences.²⁰⁶

In this context, it is also relevant to mention the under-examined risk of ‘grey-washing’ (also referred to as ‘green bleaching’).²⁰⁷ This phenomenon refers to the situation in which an FMP deliberately understates the positive sustainability impact of their product to avoid disclosure obligations or limit regulatory risks. In particular, the procedural transparency nature of the SFDR, with a lack of substantive criteria for product categorisation, may cause FMPs to err on the side of caution. One indicator for this is Badenhoop’s research, in which a significant reclassification from article 9 to article 8 funds was observed when CDR 2022/1288 entered into force.²⁰⁸ The research paper does not give a definite answer to why funds were reclassified after the CDR entered into force, hence the possibility cannot be excluded that some FMPs may have downgraded their funds to mitigate potential liability and regulatory risks, despite there being defensible justifications for maintaining the higher classification. When FMPs grey-wash their products, this results in less sustainability information being available to investors, undermining their ability to invest in products that reflect their sustainability preferences. Thereby, it also directly undermines the objective of the SFDR to enable investors to take sustainability information into account in their investment decision.²⁰⁹

– *Insufficient Distinction between Articles 8 and 9 as Labels*

Investors may not understand the distinction between article 8 and article 9 funds given the open-endedness of ‘E/S characteristics’ and ‘sustainable

205 Lambillon A.-P. & Chesney M., “How Green is ‘Dark Green’? An Analysis of SFDR Article 9 Funds”, 22 February 2023, available on: <http://dx.doi.org/10.2139/ssrn.4366889>.

206 Scheitza L. & Busch T., “SFDR Article 9: Is it all about impact?”, *Finance Research Letters* 2024, vol. 62, part A, 105179, p. 5; Klerk J.E. de & Velden J.W.P.M. van der, “SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 95.

207 Colaert V., “On the Sustainability of the MiFID II and IDD Investor Protection Frameworks”, in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025, p. 335-336; ESMA, SMSG advice to the ESMA Consultation Paper on Guidelines on certain aspects of the MiFID II suitability requirements, 3 May 2022, ESMA22-106-4032.

208 Badenhoop N., e.a., “Quo vadis sustainable funds? Sustainability and taxonomy-aligned disclosure in Germany under the SFDR”, *SAFE White Paper* 2023, no. 94, available at: <https://www.econstor.eu/handle/10419/273716>.

209 ESMA, SMSG advice to the ESMA Consultation Paper on Guidelines on certain aspects of the MiFID II suitability requirements, 3 May 2022, ESMA22-106-4032, p. 1.

investment'.²¹⁰ This risk has partially been addressed by CDR 2022/1288, as is evidenced by Badenhoop's research, in which a significant reclassification from article 9 to article 8 funds was observed when CDR entered into force.²¹¹ However, the improved clarity for FMPs does not necessarily translate into better comprehension by investors. The potential inability of investors to distinguish between article 8 and 9 SFDR, undermines the usefulness of the classification system for informed investment decisions, which directly contradicts the aim of the SFDR to enable investors to make an informed investment decision.²¹²

– *Increased Greenwashing Risk*

The combination of ambiguous definitions and the absence of quantitative thresholds heightens greenwashing risks.²¹³ After all, there are clear incentives for FMP to market their financial products as sustainable as possible. For example, research demonstrates that investors are willing to pay more for products with positive non-pecuniary impacts, particularly sustainability outcomes.²¹⁴ More specifically, Scherer and Hasaj have found statistical evidence that article 9 funds attract more significant inflows than article 8 funds.²¹⁵ It is thus financially advantageous to exploit the discretion that the SFDR provides to FMP to strategically stretch the lower limits for the categorisation as article 9 (or 8) fund.

210 Ramos Muñoz D., Lamandini M. & Siri M., "The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON), European Parliament* 2024, No. PE 754.212, p. 34; Martinez-Meyers S., Ferrero-Ferrero I. & Muñoz-Torres M.J., "The European sustainable finance disclosure regulation (SFDR) and its influence on ESG performance and risk in the fund industry from a multi-regional perspective", *Journal of Financial reporting and Accounting* 2024, available at: <https://doi.org/10.1108/JFRA-03-2024-0150>, p. 2; Colaert V., "On the Sustainability of the MiFID II and IDD Investor Protection Frameworks", in: Alexander K., Gargantini M., & Siri M. (eds.), *The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance*, Cambridge University Press 2025, p. 323-325.

211 Badenhoop N., e.a., "Quo vadis sustainable funds? Sustainability and taxonomy-aligned disclosure in Germany under the SFDR", *SAFE White Paper* 2023, no. 94, available at: <https://www.econstor.eu/handle/10419/273716>; Macpherson M., "Meeting the EU's Sustainability Disclosure Rules – a mission (im)possible?" in: Rimmel G., e.a. (eds.), *Research Handbook on Sustainability Reporting*, Edgar Elgar 2024, p. 240-241.

212 Recital 10 SFDR.

213 Partiti E., "Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence", *European Business Organizational Law Review* 2024, vol. 25, p. 299, 325; Lieverse C.W.M., "Transparantie en Sustainable Finance: Over greenwashing en door de bomen het bos niet meer zien", *Tijdschrift voor Financieel Recht* 2024, nr. 4, p. 15, 16-17.

214 Barber B.M., Morse A. & Yasuda A., "Impact investing", *Journal of Financial Economics* 2021, vol. 139(1), p. 162.

215 Scherer B. & Hasaj M., "Greenlabelling: How valuable is the SFDR Art 9 label?" *Journal of Asset Management* 2023, vol. 24, p. 541.

The SFDR's vulnerability to greenwashing has drawn regulatory attention. In 2022, the Commission requested the European Supervisory Authorities to evaluate greenwashing risks.²¹⁶ ESMA's subsequent Progress Report on Greenwashing identified several problems related to the SFDR that contribute to greenwashing risk, particularly the use of articles 8 and 9 as labels and the ambiguous definitions of 'sustainable investment' and DNSH criteria.²¹⁷ Also in its final report, ESMA noted that some NCAs find the unclear definition of 'sustainable investment' difficult to identify greenwashing.²¹⁸ It can therefore be concluded that the current use of articles 8 and 9 SFDR as labels enables greenwashing.²¹⁹

3.7 Ex Post Disclosures

3.7.1 Introduction

To mitigate the principal-agent problem, ex ante disclosures that precede the contract enable informed investment decisions, while ex post disclosures facilitate investors to monitor agent behaviour. The SFDR therefore also prescribes the latter type of disclosures, which I discuss in this paragraph.

3.7.2 Articles 3 and 4 – Sustainability Risk and Impact at Entity Level

The SFDR mandates ongoing website disclosures for the information that is disclosed under articles 3 and 4 SFDR – sustainability risk policies and impact at entity level. Article 12 SFDR requires that the sustainability risk policies that have to be disclosed under article 3, are kept up to date, while article 4 SFDR mandates that they be 'maintained' on the website.²²⁰ Article 2 CDR 2022/1288 reiterates that in general, information that is published on websites must be kept up to date. More specifically, the disclosure of sustainability

216 European Commission, Request for input to the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA) related to greenwashing risks and supervision of sustainable finance policies, Ares(2022)3682962.

217 ESMA, Progress Report on Greenwashing, Response to the European Commission's request for input on "greenwashing risks and the supervision of sustainable finance policies", 31 May 2023, ESMA30-1668416927-2498, p. 45, 60-62; Lieve C.W.M., "Transparantie en Sustainable Finance: Over greenwashing en door de bomen het bos niet meer zien", *Tijdschrift voor Financieel Recht* 2024, nr. 4, p. 15, 16-17.

218 ESMA, Final Report on Greenwashing, 4 June 2024, ESMA36-287652198-2699, p. 41.

219 Partiti E., "Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence", *European Business Organizational Law Review* 2024, vol. 25, p. 299, 325.

220 Article 4 (1) and (5) SFDR first sentence.

impact that has to be disclosed on the basis of article 4 SFDR, must cover the preceding year.²²¹ These ongoing disclosure requirements at entity level thus continue after the conclusion of a contract between the FMP or FA and the investor, and can therefore constitute *ex post* disclosures in the principal-agent paradigm.

3.7.3 Articles 6 and 7 – Sustainability Risk and (Negative) Sustainability Impact at Product Level

Articles 6 and 7 SFDR contain the obligation to disclose sustainability risk and (negative) sustainability impact at product level. As discussed in para. 3.6.2, how pre-contractual disclosures of sustainability risk at product level have to be made on the basis of article 6 SFDR depends on the sectoral legislation that applies to the FMP.²²² For example, investment firms providing portfolio management services must make the SFDR disclosures in accordance with Article 24 (4) of MiFID II. Article 24 (4) MiFID II explicitly prescribes that “[w]here applicable, such information shall be provided to the client on a regular basis, at least annually, during the life of the investment”.²²³ For portfolio management, the disclosures thus are contained within the framework of (pre-)contractual disclosures as article 24 (4) MiFID II does not distinguish those two phases.

In contrast, article 7 SFDR on the disclosure of sustainability impact contains a more explicit regime for ongoing disclosures, namely that periodic disclosures must be in line with article 11 (2) SFDR.²²⁴ How these disclosures have to be made, mirrors how the pre-contractual disclosures for sustainability risk on the basis of article 6 SFDR have to be made: according to the sectoral legislation that applies to the FMP.²²⁵ For example, for investment firms that provide portfolio management, the ongoing disclosures must be made in the form of a periodic report as referred to in Article 25 (6) MiFID II.²²⁶

3.7.4 Articles 8 and 9 – Products that Promote Environmental or Social Characteristics and Products that have Sustainable Investments as their Objective

Articles 8 and 9 SFDR contain, respectively, the disclosure obligations for financial products that promote E/S characteristics, and financial products

221 Article 4 (1) CDR 2022/1288 (information shall cover the period of 1 January until 31 December of the preceding year).

222 This follows from article 6 (3) SFDR.

223 Article 24 (4) MiFID II last sentence.

224 Article 7 (1) (b) SFDR; see also: recital 20 SFDR; Klerk J.E. de & Velden J.W.P.M. van der, “SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 81.

225 Article 11 (2) SFDR.

226 Article 11 (2) (h) SFDR.

that have sustainable investments as their objective (see para. 3.6.4). The pre-contractual disclosures have to be made in line with article 6 (3) SFDR and depend on the type of FMP and should be made in the same manner that the FMP typically provides pre-contractual information.²²⁷ Additionally, pre-contractual disclosures have to be made on the website of the FMP.²²⁸

The ongoing disclosure requirements for articles 8 and 9 SFDR are contained in article 11 SFDR, which requires the FMP to publish periodic reports. This information must be made available in two manners.²²⁹ First, in line with the applicable sectoral legislation – for example, for investment firms that provide portfolio management, the ongoing disclosures must be made in the form of a periodic report as referred to in Article 25(6) MiFID II.²³⁰ Second, the information must be made available on the website of the FMP.²³¹ The content of the periodic reports is further outlined in articles 50 – 63 CDR 2022/1288. Most of these requirements are contained in the two templates for articles 8 and 9 respectively that are contained in Annexes IV and V of CDR 2022/1288.²³² The information to be disclosed using these templates follows the structure of the pre-contractual disclosure forms. In general terms, the periodic disclosures thus cover the pre-contractual disclosures of articles 8 and 9 SFDR.²³³

3.7.5 Conclusion

In general, it can be concluded that the ex post disclosures adequately cover the ex ante disclosure requirements. It is notable, however, that the mechanism for periodic disclosures differs significantly for articles 3, 4, 6, 7, and 8-9 SFDR. Only articles 8 and 9 SFDR have the same disclosure mechanism for ex post disclosures, namely periodic reports on the basis of article 11 SFDR, and further detailed in CDR 2022/1288. For articles 3, 4, 6, and 7 SFDR, the mechanisms

227 This follows from article 6 (3) SFDR. For example, investment firms providing portfolio management services must make the SFDR disclosures in accordance with Article 24 (4) of MiFID II.

228 Article 10 SFDR.

229 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 50.

230 Article 11 (2) (h) SFDR. Boogaard R.J., “Classificatie van financiële producten op grond van artikel 8 en 9 SFDR”, *Tijdschrift voor Financieel Recht* 2022, nr. 1, p. 13, 21.

231 Article 10 (1) (d) SFDR. Klerk J.E. de & Velden J.W.P.M. van der, “SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 80-81.

232 Klerk J.E. de & Velden J.W.P.M. van der, “SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders” in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 80-81.

233 One significant difference is that for Taxonomy-alignment, the pre-contractual disclosures focus on what part of the investments is Taxonomy-aligned in total, whereas the periodic report splits this into turnover, CapEx, and OpEx and thereby follows the annual reporting requirements that stem from CDR 2021/2178, which supplements the Taxonomy Regulation on periodic reporting under the CSRD (see: paragraph 5.3.1 of Chapter 3).

vary from the obligation to keep information up to date (article 3 and 12 SFDR) to periodic reporting on the basis of rules contained in other legislation on pre-contractual disclosures, such as article 24 (4) MiFID II for investment firms providing portfolio management. This inconsistency makes it more complex to gain an understanding of the different periodic disclosure requirements.

An additional consequence is that the level of detailedness differs for the different areas that are covered in the SFDR. For example, periodic disclosure for sustainability risk at product level, namely to “provided to the client on a regular basis, at least annually, during the life of the investment” ex article 6 (3) SFDR and 24 (4) MiFID II is much less detailed than articles 50 – 63 and Annexes IV and V CDR 2022/1288 on the periodic reports for articles 8 and 9 products. A significant difference in detailedness may sometimes be justified when the areas of disclosure are also significantly different. For example, disclosures at entity level may not need to be as detailed as those at product level. However, there is no justification why periodic disclosures for the positive sustainability impact of products that promote environmental or social characteristics and products that have sustainable investments as their objective, should be so much more detailed than the periodic disclosures of sustainability risk at product level. After all, investors will not only want to monitor in detail the (positive) sustainability impact of their investments but also be well informed on the risks that they are exposed to.

3.8 OTHER REQUIREMENTS

3.8.1 Article 5 – Remuneration

Article 5 SFDR requires FMP and FA to disclose on their websites how their remuneration policies relate to the integration of sustainability risk.²³⁴ The focus of article 5 SFDR is on sustainability risk – financial risk that is due to environmental, social or governance events.²³⁵ Rather than establishing a link between positive sustainability impact and remuneration, article 5 SFDR thus aims to ensure transparency regarding risk management and incentives to limit excessive risk-taking.²³⁶ This could, for example, include policies in

234 Labeur R.E., “Vermogensbeheerders & duurzaamheidstransparantie”, in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022, p. 282; Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 492-493.

235 Article 2 (22) SFDR.

236 Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 1)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 10, p. 485, 492-493; Klerk J.E. de & Velden J.W.P.M.

which variable parts of the remuneration of investment professionals are deferred for a few years and paid out pro-rata based on the performance of the investment.²³⁷

Given that the SFDR only demands the disclosure of how the remuneration policies relate to the integration of sustainability risk – but not sustainability impact, it could be expected that there is a weak link between remuneration and sustainability performance. Surprisingly, Cremasco and Boni have found that for both article 6 and article 9 funds, there is a positive relationship between on the one hand financial performance and on the other hand sustainability performance and management fees.²³⁸ This suggests that the SFDR stimulates FMP and FA to integrate both sustainability risk and impact in their remuneration policies, even though this is not required for the latter.²³⁹ Nonetheless, the lack of legislative guidance on linking both sustainability risk and sustainability impact to remuneration policies creates a fragmented disclosure framework and misses the opportunity to use this mechanism to decrease the divergence in interests between investors and intermediaries.

3.8.2 Article 13 – Marketing Communications

Article 13 SFDR requires that marketing communications by FMPs and FAs do not contradict the disclosures that must be made pursuant to the SFDR.²⁴⁰ This provision is essential for reaching the Regulations' aim "to reduce information asymmetries in principal-agent relationships with regard to the integration of sustainability risks."²⁴¹ While not explicitly stated, this alignment requirement inherently addresses greenwashing concerns, as I discuss in paragraph 2 of this Chapter.²⁴² The prohibition on contradicting SFDR

van der, "SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders" in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 86.
 237 For example: Nordea Asset Management, "Sustainability risk integration in remuneration", 11 June 2024, available at: https://www.nordea.lu/documents/integration-of-sustainability-risks-in-remuneration/ISRR_N1_eng_INT.pdf/.

238 Cremasco C. & Boni L., "Is the European Union (EU) Sustainable Finance Disclosure Regulation (SFDR) effective in shaping sustainability objectives? An analysis of investment funds' behaviour", *Journal of Sustainable Finance & Investment* 2024, vol. 14(4), p. 1018.

239 Cremasco C. & Boni L., "Is the European Union (EU) Sustainable Finance Disclosure Regulation (SFDR) effective in shaping sustainability objectives? An analysis of investment funds' behaviour", *Journal of Sustainable Finance & Investment* 2024, vol. 14(4), p. 1018, 1032-1333.

240 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 51; Klerk J.E. de & Velden J.W.P.M. van der, "SFDR en ESG benchmark verordening: de impact op beleggingsondernemingen en beheerders" in: Strijbos F.P.C., e.a. (eds.), *Duurzaam bankieren*, Wolters Kluwer 2023, p. 86; Glander H., Lühmann D. & Jesch T.A., "Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 2)", *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 11, p. 545, 548.

241 Recital 10 SFDR.

242 Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 51.

disclosures represents a significant anti-greenwashing measure, as it prevents FMPs and FAs from making unsubstantiated sustainability claims that exceed their disclosed information. However, as I discuss in paragraph 3.6.4, the SFDR framework itself may create new greenwashing opportunities that article 13 fails to address.²⁴³

3.8.2 Article 18a – European Single Access Point

The information that FMP and FA have to make available on the basis of articles 3, 4, 5, and 10 SFDR – sustainability risk and impact at entity level, remuneration policies, and website disclosures at product level – must also be made available on the European Single Access Point (ESAP) from 10 January 2028 onward.²⁴⁴ The ESAP, established by Regulation (EU) 2023/2859 and set to become operational by 10 July 2027, aims to facilitate easy access to information, enabling sound, informed, and environmentally responsible investment decisions that support efficient market functioning.²⁴⁵ This will increase the accessibility of information that has to be disclosed under the SFDR as all information that FMP and FA have to disclose on their websites will also be available in a centralised manner.²⁴⁶

3.9 Supervision

According to article 14 SFDR compliance with the Regulation is monitored by the national competent authorities that oversee sectoral disclosures referenced in article 6 (3) SFDR.²⁴⁷ Consequently, the supervision of FMPs and

²⁴³ Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 51.

²⁴⁴ Article 18a (1) SFDR.

²⁴⁵ Article 1 Regulation (EU) Regulation (EU) 2023/2859 of the European Parliament and of the Council of 13 December 2023 establishing a European single access point providing centralised access to publicly available information of relevance to financial services, capital markets and sustainability (ESAP Regulation); Recital 1 ESAP Regulation. See also: Russ A. & Schranz B.A. “European Single Access Point (ESAP) Das neue europäische Zugangsportal zu öffentlichen Informationen (Teil 1: Der Kommissionsvorschlag)”, *Österreichisches Bankarchiv Zeitschrift für das gesamte Bank- und Börsenwesen*, vol. 71(6), p. 437; Russ A. & Schranz B.A. “European Single Access Point (ESAP): Das neue europäische Zugangsportal zu öffentlichen Informationen (Teil 2: Die finalen ESAP-Rechtsakte samt Anmerkungen zur prospekt- und transparenzrechtlichen Umsetzung)”, *Österreichisches Bankarchiv Zeitschrift für das gesamte Bank- und Börsenwesen*, vol. 72(2), p. 110; Heldring M. & Horck M.F., “Een Wondermiddel in de Zoektocht naar ESG-Data?”, in: Loopik M.J. van & Palm-Steyerberg I.P. (eds.), *The Twin Transition: Digital & Sustainable Finance*, Wolters Kluwer 2022, p. 329-345.

²⁴⁶ Recital (1) ESAP Regulation.

²⁴⁷ Glander H., Lühmann D. & Jesch T.A., “Nachhaltigkeitsbezogene Offenlegungspflichten im Finanzdienstleistungssektor unter der Offenlegungsverordnung (Teil 2)”, *Zeitschrift für Bank- und Kapitalmarktrecht* 2020, Heft 11, p. 545, 549.

FAs aligns with existing sectoral oversight frameworks. This means that, for example, investment firms who have to disclose pre-contractual SFDR information according to the MiFID II framework, will be supervised by the competent authorities that supervise compliance with MiFID II.

4 CONCLUSION

4.1 Introduction

In this Chapter, I analyse the disclosure of sustainability information to investors by intermediaries on the basis of the SFDR. My analyses focus on the question: *how effective are the disclosure requirements from the Sustainable Finance Disclosure Regulation in reducing the principal-agent problem between intermediaries and investors?* The relationship between investors and intermediaries is characterised by a classical principal-agent problem, which can result in insufficient consideration of sustainability risk and potentially lead to greenwashing. This principal-agent problem manifests when the interests of investors and intermediaries diverge while information asymmetries persist between the parties. This undermines market efficiency and may impede the flow of capital toward sustainable investments. I evaluate the effectiveness of the SFDR by assessing whether the information that is disclosed in the basis of the Regulation meets the three criteria set out in the normative framework in paragraph 2: complete, standardized, and accurate.

Before this evaluation, I want to stress that in general, the SFDR has improved the flow of information to investors and has increased sustainable practices in financial markets. From the ESAs 2024 survey to NCA's in 2024 on SFDR disclosures, it follows that more than 1000 FMPs voluntarily disclosed their entity-level sustainability impact, in addition to those FMPs for whom the disclosures are mandatory.²⁴⁸ Moreover, the ESAs noted a general improvement in the quality of the disclosures compared to the previous two years.²⁴⁹ Additionally, there is evidence that the introduction of sustainability disclosures on the basis of the SFDR led to an increase in ESG performance and an increase in sustainable investing.²⁵⁰ This appears to be so not only

248 Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68, p. 8. Article 4 and article 7 SFDR. Article 7 only applies to FMP that disclose information on the basis of article 4 SFDR, which only is mandatory for FMPs with more than 500 employees.

249 Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68, p. 5.

250 Martinez-Meyers S., Ferrero-Ferrero I. & Muñoz-Torres M.J., "The European sustainable finance disclosure regulation (SFDR) and its influence on ESG performance and risk in the fund industry from a multi-regional perspective", *Journal of Financial reporting and Accounting* 2024, available at: <https://doi.org/10.1108/JFRA-03-2024-0150>, p. 14.

for FMP and FA that market article 8 and 9 products, but also for conventional article 6 funds.²⁵¹ At least two reasons can be identified for this. First, the SFDR has increased the harmonisation of sustainability disclosures in a market that was relying on self-regulation and fragmented legislation. Second, the mandatory disclosures may influence the FMP and FA to shift their policies on the integration of sustainability risk and impact, even though this is not explicitly mandated by the SFDR. This is for example evidenced by the positive relationship between sustainability performance and management fees, regardless of whether the product pursues sustainability objectives or not.²⁵² In general, the SFDR thus is a positive development as information asymmetries indeed have decreased between intermediaries and investors in comparison to the situation before the introduction of the Regulation.

4.2 Evaluation

4.2.1 Complete

As a procedural transparency regime, the SFDR aims to empower investors to make their own assessment of the sustainability risks, opportunities, and impact of an investment. For this, the SFDR aims to minimize information asymmetries by providing the investor with relevant and complete information. To evaluate whether the Regulation is successful at this, the double materiality principle serves as the indicator to assess whether the disclosed information covers all relevant areas.

In general, the double materiality principle is reflected throughout the SFDR, even though it is never explicitly acknowledged: entity level disclosures pertain to both the negative impact of the FMP or FA on sustainability factors, and the negative impact of sustainability risks on the FMP or FA. The positive dimension of the double materiality principle at entity level is excluded from the disclosure requirements in the SFDR. Similarly, the double materiality principle is also reflected in the product level disclosures, with article 6 focusing on sustainability risk, i.e. the (potential) negative impacts of sustainability on the product, article 7 focusing on the negative impact of the product on sustainability factors, and articles 8 and 9 focusing on the positive impact on sustainability. How the SFDR covers the double materiality principle is summarized in the table below:

251 Martinez-Meyers S., Ferrero-Ferrero I. & Muñoz-Torres M.J., "The European sustainable finance disclosure regulation (SFDR) and its influence on ESG performance and risk in the fund industry from a multi-regional perspective", *Journal of Financial reporting and Accounting* 2024, available at: <https://doi.org/10.1108/JFRA-03-2024-0150>, p. 14.

252 Cremasco C. & Boni L., "Is the European Union (EU) Sustainable Finance Disclosure Regulation (SFDR) effective in shaping sustainability objectives? An analysis of investment funds' behaviour", *Journal of Sustainable Finance & Investment* 2024, vol. 14(4), p. 1018.

Table 7: Double materiality throughout the SFDR. Source: Own image.

	Entity level	Product level
Sustainability risk	Article 3 All FMPs and FAs regardless of their size	Article 6 All FMPs and FAs regardless of their size
Sustainability opportunities		
Negative sustainability impact	Article 4 Mandatory for FMPs with more than 500 employees & voluntary for all other FMPs and FAs	Article 7 Mandatory for FMPs and FAs that apply article 4
Positive sustainability impact		Article 8 and 9 In principle voluntary, mandatory for FMPs and FAs that categorise their products to have E/S characteristics or sustainable investment as objective

Three issues put pressure on the completeness of the information that is disclosed under the SFDR: the scope of the disclosure obligations, the level of detailedness, and the content of the disclosures. These three issues imply that the information that is disclosed under the SFDR does not sufficiently match the needs of the investor who needs a complete overview of sustainability risks, opportunities and impacts.

The varying scopes of the disclosure obligations create gaps in the completeness of the information on entity and product level. For example, all FMPs and FAs have to disclose sustainability risk on entity level, but only FMPs with more than 500 employees have to disclose sustainability impact on entity level. Similarly, at product level, some FMPs will disclose the sustainability risk on the basis of article 6 SFDR, but not the sustainability impact of their products on the basis of articles 7 SFDR. This problem is most pronounced regarding articles 8 and 9 SFDR, for which the situation can arise that FMPs only disclose positive impact, without having to disclose negative impacts in line with article 7 SFDR.²⁵³

Another issue is the different levels of detailedness that apply to the disclosure obligations. For articles 4, 7, 8 and 9 SFDR there is elaborate guidance in CDR 2022/1288. For the disclosures under articles 3 and 5 SFDR, there is hardly any guidance at all. This inconsistency creates an unbalanced flow

²⁵³ Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68, p. 48.

of information toward investors with some elaborate and some minimal disclosures.

Lastly, the content of the information may not sufficiently match the needs of investors. As has been touched upon several times in this chapter, disclosures on the basis of the SFDR focus on processes, policies and methodologies. However, investors may rather need straightforward information about the concrete sustainability risk or impact of a financial product. This type of information is for example provided on the basis of the TR and the EuGBR. Under those regulations, the disclosure, in essence, directly states that an investment qualifies as an environmentally sustainable economic activity. Contrarily, the disclosure on the basis of, for example, article 9 SFDR are more procedural, focussing on the reasons and methods for classifying the financial product as having sustainability as its objective according to the FMP.

4.2.2 *Standardised*

Sufficiently standardised information is necessary to enable investors to compare investment opportunities. To assess whether the information disclosed on the basis of the SFDR is standardized, I analyse (i) whether the information is harmonised between intermediaries and (ii) whether the information is standardized for financial products to enable comparisons.

4.2.2.1 *Harmonisation at Intermediary Level*

Before the introduction of the SFDR, there was no harmonisation of sustainability disclosures by intermediaries, as this area was left to national legislators and market-based initiatives. In that light, the SFDR obligation to disclose sustainability impact and risk at entity level (articles 4 and 3 SFDR), as well as the disclosure of the link between sustainability risk and remuneration policies (article 5 SFDR) represents a massive step toward the harmonisation of sustainability information at intermediary level. Additionally, the regulation contains extensive formats for some disclosures, in particular the PAI on sustainability factors (Annex I CDR 2022/1288) that apply at entity level. Moreover, the location of entity-level disclosures is harmonised, mandating that these disclosures be made on the website of the FMP or FA. In this light, the ESAs have also noted a significant improvement in the website disclosures, increasing the accessibility of the information.²⁵⁴ Additionally, disclosures on the basis of articles 3, 4 and 5 SFDR must also be made available on the European single access point (ESAP) from 10 January 2028 onward.

On the other hand, there are also significant challenges to the harmonisation of SFDR disclosures at intermediary level. This primarily has to do with the type of information that has to be disclosed under the SFDR: information on

²⁵⁴ Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68.

processes, methods, and policies. A consequence of this is that FMPs and FAs have a relatively wide margin of discretion in their disclosures. This discretion allows FMPs and FAs to finetune the disclosures to their specific situation and context, which can enhance the relevancy of the disclosed information for investors. Moreover, this flexibility aligns with the procedural transparency approach of the SFDR, which prioritises the disclosure of processes over mandatory substantive obligations. However, a consequence of context-specific disclosures can also cause significant differences across the entity-level disclosures of different FMPs and FAs. Indeed, the ESAs have noted as ‘bad practices’ in relation to article 4 disclosures on sustainability impact at entity level, the use of complex language, disclosing information in vague and unclear manners with ambiguous statements and the inclusion of technical information.²⁵⁵ This lack of substantive harmonisation is problematic for investors. Even though the SFDR has increased the availability of entity-level information, as well as the accessibility, there is a significant barrier to comparing FMPs and FAs as the information itself is not harmonized.

4.2.2.2 Harmonization at Product Level

The SFDR establishes four product-level disclosure obligations in articles 6-9 SFDR, addressing respectively: sustainability risk, adverse sustainability impacts, positive sustainability impacts for products with environmental/social characteristics, and positive sustainability impacts for products with sustainable investment objectives. However, these disclosures face similar challenges as observed for the intermediary-level disclosures discussed in the previous section. While format and location are harmonized by the SFDR, intermediaries retain a relatively wide margin of discretion on the content of the disclosures:

- Article 6 SFDR lacks guidance that streamlines the disclosure of sustainability risk at product level;
- For article 7 SFDR, FMPs have to disclose how they considered the PAI listed in Annex I CDR 2022/1288 in their investment decisions. However, significant variations have been observed in these disclosures.²⁵⁶ Some FMPs provide detailed disclosures of methodology and data, others indicate that a particular indicator is not applicable or that they possess no information.²⁵⁷
- For articles 8 and 9 SFDR products, despite the detailed disclosure templates provided in Annexes II and III CDR 2022/1288, the absence of clear thresholds and precise definitions undermines comparability between

²⁵⁵ Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68, p. 20-21.

²⁵⁶ Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68, p. 13-14.

²⁵⁷ Joint ESAs Annual Report on Principal Adverse Impact disclosures under the Sustainable Finance Disclosure Regulation, 30 October 2024, JC 2024 68, p. 13-14.

products. Furthermore, certain disclosures remain voluntary, such as the PAI template.

As with entity-level disclosures, a certain level of discretion is necessary for product-level disclosures. This allows for context-specific information, which increases the relevancy of information to investors and aligns with the procedural nature of the SFDR. However, there is an inherent tension in sufficient flexibility for and the availability of harmonised and comparable information, which creates a challenge for legislators. However, in balancing flexibility and harmonisation, the current level of harmonization between different products seems to leave considerable room for improvement without compromising the procedural transparency nature of the SFDR. In particular, the PAI template could be made mandatory for article 8 and 9 products. This would greatly enhance the ability of investors to compare the negative sustainability impact of those products, without subjecting FMPs to any substantive requirements.²⁵⁸ Nonetheless, the SFDR is a significant improvement to the situation before it entered into force, in which there was no harmonized disclosure framework to start with.

4.2.3 Accurate

To assess whether the information disclosed by intermediaries on the basis of the SFDR is accurate, I evaluate two criteria. First, whether the information at intermediary level is consistent with the information that is made available by issuers. Second, whether the information is sufficiently supported by scientific consensus.

4.2.3.1 Consistency between Issuers and Intermediaries

Intermediaries provide aggregated information on investments to investors. To ensure that this flow of information can be used in a meaningful way by investors, this aggregated information must reflect the information that is made available by issuers – in other words, the information chain must start with the primary source: the issuers.²⁵⁹

Within the EU SFF, this flow of information appears misaligned. Issuers have to disclose sustainability information on the basis of the CSRD and ESRS whilst intermediaries disclose under the SFDR. The CSRD explicitly aims to ensure that FMPs “have the information they need from investee undertakings

258 Partiti E., “Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence”, *European Business Organizational Law Review* 2024, vol. 25, p. 299, 327; Arriba-Sellier N. de & Caenegem A. van, “Sustainability-related Materiality in the SFDR”, *EUSFiL Research Working Paper Series* 2024, no. 15, available at: <http://dx.doi.org/10.2139/ssrn.4881034>, p. 24.

259 Zetzsche D.A. & Anker-Sørensen L., “Regulating Sustainable Finance in the Dark”, *European Business Organization Law Review* 2022, vol. 23, p. 47, 69.

to be able to comply with their own sustainability disclosure requirements” under the SFDR.²⁶⁰ In principle, this should thus ensure that FMPs and FAs have sufficient information about issuers to reflect this at intermediary level accurately. However, the disclosure framework of the SFDR is not always sufficiently aligned with the information disclosed by issuers. This misalignment creates challenges for intermediaries and investors. Intermediaries effectively have to convert information published under the CSRD at issuer level to aggregated information in the SFDR format.

The conversion problem exists regarding multiple disclosure requirements under the SFDR. For example, the disclosure of sustainability impact at entity and product level (articles 4 and 7 SFDR). For both, the FMPs and FAs have to disclose the PAI listed in Annex I of CDR 2022/1288. This list differs from the reporting topics that issuers comply with on the basis of the ESRS.²⁶¹ The challenge for intermediaries here is how to aggregate PAI information when the source information from the ESRS is contained in a fundamentally different disclosure framework. Similarly challenging are the disclosures for articles 8 and 9 products. For these products, FMPs and FAs must *inter alia* disclose the E/S characteristics and the sustainability objectives of the financial products. CSRD information may be available for the investments that are pooled together in these products. However, given the very different disclosure formats contained in CDR 2022/1288 for articles 8 and 9 SFDR products, the SFDR disclosures may fail to accurately reflect the CSRD information.

The implication of this is that disclosures under the SFDR are most challenging when the SFDR establishes elaborate disclosure frameworks with its own formats (articles 4, 7, 8, and 9 SFDR). In these instances, FMPs and FAs have to convert CSRD information at individual issuer level into aggregated SFDR information at entity or product level, whilst also navigating the structural and substantive differences between the disclosure frameworks. Conversely, disclosures that have relatively little guidance at the SFDR level, for example for the disclosure of sustainability risk at entity and product level (articles 3 and 6 SFDR), present fewer challenges as the intermediaries can directly use CSRD information without having to convert it into a different format. The conversion problems reveal the risk of inconsistency between information at issuer and intermediary level. This problem is not only challenging for intermediaries, who are faced with the challenge of navigating to misaligned disclosure frameworks. It also potentially undermines the SFDR’s aim to provide accurate and comparable information to investors.

The difficulties in aligning intermediary disclosures to issuer disclosures are exacerbated when financial products that are made available by FMPs

260 Recital 21 CSRD; Roelofsen E.P., “Wat is de toekomst van het IMVB-convenant voor pensioenfondsen in het licht van de verplichtingen uit hoofde van artikel 4 van de SFDR?”, *Tijdschrift voor Pensioenvraagstukken* 2021, afl. 4, p. 10, 14.

261 See: paragraph 4.2 of Chapter 3.

include investments in issuers that do not fall under the CSRD because they are located outside of the EU. In such cases, intermediaries face additional data collection and aggregation challenges: sustainability information may be entirely unavailable for certain investments, while available data may lack standardised formats. This fragmentation in the information chain ultimately compromises the integrity of sustainability disclosures throughout the information chain, from issuer to end investor.

Given the lack of guidance for this conversion, there is a substantial risk that the process may alter or obscure the original sustainability risks and impacts. On the one hand, it could be argued that this is less relevant in light of the procedural transparency approach of the SFDR. From that perspective, it can be argued that it is sufficient that intermediaries disclose their policies and methodologies on how they convert information from issuer to intermediary level. On the other hand, it can be assumed that investors also use the outcomes of those processes in their investment decisions. If these outcomes fail to accurately reflect the situation at issuer level, this is problematic for investors who do not receive sufficiently accurate information that they need for a well-informed investment decision.

4.2.3.2 Accuracy of Labels

To overcome information asymmetries, the disclosed information must naturally be accurate. This also means that when an investment is categorized as sustainable under the EU Sustainable Finance Framework (SFF), this qualification should be supported by scientific evidence.²⁶² As I explain in Chapter 3, assessing the scientific accuracy of the EU SFF is beyond the scope of this research. In that Chapter, I explain that for this research, the scientific correctness of the categorisation of ‘environmentally sustainable economic activity’ under the Taxonomy Regulation will be assumed. After all, the Taxonomy Regulation is based on scientific evidence that has been evaluated by experts and relevant stakeholders.²⁶³ However, the SFDR does not require information to meet a certain threshold of Taxonomy-alignment.

The question thus is whether the information disclosed by the SFDR is sufficiently accurate. There are two ways to approach this question, which lead to opposing answers. As I explain in this chapter, the regulatory strategy of the SFDR is procedural transparency on, in particular, policies and methodologies surrounding the incorporation of sustainability risk and impact in investment decisions. The type of information that is generated under the SFDR thus is not intended to meet a certain scientific threshold of ‘sustainable.’ Regardless of the various problems identified in this Chapter – such as the fragmented disclosure requirements, the lack of substantive harmonisation

²⁶² See also: Financial Stability Board, “Report on Promoting Climate-Related Disclosures”, *Financial Stability Board* 7 July 2021, p. 39-40.

²⁶³ Recital 38 TR; article 19 (1) (f) and (5) TR.

of disclosures, and difficulties surrounding the collection and aggregation of issuer data to intermediary level – there is no fundamental reason to assume that the SFDR disclosures do not meet scientific thresholds because they are not predicated on thresholds to begin with.

This conclusion, however, shifts when recognizing that the SFDR functions beyond its intended role as a procedural disclosure framework, having effectively generated an informal labelling system, with financial products being marketed as articles 8 and 9 SFDR products.²⁶⁴ As investors may rely on these de facto labels, it becomes pivotal that such classifications accurately reflect the underlying sustainability ambition of the financial product. However, labelling is a fundamentally different regulatory strategy than procedural transparency. Whereas the latter requires the disclosure of comprehensive, relevant, and neutral information that enables investors to make their own assessment of the investment, labelling requires clear and pre-defined indicators that contain a normative judgement.²⁶⁵

It is clear that articles 8 and 9 SFDR do not meet this criterion. There are a number of factors that contribute to this. First, the core categorization criteria – promotion of E/S objectives and sustainable investment – are open-ended.²⁶⁶ Second, these articles lack material thresholds: there are no minimum Taxonomy-alignment percentages nor mandatory PAI assessments.²⁶⁷ This absence of thresholds blurs the category's boundaries, and consequently the meaning of the label.²⁶⁸ This in itself is already problematic for the accuracy of the labels. The problem is exacerbated by the fact that investors may not understand the difference between the article 8 and 9 categories – a difference hard to grasp in light of the blurred category boundaries.²⁶⁹ Instead, articles 8 and 9 SFDR require transparency of methodologies and explaining the rationale for categorising the product under either article, in

264 Paragraph 3.2 of this Chapter; Zukas T., *Regulating Sustainable Finance in Europe*, Duncker & Humblot 2024, p. 28-33; Ramos Muñoz D., Lamandini M. & Siri M., "The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, European Parliament 2024, No. PE 754.212, p. 10, 33; Becker M.G., Martin F. & Walter A., "The power of ESG transparency: The effect of the new SFDR sustainability labels on mutual funds and individual investors", *Finance Research Letters* 2022, vol. 47, part B, 102708.

265 Steuer S. & Tröger T.H., "The Role of Disclosures in Green Finance", *Journal of Financial Regulation* 2022, vol. 8(1), p. 1, 6.

266 See paragraph 3.4.1 of this Chapter on the definition of "sustainable investment."

267 Glander H., Kropf C. & Lühmann D., "Praktische Umsetzung der Pflichten aus der Offenlegungs-VO", *Zeitschrift für Bank- und Kapitalmarktrecht* 2023, Heft 1, p. 28, 35.

268 Scheitza L. & Busch T., "SFDR Article 9: Is it all about impact?", *Finance Research Letters* 2024, vol. 62, part A, 105179, p. 4.

269 Ramos Muñoz D., Lamandini M. & Siri M., "The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR)", *Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON)*, European Parliament 2024, No. PE 754.212, p. 34.

line with the regulatory strategy of procedural transparency rather than labelling.

Paradoxically, the SFDR as a labelling system may exacerbate, instead of mitigating, the principal-agent problem.²⁷⁰ That is because the SFDR creates an opportunity to exploit the difference in interest between intermediary and investor. FMPs can use the SFDR to create ostensibly transparent and trustworthy sustainable products, such as article 8 or 9 products. Given the commercial incentive to categorize financial products as sustainable as possible, in combination with the opportunity to categorize products under the SFDR, there is a great risk for greenwashing, whereby investors are misled by sustainability claims that do not fairly reflect the sustainability profile of the product.²⁷¹ This truly undermines the ability of investors to rely on the information disclosed by intermediaries for informed investment decisions.

The answer to the question of whether the information disclosed under the SFDR is accurate, thus is nuanced. On the one hand, the CSRD/ESRS in principle should ensure that issuers provide the necessary information for intermediaries to fulfil their duties under the SFDR. However, the two regulations do not always align. Moreover, intermediaries might experience difficulties in collecting the necessary information as not all issuers report under the CSRD. This may lead to conversion problems from issuer to intermediary level. Arguably, this is less relevant in light of the procedural transparency nature of the SFDR, which focuses on the disclosure of policies and methodologies of how sustainability risk and impact have been considered in investment decisions instead of the material outcomes of those policies. However, given the fact that the market tends to treat, in particular articles 8 and 9 SFDR as labels instead of procedural transparency requirements, the accuracy of the material information that is disclosed does become highly relevant. Unfortunately, the SFDR is unfit to guarantee accuracy as labelling is a fundamentally different regulatory strategy than procedural transparency.

4.3 Conclusion

In this Chapter, I focus on the question: how effective are the disclosure requirements from the Sustainable Finance Disclosure Regulation in reducing the principal-agent problem between intermediaries and investors? The principal-agent problem has two prerequisites: information asymmetries and

270 Partiti E., “Addressing the Flaws of the Sustainable Finance Disclosure Regulation: Moving from Disclosures to Labelling and Sustainability Due Diligence”, *European Business Organizational Law Review* 2024, vol. 25, p. 299, 325.

271 ESMA, Progress Report on Greenwashing, Response to the European Commission’s request for input on “greenwashing risks and the supervision of sustainable finance policies”, 31 May 2023, ESMA30-1668416927-2498, p. 11.

diverging interests between principal and agent. Minimizing either of these will result in minimizing the principal-agent problem.

The SFDR is a disclosure framework, requiring the disclosure of the consideration of sustainability risk and impact at entity and product level. Whilst the regulation is not primarily aimed at better aligning the interests of investors and intermediaries, there is evidence that there may be a positive relationship between sustainability impact and managers' remuneration for the FMPs and FAs that have to disclose their remuneration policy pursuant to the SFDR. A side-effect of the SFDR may thus be an improvement of the alignment of investor and intermediary interests.

To evaluate whether the SFDR is successful in resolving the principal-agent problem, I focus on the question of whether it is effective in minimizing information asymmetries. For this, I have looked at three elements: completeness, standardisation, and accuracy of the disclosed information. Even though in general terms, the SFDR greatly enhances the flow of information to investors compared to the underregulated situation before the Regulation entered into force, I have identified three fundamental flaws that undermine the fulfilment of these elements.

First, the information provided on the basis of the SFDR is fragmented over several disclosure requirements that have different scopes of application. Consequently, disclosures often do not cover all four areas of the double materiality principle. It is particularly problematic that the disclosure of the PAI is only mandatory for 'regular' financial products under article 7 SFDR, but not for sustainable products under articles 8 and 9 SFDR. This may be a relatively easy shortcoming to remedy that would greatly enhance the completeness of the disclosures.

Second, intermediaries may find it challenging to collect and convert information on individual investments into aggregated financial product disclosures. Several factors complicate this process. First, the CSRD/ESRS disclosures that apply to issuers may not always be sufficiently aligned with the SFDR disclosures. Second, and more challenging, financial products may encompass a wider range of investments than those of EU-based issuers that have to comply with the CSRD. For those investments, no or unharmonized sustainability data may be available. Together, these factors potentially compromise the accurate flow of information to investors. This is problematic also through the lens of the principal-agent problem, as the information asymmetries between intermediary and investor persist.

Third, the unintended use of the SFDR as a labelling system in the absence of thresholds and clear definitions may paradoxically exacerbate the principal-agent problem as it creates an opportunity for intermediaries to exploit the difference in interests between them and the investors. In the absence of thresholds and definitions, intermediaries can create seemingly trustworthy labels whereas in reality, the financial products may not respond to the sustainability ambition of the investors. Moreover, the SFDR is fundamentally unfit

to be used as a labelling system as this necessitates a regulatory strategy that is focused on material thresholds and normative judgements, as opposed to the complete and neutral information that should be disclosed under a procedural transparency regime.

Despite these fundamental flaws, the positive impact of the SFDR should not be understated. Before the SFDR, the disclosure of sustainability information was entirely unharmonized and left to member states and commercially driven market practices. The SFDR thus is an enormous step forward in diminishing information asymmetries between investors and intermediaries on sustainability information. By establishing both pre-contractual and post-contractual disclosure obligations, the SFDR enables investors to make better investment decisions and to better monitor intermediaries after the conclusion of the contract. This in itself already is an important step in minimizing the principal-agent problem between investors and intermediaries.

6 Conclusion

1 INTRODUCTION

The European Sustainable Finance Framework (“EU SFF”) is a collection of legislation that aims to increase sustainable investments to facilitate the transition to a climate neutral Europe, in line with the goal of the Paris Agreement of “[h]olding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”¹ According to the Commission, there is an estimated annual investment gap of EUR 477 billion to bring the EU’s economy in line with these sustainability ambitions.² In response to this, the fundamental idea behind the EU SFF is that investors who are provided with information on the sustainability impact, risks, and opportunities of their investment decisions will be enabled to make a well-informed investment decision that incorporates sustainability considerations. This transparency should increase the reallocation of capital toward sustainable economic activities.

To realize this aim, sustainability information must flow from issuers to investors. Often, there will be an intermediary between these two parties. The flow of information thus often has at least two stages, with information passing through several parties before reaching the final recipient, the investors. The legislation in the EU SFF regulates the generation and transmission of sustainability information both at issuer level and at intermediary level. To assess the effectiveness of the EU SFF, I have analysed five pieces of legislation that influence what sustainability information the investor receives. At issuer level, I have analysed the Corporate Sustainability Reporting Directive (“CSRD”) and its European Sustainable Reporting Standards (“ESRS”), the Taxonomy Regulation (“TR”), the Prospectus Regulation (“PR”), and the European Green Bond Regulation (“EuGBR”). At intermediary level, I have discussed the Sustainable Finance Disclosure Regulation (“SFDR”), which regulates the sustainability disclosures by financial market participants and financial advisers.

1 Article 2 (1) (a) Paris Agreement.

2 Commission Staff Working Document Investment needs assessment and funding availabilities to strengthen EU’s Net-Zero technology manufacturing capacity SWD(2023) 68 final, p. 3.

To assess the effectiveness of EU SFF in achieving its intended objectives, I have formulated the following research question: *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?* To answer this question, I have formulated three sub-questions that I addressed in Chapters 3, 4, and 5, respectively:

1. How effective are the ongoing disclosure requirements from the CSRD and article 8 TR in reducing information asymmetries regarding sustainability between issuers and investors?
2. How effective are the initial disclosure requirements from the Prospectus Regulation and the European Green Bond Regulation in reducing information asymmetries regarding sustainability between issuers and investors?
3. How effective are the disclosure requirements from the Sustainable Finance Disclosure Regulation in reducing the principal-agent problem between intermediaries and investors?

My research uses Law & Economics (“L&E”) as a qualitative research method. This enables me to review the legislation through the lens of the market failures that have been established in L&E theory and evaluate whether the legislation is suitable to address those failures. By this process, I found that although the EU SFF can be considered a success from an L&E perspective in general terms, all legislation that I reviewed has some shortcomings, which, however, greatly vary in severity and impact. In paragraph 2, I provide an overview of my research. Beyond the flaws identified in individual legislation, my research has also revealed three fundamental flaws in the EU SFF. These systemic flaws and potential solutions are addressed in, respectively, paragraph 4 and paragraph 5 of this Chapter.

2 OVERVIEW

2.1 Normative Framework

For my analysis, I have relied on L&E as the qualitative research method that underpins my normative assessment of the EU SFF. This legal school of thought evaluates rules and institutions in terms of economic efficiency. In L&E, the market is seen as a vehicle of social progress and general welfare, whereby the law serves as a tool to eradicate the market failures that inhibit the market from functioning efficiently.

In Chapter 2, I discuss two fundamental premises of L&E. The first premise is that efficient markets result in the maximization of welfare. I argue that the concept of welfare must be interpreted as ‘the value of everything’. More limited interpretations, such as the aggregate value of tradeable goods or GDP,

disregard the impact of non-marketable dimensions on collective well-being. This is particularly evident in relation to environmental and climate matters, which have historically been neglected in the maximization of wealth through markets, contributing to the current environmental and climate crisis. The second premise adopts the Kaldor-Hicks definition of efficiency. In this definition, efficiency is approached as a collective concept, namely, a state in which no aggregated gains can be realized that exceed aggregated losses. This definition is necessary in the context of sustainability, as the abandonment of harmful activities necessary to increase aggregate welfare may result in economic losses for some.

The core problem that the legislation in this thesis aims to tackle is the market's failure to reorient sufficient financing from non-sustainable to sustainable activities, even though this would increase overall welfare. This failure stems from the fact that parties that engage in activities with negative sustainability impacts profit from the externalization of costs, as society ultimately bears these negative externalities. This dynamic is repeated in investing, where investors who invest in those activities similarly profit from externalising costs, too, whilst sustainable economic activities are underfunded as investors may not realize the same benefit of externalising part of the costs. In other words, the current underfunding of sustainable economic activities is directly related to the failure of the market to align economic incentives for investors with general welfare.

The EU SFF focuses on two specific market failures that inhibit the flow of capital toward sustainable economic activities: information asymmetries and the principal-agent problem. Information asymmetries prevent investors from taking sustainability considerations into account in their investment decisions. The principal-agent problem is a situation in which these information asymmetries are exploited by the agent to realize its own interest contrary to the principals'. Both problems can diminish the ability and willingness to invest more sustainably.

Addressing information asymmetries and the principal-agent problem may contribute to mitigating the market failure of transaction costs due to their interconnected nature. However, the question remains whether investors will collectively and effectively reorient capital toward sustainable economic activities or whether other market failures such as biases in individual decision making and non-rational behaviour, externalities, free-riding and the tragedy of the commons will continue to stand in the way. More fundamentally, the idea of the self-interested and autonomous individual may be a significant obstacle to realizing the transition to a sustainable future through markets. It should, therefore, be kept in mind that the EU SFF is only aimed at resolving part of the problematic relationship between a market economy and anthropogenic climate change. My research question – *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this*

framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities? – reflects this limitation by narrowing the scope of the research to the flow of information from issuer to investor.

2.2 Sustainability Disclosures for Issuers

The first level at which information is disclosed in the information chain is at issuer level. At this level, I have analysed five pieces of legislation that all influence what sustainability information is disclosed by issuers. These fall into two categories: disclosure obligations that apply on an ongoing basis, for example, every year, and disclosure obligations that only apply upon the moment that securities are issued, the initial disclosures.

For the ongoing disclosures, I have analysed the CSRD/ESRS and TR. For initial disclosures, I have looked at the PR and the EuGBR. In general, the ongoing disclosures are intended to provide an overview of how the entire business performed during the reporting period. These disclosures are aimed not only at investors but also at, for example, creditors of the business, civil society, NGOs, and social partners. Conversely, the initial disclosures focus primarily on the specific securities that are issued and are aimed at potential investors. This is also reflected in the sustainability information that is disclosed: whereas the ongoing sustainability information is more focused on the business in its entirety, the initial disclosures may contain more specific sustainability information related to the investment. To analyse how effective the legislation is in decreasing information asymmetries about sustainability at issuer level, I have assessed whether the disclosed information is:

1. Complete, meaning that it (a) covers all four aspects of the double materiality principle and (b) includes quantitative data; and
2. Coherent, meaning that core terminology and concepts are defined and used coherently throughout the legislation; and
3. Accurate, meaning that qualifying a financial product as sustainable either (a) is based on the Taxonomy Regulation or (b) is warranted by procedural safeguards that ensure the qualification is supported by scientific evidence.

2.2.1 Ongoing Disclosures

The CSRD/ESRS and the TR rely on complementary regulatory strategies to ensure that information disclosed by issuers is both comprehensive and accurate. The CSRD/ESRS mandate disclosures that are comprehensive, relevant, and neutral, thereby enabling investors to make independent assessments of an issuer's sustainability profile. The TR, in contrast, establishes normative and precisely delineated thresholds for qualifying activities as 'environmentally sustainable economic activities'.

This is reflected by CSRD requiring the disclosure of positive and negative impact on sustainability matters, and financial the risks and opportunities that arise by sustainability matters. These disclosures thus reflect the double materiality principle that is central to informed decision-making in relation to sustainability. The double materiality principle is further elaborated in the ESRS, which also contain detailed guidance on disclosure topics and metrics. The sustainability reporting on the basis of the CSRD/ESRS meets the standard of complete and provides investors with a comprehensive overview of the sustainability position of the business. Moreover, disclosures on the basis of the CSRD/ESRS are ‘neutral’ – they do not contain a normative judgement about whether sustainability impacts should be considered as positive or negative. Complementary to these disclosures is the qualification of issuer’s activities, for which the TR establishes explicit criteria determining which economic activities qualify as ‘environmentally sustainable economic activities.’

The investor thus not only receives comprehensive sustainability information necessary for a more holistic evaluation of the issuer but also standardised information on how to interpret the sustainability position of a business, necessary for comparisons between issuers. I therefore conclude that in general, the answer to the question: *How effective are the ongoing disclosure requirements from the CSRD/ESRS and article 8 TR in reducing information asymmetries regarding sustainability between issuers and investors?* should be answered positively, as both the CSRD/ESRS and the TR contribute to an effective flow of information from issuers to investors that includes both comprehensive and neutral information enabling independent assessments by investors, as well as more normative information that enables an efficient assessment of how the businesses performs in relation to the Taxonomy-regulation.

While the disclosures of sustainability information on the basis of the CSRD/ESRS and the TR at the beginning of the investment chain thus is suitable to enable informed investment decisions, the ongoing disclosures could be better streamlined. The various incoherencies that I identified in Chapter 3 pose a significant challenge for the effective transmission of information. The first type of incoherence is superfluous text that undermines an easy understanding of the law. Second, the structure of sustainability reporting that can be deduced from the article 19a (2) (a) – (h) CSRD, which contains reporting topics, does not match the structure of the ESRS at all – which are aligned to the TR. The third type of incoherence arises from illogical or ambiguous definitions where specificity is necessary. Another point is that the ongoing disclosure requirements are extremely complex, making compliance costly and possibly overloading investors with information. This may negatively impact the efficient functioning of the market in sustainable investments and can form a serious obstacle for reaching an (investment) decision.

2.2.2 Initial Disclosures

Sustainability disclosures in initial disclosures are significantly less regulated than ongoing sustainability disclosures. Initial disclosures are primarily regulated by the PR, which is not part of the EU SFF and predates this framework. Consequently, there is no explicit regulation of sustainability information in the prospectus, even though it is the primary instrument to inform investors on the securities that are issued.³ This will change with the entry into force of the Listing Act in 2026, which will introduce a limited number of sustainability disclosures in the Prospectus regime. The new sustainability disclosure requirements differ between equity and non-equity securities. For equity securities, issuers must disclose in the prospectus summary whether their activities are Taxonomy-aligned, declare whether they prepare a CSRD sustainability report, and incorporate that report by reference into the prospectus. For non-equity securities like bonds, issuers must disclose whether the bonds are marketed as considering ESG factors or pursuing ESG objectives, and European Green Bond issuers must incorporate the required factsheet by reference. Consequently, the new disclosure requirements largely overlap with existing transparency obligations under the CSRD, Taxonomy Regulation, and EuGBR. The only substantively new requirement is the disclosure of whether non-equity securities are advertised with ESG considerations, though the exact details await further refinement in Delegated Acts.

Therefore, most sustainability disclosures in prospectuses will continue to be regulated by general open norms of the PR, in particular, the materiality principle, the obligation to specify the use of proceeds, and the obligation to disclose risk factors. Given the relevance of sustainability information to investment decisions, both for impact investors and for value-driven investors, sustainability disclosures will likely need to be made under these sections, both for sustainable and for non-sustainable issuances. In Chapter 4, I included a list of the minimum sustainability disclosures that I deem necessary under

3 When the Listing Act enters into force in 2026, a limited number of sustainability disclosures will be introduced in the Prospectus regime. These disclosures differ for equity securities and non-equity securities. For equity securities, the issuer must comply with three new disclosure obligations. First, the key information to be contained in the prospectus summary should include whether the activities of the issuer are Taxonomy-aligned (new art. 7 (6) (a) PR). Second, the prospectus should declare whether the issuer must draw up a sustainability report on the basis of the CSRD (new art. 13 (1) (f) PR). Third, the sustainability report should be included (by reference) in the prospectus (new article 19 (a) (f) PR). All these requirements will be further elaborated in Commission Delegated Acts. For non-equity securities, such as bonds, the issuer must disclose whether the bonds are advertised as taking into account ESG factors or are pursuing ESG objectives (new article 13 (1) (g) PR). See: Regulation (EU) 2024/2809 of the European Parliament and of the Council of 23 October 2024 amending Regulations (EU) 2017/1129, (EU) No 596/2014 and (EU) No 600/2014 to make public capital markets in the Union more attractive for companies and to facilitate access to capital for small and medium-sized enterprises (Listing Act Regulation).

the open norms of the PR. Most importantly, in the case of sustainable issuances, issuers will have to explain in the prospectus why these are considered sustainable and how the proceeds of the bonds contribute to sustainability objectives. For non-sustainable issuances, issuers should at least disclose sustainability risks.

Even though the PR falls outside the EU SFF, it thus is likely that issuers will disclose some sustainability information in the prospectus because this information is material to investors. However, the absence of an explicit regulatory framework means that these disclosures are based on open norms that do not meet the parameters that I set for assessing whether the disclosures are successful in decreasing information asymmetries: completeness, coherence, and accuracy. One particular problem is that even if the issuer discloses meticulous information in the prospectus, the information will be idiosyncratic to that issuer. While this approach corresponds to the procedural transparency function of the PR, which encompasses issuers' interests in presenting security-specific information, the absence of guidelines on material sustainability topics and disclosure formats inevitably results in heterogeneous disclosures. This undermines the functioning of the market as it inhibits investors from comparing investment opportunities. The sustainability disclosures introduced under the Listing Act do not remedy this shortcoming due to both their limited scope and their lack of substantive new disclosure requirements.

If the activity that is financed by the issuance is Taxonomy-aligned, the issuer can decide to issue European Green Bonds in line with the EuGBR framework. As a label, the European Green Bond employs a regulatory strategy diametrically opposed to that of the PR, focusing not on the disclosure of comprehensive and neutral information but on conveying a singular, normative information point based upon strict material thresholds. This enables investors to efficiently identify whether bonds are Taxonomy-aligned without having to conduct their own analysis of the sustainability information that is disclosed by the issuer. In a market susceptible to information overload – stemming from extensive disclosures mandated by both the prospectus regime and the CSRD/ESRS framework, which can constitute a significant impediment to effective investment decision-making – the EuGBR label is exceptionally easy to interpret and is, therefore, a valuable tool.

The EuGBR meets my criteria for accuracy and coherency. However, it fails to correct the information gap that is left by the PR. The reason for this is that the EuGBR does not complement the PR in a manner that would create synergy between the two initial disclosure legislations – unlike the complementary dynamic between the CSRD/ESRS and the TR in the context of the ongoing disclosures. Two factors impede such a dynamic for the initial disclosures. First, the binary approach of the EuGBR, according to which a European Green Bond is Taxonomy-aligned, whereas all other bonds fall outside of the scope of the label. This binary approach, however straightforward, impairs the ability of investors to compare investments within one category.

This is especially problematic for the investment opportunities that are not European Green Bonds, which encompass the vast majority of the market. For this entire market, the EuGBR does not contribute to reducing information asymmetries. Second, the EuGBR may not become very popular: its extensive disclosure requirements represent a high regulatory burden, rendering the EuGBR less attractive for issuers than alternative market-based standards. Another problem that may negatively impact the usage of the EuGBR is that the Taxonomy requirements are so strict that it may be difficult to find eligible projects, especially outside of the EU.

In general, it is also evident that the initial disclosure regime does not match the ongoing disclosure regime. On the one hand, there can be advantages to using different disclosure frameworks: they can provide a more varied picture and complement each other's shortcomings. However, this is not the case for the PR and the EuGBR: neither complement the ongoing disclosures – but for different reasons. On the one hand, the PR is not part of EU SFF and does not contain any explicit sustainability disclosures that could complement the ongoing disclosures. On the other hand, the EuGBR is well-integrated into the EU SFF but will only be used by a very limited segment of the market and, therefore, cannot effectively enable investors to make better informed investment decisions across the market. In general, I therefore conclude that the question of: *How effective are the initial disclosure requirements from the Prospectus Regulation and the European Green Bond Regulation in reducing information asymmetries regarding sustainability between issuers and investors?* must be answered with some caution. While both instruments undeniably contribute to the flow of sustainability information to investors, there is minimal synergy both between themselves and with the ongoing disclosure regime. This results in a situation in which there is plenty of opportunity for improvement to mitigate information asymmetries between issuers and investors concerning specific securities.

2.3 Disclosures for Intermediaries

The second level in the information chain at which sustainability information is disclosed to investors is at intermediary level. These disclosures are regulated by the SFDR, which applies to financial market participants and financial advisers – intermediaries between issuer and investor that either provide investment advice or make investment decisions on behalf of end-investors. I have analysed the disclosures on the basis of the SFDR through the lens of the principal-agent problem, seeking an answer to the question of: *How effective are the disclosure requirements from the Sustainable Finance Disclosure Regulation in reducing the principal-agent problem between intermediaries and investors?* The principal-agent problem can be resolved by two mechanisms: better aligning the interests of the principal and the agent or decreasing information asym-

metries between both parties. The SFDR follows the latter approach by requiring sustainability disclosures. My analysis of the SFDR, therefore, focused on whether the SFDR sufficiently decreased information asymmetries. For this, I followed similar criteria as in the analysis of disclosures at issuer level. I assessed whether the sustainability information disclosed on the basis of the SFDR is:

1. Complete, meaning that it covers all four aspects of the double materiality principle; and
2. Standardised, meaning (a) that the information is harmonised between intermediaries to enable the investor to make a meaningful comparison between intermediaries, and (b) that information is standardized for financial products to enable comparisons; and
3. Accurate, meaning that (a) the information flow from issuer to intermediary is consistent to prevent information from being obscured or lost in translation and (b) that labels used on the basis of the SFDR are accurate.

The SFDR entails sustainability disclosure requirements on entity and on product level. However, while the SFDR significantly enhances the flow of information from intermediaries to investors, it fails to meet these criteria for multiple reasons.

In general, the double materiality principle is reflected throughout the SFDR, even though it is never explicitly acknowledged: entity level disclosures pertain to both the negative impact of the FMP or FA on sustainability factors and the negative impact of sustainability risks on the FMP or FA. Similarly, the product level disclosures contain information on sustainability risk (article 6), negative impact of the product on sustainability factors (article 7), and positive sustainability impact (article 8 and 9). However, the mandatory disclosures for a single financial product do not cover all four aspects of the double materiality principle since the topics of disclosure differ per financial product category. For 'neutral' products (article 6), the sustainability risk and the negative sustainability impact must be disclosed. For 'light green' and 'dark green' products (articles 8 and 9), the sustainability risk and the positive sustainability impact must be disclosed.

Under the SFDR, FMP or FA must disclose how they integrate sustainability considerations into their processes. Therefore, the SFDR contains no material thresholds and instead allows FMP and FA a relatively wide margin of discretion to finetune the disclosures to their specific context. A consequence of this is that substantive standardisation of the disclosed information is limited, making it difficult to compare financial products between intermediaries. While this generally aligns with the SFDR's regulatory strategy of enhancing procedural transparency, the inconsistent standardization requirements between articles 6, 7, 8, and 9 SFDR cannot be explained. The imposition of specific disclosure formats for sustainability risks and impacts for certain products (articles 6 and 7 SFDR), contrasted with the absence of equivalent format

requirements for others (articles 8 and 9 SFDR), represents an internal inconsistency that contradicts the procedural transparency approach on which the SFDR is based.

The most significant challenges for the SFDR are those concerning the accuracy of the disclosures. While no inherent reason exists to presume inaccuracy in SFDR-based disclosures when examining the regulation in isolation, fundamental challenges emerge when looking at the SFDR in the context of the EU SFF and its practical use. The first major challenge concerns the conversion of information on individual investments into aggregated disclosures at the financial intermediary level. Although the CSRD aims to generate issuer-level information that intermediaries require under the SFDR, the respective reporting formats diverge significantly. For example, the format of the principal adverse impacts (“PAI”) that have to be used for indicating (negative) sustainability impact differs in structure from the ESRS. Consequently, intermediaries face the fundamental challenge of aggregating sustainability information based on issuer-level reporting that follows a structure materially different from SFDR requirements. This complexity is further exacerbated when financial products under the SFDR include investments in non-EU issuers for whom sustainability information may be either unavailable or non-harmonized. The second challenge for the accuracy of SFDR disclosures lies in the fact that article 8 and article 9 SFDR products are treated as labels in practice rather than procedural transparency requirements. However, labelling is a fundamentally different regulatory strategy from procedural transparency. Whereas procedural transparency necessitates comprehensive, relevant, and neutral information enabling investors to form independent assessments, labelling requires clear, predefined material thresholds that incorporate normative judgments. However, being of a procedural nature, articles 8 and 9 SFDR are fundamentally unsuited to function as labels, as they lack the material accuracy that investors presume they possess.

This assessment leads to a nuanced answer to the question of: How effective are the disclosure requirements from the Sustainable Finance Disclosure Regulation in reducing the principal-agent problem between intermediaries and investors? The SFDR greatly contributes to enhancing sustainability disclosures at intermediary level in a regulatory landscape where there was no harmonisation and investors had to rely on commercially driven practices to inform themselves. However, it must also be recognized that the SFDR has a number of fundamental shortcomings. Some of these are created by the regulation itself, such as the diverging disclosure topics for different product categories. Others are more practical, such as the challenges surrounding the conversion of information from issuer to intermediary level and the use of the SFDR as a labelling system. These shortcomings mean that there is still room for improvement to enhance the effectiveness of the SFDR in decreasing information asymmetries and thus minimise the principal-agent problem between intermediaries and investors.

3 ANSWER TO THE RESEARCH QUESTION – PART I

3.1 Introduction

To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities? Through my research, I have arrived at a nuanced response to the first part of this question, comprising both a generally positive assessment of the EU SFF as a whole through an L&E lens while acknowledging that all legislation examined contains opportunities for improvement. Moreover, certain fundamental problems reverberate throughout the entire framework. In this paragraph, I first discuss why the EU SFF should be considered a success. Then, I discuss three fundamental flaws that impede the integration of sustainability considerations into investment decisions: misalignment of disclosure obligations throughout the information chain, the binary nature of the TR, and superfluous and overly complicated disclosures.

3.2 The EU SFF Enables Better Investment Decisions

The EU SFF is based on the presumption that the current underfunding of sustainable economic activities is caused by inadequate sustainability information in financial markets, as is recognised in the Action Plan: “[a] lack of clarity among investors regarding what constitutes a sustainable investment is a contributing factor behind this investment gap (...).”⁴ The primary focus of the EU SFF thus is on limiting information asymmetries, which manifests across aspects and levels.

First, to make better-informed investment decisions, investors require comprehensive sustainability information about issuers. However, investors frequently engage with issuers indirectly through financial intermediaries. This presents a challenge: not only must information be generated at issuer level, it must also be transmitted accurately throughout the investment chain.⁵ The EU SFF addresses this by introducing transparency requirements at different

4 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 COM/2018/097 final, paragraph 1.1.

5 Note that Securities are held via a chain of intermediaries in various countries (multi-tier holding). Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement (the Revised EU Shareholder Rights Directive), obliges custodians to assist an issuer in the transmission of information regarding shareholder rights for equity securities. Such legislation is lacking where bonds are concerned.

levels in the investment chain and at different moments. The CSRD/ESRS, TR, PR, and EuGBR govern issuer-level disclosures, with the CSRD/ESRS and TR mandating ongoing disclosures focused on the issuer as a whole, while the PR and EuGBR primarily information concerning specific securities for specific issuances. Complementarily, the SFDR regulates intermediaries, governing the disclosure of aggregated sustainability information across multiple investments at the intermediary level, encompassing both pre-contractual and periodic disclosure requirements. The EU SFF thus comprehensively covers the information chain in several ways.

Second, the various regulatory instruments employ different and complementary regulatory strategies. On the one hand, the CSRD/ESRS, the SFDR, and the PR are more focussed on (procedural) transparency by mandating comprehensive information of unevaluated and neutral information. This regulatory approach effectively balances businesses' need to provide context-specific disclosures with investors' need for material and complete information to form independent assessments of the sustainability profiles of issuers, intermediaries, or investments. On the other hand, the TR and EuGBR require the disclosure of whether certain material, normative thresholds have been met, thereby satisfying the investors' need for efficient assessments of the businesses' performance relative to those predetermined sustainability criteria. By combining different regulatory strategies, the EU SFF facilitates an information flow that is both comprehensive and efficiently interpretable, enabling investors to make investment decisions based on both detailed sustainability information and standardized sustainability qualifications. This enhances market efficiency by reducing information asymmetries while simultaneously providing standardized sustainability benchmarks against which investments can be evaluated.

My analysis of the EU SFF demonstrates that the framework should be considered a significant regulatory success from an L&E perspective. The EU SFF substantially reduces information asymmetries at multiple levels throughout the investment chain, at different moments in time in the investment process, and through complementary regulatory strategies. This significantly enhances the capacity of investors to incorporate sustainability considerations into their investment decisions and facilitates the redirection of capital flows toward sustainable economic activities. However, the effectiveness of the framework is also constrained by several structural deficiencies: misalignment of disclosure obligations throughout the investment chain, the binary nature of the Taxonomy, and unnecessary regulatory burden. While not undermining the overall value of the framework, these deficiencies do represent opportunities to enhance the effectiveness of the EU SFF.

3.3 Misalignment throughout Chain

Misalignment of disclosure obligations is the biggest obstacle to a comprehensive EU SFF that truly enables investors to make informed investment decisions that include sustainability considerations. Currently, the framework provides information to investors at three different moments and locations in the information chain. At issuer level, disclosures take place both on an ongoing basis and by means of initial disclosures. Additionally, investors receive information through intermediaries. This fragmented framework is necessary because the information needs of the investor vary at different levels and temporal moments in the information chain. Within this fragmented disclosure framework, the challenge lies in ensuring that all sustainability information accurately reflects the sustainability situation of the individual issuer or securities. However, as the disclosure obligations build upon one another, the process can become analogous to a telephone game, where the original message is distorted as it passes through different stages of the information chain. For example, the input used by intermediaries to generate sustainability information depends on previously disclosed issuer information. As the contents and formats of the mandatory disclosures differ, there is a significant risk for progressive misrepresentation.

A potential counterargument to this problem could be that investors receive information at all points in the investment chain, which may mitigate the problem that not all information is equally precise. Additionally, it could be argued that receiving information in different formats at different moments provides a more diverse and comprehensive picture of sustainability circumstances, thus enabling an even better-informed investment decision. This, however, overlooks two issues. First of all, it is not an argument to justify that some information is not representative of the sustainability status of the issuer. Second, the argument assumes that investors systematically use all information that is provided to them at different stages in the investment chain. This is not congruent with reality, as investors often only rely on limited information. For example, an investor may rely heavily on information provided by the intermediary but not familiarize herself with the annual sustainability reporting of all the issuers in her investment portfolio. Therefore, it is essential that disclosures at any point in the information chain accurately reflect the issuers' sustainability situation.

3.2.1 *Misalignment between CSRD/ESRS and TR*

The first risk for misalignment in the information chain is between the ongoing disclosure requirements of the CSRD/ESRS on the one hand, and the criteria for qualifying an economic activity as environmentally sustainable on the other hand under the TR. The CSRD/ESRS lay down very comprehensive disclosure requirements in three types of standards: the cross-cutting standards, the

topical standards on Environment Social and Governance, and the sector-specific standards which have not yet been released. These comprehensive disclosure requirements have deliberately been designed to provide an extensive overview of the business's positive and negative impacts on sustainability matters and of the financial risks and opportunities that arise from sustainability matters. The TR establishes the criteria for determining when an economic activity qualifies as environmentally sustainable. For this, the TR sets out individualized Technical Screening Criteria ("TSC") for predetermined categories of economic activities, as well as individualised do no significant harm ("DNSH") criteria. The categorisation in the TR follows the Statistical Classification of Economic Activities in the European Community ("NACE").

It is the explicit intention that the CSRD/ESRS aligns to the requirements in the TR.⁶ At the moment, this is, for example, reflected in the fact that the ESRS follows the same reporting areas as the TR on the topic of environment. However, there are two points where alignment at the moment is flawed. First, the specific reporting topics of the individual activities in the TR are not (yet) incorporated in the ESRS. This makes sense as the current ESRS only include the general cross-cutting and topical standards whilst the TR are much more granular. The question is how well the topical standards will be aligned to the TR – will they follow or at least cover the NACE categorisation of the TR? And if so, will they include the same reporting metrics of the TR? When the reporting areas and metrics under the CSRD/ESRS do not correspond to the categories of economic activities and the metrics used under the TR, businesses must effectively navigate distinct disclosure frameworks. This is an extremely inefficient regulatory approach to generating sustainability information.

Second, under the TR, businesses must not only assess whether they meet the standards formulated in the TSC but also whether they meet the DNSH criteria. For some activities, these DNSH criteria have been specified, but mostly, businesses will have to use the generic DNSH criteria in the appendices of the TSC. These generic DNSH criteria contain general norms on the topics of climate, sustainable use and protection of water and marine resources, pollution prevention and use of chemicals, and protection and restoration of biodiversity and ecosystems. For any activity in the TR, there is a high likelihood that the business will have to report these generic criteria. It is therefore surprising that not all of these are included explicitly in the topical ESRS for Environment, which cover the same topics. Whereas those on climate are included, the others are not reflected sufficiently to prevent double reporting.

6 Recital 38 CSRD.

3.2.2 *Misalignment between Ongoing and Initial Disclosures*

The second misalignment in the information chain is between the ongoing disclosure requirements of the CSRD, ESRS, and TR and the initial disclosures required by the PR and the EuGBR. The initial disclosures are primarily regulated by the PR. This regulation predates the EU SFF and does not incorporate explicit sustainability disclosures. This means that sustainability disclosures in prospectuses are based on general norms from the PR, such as the materiality principle. That is hardly a guarantee that the disclosures adequately reflect the sustainability information that the issuer generates on the basis of the initial disclosures. An investor who relies exclusively on the prospectus without consulting the annual sustainability reporting, therefore, is at risk of obtaining an incomplete picture of the sustainability situation of the business in its entirety and the sustainability circumstances of the specific securities offered. This means that the investor is hardly able to make an informed investment decision. The EuGBR, which demands extensive sustainability disclosures for European Green Bonds, fails to close this information gap as it applies only to a small fragment of issuances due to its strict criteria and burdensome usage for issuers.

3.2.3 *Misalignment between Issuer Level and Intermediary Level*

The third misalignment in the information chain is between issuer- and intermediary-level disclosures, in particular, the mismatch between information generated and disclosed by issuers on the basis of the CSRD, ESRS, and TR and disclosures made by intermediaries pursuant to the SFDR. Maintaining the integrity of sustainability information from issuer disclosure to intermediary disclosures is challenging in itself, as issuer disclosures focus on individual issuers or securities, whereas intermediary disclosures aggregate sustainability information on multiple investments pooled together.

In light of this challenge, the SFDR falls short in preserving the authenticity of the information that is originally disclosed by issuers in two respects. First, the issuer disclosures under the CSRD/ESRS always cover four dimensions of the double materiality principle: the issuer's positive and negative impact on sustainability matters and the financial risks and opportunities by sustainability matters. In contrast, the SFDR does not have a single financial product type for which all four disclosures are mandated. Second, the TR establishes thresholds for qualifying activities as environmentally sustainable. However, the SFDR disregards these qualifications and introduces its own classification system for grey, green, or dark green financial products without any clear or specific thresholds. Consequently, an investor who only relies on information disclosed under the SFDR is at risk of not having an accurate picture of the (aggregated) sustainability impact, risks and opportunities associated with the financial product.

3.2.4 *Misalignment in Respect of Individual Securities*

The fourth misalignment is of a different type: diverging disclosure requirements for different types of securities. Ideally, the four disclosure aspects of the double materiality principle should be consistently available for each security. However, the current disclosure framework fails to mandate this. There are two levels in the disclosure framework where the consistent disclosure of the double materiality principle for all securities is undermined.

The first level in the framework where diverging disclosures for different types of securities appear is at issuer level in the initial disclosures. These are primarily regulated by the PR, which contains no explicit sustainability disclosures and thus fundamentally fails to harmonize sustainability disclosures across different types of securities. While the EuGBR does mandate the initial disclosure of comprehensive sustainability information in initial disclosures, due to its limited applicability, it fails to remedy the shortcomings of the PR. This creates a situation in which most securities will have no or little harmonised sustainability information in initial disclosures, whilst for a small segment, there will be extensive disclosures. Second, the SFDR contains mandatory disclosures of sustainability impact, risks and opportunities but fails to mandate them uniformly across all financial product types. Instead, for some products, the negative sustainability impact has to be disclosed, whilst for others, the positive impact must be disclosed. This approach further fragments sustainability disclosures for financial product types. The consequence of these two shortcomings is that the availability of sustainability information will vary greatly for individual investment opportunities. This is in direct contrast to the aim of enabling investors to compare sustainability across different investments.

3.4 Binary Taxonomy

The binary nature of the TR divides economic activities into two categories: environmentally sustainable and non-sustainable. This dichotomy is too reductive and creates multiple challenges that undermine the objective of the EU SFF to provide the nuanced information that is necessary for investors to incorporate sustainability considerations into their investment decisions in a meaningful manner.

3.4.1 *Binary Nature Undermines Useability for Investors*

The binary approach of the TR, whilst in line with the regulatory strategy of creating a normative and precisely delineated threshold for qualifying activities as 'environmentally sustainable economic activities,' fails to provide the nuance that is necessary for investors to make an informed investment decision. The

fundamental problem with this approach is that most activities are non-Taxonomy aligned due to the stringent criteria of the TR. However, as investors do not receive any indication of the relative environmental impact – whether an activity has an extremely negative sustainability profile or merely falls marginally short of the Taxonomy’s criteria – the comparative value of the TR is undermined as no indication is provided on how the vast majority of economic activities relate to each other in respect of sustainability.

A potential counterargument to this is that the information that is provided in the sustainability reporting on the basis of the CSRD/ESRS provides the granular insights necessary to fully understand the sustainability impact of an economic activity and that the TR is a complementary tool to interpret that information. This argument, however, overlooks that a binary approach undermines the TR’s ability to be a tool to interpret CSRD/ESRS disclosures. Instead, the binary nature of the TR creates a dilemma for investors. Either investors exclusively rely on the TR, which is efficient but means that they lack essential information on the relative sustainability impact of different investment opportunities across multiple issuers. Investors can overcome this shortcoming by familiarizing themselves with the extensive sustainability report of the issuer, which will render the TR largely superfluous. In either case, the TR is at the risk of failing both investors who want to inform themselves quickly and investors who conduct diligent research. For quick insights, the TR lacks necessary nuance; for extensive insights, the TR lacks added value. The binary nature thus creates the risk of rendering TR too reductive to be genuinely informative for investors.

3.4.2 *Watering Down of the Taxonomy*

That the binary nature of the TR is too restrictive is also reflected in two legislative choices that test the limit of the current reductive classification approach of the TR. The first example of this is the inclusion of ‘enabling activities’ and ‘transitional activities’ in Taxonomy-aligned activities. These two activities do not meet the Technical Screening Criteria (“TSC”). Instead, enabling activities are activities that “contribute substantially” to activities that are TR-aligned (article 16 TR). Transitional activities are activities for which there are “no technologically and economically feasible low-carbon alternative” but which nonetheless support the transition to a climate-neutral economy (article 10 (2) TR). Classifying these two activities as ‘environmentally sustainable’ even though they do not meet the TSC demonstrates that even within the system of the TR itself, the binary nature of the classification system causes tension as it does not properly accommodate for more nuanced categorisations.

The second example is the incorporation of fossil gas-based and nuclear activities into the TR.⁷

These legislative choices reveal that the Commission is struggling with the restrictive nature of the TR. The legislative aim was that the TR should only include activities aligned with the Paris Agreement objectives. However, numerous activities represent positive progression toward sustainability while falling short of this threshold. Nonetheless, investments are channelled to these activities. However, the approach of the Commission to address this problem – diluting the criteria to accommodate activities that fail to meet the TR’s original aim – risks undermining the credibility of the Taxonomy as a (strict) classification system for ‘environmentally sustainable’ activities.

3.4.3 Negative Effect on Other Legislation

The binary approach of the TR has a direct negative effect on other legislation in the EU SFF, in particular, the EuGBR and the SFDR. The EuGBR aims to overcome the fragmented and market-based landscape of sustainability labels. However, its effectiveness is restricted by the binary categorisation system of the TR. Only bonds that finance Taxonomy-aligned activities can use the label. However, due to the strictness of the TR, only a small fragment of the market qualifies for the label. In combination with the fact that the current PR does not include comprehensive sustainability disclosures for securities in general, this causes a situation in which, for a small segment of the market, there is detailed sustainability information available, whilst for the majority of the market, there is little or unharmonized sustainability information.

With the SFDR, a different challenge can be observed. The SFDR divides financial products into three categories, including two sustainable categories: investments with environmental or social objectives and sustainable investments. This structure misaligns with the binary approach of the TR. Moreover,

7 Criticism includes the pending case CJEU, Action brought on 7 October 2022, T-625/22, (Austria v European Commission), in which is demanded that the decision to qualify investments in fossil gas and nuclear energy as “environmentally sustainable” is annulled. See also: Fouquet D., “Taxonomy for Sustainable Finance: A Difficult Topic for Europe, a Worrying Development for Our Democratic Principles”, *Renewable Energy Law and Policy Review* 2022, vol. 11(1), p. 5; Fouquet D., “The Healing Force of Renewables Calls for a Nuclear Free Taxonomy in Times of Aggression.” *Renewable Energy Law and Policy Review* 2022, vol. 10(3/4), 2022, p. 1; Letter from Minister for Climate and Energy for the Netherlands, Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology for Austria, Minister for Energy and Digital Development for Sweden, Minister for Climate, Energy and Utilities for Denmark, “Statement fossil gas-based activities in the EU Taxonomy”, 31 January 2022, available at: <https://www.government.nl/documents/letters/2022/01/31/statement-fossil-gas-based-activities-in-the-eu-taxonomy>, accessed on 25 January 2025; Nicolás E.S., “EU gas and nuclear rules derided as ‘biggest greenwash ever’”, *euobserver* (newspaper), 14 January 2022, available at: <https://euobserver.com/green-economy/ard798d6c5>, accessed on: 25 January 2025.

the two sustainable categories from the SFDR operate independently from the TR. It is difficult to conceptualize how the TR could effectively be integrated into the SFDR under its current configuration, as the categorization in the SFDR reflects market demand for differentiation between sustainable and highly sustainable products, which the binary TR cannot accommodate. This disconnect between the SFDR and the TR diminishes the value of the TR as an interpretive tool for the comprehensive information disclosed under the SFDR, whereas an alternative approach could significantly enhance synergies between these regulatory instruments.

3.4.4 *Undermines Incentives to Become More Sustainable*

Whilst the primary objective of the TR is to enable investors to make well-informed investment decisions and reorient capital toward sustainable investments, another aim is to incentivise investee companies to make their business models more environmentally sustainable to attract more funding. However, the binary approach of the TR potentially undermines this aim. For businesses that can confidently determine that their activities will never qualify as environmentally sustainable, the TR does not create any incentives to even make incremental steps toward an improved sustainability position.⁸ Similarly, although somewhat less problematic, there are no incentives in the TR to further improve the sustainability impact of an economic activity once it has qualified as environmentally sustainable.

3.5 Unnecessary Regulatory Burden

There is no doubt that the EU SFF imposes a heavy burden on businesses subject to the CSRD/ESRS and TR and on financial intermediaries and advisers required to comply with the SFDR. This is justified by the urgent need to address the current climate crisis, which calls for more sustainable investments and a regulatory framework to facilitate those. However, the EU SFF also creates unnecessary burdens, which makes compliance unnecessarily costly for businesses. The unnecessary regulatory burdens are caused by two distinct problems: unnecessary legislative complexity and internal misalignment. The primary example of unnecessary legislative complexity ('messy' legislation) are the CSRD and ESRS. The CSRD contains lengthy but legally insignificant descriptions, the ESRS are excessively long, sometimes repetitive, and difficult

8 For example: European Federation of Pharmaceutical Industries and Associations, "How the EU can incentivise environmental sustainability of new medicines", 3 October 2024, available at: <https://www.efpia.eu/news-events/the-efpia-view/blog-articles/how-the-eu-can-incentivise-environmental-sustainability-of-new-medicines/>, accessed on: 12 December 2024.

to navigate. Although the CSRD and ESRS are the primary examples of ‘messy’ legislation, all legislation that I analysed in this research could do with some editorial work to enhance clarity and usability. The problem of excessive reporting requirements under the CSRD/ESRS has also been signalled in Draghi’s ‘The Future of European Competitiveness’, which emphasizes that the regulatory landscape must facilitate competitiveness and resilience,⁹ and in the Budapest Declaration, wherein European Heads of State and Government have called for a simplification of the regulatory framework, in particular for SMEs, calling for a reduction of reporting requirements of at least 25%.¹⁰

The second problem that causes unnecessary regulatory burden is the misalignments that I discussed in paragraph 3.2. In particular, the Taxonomy diverges from the environmental disclosures to be made under the CSRD/ESRS, and the SFDR with its PAIs has its entire own disclosure framework that is unconnected to the CSRD/ESRS and TR disclosures. This means that a lot of redundant disclosure work has to be done, which could be avoided in a more coherent framework. Ultimately, these two problems increase compliance costs and make sustainable investments unnecessarily expensive, which decreases the effectiveness of the framework.

3.6 Conclusion

In general, the EU SFF is a fantastic step forward to enable investors to integrate sustainability considerations into their investment decisions. The framework addresses market inefficiencies by targeting information asymmetries that contribute to the underfunding of sustainable activities, implementing comprehensive disclosure requirements at multiple levels throughout the investment chain. The framework employs complementary regulatory strategies – procedural transparency through CSRD/ESRS, SFDR, and PR providing comprehensive neutral information that, in general, align to the double materiality principle, alongside normative thresholds in the TR and EuGBR offering standardized sustainability benchmarks. The double materiality principle ensures the investor is informed on all four dimensions of sustainability, namely positive and negative impact, risks and opportunities. This information is complemented by the normative qualification of what is con-

9 European Commission, The Draghi report: A competitiveness strategy for Europe (Part A): A competitiveness strategy for Europe, September 2024, available at: https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en; European Commission, The Draghi report: In-depth analysis and recommendations (Part B): In-depth analysis and recommendations, September 2024 available at: https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en.

10 European Council, Press Release, Budapest Declaration on the New European Competitiveness Deal, 8 November 2024, available at: <https://www.consilium.europa.eu/en/press/press-releases/2024/11/08/the-budapest-declaration/>, point 4.

sidered as sustainable – Taxonomy-alignment – which enables investors to interpret the sustainability impacts of investment decisions.

However, the framework also suffers from three fundamental flaws that potentially undermine its effectiveness. First, misalignments throughout the framework. This means that if an investor only relies on part of the information that is disclosed, for example, only on the prospectus or on the SFDR information, there is a risk that the information does not accurately represent the sustainability impact, risks and opportunities. Second, the binary nature of the Taxonomy creates the risk that the TR is too reductive to be genuinely informative for investors and potentially inhibits capital flows to sustainable activities that fall short of the strict criteria used in the regulation. Third, the combination of extensive yet non-aligned disclosure requirements imposes a regulatory burden that, while necessary for many aspects, is excessive in respects.

4 ANSWER TO THE RESEARCH QUESTION – PART II

4.1 Introduction

To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities? In this section, I present my two main recommendations for improving the EU SFF to optimize the reorientation of capital toward sustainability objectives. These recommendations are based on the overarching flaws that I have identified in paragraph 3. They partially deviate from the recommendations that can be found in Chapters 3 – 5, which have a narrower focus, namely on the specific legislation that is analysed in those chapters. Moreover, I briefly discuss the main proposals from the Commissions' Omnibus package aimed at decreasing the regulatory burden of the CSRD that was published on 26 February 2025.

4.2 Alignment

4.2.1 Mandatory Elements throughout EU SFF

Two elements should be contained in all mandatory disclosures throughout the information chain: the double materiality principle and Taxonomy-alignment. The reason to include these two complementary elements in the initial, ongoing, and intermediary disclosures is simple: It is essential information that investors need to make *informed investment decisions that integrate sustainability considerations*. The double materiality principle encompasses the four

dimensions of sustainability information in relation to an economic activity or business: the positive and negative impact on sustainability matters and the financial risks and opportunities that arise due to sustainability matters. Next to being acquainted with these four dimensions, it is necessary to know how Taxonomy-aligned the activity is because it helps to interpret the sustainability impact of the activity.

4.2.2 *What Aligns to What*

Alignment of the double materiality principle and TR-alignment throughout the information chain has several layers:

1. Both the double materiality information and the Taxonomy-alignment are disclosures that ultimately are generated by the issuer. Here, the first alignment challenge lies: ideally, the metrics for reporting under the CSRD/ESRS are identical to the metrics used in the TSC for determining Taxonomy-alignment. Contrary to the other steps in the EU SFF, these two pieces are already relatively well aligned. Firstly, the ESRS follow roughly the same structure as the TR. Secondly, the TR information is integrated into the sustainability reporting via article 8 TR. Two more steps will enhance the alignment between the CSRD/ESRS and the TR. First, the sector-specific standards for the ESRS that are currently being developed should closely match the activity categorization of the TR. There does not need to be one sector-specific standard per activity in the TR, but it should be clear which TR activities – or NACE codes – are included in which standard and all TR activities should be covered. Substantively, the sector-specific standards should align with the disclosure metrics that are required under the TSC to prevent double reporting. Second, the generic DNSH in the TR, for which there is a very high likelihood that the business will have to use them, should be better reflected in the topical ESRS. In this way, a business that has complied with the material topical ESRS can easily determine whether it meets the generic DNSH under the relevant activities in the TR. Better aligning the ESRS to the TR additionally creates the opportunity to evaluate which ESRS disclosures are redundant and can be deleted to reduce the regulatory burden of annual sustainability reporting.
2. The second layer in which sustainability disclosures must be aligned is the initial disclosures that are regulated by the PR. This legislation lacks any mandatory sustainability disclosures. In Chapter 4, I have proposed several elements to include in the PR to enhance sustainability disclosures in prospectuses. However, at a minimum, the information in the prospectus should cover two aspects: the four areas of the materiality principle and how Taxonomy-aligned the activities which are being financed through the proceeds are. This information primarily builds on the information

that issuers generate and disclose under the CSRD/ESRS and the TR framework. However, the information to be disclosed under the PR information may not be identical to the ongoing disclosures. There are two important modifications between the first and second layers that need to be taken into account when drafting the sustainability disclosures for the PR. First, the double materiality information in the PR should be disclosed more concisely than in the ongoing disclosures – a summarized overview of the main impacts, risks, and opportunities would ensure that the information is accessible enough to be easily interpreted. Second, when securities are issued for more specific activities rather than general financing of the issuer, the sustainability information should be more narrowly focused on those specific activities. This information should also be based on the ongoing disclosures, as the CSRD/ESRS framework requires reporting not only on firm-level but also in disaggregated form. Regardless of how these sustainability disclosures in the PR would exactly be shaped; it is essential to maintain the integrity of the information. To achieve this, the metrics and qualifications used in the CSRD/ESRS and TR should be maintained in the PR, regardless of the specific criteria that are ultimately developed.

3. The third layer of alignment of sustainability disclosures concerns alignment between issuer level and intermediary level disclosures, specifically focusing on the SFDR. There are two distinct aspects which must be better harmonized. First of all, the SFDR must integrate the double materiality principle and the Taxonomy-alignment. Second, the individual disclosure requirements for the different types of financial products must be harmonized.

The current SFDR categorizes financial products into three groups: neutral (article 6), light green (article 8), and dark green (article 9). These categorizations are not based on the classification framework that is established by the TR. To improve alignment between issuer and intermediary disclosures, the current system should be replaced with a mechanism that integrates the classification system of the TR whereby the SFDR categories represent a degree of Taxonomy-alignment. What is challenging is that financial products often combine multiple individual investments with varying degrees of Taxonomy-alignment and include non-EU securities for which no Taxonomy-data is available. The legislator thus must find a mechanism to qualify the aggregated impact of multiple investments. One approach could be to establish quantitative thresholds, for example, that at least 50% of financial products' combined value must be Taxonomy-aligned to qualify as a dark-green product. This will become more feasible if initial disclosures provide a clear indication of how Taxonomy-aligned the individual investment is, as proposed under the last point.

The second improvement to the SFDR framework is that double materiality and TR-alignment should be mandatory for all product types, regardless of their category. The legislator should, therefore, take a few steps. First of all, the multiple Annexes and tables for the PAI disclosures and the pre-contractual disclosures for products 8 and 9 should be merged, simplified and made mandatory for all product types. Second, substantively, the disclosures should contain a straightforward manner to disclose the four aspects of the double materiality principle, with disclosures that are, on an aggregated level, based on CSRD/ESRS disclosures where possible. To maintain the integrity of the information, the metrics and qualifications used in the ESRS/CSRD and TR framework should be maintained in the SFDR disclosures. Third, the disclosure of aggregated Taxonomy-alignment should be included.

4.2.3 *Pros*

The three recommendations formulated in the previous paragraph directly address two of the fundamental flaws described in paragraph 3: the misalignment between disclosure requirements and unnecessary regulatory burdens. On the first point, the recommendations ensure consistent and reliable sustainability disclosures throughout the EU SFF, which contributes to a system where the investor is enabled to incorporate sustainability considerations into the investment decisions irrespective of whether they access all information disclosed to them on the basis of the EU SFF or information disclosed under a part of the system. Moreover, the opportunities for greenwashing are minimized as issuers and intermediaries have less freedom in designating securities or financial products as sustainable in the prospectus or in SFDR disclosures. Secondly, by aligning the disclosures, redundant and inconsistent disclosures under the different parts of the EU SFF are minimized, which reduces the regulatory burden that is faced by issuers and intermediaries. By minimizing these two flaws, the recommendation thus contributes to a more effective EU SFF that better enables investors to make informed investment decisions that integrate sustainability considerations and is more practical.

4.2.4 *Cons*

There is one major drawback to better aligning different parts of the EU SFF: it will affect the scope of investments that can qualify as 'light green' or 'dark green' under the SFDR. At the moment, intermediaries are free to develop their own methodology and reasons for categorizing financial products under either sustainable category. As discussed in Chapter 5, this has significant drawbacks, inter alia, that the authenticity of the categorisation is not sufficiently safeguarded and that there is an increased risk of greenwashing. Better alignment would take away both concerns because the designation as 'light green' or 'dark green' would become more rigid. However, this also means

that many activities may be classified as ‘promoting environmental or social characteristics’ (“E/S”), or having ‘sustainable investment as its objective’ (articles 8 and 9 SFDR respectively) on other grounds that a certain degree of Taxonomy-alignment, cannot be marketed as light or dark green. This can be a serious problem for activities for which no Taxonomy-alignment must be determined in the first place, for example, investments outside the EU. This could potentially mean that those activities receive less financing as they may not be marketed under article 8 or 9 SFDR. On the other hand, if the level of Taxonomy-alignment of the total value of the investments is less than 100%, there still could be room for non-Taxonomy-aligned investments within those product categories. Better aligning the issuer and intermediary disclosures will thus require the legislator to strike a balance between the need for financing for non-Taxonomy aligned activities and the reliability of the ‘light green’ and the ‘dark green’ categories under the SFDR

4.3 Gradual Taxonomy

4.3.1 Introduce Multiple Categories

To overcome the problems that are caused by the binary Taxonomy, the current system should be upgraded to encompass a more nuanced categorisation of sustainability impacts. Two potential approaches are a three- or a five-category model, as depicted below.

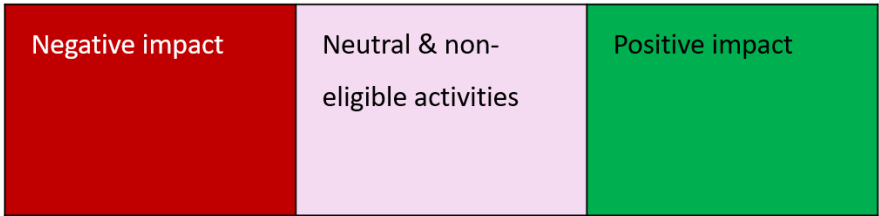


Figure 9: Three-category model. Source: Own image.

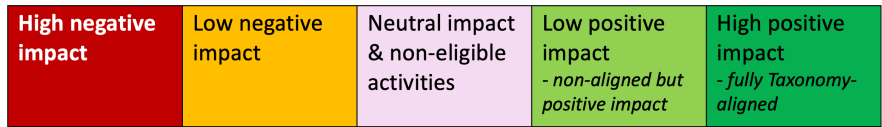


Figure 10: Five-category model. Source: Own image.

Whereas the three-category model aligns better with, for example, the proposal of the Platform on Sustainable Finance, the five-category model allows for more differentiation and recognizes that on both the negative and the positive side,

it is necessary to distinguish between sustainability impacts.¹¹ Implementing either system would require at least three major edits to the current TR. First, the TSC must be updated to contain more thresholds to differentiate between the different categories. Second, the DNSH criteria must be reviewed to determine how these relate to the different categories. It might be necessary, for example, to clarify that for the categories ‘neutral’, ‘low positive impact’ and ‘high positive impact’, no significant harm should be done to any of the other environmental objectives of the TR. Third, the scope of the TR should be expanded under this model to generically include all activities that are not specific under the current TR as ‘neutral & non-eligible.’

4.3.2 Pros

The proposed models, and in particular the five-category model, offer four key advantages over the current binary Taxonomy. The five-category model addresses and, therefore, enhances the effectiveness of not only the TR but the EU SFF in its entirety.

The first reason to switch to the five-category model is that the current TR may not serve as an effective interpretative tool for sustainability impacts, which reduces its usability, since the binary nature of the TR renders it too reductive to be genuinely informative for investors. In particular, the five-category model overcomes this problem and provides a more nuanced and granular basis for comparing investment opportunities in terms of sustainability impact. At the same time, the five-category model is still an accessible and easy to interpret system.

Second, the five-category model addresses the current challenge for the legislator regarding activities for which there is a desire to encourage more financing, but which do not align with the current generally strict Taxonomy criteria. Multiple categories better cater to the need for financing for these types of activities. This is in particular so for transition financing – financing of activities which may not have a direct high positive impact, but which are necessary to reduce GHG emissions. This need is also a reason why a five-category model is to be preferred over the three-category model as proposed by the Platform on Sustainable Finance, which does not allow for differentiation within the negative or positive category.

Third, a gradual Taxonomy has positive effects on both the EuGBR and the SFDR. The main problem of the current EuGBR is that its scope is too limited, as only Taxonomy-aligned activities can carry the label. When all economic activities essentially have a label (ranging from ‘high negative impact’ to ‘high positive impact’), this can be a reason to reflect on whether and how

11 Platform on Sustainable Finance, “The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition”, *European Commission* March 2022.

the scope of the EuGBR could be broadened to include more investments. It could also be a reason to reflect on the added value of the EuGBR in general, especially if the gradual Taxonomy is introduced together with a better aligned EU SFF, in which, for example, the prospectus adequately reflects the double materiality principle and what Taxonomy-category the investment would fall into. For the SFDR, a gradual Taxonomy represents an opportunity for the legislator to create a more explicit link between Taxonomy-alignment and the SFDR product categories 'neutral,' 'light green,' and 'dark green' and make them more reliable. At the same time, it would be an opportunity to continue to reflect the demand for more differentiated labelling of (sustainable) investments at intermediary level.

The fourth advantage of a gradual Taxonomy over a binary one is that it creates incentives to become more sustainable, even for those activities that may never qualify as 'high positive impact'. This is especially so if the legislator creates opportunities to include 'neutral' activities (and possibly even a small amount of 'low negative impact' activities) in the 'light green' category of the SFDR. By stepping away from the all-or-nothing approach of the binary Taxonomy, businesses will be encouraged to make incremental improvements in their sustainability impact.

4.3.3 Cons

There are three major drawbacks for implementing a gradual Taxonomy. First, a gradual Taxonomy will increase the complexity of the EU SFF. This complexity has several dimensions. Primarily, the legislator will have to develop a nuanced system that distinguishes between three or five categories of sustainability impact. Creating multiple categories for sustainability impact will likely involve more than simply introducing multiple thresholds in the TSC. It is also likely to raise conceptual questions on how different parts of the TR relate to each other, in particular the TSC and the DNSH-criteria. For example, how should the gradual approach deal with situations in which an activity meets the thresholds in the TSC, but causes significant harm to one of the other environmental aims of the TR? Should the activity automatically be relegated to 'low negative impact' or 'high negative impact,' or should the gradual approach contain a proportionality assessment which would allow for 'neutral' or even 'low positive impact' categorisation in such a case? Next to the TR itself, the increased complexity will affect all legislation that incorporates TR information. As argued in paragraph 4.2, Taxonomy-alignment should be better integrated throughout the EU SFF. However, a more complex TR will require the legislator to balance carefully the increased complexity of a multiple-category model on the one hand and the need for straightforward legislation on the other hand.

Another problem of the gradual Taxonomy is that it increases the use of the TR throughout the EU SFF, which creates problems for those activities

that fall outside the TR framework. A gradual Taxonomy would mean that for securities issued inside the EU, there will be a Taxonomy indication available (ranging from ‘high negative impact’ to ‘high positive impact’). When TR-alignment is better integrated in the EU SFF, in particular at intermediary level, this raises the question of how to deal with securities that have been issued outside of the EU. If those securities would be treated on par with ‘non-eligible’ European securities, this raises questions about how to integrate them into the SFDR system, especially when they have a non-EU sustainability label or have a high negative impact on sustainability matters. The legislator will also be facing the challenge of ensuring that neither non-EU securities are discriminated against, nor that EU securities are disadvantaged by having to indicate Taxonomy-alignment.

A third problem is that a gradual Taxonomy may have grave implications for those activities that are of ‘high negative impact’. In their Report on Taxonomy extension options, the Platform on Sustainable Finance lists a number of concerns that fall under this problem. In particular, that high carbon intensity sectors are at a greater risk of being blacklisted, that these businesses may find difficulties in raising financing from banks and on markets, and that a mandatory negative categorisation effectively could mean the creation of stranded assets by law.¹² Given the current dependency on fossil fuel-intensive industries, these are legitimate concerns. Moreover, the legislator would need to carefully assess the wider economic implications, as the creation of stranded assets could have far-reaching effects on interconnected financial markets. Nonetheless, the need for reliable sustainability impact information persists, and the disclosure of sustainability impacts is already mandated within sustainability reporting under the CSRD/ESRS framework. The contribution of a gradual Taxonomy is that it would qualify this existing information through a normative spectrum of positive and negative impacts.

4.4 The Omnibus Proposal

On 26 February 2025, the Commission presented its proposals to reduce the regulatory burden of the CSRD/ESRS and TR in response to, *inter alia*, Draghi’s ‘The Future of European Competitiveness’, which emphasises that the regulatory landscape must facilitate competitiveness and resilience,¹³ and the Buda-

12 Platform on Sustainable Finance, “The Extended Environmental Taxonomy: Final Report on Taxonomy extension options supporting a sustainable transition”, *European Commission* March 2022, p. 21-22.

13 European Commission, The Draghi report: A competitiveness strategy for Europe (Part A): A competitiveness strategy for Europe, September 2024, available at: https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en; European Commission, The Draghi report: In-depth analysis and recommendations (Part B): In-depth analysis and

pest Declaration, wherein European Heads of State and Government have called for a simplification of the regulatory framework, in particular for SMEs.¹⁴ These proposals, collectively referred to as the Omnibus package, are aimed at simplifying sustainability disclosure rules whilst keeping to the overall ambition of the European Green Deal.¹⁵ The package contains a number of proposed actions, most importantly:

1. Limit the scope of the CSRD/ESRS to large businesses with over 1000 employees and a turnover exceeding EUR 50 million or a balance sheet exceeding EUR 25 million.¹⁶
2. Limit the scope of article 8 of the Taxonomy Regulation, which requires businesses to disclose Taxonomy alignment, to businesses with more than 1000 employees and a net turnover exceeding EUR 450 million.¹⁷
3. Remove the sector-specific sustainability reporting standards from the ESRS altogether.¹⁸

These radical proposals must be seen in the context of the changing political landscape in which the Russian war against Ukraine has driven up energy prices for EU businesses, and trade tensions have been rising since the election of US president Trump.¹⁹

While the Omnibus proposals undoubtedly will decrease the regulatory burden that is currently imposed by the EU SFF, they also risk undermining the entire framework. While procedurally easy, removing the sector-specific sustainability reporting standards altogether sacrifices the potential for enhanced synergy between the TR and the ESRS. Businesses that are required to assess their TR-alignment will need to generate this information anyway, rendering the elimination of sector-specific reporting requirements under the ESRS both unnecessary and counterproductive. Much more problematic, however, are the proposals to limit the scope of the CSRD/ESRS and the TR.

recommendations, September 2024 available at: https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en.

14 European Council, Press Release, Budapest Declaration on the New European Competitiveness Deal, 8 November 2024, available at: <https://www.consilium.europa.eu/en/press/press-releases/2024/11/08/the-budapest-declaration/>, point 4; calling for a reduction of reporting requirements of at least 25%.

15 Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirements COM(2025) 80 final ("Omnibus-I COM(2025)80") p. 1-2; Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives 2006/43/EC, 2013/34/EU, (EU) 2022/2464 and (EU) 2024/1760 as regards certain corporate sustainability reporting and due diligence requirements COM(2025) 81 final ("Omnibus-I COM(2025)81"), p. 1-2.

16 Omnibus-I COM(2025)80, p. 3-4.

17 Omnibus-I COM(2025)80, p. 4.

18 Omnibus-I COM(2025)81, p. 4, 15.

19 Omnibus-I COM(2025)80, p. 2.

By removing up to 80% of reporting businesses from the scope of the CSRD/ESRS and an even larger proportion from disclosing TR-alignment, the two critical information points needed for making an informed investment decision that incorporates sustainability considerations are limited to only a fraction of the issuers.²⁰ This will cut off the flow of sustainability information from the source and effectively weaken the intermediary disclosures, making it more difficult for FMPs and FAs to compile the information necessary for SFDR disclosures.

Drastically limiting the scope of the CSRD/ESRS and TR may seem like a cost-effective way to boost the European economy. However, this approach would also undermine the ability of investors to make informed investment decisions that incorporate sustainability considerations and thereby inhibit the flow of capital toward sustainable activities. As discussed in Chapter 2, the (mis)allocation of capital to non-sustainable activities may appear economically advantageous in the short-term. Businesses that externalize their environmental damage profit from their activities whilst externalizing the costs to society and future generations. Consequently, these businesses may categorically realize more financial profit than sustainable businesses that internalise their environmental costs, making them more competitive. However, from an L&E perspective in which welfare is defined as the “value of everything in society”, this is a counterproductive approach to economic progress. While it may benefit individual businesses and their investors, society at large experiences economic losses from polluting activities. It is, therefore, surprising that the Commission proposes to limit the transparency mechanisms that enable investors and society at large to gain a better understanding of the environmental costs and benefits that individual businesses impose upon society. Instead of a simplistic deregulation approach, the Commission should consider how to enhance the effectiveness of the framework by better aligning the necessary disclosures and eliminating those that serve no purpose in light of the aims of the EU SFF.

4.5 Conclusion

The research question central to this thesis is *To what extent does the European Sustainable Finance Framework enable investors to make better informed investment decisions that integrate sustainability considerations, and how can this framework be improved to facilitate the reorientation of capital flows toward sustainable economic activities?* I identified various smaller and larger potential points of improvement that would contribute to optimizing the EU SFF. However, the two fundamental and overarching reforms that I discussed in this paragraph are

²⁰ Omnibus-I COM(2025)80, p. 3.

particularly important to consider, as they would have a major impact in enhancing the effectiveness of the entire framework.

First, the flow of information throughout the different parts of the EU SFF must become better aligned. This requires, at a minimum, the implementation of two disclosure requirements throughout the EU SFF: the double materiality principle and Taxonomy-alignment. Both elements are pivotal in enabling investors to make an informed investment decision that meaningfully integrates sustainability information. Second, the TR must be expanded to include more categories to better cater to both the information demand of investors and the financing demand of the industry. While these proposed modifications present certain legislative challenges and may intensify regulatory pressure in specific areas, the improved EU SFF should eliminate redundant reporting and decrease the general complexity of the framework that is caused by mismatched legislation. An additional benefit would thus be that the entire system would become more efficient for issuers, intermediaries, and investors.

5 FINAL THOUGHTS

The climate crisis is undeniably linked to our neoclassical economy, in which the idea of maximizing individual utility has legitimized the systematic exploitation of natural resources at the expense of collective welfare. It is therefore unsurprising that many thinkers across all disciplines question whether capitalism itself should be replaced with a system that has solidarity, integral ecology, and the common good as its core principles. However valid the critique of the current economic system may be, it should not preclude serious attempts to reform that same system. The EU SFF represents a serious attempt to contribute to reforming the current economic system: by mandating sustainability disclosures throughout the investment chain, the EU SFF enables all actors to consciously move away from exploitative and destructive economic activities and reallocating capital toward an economy that prioritizes sustainability and general well-being.

Samenvatting

DE DUURZAAMHEIDSINFORMATIEKLOOF OP FINANCIËLE MARKTEN *Een beoordeling van het European Sustainable Finance Framework*

1 INLEIDING

Het European Sustainable Finance Framework ("EU SFF") heeft tot doel om duurzame investeringen te bevorderen teneinde de transitie naar een klimaat-neutraal Europa te faciliteren. Dit is in lijn met het Akkoord van Parijs, waarin is afgesproken dat de wereldwijde temperatuur niet meer dan 2°C mag stijgen ten opzichte van het pre-industriële niveau en waarin er wordt nagestreefd die stijging te beperken tot 1,5°C. Om dit doel te bereiken zijn er flinke investeringen nodig: in 2021 schatte de Europese Commissie dat er jaarlijks EUR 350 miljard extra zou moeten worden geïnvesteerd om de klimaatdoelen van 2030 te bereiken. In 2023 is deze schatting opgehoogd: het jaarlijks investeringstekort is volgens de Commissie inmiddels opgelopen naar EUR 620 miljard voor het behalen van de duurzaamheidsdoelstellingen, waarvan jaarlijks EUR 477 miljard aan een klimaatbestendige toekomst zou moeten worden besteed.

Het EU SFF beoogt dit financieringstekort te dichten door een informatie-infrastructuur te creëren die nodig is om meer privaat kapitaal naar duurzame economische activiteiten te laten stromen. Het idee hierbij is dat wanneer beleggers worden voorzien van informatie over de duurzaamheidsimpact, risico's en kansen van hun beleggingen, zij deze informatie gemakkelijker kunnen meewegen in hun beleggingsbeslissing. Met andere woorden: beleggers kunnen gemakkelijker de keuze maken om duurzaam te beleggen als zij hierover beter worden geïnformeerd. Om dit te bereiken is het essentieel dat er duurzaamheidsinformatie wordt gegenereerd op het niveau van de uitgevende instelling (dat zijn de bedrijven waarin kan worden geïnvesteerd). Omdat beleggers vaak met behulp van een intermediair beleggen, is het ook van groot belang dat die intermediairs de duurzaamheidsinformatie over de uitgevende instellingen goed doorgeven aan beleggers.

De wetgeving in het EU SFF reguleert het genereren en verschaffen van duurzaamheidsinformatie, zowel op het niveau van de uitgevende instelling als op het niveau van de intermediair. Op het niveau van de uitgevende instelling is in dit proefschrift de Corporate Sustainability Reporting Directive ("CSRD"), de European Sustainable Reporting Standards ("ESRS"), de Taxono-

mieverordening, de Prospectusverordening (die geen deel uitmaakt van het EU SFF) en de European Green Bond Regulation ("EuGBR") geanalyseerd. Op het niveau van de intermediair heb ik de Sustainable Finance Disclosure Regulation ("SFDR") geanalyseerd, die de openbaarmaking van duurzaamheidsinformatie door financiële marktdeelnemers en financiële adviseurs reguleert. Deze wetgeving wordt in hoofdstuk 1 geïntroduceerd en in de latere hoofdstukken geanalyseerd.

Om te beoordelen of het EU SFF zijn beoogde doelstellingen kan bereiken, is in dit proefschrift vanuit de volgende onderzoeksvraag gewerkt:

In hoeverre stelt het European Sustainable Finance Framework beleggers in staat om beter geïnformeerde beleggingsbeslissingen te nemen die duurzaamheidsoverwegingen integreren, en hoe kan dit kader worden verbeterd om de heroriëntatie van kapitaalstromen naar duurzame economische activiteiten te faciliteren?

2 NORMATIEF KADER

Voor dit onderzoek heb ik de Law & Economics-theorie gebruikt als kwalitatieve onderzoeksmethode. Zodoende heb ik de wetgeving in het EU SFF geanalyseerd door de lens van marktfalen, zoals beschreven binnen de Law & Economics-theorie, en heb ik beoordeeld in hoeverre de wetgeving geschikt is om dat falen te corrigeren.

In hoofdstuk 2 licht ik toe dat het kernprobleem dat het EU SFF tracht op te lossen, het gebrek aan financiering voor duurzame economische activiteiten, kan worden gezien als een gevolg van marktfalen. Dit marktfalen vloeit voort uit het feit dat partijen die activiteiten ondernemen met een negatieve milieu-impact profiteren van het externaliseren van deze kosten, aangezien deze kosten uiteindelijk door de samenleving worden gedragen. Dezelfde dynamiek doet zich voor bij beleggingen: beleggers die investeren in niet-duurzame activiteiten profiteren eveneens van het afwentelen van externe kosten, terwijl duurzame economische activiteiten structureel ondergefinancierd blijven omdat zij dit voordeel niet kennen. Met andere woorden: de huidige onderfinanciering van duurzame activiteiten is direct verbonden met het onvermogen van de markt om economische prikkels voor beleggers in lijn te brengen met de algemene welvaart.

Het EU SFF richt zich specifiek op twee vormen van marktfalen die de kapitaalstroom naar duurzame activiteiten belemmeren: informatie-asymmetrieën en het principaal-agent-probleem. Informatie-asymmetrieën verhinderen dat beleggers duurzaamheidsoverwegingen betrekken bij hun beleggingsbeslissingen omdat er een gebrek aan adequate duurzaamheidsinformatie is. Het principaal-agent-probleem ontstaat wanneer deze informatie-asymmetrieën door de agent (uitgevende instellingen, intermediairs) worden benut om het eigen belang te dienen, in plaats van dat van de principaal (de belegger). Beide

vormen van marktfalen kunnen de bereidheid en het vermogen om duurzaam te beleggen beperken en beide kunnen worden aangepakt door verplichte transparantie en betere informatievoorziening.

3 ANALYSE

Het eerste niveau van openbaarmaking in de investeringsketen ligt bij de uitgevende instelling. Deze instelling publiceert informatie via doorlopende rapportageverplichtingen in het jaarverslag en initiële openbaarmakingen bij de uitgifte van effecten. De doorlopende rapportages geven een algemeen beeld van de prestaties van het bedrijf, terwijl de initiële openbaarmakingen zijn gericht op potentiële beleggers en de uitgegeven effecten. Dit onderscheid komt ook terug in de duurzaamheidsinformatie: doorlopende rapportages focussen op het bedrijf als geheel, terwijl initiële openbaarmakingen informatie bevatten over de duurzaamheid van een specifieke belegging.

In hoofdstuk 3 bespreek ik de doorlopende rapportageverplichtingen. De CSRD verplicht ondernemingen om jaarlijks te rapporteren over hun positieve en negatieve duurzaamheidsimpact alsmede de financiële risico's en kansen die door duurzaamheidskwesaties ontstaan. Dit staat ook wel bekend als dubbele materialiteit. ESRS specificeren deze vereisten via algemene en thematische standaarden (zoals klimaat, vervuiling, water). De CSRD/ESRS-vereisten bevatten veel open normen en procedurele transparantievereisten. Ze worden aangevuld door de Taxonomieverordening, die grenswaarden bevat voor wat als "ecologisch duurzame economische activiteiten" geldt. Beleggers ontvangen daardoor zowel bedrijfsspecifieke als gestandaardiseerde informatie, wat onafhankelijke beoordeling én onderlinge vergelijking van ondernemingen vergemakkelijkt. In hoofdstuk 3 concludeer ik dat dit stelsel effectief bijdraagt aan het verminderen van informatie-asymmetrieën tussen uitgevende instellingen en beleggers.

In hoofdstuk 4 bespreek ik de initiële openbaarmakingen bij effectuitgiften, geregeld door de Prospectusverordening. Deze verordening bevat geen specifieke duurzaamheidsvereisten, maar slechts kadernormen zoals het materialiteitsbeginsel, bestemming van de opbrengst en risicofactoren. Door het ontbreken van meer concrete normen voor duurzaamheidsonderwerpen en rapportageformaten ontstaan heterogene openbaarmakingen, waardoor uitgevende instellingen en beleggingen moeilijk met elkaar te vergelijken zijn. Ik kom daarom tot de conclusie dat de huidige Prospectusverordening ontoereikend is om informatie-asymmetrieën te verkleinen. Om deze tekortkoming op te lossen, stel ik voor om minimale informatieverplichtingen ten aanzien van duurzaamheidsonderwerpen in de Prospectusverordening op te nemen: bij duurzame uitgiften moet worden toegelicht hoe zij bijdragen aan duurzaamheidsdoelen, terwijl bij niet-duurzame uitgiften ten minste moet worden vermeld wat de duurzaamheidsrisico's zijn.

Indien de gefinancierde activiteit voldoet aan de Taxonomie-criteria, kan de uitgevende instelling European Green Bonds (EuGB) uitgeven. Dit label biedt gestandaardiseerde, binaire informatie (de obligaties zijn “Taxonomy-aligned” of niet), wat het voor beleggers eenvoudig maakt om duurzaamheid te herkennen. Hoewel dit nuttig is in een context van informatie-overload, sluit de EuGBR niet goed aan bij de Prospectusverordening en lost de tekortkomingen in die verordening niet op. De binaire aanpak beperkt bovendien de vergelijkbaarheid binnen de brede categorie niet-gelabelde obligaties. Daarnaast maken de strikte vereisten en hoge regeldruk het label mogelijk minder aantrekkelijk voor uitgevende instellingen.

In hoofdstuk 5 bespreek ik de SFDR, die openbaarmakingen door intermediairs (financiële marktdeelnemers en adviseurs) reguleert. De verordening bevordert transparantie over hoe duurzaamheidsrisico's worden geïntegreerd en hoe negatieve en positieve impacts worden meegenomen (dubbele materialiteit), op zowel entiteits- als productniveau. De SFDR kent echter geen materiële drempelwaarden, waardoor standaardisatie en vergelijkbaarheid beperkt blijven. Ook zijn de openbaarmakingsvereisten per productcategorie (artikelen 6, 8 en 9) inconsistent. Een bijkomend probleem is dat artikelen 8 en 9 in de praktijk als labels worden gebruikt, terwijl ze eigenlijk procedurele transparantie-instrumenten zijn en daardoor de veronderstelde materiële nauwkeurigheid missen. Toch vormt de SFDR, ondanks haar tekortkomingen, een duidelijke vooruitgang ten opzichte van de situatie vóór invoering, toen helemaal geen wettelijk raamwerk voor intermediairs bestond ten aanzien van duurzaamheidsinformatie.

In hoofdstuk 6 concludeer ik dat het EU SFF een belangrijke stap is richting de integratie van duurzaamheidsoverwegingen in beleggingsbeslissingen. Door de focus op informatie-asymmetrieën en de combinatie van procedurele transparantievereisten (CSRD/ESRS, SFDR, Prospectusverordening) en normatieve drempels (Taxonomieverordening, EuGBR), versterkt het kader de informatiestroom van uitgevende instellingen naar beleggers. Tegelijkertijd kent het systeem drie structurele zwaktes:

1. Gebrekkige afstemming tussen de verschillende regelingen, waardoor informatie gefragmenteerd en soms misleidend is.
2. De binaire aard van de Taxonomieverordening, die te beperkt is om de diversiteit van duurzame en niet-duurzame activiteiten te weerspiegelen.
3. Hoge en niet-geharmoniseerde rapportagelast, wat de efficiëntie vermindert.

Ter verbetering stel ik twee structurele hervormingen voor:

1. Betere afstemming van openbaarmakingsvereisten binnen het EU SFF, met name door integratie van dubbele materialiteit en “Taxonomy-alignment” als gemeenschappelijke basis voor openbaarmakingen.
2. Uitbreiding van de Taxonomieverordening met meerdere categorieën, zodat zowel de informatiebehoefte van beleggers als de financieringsbehoefte van bedrijven beter wordt bediend.

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Curriculum Vitae

Lara Gisela Lieselotte Hartman-Ohnesorge (1993, Solingen) completed secondary school (*voorbereidend wetenschappelijk onderwijs*) at Porta Mosana College in Maastricht in 2012. She holds an LL.B. in European Law from Maastricht University (2017, *cum laude*), an LL.M. from Leiden University (2019, *cum laude*), and an M.Jur. from the University of Oxford (2019, distinction). She wrote her dissertation as a PhD Fellow at the Hazelhoff Centre for Financial Law, Leiden University.

In the range of books published by the Meijers Research Institute and Graduate School of Leiden Law School, Leiden University, the following titles were published in 2024-2025:

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