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Green Bonds

An assessment of the regulatory infrastructure

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Abstract

Climate change is one of the greatest challenges of our generation, posing an existential threat to human existence. The world community has responded to these challenges by agreeing to global goals for climate change mitigation and adaptation, such as the UN Sustainable Development Goals and the Paris Agreement. Achievement of these policy goals requires capital that goes beyond the capacity of the public sector alone. Green bonds, loans with an earmarked purpose of financing “green” (i.e. sustainable) projects are emphasized as a financial instrument that may play a vital role in financing the transition towards a green economy and the fulfillment of global sustainability objectives. The emergence of the green bond market has been market-led and has therefore not been subject to public regulation. While green bonds’ financial characteristics are the same as those of conventional bonds, their green component differs. This thesis analyzes how the current regulatory framework responds to this novel green component, in particular through exploring how the regulatory infrastructure ensures fulfillment of the objectives of green bonds, as well as consistency with basic EU financial market regulation, particularly the market’s integrity. Through analyzing existing green bonds standards, sustainable stock exchanges’ frameworks, and public and private sanctions, this thesis discloses how the current regulatory framework falls short in ensuring the integrity and enforceability of green bonds, and recommends actions for correcting these deficits. The thesis further argues that green bonds represent a pressing regulatory challenge that must be addressed to prevent greenwashing, ensure the future of the green bond market, and ultimately safeguard green bonds’ potential role in reorienting capital flows towards a sustainable economy.

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1. Introduction

1.1 Context of green bonds and research questions

Climate change is one of the greatest challenges of our generation, posing an existential threat to human existence.¹ The world community has responded to this threat by agreeing to ambitious but crucial goals for climate change mitigation and adaptation. In particular, The UN Sustainable Development Goals (subsequently the SDGs) and the Paris Agreement play significant roles in committing the world community to common objectives.² While the SDGs articulate a synthesis of the world's most pressing sustainability issues, the Paris Agreement establishes specific goals in which the world community must work collectively to achieve, to reduce the threat posed by climate change and the depletion of natural capital (air, water, land, and biodiversity).

One of the most prominent goals in the Paris Agreement is to limit the global temperature increase to well below 2°C, while pursuing efforts to limit the increase to 1.5°C.³ This limitation on global warming requires innovative technology combined with radical changes in our ways of living. Such a transition will necessitate trillions of dollars of investment in low-carbon and climate-resilient infrastructure. The Organisation for Economic Co-operation and Development (OECD) suggests an investment need of USD 6.9 trillion per year in the next 15 years to remain below 2°C.⁴ The European Commission estimates that to achieve the targets set by the European Union (EU) for energy and climate policy alone, additional annual investments of EUR 170 billion are required, while the investments needed to meet the SDGs will be even higher.⁵

It is against this background that the Paris Agreement in Article 2 (c) explicitly calls for finance flows “consistent with a pathway towards low greenhouse gas emissions and a climate-resilient development.” As this investment need goes beyond the capacity of public sector financing, the Paris Agreement further highlights the need for private sector participation.⁶

¹ UNEP (2015) 6.

² The Paris Agreement is an agreement under the United Nations Framework Convention on Climate Change (UNFCCC) and was agreed to in Paris, 12 December 2015. The UN Sustainable Development Goals follow from UN's General Assembly Resolution “Transforming our world: the 2030 Agenda for Sustainable Development” adopted on 25 September 2015.

³ The Paris Agreement Article 2 para 1 litra (a) expressly commits to: “Holding 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, recognizing that this would significantly reduce the risks and impacts of climate change.”

⁴ OECD (2017) 13.

⁵ HLEG (2018) 3.

⁶ The Paris Agreement Article 6 para 8 (b).

The EU has concluded that the private capital markets are not on track in meeting these objectives, as current levels of investment are not sufficient to support an economic system that mitigates climate change and stops the depletion of natural capital.⁷ The investments needed to close the gap are largely concentrated in sectors related to energy and resource efficiency, such as infrastructure, real estate, and transportation. Traditionally, these investments are mainly financed by debt, so the bond markets are prescribed a vital role in filling this crucial environmental funding gap.⁸

Green bonds are one way of mobilizing private sector financing for sustainable investments, and it is foreseen that they will play a key role in financing the investment needed to achieve the Paris Agreement and the SDGs.⁹ However, in order for green bonds to succeed in this envisioned role, two fundamental conditions must be fulfilled. First, green bonds must have substantive environmental outcomes aligned with the global climate goals. Second, they must be supported by investors and issuers of which require integrity in the green bond market as well as confidence in that green bonds are sound financial investments. The fulfillment of these conditions necessitates a regulatory system that acknowledges the vital interaction between scientific research, finance, and law. Whether the current regulatory infrastructure succeeds in providing mechanisms that facilitate these conditions lies at the heart of my research. It is against this background that this thesis raises the following research questions:

- 1) Are there definable, uniform criteria for green bonds?
- 2) Do the green criteria succeed in ensuring that green bonds are funding projects aligned with the Paris Agreement?
- 3) Does the regulatory infrastructure ensure integrity in the green bond market? This question is dependent on both the enforceability of green bonds and the infrastructure's ability to prevent greenwashing.

Through examining these research questions, the thesis aims to map the current regulatory infrastructure and identify potential shortcomings in the regulation of green bonds. The thesis will then assess whether the EU's preliminary path on regulating green bonds is sufficient to address the identified shortcomings. Ultimately, the thesis aims to contribute to a greater understanding of how the implementation of legal measures is necessary to support and secure the potential role of green bonds in reorienting capital flows towards achieving global climate objectives.

⁷ EU TEG (2019) section 1.2.

⁸ Ibid.

⁹ European Commission (2016) p. 7.

1.2 The role of capital markets in achieving the Paris Agreement

1.2.1 A comprehensive sustainable finance strategy in the EU

The financial market functions as a meeting place for actors with excess capital and actors in need of funding, ensuring socio-economic growth in a society by facilitating development in technology and infrastructure. The allocation of capital is largely decisive for what is built in a society, such as roads, railways, and hydropower installations. The idea of sustainable financial markets is that the allocation of capital should be steered towards activities that comply with environmental objectives.¹⁰ Ideally, such long-term capital allocation would close the investment gap needed to achieve the Paris Agreement and ultimately lead to sustainable societies.¹¹ The EU has apprehended that capital markets must be used as tools in the fight against climate change and has established a comprehensive strategy to integrate the idea of sustainable finance into its financial regulation. An integral part of this strategy is to support green bonds. The following paragraphs will highlight some key factors in the EU's sustainable finance strategy, while section 1.2.2 will identify the purpose of green bonds and their role in reorienting capital to a sustainable economy.

In its Action Plan on Financing Sustainable Growth, the EU has set out a comprehensive strategy that aims to contribute to the achievement of its environmental goals, which include lowering greenhouse gas emissions in line with the Paris Agreement and moving to a resource-efficient and circular economy.¹² Embedded in this strategy is the recognition of the financial system as “part of the solution towards a greener and more sustainable economy” — that is, as a means of reorienting private capital to sustainable investments.¹³ However, the Action Plan claims that a condition for the financial sector to provide this solution is a comprehensive shift in the functioning of the financial system as well as its framework.¹⁴

The sustainable finance strategy within the EU aims to provide a basis for this required shift and to inaugurate the process leading to change in the functioning of the financial system. The Action Plan emphasizes two imperatives in this respect. The first is to improve the contribution of finance to sustainable and inclusive growth. This imperative generally encompasses the need to activate private investments to close the investment gap. The second is to strengthen financial stability by incorporating Environmental, Social and Governance (ESG) factors into investment decision-making.¹⁵ The Action Plan committed to a number of initiatives to safeguard and contribute to these imperatives. One of them was to develop an EU taxonomy for climate

¹⁰ European Commission (n.d.).

¹¹ SOU 2017:115, 36.

¹² COM (2018) 97, 10.

¹³ Ibid.

¹⁴ Ibid. and COM (2018) 353 section 1.5.4.

¹⁵ COM (2018) 353, 2.

change and environmentally and socially sustainable activities. This commitment was followed by a proposal for an EU taxonomy on what qualifies as an “environmentally sustainable economic activity,” which was published in May 2018. Intending to build upon this proposed taxonomy, an EU Green Bonds Standard has been drafted, and the final proposal will be presented in June 2019. After a presentation of the current regulations of green bonds, these EU regulatory initiatives will be discussed in chapter 6 of this thesis with the purpose of assessing whether they are adequate in addressing present shortcomings in the regulatory infrastructure.

1.2.2 The role and purpose of green bonds

Green bonds are a means of facilitating the green transformation by canalizing foreign capital to projects that drive the transition towards a sustainable economy.¹⁶ Green bonds give investors a choice to invest in sustainable projects and thus to contribute to the investment gap following the Paris Agreement. In the long term, if sufficient capital flows are reoriented to sustainable assets at the expense of other (“brown”) assets, then a significant change may eventually occur in the real economy.

In the words of the European Commission’s Technical Expert Group (TEG), green bonds are “serving the purpose of driving awareness of sustainability in the economy and the financial markets at large.”¹⁷ Such visibility and availability of sustainable investment options are premises for sustainable capital allocation. Without awareness of such options, profound sustainable investments would require resources to map them out. In this regard, green bonds activate the mainstream debt capital markets to finance climate-aligned projects. The green bond market thereby contributes to an effective allocation of capital by connecting investors who wish to invest in sustainable projects and assets with issuers who need to acquire funding for their sustainable projects.¹⁸ Ultimately, green bonds have proven effective in making “green” investible, thereby contributing to converting bond markets to green.¹⁹

1.3 Terminology

1.3.1 Green transformation of the economy

The Paris Agreement calls for a low-carbon transition in order to limit the global temperature increase to well below 2°C while pursuing efforts to limit the increase to 1.5°C. The green transformation of the economy refers to the process of financing the investments needed to carry out this transition. The EU has recognized that there is still a long way to go, as EUR 180 billion in additional yearly investments are needed in sustainable sectors to finance the low-

¹⁶ COM (2018) 353, 17.

¹⁷ EU TEG (2019) section 2.3.

¹⁸ SOU 2017:115, 248-249.

¹⁹ EU TEG (2019) section 2.3

carbon transition.²⁰ This thesis sometimes refers to whether a green bond is aligned with the green transformation. For green bonds to be aligned with the green transformation of the economy, they must contribute to closing the investment gap needed to achieve the low-carbon transition following the Paris Agreement. In other words, green bonds must be used to allocate capital to the low-carbon and climate-resilient infrastructure needed to limit the global temperature increase to 2°C.

1.3.2 Greenwashing

There is no universally accurate definition of *greenwashing*. In the sphere of sustainable finance, the term generally encompasses the practice of claiming financial products as green or sustainable, when in fact, such environmental benefits do not exist or the products do not meet basic environmental standards.²¹ The term may also encompass the formation of competing private governance standards and certification systems that appear to endorse a product's sustainability features while offering minimal environmental benefits.²² In this thesis, greenwashing will refer to green bonds where the use of proceeds may not be considered sustainable, in the sense that the bond does not provide the positive environmental effects that its label signifies.

1.4 Methodology and sources of law

1.4.1 The thesis's method

As presented in section 1.1, this thesis will examine 1) whether definable, uniform criteria for green bonds exist, 2) whether the current regulatory infrastructure through its green criteria succeeds in ensuring that green bonds are funding projects aligned with global policy goals, and 3) whether the regulatory infrastructure ensures integrity in the green bond market.

The questions will be addressed and answered in four stages. First, it is necessary to establish the objective of green bonds, as well as the objectives of EU securities regulation. The regulations governing green bonds should seek to fulfill both of these objectives. The execution of these objectives is crucial for both the environmental outcomes and market support needed for green bonds to mobilize private sector financing towards sustainable investments, thus contributing to closing the Paris Agreement's investment gap. Chapter 2 will establish these objectives and provide a theoretical basis for the thesis's assessments of whether the regulatory infrastructure succeeds in ensuring them.

²⁰ HLEG (2018) 2.

²¹ COM (2018) 353, 17 and Vandenberg and Gilligan (2017) 152.

²² Vandenberg and Giligan (2017) 151.

Second, in chapter 3, the thesis will map out and analyze the current regulatory infrastructure of green bonds. As the latter is novel, fragmented and complex, one main task is to determine the applicable regulations and their interactions. Through analyzing applicable EU securities regulation, private regulation including market standards and the regulated market on the Oslo Stock Exchange (subsequently OSE), this stage will answer the first research question of whether definable and uniform criteria exist for green bonds.

The third stage is to evaluate whether the green bonds regulations succeed in ensuring the objective of green bonds as well as the objectives of EU securities regulation. These questions will be addressed in chapters 4 and 5. The assessment will disclose whether the green criteria succeed in ensuring that green bonds are indeed funding projects aligned with the Paris Agreement. Furthermore, the assessment of EU securities objectives will encompass a discussion of whether the regulatory infrastructure of green bonds safeguards the market's integrity. Central components for the fulfillment of this objective include the infrastructure's ability to prevent greenwashing and enforce the green element. This stage will thus explore whether green bonds are enforceable pursuant to private and public regulation, as well as to private contractual law.

The fourth stage will articulate the main shortcomings of the regulatory infrastructure and their significance. The thesis will then look at the current regulatory process within the EU on an EU Green Bond Standard. The aim is to evaluate whether this preliminary path appears sufficient to address the identified weaknesses. Finally, this stage will provide some concrete recommendations for a regulatory system that contributes to ensuring the purpose of green bonds. These assessments will be conducted in chapter 6.

1.4.2 Sources of law

The research questions posed give rise to legal methodological challenges in two regards. First, challenges arise in relation to the applicable sources of law; in particular, because of the role of private regulation. In this respect, it is necessary to establish a definition of "regulatory infrastructure" in the context of this thesis, as well as clarify the legal status of private regulation. Second, the international and multifaceted nature of green bonds entails certain clarifications concerning jurisdiction. I will first address the challenges related to the sources of law before clarifying the assumptions made with regard to jurisdiction.

The starting point is that green bonds are financial securities extensively regulated by EU securities law. In this thesis, EU securities law will be applied partly directly, in establishing the objectives of EU regulation and in analyzing prospectus requirements, and partly indirectly through analyses of Norwegian securities law, which is based on EU/EEA law. When interpreting EU/EEA legal provisions in Norwegian law, the EU legal method must be

applied.²³ EEA law is based on a principle of homogeneity, which means that EEA provisions that correspond to EU regulations must be interpreted with the aim of the state of the law in the EEA being as coincident as possible with the EU.²⁴ In Norwegian law, a principle of EEA-compliant interpretation applies, meaning that Norwegian law must be interpreted in line with the obligations following the EEA Agreement.²⁵ The interpretation of EU legal provisions places considerable emphasis on considerations of objective.²⁶ This means that in establishing the content of EU securities law, one must choose the interpretation alternative that best conforms with the objective of the specific provision of EU securities regulation or with its general objectives.²⁷

EU securities law does not directly regulate the green element of green bonds. The emergence of the green bond market was market-led, as it was initiated by market participants with a desire to map out sustainable investment options. In the absence of public regulations of the green component, the market participants saw a need to develop standards for green bonds. Two green bonds standards have been acknowledged globally as the central frameworks. These include the Green Bond Principles (subsequently GBP) and the Climate Bonds Standard (subsequently CBS), both of which will be assessed in this thesis. Evidently, the main regulation of the green component is found in private standards. In the traditional perspective of legal methodology, such market-based private regulation does not classify as a source of law. As the GBP and CBS make up the fundament for a substantial part of the analyses and findings in this thesis, it is necessary to justify their status as a source of law. The same issue also entails a need to define the use of the term “regulatory infrastructure”, which is applied to denote the multifaceted, private nature of the sources governing green bonds.

Regulation by lawyers is typically understood to refer to rules developed by governments pursuant to democratic principles.²⁸ This way of regulating is recognized as the “standard model” of regulation, wherein “the actor is the government and the action is some form of positive law” (i.e. public law regulation).²⁹ However, a broader understanding of regulation has prevailed — particularly due to globalization and the rise of private governance — which includes “not just rules made by governmental actors but also those made by private actors.”³⁰ The legal environment of financial law is particularly renowned for its reliance on less formal

²³ Stordrange (2018) 9 and Arnesen (2015) 26.

²⁴ Stordrange (2018) 9 with further reference to Fredriksen (2014) 40 ff.

²⁵ Rt. 2000 s. 1811 on p. 1826. See also Stordrange (2018) 9-10.

²⁶ Case 283/81Cilfit.

²⁷ Opinion of Advocate General Wathelet in Case-628/13 Lafonta v. AMF paras 20-22.

²⁸ McAllister (2014) 68.

²⁹ Ibid. with further reference to Vandenberg (2013) p. 134

³⁰ McAllister (2014) 68.

regulatory instruments, caused by the need to keep pace with quickly evolving financial markets.³¹ This thesis thus applies this broad understanding of “regulation,” whereby it encompasses both public and private regulation. Accordingly, the use of “regulatory infrastructure” in reference to green bonds includes both public and private methods, although the differences between them are acknowledged (especially in the context of enforcement).

There are several legal arguments for prescribing the GBP and the CBS with legal authority. A first argument is the recognition they have received at the EU level. The EU’s High-Level Expert Group on sustainable finance (HLEG) has acknowledged the GBP and CBS as the current global framework on green bonds, which future EU regulations should draw upon.³² A report prepared for the European Commission states as follows:

“The Green Bonds Principles (GBP) and the Climate Bonds Standards (CBS) are key standard frameworks for labelling green bonds. On a national scale, France has developed a public label for green investment funds, which has the potential to be replicated in the European context. Furthermore, China has developed their own green bonds standards and the Securities and Exchange Board of India (SEBI) has released green bond requirements. All these national frameworks are building on the GBP and the CBS, which are *widely accepted* by the green bond market. Therefore, any policy/regulatory interventions regarding an upcoming common European Green Bond Standard should *be built upon* the experience of the GBP and the CBS.”³³ (Emphasis added)

Second, Norwegian case law has recognized market standards as a source of law in situations characterized by an absence of legislation and where the standard has received broad and international support. The Norwegian Supreme Court case in Rt. 1973 s. 967 gives a clear expression of a market standard being considered a source of law. The case concerned the question of the application of the Nordic Freight Forwarder's General Provisions. As the Supreme Court stated:

“I believe that when there are established industry rules and these can neither be considered unusual nor unreasonable — which I believe the freight forwarder's rules cannot be said to be — the contract must in the absence of another agreement be considered entered into on the industry's usual terms.” (My translation)³⁴

³¹ Brummer (2011) 66. Mattli (2003) 13 notes that the need to keep pace with quickly evolving financial markets is reflected in a legal environment comprised by regulations that are “primarily a function of science and technical considerations rather than a function of the distribution of power between national, regional, or non-state actors.”

³² HLEG (2018) 15.

³³ European Commission (2016) 77.

³⁴ Rt. 1973 s. 967 at 972.

One central element for the Court's decision was the affiliation of the standard combined with the absence of legislation in this area, which made the standard function as the industry's rules. This is highly the situation for the GBP, which has received broad international support, both in terms of number of members and geographic application. The GBP's more than 200 members represent issuers, underwriters, and investors. It is considered the *de facto* market standard, both globally and within the EU, since it is used almost without exception in green bonds issuances.³⁵ A review of green bonds contracts on the green list of OSE demonstrated that 22 out of 24 green bonds were issued in accordance with the GBP.³⁶ This broad international support implies that the standard forms established industry rules that, according to the above-mentioned Supreme Court case, are legally relevant.

Although arguments exist for prescribing the standards with legal relevance (as demonstrated above), it is important to note that the discussion of the standards' status as a source of law is not of direct importance to this thesis' questions. In the absence of direct public regulation of green bonds, a regulatory scrutiny requires an examination of the current available framework. One of the purposes of this thesis is precisely to assess, through responding to the research questions, whether the current situation of private regulation is sufficient to achieve the purpose of green bonds, as well as traditional objectives of securities markets.

The requirements to be listed on the OSE's list for green bonds also amount to a form of private regulation. OSE's green bond requirements will be used to analyze how green bonds are treated in regulated markets. With respect to the legal status of these rules, it will merely be noted that the rules of regulated markets are recognized as a central regulatory source in this branch of law. This legal relevance is partly due to their actual significance as preconditions for trading, and partly because they are assigned tasks on behalf of public authorities.³⁷

Furthermore, a central source for the content of this thesis follows from the current EU policy discussions on sustainable financing, including, *inter alia*, the EU Action Plan on Financing Sustainable Growth, the proposal for a framework to facilitate sustainable investment ("Taxonomy"), and an interim report on a draft EU Green Bond Standard.³⁸ These sources have been relevant for this thesis in two ways. First, by describing the current regulatory situation of

³⁵ European Commission (2016) p. 57.

³⁶ See annex 1.

³⁷ The assignation of public tasks entails requirements for, among others, form of procedure and right to lodge complaints in cases where OSE has made decisions pursuant to statutory law. Børsklagenemnda (The Stock Exchange Appeals Committee) deals with complaints about decisions made by regulated markets, see Myklebust (2011) 192 and 253.

³⁸ COM (2018) 97, COM (2018) 353 and EU TEG (2019).

green bonds—including the role and functioning of the GBP and the CBS. Second, they have provided insight with respect to the shortcomings of today’s regulation as well as the prospective regulatory situation of green bonds. Depending on the outcome of the legislative processes within the EU, these documents may become preparatory works.³⁹ However, the primary purpose for including them in this thesis is to shed light on the demand for and objectives behind an EU green bond regulation.

A consequence of the novel nature of green bonds is an absence of not only ordinary regulation but also case law. In absence of such legal empirical data, the thesis must take on an abstract theoretical approach using examples from practice to highlight challenges and to assess whether empirical evidence implies that green bonds are fulfilling their environmental objective.

It follows from the presentation of the applicable sources that the primary focus of this thesis is green bonds in the EU/EEA. However, certain elements of the research questions require an examination of national rules. For these purposes, the thesis will focus on the Norwegian jurisdiction. A Norwegian perspective will be applied when analyzing the green requirements of OSE, as well as in relation to the private contractual relationship between a green bond issuer and the investors. Furthermore, two special circumstances of the green bond market necessitate a few global outlooks throughout the thesis. First, the novel nature of green bonds may justify outlooks on jurisdictions that have come further in the process of regulating them. Such outlooks may be helpful in evaluating which regulatory measures have been successful and thus may be ideal in relation to the EU’s jurisdiction. Second, the international nature of the current standards for green bonds suggests that examples deriving from the use of these standards are relevant to the assessment of their functioning, regardless of where these examples appear geographically.

³⁹ The European Commission’s Technical Expert group on sustainable finance (TEG) delivers its final report with a draft EU Green Bond Standard in June 2019. Based on the recommendations of the report, the European Commission will decide on the next steps for the EU GBS.

2 The Fundamentals

2.1 Introduction

This chapter will provide a theoretical foundation for the thesis's assessments of the regulatory infrastructure of green bonds. First, the chapter will provide a general presentation of green bonds, including their emergence, financial characteristics, and future prospective. In section 2.3, the chapter will draw up some theoretical starting points for assessing the functioning and adequacy of private regulation. These starting points will be applied in chapter 4 to the assessments of the functioning of the GBP, CBS, and OSE. Section 2.4 will present circumstances in financial markets that generally may imply a need for public regulation, known as market failures. This section also seeks to explain the cause of climate change and its interconnection with capital allocation. After presenting these motivations for public regulation, the chapter will explain how securities regulation strives to prevent the occurrence of the above-mentioned market failures, expressed through the objectives of EU securities regulation.

2.2 Green bonds

2.2.1 Backdrop and definition

Green bonds emerged in 2007–2008 with the first issuance of a labeled green bond of approximately USD 440 million by the World Bank in November 2008.⁴⁰ The backdrop was an investor initiative in Sweden motivated by a report by the Intergovernmental Panel for Climate Change (IPCC), which indisputably connected human action to global warming.⁴¹ In the aftermath of the report, a group of Swedish pension funds called on their bank (Skandinaviska Enskilda Banken AB; subsequently SEB) for sustainable projects to invest in while reducing financial risks.⁴² SEB found that tracing such sustainable projects was difficult, which led it to reach out to the World Bank, which is renowned for its experience with environmental projects.⁴³ This initiative resulted in the issuance of the first green bond one year later. The issuance was characterized as a novel potential for investors to fund climate solutions by investing safely without giving up financial returns.⁴⁴

There is no precise legal or financial definition of a green bond. As we will see in chapter 3, different regimes operate with different definitions and criteria for green bonds. These will be explored in chapters 3, 4, and 6 of this thesis. However, an imprecise global understanding is that green bonds are debt instruments used to finance projects or assets that deliver

⁴⁰ The World Bank (2018).

⁴¹ IPCC (2007).

⁴² The World Bank (2018).

⁴³ Ibid.

⁴⁴ Ibid.

environmental benefits.⁴⁵ A green bond is therefore differentiated from a regular bond by its label, which signifies a commitment to use the funds raised to finance or re-finance “green” projects, assets, or business activities.⁴⁶ The financial characteristics of green bonds are the same as those of conventional bonds. It is therefore necessary to provide a description of the legal and financial characteristics of conventional bonds, while green bonds’ green component will be explored in the following chapters. The next section will therefore give a brief explanation of bonds as financial securities.

2.2.2 Bonds as financial securities

A core element of financial markets is *financial instruments*, a collective term for a number of financial securities such as stocks, bonds, subscription rights, derivatives, and shares in mutual funds.⁴⁷ A legal definition of the term can be found in section 2-2 paragraph (1) of the Norwegian Securities Trading Act, which implements Article 4 subsection 1 paragraph 15 and 44 of Directive 2014/65/EU (subsequently MiFID II). According to this definition, financial instruments include transferable securities, units in securities funds, money market instruments, and derivatives. Bonds are transferable securities, comprised in the first category of this definition.

Bonds are fixed-income instruments that represent a loan from an investor to a borrower who is typically a government, municipality, or corporation. Unlike bank loans, where the bank is the only creditor, issuing bonds mean borrowing money from many investors. A bond is therefore characterized by its function of dividing loans into many units which are represented by a bond.⁴⁸ The breakdown of loans into smaller units make possible the financing of large projects that otherwise could be difficult to fund.⁴⁹ For that reason, the bond market especially plays an important role in financing bigger projects.⁵⁰ The bondholder invests in a bond to receive payments from the issuer.⁵¹ Such payments typically consist of the reimbursement of the principal amount borrowed at the maturity date as well as interest payments (coupon payments) during the life of the bond.⁵² The latter payments are agreed upon in the contract agreement and are paid semi-annually, quarterly, or monthly.

⁴⁵ OECD (2017b) 23.

⁴⁶ European Commission (2016), 8.

⁴⁷ Myklebust (2011) 28.

⁴⁸ Myklebust (2011) 28-29.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ The return to an investor in bonds is also referred to as yields, see Tuttle (2009) p. 4-6

⁵² Tuttle (2009) 2.

One of the most prominent features of bonds is that they can be bought and sold on financial markets. Issuance and trading of bonds take place on stock exchanges and other regulated markets, provided that they meet the conditions for admission. Trading of first-hand issued bonds takes place on stock exchanges, while trading of already issued bonds takes place on the secondary market. The principal contractual terms of bonds — i.e., maturity date and interest payments (yield) — are usually standardized, which make them suitable for resale.⁵³ If a liquid secondary market exists for the particular bond, the investor will be able to exit the investment quickly to get the invested capital back.

Bonds are rated by credit agencies such as Standard & Poor's (S&P) and Moody's. These rating agencies evaluate the credit worthiness of the bond issuers based on certain criteria.⁵⁴ The pricing of the bond depends on the results from these evaluations, which means that pricing is based on the perceived risk of the bond relative to the risk and return of alternative investments.⁵⁵

2.2.3 Green bonds' growth and future prospective

The growth of the global green bond market in the years following the first issuances in 2008 was relatively low, represented only by small transactions by multilateral development banks.⁵⁶ However, the entering of the private sector on the issuer side in 2013 marked a turning point with the first issuance of a corporate green bond by a Swedish corporation named Vasakronan.⁵⁷ This led to a further evolution of the market, with the joining of governments, municipalities, and international corporations. At the end of 2013, the green bond market had tripled in size, reaching USD 11 bn.⁵⁸ This growth has only continued. To date, the global green bond market represents a total of approximately 350 bn. euros outstanding, out of which 130 bn. (or 34%) were issued by European issuers.⁵⁹ Estimates indicate that the market will reach USD 1 tn. a year by 2020.⁶⁰

Although the numbers above indicate that the capital channeled to sustainable projects through green bonds is substantial, the green bond market remains modest relative to the total global

⁵³ Myklebust (2011) 28-29.

⁵⁴ Tuttle (2009) 3-6. The author exemplifies such criteria as “the issuer’s asset protection, management capabilities, quantity and type of existing debt and its ability to pay the associated interest and principal due, as well as the overall stability of the issuer’s cash flow.”

⁵⁵ Tuttle (2009) 5.

⁵⁶ European Commission (2016) 27.

⁵⁷ Climate Bonds Initiative (n.d.)

⁵⁸ European Commission (2016) p. 27.

⁵⁹ EU TEG (2019) section 1.3.

⁶⁰ Climate Bonds Initiative and HSBC (2018) 31.

bond market. Recent research shows that green bond issuances in the last two years represented only 2% of global bond issuances, increasing to 4.4% in the last quarter of 2018.⁶¹ Accordingly, green bond markets both globally and in the EU have yet to reach their full potential, and they still face challenges in providing significant impacts on the green transformation.⁶²

The future prospects of green bonds depend on issuers' and investors' perceived benefits and the drawbacks of issuing and investing in them. To date, green bonds are renowned for providing issuers with diversified investor bases as they attract investors on ESG performance.⁶³ In addition, issuers of green bonds receive reputational benefits, as green bonds demonstrate commitment to the environment while reducing environmental policy risks. More importantly, issuance of green bonds may result in favorable terms and a better price compared to conventional bonds, because demand is currently much higher than supply.⁶⁴ An example is the US state of Massachusetts' issuance of a regular corporate bond and a green bond in 2013. The bonds were priced identically, yet the green bond was oversubscribed by 30 percent while the conventional one was undersubscribed.⁶⁵

For investors, commonly cited benefits include actively reducing climate policy risks and strengthened transparency requirements, which may contribute to significant information advantages compared to conventional bonds.⁶⁶ Notably, investing in green bonds implies doing good environmentally and socially while not risking financial returns, which for many green bonds investors is a substantial motivation. Furthermore, some jurisdictions, including China, Singapore and the U.S, have provided public financial incentives for green bonds, to the benefit of both issuers and investors. Such incentives have not yet been introduced within the EU, but are currently a subject of discussion under its Sustainable Finance agenda. The thesis will touch upon some of these incentives in section 5.2.2 and chapter 6. Regarding potential drawbacks, the analyses of this thesis will consecutively seek to disclose such possible shortcomings from a regulatory perspective.

2.3 Assessing the adequacy of private regulation

Private regulation plays a leading role in sustainable finance, and particularly in the regulation of green bonds. As described in section 1.4, green bonds emerged as a result of market participants' desire to invest sustainably, and the GBP, CBS, and OSE's green requirements

⁶¹ Research conducted by Moody's Investor Services referenced in EU TEG (2019) section 1.3.

⁶² HLEG (2018) 30.

⁶³ OECD (2017) 37-38

⁶⁴ HLEG (2018) 30.

⁶⁵ Kidney (2014).

⁶⁶ OECD (2017) 36-38

were developed in the absence of public regulation of the green component.⁶⁷ Legal scholars have recognized the significant role of private regulation in sustainable finance, noting that private regulation has “filled governance gaps left by the absence of political will and governance resources necessary to create public law.”⁶⁸ Notably, private regulation functions as *the* law in the sphere of green bonds.⁶⁹

Private regulation is often perceived as an alternative to public regulation. As is the case for green bonds, private regulation often develops where there are gaps in public regulation. However, the extent to which private regulation reduces the regulatory gap, and thus the need for public regulation, depends on its ability to take on the role of public regulation. For the purpose of assessing the adequacy of private regulation, one must therefore distinguish between “weak” forms and “strong” forms of private regulation, reflecting the extent to which the regime substitutes for a public regulatory function.⁷⁰

Strong private regulation is characterized by efficient enforcement systems; for example through explicitly stated sanctions that apply in case of a breach of the standard.⁷¹ In particular, a sanction that has been recognized as a “strong” private regulation is revocation of a label that has been obtained through certification by a private standard.⁷² If such revocation is also made public, it may entail a public process of “naming and shaming,” which ultimately may function as a sanction by denying a company’s social license to operate.⁷³ On the contrary, weak private regulation typically involves voluntary programs to which actors adhere for public relations reasons, such as for marketing and reputational purposes.⁷⁴ Furthermore, weak private regulation is generally characterized by an absence of incentives to comply, typically where the subject merely chooses to follow the standard for its own financial or reputational gain and where violations are neither discovered nor sanctioned.⁷⁵

⁶⁷ Park (2018) 46.

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ McAllister (2014) p. 66.

⁷¹ McAllister (2014) 84.

⁷² Ibid.

⁷³ McAllister (2014) 84 with further reference to Gunningham (2003) 36-37. The concept of a social license to operate implies that a firm must meet social expectations related to environmental performance and other forms of social responsibility in order to financially do well.

⁷⁴ McAllister (2014) 83.

⁷⁵ McAllister (2014) 83 notes that subjects of such weak private regulation have incentives to cheat as compliance may be perceived as a costly alternative and non-compliance does not lead to any negative consequences.

Evidently, the objectives and effects of different private regulatory regimes are diverse.⁷⁶ On the one side is strong private regulation, which provides mechanisms to undertake the function of public regulation and which in certain situations may prove even more effective than public regulation. On the other side, there are private regulatory regimes that do not impose any real obligations on their participants, and as such only function as marketing tools. As emphasized under section 1.4, an important purpose of this thesis is to assess whether the private regulatory infrastructure is adequate in filling the public regulatory gap on green bonds (i.e., whether the regimes are sufficient to achieve the purpose of green bonds, as well as the fundamental objectives of securities regulation). The analyses will therefore seek to identify features of the regimes that may denote strong or weak regulation, and thus signal whether public regulation is needed.

2.4 Motivations for public regulation

2.4.1 Market failures

A term derived from economic theory, *market failure* refers to characteristics of the markets that create inefficient allocation of society's resources.⁷⁷ In other words, the existence of market failures implies a failure of the financial markets to achieve the economically efficient outcomes that constitute their principal goal.⁷⁸ Where such failures ascend, there might be a need for public regulatory actions to correct the failures to maximize social good.⁷⁹ To provide a fundament for the analysis of the regulatory infrastructure of green bonds, this section will give a brief description of two types of market failures that are of particular relevance to the green bond market; namely, externalities and asymmetric information.

Externalities are effects an actor is imposing on a third party without affecting the actor's own financial accounts or appearing in market prices.⁸⁰ Externalities occur when the responsible party fails to internalize the full costs of its actions.⁸¹ From a sustainability perspective, externalities can lead to a consumption of resources that is higher than it should have been if the environmental and social costs were properly priced.⁸² Negative externalities have been recognized as the root cause of climate change.⁸³ Market prices have not reflected the long-term climate impact of exploiting natural resources such as fossil fuel energy.⁸⁴ The consequence of

⁷⁶ McAllister (2014) 86.

⁷⁷ NOU 2018:17, 93.

⁷⁸ Armour (2016) 52.

⁷⁹ Ibid. and NOU 2018:17, 93.

⁸⁰ NOU 2018:17, 94.

⁸¹ Orbach (2013) 279.

⁸² Myklebust (2013) 55.

⁸³ NOU 2018:17, 93.

⁸⁴ Ibid.

this immeasurable and wide-ranging market failure is global warming and a severe urgency for a transition to a low-emission society.⁸⁵

We saw in section 1.2 that the allocation of capital is decisive for what is being built in a society. In a report from 2011, the United Nations Environment Programme (UNEP) identified misallocation of capital as a common denominator causing “the crisis in climate, biodiversity, fuel, food, water and of late in the financial system and the economy.”⁸⁶ The report stated:

“Although the causes of these crises vary, at a fundamental level they all share a common feature: *the gross misallocation of capital*. During the last two decades, much capital was poured into property, fossil fuels and structured financial assets with embedded derivatives but relatively little in comparison was invested in renewable energy, energy efficiency, public transportation, sustainable agriculture, ecosystem and biodiversity protection, and land and water conservation.”⁸⁷ (Emphasis added)

The rationale for the UNEP’s conclusion is that climate risks largely originate from environmental externalities that are a byproduct of firms’ production.⁸⁸ Funding is a prerequisite for the operations of these companies. Capital allocation is thus an underlying cause for the negative externalities that are the origin of the climate crisis. The solution to the climate crisis must therefore be understood in the context of the underlying market failures and must therefore contain measures to allocate capital better towards a low-carbon society. Chapter 1 accentuated the importance of reallocating capital from private sector financing. Green bonds are a way of activating the private debt market to finance investment for a low-carbon society, thus representing a market-led measure to correct negative externalities. However, the small share of green bonds in the total bond market (2% in the last two years; see section 2.2.3) may imply that private capital is not reoriented promptly enough. This may signal overall deficits in the green bond market causing issuers to desist from issuing green bonds and investors from investing in them. Through analyzing the regulatory infrastructure of green bonds, this thesis aims to highlight such potential deficits and reflect upon whether public regulation may be necessary to correct them.

Information asymmetry occurs when one party to a transaction possesses more information than the other party. Asymmetries of information are especially prominent in financial markets as the complex and non-tangible nature of financial products make difficult evaluations of the

⁸⁵Ibid.

⁸⁶ UNEP (2011) 1.

⁸⁷ UNEP (2011) 1.

⁸⁸ Myklebust (2013) 118.

product's quality.⁸⁹ In addition, buyers are generally less informed than the sellers, and it is costly for them to obtain sufficient information to equalize the information imbalance.⁹⁰ In the securities market, a consequence of such information asymmetry is that investors are particularly vulnerable to sellers' offering financial products that do not fulfill their preferences.⁹¹ In his renowned article on the "lemon problem," Akerlof demonstrated how information asymmetries can lead to a collapse of a market or shrink it to a negative selection of products of low quality, also known as "adverse selection."⁹² Information asymmetries may have similar effects in the green bond market. In addition to the general complexity of bonds, the green element of green bonds amount to an additional layer of uncertainty that is difficult for the purchaser to evaluate. Asymmetries regarding the green element may cause an adverse selection problem, whereby the only available green bonds on the market are "low quality" i.e. non-sustainable ones. Ultimately, the consequence may be a drying up of the green bond market.

Information asymmetries are often sought to be corrected by regulatory measures aimed at mitigating the information imbalance between the seller and the buyer.⁹³ In particular, financial markets often attempt to reduce such asymmetries by providing information of "reliable quality that purchasers can trust"; for example, through a third party's guarantee of the quality of the product.⁹⁴ An important task of this thesis is to explore whether the green bond market's measures to mitigate information asymmetries are sufficient to address the risks of adverse selection. This question will also be approached from a transaction cost perspective, measuring whether information is provided to the investors at a cost that facilitates investments in green bonds. We will see that a central component in addressing information asymmetries in the green bond market is the use of external reviews. In this context, a relevant question is whether the current use of external reviews is suitable for providing investors with reliable, trustworthy information on the bond's green element.

The extent to which the current private regulatory infrastructure for green bonds is able to avert such circumstances as described above is decisive for the need for public regulation. The regulatory infrastructure of green bonds will therefore be analyzed and assessed with these motivations for regulation as foundations.

⁸⁹ Myklebust (2018) 220.

⁹⁰ Armour (2016) 52.

⁹¹ Armour (2016) 57.

⁹² Akerlof (1970).

⁹³ Armour (2016) 57.

⁹⁴ Ibid.

2.4.2 The objectives of EU securities regulation

The objectives of EU securities regulation derive from the underlying concerns of market failures. They are formulated with the purpose of protecting the fundamental socio-economic function of securities markets and, in doing so, of preventing the occurrence of market failures. In short, this fundamental socio-economic function encompasses the reallocation of capital to where it is needed, facilitating socio-economic growth in a society. Securities markets create a meeting place for actors with surplus capital and actors with a need for capital, thereby ensuring its efficient allocation to projects that present the greatest profitability adjusted for risks.⁹⁵ Accordingly, the goal of securities regulation is to safeguard this function, by means of developing regulations that avert the manifestation of risks that can threaten the functioning of the market.

EU securities law aims to ensure the fulfillment of the overarching function of the securities market primarily through MiFID II. The following principal objectives follow from this directive: 1) investor protection, 2) confidence in the securities market, and 3) market efficiency. Investor protection is an independent purpose of the directive, explicitly pronounced in recital 86, which states: “[o]ne of the objectives of this Directive is to protect investors.”⁹⁶ The objective of investor protection originates from the need for regulation caused by risks of information asymmetries and problems of adverse selection. These risks are addressed through comprehensive regulations which aim to ensure that investors receive reliable information on securities to make well-informed investment decisions.⁹⁷ In particular, the rules following Directive 2003/71/EC (subsequently Prospectus Directive) are directly aimed at addressing the need to equalize the underlying imbalance of information between buyers and sellers of financial products.

Confidence in the integrity and functioning of the securities markets is crucial for the actors’ desire to participate.⁹⁸ The securities markets can only function effectively with a high number of market participants; thus, they can only work as intended if the participants have confidence in both the market’s functioning and integrity.⁹⁹ Several risk factors may threaten market participants’ confidence in the market — in particular, market failures such as asymmetric information, conflicts of interest, and behavioral risk (i.e., moral hazard). As we saw from Akerlof’s theory of adverse selection, information asymmetries can cause investors to be misled

⁹⁵ Kjørven (2016) 24 and NOU 2011:1 point 8.4.

⁹⁶ The objective of investor protection is generally emphasized throughout the directive. See also Article 86 and recital 4 and 37.

⁹⁷ See also Myklebust (2011) 192-194.

⁹⁸ Myklebust (2011) 190.

⁹⁹ Opinion of Advocate General Wathelet in Case-628/13 Lafonta v. AMF paras 20-22 and Ot.prp. nr. 80 (2008-2009) section 3.3.2.4.

on the quality of the financial product, which can permanently damage their desire to take part in the securities market. Addressing such risks to ensure the market's confidence is therefore a fundamental objective of securities regulation. The objective is emphasized numerous times throughout the MiFID II.¹⁰⁰ In Case-628/13 Lafonta v. AMF, the Advocate General underlined the role of prompt and comprehensive information in ensuring confidence and integrity in securities markets:

“Prompt and fair disclosure of information to the public enhances market integrity, whereas selective disclosure by issuers can lead to a loss of investor confidence in the integrity of financial market.”¹⁰¹

Accordingly, the extent to which the regulatory infrastructure facilitates prompt, fair and comprehensive information is vital for its ability to ensure confidence and integrity. These objectives are reflected in rules that facilitate transparency, neutrality and reliability, amongst others.¹⁰²

The objective of “market efficiency” is pronounced numerous times, both in EU securities regulation and in the Norwegian Securities Trading Act.¹⁰³ The term is broad, and its meaning in the regulations is not clearly defined.¹⁰⁴ Efficiency is principally an economic term that refers to the extent to which the economy produces and allocates resources effectively.¹⁰⁵ However, its use is many-faceted.¹⁰⁶ Most relevant for securities markets regulation is “informational efficiency,” especially in the context of ensuring efficiency through a secondary market.¹⁰⁷ The existence of liquid secondary markets are vital for investors' desires to participate in the market, as they enable investors to exit the investment quickly by selling the asset to another investor.¹⁰⁸ Informational efficiency refers to the speed and accuracy of market prices' response to new information, and it is crucial for the liquidity of the secondary market.¹⁰⁹ An illiquid secondary market may indicate a need for regulations to facilitate better informational efficiency. The

¹⁰⁰ See for example Article 33 subsection 8 and recital 4 and 5. Recital 13 emphasizes the importance of upholding the integrity of the financial system.

¹⁰¹ Opinion of Advocate General Wathelet in Case-628/13 Lafonta v. AMF para 20.

¹⁰² Myklebust (2011) p. 191.

¹⁰³ See e.g. Prospectus Directive recital 10 and 46 (“market efficiency”), MiFID II recital 13 and 164 (“the efficiency and integrity of the overall market”) and Norwegian Securities Trading Act section 1-1 (“efficient trading”).

¹⁰⁴ Armour (2016) 67 and Myklebust (2018) 226.

¹⁰⁵ See eg. Armour (2016) 67.

¹⁰⁶ E.g. allocative efficiency and cost efficiency.

¹⁰⁷ Myklebust (2018) 226.

¹⁰⁸ Armour (2016) 67.

¹⁰⁹ Armour (2016) 68.

latter is of particular interest in the green bond market, as liquidity in the green bond secondary market has remained low.¹¹⁰ It may therefore be necessary to evaluate whether the informational efficiency is sufficient to ensure liquid secondary markets, which is a prerequisite for a well-functioning securities market.

Based on the foregoing, we see that market failures and the objectives of securities regulation are closely interconnected. The ultimate goal of securities markets is the effective allocation of a society's resources. Risks in the form of market failures threaten their abilities to fulfill this fundamental goal. The objectives of securities regulation are thus responses to the threat of market failures. The further analyses must consider risk factors that may threaten the fulfillment of the purpose of green bonds, as well as identifying which regulatory measures may be able to impede the manifestation of such risks.

2.5 Conclusions

This chapter has demonstrated that green bonds are conventional bonds with an environmental label, developed by market participants with desires to map out sustainable investment alternatives. No precise legal or financial definition of green bonds exists, and as we will see from the next chapter, different private regimes operate with different definitions and criteria. The market-oriented emergence of green bonds is reflected in the current regulatory infrastructure, and we saw that legal scholars have recognized private regulation as *the* law in the sphere of green bonds.¹¹¹ The chapter therefore sought to provide a basis for the later chapters' assessments of the adequacy of the different private regulatory regimes governing green bonds. The chapter drew up a distinction between "weak" and "strong" forms of private regulation, based on the extent to which the regime in question takes on the regulatory functions of public regulation. In contrast to strong private regulation characterized by mandatory obligations and enforcement, weak regulation usually focuses on marketing purposes and shows itself as incapable of filling regulatory gaps.

The chapter further emphasized that the success of private regulatory regimes in filling regulatory gaps is revealed by their abilities to avert market failures, as such occurrences may imply a need for public regulation. We saw that externalities and information asymmetries are of particular relevance in the green bond market. Externalities are prominent in the sense that climate change is a result of immeasurable negative externalities, whereby green bonds may be a part of the solution. In this regard, the small share of green bonds in the total bond market may indicate the existence of deficits that cause investors and issuers to desist from participating in the market. Furthermore, information asymmetries were discussed as denoting a potential

¹¹⁰ EU TEG (2019) section 2.2.

¹¹¹ Park (2018) 46.

market failure in the green bond market, which is caused by the additional layer of uncertainty that the green element represents to the already complex nature of financial securities. The objectives of securities regulation — namely, market confidence/integrity, investor protection, and informational efficiency — are responses to the threat of market failures. Accordingly, the extent to which the objectives are fulfilled may be an indicator of how vulnerable the market is to market failures. The regulatory theory drawn up in this chapter will be applied throughout the thesis to examine whether the regulatory infrastructure of green bonds is sufficient to ensure both substantive environmental outcomes and the objectives of securities regulation, in particular the objectives of market confidence and integrity.

3 The regulatory infrastructure of green bonds

3.1 Introduction

In this chapter, I will map out the regulatory infrastructure of green bonds. After a brief presentation of relevant public regulation of green bonds, we will see that the green element of green bonds is primarily regulated directly by self-regulatory initiatives, such as the two main private standards, the Green Bond Principles and the Climate Bonds Standard, as well as the requirements to be listed on the green list of Oslo Stock Exchange. In presenting each self-regulatory initiative, I will first contemplate the background of the framework, before introducing the relevant features and examining to what extent it provides a green criterion. Through analyzing the main components of these regimes' green bonds requirements, the analysis will seek to establish whether definable, uniform criteria for green bonds exist.

3.2 Public regulation of green bonds

The green bond market is generally renowned for the absence of direct public regulation.¹¹² To date, public regulation plays an indirect role by means of addressing bonds in general and not the specific green element associated with green bonds. Most jurisdictions, including the EU and Norway, operate with such an indirect regulation of the green bond market. The probable explanation for this is the market's novel and developing character, in which regulation is still in an early phase. However, as mentioned in sections 1.2 and 1.4, the European Commission has initiated legislative actions on sustainable finance and is currently in the process of drafting an EU Green Bonds Standard (which will be examined in chapter 6 of this thesis).

Consequently, the general public regulation of conventional bonds also applies to green bonds. As fixed-income instruments, listed green bonds in EU jurisdictions are covered by EU transparency and disclosure requirements following the Prospectus Directive, MiFID II, Regulation (EU) No 60/2014 (MiFIR) and Regulation (EU) No 596/2014 (Market Abuse Regulation), all of which are implemented in the Norwegian Securities Trading Act.¹¹³ Some jurisdictions have developed direct regulation of green bonds, including prescribing financial incentives to their issuers and investors. Some notable examples are France, China, Singapore, and the US, who have established different national mechanisms and regulations for green bonds. China has developed its own green bonds standard, while France has a public green label called "Energy and Ecological Transition for Climate" to promote green investments (in addition, its Article 173 of the Energy and Green Growth Act imposes mandatory environmental reporting for institutional investors).¹¹⁴ Singapore has established a financial incentive by means of compensating all transaction costs associated with the green bond

¹¹² Park (2019) 2.

¹¹³ HLEG (2018) 31.

¹¹⁴ European Commission (2016) 59.

issuance.¹¹⁵ Lastly, the US has introduced financial tax incentives to promote investments in green bonds. The latter initiative will be addressed more closely in section 5.2 of this thesis.

In the absence of direct public regulation, the sustainability element of green bonds is principally regulated by market-based regulatory initiatives.¹¹⁶ The significant impact of these private initiatives may be illustrated by the fact that the above-mentioned public legislative initiatives of China, France, and Singapore are based on these self-regulatory market standards, namely the Green Bond Principles and Climate Bond Standards.¹¹⁷

3.3 Green Bond Principles (GBP)

3.3.1 Background and governance structure

The GBP was first issued in 2014 by the International Capital Market Association (ICMA), acting as secretariat for the GBP.¹¹⁸ Since then, the framework has been updated a number of times, with the latest version being released in June 2018. Until the launch of the GBP in 2014, the green bond market had mainly relied on the World Bank's framework for green bonds, which was developed in conjunction with the first green bond issuance in 2008.¹¹⁹ This framework consisted of four main pillars, which generally shaped the practice of green bond issuances. The GBP were then built on this already accepted practice and were formulated in line with the original World Bank framework. Contrary to the latter, which was designed for the purpose of one specific issuance in the bank's own organization, the GBP were the result of a collaboration between a number of banks that saw a need for neutrally applicable and uniform principles for green bonds. The purpose of the principles was twofold. First, they aimed to simplify the issuance process by standardizing what information the market expects to receive to determine the sustainability of green bonds. Second, the principles intended to help make green bonds comparable, which in turn would lead to greater interest among investors and consequently growth in the market.¹²⁰ The official language is English, but the GBP are translated into 21 languages, including Norwegian.

The GBP's organization and decision-making authority follow from its "Governance framework," according to which it consists of an executive committee, a steering committee, the secretariat, and members of the organization.¹²¹ The Executive Committee has the competence to address all issues related to the GBP, except for issues explicitly attributed to

¹¹⁵ SOU 2017:115, 18 and 297.

¹¹⁶ Park (2019) 2.

¹¹⁷ European Commission (2016) 77 and SOU 2017:115, 297. See also section 1.4.2 of the thesis.

¹¹⁸ SOU 2017:115, 165.

¹¹⁹ See section 2.3.2.2.

¹²⁰ SOU 2017:115, 165.

¹²¹ ICMA (2017).

the members. The main task of the Executive Committee is to vote on and formulate changes to the principles, as well as to designate and control the Secretariat. The Executive Committee consists of 24 members representing issuers, investors, and intermediaries, with eight representatives for each group. Members of the Executive Committee have a term of office of two years after they have been elected.

To date the GBP has over 200 members.¹²² Other groups with interests in green finance can share their views through participation as observers. Observers are typically non-governmental organizations (NGOs), universities, and auditors. Observers may attend meetings of the Executive Committee, but they may not participate in the voting or act as members. There are approximately 200 observers to the GBP.

Although the GBP started as a private industry initiative, public and supranational institutions hold central positions in the organization. *Inter alia*, the European Investment Bank (EIB), World Bank, Nordic Investment Bank (NIB), the International Finance Company (IFC), and the European Bank for Reconstruction and Development are members of the issuer group of the Executive Committee.¹²³ These institutions are important drivers in the green bond market, capable of influencing the development and governance of the GBP.¹²⁴ As they have links to states whose views may be reflected in these organizations, it is possible that their interests are taken into account in the management of the GBP.¹²⁵ This way, the management of the GBP is to a certain extent rather a public–private partnership than a fully private organization.¹²⁶ However there are no guarantees that the public institutions will have the same influence in the future, since the members of the GBP decide the composition of the executive committee.

3.3.2 GBP’s requirements for labeling a bond green

The GBP is an example of a process standard, which means that the standard defines methods and processes that issuers can use to develop their own operational frameworks.¹²⁷ The GBP green bond status is thus a result of alignment with an internal framework developed in compliance with the GBP, rather than a direct assessment of the individual green bond based on the GBP. The GBP defines a green bond as “any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects [...] and which are aligned with the four core components of the

¹²² Norwegian members include DNB, CICERO, Kommunalbanken.

¹²³ ICMA (n.d.A)

¹²⁴ SOU 2017:115, 174.

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Park (2018) 21-22.

GBP.”¹²⁸ Two main conditions may be deduced from this definition; the bond must finance “eligible Green Projects” and be “aligned with the four core components” of the GBP. This section will examine the content of the condition “eligible Green Projects” before analyzing what the four core components of the GBP imply.

3.3.2.1 “Eligible Green Projects”

Introductorily, it is necessary to make a comment on the formulation of the condition. According to GBP’s definition, the proceeds from green bonds must exclusively finance “Green Projects.” As the definition mentions green projects only, some ambiguity may arise concerning the use of green bonds to finance sustainable assets, which in practice is a very important target for green bonds. The difference is that an interpretation of “project” implies a time-limited activity to achieve a specific purpose, as opposed to already existing or accomplished assets.¹²⁹ The uncertainty is thus related to whether sustainable assets fall outside the scope of this requirement. This ambiguity has been criticized by regulators.¹³⁰ There are, however, no examples of practical issues arising from this formulation, and the general understanding of the market is that green bonds labeled by the GBP may finance both projects and assets. Consequently, the requirement of eligible green projects must be interpreted to also include assets.

The question is then what the condition more closely implies. It follows from the GBP that a “Green Project” is a project that contributes to “environmental objectives such as: climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control.”¹³¹ Within these objectives, the GBP lists 10 eligible green project categories that are formulated with the purpose of achieving these broader sustainability objectives.¹³² These 10 categories, which are not exhaustive, include:

- Renewable energy
- Energy efficiency
- Pollution prevention and control
- Environmentally sustainable management of living natural resources and land use
- Terrestrial and aquatic biodiversity conservation
- Clean transportation
- Sustainable water and wastewater management
- Climate change adaptation

¹²⁸ GBP, page 2 following the front page, under heading “Green Bond Definition.”

¹²⁹ SOU 2017:115, 168-169

¹³⁰ Ibid.

¹³¹ GBP, 2 under heading “1. Use of Proceeds.”

¹³² GBP, 2 under heading “1. Use of Proceeds.”

- Eco-efficient and/or circular economy adopted products, production technologies and processes
- Green buildings

The GBP's definition of eligible green projects indicates that the project must fall within one of the eligible categories, as well as contribute to any of the broader environmental objectives. However, since the eligible categories are explicitly stated as not to being exhaustive, it is seemingly only the broad environmental objectives that have actual significance. A notable observation in this context is that the broadness of these objectives may enable traditionally perceived brown projects to fulfill the objectives by implementing measures that in theory may fall within their formulation. An example is "clean coal" projects, which some issuers may apprehend as contributing to the objective of climate change mitigation. The GBP's sustainability criteria thus give rise to questions regarding the environmental outcome of green bonds aligned with the green condition. This issue will be further discussed in the overall assessment in chapter 4.

3.3.2.2 *The four core components of the GBP*

Alignment with the four core components of the GBP is a condition for labeling a bond green pursuant to the GBP. The components consist of requirements to ensure that the investor receives information about the green component of the bond, as well as processes to facilitate its prescribed sustainable outcome.

The first component of the GBP states:

“The cornerstone of a Green Bond is the utilisation of the proceeds of the bond for *Green Projects*, which should be appropriately described in *the legal documentation* for the security. All designated Green Projects should provide *clear environmental benefits*, which will be assessed and, where feasible, quantified by the issuer.” (Emphasis added).

This first component may be said to entail three requirements. First, the proceeds from the bond must be utilized for the established green project. Second, the green project should be appropriately described in the legal documentation for the bond, and third, the green project should provide clear environmental benefits.

Utilization of the proceeds for the green project is self-explanatory, as it is the core purpose of green bonds. The requirement to describe the green project appropriately in the legal documentation for the security could be important in theory, as it may impose green contractual obligations for the issuer, which may represent an enforceable contractual right for the investor. This may be an effective way of ensuring that investors can enforce the green element.

However, this potential positive effect is reduced by the fact that the requirement is only to describe the green project, and not to substantiate fulfillment of green eligibility criteria. With respect to the third requirement, to provide “clear environmental benefits,” it should just be noted that both “environmental benefits” and “clear” are highly subjective terms not suitable for supervision. In my opinion, it is a highly subjective task to evaluate when the environmental benefits are sufficiently “clear” to fulfill the condition.

The second component, “Process for Project Evaluation and Selection” establishes transparency requirements for the process leading to the conclusion that the project or asset meets the green condition. The component emphasizes how the issuer communicates the green credential of the bond to the investors. According to this component, the issuer should “clearly communicate” to investors the environmental sustainability objectives the bond favors, the specific eligibility criteria that apply, as well as information about the process for determining that the project fits within the eligible Green Projects categories. Issuers are also encouraged to disclose information about processes to identify potential environmental and social risks associated with them.

The second component further states that “[t]he GBP encourage a high level of transparency and recommend that an issuer’s process for project evaluation and selection be supplemented by an external review.” As becomes evident from this formulation, it is not a requirement under the GBP to provide an external review of the project’s “greenness.” The GBP refers in this context to its separate section on external reviews. The absence of a requirement to provide an external review will therefore be discussed in conjunction with this section, following below.

The third component, “Management of Proceeds” draws up the routines for ensuring that the proceeds are accrued to the agreed green projects, thereby preventing the green proceeds from mixing with those of other (non-green) projects. The following is the first paragraph of the component:

“The net proceeds of the Green Bond, or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner, and attested by the issuer in a formal internal process linked to the issuer’s lending and investment operations for Green Projects.”¹³³

The key requirement is that the issuer must keep track of the green bond incomes. The purpose is to ensure that the issuer maintains control of the green bond proceeds being allocated to the prescribed green projects. This control must be expressed throughout the life of the green bond.

¹³³ GBP, 4 under heading “3. Management of Proceeds.”

The book funds' balances must be adjusted periodically to match the allocations to qualified green projects.¹³⁴ The issuer must also inform investors about the placement of temporarily unallocated net proceeds. The GBP recommends that the management of proceeds be verified by an auditor or other third party, through a so-called “ex-post validation.” Such validation aims to control that issuers meet the commitments following the core components, including that the green bond proceeds are invested compliant to the bond’s green objective. Hence, the ex-post validation does not provide an examination of the environmental outcome of the bond.

The fourth component establishes reporting requirements for the issuer after the issuance of the green bond. It regulates when to report and the content of the report, as well as specific requirements for reporting on expected impact. It follows from the component that issuers should provide “readily available up to date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments.”¹³⁵ It is important to note that the annual reporting requirement naturally ceases once the green bond proceeds are entirely allocated to the green project.

The report should include a description of the project, the amounts allocated, and its expected impact. With respect to impact reporting, the GBP emphasizes transparency and recommends the use of qualitative performance indicators, along with quantitative performance measures where feasible (such as greenhouse gas emissions reduced, number of people provided with access to clean power, etc.). The principles further encourage disclosure on the methodology used for the impact assessment. In the context of impact reporting, it is interesting to note that while it is a requirement to report on “expected impact,” it is not a requirement to report on “achieved impacts.” Instead, it is only “encouraged” that issuers with the ability to monitor achieved impacts include them in their regular reporting.¹³⁶ This means that the issuer does not need to report ex-post on the actual achievements of the investments to meet the GBP requirements.¹³⁷ It is sufficient for the issuer to report on expected benefits until the bond proceeds are allocated.

3.3.2.3 *External review*

In connection with the issuance of a green bond or green bond program, the GBP recommends that the issuer provide an external review to confirm alignment with the four core components. The framework recognizes a number of ways for the issuer to obtain such an external review, and notes that “[t]here are several levels and types of review that can be provided to the market.”

¹³⁴ GBP, 4 under heading “4. Reporting.”

¹³⁵ Ibid.

¹³⁶ GBP, 4 under the heading “4. Reporting.”

¹³⁷ SOU 2017:115, 178.

The GBP operates with a distinction between independent external review and a more collaborative external review if the review is based on “[c]onsultancy or advisory services [that] entail collaboration.” The Principles encourage independent external reviews, but they nonetheless accept collaborative ones.

Independent external reviews aligned with the GBP may come in different forms and from different providers. They are broadly grouped into different types of external reviews, including 1) Second Party Opinion, 2) Verification, 3) Certification, and 4) Green Bond Scoring/Rating.¹³⁸ In this context, a noteworthy observation is that the section does not provide any requirements for the qualifications of the reviewers or for the content of the review. The GBP leaves it to the market to evaluate both whether the suppliers’ qualifications are adequate for reviewing green bonds and whether the review itself is sufficient. Furthermore, the Principles have explicitly opened up for making the review partial, as they cover only some aspects of the bond. In addition, there are no requirements to publicly disclose external reviews; it is merely a recommendation under the GBP.¹³⁹ This scheme of external reviews give rise to some concerns that will be addressed in the overall assessment in section 4.3.

3.4 Climate Bonds Standard (CBS)

3.4.1 Background and objectives

Even though GPB is the de facto market standard, the Climate Bonds Standard holds an important role as the main alternative, providing a more detailed and rigorous system for labelling green bonds.¹⁴⁰ The CBS was developed by the Climate Bonds Initiative, an investor-focused, not-for-profit organization launched in December 2011 at the UN Climate Conference (COP15) in Copenhagen.¹⁴¹ The key component of the Initiative is the Climate Bonds Standard & Certification scheme, which consists of the overarching Climate Bonds Standard Version 2.1 and a number of sector-specific criteria that provide detailed eligibility criteria.¹⁴² Unlike the labelling scheme of the GBP, which resulted in a “green” label, the Climate Bonds Standard & Certification Scheme gives the bond the Climate Bond Certified Mark (“Certification Mark”).¹⁴³ This distinction does not, however, imply any practical significance, as both schemes lead to a green bond status, albeit pursuant to different standards and different tags. I will therefore not operate with any distinction between the different outcomes of green bonds issued pursuant to GBP or CBS, respectively.

¹³⁸ ICMA (2018b) 2.

¹³⁹ GBP, 5 under heading “External Review.”

¹⁴⁰ European Commission (2016) 57.

¹⁴¹ Climate Bonds Initiative (2009).

¹⁴² CBS, 3.

¹⁴³ Ibid.

The CBS has formulated some explicit objectives, which address the need to ensure the credibility of the green bond market in order for green bonds to play their foreseen role in the green transformation of the economy. More specifically, the standard underlines “trust in the green label and transparency to the underlying assets as crucial for the green bond market to reach scale.”¹⁴⁴ It further emphasizes the issue of limited investor capacity to assess green credentials and proposes the CBS’ Certification Scheme as key a measure to reduce this concern.¹⁴⁵

3.4.2 CBS’ requirements for labeling a bond green

Pursuant to the CBS, the green bond status is a result of a successful certification process. The green bond status may be obtained at two different stages, either prior to or after the issuance. If the green bond status is obtained beforehand, the issuer will in any case have to undergo a confirmation process following the issuance to maintain the green status.¹⁴⁶

There are four overarching conditions for being entitled to the green certification mark by the CBS. The bond must: 1) satisfy pre-issuance requirements, 2) satisfy post-issuance requirements within the first year after issuance, 3) receive an independent third-party assurance by a verifier approved by the CBI, and 4) receive approval as a green bond by the CBI. Integrated into all of these conditions is the requirement to meet CBS’s green criteria. The content of these conditions will be examined in the following.

3.4.2.1 CBS’ green criteria

CBS’ green criteria consists of a two-step process, which aims to determine whether the project or asset in question “will be regarded as contributing to the delivery of a low carbon and climate resilient economy.”¹⁴⁷ The first step is conformance with the taxonomy, which serves “as an initial screen for clear inclusions and exclusions for all sectors based off of the latest climate science and 2 degrees scenarios.”¹⁴⁸ This means that the green project or asset must fall into at least one of the categories included in the taxonomy, cf. clause 9.1. The second step of the green-determination process consists of sector-specific technical criteria that must be met for the project or asset to be considered green, cf. clause 10.1. These technical criteria are provided in the relevant Sector-Specific Criteria document.¹⁴⁹ For solar projects, the document identifies

¹⁴⁴ Ibid.

¹⁴⁵ Ibid.

¹⁴⁶ CBS, 3.

¹⁴⁷ CBS Part B: Eligible Projects & Assets introductory note, 9.

¹⁴⁸ CBS Part B para 2.

¹⁴⁹ E.g. Climate Bonds Standard & Certification Scheme: Sector Criteria for Solar (version 2.1). (n.d.)

which solar projects are eligible under the CBS, and which projects are not eligible.¹⁵⁰ Accordingly, for the project or asset to be considered “green” under the CBS, it must first fall within an eligible sector provided in the Taxonomy, and thereafter fulfill the specific eligibility criteria for that particular sector.

3.4.2.2 Pre-issuance requirements

The pre-issuance requirements are designed to ensure that the issuer has established internal processes that are sufficient to enable conformance with the standard.¹⁵¹ This includes strict documentation requirements of the process leading to the green qualification. The pre-issuance requirements consist of three different clauses with associated sub clauses that establish detailed requirements for transparency and control with the sustainable evaluation process. The standard explicitly states that to receive a pre-issuance Climate Bond Certification, “all requirements set out in this section shall be met.”¹⁵²

Pursuant to clause 1.1, the issuer “shall establish, document and maintain a decision-making process which it uses to determine the eligibility of the Nominated Projects & Assets.” This process includes providing “a statement on the environmental objectives of the bond” (cf. clause 1.1.1.), as well as documenting the process “to determine whether the Nominated Projects & Assets meet the eligibility requirements specified in Part B of the Climate Bonds Standard” (cf. clause 1.1.2.) These requirements are interesting from a legal perspective, as they require documentation for everything the issuer states about the “greenness” of the bond, which facilitates control and may prove effective in preventing greenwashing.

Clause 3 requires the issuer to disclose certain information in the “Bond Disclosure Documentation,” i.e., the Prospectus. Following clause 3.1.1., the issuer must disclose in the Prospectus the eligible projects and assets that the funds will finance. This follows from clause 3.1.1 which refers to clause 9.1 and subsequently clauses 1.3 and 4.2. Clause 4.2 states that “[a]ll Nominated Projects & Assets funded by the bond’s proceeds shall meet the bond’s documented objectives as stated under clause 1.1[...].” This requirement may raise questions about which legal obligations arise from the inclusion of the project description in the Prospectus. In addition to the disclosure of the green project, the Prospectus must also include information about the way the issuer intends to manage unallocated proceeds, cf. 3.1.2, as well as information about the verifier, cf. 3.1.3.

¹⁵⁰ An example of assets and projects not eligible under the Solar Criteria is “[o]ffshore solar thermal facilities such as solar hot water systems” cf. Clause 1.1.3 in *ibid*.

¹⁵¹ CBS, 6.

¹⁵² CBS, 6.

3.4.2.3 *Post-issuance requirements*

The general post-issuance requirements follow from part A of the standard, which draws up general requirements “designed to ensure that the bond meets a minimum set of requirements following its issuance.”¹⁵³ All of the requirements in part A have to be met to establish eligibility for post-issuance certification.

In short, the post-issuance requirements generally aim to ensure the continuing “green” eligibility of the asset or project in question, and requires much of the same procedures as for the pre-issuance requirements.¹⁵⁴ However, an interesting requirement follows from clause 4.2, wherein “[a]ll nominated Projects & Assets funded by the bond’s proceeds shall meet the bond’s documented objectives as stated under Clause 1.1[...].” The natural interpretation of this clause is that the project funded by the green bond’s proceeds must fulfill the stated objective pursuant to clause 1.1 to keep the green bond status. This indicates that not only must the bond proceedings be allocated to the prescribed project or asset, the project must also fulfill the formulated objective. The clause thereby provides actual significance to the stated objective, since fulfillment of the objective becomes a condition for post-issuance certification.

The standard further provides clear mandatory requirements for use of proceeds, tracking, and reporting. With regard to use of proceeds, it follows from clause 5.2 that the issuer shall allocate funds to the green project or asset within 24 months of issuance of the bond. The net proceeds of the bond should be tracked by the issuer pursuant to an internal process accepted by the verifier, cf. clauses 5.4 and 2.1. Moreover, there are some explicit requirements to ensure “Non-Contamination of Proceeds,” meaning that the green bond proceeds should be strictly separated from other funds.¹⁵⁵ It is explicitly stated that unallocated proceeds shall be “[h]eld in temporary investment instruments that do not include greenhouse gas intensive projects which are inconsistent with the delivery of a low carbon and climate resilient economy,” cf. clause 6.2.2. Only force majeure situations may justify an exception from this requirement, cf. 6.3, which demonstrates the compulsory nature of the standard’s requirements.

With respect to reporting, clause 8.1 provides that the issuer must report to bondholders and to the Climate Bonds Standard Secretariat at least annually, “containing the list of Nominated Projects & Assets to which proceeds of the bond have been allocated (or re-allocated).” This report must furthermore contain information about, amongst others, the expected impact of the green project or asset.¹⁵⁶

¹⁵³ CBS, 7.

¹⁵⁴ CBS clause 4.1.

¹⁵⁵ CBS clause 6.1.

¹⁵⁶ CBS clause 8.1 second sentence.

3.4.2.4 Certification

Climate Bond Certification is the process leading to the issuer's approval of using the Climate Bond Certification Mark. Such certification can be obtained either pre-issuance, during the pricing and marketing of the bond and/or post-issuance, ensuring that the integrity of the mark is preserved after the issuance process.¹⁵⁷ The Climate Bonds Standard Board is the competent body who decide whether to approve the bond. The verdict of approval is based on, and closely connected to, the assessments provided by the verifier, which is the CBS's system for external reviews. This system of verifiers will be explained in section 3.4.2.6.

The prerequisite for pre-issuance certification is that the Climate Bonds Standard Board sees the pre-issuance requirements as fulfilled. Its decision is based on an assessment completed by the verifier evaluating whether the Issuer and the proposed bond have conformed to the pre-issuance requirements of the standard.¹⁵⁸ Clause P4.2 states the following:

“If the Climate Bonds Standard Board is satisfied that the Issuer and proposed bond are in conformance with the Pre-Issuance Requirements, then it shall provide a statement which confirms the Climate Bond Certification of the bond.”

The issuer will then have the right to use the Climate Bond Certification Mark until the compulsory post-issuance certification is completed (cf. P4.2, second sentence). The standard further addresses situations where the issuer must stop using the Climate Bond Certification Mark (i.e., those in which the bond no longer can be seen as being “green,” pursuant to the standard).¹⁵⁹ There are three grounds for revoking the certification mark. The first ground is the lack of post-issuance certification received within one year of issuance (cf. P4.2.1). This means that the Pre-Issuance Certification Mark is valid for one year following the issuance. The second ground is if the issuer becomes aware that the bond “no longer conforms” with the standard (cf. P4.2.2). Finally, the third ground is where a verifier engaged by the issuer or the Climate Bonds Standard Board “finds that the bond no longer conforms” with the standard (cf. P4.2.3).

The requirements for post-issuance verification are mostly the same. The verifier must conform that the issuer and the bond are in compliance with the Post-Issuance Requirements, and this assessment must be completed within one year of the bond's issuance, cf. P5.1. The same verifier must complete both the pre- and the post-issuance assessments.¹⁶⁰ The report must then

¹⁵⁷ See CBS, 11 under heading “Outline of the Climate Bond Certification process.”

¹⁵⁸ See CBS clause P2 and P2.1.1.

¹⁵⁹ See clause P4.2.

¹⁶⁰ See note to clause P5.1.

be submitted to the Climate Bonds Standard Board “to maintain the Certification status of the bond awarded at the pre-issuance stage; proving its conformance with the Climate Bonds Standard,” cf. P6.1.

Based on the report provided by the verifier, the Climate Bonds Standard Board decides whether it is “satisfied that the Issuer and the bond are compliant with the Post-Issuance Requirements” of the standard, cf. clause P7.1. Ultimately, we see that certification is a subjective question for the Board of whether it is “satisfied,” based on the technical report provided by an independent reviewer. The effect of the Board’s acceptance follows from P7.1, second sentence:

“The Issuer then has the right to continue using the Climate Bond Certification Mark in association with the relevant bond (but no others) for the duration of the bond term.”

Accordingly, the post-issuance certification enables the issuer to use the mark until the bond’s maturity. It also becomes evident from this clause that that the green bond status following the CBS’ certification scheme only allows for the specific bond to be marked, not the general framework of an issuer or its internal green bond program, in contrast to the GBP.¹⁶¹ Furthermore, equivalent to pre-issuance certification, the right to use the mark is withdrawn if the issuer or the board finds that the bond no longer conforms with the standard, cf. clause P7.2.

3.4.2.5 Non-Conformance

The CBS has developed a system to handle claims of breach of the standard, as well as the consequences of non-conformance. It follows from clause P9.1 that “[i]n cases of claimed breach of conformance with the Climate Bonds Standard, the Climate Bonds Standard Board may request a new Verifier’s Report be prepared by a different Verifier as a condition of maintaining Certification under the Climate Bonds Standard.” The standard does not specify from whom the claim must come to activate the clause. The silence in this respect must be assumed to mean that anyone can make such claims, including stakeholders and other interested parties. The clause thereby provides an important opportunity for the public’s scrutiny to be taken into account and to have both a formal and an actual significance. The report provided by the new verifier must be submitted to the Board for review within six months of the initial request, cf. clause P9.1.1.

If the issuer becomes aware that the bond is no longer in conformance with the standard, then the issuer must disclose that fact to the Board within one month of becoming aware of the non-conformance, cf. clause P9.2. The Board may then suggest “corrective actions for the

¹⁶¹ See section 3.4.2.

conformance to be restored,” cf. P9.2.1. If conformance is not restored “within a reasonable time frame,” then the Board “shall consider revocation of its certification of that bond.”¹⁶² Clause P9.3 sets out three consequences of revocation. First, the issuer must stop using the Mark in association with the bond. Second, the issuer must take all necessary steps to remove the bond from Climate Bond listings. Third, the issuer must inform the bondholders, relevant exchanges, and the Climate Bond market participants of the change in Climate Bond Certification of the bond. The disclosure of non-conformance may then lead to the different actors carrying out different remedying measures.

3.4.2.6 CBS’ scheme of external reviews: “Approved Verifiers”

As we have seen from the presentation of CBS’s different components above, the verifiers play a highly important role throughout in relation to the standard. The verifiers generally have the main responsibility for assessing whether the requirements of the standard have been fulfilled. Their assessments then function as the basis for the Board’s decision of whether it is “satisfied” that the bond and issuer are in conformance with the requirements.¹⁶³ The verifiers evidently hold considerable influence in the certification process, which necessitates measures to ensure their credibility and neutrality.

The CBS has addressed this need by establishing a system for “Approved Verifiers.” This means that those used in CBS assessments must be explicitly approved by the Climate Bonds Standard Board.¹⁶⁴ The main prerequisites for becoming an approved verifier encompass competence and experience within debt instruments in the capital markets and technical expertise in conformance with the environmental technical requirements, as well as alignment with International Standards on Assurance Engagements (ISAE) 3000. To date, the list of approved verifiers consists of 38 verifiers with different geographical coverage, such as DNV GL, KPMG, and Sustainalytics.¹⁶⁵

¹⁶² Cf. clause P9.2.2.

¹⁶³ See CBS clause P4.1 and clause P7.1.

¹⁶⁴ Climate Bonds Initiative (n.d.A).

¹⁶⁵ Climate Bonds Initiative (n.d.C).

3.5 Listing on the green list of the Oslo Stock Exchange (OSE)

Green lists on stock exchanges now play a vital role, both in making green bonds visible and available for investors and in facilitating secondary market trading by providing dedicated segments for the trading of green bonds.¹⁶⁶ In 2015, the Oslo Stock Exchange was the first to launch a green bonds list. Since then, nine new stock exchanges have followed, *inter alia* the London Stock Exchange, the Japan Exchange Group, and the Mexico Stock Exchange. This thesis will focus on the requirements of the green list of the Oslo Stock Exchange. To appear on its green list, the issuers must meet the same listing requirements and continuing obligations that apply for conventional bonds.¹⁶⁷ In addition, the bonds must fulfill specific requirements for the green component. These “green” requirements are the subject of this section’s analysis.

The OSE sets out two requirements for the bond to be included on its green list. First, it must be subject to “[a]n independent second opinion that certifies the environmentally friendly nature of the bonds.”¹⁶⁸ Second, the second opinion conducted “must be made publicly available to enable investors to understand the environmental aspects of the projects that are to be financed by the bond.”¹⁶⁹ This stipulation implies that it is up to the second opinion provider to determine whether the bond may obtain the green bond status pursuant to the OSE’s green list requirements. The assessment criterion for the second opinion provider’s conclusion is whether the bond is “environmentally friendly.” Ultimately, this implies that the green criteria for listing on OSE is that the bond is “environmentally friendly” in the opinion of the reviewer. The lacking definability of this criterion is self-explanatory, as it is both vague and subjective. The question of what is “environmentally friendly” is relative and the content is without limitations. Therefore, the criterion is seemingly not suitable to function as a minimum requirement for green bonds’ environmental outcome.

In addition, green bond issuers are subject to reporting requirements following the issuance. The reporting requirement states, “[t]he issuer’s ongoing disclosure obligations from issuing a green bond (i.e. continuing project reporting agreed with investors upon the issuance of the bond) must be made publicly available through stock exchange announcements.” An interpretation of the requirement implies that such disclosure obligations are voluntary, as they must be “agreed with investors upon the issuance.” However, if such reporting duties are agreed upon, then public disclosure is compulsory.

¹⁶⁶ OECD, ICMA, CBI, and GFC (2016) 27.

¹⁶⁷ Oslo Stock Exchange (n.d.A)

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

Based on the foregoing, it has become evident that OSE does not build on current standards as a condition for listing. Instead, it operates with its own requirements. The green label or status is therefore not obtained before the inclusion on the green list, which demonstrates that the listing in itself functions as an action providing the bond with a green status. Furthermore, we have seen that the core features of OSE's green status process consist of the publicly disclosed second opinion conforming that the bond is "environmentally friendly," in addition to voluntary public post-issuance reporting.

3.6 Conclusions

The main findings from the descriptive analysis completed in this chapter are that 1) no public EU or Norwegian "green" criteria exist for green bonds; 2) there are no uniform green criteria within the regulatory infrastructure of green bonds; and 3) only CBS operates with definable green criteria. These findings will be substantiated in the following paragraphs.

With respect to the first finding, it will just be noted that there are no EU regulations defining green bonds or drawing up criteria for labeling them. The labeling of green bonds thus falls outside the scope of current EU financial regulation. However, we have seen that the EU is in the process of developing such regulations, which will be explored in chapter 6 of this thesis.

Regarding the second finding, I claim that the mapping out of the different private regimes objectively proves that each operates with different green criteria for labeling green bonds. Hence, there are no uniform sustainability prerequisites for prescribing a bond with the green status. As an example, it is possible within the Norwegian jurisdiction to attain the green bond status from the GBP, the CBS, or OSE — all of which are competing initiatives for labeling green bonds. Additionally, the different labeling initiatives existing side by side illustrate the non-uniform, fragmented nature of the regulatory infrastructure of green bonds

Concerning the third finding, the analysis has demonstrated that only the CBS operates with definable green criteria. It showed that the GBP operates with broad objectives and unlimited eligibility categories for its sustainability criteria, providing issuers with wide-ranging possibilities of meeting the green criteria. Similarly, the OSE requires green bonds to be "environmentally friendly"— a subjective criterion that can hardly be defined, or even less function as a minimum threshold. On the other hand, CBS has established definable, thorough criteria based on scientific research that is aligned with the 2-degrees objective. The complex nature of green bonds entails complex sustainability criteria, which the CBS has established through an overarching objective, operationalized by two phases of eligibility assessments. The project or asset must fall within these two phases, and subsequently within the incorporated overarching objective.

To sum up, the chapter has demonstrated that private regulation of green bonds consists of different requirements for environmental outcomes, as well as different requirements for promoting transparency on the green component of the bond. The latter requirements aim to reduce information asymmetries with respect to the bond's green features, and by doing so, to contribute to ensuring the market's integrity. The next chapter will build on the findings from this one and proceed to assess whether the frameworks presented are suitable for 1) ensuring that green bonds are funding projects aligned with global policy goals, and 2) ensuring the integrity of the green bond market.

4 Overall assessment of the functioning of the regulatory infrastructure of green bonds

4.1 Introduction

This chapter will assess whether the regulatory infrastructure of green bonds facilitates substantive environmental outcomes aligned with global climate goals, and whether it ensures integrity in the green bond market. We saw in section 1.1 that green bonds are one way of mobilizing private sector financing for sustainable investments, and they are foreseen to play a key role in financing the investment needed to achieve the Paris Agreement and the SDGs.¹⁷⁰ In order for green bonds to succeed in this envisioned role, they must provide substantive environmental outcomes and gain sufficient support from market participants. This chapter aims to use the regulatory regimes mapped out in chapter 3 to examine the extent to which these fundamental conditions are fulfilled. First, section 4.2 will discuss whether the different green criteria identified in chapter 3 succeed in ensuring that green bonds are funding projects aligned with the Paris Agreement. Section 4.3 will then proceed to the less tangible question of whether the regulatory infrastructure ensures integrity in the green bond market. To answer this question, the section will discuss two elements that largely are decisive for the integrity of the green bond market; namely, the infrastructure's ability to prevent greenwashing and to provide mechanisms for enforcement. In section 4.4, the chapter will conclude by addressing the infrastructure's functioning in safeguarding the two fundamental conditions required for green bonds to play their foreseen role in financing the green transformation.

4.2 The green criteria's ability to deliver substantive environmental outcome

4.2.1 Comparison of the regimes' green criteria

Chapter 3 discovered that disparities exist in the regulatory regimes' green criteria for obtaining green bond status, whereby the green criteria were recognized as being non-uniform. The following paragraphs aim to compare these approaches and to assess whether the different regimes succeed in ensuring that green bonds are financing projects and assets aligned with the global climate goals. The first part will be theoretical, repeating and examining some of the findings from chapter 3, before introducing some empirical observations to support the theoretical presumptions.

The GBP's green criteria consist of broad environmental objectives with 10 affiliated eligible project categories. However, these categories are not exhaustive, which makes the broad environmental objectives the *de facto* green criteria for GBP-aligned green bonds. We saw in section 3.3.2.1 that these categories include climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control. These broad and non-measurable categories facilitate widespread possibilities for

¹⁷⁰ European Commission (2016) 7.

projects to fit within the criteria of the GBP.¹⁷¹ In theory, a fossil fuel project that seeks to improve energy efficiency may fall within the objective of climate change mitigation or adaptation. This presumption is explicitly accepted by the ICMA.¹⁷² Accordingly, the green criteria of the GBP are not adequate to ensure that green bonds have substantive environmental outcomes aligned with global climate goals. On the contrary, the GBP's environmental criteria appear to accept projects that contribute to the prolonging of so-called "brown" fossil fuel projects, which are inconsistent with the delivery of a low-carbon and climate-resilient economy.

The green criterion of the OSE is that the bond must be "environmentally friendly," as confirmed by an independent second opinion.¹⁷³ As stated in section 3.5, "environmentally friendly" is a requirement that is as subjective as it is vague. The requirement is not suitable to function as a minimum threshold for projects to attain the green status. It is not supported by scientific research and thus appears to be a convenient criterion for easing greenwashing. Ultimately, the decision of whether a bond is sufficiently sustainable to be listed as a green bond on the green list of OSE lies in the hands of companies providing external reviews. Furthermore, there are no requirements of the extent to which the green bond must be "environmentally friendly." Evidently, the criteria provide no basis for ensuring that the green list's green bonds provide substantive environmental outcomes aligned with the Paris Agreement.

The CBS, on the other hand, has operationalized a criterion directly based on the objectives of the Paris Agreement and its 2 degrees Celsius warning. For a bond to obtain green status pursuant to the CBS, the project or asset must be aligned with the 2 degrees requirement and thus contribute "to the delivery of a low carbon and climate resilient economy" (cf. CBS part B, first section). The 2 degrees requirement is operationalized through specific technical requirements. First, the project or asset must fall within one of the eligible sectors of the CBS (the several eligible sectors are described in the Taxonomy; see section 3.4.2), each of which clearly express whether a specific activity within the sector is "2 degree compliant."¹⁷⁴ Each sector has sector-specific criteria (provided in the Sector-Specific Criteria document) that the bond must meet to achieve the certification mark by the Climate Bonds Standard. The CBS thus operates with an objective criterion supported by rigorous scientific criteria. From a theoretical perspective, the approach taken by the CBS appears to succeed in ensuring that all bonds

¹⁷¹ Brightwell (2016).

¹⁷² ICMA (n.d.B).

¹⁷³ Oslo Stock Exchange (n.d.A).

¹⁷⁴ Climate Bonds Initiative (2018A).

receiving green status pursuant to this scheme truly contribute to the green transformation and to the fulfillment of the Paris Agreement objectives.

4.2.2 Empirical observations on the environmental outcome of green bonds

The analysis in this chapter has been based on stylized facts, examining the assumed effects of the regimes in relation to the green definition and the subsequent environmental outcome of green bonds. In the following section, I will discuss some empirical evidence from global green bond issuances to shed light on the question of whether the current private regulatory regimes succeed in providing green criteria that facilitate substantive environmental outcomes. The aim is to provide a basis for discussing whether there is a need for further regulation of the green criteria to ensure the fulfillment of green bonds' foreseen role in contributing to the achievement of the Paris Agreement.

A history of controversial green bonds suggests that the green criteria have not succeeded in ensuring that green bonds are used to finance sustainable projects only. A first example is the highly controversial GDF Suez Green Bond that financed the Jirau Dam on the Madeira River (the largest river of the Amazon) in Brazil. The dam had serious and possibly irreversible impacts on freshwater ecology, local communities and workers.¹⁷⁵ Some of the ecological impacts included risk of extinction of valuable migratory fish species and poisoning of the river caused by dams trapping nutrients and vegetation.¹⁷⁶ Socially, the dam led to displacement of thousands of people due to floods exacerbated by the dam, as well as serious conflicts between affected communities and indigenous people.¹⁷⁷

For these reasons, the Jirau Dam financed by the GDF Suez green bond represents rather the opposite of what green bonds aim to denote, causing both serious social and environmental issues. This particular green bond was issued pursuant to GDF Suez's own internal sustainability framework, with which the second opinion provider Vigeo Eiris confirmed that the bond was aligned.¹⁷⁸ This approach to labeling a bond as green is equivalent to the approach taken by OSE described above. It serves as an illustrative example of what the environmental and social outcome of a green bond may be, absent objective minimum environmental criteria. As for the GDF Suez green bond, it is notorious for being a “disastrous investment for both people and planet.”¹⁷⁹

¹⁷⁵ Bracking (2016) 76-77.

¹⁷⁶ Brightwell (2014).

¹⁷⁷ Ibid.

¹⁷⁸ Vigeo Eiris (2014).

¹⁷⁹ Brightwell (2014).

A second example is a EUR 500 million green bond issued by Madrid-based Repsol SA (subsequently Repsol), which represented the first global green bond issuance by an oil company.¹⁸⁰ The proceeds of the bond, which matures in 2022, will be allocated to “finance and refinance energy efficiency investments in Repsol’s chemical and refinery facilities in Spain and Portugal.”¹⁸¹ From a technical perspective, investments in making refineries more efficient, as is the purpose of this bond, is likely to extend plant operating lifetimes and thus indirectly increase emissions over time.¹⁸² The aim of this green bond is, in other words, to finance Repsol’s prolonged and increasingly efficient oil production. Repsol’s internal green bond framework was reviewed externally by Vigeo Eiris. The second opinion recognized the bond as being “aligned with the Green Bond Principles.” Evidently, the labeling scheme of the GBP enable green bonds to finance traditional “brown” industries, which are strongly in conflict with the stated objectives of the Paris Agreement.

The Climate Bonds Initiative explicitly addressed the bond’s conflict with the objectives of the Paris Agreement, which led to its exclusion from the Climate Bonds Initiative’s green listings. The CBI noted as follows:

“Taking our cue from the Paris COP21 Agreement, Climate Bonds takes the position that green bond investments should be in line with the very steep emissions trajectory that is needed to achieve a rapid transition to a sub-2 degree Celsius world.”¹⁸³

A third example is green bonds for financing clean coal technology. In China’s green bonds standard, which is built on the GBP, the Chinese understanding of green includes “clean coal utilisation”.¹⁸⁴ The Climate Bonds Initiative, on the other hand, has specifically excluded clean coal projects with reference to their lacking the ability to deliver a sub-2-degree pathway.¹⁸⁵ In 2017, 38% of Chinese green bonds were allocated to coal and other fossil fuel-based technologies, declining to 26% in 2018.¹⁸⁶

According to Climate 2020, clean coal technology, even at its most advanced, reduces plant emissions only, and does nothing to address the massive social and environmental impacts

¹⁸⁰ Climate Bonds Initiative (2017).

¹⁸¹ Climate Bonds Initiative (2017).

¹⁸² Ibid.

¹⁸³ Ibid.

¹⁸⁴ European Commission (2016) 77.

¹⁸⁵ European Commission (2016) 145 and Climate Bonds Initiative (2017). They are also specifically excluded from the World Bank’s green bonds; see Climate Bonds Initiative (2017).

¹⁸⁶ Climate Bonds Initiative (2018B) 3.

associated with coal mining.¹⁸⁷ Additionally, increasing the efficiency of coal plants will only prolong their lives, “when closing them is recognised as the only route to restricting global warming substantially below 2°C.”¹⁸⁸ These green bonds for financing “clean-coal” projects demonstrate that green bonds to date indeed do not finance sustainable projects that align with the Paris Agreement and the objective of a green transformation of the economy. Rather, they illustrate that a substantial part of one of the world’s biggest green bond markets is financing and thus supporting projects that contribute to the opposite of sustainability — namely, the prolonging and increasing efficiency of fossil fuels.

Even though the majority of green bonds issuances to date have appeared legitimate and uncontroversial, the above-mentioned examples demonstrate an existence of fundamental weaknesses in the environmental criteria for labeling a bond green. The inclusion of projects that may not be considered sustainable or are directly unsustainable represent a threat to the integrity of the green bond market. If a sufficient number of green bonds are issued to fund non-sustainable projects, then sustainable investors may stop investing in projects they feel are not impactful, which is likely to affect both demand and supply.¹⁸⁹ Ultimately, faith in the green bond market may permanently be destroyed through skepticism about its impact, thus causing the problem of adverse selection.¹⁹⁰

In addition, market analysis has shown that uncertainty regarding the environmental requirements for labeling a bond green causes potential issuers to desist from issuing a green bond in fear of not being “green enough,” thereby risking reputational damage.¹⁹¹ In contrast, the same uncertainty enable issuers to issue a formally legitimate green bond for a project that is not sustainable at all, as the examples above illustrate.¹⁹² Having in mind that most green bonds are highly oversubscribed, some issuers may take advantage of this uncertainty for beneficial financial outcomes.¹⁹³

¹⁸⁷ Brightwell (2016). Climate 2020 is a branch under UNA-UK, a non-for profit organization for an effective UN. Climate 2020 provides analysis and recommendations on fulfilling the Paris Agreement.

¹⁸⁸ Ibid.

¹⁸⁹ Trompeter (2017) 9 points at the consequences that may arise from the fragmented and inconsequent green criteria in the different frameworks: “This blurring of what constitutes “Green” opens the door for issuers to greenwash projects while benefiting financially from their tax-exempt status. Issuers looking to cash in will saturate the market with greenwashed projects, SRIs will stop investing in projects they feel are not impactful, and the market will dry up.”

¹⁹⁰ Trompeter (2017) 9.

¹⁹¹ European Commission (2016) 41.

¹⁹² For example the Repsol green bond, which was confirmed to be aligned with the GBP.

¹⁹³ Trompeter (2017) 10 distinguishes between “[...] issuers who want to advertise their environmental efforts versus those who just wish to reap financial benefits.” See also Tillett (2015) cautioning that issuers, through greenwashing, may exploit the lack of standard for financial gain.

While it must be acknowledged that it may be a complex technical task to assess whether a project or asset is sustainable, and for which it is difficult to provide a yes or no answer, it is crucial for both the fulfillment of the Paris Agreement and the market's integrity to operationalize an objective criteria for attaining the green label. Objective criteria ensure legitimacy, consistency and predictability both in terms of the conditions for obtaining the green status and for the environmental outcome.

4.3 The infrastructure's ability to ensure integrity

4.3.1 Introduction. Premises for measuring integrity

Integrity in the green bond market must be understood as the market participants' perception of green bonds' abilities to contribute to sustainable environmental outcomes. There are two conditions for such faith in green bonds. First, illegitimate labeling of them is likely to undermine the faith in green bonds. Hindrance of greenwashing is therefore a condition for ensuring integrity in the green bond market. Second, market participants must have faith that green bonds will fulfill their green promises. The momentum of solid environmental criteria is limited if there are no mechanisms to monitor their fulfillment or to sanction non-fulfillment thereof. The regulatory infrastructure should therefore seek to ensure the enforceability of green bonds. Accordingly, the question of integrity consists of two elements: the infrastructure's ability to prevent greenwashing and its mechanisms to ensure enforcement. This section aims to establish to what extent the GBP, OSE, and CBS provide mechanisms that facilitate these two elements.

The assessment of the regimes' functioning in preventing greenwashing will be based on whether they provide systems that impede issuers from using the green bond label for projects that do not provide environmental benefits. Assessing the enforceability of the regimes will encompass whether they provide a basis for establishing a breach of the applicable rules, as well as correction in cases of non-conformance-, (i.e., whether the regimes provide "strong" or "weak" regulatory features).¹⁹⁴ The regimes' functioning in ensuring integrity in the green bond market will thus depend on the extent to which they prevent greenwashing and facilitate enforcement. The following assessment draws on some of the descriptive findings from chapter 3 to assess the content and enforcement mechanisms of the GBP, OSE and CBS.

¹⁹⁴ See section 2.3.

4.3.2 The GBP

4.3.2.1 *Ability to prevent greenwashing*

Three issues related to the content of the GBP challenge its ability to prevent greenwashing. The first is the design and format of the GBP. The second is the absence of requirements to provide transparency on the impact of the bond, and the third is the standard's scheme of external reviews.

As we have seen, the standard is comprised of a green definition in addition to four core components with which the bond must be aligned to receive the green label. This format is not well suited to function as a standard. A first reason is that the content of the standard is not formatted in identifiable sections, which makes it difficult to navigate and to evaluate whether the standard's requirements are fulfilled. Second, the standard operates with both requirements and recommendations, but it is unclear whether there is a formal or actual significance between them. A result of this format is that the standard does not succeed in clarifying the minimum requirements for attaining the green labels, nor does it provide basis for evaluating whether the requirements are fulfilled.

The GBP does not include any requirements for post-issuance verification or reporting on the actual impact of the green bond. Post-issuance requirements are prerequisites for assessing whether green bonds fulfill their green promises. Without such requirements, market participants may not acquire a basis for attaining trust that green bonds succeed in fulfilling their green purpose. Correspondingly, issuers will not be given strong incentives to fulfill their green promises. Furthermore, information about the environmental impact of the bond constitutes a prerequisite for investors', stakeholders', and the public's scrutiny of green bonds, which again provides the basis for applying financial market or private law remedies in cases of non-fulfillment of environmental objectives. Absent requirements to provide such information therefore delimits these actors' possibilities for environmental assessments and application of remedies.

The GBP's scheme of external reviews (presented in section 3.3.2) gives rise to concerns of review quality and reviewer independence. The basis for these concerns can be summarized in the following four findings:

1. The GBP does not require external reviews.
2. The GBP does not provide requirements for the provider of the external review.
3. The GBP does not provide requirements for the content of the review.
4. The GBP does not provide public disclosure requirements for the external review.

First, the absence of a requirement to complete an external review allows the bond to be labeled as green without having confirmed its green features. This represents the clearest threat to the integrity of the green bond market, as issuers may be tempted to issue a green bond for financial

gain while not having to substantiate its green label by an independent party. Accordingly, a regime that allows for the use of its alignment status without validating the bond's environmental benefits may facilitate the possibilities of greenwashing. This situation may cause overall negative effects on the efficiency of the green bond market. Investors may be affected by high transaction costs by having to conduct their own investigations of the legitimacy of the bond's green label. Issuers may be affected by reputational risks caused by the harm to the integrity of the market, which may result in a reduced supply of green bonds.

Second, the absence of requirements for the providers of the external reviews may cause competitive behavior between the reviewers, which is likely to affect the quality of the reviews.¹⁹⁵ If an external reviewer becomes renowned for conducting stringent reviews, then the reviewer might risk losing market shares. In contrast, a “flexible” external reviewer may gain a high market share. This type of competitive behavior may result in the practice of lowering the requirements for the environmental outcomes of the bond. For example, one of the main providers of external reviews is CICERO, which operates with different shades of green in its second-opinion guidelines.¹⁹⁶ The light green color represents “projects and solutions that are environmentally friendly but do not by themselves represent or contribute to the long-term visions.”¹⁹⁷ As an example of projects receiving the light green shade, they mention “[e]fficiency in fossil fuel infrastructure that decrease[s] cumulative emissions.” A question arising from this categorization is whether CICERO must accept projects that are not necessarily considered green because of the mentioned competition; for example, these fossil fuel projects characterized as “light green.” In other words, the competition for market shares may lead to a lowering of the environmental threshold, causing an “environmental race to the bottom.”

A lack of requirements concerning who is providing the external review may also lead to concerns of independence. A general observation is that the reviewers may be independent formally but might still lack objectivity since the issuers whose bonds are being assessed are the ones arranging and paying for the audit.¹⁹⁸ In joint research conducted by the European Investment Bank (EIB), the World Wide Fund for Nature (WWF) and the Institute for Climate Economics (I4CE), such problems of independence were specifically addressed.¹⁹⁹ The research had shown that external review providers frequently are asked by their clients to play

¹⁹⁵ See also Mc.Allister (2014), 79, who notes that “[b]ecause of competitive pressures, third-party verifiers will seek to reduce their costs, which may result in inadequate audits.”

¹⁹⁶ CICERO (2015). CICERO is one of the external review providers with the largest market share, see European Commission (2016) 26.

¹⁹⁷ CICERO (2015).

¹⁹⁸ Mc.Allister (2014), 79.

¹⁹⁹ WWF, EIB, and I4CE (2017) 7.

a consulting role, and then to review the established framework or issuance findings later in the process. The research found that this practice “objectively entails risk of perceived (or real) conflict of interest related to a lack of independence.”²⁰⁰ The problem with these processes is that the consultant develops the framework or the sustainability criteria, and then ends up being the reviewer assessing whether the issuer fulfills the requirements set out in the framework or green criteria he or she helped to develop.²⁰¹ Practically, this approach implies a review of your own organization’s work, which hardly can be considered independent.²⁰² The fact that the GBP explicitly countenances such collaborative reviews may then seem a bit alarming. The European Commission’s Technical Expert Group’s subgroup on green bonds has endorsed this concern about independence, acknowledging that “lack of independence resulting in perceived or actual conflicts of interest” amounts to one of the challenges the external review market is facing today.²⁰³

Third, the absence of requirements for the content of reviews may lead to differences in both quality and practice. We have seen that some providers of external reviews, such as Vigeo Eiris, accept green bonds for financing both coal and oil-related projects, whilst others might not accept these projects as green, such as the approved verifiers of the CBS.²⁰⁴ Furthermore, since there are no requirements concerning the extent of the review or of the content of the reviewer’s report or statement, the result is highly heterogeneous. This uncertainty in practice has been shown to affect the market’s perception of the “added value” of external reviews.²⁰⁵

Regarding the fourth finding, the lack of a public disclosure obligation, the consequences generally encompass information shortages, posing a great risk of leading to information asymmetries. The absence of an external review may lead to investors paying a premium for the “greenness” of a bond that may not have substance in reality. This might again lead to incorrect pricing of the green bond in question. On the other hand, partial disclosure of an external review may cause investors to be misled, as such partiality enables the disclosure of the “green” parts of the bond, while potentially withholding other information on non-sustainability.

Accordingly, the flexibility represented by the GBP’s external review scheme may cause bonds to be labeled as green without having environmental features that reflect the green label. Such

²⁰⁰ Ibid.

²⁰¹ Ludvigsen (2015).

²⁰² Ibid.

²⁰³ EU TEG (2019) section 4.2.

²⁰⁴ See section 3.4.2.6.

²⁰⁵ See EU TEG (2019) section 4.2.

a situation may pose a threat to the integrity of the green bond market. Furthermore, the GBP's scheme of external reviews may lead to information asymmetry that may affect both the overall efficiency of the green bond market and open up possibilities for greenwashing.

4.3.2.2 *Enforcement*

A central feature of the GBP is the standard's non-prescriptive nature.²⁰⁶ Its requirements are permissive and broad, which makes a breach of it difficult to establish. The standard is thus characterized by vague rules that cannot be enforced. A natural consequence of the permissive content of the standard is an absence of monitoring mechanisms. First, the lack of mandatory requirements hinders a basis for monitoring.²⁰⁷ Second, the GBP has not established any bodies to monitor compliance. This absence of "monitoring mechanisms [...] in place to ensure compliance" is identified by the European Commission's expert group as a key bottleneck for the green bond market's further evolution and growth.²⁰⁸

In addition, the standard does not set out any sanctions to correct potential breaches. If a green bond fails to fulfill its green purpose, the standard does not have any mechanisms to identify the breach, disclose it to the public, or to correct it by, for example, revocation of the green label. Consequently, the rules following the GBP are not enforceable and the standard does not provide any mechanisms to sanction non-fulfillment of the green label. This absence of monitoring and sanctioning mechanisms clearly indicate that the GBP classifies as a form of "weak" private regulation. As discussed in chapter 2.3, such weak regulation is generally more suited for providing issuers with marketing benefits, rather than filling regulatory gaps.

4.3.3 The OSE

Although the OSE does not completely prevent greenwashing or ensure enforceability of its listed green bonds, a few of its requirements represent improvements compared to the GBP. At the same time, it must be noted that the regulatory role of a green list on a stock exchange is different from the regulatory role of green bonds standards. This distinction indicates that we should not expect as much from the OSE as we can from the green bond standards. I will first address the weaknesses concerning the integrity of the green list and its improvements compared to the GBP, before addressing the regulatory implication of the role of the OSE.

We have previously established in section 4.2 that the green criteria for listing on the OSE is not suitable to generate investments in projects aligned with the Paris Agreement. In addition to these criteria, the only requirement for listing on the OSE is that the issuer has received "[a]n

²⁰⁶ Park (2018) 23.

²⁰⁷ Ibid.

²⁰⁸ European Commission (2016) 40.

independent second opinion that certifies the environmentally friendly nature of the bonds”, which must be made publicly available. This practice of external reviews is equivalent to the one of the GBP, which means that the weaknesses related to quality and independence in relation to the GBP’s scheme also apply for green bonds listed on the OSE. For this purpose, I refer to the discussion about external reviews in section 4.3.2.1, above. In contrast, the OSE represents an improvement from the GBP in two ways. First, completing an external review is a mandatory condition to be listed on the green list. This requirement ensures a minimum safeguard for the integrity of green bonds, as it prevents completely unsubstantiated ones from inclusion on the green list. Second, the OSE requires public disclosure of the external review. This measure is effective both in reducing the risk of information asymmetry and in limiting transaction costs. The latter as public disclosure of reviews reduces investors’ needs to conduct individual investigations on the environmental features of the green bond.

Another improvement from the GBP is that the OSE requires all green bonds to be assessed individually by an external reviewer to be included on its green list. As we have seen, the GBP allows green bonds to attain the green label based on alignment with the issuer’s internal green bond framework.²⁰⁹ The practical difference is that the GBP prescribes its green label to bonds that are not issued in direct compliance with the GBP. This means that the use of the GBP’s green bond label is not delimited to bonds directly stating that they meet the standard’s requirements. Issuers with intentions to greenwash may thus undetected issue a green bond that does not provide any environmental benefits under its GBP-confirmed internal framework. This is a concern that the OSE has removed through its requirement of reviews being conducted of all listed green bonds.

With respect to sanctioning mechanisms, the stock exchange — as opposed to the GBP — can exclude green bonds that do not meet the list’s disclosure requirements. We saw in section 3.5 that all issuers with listed bonds on the OSE have a disclosure duty. Issuers of bonds on the green list have an additional duty to disclose project reporting related to green bonds publicly, to the extent that this has been agreed on with the bondholders. If the OSE becomes aware that the issuer does not meet the reporting and disclosure requirements, it may result in exclusion from the list if the breach of the duty to provide project reporting persists after dialogue between exchange and the issuer.²¹⁰ However, since the “green” reporting duty must be agreed upon in conjunction with the issuance, sanctioning mechanisms related to non-fulfillment of the green element of the bond appear to be quite limited.

²⁰⁹ See section 3.3.2.

²¹⁰ Grønlien (2019).

The purpose of green lists on stock exchanges is to make green bonds tradeable and available to mainstream investors. The purpose of green bonds standards', however, is to fill a regulatory gap on the green element of green bonds. In a normative perspective, a stock exchange is not suitable for developing and regulating the criteria for labeling a bond green with associated processes to ensure integrity. A stock exchange does not have the resources to do so, and it is not within its operations to develop specific frameworks for emerging securities markets.²¹¹ This point is especially of significance in a situation like the present, where the novel security mainly relates to non-financial matters. Neither should it be necessary for the OSE to play a central role in the regulation of green bonds. The rationale is that the stock exchange should not need to establish rigid procedural processes to ensure its integrity. Instead, it should build on an existing standard which safeguards both the substantive environmental criteria and the necessary requirements to ensure integrity. The integration of such a framework should then lead to the inclusion of already-confirmed credible green bonds. Integrating compliance with a green bond standard as a condition for listing on the green list will then ensure the green list's integrity, as well as contributing to a harmonized green bond market.

To sum up, the OSE is playing an important role in the green bond market as it pushes the market to use external reviews of the green credentials of the bond, which is crucial to ensure the environmental integrity of the market.²¹² In this respect, the OSE provides an improved approach compared to the GBP. However, several actions can be introduced to provide better enforcement mechanisms for listed green bonds, prevent greenwashing and subsequently spur the trading of green bonds. First, the independence and quality concerns of external reviewers would best be addressed by the integration of a standard that has resolved this issue, such as the CBS (as we will see in the next section). Second, harmonized common definitions for stock exchanges would reduce transaction costs and facilitate global trading of green bonds.²¹³ Third, if these harmonized definitions were based on the integration of a standard as the first point recommends, both integrity and coherence could be ensured globally and at different stages of green bond issuance.

²¹¹ OECD, ICMA, CBI, and GFC (2016) 27 notes that “the stock exchanges are not well placed to be the initial developer of standardised green definitions.”

²¹² Ibid.

²¹³ Ibid.

4.3.4 The CBS

4.3.4.1 Introduction

Many of the deficiencies identified in relation to the GBP are thoroughly addressed in the CBS through its associated certification scheme. Generally, a pivotal difference between the CBS and the GBP is the former's prescriptive and comprehensive nature. While some of the recommendations in the GBP may be similar to those of the CBS, the CBS has developed a prescriptive and comprehensive system that enables both control over labeling of the bonds and control over their environmental outcome. The result is a system that effectively prevents greenwashing and provides mechanisms to ensure enforcement. The main components contributing to these objectives will be discussed in the following paragraphs.

4.3.4.2 CBS's mechanisms to prevent greenwashing

The CBS contains detailed requirements that must be fulfilled in conjunction with the different phases of the bond. The inclusive set of requirements ensure that various considerations arising at different times are adequately safeguarded. An example is the pre-issuance requirements that must be met to market the bond as green.²¹⁴ The considerations that apply in the marketing-phase are different from those that apply after issuance, where the relevant question is how the proceeds are allocated and how the green objective is met. The CBS has addressed this important distinction through its wide-ranging requirements.

Furthermore, the above-mentioned requirements are formulated as minimum ones that function as a basis for the external reviewer's assessment and the Climate Bonds Standard Board's control. For example, the preamble to Part A on post-issuance requirements states that "[t]hese requirements are designed to ensure that the bond meets a minimum set of requirements following its issuance." In addition, the standard explicitly states that for both pre- and post-issuance requirements, "all requirements set out in this section shall be met."²¹⁵ Unlike the GBP, the requirements of the CBS are non-neglectable, as they function as prerequisites for certification. As we have seen from section 4.2, minimum requirements also apply for the green criteria. Cumulatively, the appurtenant control mechanisms of these requirements impede the possibilities of making unsubstantiated environmental claims.

The CBS has also established clear post-issuance requirements to ensure that green promises do not just remain promises. Illustrative in this context is the requirement to allocate the funds to the green project or asset within 24 months of issuance (clause 5.2), and the prohibition of

²¹⁴ See section 3.4.2.2.

²¹⁵ CBS, 6-7.

non-contamination of proceeds (clause 6). If these post-issuance requirements are not fulfilled, the Board will be entitled to revoke the green status of the CBS.²¹⁶

With respect to external reviews, chapter 3 demonstrated that the CBS's scheme of external reviews holds some significant differences from the schemes of the GBP and the OSE. In section 4.2.1.1, the thesis identified the main reasons causing deficiencies in relation to the external review scheme of the GBP. Section 4.2.2 found that these deficiencies mostly also apply for the OSE's scheme of external reviews. As we will see in the following paragraphs, these deficits are largely resolved in the CBS' scheme of "Approved Verifiers."

First, external review from an approved verifier is a requirement under the CBS and a prerequisite for certification both before and after issuance. This requirement represents an evident improvement from the GBP (which lacks such a requirement), but also in relation to the OSE, which requires only an external review to be conducted pre-issuance. Post-issuance review thus represents a novel approach, which is an effective way of ensuring that the bond is allocated and enforced in conformance with its green promises. However, the post-issuance review is to be conducted within one year after issuance, and therefore the performance of the bond cannot be evaluated after this first year. Nevertheless, the post-issuance review might be an effective way to prevent the issuance of dishonest and illegitimate green bonds.

We saw that the GBP does not provide requirements for the provider of the external review, leading to concerns of review independency and quality.²¹⁷ The same applies for the OSE.²¹⁸ The CBS has addressed these concerns through an accreditation system through which only CBS' approved verifiers may complete the assessments prescribed by the standard. The approval is the result of an application process in which the verifier must demonstrate that certain requirements are fulfilled. The requirements are related to the verifier's expertise within debt instruments and capital markets, and technical expertise within its area of sustainability.²¹⁹ Accordingly, the concerns related to quality of the reviews are addressed by CBS' requirements of relevant and sufficient expertise. Concerns related to independence are addressed in two ways. First, the accreditation scheme prevents collaborative reviews, which we saw was explicitly permitted under the GBP. Second, since the verifiers have entered into a "Climate Bonds Verifier Agreement" with the CBI, it is probable that the potential for conflicts of interest and lack of independence from the issuer will diminish.²²⁰

²¹⁶ CBS clause P4.2.1.

²¹⁷ See section 4.3.2.1.

²¹⁸ See section 4.3.3.

²¹⁹ Climate Bonds Initiative (n.d.A).

²²⁰ Climate Bonds Initiative (n.d.B).

Neither the GBP nor the OSE have established requirements for the content of the review, posing a risk of heterogeneous practice and uncertainty about the added value of such reviews.²²¹ Even though the CBS does not explicitly provide requirements for the content of the review, such requirements appear from the contextual system of the standard. The approved verifier must evaluate whether the requirements for pre-issuance certification and post-certification are fulfilled, depending on which of the certifications are applied for. Because these requirements are comprehensive and detailed, and the report must demonstrate their fulfillment, a clear outline for the content of the review must be seen as having been established.

With respect to public disclosure of external reviews, we have seen that public disclosure is not a requirement pursuant to the GBP, while it is a condition for inclusion on the green list of the OSE. Pursuant to the CBS, on the other hand, the verifier's report should be considered confidential (cf. clause P5.2):

“Verifier’s Reports submitted to the Climate Bonds Standard Board shall be considered to be confidential unless the Issuer voluntarily discloses the Verifier’s Report[...].”

It must thus be noted that the CBS, contrary to the GBP and the OSE, protects the report by means of its confidentiality clause, rather than encouraging public disclosure. Section 4.2.1.1 found that information asymmetry and greenwashing were potential risks arising from the lack of a requirement to disclose the external review publicly. The question is then whether the same deficits arise in connection with the CBS's lack of a public disclosure requirement.

Due to the GBP's vague and flexible nature, it is up to investors and the public to decide to what extent the bond can be considered “green.” For bonds aligned with the GBP, the scheme of external reviews therefore represent an important mechanism for investors, stakeholders and the public to assess the bonds' green components. The CBS, on the other hand, operates with minimum requirements of prescriptive nature both in terms of the green component and in terms of the processes leading to the green status. Collectively, these requirements form a rigorous system that reduces the need for public scrutiny of the green component. Since the standard operates with a minimum threshold for what can be considered green and has established a system with accredited reviewers, the public can have more confidence that the bonds certified pursuant to the CBS satisfy minimum green criteria. In other words, since the standard overall is rigid one can have faith in the framework and certification scheme itself, reducing the need for access to the information in the reports. Nonetheless, one should always strive for transparency in the context of green bonds. Accordingly, the absence of a disclosure requirement may be said to constitute a weakness of the CBS.

²²¹ See section 3.3.2.3 and section 3.5.

4.3.4.3 Enforcement

In relation to the GBP, the lack of non-prescriptive norms and the absence of monitoring bodies for control were recognized as main deficits. Unlike the GBP, the CBS has established prescriptive rules, mechanisms for control, and consequences for non-conformance. The CBS has thus resolved the main weaknesses of the GBP. First, we have seen that the CBS has established minimum prescriptive requirements that are suitable for control. Second, the Climate Bonds Standard Board controls both the fulfillment of the requirements of the standard and which bonds obtain green status through certification. Accordingly, the Board maintains control at all times over which bonds receives its green mark. After the bond has received the green mark, the Board still maintains authority to revoke it if the requirements are no longer fulfilled. Such revocation can either be the result of information from the issuer or from the verifier pursuant to an initiative from the Board. In addition, the CBS has a system of handling claims of breaches, after which seemingly anyone can put forward a claim the Board must take into consideration.²²² If non-conformance has been established then the Board may suggest “corrective measures for the conformance to be restored.”²²³ If conformance is not restored within a reasonable time frame, the Board must consider revocation.²²⁴ The consequence of revocation is that the issuer must stop using the mark and inform all relevant actors.²²⁵ Such information could be the basis for remedying claims from the different actors affected by the breach. It must be noted, however, that such a revocation of the certification mark has not occurred to date.²²⁶ Finally, the assessments of this chapter can be summarized in table 1, following below.

²²² See section 3.4.2.5.

²²³ Cf. CBS clause P9.2.1.

²²⁴ Cf. CBS clause P9.2.2.

²²⁵ Cf. CBS clause P9.3.

²²⁶ Kidney (2019).

Table 1: Differences between private green bonds regimes.²²⁷

Private regimes Specific topic	GBP	CBS	OSE
Reference of alignment with GBPs/CBS in legal documentation	Recommended	Not explicitly stated, but may follow from a contextual system-oriented interpretation	Not addressed
Eligibility criteria for green projects	Guidance on eligibility categories	Required, cf. Part B of the standard	“environmentally friendly”
Disclosure of proportion of proceeds used for refinancing	Recommended	Required, cf. clause 5.3	Not addressed
External review requirements	Recommended	Required. Must conform alignment with all requirements of the standard, both at issuance and post-issuance. Alignment must be for the specific bond; not possible for internal green bond program	Not addressed
Publication of external review	Recommended	Voluntary, cf. clause P5.2	Required
Accreditation of external reviewers	Not addressed in GBPs	Sets out requirements for “Verifiers”. These must be approved by the Climate Bonds Standard Board.	Not addressed

We have seen that the CBS resolves many of the weaknesses of the GBP. Through its rigorous requirements and scheme of approved verifiers, the standard reduces the possibility of greenwashing, ensures that its green bonds are aligned with the 2 degrees scenario and thus contributes to ensuring the integrity of the green bond market. However, the problem is the standard’s weak affiliation compared to the GBP. No issuers in Norway have had their green bonds certified based on the CBS.²²⁸ Some issuers have claimed that the standard is too complex and comprehensive.²²⁹ This point illustrates an important discussion arising from the current regulatory situation of the green bond market: namely the balance between 1) too much or overly strict regulation, which might “strangle” the green bond market, and 2) too little regulation, which might permanently destroy the market’s integrity.²³⁰

²²⁷ Based on HLEG (2018) 32.

²²⁸ See annex 1. The same applies to the Swedish green bond market, see SOU 2017:115, 180.

²²⁹ SOU 2017:115, 182.

²³⁰ See for example Jones (2016) arguing that attempts to standardize the novel green bond market “could end up damaging it”.

4.4 Conclusions

This chapter has discussed elements of the current regulatory infrastructure of green bonds that are both crucial for their ability to provide substantive environmental outcomes and vital for the integrity needed for continued growth. The main findings from the assessments in this chapter are that 1) the GBP neither succeeds in facilitating substantive environmental outcomes nor in ensuring integrity; 2) the OSE does not succeed in facilitating substantive environmental outcomes, but it provides mechanisms for integrity; and 3) the CBS is both effective in providing substantive environmental outcomes and in ensuring integrity in the green bond market. These findings and their implications will be substantiated in the following paragraphs.

With respect to the regimes' green criteria, the chapter has revealed that both the GBP and the OSE operate with insufficient criteria for facilitating substantive environmental outcomes that are aligned with a green transformation. As this weakness is related to the core purpose of green bonds it is likely to affect their impetus, which may hamper the growth of the market. The CBS, however, has developed rigorous green criteria that integrate the objectives of the Paris Agreement. Its green criteria are therefore effective in ensuring that its green bonds are contributing to the fulfillment of the Paris Agreement. Furthermore, the criteria facilitate effective allocation of capital by connecting those who wish to invest in genuine sustainable projects with projects that assuredly provide environmental outcomes aligned with the Paris Agreement.

The infrastructure's ability to ensure integrity was measured by the degree to which the regimes were enforceable and able to prevent greenwashing. The assessment demonstrated that the GBP was unable to prevent greenwashing and that its permissive rules provided no basis for enforcement. The consequence of the fulfillment lacking in these elements is that the GBP should not be considered suitable for ensuring the integrity needed for green bonds to fulfill their foreseen role in financing the investment gap following the Paris Agreement.

Furthermore, the chapter emphasized that the OSE's mandatory public second opinion requirement provides a minimum protection against greenwashing and thus represents an improvement from the GBP. We also saw that the OSE can exclude a green bond that does not fulfill its green reporting requirements, but that this possibility is quite limited as a prerequisite for its existence is an agreement on reporting between the bondholders and the issuer. While these efforts are not sufficient for ensuring the required integrity of green bonds, the assessment accentuated that the role of a green list on a stock exchange is different from the regulatory role of private standards. Therefore, one cannot have the same expectations for the OSE's role in safeguarding the integrity of green bonds. Having said that, simple measures could be effective in improving both the integrity of listed green bonds and establishing consistency with other stock exchanges' green lists and green bonds regulations in general. The most central measure

mentioned in this respect was the integration of a rigid green bonds standard (such as with the CBS) as a condition for being listed.

The chapter further demonstrated that, with its clear and prescriptive rules, the CBS both effectively eliminates the possibilities of greenwashing and ensures enforcement of its rules through monitoring mechanisms and revocation of its green status. Accordingly, the CBS resolves many of the deficits of the GBP. However, the possible improved effects of the CBS are still quite limited, as affiliation to the standard is low. The great majority of issuers are choosing to issue their green bonds in conformance with the weaker, more flexible GBP. This is a governance challenge renowned as “regulatory arbitrage,” which means that “[t]he existence of multiple private governance regimes coupled with non-exclusive jurisdiction between them, allows a firm to select a regulatory framework that is most conducive to its interests.”²³¹ In the regulatory infrastructure of green bonds, such regulatory arbitrage enables greenwashing by making it easier for issuers to avoid green obligations, through choosing the permissive GBP, while still maintaining their green status.²³²

This chapter asked whether the regulatory infrastructure of green bonds facilitates fulfillment of the two fundamental conditions for their role in financing the Paris Agreement. The assessment has demonstrated that as long as the GBP continues to be the de facto standard governing green bonds, the achievement of these conditions may prove a challenging task. The present possibility of greenwashing means that the current private regimes are inadequate.²³³ The CBS provides rigid solutions that appear to be effective in preventing greenwashing. However, one weakness of the current private regulatory situation is the existence of competing standards with non-exclusive jurisdictions. As long as the CBS and the GBP are competing standards, the positive effects of the CBS may be opted out of the benefits of the lax and non-binding GBP of which provides the same green status. On this basis, the current private regulatory regimes are not sufficient for ensuring substantive environmental outcomes and the integrity of the green bond market. Consequently, further regulatory actions are needed to correct the weaknesses of the current regulatory infrastructure of green bonds.

²³¹ Park (2018) 31.

²³² Park (2018) 32.

²³³ See also Park (2018) 31.

5 Green default

5.1 Introduction

Chapter 4 found that neither the GBP nor the OSE provides any mechanisms to sanction non-fulfillment of the green element of green bonds. We saw that the CBS, on the other hand, provided systems to both monitor compliance and to correct non-compliance, primarily through revocation of the green bond's green label, removal from green lists, and the imposition of information duties on the bond's green breach.²³⁴ However, all of these private regulatory regimes fall short in providing "hard" law sanctions, such as tangible public administrative sanctions or a basis for legal claims from investors. This chapter will therefore explore whether applicable sanctions exist for non-fulfillment of the green element based on financial market law and Norwegian private law. The questions raised in this chapter are forward-looking in the sense that there is a lack of legal sources and legal empirical data discussing the topics. The discussions of this chapter must therefore be hypothetical. I will not provide general presentations of financial market law and Norwegian private law. Instead, the aim is to highlight potential challenges that may arise from applying conventional financial market law sanctions and private law sanctions to the novel green element represented by green bonds. Section 5.2 will discuss whether any financial market law sanctions are available to address non-fulfillment of the green element. The section will also discuss the importance of establishing public enforcement systems before introducing financial incentives for green bonds, drawing on an example from the US. Section 5.3 discusses whether investors in green bonds hold any possibilities of sanctioning non-fulfillment of the green element.

5.2 Financial market law sanctions

5.2.1 Prospectus regulations

As we have seen from section 3.2, no public regulation exists to date directly governing green bonds in EU and Norwegian financial law. Monitoring and enforcing of them must therefore be based on conventional bond regulation primarily arising from MiFID II and the Prospectus Directive. A basis for imposing financial market law sanctions in cases of green default may be wrongful or misleading information about the green features of the bond pursuant to regulations following the Prospectus Directive.

The Prospectus Directive sets out information requirements for securities that are offered to the public or admitted to trading. More specifically, the directive requires issuers to provide the necessary information in prospectuses so investors can make informed investment decisions. The information requirements following the Prospectus Directive are harmonized for all EU member states, while the sanctioning of violations is left to the discretion of the member states' national laws (cf. article 25 of the Directive). The analysis of the disclosure requirements will

²³⁴ See section 4.3.4.

therefore be based on the Norwegian Securities Trading Act, with a view to the wording of the Prospectus Directive if necessary to establish the true meaning of the provision in question.²³⁵

The requirements of the Prospectus Directive are implemented in chapter 7 of the Norwegian Securities Trading Act with the appurtenant Regulations to the Securities Trading Act. Chapter 21 establishes the administrative sanctions for violations of requirements in chapter 7. In the event of violation of obligations pursuant to chapter 7, the competent prospectus authority may impose a cumulative daily fine and/or a violation penalty; cf. section 21-1 subsection(4) and 21-4 subsection (4). In addition, section 21-3 subsection (2) number 3 imposes criminal liability in the form of “[a] fine or imprisonment not exceeding 1 year” to “anyone who willfully or through negligence” gives “misleading or incorrect information in a prospectus advertisements etc., as mentioned in sections 7-13 and 7-15”. Accordingly, administrative sanctions may be imposed for violations of information requirements set out in sections 7-13 and 7-15 as well as for negligent misrepresentation. However, to identify a violation it is necessary to explore whether information about the sustainability features of a green bond or the omission thereof, is information covered by the disclosure requirements of the Securities Trading Act and thus may be sanctioned.²³⁶

Section 7-13 subsection (1) first sentence of the Securities Trading Act sets out the mandatory disclosure requirements for prospectuses:

“A prospectus shall contain such information as, depending on special circumstances of the offeror and the nature of the securities offered, is necessary to enable the investors to make a properly informed assessment of the issuer's and any guarantor's financial position and prospects and of rights attached to the securities mentioned.”

It follows from the provision that the prospectus must include the “necessary” information in order for investors to make a properly informed assessment of the issuer’s “financial position and prospects and of rights attached to the securities mentioned.” An interpretation of the wording may indicate that the informational requirements relate to the financial situation of the issuer whereby the “properly informed assessment” is merely of a financial nature. A consequence of such an interpretation is that non-financial information, such as sustainability information, falls outside the scope of the provision.

²³⁵ See section 1.4.2.

²³⁶ Aizawa (2015) raised a similar question related to the American SEC Rule 10b-5: “the more immediate question is: Can a non-financial claim under Section 10(b)(5) generate legal liability?”. Rule 10b-5 states that it shall be unlawful to “make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading[...].”

Against such an interpretation is the reference to the “special circumstances of the offeror” and the “nature of the securities offered.” Indisputably, information substantiating why the bond is labeled as green is “necessary” for an investor to make a “properly informed assessment” of whether to invest in the green bond. For institutional investors with specific green mandates, such information is likely to be crucial for their investment decisions. In addition, oversubscriptions of green bonds, (as highlighted in section 2.2.2), demonstrates that investors’ willingness to pay increases when the bond is green. These arguments indicate that information about the sustainability features of the bond falls inside the scope of the provision.

Acknowledging non-financial information to be included in the mandatory disclosure requirements is also in line with the explicitly stated objectives of the Prospectus Directive. Recital 19 states that “[s]afeguards for the protection of the interests of actual and potential investors are required in all Member States to enable them to make an informed assessment [...] and thus to take investment decisions in *full knowledge of the facts*” (emphasis added). Sustainable investors make their investment decisions based on the sustainability information provided in the marketing of the financial instruments. The prevention of information asymmetry is crucial both for the market’s efficiency and for the participants’ faith in the market. Sustainability information (or the lack of it) must therefore be recognized as legally significant, pursuant to the Prospectus Directive and subsequently to the Norwegian Securities Trading Act.

Based on the foregoing, the conclusion is that information about sustainability aspects of a green bond is a requirement pursuant to section 7-13 subsection (1). A violation of this provision may provide a basis for a cumulative daily fine and/or a violation penalty; cf. section 21-1 subsection (4) and 21-4 subsection (4). This violation must also affect any criminal sanction, so that misleading or incorrect information about the sustainability features of a bond may imply criminal liability in the form of a fine or imprisonment pursuant to section 21-3 subsection (2) number 3. Accordingly, public sanctions may be imposed for certain situations characterized as greenwashing.

However, the threshold for applying the above-mentioned sanctions is very high. Criminal liability is rare, and infringement fees for breaches of the prospectus rules have not yet occurred in practice.²³⁷ The problem in this connection is that greenwashing is rarely severe enough to fall within the scope of these legal sanctioning mechanisms. Greenwashing situations generally encompass the presentation of information that may be vague, subjective or difficult to verify. Though there are different nuances of greenwashing, the majority of situations characterized as

²³⁷ Bergo (2014) 209.

greenwashing do not satisfy the requirements of section 21-1(4) and 21-4(4). To date, greenwashing has not been addressed through definitions or sanctions. It may therefore be as difficult to establish greenwashing as it is to sanction the occurrence of it. In light of the EU's ambitions to transform the capital markets, there are strong reasons to clarify these points and to develop actions that directly address greenwashing. Such measures may be necessary to eliminate the incentives to greenwash in a time in which businesses are increasingly using "green" for marketing purposes. Hence, public enforcement mechanisms for addressing greenwashing in the sphere of green bonds are limited.

5.2.2 A comment on the interrelation between public enforcement mechanisms and financial incentives

The development of successful financial incentives may be impeded if no foundation exists to ensure that the preconditions for the financial benefits are fulfilled. Several jurisdictions have designed economic incentives to support the growth of the green bond market. The U.S has developed tax incentives for green bonds within the area of clean energy, such as Clean Renewable Energy Bonds (CREBs) and Qualified Energy Conservation Bonds (QUECBs).²³⁸ Subsidizing the additional transaction costs associated with green bonds is another incentive put in place by several jurisdictions outside of the EU, including Singapore, China and Hong Kong.²³⁹ The EU is currently considering both incentives as possible measures to spur the green bond market in Europe.²⁴⁰ However, such incentives may be counterproductive and harm the integrity of the market if no mechanisms are adapted to ensure that issuers fulfill the green element of the bond. An example from the US green bond market may be illustrative in this regard.

In 2004, the US Congress created tax- credits for green bonds for large construction projects that would serve as demonstrations of alternative energy technologies.²⁴¹ In 2007, USD228 million in green bonds was issued to finance a "green" expansion of a large shopping mall in Syracuse, New York. The issuer estimated that the tax-free status amounted to around USD120 million in savings; however, the green element of the bond was not fulfilled.²⁴² The issuer did not complete the promised green features of the project due to "a downturn in the economy."²⁴³ This led the International Revenue Service (IRS) to conduct an audit on the bond's compliance

²³⁸ More specifically, these are tax credit bonds authorized under the American Internal Revenue Code Section 54A. See also EU TEG (2019) section 5.2.1.

²³⁹ EU TEG (2019) 5.1.7.

²⁴⁰ EU TEG (2019) section 5.2.1.

²⁴¹ Climate Bonds Initiative (2012).

²⁴² Moriarty (2011).

²⁴³ Climate Bonds Initiative (2012).

with the green bond guidelines.²⁴⁴ Surprisingly, the audit concluded that the bonds were compliant. Even though the nonfulfillment of the green element clearly breached the green purpose of the bond, the audit concluded that the legislation indicated that the financial benefits of the Green Bonds program did not depend on the actual achievement of the green element.²⁴⁵ Instead, the conclusion suggested that once the project was deemed eligible, no requirements for achievement of environmental outcome remained.

This example illustrates that it is important for the EU to have systems in place for ensuring that the green element will be enforced before introducing tax incentives. The interaction between financial incentives and monitoring and enforcement is crucial for the integrity of the green bond market. Financial incentives are likely to increase the number of issuers of green bonds. The integrity of the market depends on the fulfillment of green bonds' green element. Public incentives must be supported by measures ensuring that the beneficiary has an incentive to fulfill the green element of the agreement. Such measures must consist of monitoring systems to detect non-compliance and to correct breaches; for example, through revocation of tax benefits the issuer has received. Otherwise, issuers may be acquiring the benefits without contributing to the public good.²⁴⁶

Accordingly, in order for financial incentives to be successful, incentives should be built on systems that ensure execution of the green element — or, alternatively, withdrawal of the green benefits in the absence of such fulfillment. To date, such systems do not exist, which indicates that the current regulatory infrastructure may fall short in facilitating financial incentives that simultaneously safeguard the integrity of the green bond market.

5.3 Private law sanctions

5.3.1 Green contractual obligations

Another key legal question is to what extent green bonds entail contractual green obligations towards the investors. More specifically, whether a failure to allocate the bond proceeds to green investments constitutes a breach of contract. The answer to this question will potentially vary across jurisdictions. The following discussion will be based on Norwegian private contract law and green bonds listed on the green list of the Oslo Stock Exchange.

A first question is whether the green bond label forms part of the contractual obligation. In other words, whether the green bond label establishes a promise that is binding on the issuer in

²⁴⁴ The IRS is the revenue service of the United States federal government. The government agency is a bureau of the Department of the Treasury. The green bond guidelines are available here <https://www.irs.gov/pub/irs-drop/n-05-48.pdf>.

²⁴⁵ Cheatham (2012).

²⁴⁶ Trompeter (2017) 7.

accordance with Norwegian contract law rules.²⁴⁷ One complicating factor is that obligations arising from the label itself may require a common minimum threshold for the sustainability features of green bonds. The thesis has revealed that the green bond market is far from a situation where the green label entails minimum obligations. We have seen that there are no minimum “green obligations” arising from the green bond status, and both sustainable and non-sustainable bonds have and may acquire the green bond label pursuant to the current green bonds regulations.²⁴⁸ This implies that the green label in itself will have difficulties in providing a legal basis for green contractual obligations. Accordingly, the green label as such seem unlikely to function as a legal basis for sanctions in case of non-fulfillment of the green element.

A result of the lacking contractual effect of the green label is that green obligations- and subsequently green defaults- must be determined on the basis of the individual bond contracts. It is therefore not possible to provide general considerations about the extent to which investors can sanction non-fulfillment of the green element. Whether or not the green element forms part of a contractual obligation will depend on an interpretation of the contract and the context in which it is entered into. A review of the contract documents of the listed green bonds on OSE demonstrates that a noteworthy number of contracts include green eligibility criteria as a purpose of the bond issuance.²⁴⁹ It must be noted, however, that the green eligibility criteria follow from the issuers’ internally developed green bonds frameworks (most of them pursuant to GBP; see annex 1) and thus depend on the issuer’s perception of sustainability. Nonetheless, if the bond proceeds are not allocated to green investments as defined in their internal green bond frameworks, the investors may have durable contractual claims of a breach of contract.²⁵⁰ However, many of the same contracts provide “best effort” clauses for the bond’s green performance, thus disclaiming liability for its execution.²⁵¹ For green bond contracts that do not regulate the green purpose, a claim of breach of contract due to non-fulfillment of the green element may be uncertain. Evidently, these questions depend on concrete assessments.

Non-fulfillment of the green element may be a result of greenwashing if the issuer has drawn up sustainability features of the bond that do not have basis in reality and thus will not be fulfilled. Such a situation may cause legal claims from investors based on misrepresentation. In Norwegian private law, misrepresentation may lead to sanctions based on several legal grounds

²⁴⁷ Cf. Norway’s Contract Act of 1918 [Avtaleloven]. Hagstrøm (2013) 93.

²⁴⁸ See chapter 4.2.

²⁴⁹ 14 out of the 24 green bond contracts have explicitly regulated the use of proceeds to be allocated to eligible green projects. See annex 1.

²⁵⁰ In this regard it is important to take into consideration the difference between the primary and the secondary market. As a starting point, the contractual obligation of the issuer is owed to the investors and the primary market. Investors on the secondary market typically enters into contract with an intermediary. Which obligations the issuer has towards the investors on the secondary market is a separate question that also requires an interpretation of the underlying contractual documents.

²⁵¹ Ekeland (2018).

including claims based on the law of sales (kjøpsloven), nullity based on section 36 of the Contract Act (avtaleloven) and nullity based on the non-statutory rule of breach of implied conditions.²⁵² In addition, misleading or wrongful information provided in the prospectus may lead to claims of damages based on prospectus liability. The next section will focus on the applicability of prospectus liability following misleading green information in prospectuses.

5.3.2 Prospectus liability

Section 5.2.2 established that wrongful or misleading green information presented in the prospectus provides a basis for public administrative sanctions pursuant to the Norwegian Securities Trading Act. This section asks whether violations of prospectus requirements following chapter 7 of the Securities Trading Act or misleading green information in prospectuses amount to a basis for liability under Norwegian law.

Since the Norwegian Securities Trading Act is a public law, it is not a given that a violation of its provisions will have an effect on the private contractual relationship between the issuer and the bondholder.²⁵³ A violation of the prospectus requirements following chapter 7 of the Norwegian Securities Trading Act is therefore by itself not sufficient to establish a legal claim from investors.

Norwegian law does not directly regulate prospectus liability.²⁵⁴ Instead, liability for information deficiencies in prospectuses follows from the general non-statutory liability for damages.²⁵⁵ Pursuant to this rule, three general conditions must be fulfilled for the liable party (the board or the company directly) to be liable. There must be an economic loss for the investor, a basis of liability for the liable party (i.e., negligence or intent), and a chain of causation between the tortious information and the economic loss.²⁵⁶ Some concerns arising from the application of these conditions to the distinctive characteristics of green bonds will be briefly highlighted in the following paragraphs.

²⁵² The law of sales regulates the relationship between institutional investors and the issuer while forbrukerkjøpsloven (consumer law of sales) regulates the relationship between private investors and issuers. Investors in green bonds are primarily institutional investors.

²⁵³ Cf. Rt. 2012 s. 1926. Para 46 explicitly states that a violation of the Securities Trading act does not automatically give the investor a claim against the counterparty to the contract. See also LB-2009-188593 where the Appellate Court found that the prospectus violated the information requirements following the Securities Trading Act section 7-13, but that the violation was not sufficient to establish liability for damages with reference to lacking fulfillment of the requirement of causation.

²⁵⁴ Perland (2013) 47.

²⁵⁵ Ibid.

²⁵⁶ See inter alia LB-2007-8844 and Perland (2013).

First, an uncertain aspect of the application of the liability rule to a green default is the condition of economic loss for the investor. Economic loss due to green misrepresentation may encompass loss in a secondary market caused by reduced liquidity due to the green default. Another possibility is that the loss may consist of a “green premium,” which the investor paid for the green element of the bond. However, these are hypothetical and uncertain presumptions, and the green default might not cause any financial loss at all. In other words, it is not given that a green default will lead to a financial loss and thus fulfill the condition.

Second, a basis for liability encompasses a condition of negligence pursuant to non-statutory rules of director’s and employer’s liability (following section 2-1 of the Norwegian Compensation Act).²⁵⁷ In the sphere of green bonds, the absence of a definition or threshold of what constitutes a “green project” might make it difficult to establish that investors negligently misled the investors on the green features of the bond.²⁵⁸ However, market standards may function as guidelines for a norm of negligence in this respect.²⁵⁹ The CBS may be helpful in establishing a standard for what is expected of issuers in relation to disclosure of green information, while the broader GBP can hardly provide a definable norm for such disclosure.

Third, the primary purpose of the current information requirements is to protect investors from making investment decisions based on uninformed financial information. It would seem unlikely for “green” information, which might be perceived as being secondary to the financial risk of the instrument, to be protected equally to the core “financial” purpose of the regulations. In addition, Norwegian case law indicates that the threshold for establishing prospectus liability is high.²⁶⁰ Even when there are clear and severe inaccuracies concerning financial aspects of fundamental significance to the investment decision, case law has not upheld claims of prospectus liability.²⁶¹ The high threshold for liability, combined with the concern of non-financial information being secondary to the primary objective of the disclosure rules, may indicate that the investor may face a challenging case in these situations.

To sum up, the application of prospectus liability to green defaults may prove problematic, especially in the following three contexts. First, it is uncertain whether green defaults automatically lead to financial losses. Other punitive measures may need to be considered in the contractual relationship between the issuer and the investor (e.g., a recourse for

²⁵⁷ Skadeserstatningsloven.

²⁵⁸ Trompeter (2017) 9 notes that “[w]ithout a clear definition of “green projects”, the bar for investors to prove issuers mislead and deviate from their green objectives is high.”.

²⁵⁹ Af Sandeberg (2001)116.

²⁶⁰ See e.g. Rt. 2012 s.1926 para 80, LB-2007-8844 and LB-2009-188593.

²⁶¹ See Rt. 2012 s. 1926 (80) where non-professional investors had received incorrect information about the probability of return. The Norwegian Supreme Court stated that although such a mistake is very unfortunate, it was not crucial for the investors’ investment decisions.

environmental non-performance in the contract documents).²⁶² Second, in absence of a clear definition of “green projects,” the threshold for investors to prove that issuers censurably mislead and deviated from a green best practice or standard is high.²⁶³ Third (and interconnected with the first point) is the question of whether these rules are suitable for addressing an element that is mainly non-financial in nature. Hence, the green bonds standards may be better suited to address these questions than general contract and tort law. A possibility could be to develop solutions in the standards that provide a basis for the investors’ claims in case of green defaults

5.4 Conclusions

The chapter has emphasized that there is an absence of public administrative sanctions to address an investment that turns out to be less green than anticipated. However, we saw that a basis for sanctioning greenwashing is provided in the conventional bond information requirements following the Prospectus Directive implemented in the Norwegian Securities Trading Act. In practice, however, the sanctioning provisions’ lack of use indicated a high threshold for imposing them. Accordingly, these financial market law sanctions do not appear practically relevant to addressing greenwashing situations. Furthermore, we saw that public enforcement systems and financial incentives should be interconnected. To ensure that favored green bonds deliver their green promise, public financial incentives should not be introduced before public enforcement mechanisms are in place.

With respect to the possibility of investors’ enforcing the green element, we saw that no legal basis exists for them to remedy a green default directly. I argue that the green label itself does not entail green contractual obligations. The question of green default is therefore dependent on the individual green bond contracts and must be subject to concrete assessments. It may be uncertain to what extent general contract law is able to deal with green defaults in an efficient manner. Green bonds standards may therefore be more effective in providing investors with legal bases to sanction a green default. Green bonds standards could require confirmation of compliance with the standard in the legal documentation as a prerequisite for obtaining the label. This way, compliance with the standard (and its environmental criteria) becomes a matter of contractual significance. An important part of the objective of investor protection is to provide investors with measures that secure fulfillment of agreements or mechanisms to sanction agreements that are not complied with. It is uncertain whether the available sanctions are suitable and adequate to function both as prevention against breach and as a mechanism to restore the imbalance represented by the breach of a core element of the agreement. However, as emphasized in this chapter, the questions surrounding the private contractual implications of green bonds are uncertain and may indicate a need for more research.

²⁶² Ludvigsen (2015).

²⁶³ Trompeter (2017) 9.

6 Shortcomings and regulatory actions for correction

6.1 Introduction

In this chapter, I will focus on the disclosed weaknesses of the current regulatory infrastructure of green bonds and assess whether the EU's preliminary path seems sufficient to correct these weaknesses. Section 6.2 aims to articulate where and how the regulatory infrastructure falls short in ensuring the purpose and integrity of green bonds. This section will especially point at the role of external reviews, as the thesis has revealed fundamental challenges related to the functioning of this scheme. The aim is to detach the discussion from the external review scheme in the green bond market to assess whether the regulations of credit rating agencies may function as an example in the sphere of green bonds. Section 6.3 will present the preliminary draft EU Green Bond Standard and assess whether this path is sufficient to correct the shortcomings identified. This section does not aim to provide a complete presentation of the content of the draft; instead, it will focus on how the draft EU GBS addresses the key weaknesses articulated in section 6.2. Section 6.4 will recommend remaining actions that are needed to ensure the purpose and integrity of green bonds.

6.2 Identified shortcomings

6.2.1 Summary of key deficits identified throughout the thesis

While it is essential to have in mind that the private regulations are filling a regulatory gap, thus improving the situation in their absence, it is also important to identify and acknowledge the shortcomings of the current system to provide a basis for further regulatory development. This thesis has revealed five main shortcomings of the current regulatory infrastructure of green bonds, which are summarized in the following points. The deficits related to the external review scheme raise some special concerns and will therefore be addressed separately in section 6.2.2.

- *Fragmentation*: An inevitable observation after the analyses of this thesis is that the regulatory infrastructure of green bonds is fragmented and unharmonized. The existence of numerous schemes for labeling a bond green causes inconsistencies in formal procedures, as well as in environmental outcomes of green bonds. We have seen that the ways of acquiring green bond status are numerous, such as through the GBP, the CBS, ratings, external reviews, or stock exchanges. Numerous equally applicable frameworks make it difficult to maneuver the regulatory landscape from a practical perspective, which may result in a lack of overview of and insight about a particular framework's content. It also leads to lack of effective and prescriptive content due to competition for support, and thus poses a potential for a regulatory "race to the bottom".²⁶⁴ Ensuring compliance and verifiability becomes a more challenging task the

²⁶⁴ See also Park (2018) 36.

more frameworks that exist contemporaneously.²⁶⁵ Ultimately, such substantial fragmentation is likely to affect both the market's integrity, through lack of substantial environmental impact, and investor protection due, to the absence of possibilities for enforcement.²⁶⁶

- *Green criteria:* The thesis has demonstrated a lack of unity concerning green criteria, as different private regimes operate with assorted definitions and requirements for labeling a bond green. The main green bond standard (the GBP) provides indefinite environmental criteria, whereby bonds inconsistent with a low carbon transition are eligible for the green bond label. Accordingly, the current green criteria do not ensure a minimum sustainability threshold. The weakness concerning the green criteria may have several negative effects, both for the ability to allocate private capital to sustainable investments effectively and for the market actors' confidence in the green bond market and desire to participate in it. First, green bonds are anticipated to play an important role in the fulfillment of the Paris Agreement. If the criteria for labeling a bond green are not aligned with it, then green bonds may prove incapable of closing the investment gap. The consequence of green bonds not providing substantive environmental outcomes is an ineffective allocation of capital to important sustainable investments. Second, the discussion of the Repsol and Jirau Dam green bonds in section 4.2.2 of this thesis illustrated that the current green criteria may undermine faith in the momentum of green bonds, thus representing a threat to the integrity and confidence of this market. Negative effects on the integrity of the market may lead to investors' withdrawal from it due, to loss of faith in the impact of green bonds. Finally, the uncertainty regarding the content of the green criteria makes greenwashing possible, while causing potential issuers to desist from issuing a bond in fear of its not being sufficiently green. Both factors may have negative and permanent effects for the supply and demand of green bonds.
- *Enforcement:* The thesis has revealed that mechanisms to ensure enforcement of the green element are highly limited. One fundamental weakness in this respect is the overall focus on promised environmental impacts rather than actual performance. This disparity is a contributing factor to risks of greenwashing, as many bonds that are issued and perceived as green achieve either minor or no actual environmental benefits.²⁶⁷

²⁶⁵ Notwithstanding the fact that it is difficult not to comply to, or identify a breach of a regulatory framework that cannot be broken due to lack of obligations.

²⁶⁶ European Commission (2016) 40 acknowledged the lack of a common green bonds framework as "(o)ne of the biggest hurdles for the development of the global green bond market.

²⁶⁷ WWF (2016)

- *Efficiency*: The above-mentioned weaknesses may have a general impact on the efficiency of the green bond market through affecting both the supply and demand of green bonds negatively. In addition, transaction costs caused by complex and potentially costly external review procedures are perceived as being a barrier to the development and growth of the green bond market.²⁶⁸ Furthermore, the general oversubscription of green bonds indicates an imbalance between investor demand and insufficient supply from investors.²⁶⁹

6.2.2 Particular concerns related to the scheme of external reviews

The thesis has discussed some significant weaknesses related to the current scheme of external reviews in the green bond market. One fundamental weakness is the *absence* of external review requirements, raising concerns of greenwashing and increasing transaction costs for investors who have to conduct individual investigations. Furthermore, several concerns remain with such requirements of external reviews as well. In addition to the complexity caused by numerous forms of external reviews, the assessment in section 4.3.2.1 illustrated the significant concerns about reviewer independence and competence, as well as the content of their reviews.²⁷⁰ Yet these issues represent nothing new in the area of financial reviews and private regulation. In this respect, parallels may be drawn to the financial crisis: specifically, to the censurable role of the credit rating agencies (subsequently CRAs) and to how these issues were resolved through regulation.

6.2.2.1 Parallels to the role of credit rating agencies in the financial crisis

In the aftermath of the financial crisis, economists and legal scholars have argued that parts of the responsibility for it rests with the big credit rating agencies. As an example, the three biggest CRAs in the US (and globally) — Moody’s Investor Service, Fitch Ratings and Standard & Poor’s — provided “AAA” ratings to the Lehman Brothers’ notes as late as one month before the company’s bankruptcy in September 2008.²⁷¹ By assigning unreasonably high ratings to risky debts to win more business from issuers paying them for ratings, these rating agencies were suspected of fueling the credit crisis.²⁷²

These censurable assessments led some investors to sue the rating agencies for compensation. In the case *Calpers v. Moody’s Investment Service Inc*, the former (which was the largest pension fund in the US), accused these rating agencies of assigning “inaccurate and

²⁶⁸ EU TEG (2019) section 2.2.

²⁶⁹ *Ibid.*

²⁷⁰ See section 4.3.2.1.

²⁷¹ Alexandriou (2011) 214.

²⁷² *Ibid.*

unjustifiably high credit ratings,” causing USD 1 billion of losses.²⁷³ The rating agencies defended themselves with the argument that their constitutional right of freedom to express their opinion, through ratings, should be protected. The Court rejected the argument and established negligent misrepresentation, with reference to, amongst others, some special considerations concerning the relationship between the issuer and the rating agencies. In this respect, the Court stated as follows:

“However, in certain key regards, the Agencies' relationship with the SIVs was unique. According to the complaint, in the case of SIVs, and in particular the SIVs at issue in this lawsuit, the Ratings Agencies played a much more *active role by actually assisting the issuer in structuring the SIV product in advance of rating it with the mutual goal that the product would have credit characteristics worthy of a high rating*. In addition, the Rating Agencies were *actively involved in the creation of the structured finance assets, like RMBS and CDOs, held by the SIVs*. Often, the SIV's payment of Agency fees was *contingent* on its notes being offered to potential investors, which, according to CalPERS, would not occur unless the notes earned an “investment grade” rating, generally considered any rating of AAA, A or BBB. As such, “the Rating Agencies had every incentive to give high ‘investment grade’ ratings, or else they wouldn't receive their full fee” – which, CalPERS says, was an inherent conflict of interest.”²⁷⁴

Some elements of this ruling are comparable to the practice of external reviews in the sphere of green bonds; in particular, the active or collaborative role of the CRAs, their interests in providing “good” ratings, and the market share competition between them. However, before proceeding to substantiating these elements, it must be noted that the nature of a credit rating is different from the nature of an assessment of the “greenness” of a bond. Assessments of “greenness” are secondary to assessments of the creditworthiness of an issuer, meaning that the potential for loss is significantly higher in cases concerning traditional credit ratings. As such, credit ratings play a much more vital role in investors’ investment decisions. However, although the potential for economic loss differs, the roles of the reviewers are similar. They are assessing and monitoring the bonds, for which activity the investors trust their independence and expertise.

A first element emphasized by the Court was the active role of the CRAs, which seems similar to the active and collaborative relationship between external reviewers and issuers in the green bond sphere. It follows from the judgment that the CRAs played an active role by assisting the issuer in structuring the product in advance of the rating. In the green bond market, providers

²⁷³ Calpers is an abbreviation for California Public Employees’ Retirement System. It must be noted that this case in a good way illustrates a problem, although it of course does not have precedent for the EU/EEA.

²⁷⁴ Calpers v. Moody’s Investment Service Inc, para 10.

of external reviews help develop internal frameworks for green bonds before subsequently assessing the bond's compliance with these frameworks.²⁷⁵

A second element noted by the court was that the agencies and the issuers had a mutual goal, in that the product would have credit characteristics worthy of a high rating. As a “green confirmation” by an external reviewer is a prerequisite for listing on green lists, the competition between reviewers may encourage them to provide such a confirmation. The green confirmation provided by Vigeo Eiris for the Repsol and Jirau Dam green bonds may indicate that such incentives exist.²⁷⁶ Conversely, bonds that do not meet the green requirements may be issued as conventional bonds. In such a perspective, the need to issue a green bond may not be considered a pressing one in the sense that occurred for the CRAs. The prospects of oversubscription of green bonds may nevertheless contribute to a certain strength in the motivation of issuers to finance a project through green bonds, with potentially equivalent pressure on the external review providers.²⁷⁷

A third factor emphasized as causing the inadequate ratings was the “market share war” among the rating agencies, which led them to “employ increasing lax rating standards to ensure SIV products could be issued, thereby prompting a “race to the bottom.”²⁷⁸ As accentuated several times in this thesis, this may also be a highly relevant issue in the sphere of green bonds reviews, albeit as an “environmental race to the bottom.”

Finally, the empirical observations included in this thesis, for example the Repsol and Jirau Dam green bonds discussed in section 4.2.2, have proven that a situation of “unreasonably” green reviews may be probable in the green bond market. However, for investors to have a solid legal claim in this situation, a common minimum threshold must exist for what is “green” to establish what kind of reviews are “unreasonably green.”

6.2.3 Regulatory actions following the role of the CRAs in the financial crisis

The weaknesses identified by the Superior Court of San Francisco also apply to CRAs situated in Europe. Accordingly, the EU developed regulation to correct the same types of deficits. Until the financial crisis, the CRAs had been regulated by self-regulatory systems, mainly the IOSCO Principles.²⁷⁹ The financial crisis revealed that the private regulation in force at the time was

²⁷⁵ See section 4.3.2.1.

²⁷⁶ See section 4.2.2.

²⁷⁷ See section 2.2.3.

²⁷⁸ *Calpers v. Moody's Investment Service Inc*, under the section “Factual and procedural background.”

²⁷⁹ The IOSCO Principles were published in September 2003 and applied to securities regulators, rating agencies, and market participants with the purpose of improving how CRAs operated and how the ratings were used by market participants. See Alcubilla (2012) section 2.2.4.

not effective in addressing market deficiencies in the environment of CRAs. Such deficiencies existed in three main areas: 1) agencies were affected by conflicts of interest; 2) they were not always transparent on the quality of the rating methodologies; and 3) there was a lack of adequate public disclosure on the methodologies used and the assumptions made.²⁸⁰ The main conflict of interest was caused by the business model, as the CRAs were paid by the issuers to conduct the rating. In addition, advisory or consultancy services proved to increase the risk of undue influence of the issuer.²⁸¹ Ultimately, it was found that CRAs had “a clear incentive to provide favourable ratings to the issuer in order not to risk the revenues it receives from these non-rating services.”²⁸²

These deficits demonstrated that the self-regulatory systems were not sufficient to ensure a credible role of the CRAs and led to a strengthening of the legislative and supervisory frameworks on CRAs through the development of Regulation No. 1060/2009.²⁸³ The Regulation was adopted to address the main deficits through enhancing “the integrity, responsibility, good governance and independence of credit rating activities to ensure quality ratings and high levels of investor protection.”²⁸⁴ The regulation provides mandatory requirements to ensure that ratings are not affected by any existing or potential conflicts of interest, and its compliance is monitored by ESMA.²⁸⁵

To sum up, the external reviewers of green bonds are facing many of the same challenges that the credit rating agencies had experienced before the financial crisis and the development of Regulation No 1060/2009. In particular, risks to independence exist due to active and collaborative reviews and a business model that is not suited to safeguard reviewers’ autonomy, especially in light of the competition and potential “market share war.”²⁸⁶ In addition, these concerns may be exacerbated in the absence of substantive requirements for review quality and transparency. Accordingly, it may be that an external reviewer’s interest in providing reviews that accurately reflect the sustainability features of an issuer would conflict with its interest in satisfying the issuer from whom it receives its revenue and who wishes for a green label. On this basis, there is an evident need to establish systems that insulate against such conflicts of interest for the reviewers of green bonds.

²⁸⁰ Alcubilla (2012) under heading “Abstract and Keywords.” See also FSF (2008) 7-9.

²⁸¹ Alcubilla (2012) under heading “Abstract and Keywords.”

²⁸² Ibid.

²⁸³ The CRA Regulation was amended in 2011 and 2013.

²⁸⁴ ESMA (n.d.)

²⁸⁵ Alexandriou (2011) 214.

²⁸⁶ O’Rourke (2002) 8, noting that monitors who have a financial relationship with companies they are auditing should be excluded from monitoring these same company’s environmental practices.

6.3 The EU's work on an EU Green Bond Standard

6.3.1 Introduction and backdrop

The European Commission published its Action Plan on Financing Sustainable Growth in March 2018, which set out a “comprehensive strategy to further connect finance with sustainability.”²⁸⁷ In Action 2 of the plan, the European Commission commits to create standards and labels for green financial products, which includes the development of an EU Green Bond Standard (EU GBS). The European Commission established a Technical Expert group (TEG) on sustainable finance in June 2018 to assist in the development of the EU GBS.²⁸⁸ The group has a mandate of one year and will deliver its final report in June 2019. The final report will provide guidance to the European Commission on the group’s proposed way forward for the EU GBS, including on possible legislative initiatives or amendments. On that basis, the European Commission will decide on the next steps for the EU GBS.²⁸⁹ Meanwhile, in an interim report from March 2019, the group presented its preliminary recommendations, which include the content of a draft EU GBS as well as a description of its purpose. The content of this interim report provides the basis for the following discussion on whether the EU’s path is sufficient to correct the identified weaknesses of the current regulatory situation of green bonds. I will first present the purpose of the EU GBS and the EU green bond definition before describing the key features of the draft standard and assessing whether it is sufficient to correct the identified weaknesses of the current regulatory infrastructure

6.3.2 Purpose and definition of an EU Green Bond

Section 2 of the draft EU GBS establishes the objective of the standard. Through a framework of core components for EU Green Bonds, the standard intends to enhance their transparency, integrity, consistency, and comparability. Furthermore, the section’s second sentence presents the “[u]ltimate objective” of the standard, which is to “increase the flow of finance to green and sustainable projects.”

The definition of an EU Green Bond sets out mandatory cumulative conditions to obtain the EU Green Bond label.²⁹⁰ Pursuant to the draft standard’s section 3, an EU Green Bond is defined as “any type of listed or unlisted bond or capital market debt instrument issued by a European or international issuer that is aligned with the EU GBS, and therefore meeting the following requirements:

²⁸⁷ COM (2018) 97.

²⁸⁸ The Technical Expert Group assists in four key areas of the Action Plan. In addition to the EU GBS, these areas include development of a unified classification system for sustainable economic activities, benchmarks for low-carbon investment strategies, and guidance to improve corporate disclosure of climate-related information.

²⁸⁹ EU TEG (2019) section 1.1.

²⁹⁰ EU TEG (2019) annex 1 section 3.

1. The issuer’s Green Bond Framework shall confirm the alignment of the EU Green Bond with the EU GBS; and,
2. The proceeds, or an amount equal to such proceeds, shall be exclusively used to finance or refinance in part or in full new and/or existing Green Projects as defined in section 4.1, as it shall be described in the bond documentation, and
3. The alignment of the bond with the EU GBS shall have been verified by an accredited External Reviewer in accordance with section 4.4.”

This definition deviates from the HLEG’s recommendation of a definition in its final report from 2018.²⁹¹ While the draft definition in the interim report requires that the issuer’s Green Bond Framework shall confirm alignment of the bond with the EU GBS, the final report required the issuance documentation of the bond to confirm alignment of the bond with the EU GBS. The difference is that the inclusion of an alignment confirmation in the issuance documentation would have provided the investor with a contractual basis for claiming conformance to the standard. In the contractual relationship between the issuer and the bondholder, such an inclusion could contribute to real and potentially enforceable commitments to the EU GBS rather than commitments in an internal, non-enforceable Green Bond Framework. The modification of the draft definition in the interim report thus represents a weakening from the HLEG’s recommendation in 2018.

6.3.3 The key features of the draft EU GBS

6.3.3.1 Introduction

The three cumulative conditions following the EU GBS definition presented above explicitly address two of the main concerns of the current regulatory situation; namely, the green criteria and the external review procedures. In addition, the TEG has recommended actions to reduce the transaction costs related to green bonds. Thus, the three key features of the EU GBS that seek to correct the deficits of the current regulatory infrastructure include: 1) solid environmental criteria, 2) verification by an accredited external reviewer, and 3) reduction of transaction costs. These key features will be presented in the following.

6.3.3.2 Requirement for environmental outcome: the EU GBS’ green criteria

Section 4.1 of the draft GBS states that proceeds from EU Green Bonds “shall be allocated only to finance or refinance Green Projects defined.” The definition of Green Projects comprises two elements. The first element consists of requirements set out in (a) to (c), of which all must be fulfilled.

²⁹¹ HLEG (2018). 31.

It follows from the requirement set out in (a) that the project must contribute “substantially” to at least one of the EU’s Environmental Objectives:

- (i) Climate change mitigation,
- (ii) Climate change adaptation
- (iii) Sustainable use and protection of water and marine resources
- (iv) Transition to a circular economy
- (v) Waste prevention and recycling
- (vi) Pollution prevention and control and
- (vii) Protection of healthy ecosystems

Following litra (b), the project shall “not [be] significantly harming [to] any of the other objectives.” Furthermore, litra (c) sets out that the projects must comply “with the minimum social safeguards represented by the principles and rights set out in the eight fundamental conventions identified in the International Labour Organisation’s declaration on Fundamental Rights and principles at Work.”

The second element of the definition of Green Projects consists of technical criteria for specific environmental objectives with which the Green project must be aligned. An exception from fulfilling the technical criteria is possible for “exceptional cases where these may not be directly applicable as a result among other of the innovative nature, the complexity and/or the location of the Green Projects.” Accordingly, the first element of the definition in any case is mandatory, while the second element may be exempted in “exceptional cases.” The interim report underlines that the exception for the technical criteria is intended to be interpreted narrowly in situations where there are genuine issues with the application of the technical screening criteria due to the pace of technical innovation and complexities in that regard.²⁹² These requirements for a “Green Project” build on Article 3 of the proposed draft EU taxonomy (COM(2018) 353 final), adopted by the European Commission in May 2018. The proposed taxonomy “establishes a standard EU-level definition of what qualifies as an environmentally sustainable economic activity for investment purposes.”²⁹³ More specifically, it defines the content of the requirements as being to “substantially contribute” and not to “substantially harm.” The purpose of the proposal is to standardize the concept of environmentally sustainable investment across the EU, thereby facilitating investment in environmentally sustainable economic activities.²⁹⁴ Accordingly, Green Projects of the EU GBS are required to be aligned with the EU Taxonomy. The interpretation of the requirements must therefore be based on the definitions provided in the proposed EU Taxonomy on sustainable investments.

²⁹² EU TEG (2019) section 3.3.1.

²⁹³ COM(2018) 353, 4.

²⁹⁴ COM(2018) 353, 4.

The draft taxonomy defines what may be considered as substantial contribution for each of the different environmental objectives. As an example, article 6 defines substantial contribution in relation to climate change mitigation:

“An economic activity shall be considered to contribute substantially to climate change mitigation where that activity substantially contributes to the stabilization of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system by avoiding or reducing greenhouse gas emissions or enhancing greenhouse gas removals through any of the following means, including through process or product innovation:

- (a) generating, storing or using renewable energy or climate-neutral energy (including carbon-neutral energy), including through using innovative technology with a potential for significant future savings or through necessary reinforcement of the grid;
- (b) improving energy efficiency;
- (c) increasing clean or climate-neutral mobility;
- (d) switching to use of renewable materials;
- (e) increasing carbon capture and storage use;
- (f) phasing out anthropogenic emissions of greenhouse gases, including from fossil fuels;
- (g) establishing energy infrastructure required for enabling decarbonisation of energy systems;
- (h) producing clean and efficient fuels from renewable or carbon-neutral sources.”

Article 12 defines an economic activity as “significantly harming” for the objective of climate mitigation “where that activity leads to significant greenhouse gas emissions.” The requirement is important, as it theoretically provides a basis for excluding activities related to oil and coal.

Furthermore, technical criteria must be adopted pursuant to each environmental objective. The technical criteria aim to set out more specific conditions and minimum requirements regarding which specific economic activities are considered to contribute substantially to an environmental objective, and which ones are considered to cause significant harm to one or more of the environmental objectives (e.g., article 6 paragraph 2). The technical screening criteria must be adopted as delegated acts between 31 December 2019 and 31 December 2022

The issuer must provide a description of the green projects in their green bond framework and in the green bond legal documentation. The requirement to include a description of the green project in the legal documentation may be important as a mechanism to provide investors with a contractual basis to require fulfillment of the bond’s green element. If the issuer includes a confirmation that the green projects do not significantly harm any of the other objectives, and then end up doing so (e.g., by financing projects related to oil production), then that might constitute a breach of contract.

With the link to the proposed taxonomy, the EU GBS’s requirements for a “Green Project” result in rigid environmental criteria built on scientific research that integrates the goals of the

Paris Agreement.²⁹⁵ Cumulatively, the requirements appear to be effective in ensuring genuinely green projects. The requirement of not significantly harming will prevent bonds for financing “clean coal” or efficiency of oil production, as we saw under the assessment in chapter 4. Litra (c) ensures the social dimension of green projects, and thus prevents situations of “sustainable projects” affecting workers and human populations negatively, such as the one we saw in the Jirau Dam in section 4.2.2. The green definition of the proposed taxonomy is therefore expected to “contribute to the achievement of the EU environmental goals e.g. lowering greenhouse gas emissions in line with the Paris Agreement, and moving to a resource-efficient and circular economy.”²⁹⁶

6.3.3.3 *Verification by an accredited External Reviewer*

The TEG has recognized that the external review market is facing several challenges, including high transaction costs, lack of independence resulting in perceived or actual conflicts of interest, and limited disclosure of environmental performance criteria.²⁹⁷ At the same time, the TEG acknowledges that a successful external review scheme can strengthen the credibility of the information by the issuer, thus protecting the integrity of the market and reducing the risk of greenwashing.²⁹⁸ On this basis, the TEG aims to eliminate the weaknesses of today’s external review scheme by recommending that verification for the EU GBS be standardized and that external reviewers be accredited.²⁹⁹ Accordingly, verification by an accredited external reviewer is one of the three proposed requirements to obtain the EU Green Bond status. This section will first explain the accreditation scheme before examining the requirements for the verification review.

The overarching objective of the accreditation scheme is to improve the quality and robustness of external reviews, thereby enhancing investor confidence.³⁰⁰ The draft EU GBS has proposed an accreditation system that is similar to that of CBS’s Approved Verifiers sketched out in section 3.4.2.6. Its accreditation requirements encompass competence and experience within debt instruments, technical expertise, and alignment with ISAE 3000 and/or ISO 17029.³⁰¹ The requirements for accreditation will also include explicit requirements aiming to eliminate conflicts of interest and ensure professional minimum qualifications.³⁰²

²⁹⁵ COM (2018) 353, 6.

²⁹⁶ COM (2018) 353, 10.

²⁹⁷ EU TEG (2019) section 4.2.

²⁹⁸ EU TEG (2019) section 4.1.

²⁹⁹ This is also in line with the HLEG (2018), which advocated for the development of “accreditation requirements for external reviewers” see EU TEG (2019) section 4.1.

³⁰⁰ EU TEG (2019) section 4.3.

³⁰¹ EU TEG (2019) annex 2 section III.

³⁰² EU TEG (2019) annex 1 section 4.4.

Through establishing official sector supervision of the external reviewers, the accreditation scheme intends to bring transparency to the process and to the content of external reviews.³⁰³ The TEG recommends a centralized regime for authorization and supervision by ESMA, noting that:

“ESMA can provide a unified approach, ensure a level-playing field, and already plays a similar role for the Credit Rating Agencies (CRAs) that could potentially yield synergies with existing processes and procedures.”³⁰⁴

Having in mind that ESMA’s mandate is envisaged to include environmental issues going forward, such a role could be an effective and feasible measure to ensure control and compliance with the accreditation system.³⁰⁵ In addition, synergies to ESMA’s oversight function for CRAs was one of the potential measures identified to address the current concerns described in section 6.1.1. As demonstrated for the CRAs, this regulation has succeeded in correcting the same concerns faced by the external review scheme in the green bond market. Until direct supervision by ESMA is established by the entering into force of relevant EU legislation, a voluntary accreditation scheme is suggested for a transition period of approximately 2-3 years.³⁰⁶

Verification pursuant to the EU GBS requires the completion of an external review, both before the issuance and after the allocation of proceeds; cf. section 4.4. The assessment criterion for the pre-issuance review is whether the issuer’s Green Bond Framework is aligned with the EU GBS. The criterion reveals one weakness of the standard. By operating with a requirement for the issuer’s Green Bond Framework to be aligned with the standard instead of the specific green bond, the standard loses some of its control in ensuring that all green bonds are issued in conformance with the standard. Verification that establishes EU GBS confirmation with the issuer’s internal framework does not provide the amount of security and credibility as verification of a specific bond. The result may be a weakness in the integrity of the system. Accordingly, the pre-issuance verification is not as rigid as the CBS system that certifies each bond. However, it proves much more solid than the GBP.³⁰⁷

The criterion for post-issuance verification is confirmation of “the alignment of their EU Green Bond allocation and actual or estimated impact.” Verification of actual or estimated impact is

³⁰³ EU TEG (2019) section 3.1.

³⁰⁴ EU TEG (2019) section 4.5

³⁰⁵ As an example, ESMA has been asked to build capacity on sustainability on fiduciary duty within MiFID II. See EU TEG (2019) section 4.5.

³⁰⁶ EU TEG (2019) annex 2 section I.

³⁰⁷ See this thesis’ section 4.3.

novel in that it makes such fulfillment a prerequisite for ex-post verification. One of the main deficits of the current regulatory infrastructure of green bonds is precisely the absence of formal mechanisms to measure actual impact. This requirement is crucial for evaluating whether the bond's actual impact fulfills the promised impact. The content of this post-issuance requirement constitutes an improvement even from the CBS, which merely operates with a requirement to report on impact.³⁰⁸

6.3.3.4 Addressing transaction costs by means of standardizing external reviews and recommending economic incentives

The EU GBS aims to tackle concerns related to high transaction costs mainly by two means. First, the proposed standardized verification process described above is intended to reduce the costs of external reviews as it establishes a clear scope of services focusing on the essential components, which is expected to “streamline the verification process, avoid duplication of effort and, ultimately, reduce costs of external reviews.”³⁰⁹

Second, the TEG recommends establishing a grant scheme to offset the additional cost of external verification for issuers.³¹⁰ Such schemes to subsidize green bond issuers in obtaining verification have been established in several jurisdiction outside the EU, including Singapore, Hong Kong, and China.³¹¹ The aim is to equalize issuance costs with mainstream bonds, which is likely to increase the number of green bond issuances. Such a scheme may therefore improve the supply side and contribute to the overall efficiency of the green bond market. The interim report notes that such a grant scheme to offset the additional cost of external reviews could be set up by the European Commission relatively easily and at a modest cost to the European taxpayers.³¹²

6.3.4 Assessment: Is the EU's path sufficient?

The analysis in chapter 6.3 has demonstrated that the EU's path towards an EU GBS holds many strong features that, from a theoretical perspective, appear adequate in correcting many of the identified weaknesses of the current regulatory infrastructure of green bonds.

First, we saw that the definition of “Green Project” which integrated the EU taxonomy definition provides the strongest definition so far, as it sets out a two-stage process with clear detailed requirements aligned with the Paris Agreement. The result is a requirement for environmental outcome that strongly hinders the possibilities of greenwashing, thereby

³⁰⁸ See this thesis' section 3.3.3.

³⁰⁹ EU TEG (2019) section 3.1.

³¹⁰ EU TEG (2019) section 5.1.7, recommendation # 10.

³¹¹ Ibid.

³¹² Ibid.

supporting the integrity of the market. Simultaneously, clear and objective green definitions functioning as minimum thresholds will reduce the current reputational risks arising from vague and subjective criteria.³¹³ The definition is thus designed to contribute both to the fulfillment of global policy goals such as the Paris Agreement and to the standard's objective of ensuring integrity and consistency.

Second, the proposed accreditation scheme with its potential to be monitored by ESMA seems from a theoretical perspective to be effective in eliminating many of the weaknesses related to the current scheme of external reviewers. In particular, the proposal addresses the fundamental issues related to reviewer independence, review quality, and heterogeneous practices. Most importantly, the accredited external reviewers and the verification are interconnected with the uniform minimum requirement for environmental outcome, constituting a solid system to ensure both environmental outcome, investor protection, and subsequently the market's integrity.

Third, the recommended actions to reduce transaction costs, and in particular the recommendation of establishing a grant scheme to subsidize the costs of external reviews, may be significant for the ultimate objective of the standard — namely, to increase the flow of finance to green and sustainable projects.³¹⁴

Overall, these measures have the potential to eliminate the greatest deficits of today's green bond market (i.e., the absence of uniform green criteria with genuinely sustainable outcomes), as well as fundamental issues of independence and quality related to the current scheme of external reviews.³¹⁵ Together these deficits constitute a risk to the integrity of the market, to investor protection as well as to the overall efficiency of the market. The elimination of these issues are crucial to the continued growth of the market, for which the EU with its green criteria, accreditation scheme and recommended grant scheme effectively is on a path to do.

However, few but crucial elements modify the positive impression sketched out above. The strongest concerns do not arise from the content of the draft, but from the fact that the TEG proposes the EU GBS to be voluntary, cf. draft EU GBS section 1. A voluntary EU GBS implies a risk of being just another standard in the sphere of green bonds, contributing to an already

³¹³ EU TEG (2019) explains in section 3.1 how the standard intends to address weaknesses related to reputational risks and greenwashing: “Reputational risk and green definitions will be addressed through the link with the EU Taxonomy. Issuers and investors will be able to refer to a common definition of green and sustainability thanks to the common reference provided by the Taxonomy. This will significantly mitigate reputational risk in this area and alleviate market concerns about “greenwashing” risk.”

³¹⁴ See section 6.3.2.

³¹⁵ See section 6.2.

fragmented regulatory infrastructure of green bonds. A voluntary standard does not provide the prescriptiveness and efficiency needed to eliminate risks related to integrity and credibility. One central reason for this is that a voluntary standard does not affect the dishonest actors that need to be regulated. Issuers with illegitimate green bonds may thus still operate within the European green bond market with legitimate green bond statuses. The TEG has recommended that the European Commission monitor the impact of the voluntary standard and consider further supporting action, including possible legislation, after an estimated period of 3 years.³¹⁶

Furthermore, the system that verifies alignment with internal green bond framework and not the specific green bond constitutes a complicating element that can make comparisons of green bonds more difficult, contrary to the stated objective of enhancing the comparability of green bonds. In this respect, the CBS provides a more rigorous certification system by certifying all green bonds independently, which would be a more effective system for the EU GBS to use in achieving its stated objectives of comparability and integrity.

With respect to enforcement, the standard has not set out any mechanisms to address non-conformance. Though monitoring mechanisms are proposed through ESMA, no sanctions are available if a breach of the standard occurs. However, the requirement for post-issuance verification based on the impact of the bond to maintain the EU green bond status is at least effective in ensuring fulfillment of the environmental objective of the bond. For the purpose of establishing clear procedures for non-conformance, the CBS could function as an example to follow, with its clear procedures for revocation of the certification mark as well as procedures to inform market participants of this revocation. On an investor level, a requirement to form alignment with the standard in the contract documents would have legalized the obligations following the standard and thus provided investors with a basis for remedies in case of a breach of the standard. We saw that this was the recommendation from the HLEG; it was weakened in the draft EU GBS, however, as it only requires confirmation of alignment with the EU GBS to be included in the issuer's internal green bond framework. On the other hand, this weakness is to some extent redressed by the standard's requirement to provide a description of the "Green Project" in the legal documentation, as a breach of the green project conditions of the EU GBS may provide some kind of legal basis for enforcement in case of a breach of the project's green characteristics.

³¹⁶ EU TEG (2019) under heading "Executive Summary."

6.4 Recommended actions for correction of remaining weaknesses

We have seen that the TEG has proposed a draft EU GBS that resolves many of the identified weaknesses of the current regulatory infrastructure of green bonds. The EU is at a stage where both a strong green definition and a solid and independent certification process have been developed, and whereby their implementations could eliminate confusion by investors, protect issuers from reputational risks and ensure the continued growth of the green bond market.³¹⁷ However, a prerequisite for the execution of all the draft standard's constructive measures is that it replaces the current fragmented regulatory situation of green bonds. One of the most pressing issues in the current regulatory infrastructure is the voluntary nature of the regulation. To address the deficits arising from this main issue effectively, the standard should be made mandatory for all green bonds within the EU. In other words, issuers should not be allowed to label their bonds "green" unless they satisfy the EU GBS requirements.³¹⁸ Otherwise, the opportunity to issue green bonds that do not meet the standards could undermine both the integrity of the green bond market and the objective of contributing to the closing of the Paris Agreement investment gap.³¹⁹ Accordingly, a main recommendation is to make the EU GBS mandatory.

On a more detailed level, the EU GBS standard could be improved by implementing a verification system that requires all green bonds to be verified individually, such as the system we saw with the CBS.³²⁰ Though individual verification may be more costly, it might be a cost well worth incurring for two reasons. First, it contributes to greater comparability of green bonds and reduces the risk of confusion. It is much easier to compare the different green bonds than the green bond frameworks of the issuers. Second, it ensures that all bonds labeled as green meet the standard's requirements, thus closing any loopholes for harming the integrity of the market. Consequently, this thesis recommends that the EU GBS improve its verification system by changing the pre-issuance criterion from "alignment of their GBF [green bond framework]" with the EU GBS, to alignment of the specific green bond with the EU GBS.

The thesis has emphasized that legal mechanisms to ensure investor protection are not sufficient in providing investors with possibilities for enforcing the bond's green element. A standardized requirement to include the green purpose of the bond as an objective in the contract document could provide investors with a legal claim if the green purpose is not fulfilled. Similarly, a requirement to include confirmation of standard alignment in the contract documents may be a potential measure to make sure compliance to the standard also has an impact in the contractual

³¹⁷ Trompeter (2017) 10.

³¹⁸ See similarly for the U.S jurisdiction in Trompeter (2017) 9.

³¹⁹ WWF (2016).

³²⁰ See section 3.4.2.6.

relationship between the issuer and the investor. Furthermore, standardization of recourse for environmental non-performance, similar to the practice in carbon-offset projects, could provide investors with more manageable claims than the ones following from general contract law remedies.³²¹ On this basis, this thesis recommends that the EU GBS integrate a requirement to include the green purpose of the bond as an objective in the legal contract documentation. Alternatively, conformance of EU GBS alignment in the contract documents could be required, as was recommended by the HLEG in its final report from 2018.³²²

The urgency of the climate crisis and the seriousness of the investment gap calls for financial incentives to incentivize private capital flows toward sustainable investments. A grant scheme to subsidize the additional costs related to external review verification appears to be a probable measure of the EU that may be set forth in conjunction with the EU GBS.³²³ However, while it is an important and valuable measure, equalizing the costs of green bonds to the costs of conventional bonds may not be enough to reorient the required capital. To close the investment gap, it may be crucial to make sustainable investments more advantageous and profitable than other non-sustainable investments. In this respect, the introduction of tax benefits could prove effective in incentivizing private capital flows to sustainable investments. However, this thesis has demonstrated that tax benefits for green bonds should not be introduced until a system that provides a basis for enforcement is established. Without mechanisms to ensure that green bonds deliver their promised environmental benefits in exchange for the tax benefits, the market will be exposed to significant greenwashing and integrity risks. For that reason, this thesis recommends that financial incentives in the form of tax benefits be introduced simultaneously with a public enforcement system.

Accordingly, this thesis's key recommendations can be categorized into the following four points:

- 1) The EU GBS should be a mandatory standard with the consequence that all green bonds in the EU have to meet the requirements of the standard.
- 2) The EU GBS's verification system should assess the alignment of the individual green bonds rather than the issuer's green bond framework.
- 3) The EU GBS should integrate a requirement to include the green purpose of the bond as an objective in the legal contract documentation to promote investor protection.
- 4) Financial incentives in the form of tax benefits should be implemented together with a public enforcement system.

³²¹ Ludvigsen (2015).

³²² HLEG (2018) 31. See section 6.3.2 of this thesis.

³²³ EU TEG (2019) section 5.1.7.

7 Concluding Remarks

In my thesis I consider whether the regulatory infrastructure of green bonds facilitates substantive environmental outcomes aligned with the targets of the Paris Agreement, and whether it is capable of ensuring integrity in the green bond market. These two elements were recognized in section 1.1 as being crucial for green bonds to play their foreseen key role in financing the investment needed to achieve the objectives following the Paris Agreement.

In chapter 3, I mapped out the regulatory infrastructure of green bonds, finding that the green criteria for labeling them are regulated by private regulatory regimes: primarily private green bonds standards such as the GBP and CBS, but also stock exchanges' requirements for green bonds, such as the OSE. The chapter analyzed the regimes' different approaches to obtaining the green bond status and found that each regime operates with different criteria for labeling a bond green. I concluded that no uniform green criteria exists within the regulatory infrastructure of green bonds, and that only the CBS provides definable criteria in the sense that they provide limitations with respect to which bonds may be considered "green." I argued that the green criteria of the GBP and OSE were too broad to function as minimum thresholds to secure a lower standard for the sustainable features of their green bonds.

While chapter 3 maps out the regulatory infrastructure and clarifies the processes for labeling green bonds, chapter 4 turns to assessing the overall functioning of these regimes. The overall assessment focused on two main questions: whether the criteria drawn up in chapter 3 facilitate substantive environmental outcomes and whether the processes of the regimes are adequate in ensuring the integrity of the market. The latter question was approached through an analysis of the regimes' abilities to prevent greenwashing and to enforce the green element. My theoretical analysis indicates that both the GBP and OSE are insufficient in ensuring green bonds with substantive environmental outcomes, whereas the CBS's criteria integrates the pathway of the Paris Agreement and thus appears effective in ensuring substantive environmental outcome. In answering this question, I also looked at some practical examples from global green bond issuances to support the assumptions made in the theoretical analyses. The examples discussed in section 4.2.2 demonstrates that the GBP has been applied in conjunction with a green bond to finance oil production, while a system equivalent to the OSE has been used to issue a green bond to finance a socially, environmentally, and biologically harmful project (the Jirau Dam green bond). The absence of controversial green bonds aligned with the CBS supported the positive theoretical analysis. On this basis, I concluded that the green criteria of GBP and OSE are insufficient to ensure the substantive environmental outcome needed to contribute to the green transformation. I further concluded that CBS' green criteria appear sufficient in fulfilling the purpose of green bonds.

The second question of the overall assessment was the regimes' abilities to ensure the integrity in the market, measured by their effects on limiting greenwashing and facilitating enforcement of the green element. I found that the GBP lacks both mechanisms to prevent greenwashing and enforce the green label and thus falls short in ensuring integrity in the market. The analysis showed that although the OSE could be strengthened in various ways, its mandatory external review requirement amounts to an important improvement over the GBP. Of the three regimes I examined in this thesis, I concluded that the CBS is the most effective standard in reducing the incentives for greenwashing, enforcing the green element and thus ensuring the market's integrity. Combined with the CBS's solid environmental criteria, the standard appears to be a comprehensive tool that may improve the likelihood of green bonds' contribution to the green transformation significantly. However, I argue that the existence of multiple competing green bonds standards may hamper the positive effects of the CBS, as issuers may choose to acquire the green bond status through the less binding and resource-demanding GBP.

In chapter 5, the thesis looked at the possibilities of sanctioning non-fulfillment of the green element based on the sanctioning mechanisms of financial market law and Norwegian private law. The analysis showed that the available financial market sanctions may fall short in addressing non-fulfillment of the green element of green bonds. I argue that the reason for this supposition is a general absence of suitable tools to address greenwashing and the fulfillment of the purpose of green bonds. The available sanctions for violations of prospectus requirements pursuant to the Norwegian Securities Trading Act proved unpractical, as the threshold for applying the sanctions is delimited to gross and fraud-like situations. In examining investors' possibilities of sanctioning a green default, I argue that the green label in itself does not provide investors with a contractual basis for imposing sanctions. As a means to ensure a legal basis for investors' claims of green defaults, I proposed standardizing a requirement to confirm alignment with green bond standards in the legal documents.

The effects of the findings from chapters 3, 4, and 5 were summarized in chapter 6. Drawing on the theoretical background from chapter 2, the shortcomings described in section 6.2 are of such a nature that they may contribute to market failures. In chapter 2, the thesis emphasized the existence of information asymmetries with respect to the green element of green bonds. The findings of chapter 4 suggested that varying regimes reduce the asymmetries to different degrees, wherein the GBP is the least effective in limiting the information imbalance. Since the GBP is the *de facto* green bonds standard, the analyses indicate that reducing the information imbalance may entail significant transaction costs for investors. In addition, the GBP's limited effect in reducing information asymmetries indicates that investors are vulnerable to purchasing green bonds that do not provide the environmental outcomes that the green status signifies, leading to a problem of adverse selection. Chapter 2 highlighted reliable information that purchasers can trust (e.g., a third party's assessment) as a means to correct information

asymmetries. I argue that particular concerns related to the scheme of external reviews may indicate that information asymmetries in the green bond market are not sufficiently corrected by the current regulatory infrastructure of green bonds.

An important finding was that the weaknesses concerning the green criteria may have several negative effects on the green bond market, including ineffective allocation of capital to sustainable investments, reputational risks causing issuers to desist from participating, and investors' withdrawal caused by loss of faith in the momentum of green bonds. In light of chapter 2's recognition of green bonds' role in reducing the externalities caused by an era of misallocation of capital, the negative effects caused by weak green criteria should be corrected through regulation. Such correction through regulation may be necessary to spur the participation in the market and thus to incentivize the reorientation of capital to sustainable investments. A significant factor in causing these weaknesses is also the fragmentation of the regulatory infrastructure of green bonds, where the existence of competing private regimes leads to inconsistent practices and different thresholds for what is considered "green".

After summarizing the main weaknesses of the current regulatory infrastructure of green bonds, the chapter turned to evaluating whether the preliminary path of the EU towards an EU Green Bond Standard appears sufficient to correct the identified shortcomings. I concluded that the draft EU GBS provides features that appear effective in correcting most of the main weaknesses in the current regulatory infrastructure of green bonds. Importantly, the draft EU GBS provides green criteria that appear adequate both in reducing the possibilities of greenwashing and in facilitating substantive environmental outcome aligned with the Paris Agreement. The draft standard also provides features to ensure the integrity of the green bond market, including accredited external reviews, prescriptive requirements and a potential for monitoring by ESMA. The main concern, however, is the voluntary nature of the EU GBS, which appears insufficient for resolving the deficits arising from the fragmentary nature of the regulatory infrastructure of green bonds.

To sum up, in my thesis I conclude that there are no uniform criteria for green bonds and that the current regulatory infrastructure is not sufficient to ensure fulfillment of the purpose and integrity of green bonds in the green bond market. While the CBS is suitable for fulfilling these objectives, the fragmentary nature of the regulatory infrastructure (i.e., the existence of competitive standards) hinders execution of the potential positive effects of the standard. With its draft EU GBS and its Sustainable Finance Action Plan, the EU is on a path to improve the regulatory situation of green bonds significantly, although some major concerns remain.

The EU has pronounced ambitious but crucial goals to reorient capital to sustainable investments to achieve the goals of the Paris Agreement. The green transformation cannot be

completed without the contribution of private capital. Green bonds have the potential to play a vital role in mobilizing private capital towards sustainable investments. However, a main observation that can be drawn from my thesis is that there appears to be a lack of interaction between scientific research, finance, and law. To transform the financial system to “green,” the role of law is inevitable. The current regulatory infrastructure of green bonds does not succeed in providing mechanisms that facilitate substantive environmental outcomes or provide the integrity needed to achieve sufficient support by market participants. Thus, to safeguard the potential vital role of green bonds, the regulatory infrastructure should be improved before the market dries up due to fragmentation, greenwashing, and a subsequent loss of momentum.

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Table and annex

Table 1:

Differences between private green bonds regimes. Based on table in EU High-Level Expert Group on Sustainable Finance. *Financing a Sustainable European Economy: Final Report*. 2018. p. 32.

Annex 1:

Review of Green Bonds noted on Oslo Stock Exchange’s list for Green Bonds (6.02.2019). Oslo Stock Exchange. (n.d.B) *Green Bonds*. https://www.oslobors.no/ob_eng/markedsaktivitet/#/list/bonds/quotelist/ob/OBG/false. [Cited 6.02.2019].