Part II: Patterns, Policies and Strategies of change in various policy fields

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EU Green Deal and green transformation: A critical review of the European green bond standard and the upcoming ESG rating regulation

Summary: With the green bond standard and the forthcoming regulation for environmental, social and governance (ESG) rating activities, the EU is expanding the regulatory framework for sustainable finance. With these requirements, the EU is attempting to create a harmonized basis for investor protection against greenwashing and to ensure capital market efficiency by channeling financial flows into sustainable finance. Based on existing theories and relevant academic literature, it is doubtful whether the chosen path will achieve its goal. From the perspective of regulators, investors and issuers, it is crucial to analyze whether the green bond standard and forthcoming ESG rating regulation have a positive impact on investor protection and capital market efficiency.

Keywords: Sustainable finance and reporting, EU Green Deal, EU taxonomy, European green bond standard, ESG rating regulation, Investor protection, Capital market efficiency

A. Introduction

In the Paris Agreement of 2015, 195 countries, including the EU Member States, agreed to limit global warming to well below 2 degrees Celsius compared to pre-industrial levels and to strive to limit it to 1.5 degrees Celsius.[2] The so-called "Green Deal" is the strategy by which the EU intends to achieve its target by 2050.[3] In this context, the concept of sustainable finance plays a crucial role, as the EU is exploring how to make sustainability considerations an integral part of private and public investments in order

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2 United Nations, The Paris Agreement, 2023.

3 European Council of the European Union, European Green Deal, 2022.

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to support the European Green Deal.[4] To meet this challenge, the EU has created the EU taxonomy, a cornerstone of the EU framework for sustainable finance. With the European green bond standard (EUGBS), the EU aims to take further steps to implement its strategy for financing sustainable growth and the transition to a low-carbon and resource-efficient economy, while combating greenwashing.[5] To further strengthen the foundations of the EU's sustainable finance framework the Regulation (EU) 2024/3005 on the transparency and integrity of environmental, social and governance (ESG) rating activities was published in the Official Journal of the EU on December 12, 2024 and will enter into force 20 days later. However, it will not apply until mid-2026. With the regulation, the EU intends to strengthen investor confidence by making rating activities more transparent and comparable. The regulation applies in particular to providers of ESG ratings that issue and disseminate them to regulated financial companies in the EU..[6]

This chapter argues that, based on existing theories and the relevant academic literature, there are considerable doubts as to whether the EU's regulatory requirements will achieve their objectives. Its remainder is structured as follows: first, the regulatory and theoretical framework is stated. Afterwards a short Literature Review guided by a categorization of the existing scientific evidence in a regulatory and theoretical context is presented. The chapter concludes with a conclusion and recommendations for further research.

B. Background

Regulatory background

The taxonomy regulation, adopted by the European Parliament in June 2020, is the centerpiece of the EU action plan to achieve the Green Deal

4 European Commission, Platform on Sustainable Finance.

5 European Council of the European Union, European Green Bonds: Council adopts new regulation to promote sustainable finance, 2023.

6 European Union (2024): Regulation (EU) 2024/3005 of the European Parliament and the Council of 27 November 2024 on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities, and amending Regulations (EU) 2019/2088 and (EU) 2023/2859

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targets.[7] It aims to create a standardized classification system for sustainable economic activities. To this end, the taxonomy regulation defines six environmental objectives. Economic activities are considered "sustainable" in the sense of the EU taxonomy if they make a significant contribution to at least one of the six environmental objectives without significantly compromising another objective. The EU taxonomy regulation is a compulsory reporting requirement for large non-financial companies. Starting in 2022, non-financial firms have to disclose the proportion of their revenue, capital expenditure and operating expenditure related to environmentally sustainable activities as defined by the EU taxonomy.[8] The taxonomy is intended to show potential investors the degree of sustainability of a company, and to direct capital flows according to the Green Deal. In addition to reporting, which is regulated by the taxonomy, there are two other regulatory components: green bonds and ESG ratings.

The EU assign green bonds an important role in financing assets and projects needed for the low-carbon transition. As opposed to raising equity by issuing shares, a firm can also opt to increase debt selling quoted bonds. With the EUGBS, the EU is aiming to set a standard for such bonds. The standard, which application is voluntary, relies on the detailed criteria of the EU taxonomy to define green economic activities, ensures levels of transparency in line with market best practice, and establishes supervision of companies carrying out pre- and post-issuance reviews at European level. The European Securities and Markets Authority (ESMA) will be supervising these external reviewers. In this way, the EUGBS is intended to provide consumers, but also companies and other institutional investors, with guidance on green investment opportunities. Investors who wish to invest in a sustainable bond should be able to understand and compare the principles according to which the funds are used and which reporting obligations the issuer is subject to with as little effort as possible. Furthermore, the EUGBS is intended to combat greenwashing.[9]

It is also possible for companies to comply with other sustainability standards, such as the Green Bond Principles (GBP) of the International Capital Markets Association (ICMA), the Climate Bonds Standard of the

7 European Union (2020): Regulation (EU) 2020/852 of the European Parliament and the Council of 18 November 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.

8 European Commission, EU Taxonomy Navigator.

9 European Union (2023): Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds.

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non-profit International Climate Bonds Initiative (CBI), or commission a rating agency to assess the features of the green bond in the form of a second party opinion (SPO). The primary purpose of an SPO is to verify that an issuer's green bond framework or an individual green bond issue is consistent with the standards the issuer claims to follow and the issuer's sustainability strategy. The basis for CBI certification is a proprietary taxonomy which lists assets, activities and projects that are consistent with the goals of the Paris Agreement. In the certification process, the CBI or approved external reviewers confirm that issuers are using the proceeds in accordance with the standards. In 2014, the ICMA announced the first version of its GBP providing guidelines for the issuance of green bonds, requiring transparency on how bond proceeds are used, how projects are evaluated and selected, and how proceeds are managed. Unlike the CBI framework, the GBP does not include a taxonomy, but only identifies key environmental objectives and high-level eligible project categories. It defines several relatively broad categories, such as renewable energy, energy efficiency or clean transport. In contrast to the CBI, external reviews are voluntary but encouraged under the GBP.

The EUGBS can be seen as a combination of the CBI and GBP standards with an SPO. Like the CBI, the EUGBS is based on a green taxonomy - the EU taxonomy - and mandates external reviews in the form of an SPO by approved verifiers. In the case of the EUGBS, SPO providers are required to register with the ESMA, which governs the harmonized rules for how second opinion providers must review bonds and report their findings. Like the GBP, the EUGBS sets out extensive disclosure and reporting requirements for green bond issuers, including how and how often issuers must report on the use of proceeds.[10] As Figure 1 illustrates, global CBI green bond issuance grew steadily from 2014 to 2021. Issuance then declined due to Russia's war of aggression against Ukraine and related inflation and interest rate developments. Most green bonds were issued in Europe. Within the issuer group, companies from both the financial and non-financial sectors account for the largest share.

10 Brückbauer, F./Cézanne, T./Kirschenmann, K./Schröder, M., Does the European Union need another green bond standard? in: ZEW policybrief (10) 2023, p. 1.

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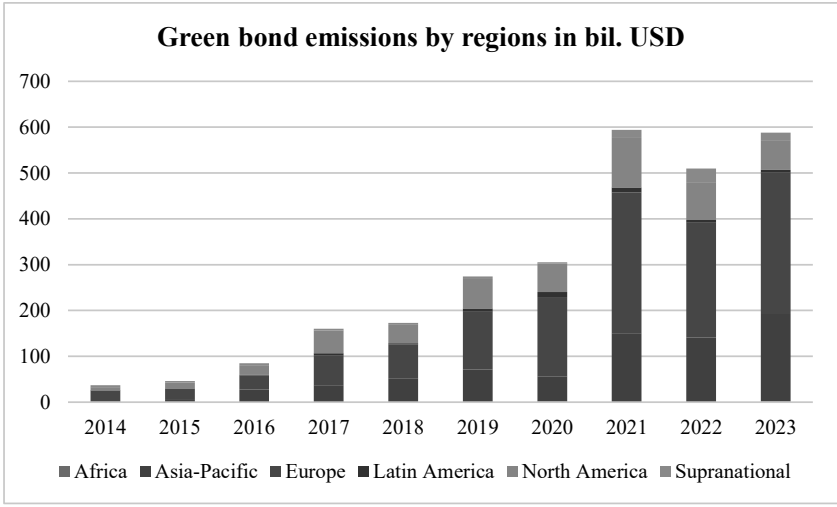
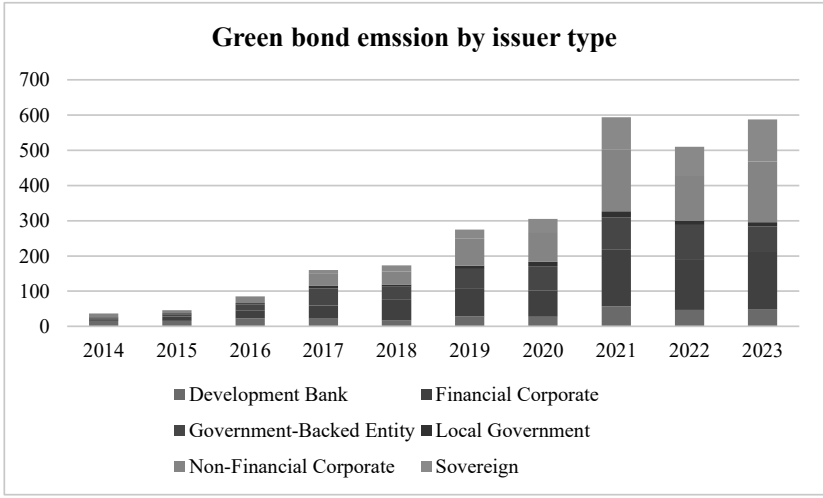
Figure 1: CBI green bonds by region and type[11]





11 Climate Bond Initiative.

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If an issuer decides to voluntarily issue its bonds as a European green bond, it must comply with the requirements of the EUGBS. When securities are offered to the public or admitted to trading on a regulated market, a prospectus in accordance with the EU Prospectus Regulation is generally required. Issuers of a European green bond must fulfil various reporting and information obligations. To enable consumers and institutional investors to check whether the proceeds have been used as planned, the issuer must also fulfil downstream transparency obligations with its allocation reports. These must be published annually to document that the funds collected with the European green bond have been properly utilized. The impact report describes the effect of the bond proceeds on the environmental goals that the issuer has pursued by issuing the European green bond. The issuer must prepare and publish this report once after all proceeds from the issue have been utilized.[12]

The new Regulation (EU) 2024/3005 on the transparency and integrity of environmental, social and governance (ESG) rating activities was published in the EU Official Journal on December 12, 2024 and comes into force 20 days later. However, it will not apply until July 2, 2026. According to the European Commission, ESG ratings have an increasingly important impact on the functioning of capital markets and investor confidence in sustainable products.[13] From their point of view, increasing investor confidence through transparent and regulated ESG ratings can have a significant impact on the transition to a more socially responsible and sustainable future.The ESG Rating Regulation adopted by the European Union aims to enhance the consistency, transparency, and comparability of ESG ratings (Environmental, Social, and Governance) to strengthen investor confidence in sustainable financial products. A central element of the regulation is the introduction of a mandatory licensing requirement for ESG rating providers based in the EU, which will be authorized and supervised by the ESMA. Additionally, rating providers are required to disclose their methodologies, information sources, and the weighting of individual ESG factors (E, S, and G) in their ratings. This enables investors to understand which aspects are emphasized and how the ratings are constructed.

12 European Union (2023): Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds.

13 European Union (2024): Regulation (EU) 2024/3005 of the European Parliament and the Council of 27 November 2024 on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities, and amending Regulations (EU) 2019/2088 and (EU) 2023/2859..

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To prevent conflicts of interest, the regulation includes measures mandating a strict separation of rating activities from other business operations of the providers. For providers from third countries seeking to operate in the EU, specific conditions apply: they must either be recognized by an EU-authorized provider, meet certain quantitative criteria, or be included in the EU register based on an equivalence decision.[14]

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Theoretical background

A bond is an exchange-listed debt security. Investors who buy the bond are lending money to the company that issues the bond. In return, the company agrees to pay interest and to repay the capital, in most cases when the bond matures. If a company issues debt, ceteris paribus its financial structure changes so that the relative debt level rises.[15] Companies know more about their capabilities than their investors. This information asymmetry leads to transaction costs when investors try identifying companies with desirable characteristics.[16] It is therefore in the interest of companies to reduce this information asymmetry by sending out a "signal", i.e. by taking measures that convey this information credibly. According to the signaling theory, a signal is credible if it is expensive for companies with less desirable characteristics to imitate it.[17] The issuance of green corporate bonds can be interpreted with the help of the signaling theory. Investors often do not have sufficient information to be able to judge a company's commitment to the environment. From the investors' point of view, this results in the need for a (credible) distinction between companies that are committed to the environment and those that are not. By issuing green bonds, companies can signal their commitment to the environment.[18] The signaling itself can take the form of voluntary disclosure, such as making the SPO available to investors.

14 European Union (2024): Regulation (EU) 2024/3005 of the European Parliament and the Council of 27 November 2024 on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities, and amending Regulations (EU) 2019/2088 and (EU) 2023/2859

15 U.S. Security and Exchange Commission, Investor BulletIn: What Are Corporate Bonds?.

16 Akerlof, G.A., The market for “lemons”: Quality uncertainty and the market mechanism, in: Quarterly Journal of Economics (84) 1970, p. 488.

17 Spence, M., Job market signaling, in: Quarterly Journal of Economics (87) 1973, p. 355.

18 Flammer, C., Corporate green bonds, Journal of Financial Economics (142) 2021, p. 499.

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If companies expect a net benefit from the publication of information that goes beyond the minimum requirements, they occasionally make voluntary disclosures.[19] If the increase in the value of the company is interpreted in a broader sense as an increase in the overall value of the company, it becomes clear that the concept of shareholder value in the sense of pure equity orientation falls short. An increase in the market value of equity does not contribute to an increase in the total value of the company if it is at the expense of the value of debt. The corporate objective of increasing the value of the company must therefore be geared towards simultaneously increasing the market value of equity and the market value of debt. This objective could protect the interests of both equity providers (shareholders) and debt providers (bondholders). A key requirement for management therefore is to consider the impact on lenders as well as the impact on shareholder value. Indeed, corporate finance theory argues that a company's business policy focus on creditworthiness and its maintenance is central to any deal.[20]

A company may expand this concept of bondholder value creation to the green bond environment. By issuing green bonds, companies can signal their commitment towards the environment. This signal is likely to be credible for the following reasons. First, by issuing green bonds, companies commit substantial amounts of money to green projects. Second, green bonds are often certified by independent third parties (i.e. approved by the Climate Bonds Standard Board of the CBI) to guarantee that the proceeds are indeed used to finance the green projects that are outlined in the bond prospectus. Complying with the standards requires substantial managerial effort and resources, which is costly to the issuer. In addition, non-compliance with certification is costly as well. The Board would then suggest corrective actions for compliance to be restored. If compliance is not restored within a reasonable timeframe, the Board would then revoke the certification of the green bond.[21] In sum, the issuance of green bonds may serve as a credible signal of the company's commitment to the environment and enhance the (green) bondholder value.

In addition, the stewardship theory can explain why companies issue green bonds. This theory goes back to the work of Donaldson, Donaldson

19 Marston, C.L./ Shrives, P.J., The Use of Disclosure Indices in Accounting Research: A Review Article, in: The British Accounting Review (23) 1991, p. 195.

20 Krämer, W./Schäfer, F., Bondholder Value, in: Everling, O./Schmidt-Bürgel, J., Kapitalmarktrating 2005, p. 207.

21 Flammer, C., Corporate green bonds, Journal of Financial Economics (142) 2021, p. 499.

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and Davis and Davis et al.[22] It provides a sociological and psychological approach to explaining the organization of corporate management, including the relationship with stakeholders, and acts as a counter-reaction to the "one-sided negative managerial image" of the principal-agent theory according to Berle and Means.[23] The stewards' (agents') pursuit of individual and financial goals at the expense of the owners (headmasters) and thus the construct of "homo oeconomicus" are neglected in the context of stewardship theory. This is due to psychological behavioral patterns, according to which financial motives become less important with increasing satisfaction of needs. The actions of company managers are therefore primarily centered on non-financial (intrinsic) motivational factors that determine the relationship between members and the relationship with stakeholders and are not directly quantifiable. Motivational factors include the assumption of responsibility and challenging activities, the development or enhancement of the company's reputation and the creation of flexibility of action to increase one's own commitment.[24]

Even if the increase in emissions is remarkable, globally, green bonds account for less than sixper cent of bonds outstanding worldwide. Thus, green bond investors are faced with a short supply. According to the economic principle of supply and demand, there should be excess demand. As a result, companies see themselves in a position to convert the excess demand into reduced (re-) financing costs.[25] One method of analyzing bond prices and yields, and therefore the level of bond-specific (re-)financing costs, is to use a supply and demand model. As in any market, the price (and yield) of bonds is influenced by the quantity of bonds demanded by investors and the quantity of bonds offered by issuers. Investors' demand for bonds reflects their preference for bonds over other forms of investments, which is influenced by their expectation of future monetary policy and their perception of risk.[26] The perceived risk of green bonds has been found to be

22 Donaldson, L., The Ethereal Hand: Organizational Economics and Management Theory, Academy of Management Review (15) 1990, p. 369; Donaldson, L./Davis, J.H., Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns, Australian Journal of Management (16) 1991, p. 49; Davis, J.H./Schoorman, F.D./Donaldson, L., Toward a Stewardship Theory of Management, The Academy of Management Review (22) 1997, p. 20.

23 Berle, A., Means, G. The Modern Corporation and Private Property, 1932, p.3. New York: Macmillan.

24 Velte, P. Stewardship-Theorie., Zeitschrift für Planung & Unternehmenssteuerung (20) 2010, p. 285.

25 Mankiw, N.G./Taylor, M.P, Grundzüge der Volkswirtschaftslehre 2012, p. 13.

26 Reserve Bank of Australia, Bonds and the Yield Curve, 2024, p. 8.

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lower than that of non-green bonds[27]. This leads to lower yield expectations on the investor side. This means that the companies' total issuing costs fall, while the total return decreases (as the initial yield falls). Green bonds are comparable to traditional bonds in terms of seniority, default risk and rating. However, green bonds have a "green" purpose, whereas traditional bonds are used for general corporate financing. It is not clear whether the green bonds are the cause of the "green" purpose being achieved or whether it could not have been achieved with traditional financial instruments. In this case, the market mechanism of supply and demand does not lead to a socially efficient allocation of resources. It is therefore a situation in which the free market is not able to achieve an optimal result. In the worst case, this can lead to market failure.[28] In addition, this may represent a strong incentive for companies to engage in greenwashing.

Regarding ESG ratings, the signaling theory is also a possible explanation for why companies would like to obtain such a certification. Due to prevailing information asymmetries, it is in the company's interest to reduce these by signaling the best possible ESG rating.[29] This measure also sends a credible signal about the company's commitment to the environment and increases the (green) value for bondholders. However, as rating providers work closely with the issuers of the rated financial instruments to obtain the necessary information and are generally also paid by them, there is a considerable risk to the objectivity and independence of the rating providers. In addition, the staff of rating providers may be subject to inappropriate incentive structures when producing ratings which may have a negative impact on the accuracy of their ratings (e.g., if analysts are involved in price negotiations with issuers whose products they are later asked to rate). It is crucial that investors and regulators recognize that credit and ESG ratings are not a guarantee, but merely an opinion based on the raw data and methodology of the rating provider.[30] Market participants have already experienced this with credit ratings in the aftermath of the financial crisis in 2008 when a market failure had already occurred.[31] It is therefore not certain that ESG

27 Curley, M., Finance Policy for Renewable Energy and a Sustainable Environment, 2014, pp 163.

28 Hochfinger, J., Das Greenium. Die Bepreisung von Green Bonds, 2013.

29 Spence, M., Job market signaling, Quarterly Journal of Economics 1973 (87), p. 355.

30 Carvalho, P./Laux, P. A. /Pereira, J.P. S.S., The Stability and Accuracy of Credit Ratings, Working Paper 2014.

31 Stuwe, A./Weiß, M./Philippe, J., Ratingagenturen: Sind sie notwendig, überflüssig, notwendiges Übel oder schädlich?, Working Paper fes 2012, p. 5.

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ratings help to allocate resources in the (green) bond market in a socially efficient way.

C. Literature Review and context analysis

Pertinent literature has investigated both phenomena: green bonds and ESG ratings. In terms of green bonds, Migliorelli and Dessertine argue that green bonds are the most important innovation within the sustainable finance context because they paved the way for many other green products and services.[32] In general, there is both the corporate and the investor perspective. From a companies' point of view, Curley states that green bonds reduce financial expenses on debt. He argues that green bonds can transfer the benefits of flexible payment schedules, credit enhancement techniques, alignment with long-term project schedules, leverage options and other cost-reducing benefits of debt to the green investment space.[33] In addition to that, Flammer finds that U.S. issuers of green bonds can improve their firm-level environmental footprints and financial performance in terms of higher ESG ratings and lower levels of carbon emissions.[34] Flammer also investigates that U.S. companies' environmental performance increases when they issued bonds, but the results were only significant for companies with SPOs.[35] In this context, Marston and Shrives state that if companies anticipate net benefits of publishing information that exceed minimum requirements, they occasionally make voluntary disclosures.[36] Ng argues that it is beneficial for investors if companies issue green bonds and publish additional sustainable data so that they can better support their investment strategies with additional information on issuers' sustainability plans.[37] However, Deschryver and de Mariz analyze that the issuance of

32 Berrou, R./Dessertine, P./Migliorelli, M., An Overview of Green Finance, in: Migliorelli, M./Dessertine, P. The Rise of Green Finance in Europe: Opportunities and Challenges for Issuers, Investors and Marketplaces 2019, p. 15.

33 Curley, M., Finance Policy for Renewable Energy and a Sustainable Environment, 2014, p. 163.

34 Flammer, C., Corporate green bonds, Journal of Financial Economics, 2021 (142), p. 499.

35 Flammer, C., Green Bonds: Effectiveness and Implications for Public Policy, Environmental and Energy Policy and the Economy, 2020 (1), p. 95.

36 Marston, C.L./ Shrives, P.J., The Use of Disclosure Indices in Accounting Research: A Review Article, in: The British Accounting Review (23) 1991, p. 195.

37 Ng, A.W., From sustainability accounting to a green financing system: Institutional legitimacy and market heterogeneity in a global financial centre, Journal of Cleaner Production, 2018 (195) p. 585.

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green bonds is associated with higher costs and complex processes.[38] In addition, when green bonds are issued, investors are often faced with a "greenium". A greenium is the difference in yield that exists when purchasing a green bond compared to the purchase price of a non-green bond and is calculated as a "lower yield" (green bond premium) compared to the yield level of conventional bonds as measured by Hachenberg and Schiereck.[39] Preclaw and Bakshi find that there is a broad range of results from no green bond premium to up to –17 bps of a premium.[40] Prabhu et al. compared this phenomenon between U.S. and European green bonds. They show that the higher oversubscription and spread compression difference in pricings exists with a tighter spread for the European green bonds. The overall investment-grade profile of the green issuers, 80% being A or above, partly explains the insignificance of the greenium in this market. The situation is the opposite in the high-yield segment—their differences contribute to increasing spread gaps, and consequently to a potential greenium.[41] Based on the results of their analysis, Deschryver and de Mariz summarize that there are more challenges for investors than for issuers in terms of green bonds. According to them, the advantages for issuers outweigh the disadvantages for investors. Based on these results, there is a strong incentive for companies to engage in greenwashing. Thus, greenwashing remains a serious risk for all stakeholders.[42] Pertinent literature is also available in terms of ESG ratings. According to Rizello, these ratings are crucial for investors to better assess the companies' ESG-performance.[43] In addition, Lin and Lin emphasize that analysts forecast accuracy is crucial for investors and the company. Investors use the analysts' forecasts in the valuation model to decide the intrinsic value of the firm and make investment decisions.[44]

38 Deschryver, P./de Mariz, F., What Future for the Green Bond Market? How Can Policymakers, Companies, and Investors Unlock the Potential of the Green Bond Market?, in: Journal of Risk and Financial Management (3) 2020, p. 1.

39 Hachenberg, B./Schiereck, D., Are green bonds priced differently from conventional bonds?, in: Journal of Asset Management (19) 2018, p. 371.

40 Preclaw, R./Bakshi, A., The Cost of Being Green, Working Paper Environmental Finance 2015, p. 2.

41 Prabhu, A./Bendersky, C.B./Tsahalis,M., Why Corporate Green Bonds Have Been Slow to Catch on in the U.S, Working Paper, 2019, p. 2.

42 Deschryver, P./de Mariz, F., What Future for the Green Bond Market? How Can Policymakers, Companies, and Investors Unlock the Potential of the Green Bond Market?, Journal of Risk and Financial Management, 2020 (3), p. 10.

43 Rizello, A., Green Investing Changing Paradigms and Future Directions, 2022 pp 1.

44 Lin, B.X./Lin, C.M., SEC FRR No. 48 and analyst forecast accuracy, in: Applied Economics Letters (6) 2017, p. 427.

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However, several studies - like Berg, Kölbel and Rigobson, Liu and Capizzi et al. - show that ESG ratings diverge between the various providers.[45] In the vein of the analyst forecast accuracy literature, it can be assumed that diverging ratings harm efficient pricing on capital markets.[46]

Table 1: Context analysis EU green bond standard and ESG rating regulation

Regulatory target		Impact level	Theory	Reference
Green bond standard	ESG rating			
Combat greenwashing	Establish trust	Accounting	Voluntary disclosure	Marston and Shrives (1991)
		Organization	Stewardship theory	Davis et al. (1997)
Increasing cashflow in sustainable finance	Ensure reliability and comparability	Economics	Signalling	Spence (1973)
			Market efficiency	Mankiw and Taylor (2012)
		Finance	Bondholder value theory	Krämer and Schäfer (2005)
			Market efficiency	Mankiw and Taylor (2012)

Putting the findings from theory and research into an overall context, the following picture emerges, as also shown in Table 1. As far as the European green bond standard is concerned, from a signaling point of view, it seems reasonable to use the standard to signal a certain level of sustainability to investors. However, based on Deschryver and de Mariz, with two green bond standards already in place, there is a risk that a third new standard will drive up the cost of issuance und increase the complexity of processes so that the potential net benefit of voluntary disclosure is not only reduced, but also destroyed. Some research suggests that there will be no increase in net benefits. However, one possible incentive for companies to issue green bonds could be the use of "greenium", which some research has shown to be the case. However, it seems to depend on the jurisdiction and industry in which a company operates and what ESG rating it has. There seems to

45 Berg, F./Kölbel, J.F./Rigobon, R., Aggregate Confusion: The Divergence of ESG Ratings, in: Review of Finance 2022 (26), p. 1315; Liu, M., Quantitative ESG disclosure and divergence of ESG ratings, in: Frontiers in Psychology (13) 2022, p. 1; Capizzi, V./Gioia, E./Guidici, G./Tenca, F., The divergence of ESG ratings: An analysis of Italian listed companies, in: Journal of Financial Management, Markets and Institutions (9) 2021, p. 1.

46 Orens, R./Lybaert, N., Does the financial analysts' usage of non-financial information influence the analysts' forecast accuracy? Some evidence from the Belgian sell-side financial analyst, in: The International Journal of Accounting (42) 2007, p. 237.

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be a strong incentive for companies to engage in greenwashing. This in turn would defeat the purpose of the regulator, increase the risk of market failure, and destroy bondholder value. Based on stewardship theory, however, compliance with the standard seems to make sense.

In view of the forthcoming ESG rating regulation, it would also appear to make sense for companies to signal a certain sustainability quality with a corresponding rating. However, the results of the ratings have so far been very divergent. The harmonization provisions mentioned in the proposed regulation are therefore not sufficient to establish a minimum level of comparability as it does not impose any obligation to standardize the use of raw data, methodology or weighting of ESG factors. Rather, the rating analysts now have an interest in not reducing the divergence in order to signal a corresponding quality leadership in one or more ESG areas in line with the signaling theory. This increased degree of divergence raise overall costs to the detriment of investors.

D. Conclusion and potential for future research

With the European green bond standard and the forthcoming ESG rating regulation, the EU is expanding the regulatory framework for sustainable finance and reporting. With these requirements, the EU is attempting to create a harmonized basis for investor protection - against greenwashing - and to ensure capital market efficiency by channeling financial flows into sustainable finance in order to achieve the goal of the Green Deal. With the GBP and CBS standards, regulatory requirements for issuing green bonds already exist. The question that arises is whether voluntariness is a good incentive for companies to issue green bonds according to the EUGBS. Furthermore, there is a risk that regulatory intervention will lead to a shortage in the supply of green bonds, which increases issuing costs and investment costs. On the other hand, the shortage of supply in the wake of excess demand will reduce refinancing costs. This could lead to an increase in greenwashing and thus counteract the regulatory effect. Therefore, the effect of the EUGBS should be analyzed more closely with the effect of the existing requirements. In addition, the connection between the EUGBS and greenwashing should be analyzed in more detail. From the perspective of regulators, investors and issuers, it is crucial to investigate whether the European green bond standard and the EU taxonomy have a positive impact on investor protection and capital market efficiency. Even if an increase in sustainable investments might be desirable from the perspective of society, based on current theory and academic research, it is doubtful that regulatory

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measures will have a positive effect. The approach of regulating ESG ratings does not go far enough, while interfering with market mechanisms seems too far-reaching. In particular, the quality and scope of raw data for rating agencies in terms of ESG ratings should be standardized. Based on existing theories and relevant academic literature, it is doubtful whether the chosen path will achieve its goal. A view combining the green bond standard, ESG ratings and greenwashing needs to be emphasized and further researched. Besides, the recent micro- and macroeconomic changes like higher levels of general (re-)financing costs should be included. Greater emphasis needs to be placed on the link between the taxonomy regulation, the European green bond standard, ESG ratings and greenwashing.

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