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“The EU regulatory framework for green bonds”

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Table of contents

List of Abbreviations 6

Introductory Remarks 7

Part A: Sustainability and Sustainable finance 8

1. Introduction and definitions 8
2. Sustainable finance: the contribution of the financial system in green transition 9
3. The global initiatives for sustainability 11
   3.1. The main developments 11
   3.2. Other global initiatives: the cases of FSB, BCBS and IOSCO 12
4. The EU regulatory framework for sustainable finance 13
   4.1. The Capital Markets Union and the High-Level Expert Group on Sustainable Finance 13
   4.2. The Commission Action Plan on Financing Sustainable Growth and the European Green Deal 15
5. The EU regulatory measures 17
   5.1. The Sustainable Finance Disclosure Regulation 17
   5.2. The Benchmark Regulation 19
   5.3. The Taxonomy Regulation 20

Part B: Green Bonds: Concept and market standards 24

1. Definition and economic importance 24
2. “Green” and “brown” issuers 27
3. Private governance and market standards 28
   3.1. The Green Bond Principles 28
   3.2. The Climate Bonds Standards 33

Part C: The European Green Bond Standard Proposal 37

1. Towards the EU GBS 37
2. The TEG’s reports on EU GBS 38
3. The proposal for an EU GBS Regulation 40
   3.1. The use of proceeds and Taxonomy alignment 41
   3.2. Transparency and disclosure 42
   3.3. External reviewers 43
   3.4. Third country reviewers 45
   3.5. Supervision and ESMA powers 46
   3.6. Remarks on the delegation of powers to ESMA 47
4. Remarks made by EU Institutions and Agencies on the EU GBR 48

4.1. The European Central Bank's opinion 48
4.2. The Rapporteur's draft report on the Commission proposal 49
4.3. The opinion of the European Economic and Social Committee 51
5. The EBA report on "developing a framework for sustainable securitization" 51
Concluding Remarks 53
Bibliography 54

List of Abbreviations

AIFMD	Alternative Investment Fund Managers Directive
BCBS	Basel Committee on Banking Supervision
CBS	Climate Bonds Standards
CRAs	Credit Rating Agencies
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
EBA	European Banking Authority
ECB	European Central Bank
EESC	European Economic and Social Committee
EFRAG	European Financial Reporting Advisory Group
EFSI	European Fund for Strategic Investments
ESA	European Supervisory Authorities
ESMA	European Securities and Markets Authority
EU	European Union
EU GB	European Union Green Bond
EU GBR	European Union Green Bonds Regulation
EU GBS	European Union Green Bond Standards
FSB	Financial Stability Board
GBP	Green Bond Principles
HFIR	Harmonised Framework for Impact Reporting
HLEG	High Level Expert Group
ICMA	International Capital Markets Association
IDD	Insurance Distribution Directive
IOSCO	International Organization of Securities Commissions
MiFID II	Markets in Financial Instruments Directive II
NCA	National Competent Authorities
NGEU	Next Generation EU
SFDR	Sustainable Finance Disclosure Directive
SSPE	Securitization Special Purpose Entity
TCFD	Task Force on Climate-Related Financial Disclosures
TFEU	Treaty on the Functioning of the European Union
TEG	Technical Expert Group
UCITS	Undertakings for Collective Investment in Transferable Securities
UNFCCC	United Nations Framework Convention on Climate Change

Introductory Remarks

Over the last decades sustainability has been incorporated as a matter of priority in most policy agendas. To that respect, multiple international initiatives such as the United Nations Framework Convention on Climate Change, the Kyoto Protocol, the Paris Agreement and the UN 2030 Agenda for Sustainable Development have been introduced.[1] The European Union has emerged as a global leader in the field, expressing its commitment to lead the relevant initiatives and transform into a zero-emission economy independent from the use of resources. [2] Green transition though requires massive investments to fund the new green projects. Sustainable finance has, thus, emerged as a special field of finance that takes introduces sustainability considerations to investment decisions.

In the light of the above, green bonds have been developed to finance from their proceeds eligible green economic activities and during the last two decades, since their first issuance, green bonds issuances have rapidly increased, whereas investors, as well, have increasing demand for such bonds. Nevertheless, there has not been a regulatory framework governing the issuance and supervision of green bonds. Issuers and investors have been based on market standards that despite their popularity have not managed to completely mitigate "greenwashing" concerns and achieve transparency, credibility and comparability. The European Commission therefore published its proposal for an EU Green Bonds Regulation that would lay down the labelling framework for designating a bond as "EU green bond". The main elements of the "EU green bond" label are (i) that it does not constitute a market initiative but a legal initiative (among the first legal attempts to create a green bond labelling system) and (mainly) (ii) its alignment with the Taxonomy Regulation concerning the permitted use of proceeds. Nevertheless, it is argued that success could not be considered granted *a priori* and there are multiple challenges to be overcame, including persuading issuers to incur the additional costs with the expectation that investors would reward them by pricing the EU green bond with a "greenium".[3]

The aim of this Thesis is to critically approach the market and legal standards for designating bonds as green, arguing that in many cases market participants will ultimately choose the label that best serves their interests, while assessing the different advantages resulting from both categories.

This Thesis is structured in three parts. **Part A** serves as an introduction to sustainability and sustainable finance. The legal framework is analysed, emphasizing on the actions taken at the EU level, which will be the basis for the analysis in the third part. **Part B** analyses the concept of green bonds (including their economic importance and debated topics as is the capability of "brown" issuers to issue green bonds) and examines the main market standards. **Part C** focuses on the steps towards the proposal by the European Commission of the EU green bond Regulation, analyses the proposed Regulation and finally focuses on selected topics on EU green bonds, including the opinions issued by EU institutions and agencies and securitization related concerns.

[1] See Section **A.3** below.
[2] See Section **A.4** below.
[3] See Section **C.3** below.

Part A: Sustainability and Sustainable finance

1. Introduction and definitions

Over the course of the last decades, sustainable finance has been continuously growing in popularity, being to a certain extent a result of the international commitments of sovereigns and international organization to combat climate change. The concept of sustainability though is not completely new. In 1972 the first world conference on the environment was held in Stockholm, resulting in the "Stockholm Declaration and Action Plan for the Human Environment" (the "**Stockholm Declaration**").[4] The Stockholm Declaration linked economic growth with climate change, as shown from principle no 8 (out of the total 26 principles adopted in the Stockholm Declaration).[5] In the same year, the Club of Rome[6] published the "limits to growth; A report for the Club of Rome's project on the predicament of mankind" (the "**Club of Rome Report**"). The Club of Rome Report concludes that (i) unless a decline in population and industrial capacity is to be prevented, the current growth trends should change, (ii) such growth trends could change so as to incorporate sustainability considerations and that (iii) the sooner such a change occurs, the higher chances of success are.[7]

With regards to "sustainable finance" several definitions have been proposed. According to the G20 Sustainable Finance Study Group (that succeeded the Green Finance Study Group), *"[s]ustainable finance can be broadly understood as financing as well as related institutional and market arrangements that contribute to the achievement of strong, sustainable, balanced and inclusive growth, through supporting directly and indirectly the framework of the Sustainable Development Goals (SDGs)*".[8] Furthermore, according to the Commission Communication of 8 March 2018 on an "Action Plan on Financing Sustainable Growth", "*'Sustainable finance' generally refers to the process of taking due account of environmental and social considerations in investment decision-making, leading to increased investments in longer-term and sustainable activities*".[9] Both definition have in common the linkage between financing activities and SDGs or environmental, social and governance (ESG)[10] considerations.

Attempts to mitigate climate change and the development of sustainable finance are also linked to the consequences of unsustainable financial activities on financial stability. In his speech "Breaking the tragedy of the horizon – climate change and financial stability", on 29 September 2015, Mark Carney, Governor of the Bank of England, argued that climate change cannot be questioned.[11] Climate risk, he argued, does not only affect life on Earth, but also poses risks to financial stability. He also identified channels of financial stability deterioration as climate change related disasters increase insurance liabilities, insurance liabilities could also increase due to

[4] Available at: https://daccess-ods.un.org/tmp/4393855.03530502.html
[5] Principle number 8 reads "*Economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life*".
[6] The Club of Rome is a non-profit organization founded in 1968 in Rome and is now located in Winterthur, Switzerland.
[7] **Club of Rome (1972)**, pp. 23-24.
[8] **G20 Sustainable Finance Study Group (2018)**, p. 4.
[9] Commission Action Plan 2018
[10] For the purposes of this thesis, focus will be on the "E" pillar of ESG, considering that (as will be argued below) green bonds focus on the sustainability of the activities to be financed through the proceeds collected.
[11] **Mark Carney (2015),** p. 3.

compensation sought from polluters and transition to a low carbon economy could lead to the revaluation of assets.[12] Arguing that the transition to a low carbon economy is in principal a political decision,[13] he outlined the significance of transparency of information so that investors are able to take well informed decisions with respect to the sustainability of business activities and the efficiency of the new financial products.

The concept of the tragedy of the horizons is a form of inter-temporal tragedy of the commons.[14] The tragedy of the commons occurs when individuals acting in their own interest when exploiting a source deplete that source. In the tragedy of the horizons example, those financing unsustainable activities gain significant profits while future generations bear the costs from such activities.[15]

2. Sustainable finance: the contribution of the financial system in green transition

The contribution of the financial system in promoting sustainability goals is illustrated through mainly its first function, i.e., the allocation of capital from negative to positive savers. **Schoenmaker and Schramade (2019)** argue[16] that "*the allocation of funding to its most productive use is a key role of finance. Finance is therefore well positioned to assist in making strategic decisions on the trade-offs between sustainable goals. While broader considerations guide an organization's strategy on sustainability, funding is a requirement for reaching sustainable goals*".[17] It is the author's view that ensuring sufficient financing is a key aspect for green transition, nevertheless it largely depends on (i) the economic efficiency of the new so-called "green" instruments and (ii) on the will of financial institutions and investors to apply money towards such instruments. That would require *first* adequate information over these instruments' characteristics and *second* the internalization of negative externalities in the assessment of the credit rate and in the prices of securities issued by "sin" (or "brown") companies. In neoclassical economics, negative externalities (as is pollution) are not reflected in the prices and thus a government intervention would be required.[18] A case of such an intervention are the Pigouvian taxes, developed by Professor Pigou, who argued that externalities could be incorporated in the price of goods or services through increased taxes.

Pursuant to the aforementioned, funds from the positive savers are required to finance sustainable activities. Positive savers can be the State, companies and households. Considering though that public funds constitute only a subset of the total funds available to finance economic activities[19] (and are also subject to State Aid rules limitations), sovereigns have sought ways to channel private funds towards sustainable activities. Nevertheless, multiple constraints have been identified, posing barriers towards the financing of such activities. The G20 Sustainable Finance

[12] *Ibid.,* pp. 5-6.
[13] *Ibid.,* p. 12.
[14] **Alexander (2019)**, p. 348.
[15] *Ibid.*
[16] **Schoenmaker, Dirk and Schramade, Willem (2019),** p. 18.
[17] This view is also supported by the 2018 Commission's Action Plan on Financing Sustainable Growth, mentioning that "*Finance supports the economy by providing funding for economic activities and ultimately jobs and growth. [...] It is important to recognise that taking longer term sustainability interests into account makes economic sense and does not necessarily lead to lower returns for investors*" (see COM (2018) 97 final, p. 2).
[18] *Ibid.,* p. 28.
[19] **G20 Sustainable Finance Study Group (2018)**, p. 4

Study Group (2018)[20] identifies such constraints as generic[21] and specific. The latter arise mainly because (i) positive externalities are not necessarily calculated in the profits of the financial activities, (ii) there is a material maturity mismatch among the profit generation of sustainable activities and the market practice acceptable period of time, (iii) the information asymmetry and the lack of transparency when it comes to the sustainable outcome of certain activities, and (iv) the lack of developed methodologies in assessing the sustainable impact of activities and the financial risk.

Towards combatting the aforementioned constraints, the development of new financial assets, labels and methodologies in calculating their contribution to sustainability, has been examined. Capital Markets offer institutional investors the opportunity to invest on sustainable projects and businesses to secure adequate funding through the acquisition and issuance, respectively, of green bonds.[22] Bonds, as will be illustrated in the next Parts, have the advantage of already being familiar to investors, being well placed among most investors' portfolios, and green bonds mainly differ from "traditional" bonds as to the activities towards which the amounts collected will be applied.[23]

As already mentioned, the success of these newly developed assets depends on investors' will to invest on them. To that end, additional barriers to those referred above are identified. Investors' decisions are mainly profit-driven and, thus, to the extent that negative externalities are not incorporated in risk/return equations, their incentives to invest in sustainable instruments are low; investors do not always have the capacity to assess and evaluate sustainable products;[24] there is not always in place an adequate disclosure system;[25] several inconsistencies among different market standards and principles are identified, reducing comparability of different instruments; the true sustainability impact cannot always be safely assessed and; sustainability impact reporting methodologies are not adequately developed.[26] To the extent therefore that the aforementioned challenges cannot be adequately addressed through market initiatives, a regulatory framework should be developed so as to minimize the costs generated from such market insufficiency. Nevertheless, government intervention should be to the minimum extent

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[20] *Ibid.,* pp. 9-10

[21] Generic constraints are caused by market and regulatory failures preventing the efficient flaw of funds in general, irrespective of the nature of the financed activities.

[22] **G20 Sustainable Finance Study Group (2018)**, p. 14.

[23] It should be mentioned that Green Bonds are only a category of "sustainable bonds". The other categories of such bonds include "social bonds" (meaning bonds whose proceeds are targeted towards positive social outcomes) and "sustainability bonds" (meaning bonds whose proceeds are targeted towards both green and social projects). To the extent that the relevant regulatory framework has been to a great extent non-existent, the classification of such bonds has largely been based on market-created principles and guidelines, and thus differences and deviations may be noticed among different standards. See in detail **G20 Sustainable Finance Study Group (2018)**, pp. 14-16.

[24] With respect to green bonds, this second barrier is mainly dealt with the development of market principles so as to label a bond as "green". Nevertheless, market based principles as will be argued in the next Sections of this paper have the disadvantage of not always being trustworthy or not efficiently addressing "greenwashing" concerns. The EU GBS thus, aims at addressing both issues, i.e., creating a trustworthy labelling system and conforming investors that the proceeds will be indeed applied towards the proclaimed activity. Their success though is yet to be seen.

[25] As will be argued below, the aim of the EU Sustainable Finance Disclosure Regulation is to address these concerns.

[26] **G20 Sustainable Finance Study Group (2018)**, p. 22-24.

possible and try to replicate the decision in which well-informed individuals would have concluded. Under this view, the EU regulatory framework will be evaluated.

3. The global initiatives for sustainability

3.1. The main developments

As briefly mentioned under **A.1** above, sovereigns have undertook at an international level the commitment to promote sustainable goals, having entered into international conventions. The aim of this section **A.3** is to briefly present the most important of these conventions, along with the United Nations Sustainable Development Goals.

The first milestone was the United Nations Framework Convention on Climate Change (the "**UNFCCC**") which was agreed on 9 May 1992 and came in force on 21 March 1994. It had in total 197 parties. In its preambles, as the Stockholm Declaration did, the UNFCCC recognizes that "*States have* […] *the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction*". It also recognizes "*that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty*". In light of these, pursuant to Article 2 of the UNFCCC, "*The ultimate objective* […] *is to achieve* […] *stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*".

Following the UNFCCC, the Kyoto Protocol was agreed on 11 December 1997 and came in force on 16 February 2005, with a total of 192 parties. It is based on the UNFCCC and pursuant to it, industrialized countries and economies in transition undertook to reduce their greenhouse emissions.[27]. On 8 December 2012 the Doha Amendment was introduced and came in force on 31 December 2020. Under Article 2 of the Kyoto Protocol, each Party undertook, *inter alia*, to (i) implement and/or elaborate policies and measures and (ii) cooperate with other Parties towards the effectiveness of the policies and measures under (i). Moreover, Article 3 provides that "*the Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article* […]".

On 12 December 2015, 196 parties entered into the Paris Agreement, which came in force in 4 November 2016 and is considered a landmark among the global initiatives.[28] The Paris Agreement constitutes a treaty under the Vienna Convention of the Law of Treaties[29] though it has been argued that not all of its provision create legal obligations.[30] The Paris Agreement is based on the need for economic and social transformation based on 5-year cycles of action and on each Party's

[27] See in detail https://unfccc.int/kyoto_protocol
[28] Available at: https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
[29] It is noted that under Article 2 of the Vienna Convention of the Law of Treaties, a treaty is defined as "*an international agreement concluded between States in written form and governed by international law* […]".
[30] On the nature and the legally binding character of the Paris Agreement, see **Bodansky (2016)**.

National Determined Contributions, i.e., the individual Parties' plans to reduce their emissions, abide by their commitments and become resilient against climate change.[31]

Considering the necessity to secure sufficient funding towards the implementation of the goals laid out therein, the Paris Agreement provides under Article 9 that "*Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention*"[32] and that "*as part of a global effort, developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties. Such mobilization of climate finance should represent a progression beyond previous efforts*".[33] Outlying the significance of developed economies taking the initiatives and mobilizing funds towards these goals may also be linked with the lack of massive investments in green projects and the fact that many developing countries still depend on coal.[34]

Following the Paris Agreement, Resolution A/RES/70/1 "Transforming our world: the 2030 Agenda for Sustainable Development" (the "**2030 Agenda**") was adopted by the UN General Assembly on 25 September 2015. The General Assembly "*resolved to free the human race from the tyranny of poverty and want and to heal and secure our planet*" adopted 17 Sustainable Development Goals and 169 targets to be achieved over the next 15 years.[35] Just like the Paris Agreement, the 2030 Agenda acknowledges the significance of mobilizing adequate funds and underlines the importance of channelling public finance towards this end.[36] Of material importance for the purposes hereof are Goals 8 "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" and 16 "Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development" (whose first limb elaborates on finance related activities), both of which outline the importance of financial inclusion and the mobilization of funds towards developing countries. Overall, the Sustainable Development Goals have built on and succeeded the Millenium Development Goals, with the main difference of addressing all countries and not only the developed.[37]

3.2. Other global initiatives: the cases of FSB, BCBS and IOSCO

In addition to the international initiatives analysed above, numerous relevant initiatives of international organizations and fora can be identified. In this sub-section 3.1, such indicative initiatives will be briefly presented aiming to offer "another view of the Cathedral" so as to

[31] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

[32] *Paris Agreement*, Article 9 par. 1.

[33] *Paris Agreement*, Article 9 par. 3.

[34] **Sachs et al (2019)**, pp. 2-3. They also argue that green banks and green bonds may present several advantages, yet they do not present an adequate solution and more funds should be mobilized.

[35] See preambles of the 2030 Agenda: https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

[36] 2030 Agenda, para. 41. However, as already noted, it should not be disregarded that solely the utilization of public finance would not suffice, considering the amounts required towards green transition and considering the tight timeframe. Private funds are equally needed and thus motives to private investors are to be provided.

[37] With respect to the Millenium Development Goals see in detail Resolution A/RES/55/2 of the UN General Assembly dated 18 September 2000.

provide an extent overview of the existing framework, in which the various green bonds standards have been developed.

In December 2015, the Financial Stability Board, under Mark Carney, established the Task Force on Climate-Related Financial Disclosures (the "**TCFD**") (chaired by Michael R. Bloomberg), following the G20 call on April of that year to examine how the financial sector can consider climate related issues. In December 2016 the TCFD issued its draft recommendations and in June 2017 the final climate-related financial disclosure recommendations were issued. In September 2018 it published its first status report on current disclosure practices followed by the second status report in June 2019 and the 2020 and 2021 status reports in October 2020 and October 2021 respectively.[38]

On 30 April 2020, the Basel Committee on Banking Supervision (the "**BCBS**") published the stocktake report on "*regulatory and supervisory current initiatives on climate-related financial risks*" (the "**Stocktake Report**") was prepared by the high-level Task Force on Climate-related Financial Risks, established in order to assist BCBCS with its task to enhance global financial stability. The Stocktake Report concluded that (i) most members chose to address such risks within their existing framework, (ii) despite the methodological difficulties most members had conducted research and had communicated to banks climate related risk concerns; and (iii) an increasing number of members, though not the majority of them, had been issuing relevant principles.[39]

The presentation of other significant global initiatives concludes with the "Sustainable Finance and the Role of Securities Regulators and IOSCO" report, issued by the International Organization of Securities Commissions (IOSCO) on April 2020. The report is based on the fact that "*sustainability issues in general, and climate-related issues in particular, can raise important challenges in meeting these core objectives*" shared by securities regulators.[40] To that end, the Sustainable Finance Network was established on 2018 to facilitate its members in exchanging their experience and opinions and undertook *first* to list regulators' and market participants' initiatives and *second* to review the initiatives undertook by other organizations. The focus areas of the report are (i) the diversity of the existing framework and the multiple standards developed; (ii) the lack of common definitions; and (iii) greenwashing and investor protection.[41]

4. The EU regulatory framework for sustainable finance

In this subsection, the main events at the EU level that led to the creation of the EU sustainable finance regulatory framework are presented, including the relevant "fundamental" Regulations.

4.1. The Capital Markets Union and the High-Level Expert Group on Sustainable Finance

In its Communication, dated 14 September 2016, "Capital Markets Union - Accelerating Reform", the Commission acknowledged that "*sustainable finance has the power to transform EU capital markets*".[42] The transition to a low carbon economy would require the transformation

[38] See in detail about the TCFD at: https://www.fsb-tcfd.org/about/.
[39] **BCBS (2020)**, p. 1.
[40] IOSCO (2020), p. 1.
[41] *Ibid*.
[42] See COM (2016) 601 final. The "Capital Markets Union - Accelerating Reform" Communication followed the 2015 "Action Plan on Building a Capital Markets Union" (COM(2015) 468 final) (the "**CMU**

of the financial system so as to finance activities promoting sustainable growth in the long term. Such a reform though would be also required for the EU to comply with its commitments under the Paris Agreement and the 2015 Circular Economy Package.[43] It was also declared that "*The Commission will establish an expert group to develop a comprehensive European strategy on green finance*".[44]

The Communication was followed by the Commission Decision of 28.10.2016 on the creation of a High-Level Expert Group on Sustainable Finance (the "**HLEG**") in the context of the Capital Markets Union.[45] Recalling that "*reforms for sustainable finance are necessary to support investment in clean technologies and their deployment, ensure that the financial system can finance growth in a sustainable manner over the long term and contribute to the creation of a low-carbon, climate resilient and circular economy*",[46] the HLEG was established with the tasks of (i) submitting to the Commission policy recommendations with respect to sustainable finance challenges and opportunities and the reformation of the EU financial system and (ii) engaging in structured communication and advocacy towards interested parties.[47]

On 12 July 2017, the HLEG published its Interim Report, providing recommendations for the reformation of the EU's rules and policies towards sustainable finance.[48] Recognizing that in order to keep up with its international commitments and lead in the green economy transition efforts, the EU would need within the next two decades to mobilize more funds towards green investments, amounting at about €180 billion,[49] HLEG sets as a basis for sustainable finance two (2) imperatives, as follows: (i) contributing to sustainable and inclusive growth and (ii) strengthening financial stability and asset pricing.[50] Following the 2017 Interim Report, the HLEG's final report was published on 31 January 2018. As mentioned already in this paper, the HLEG final report also underlines that "*the scale of the investment challenge is well beyond the capacity of the public sector alone*".[51] It recognizes that the European Fund for Strategic Investments (the "**EFSI**")[52] has provided great amounts of funds, however outlines the

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Action Plan"). The CMU Action Plan builds on the fundamental principle of the free flow of capital and is based on six (6) priority areas. For the purposes hereof, of principal importance is priority area number three (3): "Investing for the long term, infrastructure and sustainable investment", where it is declared that "*Europe requires significant new long term and sustainable investment to maintain and extend its competitiveness and shift to a low-carbon and resource-efficient economy*". The CMU Action Plan presents a special interest with regards to Green Bonds. Under Section 3.3, the significance of adequate information is highlighted and points out the significance of ESG bonds towards the shift in investments. It points that market developed standards promote transparency and declares that the Commission shall continue to monitor the developments and evaluate the necessity of developing EU Green Bonds Standards. As it will be shown in **Part C** herein, this monitoring and evaluation concluded in the 2021 Commission's Proposal for a Regulation on European green bonds.

[43] COM (2016) 601 final, p. 5. On the Paris Agreement and the 2015 Circular Economy Package, see under **3.1** above.

[44] *Ibid.*

[45] C(2016) 6912 final.

[46] *Ibid.,* Recital 2.

[47] *Ibid.,* Article 2.

[48] **HLEG (2017)**, p. 2.

[49] *Ibid.*

[50] *Ibid.,* p. 3.

[51] **HLEG (2018a)**, p. 2.

[52] The EFSI was established pursuant to Regulation (EU) 2015/1017 of the European Parliament and of the Council of 25 June 2015 on the European Fund for Strategic Investments, the European Investment Advisory Hub and the European Investment Project Portal and amending Regulations (EU) No 1291/2013

significance of putting forward regulatory changes to transform the financial system and bridge the investment gap.[53] The HLEG final report includes eight (8) priority recommendations, i.e., (i) introducing a common sustainable finance taxonomy; (ii) clarifying investor duties; (iii) upgrading EU's disclosure rules; (iv) empowering and connecting Europe's citizens with sustainable finance issues; (v) developing official EU sustainable finance standards (including the EU GBS); (vi) establishing a 'Sustainable Infrastructure Europe' facility; (vii) reforming governance and leadership of companies; and (viii) enlarging the role and capabilities of the ESAs.[54]

4.2. The Commission Action Plan on Financing Sustainable Growth and the European Green Deal

Based on the Final Report of the HLEG and building on the two imperatives and the recommendations mentioned above, the Commission issued on 8 March 2018 its Communication "Action Plan: Financing Sustainable Growth" (the "**Action Plan**").[55] The aims of the Action Plan are to (i) reorient capital flows towards sustainable investment, (ii) manage financial risks stemming from climate change and social issues, and (iii) foster transparency and long-termism in financial and economic activity.[56]

The Action Plan sets forwards ten (10) actions, as follows:

i. Establishing an EU classification system for sustainable activities: an EU taxonomy should be proposed to classify sustainable activities and, thus, provide a basis for future classification systems. The Commission would be assisted by a technical expert group on sustainable finance (the "**TEG**"),[57] which would consult with all relevant stakeholders and publish relevant reports;[58]

ii. Creating standards and labels for green financial products: the TEG would publish a report on the EU GBS and the Commission would specify the content of the green bonds prospectus;[59]

iii. Fostering investment in sustainable projects: the Commission would take additional measures to enhance the efficiency and impact of sustainability instruments;[60]

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and (EU) No 1316/2013 — the European Fund for Strategic Investments (OJ L 169, 1.7.2015, pp. 1–38) (the "**EFSI Regulation**"). The EFSI would be the result of an agreement among the EU and the EIB and would constitute a "*distinct, clearly identifiable and transparent facility and as a separate account managed by the EIB, the operations of which are clearly distinguished from other operations of the EIB*" (see, EFSI Regulation, Article 4). The EFSI's term was extended in December 2017 until December 2020. For the period 2021-2027, the InvestEU program has been set to mobilize funds towards, *inter alia*, sustainable projects. See in detail: https://www.consilium.europa.eu/en/policies/investment-plan/strategic-investments-fund/.

[53] **HLEG (2018a)**, p. 2.

[54] *Ibid.,* p. 13.

[55] COM(2018) 97 final.

[56] *Ibid.,* p. 2.

[57] The TEG commenced its work in July 2018, comprised of 35 members. On the TEG, see https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en.

[58] **European Commission (2018)**, p. 4.

[59] *Ibid.,* p. 5.

[60] *Ibid.,* p. 6.

iv. Incorporating sustainability when providing financial advice: MiFID II and IDD delegated acts[61] should be amended so as to include sustainability considerations in the suitability assessment, while ESMA would incorporate relevant provisions in its guidelines;[62]

v. Developing sustainability benchmarks: delegated acts on the benchmarks' methodology transparency would be adopted and benchmarks comprising low-carbon issuers would be harmonized;[63]

vi. Better integrating sustainability in ratings and market research: upon consultation with stakeholders the Commission would consider amending the CRA Regulation, ESMA would evaluate current practices and include relevant considerations in its guidelines and the Commission would carry out research on the practice and methodologies of sustainability ratings;[64]

vii. Clarifying institutional investors' and asset managers' duties: a legislative proposal would be put forward with respect to sustainability-related institutional investors' and asset managers' duties;[65]

viii. Incorporating sustainability in prudential requirements: the Commission would consider whether to include sustainability considerations in risk management policies and the calculation of capital requirements, pursuant to the CRR and CRD, whereas EIOPA would opine on the impact of insurance prudential rules on sustainable investments;[66]

ix. Strengthening sustainability disclosure and accounting rule-making: this action would lead to the evaluation and assessment of public corporate reporting rules, the guidelines on non-financial information, and the establishment of a European Corporate Reporting Lab as part of the European Financial Reporting Advisory Group (EFRAG), which would also assess the impact of IFRS on sustainable investments;[67] and

x. Fostering sustainable corporate governance and attenuating short-termism in capital markets: Acknowledging that corporate governance can play a pivotal role in the transition to a sustainable economy, the Action Plan proposes considering to request from boards of directors to incorporate sustainability considerations in their strategies. In the meantime, the ESAs should review the pressure from capital markets on corporations, leading them to act with short-termism and not towards the long-term viability and sustainability of the corporation.[68]

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[61] Pursuant to this action plan, in June 2020, the Commission published drafts with the proposed amendments to MiFID II, AIFMD and the UCITS Directive.
[62] **European Commission (2018)**, p. 7.
[63] *Ibid.*
[64] *Ibid.,* p. 8.
[65] *Ibid.,* pp. 8-9.
[66] *Ibid.,* p. 9.
[67] *Ibid.,* p. 10.
[68] *Ibid.,* p. 11. It should be also noted that ESG factors are taken into consideration by institutional investors willing to invest in issuers who have put in place effective sustainability policies. Given the great number of funds invested by institutional investors, it can be argued that many corporations are (at least) indirectly pressured to adjust the business model towards sustainable business. Nevertheless, to the extent that such rules do not take the form of "hard" law, a common practice among EU Member States is not always observed. This paper does not focus on the incorporation of ESG criteria in corporate governance. It is the

On 11 December 2019, the Commission issued its Communication "The European Green Deal".[69] Repeating (as in other texts that have also been presented herein) the need for significant investments towards sustainable projects, the Commission undertook to present the "Sustainable Europe Investment Plan", which would help meet the additional investments needs,[70] underlying also the importance of private funds for green transition and of enhancing transparency and credibility of sustainable instruments.[71] Following that, on 14 January 2020, the Commission issued its Communication "Sustainable Europe Investment Plan - European Green Deal Investment Plan", as the investment pillar of the European Green Deal.[72] The Sustainable Europe Investment Plan is based on three (3) dimensions, i.e., (i) mobilising at least EUR 1 trillion of sustainable investments over the next decade through the EU budget; (ii) shaping an enabling framework for private investors and the public sector; and (iii) providing tailored support to public administrations and project promoters with regards to sustainable projects.[73]

5. The EU regulatory measures

The main body of the EU regulatory measures with respect to sustainable finance comprises of *Regulation (EU) 2019/2088* of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector[74] (the "**Sustainable Finance Disclosure Regulation**" or "**SFDR**", under **5.1** below), *Regulation (EU) 2019/2089* of the European Parliament and of the Council of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks[75] (the "**Low-Carbon Benchmarks Regulation**", under **5.2** below) and *Regulation (EU) 2020/852* of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088[76] (the "**Taxonomy Regulation**", under **5.3** below).[77]

5.1. The Sustainable Finance Disclosure Regulation

The Sustainable Finance Disclosure Regulation was published on 9 December 2019 and came in force on 10 March 2021. Following the EU's commitments pursuant to the 2030 Agenda for

author's view that sustainable finance should be treated as a discrete area from "sustainable" governance, considering that, as will be argued at a later point of this paper, even "brown" issuers are for example able to issue green bonds. In sustainable finance, the focus is not on the business model and the governance of the corporation but on the sustainable impact of the project to be financed.

[69] COM(2019) 640 final. The European Green Deal builds on the EU's commitments under the UN 2030 Agenda and constitutes the roadmap of key policies and measures. The aim remains to transform the EU into a zero emission economy independent from the use of resources, see **European Commission (2019)**, pp. 2-3.

[70] *Ibid.,* p. 15.

[71] *Ibid.,* pp. 16-17.

[72] COM(2020) 21 final.

[73] *Ibid.,* p. 2.

[74] OJ L 317, 9.12.2019, pp. 1–16.

[75] OJ L 317, 9.12.2019, pp. 17–27.

[76] OJ L 198, 22.6.2020, pp. 13–43.

[77] **Gortsos (2020a)**, p. 5, characterizes the three (3) Regulations as the "*'regulatory trilogy' implementing the (European) Commission's 2015 Action Plan "on Building a Capital Markets Union" (CMU) in relation to sustainable finance*". This is true considering the impact and significance of these Regulations, especially of the Taxonomy Regulation. The majority of the other regulatory measures build on these Regulations, e.g., a main characteristic of the EU GBS is the Taxonomy-alignment, an issue discussed below herein. For that reason, a more detailed analysis of the Taxonomy Regulation is chosen herein.

Sustainable Development and the Paris Agreement,[78] it points that "*disclosures to end investors on the integration of sustainability risks, […] in investment decision-making and in advisory processes, are insufficiently developed because such disclosures are not yet subject to harmonised requirements*"[79] and unless harmonized rules are adopted "*it is likely that diverging measures will continue to be adopted at national level and different approaches in different financial services sectors might persist. Such divergent measures and approaches would continue to cause significant distortions of competition because of significant differences in disclosure standards*".[80] The aim of SFDR is to lay down harmonized rules regarding (i) the integration of sustainability risks in the processes developed by financial market participants and financial advisers (as both defined under Article 2 therein) and (ii) the provision of relevant information as for financial products.[81]

SFDR includes provisions and obligations on (i) the transparency of sustainability risk policies, (ii) adverse sustainability impacts at entity level, (iii) remuneration policies in relation to the integration of sustainability risks, (iv) the integration of sustainability risks, (v) adverse sustainability impacts at financial product level, (vi) the promotion of environmental or social characteristics in pre-contractual disclosures, (vii) sustainable investments in pre-contractual disclosures, (viii) the promotion of environmental or social characteristics and of sustainable investments on websites, and (ix) the promotion of environmental or social characteristics and of sustainable investments in periodic reports.[82] Financial markets participants are obliged to keep up to date the information under (i), (iii) and (viii) above.[83]

SFDR is based on the principal-agent theory and it attempts to reduce any information asymmetries between the financial market participants and financial advisors and end investors.[84] The inclusion of such rules in a regulation rather than in a directive enhances harmonization, nevertheless, the inclusions of options and exemptions[85] along with the "comply or explain" principle, may potentially undermine this aim, highlighting, thus, the significance of putting in place well elaborated and concrete levels 2 and 3 rules.[86] **Busch (2021)** considers the lack of central supervisor, common rules on liability and administrative sanctions as additional potential impediments to harmonization.[87] Overall, the SFDR can be considered as an ambitious plan,

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[78] **SFDR**, Recitals 1-3.
[79] *Ibid.,* Recital 5. On the categories of transparency requirements and the different regulatory interventions, see **Troeger, and Steuer (2021)**.
[80] **SFDR**, Recital 9.
[81] *Ibid.,* Article 1.
[82] *Ibid.,* Articles 3-11. Several of the obligations provided therein are based on the principle "comply or explain", e.g., Article 6 provides that "*Where financial market participants deem sustainability risks not to be relevant, the descriptions referred to in the first subparagraph shall include a clear and concise explanation of the reasons therefor*", whereas pursuant to Article 12 "*Where a financial market participant amends such information, a clear explanation of such amendment shall be published on the same website*".
[83] *Ibid.,* Article 12.
[84] *Ibid.,* Recital 10
[85] *Ibid.,* Articles 16(1), 17(1) and 17(2).
[86] **Busch (2021)**, pp. 32-33.
[87] *Ibid.,* pp. 38-40. With respect to the lack of a common supervisor, it is the author's view that this does not *a priori* constitute an impediment to harmonization. *First*, the CMU, contrary to the Banking Union, has not been based on the idea of a pan-European supervisor. *Second*, the legal basis for conferring supervisory duties to the ESAs is not unquestionable (see also, **Annunziata (2021)**). *Third*, the harmonized application of rules can be equally effectively be achieved by the NCA, to the extent that adequate levels 2

whose success will depend on the reaction of international leading financial institutions and its resilience against attempts of regulatory arbitrage.[88]

5.2. The Benchmark Regulation

The Low-Carbon Benchmarks Regulation repeats most of the SFDR's Recitals regarding the EU's international commitments and the need to channel funds towards sustainable investments. Though uniform benchmarks rules had been established pursuant to Regulation (EU) 2016/1011 (the "**Benchmarks Regulation**"),[89] it is noted that "*the establishment of EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks, underpinned by a methodology linked to the commitments laid down in the Paris Agreement regarding carbon emissions, would contribute to increasing transparency and would help prevent greenwashing*".[90] Considering also that "*different categories of low-carbon indices with various degrees of ambition have emerged in the market*",[91] the internal market is fragmented because benchmarks users do not possess adequate information with respect to the benchmarks in use.[92] It is thus deemed necessary to amend the Benchmarks Regulation so as to introduce the "*minimum requirements for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks at Union level*".[93] Two (2) new benchmarks were introduced, i.e., (i) the EU Climate Transition Benchmark;[94] and (ii) the EU Paris-aligned Benchmark[95].

Pursuant to Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019,[96] Article 40 of the Benchmarks Regulation was amended and ESMA became the competent authority for administrators of critical benchmarks (currently that being EURIBOR) and administrators of the benchmarks referred to in Article 32.[97] The role of the ESAs, and particularly of ESMA, in the green transition related efforts is exceptionally highlighted when it comes to benchmarks, a field where regulatory technical standards are of particular importance, considering that the Benchmarks Regulation, as amended and in force, instructs ESMA to develop draft regulatory technical standards with respect to several issues contemplated therein.[98]

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and 3 rules are in place (considering also Article 17 of Regulation (EU) No 1095/2010 (OJ L 331, 15.12.2010, p. 84–119, the "**ESMA Regulation**").

[88] **Busch (2021)**, p. 40.

[89] OJ L 171, 29.6.2016, pp. 1–65.

[90] **Low-Carbon Benchmarks Regulation**, Recital 9.

[91] *Ibid.,* Recital 11.

[92] *Ibid.,* Recital 12.

[93] *Ibid.,* Recital 14.

[94] To qualify as an EU Climate Transition Benchmark, its underlying assets are selected, weighted or excluded in such a manner that the resulting benchmark portfolio is on a decarbonisation trajectory and is constructed in accordance with the minimum standards laid down in the delegated acts of Article 19a(2) of the Benchmarks Regulation, see **Low-Carbon Benchmarks Regulation,** Article 1.

[95] To qualify as an EU Paris-aligned Benchmark, its underlying assets are selected, weighted or excluded in such a manner that the resulting benchmark portfolio's carbon emissions are aligned with the objectives of the Paris Agreement, it is constructed in accordance with the minimum standards laid down in the delegated acts of Article 19a(2) of the Benchmarks Regulation, and the activities relating to its underlying assets do not significantly harm other environmental, social and governance (ESG) objectives, see **Low-Carbon Benchmarks Regulation,** Article 1.

[96] OJ L 334, 27.12.2019, pp. 1–145.

[97] **Regulation (EU) 2019/2175**, Article 5(12).

[98] For an overview of the Implementing and Delegated Acts on the Benchmarks Regulation, see https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/benchmarks-regulation-level-2-measures-full_en.pdf.

5.3. The Taxonomy Regulation

The need for a taxonomy has already been outlined in the HLEG Final Report and the first action of the 2018 Action Plan.[99] In March 2020, the TEG published its Final Report on Taxonomy.[100] According to this Final Report, the Taxonomy works as an instrument facilitating access to green finance through the technical screening criteria, i.e., thresholds determining whether a particular activity (i) makes a significant contribution to any of the environmental objectives, (ii) does no significant harm to the rest of these environmental objectives, and (iii) meets some minimum safeguards.[101] On 22 June 2020 Regulation (EU) 2020/852 was published.[102] It is proclaimed that the creation of a labelling system is crucial to enhancing investors' confidence, transparency and addressing greenwashing.[103] However, a non-harmonized across the EU labelling system would undermine comparability and impede cross-border transactions.[104] Taxonomy Regulation concludes that "*the criteria for determining whether an economic activity qualifies as environmentally sustainable should be harmonised at Union level in order to remove barriers to the functioning of the internal market with regard to raising funds for sustainability projects, and to prevent the future emergence of barriers to such projects*".[105] The purpose of the Taxonomy Regulation is to establish "*the criteria for determining whether an economic activity qualifies as environmentally sustainable for the purposes of establishing the degree to which an investment is environmentally sustainable*".[106]

In order to qualify as environmentally sustainable, an investment or economic activity must meet the three (3) cumulative criteria set out in the TEG's 2020 Final Report mentioned above (substantial contribution to environmental objectives, the "do no significant harm" principle, and the minimum safeguards), and comply with technical screening criteria established by the Commission pursuant to the Taxonomy Regulation.[107] Additional disclosure obligations, under the SFDR, regarding financial products investing in activities contributing to an environmental objective are also introduced. Such is the requirement to disclosure information related to the environmental objective(s) to which the investment contributes and of an explanation of the correlation between the investment and the environmentally sustainable character of the activity.[108] Disclosure obligations are introduced with respect to financial products that promote environmental characteristics in pre-contractual disclosures and in periodic reports, other financial products in pre-contractual disclosures and in periodic reports, and undertakings in non-financial statements.[109]

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[99] See Sections **4.1** and **4.2** herein, respectively.
[100] **TEG (2020)**.
[101] *Ibid.,* p. 2.
[102] On the taxonomy Regulation in general see, by means of mere indication, **Gortsos (2020a)** and **Och (2020)**.
[103] **Taxonomy Regulation**, Recital 11. See also on the significance of taxonomy **Alexander, K. and P.G. Fisher (2018).**
[104] *Ibid.*
[105] *Ibid.,* Recital 12.
[106] *Ibid.,* Article 1(1).
[107] *Ibid.,* Article 3.
[108] *Ibid.,* Article 5.
[109] *Ibid.,* Articles 6-8.

As already mentioned, to qualify as environmentally sustainable, an economic activity must first substantially contribute to one or more of the environmental objectives. Such environmental objectives are exhaustively listed under Article 9 of the Taxonomy Regulation, as follows:

i. climate change mitigation;[110]

ii. climate change adaptation;[111]

iii. the sustainable use and protection of water and marine resources;

iv. the transition to a circular economy;[112]

v. pollution prevention and control; and

vi. the protection and restoration of biodiversity and ecosystems.

A particular economic activity substantially contributes to any of the environmental objectives under (i) to (vi) above, if it meets the criteria under Articles 10-15 of the Taxonomy Regulation or if it directly enables other activities to make a substantial contribution to one or more of those objectives (the "**Enabling Activity**") as long as (i) such Enabling Activity does not lead to a lock-in of assets that undermine long-term environmental goals, considering the economic lifetime of those assets, and (ii) it has a substantial positive environmental impact, on the basis of life-cycle considerations.[113]

The second criterion for environmentally sustainable qualification is the "do no significant harm" to the environmental objectives requirement. Taking into account the life cycle of the products and services provided by an economic activity, including evidence from existing life-cycle assessments, Article 17(1) lays down the circumstances on which an activity is considered to do significant harm, with respect to each environmental objective.[114] The minimum safeguards criterion is elaborated in Article 18, referring to "*procedures implemented by an undertaking that is carrying out an economic activity to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights*".[115]

Regarding the technical screening criteria compliance criterion, it is acknowledged that due to the evolving nature and character of science and technology, they should be kept up to date and that "*granular and calibrated technical screening criteria for the different economic activities should be established by the Commission on the basis of technical input from a multi-stakeholder*

[110] Defined as "*the process of holding the increase in the global average temperature to well below 2 °C and pursuing efforts to limit it to 1,5 °C above pre-industrial levels, as laid down in the Paris Agreement*", see **Taxonomy Regulation**, Article 2 point 5.
[111] Defined as "*the process of adjustment to actual and expected climate change and its impacts*", see Taxonomy Regulation, Article 2 point 6.
[112] Defined as "*an economic system whereby the value of products, materials and other resources in the economy is maintained for as long as possible, enhancing their efficient use in production and consumption, thereby reducing the environmental impact of their use, minimising waste and the release of hazardous substances at all stages of their life cycle, including through the application of the waste hierarchy*", see **Taxonomy Regulation**, Article 2 point 9.
[113] *Ibid.,* Article 16.
[114] *Ibid.,* Article 17.
[115] *Ibid.,* Article 18.

platform on sustainable finance".[116] The Commission when deploying the technical screening criteria should also have regard to scientific data and life-cycle considerations,[117] the infrastructure sector, environmental, social and economic externalities.[118] Finally, it is noted that across different sectors, the contribution of an economic activity to the above mentioned environmental objectives may vary and, thus, such variation should be depicted in the technical screening criteria to be developed.[119] Based on these thoughts, it is provided that technical screening criteria shall be adopted pursuant to Articles 10(3), 11(3), 12(2), 13(2), 14(2) and 15(2) of the Taxonomy Regulation.[120] Article 19 sets out nineteen (19) requirements for technical screening criteria to comply with, also adding that they "*shall also include criteria for activities related to the clean energy transition consistent with a pathway to limit the temperature increase to 1,5 0C above pre-industrial levels*",[121] exclude power generation activities using solid fossil fuels from qualifying as environmentally sustainable activities,[122] and include criteria for activities related to the switch to clean or climate-neutral mobility.[123]

The Taxonomy Regulation also provides for the establishment of a Platform on Sustainable Finance (the "**Platform**").[124] The Platform is comprised of 57 members and 11 observers as follows: 50 members, experts representing stakeholders, civil society, academia or in a personal capacity having demonstrated knowledge and experience in the Taxonomy Regulation covered areas are selected following a public call for applications and 7 members represent the European Environment Agency, the ESAs, the European Investment Bank and the European Investment Fund, and the European Union Agency for Fundamental Rights.[125] The role of the Platform is mainly advisory to the Commission, applying also a cost-benefit analysis to the technical screening criteria and monitoring capital flows towards sustainable investments.[126]

Overall, the most significant contribution of the Taxonomy Regulation is deemed the creation of a common terminology when it comes to identifying environmentally sustainable activities, setting the general framework, which is specified through the technical screening criteria.[127] Nevertheless, and despite the fact that from the Recitals to the operation of the Platform the need to remain updated and keep up with scientific evolution has been in multiple ways underlined, there is always a possibility of becoming under-inclusive, not covering new technologies and solutions to climate change.[128] In addition, **Gortsos (2020a)** notes that the "*EU taxonomy classification system, which constitutes the core of this legislative act, will be taken over in other*

[116] *Ibid.,* Recital 38.
[117] *Ibid.,* Recital 40.
[118] *Ibid.,* Recital 44.
[119] *Ibid.,* Recital 45.
[120] For an analytical presentation of the technical screening criteria, see **Gortsos (2020a)**, pp. 20-24.
[121] *Ibid.,* Article 19(2).
[122] *Ibid.,* Article 19(3).
[123] *Ibid.,* Article 19(4).
[124] *Ibid.,* Article 20. For more information on the Platform on Sustainable Finance, see https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance/platform-sustainable-finance_en.
[125] **Taxonomy Regulation**, Article 20(1).
[126] *Ibid.,* Article 20(2).
[127] **Farmer, and Thompson (2020)**.
[128] *Ibid.*

sources of EU financial regulation, which apply to credit institutions, investment firms and investment fund managers, as well as insurance companies”.[129]

[129] **Gortsos (2020a)**, p. 34.

Part B: Green Bonds: Concept and market standards

1. Definition and economic importance

Green bonds can be conceived as usual bonds, with the exception that the proceeds from their issuance are targeted towards the financing of green projects.[130] The first green bond was issued on 5 July 2007, when the European Investment Bank issued the inaugural Climate Awareness Bond.[131] Since then, the green bonds market has rapidly grown and it is calculated that it reached €185 million in 2019.[132] Considering that the main (or only) difference of green bonds from traditional bonds is the use of proceeds, transparency is of paramount importance, especially through impact reporting and external reviews.[133]

Before focusing on areas of interests such as the challenges or the market standards, it is useful to review whether issuers prefer green bonds for financial or/and reputational gains.[134] Through the green bond issuance, issuers signal to the market that they are committed to contribute to green transition through projects with a positive environmental impact and simultaneously diversify their investor base.[135]

Their financial advantage of choosing a green bond rather than in traditional bonds, should be assessed by researching whether a premium (a so-called "greenium") exists to the prime compared to the latter. At the moment, there is no consensus over the existence of such greenium.[136] **Fatica, Panzica, and Rancan (2019)** found that only the "green bond" label is not always adequate in order to benefit from a lower premium. Further, their research concluded on the fact that a greenium may potentially exist for green bonds issued by supranational and non-financial institutions.[137] However, such greenium may largely vary across issuers; for example, supranational institutions enjoy a strong reputational advantage which reflects in the premium of green bonds they issue. Corporations though have to overcome (and for that purpose they can largely benefit from the use of external review) information asymmetry and transparency challenges in order to establish their commitments and mitigate greenwashing concerns.[138] Financial institutions face an additional challenge compared to corporations; proving the indirect link between raising funding through green bonds and the environmentally sustainable character of their lending activities.[139] Despite the inconsistencies of the literature over greenium, it is reasonable to argue that the pricing difference of green bonds over traditional bonds relies mainly

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[130] **Schoenmaker, and Schramade (2019)**, p. 272. Green bonds differ from social bonds, i.e., bonds whose proceeds are targeted towards projects social benefits. They are less developed than green bonds and mainly governed from the Social Bond Principles introduced by ICMA, see *Ibid.,* p. 276.

[131] For more on the Climate Awareness Bonds, see: https://www.eib.org/en/investor-relations/cab/index.htm.

[132] **Commission (2020)**, p. 1.

[133] *Ibid.* It is also noted that green bonds in principle rank *pari passu* with traditional bonds. That means green bondholders, in case of enforcement against the issuer, shall rank equally with the other debtors, unless it is secured or the other bond loans issued by that particular issuer are subordinated, in which case the provisions of the civil procedure of the governing law shall regulate any ranking issues, see **Park (2018)**, p. 14.

[134] **Maragopoulos (2022)**, p. 10 supports that reputational gains mainly drive issuers of green bonds, who perceive them as a signal to investors towards their climate-related commitments.

[135] **International Capital Markets Association (2022b)**, p. 10.

[136] **Commission (2020)**, p. 2.

[137] **Fatica, Panzica, and Rancan (2019)**, p. 6.

[138] *Ibid.,* pp. 6-7.

[139] *Ibid.,* p. 11.

on the ability of the issuers to signal their commitment to environmentally sustainable projects.[140] It is also the author's view that to the extent negative externalities are not internalized, the additional spread over conventional bonds funding "brown" projects does not reflect in full the financial benefit of green bonds.

Another argument against the case for a greenium is that green bonds are not ring-fenced,[141] meaning that the payments are not tied with the financed project.[142] This, it is argued, could indirectly lead to the financing of "sin" activities from "*the free cash-flows that the new round of financing creates at the issuer level*".[143] Ring-fencing could be achieved if the issuer has no other assets rather than the green financed project.[144] This may be achieved through the establishment of a (wholly-owned) subsidiary, owning the project to be financed and therefore offering to investors transparency, mitigating any greenwashing concerns and benefiting from the greenium.[145] To that end, EIB promoted the creation of separate sub-portfolios to ensure the proper use of proceeds,[146] whereas, the World Bank has published a guide on green bonds proceeds management and reporting, substantially requiring crediting the proceeds to a separate green account, a sub-account or to a virtual green account.[147]

It has been highlighted above that adequate information is of paramount importance for the proper function of the green bonds market. That lack creates the challenge of asymmetrical information that takes the form, *inter alia*, of "greenwashing" concerns and the creation of a "market for lemons". In the literature, several definitions of greenwashing can be identified.[148] According to **Delmas and Burbano (2011)** greenwashing constitutes "*the intersection of two firm behaviors: poor environmental performance and positive communication about environmental performance*".[149] This definition underlines the inconsistency between a company's environmental performance and the impression it attempts to create to third parties (including stakeholders and potential investors), while it is noted that it would be irrational for any firm to emphasize on bad environmental performance and, thus, such companies choose to either remain

[140] **Ehlers, T. and Packer, F. (2017)**, p. 90, argue that "*green bonds at issuance have been priced at a premium on average relative to conventional bonds, while their performance in the secondary market has been similar to other bonds if currency risks are hedged*". On the other hand, **Karpf and Mandel (2017)**, p. 15, are rather sceptical and argue that "*the market penalizes green bonds to a higher degree than brown bonds*". In general, see **Cortellini, and Panetta (2021)**, pp. 9-14.

[141] According to **JRC (2020)**, p. 29, the term 'ring-fencing' "*is used to refer to the non-transferability of assets between different portfolios within the company balance sheet for prudential reasons*".

[142] **Schoenmaker and Schramade (2019),** p. 274.

[143] **Troeger, and Steuer (2021)**, p. 16.

[144] **Schoenmaker and Schramade (2019),** p. 274. This, though, it is understood could be achieved only for corporations and potentially supranational institutions creating a special purpose vehicle to raise the funds. Such a complex scheme would be more difficulty be created by financial institutions that, as already mentioned, may indirectly prove the link between the green bond issuance and the green project to be financed.

[145] **Climate Bonds Initiative (2021b)**, pp. 20-21.

[146] **Dupre et al. (2018)**, p. 2

[147] **The World Bank (2018)**, p. 3

[148] **de Freitas Netto et al. (2020)**, p. 6, mention several of those definitions.

[149] **Delmas and Burbano (2011)**, p. 5. The first greenwashing accusation is reportedly dated in 1986 and regarded inaccurate water conservation strategies in the hospitality market, see **de Freitas Netto et al. (2020)**, p. 2. The definition proposed by **Delmas and Burbano (2011)** emphasises on the environmental aspects, which, to the author's view, in relation to green bond issuance should be the main concern. **de Freitas Netto et al. (2020)**, p. 10, argue that the term can have different interpretations and one could include social issues, as well.

silent or emphasize on any positive aspects.[150] This behavior is similar to not disclosing information over activities with a negative environmental impact and disclosing only information on positive performance, which has been characterised as selective disclosure.[151] This results in diminishing confidence over the market, and for as long as no adequate disclosure and regulatory framework is in force, more companies are incentivised to engage in such behavior.[152]

It is of practical importance to attempt to identify the factors promoting or facilitating greenwashing, so as to adequately and efficiently design the regulatory response. Regulatory drivers refer to regulatory failures in identifying cases of greenwashing or the lack of clarity in the regulatory framework and the non-enforceability of any regulations in force.[153] Further, to the extent that there are among countries different approaches to the combat of the phenomenon and, especially, developing countries have a less rigorous relevant regulatory framework,[154] there is adequate space for regulatory arbitrage. Regarding market drivers, it is perceived that the risk of greenwashing increases when there is increased stakeholders' pressure towards the adoption of environmentally friendly practices and competition among companies in the same market in adopting such practices.[155] The third category of greenwashing drivers identified, refers to internal characteristics of the business. It has already been mentioned that "brown" companies have an incentive to practice greenwashing, which increases if the possibility of being exposed remains low. It is therefore a matter of internal structure of the organization, commitment to an ethical behaviour and establishment of internal processes, whether a particular company will engage with such activities.[156]

The "market for lemons" argument draws from Akerlof's example from the car market to argue that unless investors have adequate information, bad cars would drive good cars out of the market as they would both sell at the same price, buyers, though, not being able to distinguish between good and bad cars would not be willing to pay such price and eventually the bad cars (the so-called "lemons") would lead good cars out of the markets.[157] As Akerlof mentions "*similarly, bad money drives out good because the exchange rate is even*".[158] The main cause for bad assets prevailing in the market and, eventually, leading it to distinction is information asymmetry; sellers/buyers possess knowledge that is not normally available to buyers/investors.[159] The adverse selection problem also applies to the green bond market, in which "green" and "brown" issuers coexist and investor are sceptical towards the bonds quality.[160] Unless efficient and trustworthy disclosure mechanisms are in force, green bond issuers are not able to distinguish from non-green bonds and, therefore, as long as investors purchase the latter, their price increases

[150] **Delmas and Burbano (2011)**, p. 8.
[151] **de Freitas Netto et al. (2020)**, p. 6.
[152] **Delmas and Burbano (2011)**, p. 30.
[153] *Ibid.,* p. 11. Under these circumstances, it is mainly private actors, such as Non-Governmental Organizations and activists, that have on their own initiative undertook to monitor companies in order to detect and publicize any greenwashing cases. Companies, to mitigate reputational risk, therefore are indirectly obliged to avoid such behavior, see *Ibid.,* p. 13.
[154] **de Freitas Netto et al. (2020)**, p. 2.
[155] **Delmas and Burbano (2011)**, p. 14. This phenomenon could potentially result in consumers' distrust towards the market and therefore the "market of lemons" problematic analysed below applies.
[156] *Ibid.,* pp. 16-17.
[157] See **Akerlof (1970)**.
[158] **Akerlof (1970)**, p. 490.
[159] See also *Ibid.,* p. 495.
[160] **Henide (2021)**, p. 10.

and the problem of adverse selection occurs.[161] For that reason, disclosure regimes, mandatory green audit, fees optimization, penalty as deterrence to non-green issuers and effective oversight are proposed as potential measures to address adverse selection in the green bond market.[162] The stricter operation of the market should increase investors' protection and give incentives to (true) green bond issuers to participate in the market.[163] This is what market standards attempt to address, e.g., the fourth core component of ICMA's Green Bond Principles, as analysed below, is reporting, whereas the aim of the Climate Bonds Standards is to enhance market integrity and increase investors' confidence in the market through strict requirements for certification.

Regarding the economic challenges in the promotion of the green bond market, the debate over the existence of a greenium has been analysed above. Even if it is accepted though that such a greenium exists, the incurred external (for the engagement of external reviewers) and internal (for the proceeds management) costs, the reputational risk rising from market's, stakeholders' and media's reaction, uncertainty over eligible assets, and the lack of common process in proceeds tracking, are all factors that could potentially lead issuers to the issuance of a traditional rather a green bond.[164]

2. "Green" and "brown" issuers

A topic often discussed is whether "brown" issuers, i.e., issuers who are not committed to environmentally sustainable activities, could issue green bonds. The solution chosen is in favour of granting them such possibility, to the extent that the only requirement to classify a bond as green is the allocation of its proceeds.[165]

It is argued herein that this may be the optimal, at least currently, solution. *First*, the issuance of green bonds by brown issuers has the potential to accelerate the green transition of sectors of the economy, gathering funds from investors committed to investing in sustainable projects, whereas issuers may (to an extent, as will be discussed shortly below) benefit from the greenium.[166] *Second*, considering that the issuance of bonds towards the financing of green projects is permitted without using the label "green", brown issuers would still be able to issue non-labelled green bonds and expect from the market to price such bonds as if they were labelled green bonds.[167] It would, thus, not be reasonable to deprive them from the benefits of the labelling system, to the extent that other issuers are not negatively affected from such issuance. *Third*, such a prohibition would require a "brown" taxonomy, so as to identify which activities not only do not count as substantially contributing to environmental objectives, but produce a counter result. Such a taxonomy has been rejected in the past considering the interpretation difficulties[168] and that investors would be demotivated (if not prohibited) to invest in such "brown" business, their green

[161] *Ibid.,* p. 19.
[162] *Ibid.,* pp. 19-21.
[163] *Ibid.,* p. 27.
[164] **TEG (2019a)**, pp. 15-16.
[165] See under **B.1** above.
[166] **Climate Bonds Initiative (2021b)**, p. 12.
[167] This view is supported by the fact that the labelling systems are optional. Therefore, green issuers are still able to issue bonds effectively similar with green bonds, with the only difference that they have not been labelled as such under any market standards, or in the future under the EU GBS.
[168] **Platform on Sustainable Finance (2021)**, p. 14.

transition would stalk behind and regulatory arbitrage attempts would result in them leaving the EU economy.[169]

It is noted that this is the choice made by the Green Bond Principles, as well, as ICMA notes in its Guidance Handbook that "*subject to any applicable law or regulation, all types of issuers in the debt capital markets can issue a Green […] Bond*",[170] and that "*the focus of Green Bonds is on the eligible projects rather than on the issuer itself*".[171]

3. Private governance and market standards

As already mentioned, regulatory intervention with regards to green bonds has been limited. To address, therefore, the challenges mentioned above and especially in order to create conditions of transparency reassuring investors that their funds will indeed be channelled to the financing of the proclaimed green project, quasi-regulatory tools have been developed by the market.[172] This market self-regulation constitutes a combination of internally developed and multilateral initiatives.[173] It is expected that compliance with standards that have been established in the market and are highly regarded by investors will provide issuers with a reputational benefit and in addition, the transparency achieved will potentially be reflected in the bonds' price.[174]

3.1. The Green Bond Principles

The Green Bond Principles (the "**GBP**") introduced by the International Capital Markets Association ("**ICMA**")[175] are among the most used market standards classifying bonds as green. The aim of the GBP, as of the other principles published by ICMA,[176] is, through the voluntary compliance with them, to enhance market integrity by promoting transparency and disclosure.[177] To facilitate interpretation of the GBP, ICMA also published in January 2022 the updated version of the "Guidance Handbook", initially published in 2019.[178] As in traditional green bonds definitions found in the literature, the GBP define green bonds as "*any type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the four*

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[169] **EFAMA (2021)**.

[170] **International Capital Markets Association (2022b)**, p. 9.

[171] *Ibid.,* p. 11. It is noted, though, that depending on the particular circumstances, investors may seek additional disclosures for transparency reasons. To that purpose, they may make use of the Climate Transition Finance Handbook.

[172] **Park (2018)**, p. 6.

[173] *Ibid.,* p. 18.

[174] *Ibid.,* p. 19.

[175] ICMA was established on 2005, as a successor of the International Securities Market Association (established on 1992 as a successor of the Association of International Bond Dealers, established on 1969) following its merger with the International Primary Market Association. For more on the history of ICMA, see https://www.icmagroup.org/About-ICMA/history/. Its purpose "*is to promote resilient well-functioning international and globally coherent cross-border debt securities markets, which are essential to fund sustainable economic growth and development*", see also: https://www.icmagroup.org/About-ICMA/mission/. Apart from the GBP, ICMA has also published the Social Bond Principles, the Sustainability Bond Guidelines and the Sustainability-Linked Bond Principles.

[176] See footnote above.

[177] **International Capital Markets Association (2021)**, p. 2.

[178] **International Capital Markets Association (2022b).** The Guidance Handbook covers a wide area of GBP topics, such as the fundamentals of green bonds issuance, the Principles' Core Components, market and technical issues, governance and membership, market and official sector initiatives and COVID-19 and social bonds related issues.

core components of the GBP".[179] The following (cumulative) key requirements can be identified from this definition: (i) the application of proceeds; (ii) the eligibility of the Green Project; and (iii) the alignment with the core components of the GBP.

In the June 2022 appendix that was attached to the GBP, ICMA identified four (4) types of green bonds. Standard Green Use of Proceeds Bonds, as their name indicates, are the standard and most simplified type (unsecured and with full recourse to the issuer) of green bonds. Under Green Revenue Bonds the exposure in the bond is to the pledged cash flows and the proceeds are channelled to (un)related Green Projects. A Green Project Bond is project bond under which the investor is exposed to the risk of the financed project. A secured Green Bond, finally, is a secured bond (be that a covered bond, a secured note or other), the proceeds of which finance the projects securing that bond or projects of the issuer irrespectively of whether they secure that bond.[180]

The core components of the GBP are four (4), as follows: (i) the use of proceeds; (ii) the process for project evaluation and selection; (iii) the management of proceeds; and (iv) reporting.[181]

i. Use of Proceeds

As already discussed, the use and allocation of proceeds is the foundation of characterizing or not a bond as green. For that reason, it should be described in the bond's legal documentation (e.g., in the program of the bond loan, which pursuant to Greek Corporate Law 4548/2018, Article 60, contains the provisions and the terms of the bond loan). In addition, they shall be targeted towards eligible Green Projects that provide clear, assessed and quantified (where applicable), environmental benefits.[182] The GBP also include a list of eligible Green Projects categories, i.e., 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, circular economy adapted products, production technologies and processes and certified eco-efficient products, and green buildings.[183] Such eligible Green Projects contribute towards the environmental objectives which under the GBP are five (5) and more precisely, (i) climate change mitigation; (ii) climate change adaptation; (iii) natural resource conservation; (iv) biodiversity conservation; and (v) pollution prevention and control.[184]

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[179] **International Capital Markets Association (2021)**, p. 3. It could be argued that the "equivalent amount" and "refinancing purpose" concepts in the use of proceeds deviate from the traditional definitions. The ability and the debate over the ability to use an equivalent amount instead of the funds indeed raised through the bond issuance is connected to the "ring-fencing" discussion under section **B.1** herein. The allocation of proceeds towards for refinancing purposes, raises similar concerns to those discussed above, regarding the issuance of green bonds by financial institutions, to the extent that the proceeds collected are not channelled directly towards the financing of a green project but to other financing activities. For that reason, the **International Capital Markets Association (2021)**, p. 4, recommends that issuers calculate the anticipated share of financing or re-financing, and disclose the projects to be refinanced along with the expected look-back.

[180] *Ibid.,* p. 8.

[181] *Ibid.,* p. 4. **International Capital Markets Association (2022b)**, p. 11, notes that whereas alignment with the GBP is voluntary, non-alignment may result in the issuers' reputational damage and such alignment should be addressed in reporting. Whether the non-alignment with the GBP constitutes an event of default should be addressed in the legal documentation of the bond.

[182] **International Capital Markets Association (2021)**, p. 4.

[183] *Ibid.,* pp. 4-5.

[184] *Ibid.,* p. 4. The environmental objectives of the GBP are similar to the environmental objectives of the Taxonomy Regulation, or more precisely the environmental objectives of the Taxonomy Regulation may

At this point, it should be noted that the eligible Green Projects list is indicative and not exhaustive.[185] The GBP, therefore, do not include their own taxonomy system, whereas it is clarified that "*the GBP's purpose is not to take a position on which green technologies, standards, claims and declarations are optimal for environmentally sustainable benefits*".[186] This is considered to be a major difference from the EU GBS which are Taxonomy-aligned. For the GBP, the issuer should take into consideration the various taxonomy systems developed and decide whether or not to comply with them. The only aim is to persuade investors that the project in respect with the bond issuance should qualify as an eligible Green Project. This is one of the aims of the process for Project Evaluation and Selection, discussed just below.

ii. Process for Project Evaluation and Selection

The second core component of the GBP aims to enhance transparency and investors' confidence. For that reason, it is provided that issuers should inform investors with respect to (i) the environmental sustainability of the Green Project; (ii) the issuer's reasoning for the financed project to qualify as an eligible Green Project;[187] and (iii) the mechanisms of identifying and managing any social and environmental risks arising from the financed project.[188] Issuers are also encouraged to (i) connect the information provided above with their sustainability-related actions and plans; (ii) inform investors of any taxonomy-alignment or any green standards and certificates they have; and (iii) have in place mechanisms to find ways of mitigating social and environmental risks.[189]

iii. Management of Proceeds

The third core component refers to the management of the proceeds raised from the green bond issuance. Again, the aim is to achieve transparency for investors and create the mechanisms allowing the latter to keep track of the proceeds management. For that purpose, the GBP provide that the issuer should track the net proceeds (per bond or on an aggregated basis) in an appropriate way and have in place an internal process linked to its lending and investment activities.[190] In addition, for the time that any amount of the green bond is outstanding, the issuer should periodically adjust the track net proceeds and notify to investors how the unallocated net proceeds will be temporarily placed.[191]

In order to achieve transparency, issuers are also encouraged to use external auditors or third-party services to attest the issuer's internal process with respect to tracking and allocating the proceeds.[192] As already mentioned, it is argued herein that to the extent the GBP operate more as

have been based and on the older GBP environmental objectives, adding to them the transition to a circular economy.

[185] *Ibid.,* p. 4.

[186] *Ibid.,* p. 5.

[187] This communication requirement is tied to the lack of a GBP taxonomy. The challenges arising from this and the issuers' burden to persuade investors for the project's eligibility have been discussed in this section. To the extent that such communication is not sufficient or the taxonomy system selected to comply with is inadequate, greenwashing concerns may rise. It is not also known *a priori* how different investors will react to the same issuer's communication of information. A negotiation cost is, thus, born by issuers. The EU GBS try to an extent to mitigate such cost.

[188] **International Capital Markets Association (2021)**, p. 5.

[189] *Ibid.,* p. 5

[190] *Ibid.,* p. 6.

[191] *Ibid.,* p. 6.

[192] *Ibid.,* p. 6.

guidelines and do not provide a comprehensive framework, it is left to the issuers' intention and investors' reaction to shape green bonds in a manner that adequately complies with any taxonomy systems and whose proceeds are indeed channelled to the proclaimed cause, whereas efficient mechanisms allowing investors to monitor issuers are in force. This results in costs generation for both issuers and investors and, thus, the role of external review is highlighted. In turn, such external review should be based on principles allowing the thorough and proper review of the issuer.

iv. Reporting

The fourth and final GBP core component is reporting. It is provided that information relevant to the use and allocation of proceeds should be updated (annually or more often if a material development requires so) and kept available.[193] The issuer should generate an annual report which shall also mention the financed projects and their expected impact. If legal or factual constraints limit the issuer's ability to describe in detail the information mentioned above, it is recommended that issuers aim at least for a more generic or on an aggregated basis description of such information.[194] Highlighting again the need for transparency, the use of qualitative performance indicators and quantitative performance measures is suggested.[195]

In order to facilitate issuers with their reporting obligations, ICMA has published the "Harmonised Framework for Impact Reporting" handbook (the "**Harmonised Framework**" or the "**HFIR**"), which includes principles, recommendations and impact reporting metrics, on which issuers can be based when developing their own reporting strategy.[196] The Harmonised Framework has been published in order to incorporate into a single document the various frameworks published on the different GBP eligible Green Project categories.[197]

HFIR includes in total eighteen (18) core principles and recommendations for reporting. Pursuant to them, issuers, as already mentioned in the GBP, should at least annually report on the use of proceeds and the anticipated environmental impact, define and disclose the period and process for including projects in the report, have in place mechanisms for the allocation of proceeds based on their lending and investment activities, and notify to investors the financed projects.[198] The report (whose structure depends on the chosen manner of proceeds allocation) should include information on the total signed amount and the amount of proceeds allocated to eligible disbursements and an *ex ante* estimation on the Green Project's expected environmental impact or outcome, along with the expected lifetime results and economic life of the project so as to facilitate investors in their decision.[199] Principles and recommendations are also included regarding the *ex post* verification of projects, project results' comparability, indicators' calculation methodology, units conversion, qualitative and quantitative reporting, reporting of

[193] *Ibid.,* p. 6.
[194] *Ibid.,* p. 6.
[195] *Ibid.,* p. 6.
[196] See **International Capital Markets Association (2022a)**. The first "Harmonised Framework for Impact Reporting" was published on 2015 by AfDB, EIB, IFC and the World Bank.
[197] *Ibid.,* p. 5.
[198] *Ibid.,* p. 8. It is noted that projects are added to and removed from the report either directly, based on the allocation of proceeds to eligible disbursements, or indirectly through their inclusion or exclusion from a portfolio.
[199] *Ibid.,* pp. 8-9.

different project components, the cash-flows currency, and data collection and sharing[200].[201] It is also noted that some projects may have compartments that qualify under the eligibility criteria while other compartments do not. That project is considered to be partially eligible and therefore, in case issuers accept such projects, they should disclose information on the methodology used to allocate the proceeds among the components and the portion of the eligible component.[202] Finally, HFIR provide sector specific guidance and reporting metrics for each eligible Green Project category mentioned in the GBP, entailing core and other indicators.

In 2017, a group of Nordic public sector issuers published a "position paper on Green Bonds Impact Reporting" which was updated in 2017 and 2020.[203] This position paper aims to balance between reporting at a certain, manageable level and absolute, detailed and fully verifiable numbers, emphasizing also on the need to report not only on the project itself, but on its contribution to green transition as well.[204] Pursuant to the general reporting principles entailed in the position paper, the report should include an executive summary and a spreadsheet summary, annual reporting is suggested mainly for dynamic portfolios and the annual impact should be reported, the report should be also based on the project's share that has been financed, the impact per monetary unit when quantifiable and relevant should be also reported, dynamic portfolios for which multiple bonds have been issued should include a pro-rata allocation of impact to each bond, the net benefits are based on an *ex ante* calculation of the expected impact, emphasis is put on environmental impact rather than social and/or economic impact and for cross-border projects a both geographical and sectoral approach should be pursued.[205] The position paper also includes provisions on the environmental impact methodology,[206] along with recommendations for different project categories that are more often addressed by Nordic public sector green bonds.[207] Overall, the position paper constitutes a practical guide that has been based on the practice of Nordic public sector issuers but other issuers can be based on its recommendations and benefit from the sharing of knowledge and expertise.[208]

v. GBP Key Recommendations

The GBP also include two (2) key recommendations on (i) the Green Bond Frameworks; and (ii) external reviews.

Pursuant to the Green Bond Framework key recommendation, the Green Bond Framework or the bond's legal documentation should elaborate on the linkage between the green bond and the GBP

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[200] With respect to collection and transfer of data, it is noted that issuers have the possibility to make use of impact reporting databases. To that respect, ICMA published in 2021 its Guidelines (developed by the Impact Reporting Working Groups) for Green, Social, Sustainability and Sustainability-Linked Bonds' Impact Reporting Databases, with the aim of enhancing transparency by facilitating the flow and updating the quality of data. The topics of the guidelines range from ethical standards and governance to calculation methodologies and data presentation. For more on the guidelines, see https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Guidelines-for-Green-Social-Sustainability-and-Sustainability-Linked-Bonds-Impact-Reporting-Databases-June-2021-100621.pdf.
[201] **International Capital Markets Association (2022a)**, pp. 9-10.
[202] *Ibid.,* p. 10.
[203] See **Nordic Public Sector Issuers (2020)**.
[204] *Ibid.,* p. 3.
[205] *Ibid.,* p. 5.
[206] *Ibid.,* pp. 19-22.
[207] *Ibid.,* pp. 24-33.
[208] *Ibid.,* p. 3.

core components, along with information on the issuer's strategy on sustainability issues and the disclosure of taxonomies, green standards or certifications.[209] Especially for projects in the context of climate change mitigation that are Paris-aligned, ICMA published in December 2020 the Climate Transition Finance Handbook, as a guide to market participants with respect to the practices, actions and disclosures required to achieve the aim of keeping global temperature rise well below 2°C above pre-industrial levels and subsequently limiting temperature increase to 1.5°C.[210]

Under the second key recommendation, the use before issuance of external review providers' services is encouraged so as to review whether the bond to be issued aligns with the GBP core components.[211] After issuance, it is suggested that external reviewers are also engaged in the process of proceeds management and with respect to internal tracking and funds allocation. To that respect, ICMA published in June 2022 the Guidelines for External Reviews to provide information and enhance transparency on external review through the promotion of best practices.[212] Pursuant to these guidelines, external review (either complete or partial) may vary between second party opinion, verification, certification, and bond scoring or rating, reviewers shall act with integrity, objectivity, professional competence and due care, confidentiality and professional behaviour and they should structure their organization in a manner ensuring the proper conduct of their business.[213]

3.2. The Climate Bonds Standards

The second category of market developed standards for green bonds are the Climate Bonds Standards (the "**CBS**") developed by the Climate Bonds Initiative[214] and first published in 2011, which set out the conditions on which a green bond could be certified as a Climate Bond. A key element is the creation of the Climate Bonds Standard & Certification Scheme, which is based on the CBS, the Climate Bonds Taxonomy, Sector Eligibility Criteria, guidance material and certification documents.[215] The aim is through the certification to bolster investors' confidence and enhance transparency. Therefore, in order to be deemed as a Certified Climate Bond, the Climate Bonds Standard Board has to verify whether such green bond fulfils the requirement of the Climate Bonds Standards.[216] Similarly, to the definitions mentioned above, a green bond is considered to be a bond "*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 is aligned with the four core components of the Green Bond Principles or the Green Loan Principles*".[217] It is noted, also,

[209] **International Capital Markets Association (2021)**, p. 7.
[210] For more see: https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Climate-Transition-Finance-Handbook-December-2020-091220.pdf. The key elements of this handbook are four (4), as follows: (i) the issuer's climate transition strategy and governance; (ii) the business model environmental materiality; (iii) the climate transition strategy being 'science-based' including targets and pathways; and (iv) implementation transparency.
[211] **International Capital Markets Association (2021)**, p. 7.
[212] *Ibid.,* p. 7.
[213] For more see: https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/External-Review-Guidelines_June-2022-280622.pdf. It is also recommended that such reviews are publicly disclosed. This disclosure should benefit the investors and mitigate any concerns over the alignment of the bonds with the GBP.
[214] The Climate Bonds Initiative is an international non-profit organisation established in 2010
[215] **Climate Bonds Initiative (2019)**, p. 5.
[216] *Ibid.,* p. 8.
[217] *Ibid.,* p. 8.

that CBS recognise three (3) different types of eligible projects and assets, i.e., (i) physical assets or projects;[218] (ii) debt or other financing arrangements;[219] and (iii) related and supporting expenditures for projects or physical assets[220].[221]

In order to receive the certification envisaged in the CBS, an issuer must comply with pre- and post- (for the continuance of the certification) issuance requirements. The certification process initiates with the bond and Green Bond Framework (the "**Framework**")[222] preparation. Then a verifier is hired to attest the fulfilment of all requirements and upon issuance of its report, the bond is issued. Within twenty four (24) months following bond issuance, the verifier's post-issuance report is required and, in addition, the annual issuer's report.[223]

The aim of the pre-issuance requirements is to define whether the proper internal processes and controls have been established and are sufficient to ensure compliance with the CBS requirements upon issuance. Further, the Issuer is obliged to provide the document setting out the Issuer's compliance with the pre-issuance requirements.[224] The pre-issuance requirements are four (4), as follows:

i. *Use of proceeds*: Issuers must document the projects for which the bonds to be issued will be utilized and which are considered to fall within the eligible projects and assets categories mentioned above. Furthermore, issuers are prohibited from targeting other certified bonds to such projects unless it is proven that those different bonds will finance distinct portions of the projects or that the existing certified bonds will be refinanced.[225]

ii. *Evaluation and projects/assets selection process*: regarding the establishment of the project's eligibility, the issuer must have in place a decision-making process that includes a statement on the bond's objectives, the relation between the bond's issuance and the issuer's strategy and overarching objectives, the issuer's rationale and the process for proving the bond's alignment with the eligibility requirements specified in the CBS. Issuers are further encouraged to include any additional information related to the eligibility criteria, green standards and certification they refer to.[226]

iii. *Proceeds management*: the issuer must describe the mechanisms through which the proceeds will be tracked, unallocated proceeds will be managed and the earmarking process.[227]

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[218] Physical assets may include machinery, equipment and land, whereas projects equipment, machinery, infrastructure and/or buildings in construction.
[219] This category refers to capital expenditure, acquisition costs, leasing, loans, mortgages, subsidies, tax and other incentives.
[220] Related and supporting expenditures for projects or physical assets include installation and routine maintenance expenditures, performance monitoring costs and research and development.
[221] **Climate Bonds Initiative (2019)**, pp. 9-10.
[222] The Framework is defined as all such information that establishes the issuer's compliance with the CBS. It is considered an important part of the process towards certification and issuers are obliged to disclose the Frameworks.
[223] **Climate Bonds Initiative (2019)**, p. 21.
[224] *Ibid.,* 12.
[225] *Ibid.,* pp. 12-13.
[226] *Ibid.,* p. 13.
[227] *Ibid.,* p. 14.

iv. *Pre-issuance reporting*: the Green Bond Framework mentioned above must be published the latest on the issuance date. In the Framework, the issuer must reaffirm the alignment with the CBS and any other applicable standards, summarize the envisaged use of proceeds and management of unallocated proceeds, describe the decision-making process referred to above, inform on the methodologies and assumptions to be used, the process for providing updated reports, the proposed projects and assets and (in the case of a refinancing) the proportion of the proceeds to be used for the refinancing. The issuer must also disclose the investment area of the project, the temporary investment instruments to be used for the management of unallocated proceeds, the details of the verifier who will conduct the mandatory verification, the approach towards update reports and the disclaimer provided in the certification agreement.[228]

Similar to the pre-issuance requirements, post-issuance requirements refer to the same four (4) categories, as follows:

i. *Use of proceeds*: the proceeds from the bond issuance, which cannot exceed the issuer's investment exposure or debt obligation to the project, must be channelled within twenty four (24) months from the date of issuance to the project that was declared to be financed at the pre-issuance stage, which project must conform with the documented bond's objective and as stated above cannot be financed from another certified green bond unless for financing distinct portions of the project or refinancing purposes. Further, in case of refinancing, the issuer must track the relevant portion of the amounts raised, based on the internal processes it has established per the above. It is noted that, although additional projects that meet the eligibility requirements may be added to the portfolio, if such projects meet sector eligibility criteria but have not been subject of the verification pre- or post- issuance, a verifier must be engaged regarding at least the conformance with the sector eligibility criteria.[229]

ii. *Evaluation and projects/assets selection process*: the analysis at the pre-issuance requirements section above applies here as well.[230]

iii. *Proceeds management*: the proceeds must be credited to a sub-account or sub-portfolio and be tracked in a proper way by the Issuer, who must keep in place the earmarking process mentioned above. The balance of the proceeds is reduced by any amounts allocated to the project, whereas any unallocated amounts are held temporarily in cash or cash equivalents, which cannot include projects that are not in line with the green transition process, or are applied to temporarily reduce indebtedness of a revolving nature.[231]

iv. *Post-issuance reporting*: for as long as the bond remains outstanding, the issuer undertakes to provide bondholders and the Climate Bonds Standard Board with an update report, which will be also publicly available (so as to include the bond in the green bonds database and declare conformity with the EU Green Bond Standard[232]), and, in case a

[228] *Ibid.,* p. 15.
[229] *Ibid.,* p. 17.
[230] *Ibid.,* p. 17.
[231] *Ibid.,* p. 18.
[232] With the term EU Green Bond Standards, CBS refer to the standards for EU Green Bonds that were proposed by the Technical Expert Group in 2019.

material development occurs, to promptly provide bondholders with an update report. This update report includes the allocation reporting, the eligibility reporting (where applicable), the impact reporting, confirmation of alignment with the CBS, statement on the bond's climate-related objectives along with their geographical distribution, list of the projects to which proceeds have been (re)allocated and the amounts thereof, estimation of the (re)financing proceeds share, confirmation of the continuing fulfilment of the eligibility requirements, the projects' environmental characteristics and their expected or actual outcomes compared to the bond's climate-related objectives, the methodology used when designing qualitative performance indicators and any Verifier reports accompanying the update report.[233]

The Climate Bonds Taxonomy

The Climate Bonds Taxonomy (the "**CB Taxonomy**"), first published in 2013 and periodically revised and updated, has been created so as to assist investors in determining and assessing whether a particular activity is compatible with the green transition efforts.[234] It is bases on a traffic light system, according to which, some activities are automatically compatible with a 1.5˚C degree decarbonisation trajectory (green light), other are not compatible (red light), some require compliance with screening indicators (yellow light) and there is a fourth category, the allocation to which of a traffic light colour requires the conduct of additional work.[235] To that end, the CB Taxonomy provides the asset types, asset specifics and screening indicators to determine the "traffic light" assignable to a variety of activities in the fields of electricity and heat production, transmission, distribution and storage of energy, passenger, freight and supporting transport infrastructure, water supply management and wastewater treatment, with respect to buildings commercial issues, residential and energy efficiency, urban development, agriculture, husbandry, aquaculture and seafood, industrial and energy intensive processes, recycling, reuse and other waste managements, networks, management and communication tools.[236]

As a subset to the CB Taxonomy, the Climate Bonds Initiative has developed the sector criteria, in order to determine the certification of assets and projects that comply with the climate change benchmarks for each sector. The criteria are established following a five-stage process that includes (i) research and assessment; (ii) outreach and consultation; (iii) technical drafting; (iv) public consultation; and (v) final approval.[237] The available, at the date hereof, sector criteria regard (protected) agriculture, bioenergy, buildings, electrical grids and storage, forestry, land conservation and restoration, geothermal energy, hydropower, low carbon transport, marine renewable energy, solar energy, shipping, wind energy, waste management and water infrastructure, whereas criteria for land use, basic chemicals, fisheries, steel and hydrogen are in being developed.

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[233] **Climate Bonds Initiative (2019)**, pp. 19-20
[234] **Climate Bonds Initiative (2021a)**, p. 1.
[235] *Ibid.,* p. 1.
[236] *Ibid.*
[237] For more see: https://www.climatebonds.net/standard/sector-criteria.

Part C: The European Green Bond Standard Proposal

1. Towards the EU GBS

The imperative for the development of the EU GBS has been present at most EU actions and plans regarding the promotion of sustainable finance in the Union. The most indicative examples analysed above are the HLEG's Final Report and the 2018 Action Plan. In the European Green Deal, it is mentioned that "*increased opportunities will be provided for investors and companies by making it easier for them to identify sustainable investments and ensuring that they are credible* […] *via clear labels* […] *and by developing an EU green bond standard that facilitates sustainable investment in the most convenient way*".[238]

Following the HLEG's Final Report, in January 2018 the "Informal Supplementary Document on Green Bonds" was published (the "**Supplementary Document**"), based on key recommendation number five (5) of the HLEG's Final Report, providing additional relevant technical information.[239] It contemplates that the EU GBS will prevail over the GBP, achieving the goals of transparency and integrity.[240] The four Supplementary Document's core components of the EU GBS i.e., use of proceeds, process for project evaluation and selection, management of proceeds, and reporting have been largely based on the GBP, repeating several of their provisions, whereas special emphasis is put on the requirement of engaging external reviewers to confirm compliance with the core principles.[241]

In order for the EU to comply with its ambitious plan and international commitments towards green transition, large amounts need to be invested. Green bonds seem as an efficient tool to this goal as the proceeds will be directly channelled to projects servicing these aims and this is the reason why the EU has decided to increase green bond issuances, e.g., in the context of the NextGenerationEU program.[242]

NextGenerationEU (the "**NGEU**") was created in the context of the measures for the recovery from the COVID-19 pandemic and is added to the other borrowing (through bond issuance) programs designed and operated by the EU.[243] Consistent with its commitment to promote sustainable finance markets, the EU, through the European Commission, has decided to finance 30% (approximately €250 billion) of the NGEU through the issuance of green bonds[244] and it is expected that EU will become one of the globally largest issuers of green bonds.[245] The Commission therefore aligns the green bonds issued under the NGEU with the Taxonomy, the GBP and (to the extent feasible) with the proposed EU GBS.[246] The NGEU green bond framework is as a result aligned with the four core principles of the GBP. Under this framework, eligible expenditures are considered those reforms and investments, listed in the Implementing Decisions

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238 COM/2019/640 final, p. 17.
239 See **HLEG (2018b)**.
240 *Ibid.,* p. 1. According to the Supplementary Document, EU Green Bonds should be considered the listed bonds that cumulatively (re)finance eligible green projects in accordance with the Taxonomy, comply with the EU GBS core components, and have been verified by external reviewers.
241 *Ibid.,* p. 4.
242 **Maragopoulos (2022)**, p. 15.
243 **European Commission (2021b)**, p. 1.
244 *Ibid.,* p. 4.
245 *Ibid.,* p. 9.
246 *Ibid.,* p. 9.

of the Council regarding the approval of the Recovery and Resilience Plans[247] of Member States, that comply with the EU's climate coefficient methodology and the "do no significant harm" principle.[248] Following the NGEU green bonds' connection with the Recovery and Resilience Facility (RRF), reporting obligations are based on the reporting obligations Member States have undertook.[249] Following the NGEU green bond framework, V.E. was commissioned to provide and published its independent second party opinion that affirmed its alignment with ICMA GBP's four core components and coherence with the EU's strategic sustainability priorities.[250]

2. The TEG's reports on EU GBS

Following the HLEG's final report, mentioned above, whose fifth priority recommendation included the development of the EU GBS, and the Commission's Action Plan, the TEG's subgroup on Green Bonds Standards published on 6 March 2019 its interim report on the proposal for an EU Green Bond Standard (the "**Interim Report**"). The Interim Report, which was mainly addressed for public discussion purposes, highlights the importance of green bonds for financing new green projects that will accelerate the green transition efforts, notes, though, that the green bonds market faces challenges such as the "competition" with traditional bonds and the fact that it is a niche market, tied with infrastructure financing.[251] To overcome these challenges, their contribution to transparency, greening the bond market, green transition, defining "green", and promoting green policies, should be illustrated.[252]

The Interim Report envisages the creation of voluntary, market based and international GBS[253] and is based on eleven preliminary recommendations as follows:

i. Creating a voluntary EU GBS, in the form of a Commission's recommendations (e.g., by means of a Communication), which standard should be accompanied from efficient market monitoring;

ii. Impact monitoring and re-evaluation after a three-year period to determine whether any legal action should be taken, such as the adoption of a Regulation or Directive;[254]

iii. Creating a centralised, ESMA operated, accreditation regime for external green bond verifiers;

iv. Creating an interim voluntary accreditation committee for external green bond verifiers;

v. Encouraging investors, especially European institutional investors, to align their fixed-income investment strategies with the EU GBS;

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[247] The Member States' Recovery and Resilience Plans must provide for a minimum of 37% climate expenditure for compliance with the process of expenditure evaluation and investment selection included in the NGEU green bond framework. See *Ibid.,* p. 12.

[248] *Ibid.,* p. 9. Of relevant importance is Opinion 04/2022 (pursuant to Article 287(4) and Article 322(1)(a), TFEU) concerning the proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2021/241 as regards REPowerEU chapters in recovery and resilience plans and amending Regulation […], available at: https://www.eca.europa.eu/Lists/ECADocuments/OP22_04/OP_REPowerEU_EN.pdf.

[249] **European Commission (2021b)**, p. 14.

[250] See **V.E (2021)**.

[251] **TEG (2019a)**, p. 13.

[252] *Ibid.,* pp. 13-14.

[253] *Ibid.,* pp. 16-17.

[254] *Ibid.,* p. 23.

vi. Setting up a disclosures regime for institutional investors;

vii. Greening the financial system through the promotion of EU Green Bonds by the European Central Bank;

viii. Promoting credit enhancement guarantees for sub-investment grade green bonds;

ix. Encouraging issuers to comply with the EU GBS;

x. Developing a grant scheme with the purpose of off-setting external verification additional costs; and

xi. Referring to the EU GBS in the technical criteria for the financial products' EU ecolabel.[255]

The core components of the proposed EU GBS refer to the green character of the financed projects, the Green Bond Framework, reporting, and verification. The eligible assets, capital and operational expenditure should comply with the Taxonomy and its technical criteria, and in case the latter are not available or exceptionally in transition periods, with the Taxonomy's fundamental principles, as is the substantial contribution to an environmental objective.[256] Considering also the lack of common practice among issuers in the market with respect to the Green Bond Framework, it is proposed that it includes the EU Green Bond's environmental objective and its relation with the issuer's strategy, the process for determining Taxonomy alignment, description of the (re)financed projects, tracking of the allocated amounts, and the methodology used for reporting and the calculation of metrics.[257] In a similar way, reporting should include a statement of EU GBS compliance and information on the financed projects, the allocated amounts and the green bond ratio, i.e., the division of the total outstanding debt amount by the total outstanding green bonds.[258] Accreditation should also be given pre- and post- issuance by formally accredited external reviewers.[259]

It is acknowledged in the Interim Report that transparency and integrity in the external review market should be sought in order to overcome challenges such as the transaction costs, conflicts of interest, inadequate disclosure, and certification, assurance and verification inadequacy that have not been dealt from the existing market initiatives.[260] The standardization and accreditation of external review is therefore proposed, to promote investor confidence and comparability, as well.[261] To that respect, it is proposed that ESMA supervises the centralised authorization regime, in a similar way to Credit Rating Agencies' supervision, as the alternatives of having a decentralised regime, taking no action or opting for a market-based regime have been dismissed.[262] Finally, considering that the EU market is mainly bank rather than capital markets based, the Interim Report expresses the intention to design the EU GBS in a way that they can become a reference in the green loan market, harmonizing, thus, both markets' frameworks.[263]

[255] *Ibid.,* pp. 6-7.
[256] *Ibid.,* p. 20.
[257] *Ibid.,* p. 21.
[258] *Ibid.,* p. 22.
[259] *Ibid.,* p. 22.
[260] *Ibid.,* p. 25.
[261] *Ibid.,* p. 26.
[262] *Ibid.,* pp. 27-28.
[263] *Ibid.,* p. 37.

Following the Interim Report, in June 2019 the TEG "Report on EU Green Bond Standard" was published (the "**TEG Report**"). The TEG Report does not introduce material changes from the Interim Report and calls the European Commission to decide on the introduction of the EU GBS.[264] Green bonds shift investors' main focus from issuers' risk profile to the use of proceeds and reporting, yet they have been often criticized and their effectiveness has been disputed.[265] Nevertheless, considering that the market trends are favouring the issuance of green bonds and their ability to substantially contribute to green transition targets, the TEG Report aims at the designing of the EU GBS in a way that they can enhance market integrity and maximize their contribution.[266]

Most of the proposals are similar to those of the Interim Report. It is recommended to create a voluntary standard based on four (4) core components, have a transitional verifiers' voluntary registration process, encourage the EU GBS use by institutional investors, design a green bonds disclosure regime, use EU GBs as a tool towards the greening of the financial system, incentivise alignment with the EU GBP, encourage issuers to comply with the EU GBP, prioritize EU GB in the EU Ecolabel technical criteria, and monitor alignment with the Taxonomy considering taking legal action after a three-year period.[267] Similarly to the Interim Report, the core components proposed by the TEG Report are (i) Taxonomy alignment, (ii) definition of the Green Bond Framework, (iii) reporting, and (iv) verification.[268] TEG also repeats its recommendation to establish an ESMA centred accreditation system as it already has developed expertise in this area from its CRAs related tasks, and environmental issues have been gradually incorporated in its mandate.[269]

3. The proposal for an EU GBS Regulation

Following the aforementioned, the European Commission published in July 2021 a "Proposal for a Regulation of the European Parliament and of the Council on European green bonds" (the "**EU GBR**").[270] As mentioned in the proposal's explanatory memorandum, the aim is to shape a common framework of rules regarding (i) EU GB i.e., bonds pursuing environmentally sustainable objectives linked to the Taxonomy Regulation through the financing of economic activities with a lasting positive environmental impact,[271] and (ii) registration and supervision of external reviewers.[272] It is expected that the establishment of the EU GBS will overcome the challenges posed to investors by the variety of market standards and the lack of common definitions through transparency and standardization of processes.[273] The legal instrument of a Regulation has been selected as letting each Member State adopt its own (or freely moving within the boundaries set from a Directive) measures could potentially result in the fragmentation of the internal market and increased costs for investors.[274]

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[264] **TEG (2019b)**, p. 15.
[265] *Ibid.,* pp 18-19.
[266] *Ibid.,* p. 23.
[267] *Ibid.,* pp. 11-12.
[268] *Ibid.,* pp. 9-10.
[269] *Ibid.,* p. 40.
[270] COM(2021) 391 final.
[271] **European Commission (2021a)**, recital 9.
[272] *Ibid.,* See also **Maragopoulos (2022)**, p. 16.
[273] **European Commission (2021a)**, recitals 3-4.
[274] *Ibid.,* recitals 5-7.

The EU GB label shall be available to all issuers that wish to issue bonds "*available to investors in the Union*".[275] The term issuer covers legal entities, irrespectively of whether they are financial undertakings, non-financial undertakings, sovereigns or whether they are located inside or outside the EU. The ECB in its opinion on the EU GBR emphasizes on the last item, arguing that it provides EU GB with the potential to rise as a global standard[276]

The proposed Regulation is structured in six parts. The first part lays down the subject matter which is the establishment of uniform requirements for the use of the "European Green Bond" designation and provides the definitions used in therein.[277] The second part, structured in two chapters, regards the condition to be met in order to use the EU GB designation. The third part, structured in four chapters, refers to the external review. The fourth part, in two chapters, relates to the supervision powers granted to ESMA. The fifth and sixth parts contain delegated acts and final provisions respectively. The analysis herein will mainly focus on the second, third and fourth parts of the proposed Regulation.

3.1. The use of proceeds and Taxonomy alignment

As already mentioned, the EU GB are Taxonomy aligned, meaning that the projects to which the proceeds from the bond issuance will be applied must either already comply with the requirements of the Taxonomy or comply with such requirements within a defined period of time, not exceeding five years and in any case due to special circumstances ten years.[278] This Taxonomy alignment is due to the uncertainty that prevails over determining the green character of an economic activity and also because of the relevant obligation set out in Article 4[279] of the Taxonomy Regulation.[280] The financing of environmentally sustainable economic activities can be achieved through the application of proceeds for the financing of fixed assets, capital expenditures, operating expenditures incurred up to three years before the bond issuance, and financial assets (debt and equity).[281]

In addition to the Taxonomy alignment, EU GBR requires compliance with the technical screening criteria adopted pursuant to the Taxonomy Regulation, as applicable at the time of issuance.[282] Scientific progress though may result in the amendment of the applicable technical screening criteria. Under such circumstances, the European legislator had to select between requiring sole the application of the criteria as applicable at the time of issuance or alignment with

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[275] *Ibid.,* Article 1.

[276] **European Central Bank (2021)**, para. 3.1. For the same reason, the ECB argues that the defining issuers as any legal entity could at some cases operate as a constraint to the issuance of EU GBs to the extent that some Member States do not require for all bond issuances the issuer to have a legal personality.

[277] *Ibid.,* Articles 1-2.

[278] *Ibid.,* Article 6.

[279] Article 4 of the Taxonomy Regulation provides that the criteria of Article 3 must be applied to determine the environmentally sustainable character of economic activities in the context of measures regarding corporate bonds marketed as environmentally sustainable. See, Taxonomy Regulation, Article 4.

[280] **Maragopoulos (2022)**, p. 16.

[281] **European Commission (2021a)**, Articles 4-5. Article 4 inserts a derogation for sovereign issuers, allowing the application of proceeds for, *inter alia*, tax relief measures and subsidies. The **European Central Bank (2021)**, para 3.4.1 argues that to achieve compliance with the International Financial Reporting Standards, the term "debt" should be replaced by "financial claim". This change is adopted by the rapporteur's report, see European **Parliament (2021)**, p. 33.

[282] **European Commission (2021a)**, Article 7. See also Recital (11) that justifies this requirement under Article 4 of the Taxonomy Regulation requiring, as noted above, the application of Article 3 which, in turns, provides for (in point d) the technical screening criteria.

the criteria as amended and applicable from time to time throughout the life of the bond, until its maturity. The second option would result in increased costs for issuers and uncertainty for investors as it is most likely that the bond would not retain the EU GB designation. To that end, the Commission resolved that alignment with the technical screening criteria should be examined at the time of the bond issuance and if such criteria are amended, the issuer would be granted a five-year period to apply them.[283] The partial grandfathering approach adopted in the EU GBR overcomes the difficulties that a continuous alignment requirement would raise, yet it is not optimal as uncertainty would generate additional costs for both issuers and investors, influence the bond's liquidity and price at the secondary market, and upcoming regulatory changes would negatively impact the volume of EU GB issuance, as issuers would have to either not designate their bonds as EU GB or postpone issuance until the amended criteria are in force.[284]

3.2. Transparency and disclosure

In order to issue the EU GB, issuers must first complete the factsheet provided in the EU GBR and have it reviewed by an external reviewer, who will assess its compliance with the use of proceeds provisions of the Regulation and whether it contains the information required by the EU GBR. The pre-issuance review contains general information on the issuer and the reviewer's identity, an introductory statement, including a declaration that the statement represents the reviewer's independent opinion, a statement on the compliance with the EU GBR, the sources, assessment methodology and key assumptions, the reviewer's assessment on the compliance with Articles 4 to 7 and opinion, and any other information considered relevant.[285]

The factsheet mentioned above, which in case of multiple issuances may incorporate information on more bonds,[286] is a standardized requirement based on the template of Annex I of the EU GBR, in order to promote comparability.[287] This factsheet opens with the general information on the issuer's and external reviewer's identities, followed by the issuer's statement on the voluntary adhesion to the EU GBR's requirements. The third part contains information on the environmental objectives of the Taxonomy Regulation pursued by the bond issuance and on its relation with the issuer's broader environmental strategy. An extended part of the factsheet is dedicated to the description of the intended use of proceeds. The issuer must include the period within which proceeds will be allocated with a special justification in case the expected time period exceeds five years, inform on the Taxonomy-alignment determination process, describe the intended qualifying projects at a project level, unless prohibited to do so because of the reasons provided in the EU GBR, and provide information on the intended use of unallocated proceeds. The final parts of the factsheet include information on reporting and other relevant information.[288]

Following the bond issuance, the issuer is required on an annual basis until the full allocation to issue an allocation report, which substantially includes similar information to those in included in the pre issuance factsheet and in a similar way may refer to multiple bonds, with the aim of

[283] *Ibid.,* Recital (11) and Article 7.
[284] **Maragopoulos (2022)**, p. 18.
[285] **European Commission (2021a)**, Schedule IV.
[286] The **European Central Bank (2021)**, para. 3.6.2 argues that the factsheets, along with allocation and impact reports, should refer to individual bonds, while issuers and external reviewers maintain the ability to publish together multiple factsheets and reports. This is also the position in the rapporteur's proposed amendment of Article 8(2) so that each factsheet refers to an individual bond, although more factsheets may be jointly issued, see **European Parliament (2021)**, p. 43.
[287] **Maragopoulos (2022)**, p. 18.
[288] **European Commission (2021a)**, Schedule I.

proving the allocation of proceeds in the reference period in accordance with the requirements of the EU GBR. Upon complete allocation of the proceeds, the issuer, unless it is a financial undertaking allocating proceeds from a portfolio consisting of several EU GBs to a portfolio of financial assets in which case post issuance review is required for each single allocation report, shall obtain a post issuance review by an external reviewer. The report must be submitted to the external reviewer within thirty days following the reference year of the report and to be followed by a post issuance review, which is substantially in the form of the pre issuance review and will be made publicly available within ninety days from receipt of the report.[289]

At least once in the life of the bond and upon full allocation of its proceeds, the issuer is obliged to draw an impact report.[290] The impact report must be in accordance with the template attached as Schedule III to the Regulation and consists of five categories, i.e., general information, environmental strategy and rationale, allocation of bond proceeds, environmental impact of bond proceeds, and other relevant information. Under the environmental impact of bond proceeds section, issuers are required to disclose, contrary to the current practice, both positive and adverse impact. The impact report does not require external review. The factsheet, the pre-issuance review, the annual allocation reports, the post-issuance review, and the impact report must be constantly available on the issuers' websites and the National Competent Authorities and ESMA shall be notified without undue delay and within thirty days from publication, respectively.[291]

The pre- and post- issuance reviews must be conducted in accordance with an assessment methodology that will be based on and analyse all available reliable information of sufficient quality (which will be assessed under the regulatory technical standards to be developed by ESMA) and when errors in such methodology are detected, both ESMA and the affected issuers must be promptly notified and a revised review must be published.[292] They are also both published at the external reviewer's website and maintained there until at least the bond's final maturity.[293]

3.3. External reviewers

The TEG in both its reports opted for an ESMA led centralised system with respect to external review, considering that it has already developed similar expertise regarding CRAs. This is reaffirmed by the Commission's proposal to have the external reviewers first registered with ESMA, after filling an application that contains the candidate reviewer's corporate information, ownership and business structure, and its procedures towards the conduct of reviews, conflicts of interest management and outsourcing arrangements. To be registered, and upon registration to maintain its status of external reviewer, the applicant must (i) possess senior management with good reputation, adequate skills, professional qualifications and experience, (ii) engage a sufficient number of analysts, and (iii) have appropriate and effective internal arrangements,

[289] *Ibid.,* Article 9. In case of amendments to the proceeds allocation, then an amendment report is required to be followed by another post-issuance review. Article 11 grants flexibility to sovereign issuers regarding impact reporting, as they may engage not only external reviewer by state auditors or other public entities as well. **Maragopoulos (2022)**, p. 19 argues that this flexibility could hinder credibility, and this argument is, to the author's view, to an extent supported by the fact that sovereign green bond issuances have radically increased, considering initiatives such as the NGEU.

[290] **European Commission (2021a)**, Article 10.

[291] *Ibid.,* Article 13.

[292] *Ibid.,* Articles 23-24.

[293] *Ibid.,* Article 30.

bearing also the obligation to notify ESMA before any material changes are implemented with respect to any of this information.[294]

Special emphasis is put on external reviewers' corporate governance in order to ensure independent, objective and of good quality, through the development, employment, monitoring and evaluation of adequate systems. For that reason, it is required that the reviewer possesses senior management capable of ensuring the sound and prudent management, independence when conducting assessment activities, the management of conflicts of interest, and constant compliance with the EU GBR requirements, whereas analysts and employees must also have adequate skills to provide the services.[295] To avoid conflicts of interest and to promote proper conduct of business, internal due diligence policies and sound administrative and accounting procedures are required.[296]

An additional critical aspect of corporate governance is compliance function. A company should comply with applicable laws and regulations and therefore internal control and enforcement mechanisms are developed to secure such compliance.[297] External reviewers are required to establish and maintain a permanent and effective compliance function that will be able to discharge its responsibilities, have access to resources and expertise it needs for its function, shall not monitor its own activities, and shall not be compensated in relation to business performance.[298] The external reviewer's obligations and restrictions with respect to the organization and operation of the compliance function aim at allowing the function to effectively and efficiently operate, avoiding also potential conflicts of interest. The aim of the establishment of special corporate governance rules with respect to external reviewers is to promote their sound function considering that corporate governance rules of EU Member States do not always apply to the entirety of companies established to that Member State, but to particular categories, e.g., in Greece L. 4706/2020 applies to those companies whose transferrable securities are listed in an organized market in Greece.

The corporate governance structure of the EU GBR is supplemented by the conflicts of interest and confidentiality of information provisions. Conflicts of interest concerning analysts, employees, any contractually related persons, persons approving reviews, or other services provided by the external reviewer must be duly identified and disclosed, whereas the fees charged for the conduct of the review must be independent of the result of such review. The persons mentioned above are also bound by professional secrecy obligations and must protect the external reviewer's property and records, not disclose any information on the reviews.[299]

External reviewers are allowed, having first notified ESMA, to outsource assessment activities, but expressly prohibited from outsourcing the compliance function, to third parties capable of

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[294] *Ibid.,* Articles 14 – 16. ESMA shall also develop and submit to the Commission draft implementing and regulatory technical standards regarding the registration requirements under (i) and (ii) mentioned above, and the forms for submitting the application required information or notifying of any material changes.
[295] *Ibid.,* recital (23), Articles 18-20. ESMA shall also develop draft regulatory technical standards for the assessment of the external reviewers' corporate governance systems.
[296] *Ibid.,* Article 22.
[297] **Miller (2014)**, p. 1.
[298] **European Commission (2021a)**, Article 21. The compliance function shall report to a supervisory or administrative organ. ESMA shall also develop draft regulatory technical standards for the assessment of the external reviewer's obligations with respect to allowing the compliance function to discharge its responsibilities and providing it with necessary resources and expertise.
[299] *Ibid.,* Articles 27-28.

carrying out such activities. In the case of outsourcing, external reviewers undertake to assess the third party's effectiveness and compliance with applicable laws, detect potential risks, monitor the outsourced activities, control and supervise procedures, and ensure the adequate business continuity of the outsourced activities.[300]

3.4. Third country reviewers

External reviewers not incorporated in a Member State are allowed to provide their services if they are registered with ESMA. Such registration requires firstly the issuance of an equivalence decision by the Commission, according to which the third country external reviewers are subject to organizational and business conduct requirements with the same effect of those of the EU GBR and their home country's recognition system for external reviewers registered or authorized in other jurisdictions is effectively equivalent to that of the EU GBR.[301] The second requirement for the registration with ESMA is that the external reviewer is registered or authorized to provide such services and is subject to effective supervision and enforcement. The third requirement is the establishment of cooperation arrangements between ESMA and the third country's competent authority.[302] Such cooperation arrangements shall provide for the exchange of information between the authorities, the notification of ESMA when the external reviewer is in breach of the registration or authorization requirements or other legal obligations, and the coordination of supervisory activities.[303] The registration may be withdrawn if it reasonably believed and documented that the external reviewer is acting prejudicially to the investors' interests or the market's ordinary function, and/or is in breach of the home country's obligations, compliance with which is a prerequisite for registration with ESMA, and/or if the third country's competent authority does not take measures towards the protection of the Union's investors' interests and the market's ordinary function, and/or the third country's competent authority has been informed of ESMA's intention to withdraw the registration at least thirty (30) days in advance.[304]

For as long as the equivalence decision has not been issued, third country external reviewers may be recognized by ESMA and be allowed to offer their services. Such external reviewer must have a legal representative in the EU, who will be responsible for ensuring compliance with the requirements of the EU GBR, will be the main point of contact with ESMA and EU based persons, and who must possess the knowledge, expertise and resources that will allow him to comply with the aforementioned requirements. In a similar way to the registered third country external reviewers, ESMA has the ability to withdraw recognition if it is considered that the external

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[300] *Ibid.,* Article 25.

[301] *Ibid.,* Article 32. Third country external reviewers are considered subject to effectively equivalent organizational and business conduct requirements if (i) they are subject to registration or authorization and to constant effective supervision and enforcement, (ii) adequate internal organization obligations with respect to internal control functions apply to them, and (iii) they are subject to appropriate conduct of business rules.

[302] *Ibid.,* Article 31.

[303] *Ibid.,* Article 32(3).

[304] *Ibid.,* Article 33. It is the author's view that the last criterion alone should not suffice for the withdrawal of such registration. Considering that under Article 31(2) ESMA is obliged to register the third country external reviewer when the registration criteria are met, it would be arbitrary and contrary to the EU GBR's internal structure to grant ESMA the discretion to withdraw such registration only requiring the prior notification of the third country's competent authority. On the other hand, such requirement being cumulative to any of the other three provided under Article 33 could potentially work as a cure period preventing thus the deregistration. In that way legal uncertainty is prevented and the undisrupted conduct of business is assured.

reviewer is acting in a prejudicial way to the users' interests or the orderly function of the market, or is in material breach of the EU GBR requirements, or has obtained the recognition based on false statements or irregular means.[305]

Moreover, in cases that due to the meticulousness of underlying markets or investments, or if a third country external reviewer is close to and familiar with third country issuers, markets or investors, or if a third country reviewer's expertise is required, an external reviewer has the ability, upon application to ESMA, to endorse a third country external reviewer. The third country external reviewer must be subject to requirements at least as strict as those of the EU GBR and provided that the endorsing external reviewer has the means and expertise to effectively monitor the endorsed services.[306]

3.5. Supervision and ESMA powers

For the purposes of the EU GBR, competent authorities (the "**NCA**") are considered those designated as such under Article 31 of the prospectus Regulation (Regulation (EU) 2017/1129).[307] The NCA have, in accordance with national law, supervisory and investigatory powers with respect to the content of the factsheet, publication of the allocation reports, issuance of the impact report, request of information from auditors and senior managements, temporary suspension of offer of EU GBs, temporary suspension or prohibition of advertisements, publication of failure of compliance with the obligations set by EU GBR, and carrying out investigations and on-site inspections.[308]

Considering that EU GBR enables external reviewers to provide their services across the EU, it is provided that a host NCA shall notify the home NCA if it finds that the external reviewer is in breach of obligations under the EU GBR and if such irregularities persist, it is obliged to notify ESMA and the home NCA, and take all appropriate measures, communicating such measures to ESMA and the Commission.[309] Member States are also obliged to provide NCA with administrative sanctions powers, including issuance of public statements, prohibiting the illegal behaviour, imposing pecuniary sanctions of a minimum amount equal to the double of the profit earned or the losses avoided, as a result of the illegal behaviour, or equal to the thresholds provided for sanctions imposed on natural and legal persons, while taking into consideration when exercising those powers factors such as the economic consequences of the infringement, or the measures taken to limit these consequences.[310]

ESMA is delegated with supervisory and investigatory powers with respect to the request of information from persons that are in the ways specified in the EU GBR affiliated with the external reviewer or any non-registered persons offering the services of the external reviewer.[311] To that respect, ESMA shall have the power to examine relevant material (including records, telephone and data traffic), question the aforementioned persons or, subject to receipt of their consent, other

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[305] *Ibid.,* Article 34. ESMA will also develop draft regulatory technical standards with respect to the application for recognition.
[306] *Ibid.,* Article 35.
[307] *Ibid.,* Article 36.
[308] *Ibid.,* Article 37. Those powers may be exercised by the NCA alone, or in cooperation with other authorities (in any case, pursuant to Article 38, NCA shall cooperate in the framework of the EU GBR), or by means of delegation by other authorities, or by the judicial authorities.
[309] *Ibid.,* Article 40.
[310] *Ibid.,* Articles 41-42.
[311] *Ibid.,* Article 47.

persons, and conduct on-site inspections. Concerned NCA shall be notified by ESMA about the investigation and the identity of the ESMA officials to whom authorization to conduct the investigation has been granted.[312] In case an infringement has been established, ESMA shall impose sanctions that range from imposing fines, issuing fines,[313] and obliging the person to end the infringement to withdrawing the external reviewer's registration or recognition. The withdrawal of the registration or recognition, being the most strict, is imposed when the external reviewer has renounced it or after the lapse of a 36-month period during which it has made no use of it, it is found that irregular means have been used to obtain it, or when the conditions on the basis of which the registration or recognition was granted are not met anymore. In a similar way to the provisions regarding the exercise of the sanctioning powers by the NCA, it is also provided that ESMA shall take into consideration a series of factors relevant to the nature of the infringement and its consequences.[314]

ESMA is also obliged, unless otherwise required to prevent an imminent and significant damage to the financial system, before imposing any of the supervisory measures it is empowered with, to provide the investigated persons the hearing right in order to exercise their defence right and based on that hearing it shall take its decisions.[315] Decisions imposing a fine or periodic penalty payment are also subject to review by the European Court of Justice.[316]

3.6. Remarks on the delegation of powers to ESMA

As depicted above, a crucial point of the EU GBR in the attempt to enhance transparency, credibility and combat greenwashing is the empowerment of ESMA with the registration of external reviewers.[317] This decision has been based on the expertise ESMA already possesses,[318] to an extent also because of the responsibilities is has taken up with respect to CRAs. Except though the general provision of TFEU Article 298(1), there is no explicit provision in the Treaties governing each agency.[319] The Meroni doctrine[320] has laid down the basic principles with respect to the delegation of powers, applying the "principal-agent" theory to EU institutions and agencies.[321] In the Meroni case the European Court of Justice introduced the non-delegation doctrine, stating that "*a delegation of powers cannot be presumed*", whereas the consequences of delegation of power vary depending on whether it refers to the delegation of clearly defined

[312] *Ibid.,* Article 48.
[313] Pursuant to Articles 52-53, the fines may range between EUR 20,000 and 200,000, whereas it is also feasible to impose a periodic penalty payment for each day of delay.
[314] *Ibid.,* Article 51.
[315] *Ibid.,* Article 56.
[316] *Ibid.,* Article 57.
[317] **Lehman (2021)**.
[318] **European Commission (2021a)**, recital (32).
[319] **Gortsos, & Lagaria (2020)**, p. 4.
[320] Judgment of the Court of 13 June 1958. Cases 9/56 and 10/56, Meroni & Co., Industrie Metallurgiche, SpA v High Authority of the European Coal and Steel Community, ECLI:EU:C:1958:7.
[321] **Nicolaides, and Preziosi (2014)**, pp. 21-22 argue following the judgment in C-270/12 (Judgment of the Court (Grand Chamber), 22 January 2014. Case C-270/12, United Kingdom of Great Britain and Northern Ireland v European Parliament and Council of the European Union, ECLI:EU:C:2014:18) with respect to ESMA that in complex regulatory tasks the Meroni doctrine seems to be inefficient because of the degree of autonomy ESMA is required to have in order to achieve financial stability, the complexity and inadequacy of the required accountability mechanisms, the disincentives it could potentially cause, and the fact that many external controls may hinder quick and innovative response when it is required.

executive powers or to discretionary powers, as in the latter case the agent may alter the original choice of the principal and, thus, there is a transfer of responsibility.[322]

ESMA already has supranational powers with respect to CRAs and trade repositories, and the EU GBR envisages the creation of a third area of exclusive ESMA's power; the supervision of external reviewers. It is to the author's view that this choice of the European Commission shall be a part of the larger debate over the legitimation of ESMA's acts in the context of the EU legislative framework and the Meroni doctrine. It has been argued that one of the aims of the Meroni doctrine was to ensure the feasibility of judicial review (which after the Treaties is the case pursuant to articles 263 and 267 TFEU)[323] and moreover it could be further argued that the EU BGR explicitly provides the judicial review of ESMA's decisions, but such an indirect deviation from the Meroni doctrine cannot be persuasively established. The complexity of the ESAs' structure and the task of achieving and preserving financial stability require a thorough analysis and review of their role within the EU legal framework and the applicability of the Meroni doctrine.

4. Remarks made by EU Institutions and Agencies on the EU GBR

4.1. The European Central Bank's opinion

Following the Commission's proposal and the European Parliament's request on 14 October 2021, the European Central Bank issued on 5 November 2021 its opinion on the proposal for a regulation on European green bonds (the "**ECB Opinion**").[324] The ECB Opinion's initiating point is the reaffirmation of the need for increased investments towards green transition, and the highlight of the role of green bonds towards the promotion of sustainable finance.[325] The ECB further favours the Taxonomy-alignment as it has the potential to promote the EU environmental objectives and the creation of a harmonized framework to enhance credibility, transparency, comparability and better pricing, which are not largely achieved in the current structure of the non-standardised green bond market.[326] Whereas though credibility and transparency require a rigorous framework, regulatory arbitrage should be avoided and for that reason the ECB emphasizes on the need to compare the EU GB requirements with market standards and other jurisdictions' green bond labels, considering that a too stringent framework could potentially lead issuers towards less rigorous labelling systems.[327]

The ECB further examines the interplay between its tasks and the creation of the EU GB. In the context of the non-conventional monetary policy instruments to combat low inflation, the ECB developed asset purchase programmes, under which it has also purchased green bonds.[328] It also stresses the need for stable functional markets that may be disoriented from the existence of multiple standards that do not allow investors to assess the assets' quality and properly price them, while credit institutions may also limit through the issuance of and investment on EU GB their operational and reputational risks.[329]

[322] Cases 9/56 and 10/56, p. 151-152.
[323] **Annunziata (2021)**, p. 53.
[324] OJ C 27, 19.1.2022, pp. 4–13.
[325] **European Central Bank (2021)**, para. 1.1.
[326] *Ibid.,* paras. 1.3-1.4.
[327] *Ibid.,* para. 1.7.
[328] On the asset purchase programme see also **Gortsos (2020b)**, pp. 298-300.
[329] **European Central Bank (2021)**, paras. 2.3-2.4. To the author's view this danger is not *a priori* ultimately limited through the creation of the EU GB. *Firstly*, the EU GB is a voluntary standard, market standards are not prohibited and therefore the existence of multiple bonds labelled as green under different

With regards to the EU GBR, the ECB welcomes the voluntary nature of the EU GB in the short term. However, it supports that certainty in the market requires reviewing the Taxonomy and the EU GB in order to progressively make it mandatory for newly issued bonds, whereas the (at that time) outstanding bonds would not loose their designation as green bonds. The transition to a mandatory standard should not be in accordance with a pre-agreed concrete time schedule as such an approach could have negative impact on the EU's green investments market but following an impact assessment to be conducted by the Commission, the European Parliament and the Council by the end of 2023 and following consultation with stakeholders.[330]

Furthermore, the ECB expresses its concerns over the lack of an adequate supervisory and sanctioning system with respect to the Taxonomy-alignment as the EU GBR does not explicitly provide for the power to withdraw the EU GB characterization other than the relevant statement of non-compliance in the post-issuance review. The expectation to have any changes reflected in the pricing of the bond may not always be reaffirmed as it largely based on the behaviour in the secondary market in which the bond is traded.[331] It also argues that the five year period partial grandfathering that has been opted in case of amendments in the technical screening criteria may distort the market as, due to the legal uncertainty, issuers could be disincentivised from issuing new bonds when regulatory changes are expected and investors would be trading in EU green bonds having in mind that an upcoming change could potentially lead in the non-compliance with the EU GBR. For that reason, it favours a complete grandfathering which would not distort the market and also allow the European Commission to amend the delegated acts when required without being obliged to consider any consequences on the outstanding EU GBs and on financial stability.[332] The ECB also argues that the possibility to issue an EU GB in order to purchase other EU GBs should be enabled only once (per issuer although not explicitly stated) as the contrary could lead at the creation of an EU GBs chain, all referring to the same underlying economic activity.[333] With respect to the supervision of issuers, it is noted that (contrary to the provisions applicable to external reviewers) there are no provisions with respect to issuers located outside the EU and they seem to be exempted from the supervisory regime designated for issuers within the EU. This regime could hamper the EU GB's credibility and the adoption of a system similar to that provided in the prospectus Regulation under which the issuers select a home Member State is proposed.[334]

4.2. The Rapporteur's draft report on the Commission proposal

On 30 November 2021 the rapporteur submitted his draft report that introduced significant amendments from the original proposal of the Commission.[335] Whereas the Commission intended to create the framework for the creation of an EU GB label, the rapporteur expands the subject matter of the proposed Regulation in order to additionally cover the transparency requirements

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frameworks may lead to the same effect ECB wishes to limit. *Secondly*, the stability of the green bonds market resulting from the introduction of the EU GB may be largely based on the will of issuers to comply with a more stringent framework and of investors to price accordingly EU GBs and therefore make EU GB more attractive for future issuers.

[330] *Ibid.,* paras. 3.1.1-3.1.3.

[331] *Ibid.,* para. 3.2.

[332] *Ibid.,* para. 3.3.1.

[333] *Ibid.,* para. 3.5.2. See also the rapporteur's amendment, **European Parliament (2021)**, p. 32, who in line with the ECB's opinion proposes that the issuance of an EU GB for refinancing purposes should be in line at the time of issuance with the criteria of Article 6.

[334] **European Central Bank (2021)**, para. 3.7.3.

[335] **Maragopoulos (2022)**, p. 26.

for all sustainable bonds.[336] External reviews, impact and allocation reports are also introduced with respect to sustainable bonds. The external review of the impact report must examine the alignment of the bond with the issuer's sustainability strategy, the issuer's transition plan with respect to EU GBs and sustainability-related bonds, the sustainability impact of the proceeds from the issuance, and in addition it must verify the financed projects and as the case may be the taxonomy-alignment plan.[337]

The rapporteur does not encourage the issuance of green bonds from "brown" issuers.[338] It is proposed that all issuers are required to adhere to the "do no significant harm" principle and prior to the issuance of the green bond they must have examined the negative impact of their investment decisions on sustainability factors (incorporating sustainability risks when deciding on proceeding with investments) and their compliance with OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights. The issuers are further required to develop transition plans with annual and verifiable targets, the minimum requirements of such transition plans to be specified in draft regulatory standards developed by ESMA. [339] In the case also that a taxonomy alignment plan under Article 6 is required (pursuant to the Commission's proposal when a longer than five-year period is required for the allocation of the proceeds and additionally following the rapporteur's amendment when there is lack of sufficient data to establish the compliance with Article 17 of the Taxonomy Regulation), such alignment plan shall need to include description of the annual intermediate steps. An external reviewer will be responsible for attesting achievement of these steps and failure to meet two consecutive steps will result in the prohibition of use of the EU GB label.[340]

The rapporteur's report includes additional amendments, many of which, as mentioned above in the relevant sections, are in line with the ECB's opinion, some intend to enhance the external reviewers' independence[341] and others to the review mechanism by the European Parliament and the Council following submission of a report by the Commission which is to be submitted by the end of 2023 and afterwards every three years.[342]

Following the rapporteur's proposal, on 1 February 2022 the rapporteur of the committee on budgets introduced his opinion and the committee adopted its position on 16 March 2022 with 32 votes in favour, 2 against and 6 abstentions. The committee on the environment, public health and food safety adopted its position on 10 February 2022 with 67 votes in favour, 18 against and 2 abstentions. Finally, on 16 May 2022 the ECON committee with 44 votes in favour, 12 against and 3 abstentions.[343] The text has introduced several deviation from the original proposal of the Commission and, except for amendments of technical character that are in line with the ECB's proposals in its opinion and are in the right direction, the intention appears to be to expand the

[336] **European Parliament (2021)**, p. 28.
[337] *Ibid.,* pp. 50-51.
[338] On the debate over the ability of "brown" issuers to issue green bonds, see above under **B.2**.
[339] **European Parliament (2021)**, pp. 39-40.
[340] *Ibid.,* p. 35.
[341] *Ibid.,* p. 64 (regarding the disclose of conflicts of interest referring to the external reviewer's shareholders), pp. 65-67 (regarding circumstances that could affect the review and therefore they are prohibited from issuing such review).
[342] *Ibid.,* p. 78.
[343] See in detail at: https://www.europarl.europa.eu/doceo/document/A-9-2022-0156_EN.pdf.

scope of the proposal beyond the mere regulation of the framework for designating a bong as EU GB.

4.3. The opinion of the European Economic and Social Committee

On 6 April 2022 the European Economic and Social Committee (the "**EESC**") published its opinion on the EU GBR proposal.[344] The EESC emphasizes on the economic importance of the introduction of the EU GB for issuers and investors as it has the potential to limit information asymmetries and is benefits from credibility and its reputation.[345] It further stresses the need to have a uniform standard in the EU (implying the need to make EU GB a mandatory standard), it recognizes though that the EU GBR compliance may incur additional costs for issuers, and especially small and medium enterprises, noting that issuers should not be disincentivized from applying the standard.[346] It also supports the complete grandfathering in case of change in the technical screening criteria arguing that green bonds market stability required a bond to maintain its designation for its entire life.[347]

The EU GBR should promote the issuance of green bonds in the EU as, despite the fact that their issuance has increased, they still form only a small segment of the total EU bond issuance, mainly due to greenwashing concerns, the similarity of green bonds to ordinary bonds, and reporting challenges.[348] The EESC emphasizes the advantages of the introduction of the EU GB, which has the potential to constitute a gold standard, but is concurrently realistic on the challenges towards its adoption for both issuers within and outside the EU (as in the latter's jurisdictions for example the concept of "do no significant harm" may not exist), whereas it also highlights that the creation of a dual system of EU GBs through the application of different less stringent requirements to bonds issued by sovereigns should be avoided.[349]

5. The EBA report on "developing a framework for sustainable securitization"

The majority of the issues related to securitization have been regulated at the EU level by Regulation (EU) 2017/2402 of the European Parliament and of the Council of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012 (the "***Securitization Regulation***").[350] Pursuant to the (new) Article 45A of the Securitization Regulation, the EBA is required to deliver a report on the EU sustainable securitization framework. Pursuant to this Article, on 2 March 2022 the EBA published its report on developing a framework for sustainable securitization (the "**EBA Report**"). The EBA Report aims to analyse the interplay between green bonds and securitization[351] as (i) the Taxonomy Regulation and the SFDR do not apply to securitizations, and (ii) the nature of securitization requires considering multiple factors with respect to sustainability concerns.[352] Sustainability consideration in relation to securitization refer to the character of the assets backing the securitization transaction, the use of the proceeds raised,

[344] *OJ C 152, 6.4.2022, pp. 105–110.*
[345] **European Economic and Social Committee (2022)**, para. 1.2.
[346] *Ibid.,* paras. 1.5-1.6.
[347] *Ibid.,* para. 2.7.
[348] *Ibid.,* paras. 3.1-3.4.
[349] *Ibid.,* para. 3.13.
[350] OJ L 347, 28.12.2017, pp. 35–80. The Securitization Regulation was amended by Regulation (EU) 2021/557 of the European Parliament and of the Council of 31 March 2021 (OJ L 116, 6.4.2021, pp. 1–24).
[351] On the concept of securitization by way of indication see **Schwarcz (2016)**.
[352] **European Banking Authority (2022)**, p. 6.

and the behaviour and commitment of the parties to the securitization (i.e., the originator, the securitization special purpose entity (the "**SSPE**") and the servicer).[353]

The benefits securitization confers to sustainability are the increased funding opportunities for green loans, the opportunity to originate green loans, creating new sustainable investment opportunities, reducing originator's exposure to risks from the green industry (while investors can benefit from the diversification of the underlying loans), and allowing investors to invest in bonds of their preferred, according to their needs, maturity.[354] The sustainable securitization market though remains largely underdeveloped due to the lack of a clear framework, adequate sustainable assets for collateralization and origination, and of information.[355] In the light of above, and despite not arguing in favour of the creation of a framework dedicated to securitization due to the premature character of the securitization market,[356] the EBA favours specific amendments to the proposed Regulation.

The EU GBS could apply only to bonds issued by SSPE and not to synthetic securitizations. Moreover, the standard under the proposal applies at the level of the issuer, i.e., the SSPE, and therefore the entire underlying portfolio should be Taxonomy-aligned. Contrary to that, the EBA proposes that amendments should be made, including testing the use of proceeds requirement at the level of the originator, as otherwise the originator would not be prevented from financing non Taxonomy aligned activities, securitizations would be treated less favourably than other transactions that do not include the establishment of a SSPE, considering also that SSPEs do not possess all information required to comply with the disclosure requirements and administrative sanctions would not in all cases be efficient due to the limited recourse nature of SSPEs.[357] EBA recognizes that application of the criterion at an originator level is not consistent with the non-dual recourse character of securitizations, nevertheless it argues that this would be a pragmatic approach consistent with the legal framework.[358] The EBA further call for amendments with respect to disclosure obligations to properly inform investors about the green character of the underlying assets, especially following the amendment with respect to the level at which the application of proceeds requirement applies.[359]

[353] *Ibid.,* p. 16.
[354] *Ibid.,* pp. 18-19.
[355] *Ibid.,* p. 24.
[356] *Ibid.,* p. 38.
[357] *Ibid.,* pp. 29-31.
[358] *Ibid.,* p. 32.
[359] *Ibid.,* p. 33.

Concluding Remarks

Environmental protection and sustainability have become high priorities of the European Union. Nevertheless, to accomplish the goals set in the Paris Agreement and the European Green Deal large investments are required. The EU legal framework has been developed in order to accommodate the need for regulation in the green transition. The Low-Carbon Benchmarks Regulation has introduced two new benchmarks, the EU Climate Transition Benchmark and the EU Paris-aligned Benchmark, the Sustainable Finance Disclosure Regulation introduced harmonised rules with respect to the incorporation of sustainability considerations in the disclosure process, and the Taxonomy Regulation has set the common framework for determining when an economic activity is considered environmentally sustainable. The EU has in this way attempted to create the regulatory framework within which more legislative initiatives in the field of sustainable finance will be introduced.

Sustainable finance, though, and especially green bonds, has been largely developed by market initiatives. Green bonds, a popular among issuers and investors financing tool, are largely similar to original bonds with the main difference that their proceeds are channelled to the financing of economic activities that are considered "green". The lack though of a common taxonomy had prohibited market participants from sharing a common idea of what is green. Greenwashing concerns have not been in all cases successfully mitigated and the economic benefit of issuing a green bond (the "greenium") has been questioned. In order to address the concerns over the lack of transparency, credibility and comparability market standards have been developed. The International Capital Markets Association's Green Bond Principles are among the most well-known and used market standards. The Climate Bonds Initiative also developed the Climate Bonds Standards as a market initiative for the certification of climate bonds. Such market standards may have been increasingly used in the market, nevertheless it has been supported that they have not managed to properly address the concerns mentioned above. This has resulted in increased costs for issuers and investors, who must overcome a "market for lemons" case in the green bonds market.

Taking into account the above, the EU has attempted to create its own labelling system for green bonds. The Commission proposed a Regulation for EU green bonds that is Taxonomy-aligned and includes stringent provisions with respect to the registration and supervision of external reviewers. ESMA has been assigned with a crucial role in this effort concerning both the development of regulatory technical standards and the creation of a centralised authorization system for external reviewers. Yet, the process for adopting the Regulation has not been completed and the large amendments included in the draft report of the rapporteur of the European Parliament (with the main amendment being the introduction of transparency requirements for all sustainable bonds) implies that the adoption of the Regulation may not be an effortless progress. In any case, the success of the voluntary EU green bond label depends on its recipient by market participants. Issuers must be willing to incur the additional costs and investors (who will benefit from the increased transparency) will have to reward issuers for undertaking such costs through the bond's price.

It remains to be seen if the EU green bond label will succeed and rise as the "gold-standard" it envisaged to be or if market standards (that despite the criticism exercised have proliferated) will ultimately prevail.

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