EBI STUDIES IN
BANKING AND CAPITAL MARKETS LAW

Greening the Bond Market

A European Perspective

Edited by David Ramos Muñoz
Agnieszka Smoleńska

palgrave
macmillan

EBI Studies in Banking and Capital Markets Law

The European Banking Institute

The European Banking Institute based in Frankfurt is an international centre for banking studies resulting from the joint venture of Europe's preeminent academic institutions which have decided to share and coordinate their commitments and structure their research activities in order to provide the highest quality legal, economic and accounting studies in the field of banking regulation, banking supervision and banking resolution in Europe. The European Banking Institute is structured to promote the dialogue between scholars, regulators, supervisors, industry representatives and advisors in relation to issues concerning the regulation and supervision of financial institutions and financial markets from a legal, economic and any other related viewpoint.

As of May 2021, the Academic Members of the European Banking Institute are the following: Universiteit van Amsterdam, University of Antwerp, University of Piraeus, Alma Mater Studiorum–Università di Bologna, Universität Bonn, Academia de Studii Economice din București (ASE), Trinity College Dublin, University of Edinburgh, Goethe-Universität, Universiteit Gent, University of Helsinki, Universiteit Leiden, KU Leuven University, Universidade Católica Portuguesa, Universidade de Lisboa, University of Ljubljana, Queen Mary University of London, Université du Luxembourg, Universidad Autónoma Madrid, Universidad Carlos III de Madrid, Universidad Complutense, Madrid, Johannes Gutenberg University Mainz, University of Malta, Università Cattolica del Sacro Cuore, University of Cyprus, Radboud Universiteit, BI Norwegian Business School, Université Panthéon - Sorbonne (Paris 1), Université Panthéon-Assas (Paris 2), University of Stockholm, University of Tartu, University of Vienna, University of Wrocław, Universität Zürich.

David Ramos Muñoz · Agnieszka Smoleńska
Editors

Greening the Bond Market

A European Perspective

palgrave
macmillan

Editors
David Ramos Muñoz
Derecho Privado
Carlos III University of Madrid
Getafe, Madrid, Spain

Agnieszka Smoleńska
Institute of Law Studies
Polish Academy of Sciences
Warsaw, Poland

ISSN 2730-9088 ISSN 2730-9096 (electronic)
EBI Studies in Banking and Capital Markets Law
ISBN 978-3-031-38691-6 ISBN 978-3-031-38692-3 (eBook)
https://doi.org/10.1007/978-3-031-38692-3

Cover credit: Teekid/gettyimages

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Series Editor's Preface

The Series of 'European Banking Institute (EBI) Studies in Banking and Capital Markets Law' seeks to present academic works that combine rigorous research with the ambition to cover topics that represent new frontiers in the field of Law of Finance, as well as the ability to show that the academic community can stay on top of most recent developments in public policy and regulation. These criteria are consistent with the mission of the EBI and it is with utmost pleasure to introduce a collective work that efficiently fulfils all these three criteria.

The book clearly chooses a novel topic. Green bonds are the instrument of choice to spearhead, across the globe, the transition towards green investments. As the commitments of the 2015 Paris Agreement—the benchmark international treaty on climate change—are gradually implemented, and the need for sustainable projects grows, so does the demand for instruments that, like green bonds, ensure an appropriate use of funds.

This need is widely felt in different countries and regions in the World. However, no region has been more active than the European Union (EU) to ensure that the shifting market trends are accompanied by a suitable sustainable finance regulatory framework. The EU Green Taxonomy defines what a 'sustainable' investment is, other rules determine what kind of sustainable-related, non-financial disclosures are required from both financial and non-financial firms, while more work is in the pipeline under the 2021 Sustainable Finance Strategy. Yet, the picture would be incomplete without an instrument combining a clear frame of reference to define sustainability, and proper mechanisms to ensure an adequate use of funds and an external verification. These goals have been forested out by market standards, such as the International Capital Market Association's (ICMA) Green Bonds Principles, or the Climate Bond Initiative (CBI). However, meritorious as these are, EU policymakers felt that they also had shortcomings, notably, on the definition of 'sustainable', or the external verification, which increased the risk of 'greenwashing'. Thus, the EU Green Bond Standard (the 'EU GBS') seeks to be compatible with market standards, while improving in those aspects where a regulatory solution could offer many welcome additions.

Will this EU gambit succeed? Can the EU GBS radiate outside the EU and become a global standard or (at least) lead to global convergence around some key principles? Although only time can provide a definitive answer, the book seeks to tackle this question from almost every angle, exploring the EU GBS from all relevant perspectives.

Part I, the general part, includes an introduction by the editors, for any reader willing to gain a complete overview of the topic, as well as understand the cross-cutting issues and main undercurrents. It also includes a very enlightened analysis of the general elements of the EU GBS Chapter (2, by Magaropoulos), the sovereign bond perspective Chapter (3, by Lewandowski and Smoleńska), and the practical perspective Chapter (4, by Harrison, Jones and Wetmańska, and Chapter 5 by Caron, Blouin and Dunbar). The latter is of particular interest for an EU reader, as it explains how the same challenges that EU issuers meet are also addressed by non-EU issuers, in the absence of a legal framework like the EU GBS seeks to establish.

Part II analyses the role of green bonds and the EU GBS (in particular) in capital markets. Chapter 6, by Cerrato and Agostini, seeks to test one of the EU GBS's main goals, namely, the ability to limit greenwashing, by analysing its lights and shadows in a context where investors try to rely on private mechanisms of enforcement and accountability against issuers and verifiers, while Chapter 7, by Salerno, focuses on the perspective of intermediaries, and their relationship with their clients, under the MiFID II rules. As in Part I, these chapters are complemented by a practical overview, in Chapter 8 by Femia, which offers the perspective of the industry is facing the new framework.

Finally, Part III provides the perspective of micro- and macro-prudential supervisory, as well as monetary authorities. If climate change and other environmental phenomena present a growing source of threat to financial and macroeconomic stability, increasing green investments could prove to be an efficient mitigating factor. Green bonds can, thus, help financial firms and authorities achieve a smooth transition, even if this raises more questions than it answers. Chapter 9, by Bingler, Colesanti Senni and Monnin, offers an overview of the related challenges from a measurement perspective. Then, Chapter 10, by Gyura, provides a comprehensive overview of the experience in an emerging market, like Hungary, of prudential authorities' experimenting with a more beneficial treatment of green investments as a means to assist in the construction of a market in sustainable investments. This, more 'prudential', view is complemented by Chapter 12, by Scouteris and Anastopoulou, who provide a very thorough stocktaking of the analysis by a monetary authority, like the European Central Bank (ECB). Again, as in previous parts, Part III is complemented by a practical analysis in Chapter 11, by Pasquini, which offers a short summary of the prudential perspective from an industry viewpoint, and in Chapter 13, by Murphy, which offers the side of the monetary authority.

All in all, the collection of chapters not only covers general and specific aspects of green bonds. It also combines deep research and succinct but comprehensive overview, scholarly and practical viewpoints and perspectives from academia, industry and regulatory institutions, as well as authors senior and junior, lawyers and economists, from different corners of the EU, and beyond. If green bonds are such a novel instrument, which raises so many challenging questions, and these need to be answered through a diversity of perspectives, this book clearly sets itself to offer such diversity and delivers on this promise. More than that, the chapters are complementary, 'making sense together', and even if a separate reading can be extremely informative for anyone seeking a very specific perspective, they follow a logical sequence, and support each other, a process helped by the multiple cross-references.

This is also thanks to the editors of this book, David Ramos Muñoz and Agnieszka Smoleńska, two distinguished academic experts in the field of sustainable finance, who conceived the idea, carefully selected the pool of contributors and safely navigated them towards a robust and comprehensive collective work. Their academic excellence, deep knowledge in this novel topic and proven devotion to efficiently bringing works like this to completion were a guarantee for the outcome.

Consequently, as President of the Academic Board of the EBI and one of the editors of the series of EBI Studies in Banking and Capital Markets Law, I am proud to have been invited by the editors to write this brief Preface to what I believe will be a very valuable addition to our collection. As already noted, this book tackles a novel topic, with a strong practical side, but it does so by asking all the pertinent questions and does not shy away from deep academic analysis when this is needed to answer them. I hope that the readers will enjoy it as much as I did.

Athens, Greece

Christos V. Gortsos
President of the EBI Academic Board

Contents

List of Contributors

Federica Agostini University of Glasgow, Glasgow, Scotland, UK;
EUI Florence School of Banking and Finance, Florence, Italy

Elli Anastopoulou European Banking Institute (EBI), Frankfurt, Germany

Julia Anna Bingler Smith School of Enterprise and the Environment, University of Oxford, Oxford, UK;
Institute for Banking and Finance, University of Zurich, Zurich, Switzerland

Bernard Blouin Miller Thomson LLP, Montréal, QC, Canada

Bruno Caron Miller Thomson LLP, Montréal, QC, Canada

Chiara Colesanti-Senni Council of Economic Policies, Zurich, Switzerland;
Institute for Banking and Finance, University of Zurich, Zurich, Switzerland

Alexia Femia European Banking Federation, Brussels, Belgium

Elia Cerrato García CUNEF University, Madrid, Spain;
Alma Mater Studiorum-Università di Bologna, Bologna, Italy

Gabor Gyura Department of Finances, Budapest University of Technology and Economics, Budapest, Hungary

Caroline Harrison Climate Bonds Initiative, London, UK

Sarah Jane Hlásková Murphy European Central Bank, Frankfurt Am Main, Germany

Liam Jones Climate Bonds Initiative, London, UK

Wojciech Lewandowski Institute of Law Studies, Polish Academy of Sciences, Warsaw, Poland

Nikos Maragopoulos European Banking Institute, Frankfurt Am Main, Germany

Pierre Monnin Council of Economic Policies, Zurich, Switzerland

Claudia Pasquini Italian Banking Association, Rome, Italy

David Ramos Muñoz Derecho Privado, Carlos III University of Madrid, Getafe, Spain

Maria Elena Salerno University of Siena, Siena, Italy

Basil Scouteris Legal Department, Bank of Greece, Athens, Greece

Agnieszka Smoleńska Institute of Law Studies, Polish Academy of Sciences, Warsaw, Poland

Zofia Wetmańska Climate Bonds Initiative, London, UK

Abbreviations

ABSPP	Asset-Backed Securities Purchase Programme
APP	Asset Purchase Programme
BCBS	Basel Committee Banking Supervision
CBI	Climate Bond Initiative
CBPP3	Third Covered Bond Purchase Programme
CEE	Central and Eastern Europe
CRA	Credit Rating Agency
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CSPP	Corporate Sector Purchase Programme
CSRD	Corporate Sustainable Reporting Directive
CTB	Climate Transition Benchmark
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Environmental Agency
EIB	European Investment Bank
ESAs	European Supervisory Authorities
ESCB	European System of Central Banks
ESG	Environmental, Social and Governance
ESMA	European Securities Markets Agency
EUGBR	EU Green Bond Standard Regulation
EUGBS	EU Green Bond Standard
FSB	Financial Stability Board
GBP	Green Bond Principles (ICMA Standard)
GHG	Greenhouse Gas Emission
IRB	Internal Ratings Based Models

IRBA	Internal Ratings-Based Approach
ITS	Implementing Technical Standards
LGD	Loss Given Default
MIFID	Markets in Financial Instruments Directive
MRO	Main Refinancing Operations
NCA	National Competent Authority
NCB	National Central Bank
NECP	National Energy and Climate Plan
NGFS	Network For Greening the Financial System
PAB	Paris-aligned Benchmark
PAI	Principal Adverse Impact
PD	Probability of Default
PEPP	pandemic emergency purchase programme
PRI	Principles for Sustainable Investment
PSPP	public sector purchase programme (PSPP)
RTS	Regulatory Technical Standard
RWA	Risk-Weighted Assets
SDG	Sustainable Development Goal
SEIP	Sustainable Europe Investment Plan
SFAP	Sustainable Finance Action Plan
SFDR	Sustainable Finance Disclosure Regulation
SLB	Sustainability-Linked Bonds
SPO	Second Party Opinion
SREP	Supervisory Review and Evaluation Process
SRI	Sustainable and Responsible Investment
TCFD	Taskforce for Climate-Related Disclosures
TEG	Technical Expert Group
TFEU	Treaty on the Functioning of the EU
TLTRO	Targeted Longer-Term Refinancing Operations
TSC	Technical Screening Criteria (EU's Green Taxonomy)

List of Figures

CHAPTER 1

Introduction

David Ramos Muñoz and Agnieszka Smoleńska

1.1 Introduction

As the spectre of climate change and environmental degradation materializes, policymakers have been drawing on an increasingly wide toolbox to accelerate the economies' transition to a more sustainable mode of production and consumption. Private investors—concerned about the impact that their investments make—are increasingly more willing to put their money in projects labelled "ESG" (that is having a positive environmental, social and governance impact). At the intersection of these two trends, we observe the emergence of regulated "green" financial products, whose role in supporting the development and implementation of new green technologies and strategies of decarbonization is more finely defined by the legislators. Among the plethora of different instruments

D. Ramos Muñoz (✉)
Derecho Privado, Carlos III University of Madrid, Getafe, Spain
e-mail: david.ramos@uc3m.es

A. Smoleńska
Institute of Law Studies, Polish Academy of Sciences, Warsaw, Poland

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_1

one particular type—the bond—has attracted particular attention and is explored in this volume.

The green bond trend has been particularly prominent in Europe, with over 40% of global issuance being done in euros. Over 250 billion euro, that is 30% of the EU's historically unprecedented issuance to finance the post-pandemic recovery (Next Generation EU) is to be directed to green projects. EU companies have also been at the forefront of issuing green and other types of sustainable bonds to finance their transition. Among concerns about the level-playing field and greenwashing, in July 2021 the European Commission put forward a proposal for a common EU Green Bond Standard (EUGBS).[1]

This volume explores what green bond instruments and related EU regulatory efforts mean for the market, for banks, investors and regulatory and supervisory authorities. It presents the issue comprehensively, including EU and non-EU, regional and national perspectives. The authors draw on a range of disciplines, especially law and economics. Also, the book takes care to incorporate insights from academia and practice, public authorities and private sector, ranging from high-level policy to minute detail. The variety of perspectives from across institutions and geographies, bringing together in conversation younger and established scholars makes for a highly comprehensive legal investigation of the potential impact of green bonds in the EU legal order, with possible global implications given the rising interest in credible green bond issuance. Such comprehensive view is important to understand an instrument with the potential to accelerate financial markets' pivot towards sustainability, but also the challenges and pitfalls in the process.

This chapter introduces the topic of green bonds and provides a roadmap of the Book's different chapters, which cover different angles of the phenomenon. Section 1.2 of this chapter summarizes the general perspective that is further developed in Part I of the Book. There, we sketch the trends in the market for green bonds and use this as a framework to analyse the policy and legal arguments justifying the adoption

[1] European Commission. 2021. Proposal for a Regulation of the European Parliament and of the Council on European Green Bonds. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0391. Accessed 22 December 2022. Provisional agreement on the EU Green Bonds Standard Regulation has been reached by the EU Council and European Parliament on 28 February 2023, as the volume was being finalized. This was taken into account where possible.

of the EU Green Bonds Standard (EUGBS). In particular, in addition to the overview of the direction of the EUGBS Regulation, we consider the trends shaping the direction of green bond issuance such as the role of sovereign ESG (Environment, Social, Governance) bonds as well the non-regulatory standards, such as the Climate Bond Initiative (CBI). Conscious of the need to place the EU experience in the broader context, the volume explores as well the practice and challenges of a green bonds market that, like Canada, has developed without any legislative or regulatory standards.

Section 1.3 focuses on green bonds and capital markets, and introduces the topics that will be covered in more detail in Part II of this Book. The broader, looming question there is whether green bonds can, legally speaking, function as a "normal" financial instrument in the context of investor–issuer and investor–intermediary relationship. With regular financial instruments, investors have the expectation that the release of false or misleading statements will be subject to private or public enforcement against the issuer (and possibly third parties like gatekeepers). Investors also have the expectation that intermediaries will take into account their background knowledge and experience, risk profile and preferences when offering them suitable financial instruments. Yet, as we will see, the introduction of the "green", or "sustainability" dimension in the offering of securities means providing certainty for the market to grow, and a space for evolution and experimentation. This, in turn, presents important challenges for both the enforceability of greenwashing claims and the consistency of the intermediaries' duties. The challenges are equally complex when looked at from the perspective of the financial institutions.

Section 1.4 focuses on green bonds from a micro- and macro-prudential, as well as monetary perspective, anticipating some of the arguments covered in more detail in Part III of the Book. Green investments are a key component of "mitigating actions" by financial institutions exposed to transition risk, but measuring such transition risk is complex, given the variety of metrics. Fostering green bond markets by means of prudential requirements is full of difficult choices, as shown by the practical experience of some regulators and the banking sector. Green bonds and green assets also look promising from the perspective of monetary authorities like the ECB, but the execution of a greener monetary policy can be full of pitfalls if the details of the operational tools are not sufficiently connected to the broader issues of mandates and policies.

Section 1.5 of this Introduction explores the overarching themes of this book, in the form of tensions between competing ideas. We identify three: first, between the need for legal certainty and the importance of maintaining flexibility to adjust to market developments. Second, between the role of "public" regulation and authorities, but also of "private" actors and market forces. Third, between the respective role of scientific arguments and political choices in shaping how "greenness" is understood.

1.2 General Perspective: Green Bonds' Market Trends and the EU Regulation

The issuance of bonds which have a green status has surged in recent years in response to the growing appetite of investors and the needs of borrowers embarking on transition to climate neutrality. The pandemic has further accelerated market development, with more proliferation of social and sustainability-linked bonds.

Since the first 0.6 billion EUR-denominated Climate Awareness Bond was issued by EIB in 2007,[2] by 2022 the total global issuance of ESG bonds exceeded 2 trillion euro.[3] Green bonds, that is bonds whose proceeds fund activities specifically linked to pursuing environmental objectives (e.g., climate change mitigation or adaptation), are by far the most popular type with 1.5 trillion euro cumulative issuance (over 450 billion euro only in 2021). Other bond types including social and sustainability make up the remaining third of total issuance, i.e., 720 billion euro by 2022.

This volume focuses on green bond issuance. However, the multitude of market standards should be very much present in the reader's mind. For example, controversies about the credibility of "sustainability-linked bonds" issued against a set of Key Performance Indicators (KPIs) such as Greenhouse Gas (GHG) emission reductions, have driven the regulators' concerns about greenwashing, i.e., the practice of gaining an

[2] European Investment Bank. 2008. Activity and Corporate Responsibility Report: 48. https://www.eib.org/attachments/general/reports/ar2007en.pdf. Accessed 22 December 2022.

[3] Bloomberg New Energy Finance as quoted by EIB. 2022. 15 Years of EIB Green Bonds. https://www.eib.org/en/press/all/2022-308-15-years-of-eib-green-bonds-leading-sustainable-investment-from-niche-to-mainstream. Accessed 22 December 2022.

unfair competitive advantage by marketing a financial product as environmentally friendly, when in fact basic environmental standards have not been met.[4] The absence of a common definition of social objectives (i.e., the absence of a "Social Taxonomy") meanwhile precludes regulatory treatment of "social bonds".[5]

EU financial markets have been leading green bond issuances, with almost 42% of green bonds issued in the euro currency in 2021. This encompasses private, sovereign and supranational issuance. European corporates have used the proceeds to finance a variety of projects dedicated to accelerating the transition to climate neutrality, including decarbonizing energy sources (35% of all issuance), improving building efficiency (27%) and developing clean transport (18%).[6] European leadership in the green finance sphere further manifests with the record 12 billion euro bonds being placed on the market in October 2021 as part of the first green issuance under the post-pandemic recovery programme Next Generation EU.

So far, this market segment—both in Europe and globally—has been underpinned by market initiatives that tried to provide standardized, transparent and reliable criteria to determine the conditions under which a bond could be considered "green". Two standards dominating the market are the International Capital Markets Association (ICMA) Green Bond Principles (GBP) and the Climate Bonds Initiative (CBI). Nevertheless, as the green bond issuance grows, market standards are perceived to be insufficient. Lack of certainty, and the risk of greenwashing can undermine the credibility of the market segment, dampen demand and make regulatory and supervisory authorities wary of linking their tools to instruments whose credentials may be questioned, or where definitions remain a moving target.

[4] See, e.g., Recital (11) of 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 (Taxonomy Regulation).

[5] Nikolai Badenhoop. 2022. Green Bonds: An assessment of the proposed EU Green Bond Standard and its potential to prevent greenwashing. Study for the ECON committee of the European Parliament. Notably such definitional concerns do not preclude EU institutions from issuing "social bonds", as was the case as part of the pandemic employment assistance scheme for Member States SURE.

[6] Data from Climate Bonds Initiative. https://www.climatebonds.net/market/data/. Accessed 23 December 2022.

To address this problem and to fill the evident legislative void, as well as to facilitate a level-playing field in EU sustainable finance markets, in July 2021 the European Commission put forward a proposal for a European Green Bond Standard (EUGBS) that has been approved by the co-legislators in February 2023. Thus, this Book will refer to the EU Green Bond "Standard", or EUGBS for considerations of policy, but will use EU Green Bonds Regulation, or EUGBR, when referring to the provisions of the legal text. To the extent possible this volume seeks to reflect the substantive content of the final Regulation.

The EUGBR is a keystone for the EU, from both an intra-EU and external perspective. From an intra-EU perspective, the EUGBR is part of a broader framework, inaugurated by the European Commission 2018 Sustainable Finance Action Plan, and followed by Green Taxonomy, Sustainable Finance Disclosure Regulation (SFRD) as well as dedicated rules for low-carbon benchmarks (BMR). The thrust of all these initiatives is to both (i) enhance the materiality and precision of sustainability disclosures, partly by (ii) providing recognizable standards investors can rely on. The EUGBR completes this picture by making the idea of a "sustainable investment" more concrete, and more robust. It is, as such, the standard bearer in the EU sustainability agenda.

From an external perspective, the EUGBS is a statement in the global dialogue on sustainable investments, where the EU strives to lead not only in market trends, but also in market standards. The euro seeks a label of a "green currency".[7] Whether such ambitions are excessive only time will tell, but for the time being the EU Regulation on Green Bonds is the first comprehensive legislative text on this type of instrument.

The above market trends and the roadmap to the EUGBR are discussed more extensively in Chapter 2 of this Book, by Nikos Maragopoulos, who provides a thorough analysis of the rationale by EU policymakers to move from a market-based to a regulatory-based standard, as well as the key elements underpinning this standard, in the Commission proposal. These include, first, the rules governing the "green" (Green Taxonomy-aligned) bonds by means of requirements on the use of proceeds (i.e., financed assets/expenditures) aligned with the

[7] Kalin Anev Janse and Anu Bradford. 2021. Europe Greening the World: The "Brussels Effect" on Sustainable Finance. ESM Blog. https://www.esm.europa.eu/blog/europe-greening-world-brussels-effect-sustainable-finance. Accessed 23 December 2022. Agnieszka Smoleńska. 2023. Euro as the currency of the Green Transition. European Law Open.

Taxonomy or contribute to transformation within 5 years. Second, a series of disclosures by issuers to ensure adequate scrutiny of the greenness of the issuance both pre- and post-issuance, including the factsheet and annual allocation report, as well as a dedicated impact report. These two elements conform the EUGBR's first pillar. The third element (second pillar) is a mandatory review of such disclosures by external verifiers. Furthermore, even though the EUGBR relies on external reviewers as a private oversight mechanism, the external verifiers are subject to mandatory registration with ESMA, as well as governance and internal control requirements in place to mitigate issues relating to conflict of interest (mirroring the EU system for other gatekeepers, such as Credit Rating Agencies), with special rules for third-country reviewers, and specific powers for ESMA.

Regulatory standards are only one way for public authorities to further market development of ESG bonds. The role of governments as both the standard-setters and market participants places them in a unique position to "make the market". In Chapter 3 Lewandowski and Smoleńska compare, using a from a legal-institutional perspective, the conditions, objectives and governance structures of sovereign issuances in the EU. When does such Member State issuance meaningfully contribute to developing the market segment, an objective often introduced to sovereign green taps? In the light of heterogeneity of Member State experiences since Poland and France began early sovereign green bond issuances in 2016–2017, they point especially to the importance of credibility (i.e., reduced risk of greenwashing), which can be enhanced by the states communicating a clear transition strategy in the context of green bond issuance as well as by strong accountability mechanisms introduced both pre- and post-issuance.

A second, complementary reality check results from contrasting the EUGBS and its underpinning ideas (taxonomy-based definition of "sustainable", external verification by regulated entities), based on the EU's regional experience, with a global perspective, where such ideas cannot be taken for granted. This is done in Chapters 4 and 5. Chapter 4, by Harrison, Jones and Wetmańska, considers the perspective of global standard-setters providing advanced certification of climate alignment of bond issuance (Climate Bonds Initiative, CBI). While ICMA is the undisputed market leader with over three quarters of green bonds issued under its standard,[8] its Green Bond Principles (GBP) give leeway to issuers to use their own definition and with the external verification. The CBI standard uses its own "Taxonomy", and requires third-party external review, and, in that sense, it is closer to the philosophy underpinning the EUGBS. Chapter 4 provides in this context a practical perspective on the issuance of a green bond, including its benefits and process. Finally, it focuses on the importance of definitions, as more jurisdictions adopt their own taxonomies for green investments, like the EU has done. The global picture shows progress, but also many gaps, which suggests that market standards including a taxonomy will continue to be necessary in many jurisdictions, while the adoption of mandatory taxonomies in some jurisdictions opens a new chapter in the relationship between market standards and regulation. Chapter 5, for its part, provides a thorough comprehensive view of the Canadian experience with green bonds. Although, generally speaking, the green bonds market is still in its infancy, Canadian issuers have experimented with green bond offerings since 2014. Initially led by public issuers, the market now comprises financial institutions and some large corporates on the supply side, and mostly institutional investors on the demand side. Yet, as retail investors become interested in the market, the pressure for regulatory intervention grows. This is a challenge, given that the attempts to adopt a Canadian Taxonomy stalled, which means that the process has been based on the issuers' self-identification of eligible projects, roughly in alignment with market standards such as the GBP. The practice of green bonds issuance shows that most Canadian issuers provide *ex post* reporting on the use of proceeds, although most provide limited assurances, and also impact reporting, although such reporting needs more uniformity and comparability. The use of external verifiers is aligned with GBP recommendations, not with the CBI. Verifiers generally provide limited assurances and are not regulated. Although issuers can use the principles in the CBI or GBP, a system of registration and regulation, such as the one envisaged in the EUGBS, could be a welcome development. The chapter also analyses the access by Canadian green bonds to both domestic and international markets. The relevance of the international perspective of green bond offerings will only increase the pressure towards improving the standards.

[8] Including notably the EU Next Generation issuance. See Smoleńska, n. 7.

1.3 EU Green Bonds and Capital Markets Regulation

If the message of the previous section (and Part I of the Book) is that market developments and standardization must march in lockstep, this is to ensure that the market in green instruments delivers on investors' expectations, including retail investors, who are showing a growing interest in green instruments. If such expectations are not met, and mistrust creeps into the market, this can be fatal for the future of this and other sustainable instruments. Some grave threats are "greenwashing" by issuers and inadequate information and advice by intermediaries. Countering misbehaviour by issuers and intermediaries is the domain of capital markets regulation. Thus, even if, as shown earlier, the new EUGBS (and standards used in other jurisdictions) gives answers to pressing issues such as the use of funds, reporting obligations and external verification, the system is as weak as its weakest link. To assess the robustness of the EUGBS we must look at it from the perspective of liability of issuers (or other parties) and from the perspective of financial intermediaries' duties, as Chapters 6 and 7 do, with the complementary view of Chapter 8.

Chapter 6, by Cerrato and Agostini, gives continuity to some arguments in Chapter 2, but acts as a sort of "flip side", under the hypothesis of an enforcement action against greenwashing issuers and other parties, showing that some of the EUGBR features that are positive when the goal is to increase its appeal and adherence, may have undesired consequences when the goal is to assess liability for non-compliance. The chapter provides a "triangular" scheme, whereby National Competent Authorities (NCAs) monitor (and thus sanction) issuers, and the European Securities and Markets Agency (ESMA) does the same for external reviewers, and investors can act against either of them. Yet, the framework primarily relies on a public law and public enforcement approach, and the initial European Commission proposal did not, for example, provide concrete rules for the liability arising from the issuer's misstatements, or from the external reviewer's negligence, and/or breach of the services contract. These shortcomings were somewhat addressed in the European Parliament and (to a lesser extent) Council of the EU proposed amendments to the European Commission's proposal and were opposed by private bodies, such as ICMA, who warned against the risk of imposing liability for "forward-looking" statements, and of enabling a default and acceleration for mere issues of documentary non-compliance.

The regime's non-mandatory nature, although a "selling point" in its ambition to become a voluntary "gold standard", also raises questions from a liability standpoint. The enforcement perspective is even less clear when it comes to external reviewers. Logically, the EUGBR priority was to establish the ESMA's powers to supervise and sanction these operators. Yet, other basic aspects, such as the private law consequences of breach of conduct rules by reviewers, or the implication of negative external reviews for issuer liability, remain unclear. Finally, the EUGBR is potentially broad in scope to increase its appeal: the label is open to various types of issuers (corporate, banks, sovereigns[9]) both inside and outside the EU as well as types of bond liabilities (covered bonds, asset-backed securities, project bonds). All the same, the system of verification is more lenient for sovereign issuers, which creates uncertainty. Also, the potential applicability to securitization bonds does not distinguish between "green proceeds" and "green collateral" securitization. Both increase the risk of confusion and thus of greenwashing.

Chapter 7, by Salerno, provides a complementary perspective, focusing on the accountability of financial intermediaries, and the potential inconsistency between regulatory objectives. The chapter outlines the challenge of reconciling the respective needs for defining "sustainable investments" objectively (Taxonomy Regulation) while catering to investors' needs, which may encompass different preferences (Sustainable Financial Disclosures Regulation—SFDR). These conflicts provide a difficult framework for intermediaries' duties under MiFID II. An additional difficulty is that the integration of sustainability criteria takes place at the level of governance and organizational requirements, which are more directly linked to prudential requirements, rather than investor protection. However, this gap is filled by provisions that seek to assimilate sustainability considerations among market conduct rules. Yet, these present challenges of their own. Provisions on conflicts of interest, for one, now take into account an investor's sustainability preferences, but do not clearly indicate whether potential conflicts between an investor's sustainability preferences and her general investment preferences should also be considered. Perhaps the greatest challenge is in the adaptation of rules and procedures on investment advice. Intermediaries are asked, under the new rules, to gather information on clients' sustainability preferences, but given the

[9] On the dedicated treatment of sovereign issuance see chapter by Lewandowski and Smoleńska.

complexity of properly categorizing such preferences, and the nuances between products that are Green Taxonomy-aligned, SFDR-aligned, or simply take into account adverse impact on sustainability factors, it is unclear how this may work in practice. Indeed, products that do not meet a client's sustainability preferences may not be recommended as products that fit those preferences, but can still be recommended as products that fit the client's other preferences. It seems unlikely that the staff in many intermediaries will be able to craft such complex message. Furthermore, since the Commission provisions do not envisage sustainability preferences as "trumping" financial preferences, it is unclear how this will change financial advice in practice. Such ambiguity hinders legal certainty. It may also undermine enforcement efforts in the more egregious cases of greenwashing or wrongful advice.

The risk of excessive complexity is also the *leit motif* of Chapter 8, by Femia, which addresses the challenges of the new regulatory framework from the perspective of financial intermediaries. Whereas each piece of regulation may, in itself, look like a good idea, they also interact in complex, and often unexpected ways. One problem is the existence of different definitions of "sustainable investments" (a problem also pointed out by Salerno's chapter 7). Another problem is that the regulatory demands of some rules, e.g., MiFID, rest on the data generated by other regulations that have not yet been applied, e.g., the Corporate Sustainability Reporting Directive—CSRD, not developed by way of Regulatory Technical Standards (RTS), such as the SFDR, or are in force but have not yet generated the necessary data flow (e.g., Green Taxonomy). The lack of clarity may not be conducive to investors' trust. The solution, according to Femia, is to allow more flexibility in the offering of green instruments. Such flexibility is linked to the voluntary nature of the EUGBS, which the chapter supports, or the idea of grandfathering current green projects.

1.4 EU Green Bonds and Micro and Macro-Prudential and Monetary Perspectives

Even if green bonds are a key instrument to channel investor preferences in the market, climate change and other environmental challenges also present an important source of risk, and prudential and monetary authorities are among the most active in updating their frameworks and toolkits to adapt to such risk. What are the challenges, and what role do green bonds, and the EUGBS, play in addressing them? These are the questions addressed in this section and in Part III of the Book.

Regulatory and supervisory authorities are taking decisive steps to assimilate climate-related and other sustainability risks in their risk frameworks, a task made harder by the multiplicity of methodologies. Chapter 9, by Bingler, Colesanti Senni and Monnin, focuses on this methodological issue for transition risk metrics. Capturing transition risk requires authorities to adopt a forward-looking approach, where policy, technology and market movements are anticipated. Yet, the methodologies, data and assumptions of such forward-looking approaches vary substantially, which reflects the underlying complexity and uncertainty in the analysis of climate risks. The silver lining, according to the authors is that most transition risk metrics converge, i.e., despite general heterogeneity, climate transition risk metrics generally provide more coherent signals for the most and least climate-aligned firms. The implication for green bonds is that, although variable, greenness indicators are also likely to converge on most and least green firms and projects, which is encouraging from the perspective of investor certainty, and also greenwashing risk. Another implication is that, since the metrics' scenario and methodology have an impact on the metrics' estimated value it is important to understand how metrics are built, to choose the most appropriate for specific uses. As authorities streamline their methodologies for doing so, the assessment of transition risk will become more robust, and "browner" banks will need to increase their mitigating actions, e.g., through the acquisition of green bonds.

In contrast with the methodological and "risk-based" approach of Chapter 9, Chapter 10, by Gyura is practical, and focused on the "promotional" dimension of prudential authorities, i.e., the role of prudential authorities in fostering sustainable investments, based on the specific example of Hungary, where capital requirement incentives and other measures have been introduced to foster the green corporate and the green covered bond segment. One preliminary conclusion is that the combination of monetary policy and prudential measures helped to jump-start the green bond market. No green bonds were issued before 2020, and given the country's less developed capital markets and less aware investor and consumer base, market development would have been difficult absent an intervention by the central bank. Given the country's big funding gap in sustainable investments, this is welcome news. The big question remains the implications of such promotional approach from the perspective of risk and financial stability, in the absence of enough information on loan and bond performance. Thus, according to the author, Hungary's example suggests that, although a green supporting factor remains controversial if adopted across the board, it may be useful to jump-start private transactions in less mature financial markets.

Chapter 11, by Pasquini, complements the previous two, from the perspective of the banking industry, offering some interesting remarks. The author first emphasizes the importance of reliable risk metrics to identify improved performance, rather than stigmatize bad performance, and suggests that the industry prefers using the mandate for the EBA under Article 501c of the Capital Requirements Regulation (CRR) for a "dedicated prudential treatment" of sustainability-linked exposures, to introduce a Sustainable Adjustment Factor (SAF), which would result in a decrease of the risk-adjustment to certain asset classes, using risk-based (but forward-looking) methodologies. The author also uses the analysis of the practical experience in Chapter 10, and the fact that the Hungarian central bank seemed to succeed in jump-starting the private green bond market, to raise some questions about the ideal support measures, focusing on the need to favour a transition from red to yellow, and ultimately green area of investments.

Chapter 12, by Scouteris and Anastopolou, provides an excellent overview of central banks' role in greening the market, as well as its challenges. The chapter begins by introducing the relevant legal arguments about the mandate of the European System of Central Banks (ESCB) under the Treaties (TFEU and TEU) and the Statute of the ESCB, concluding that the ESCB *should* care and *is* empowered to act in response to the exigencies of climate change. The trickier question is *how* to do so. Here the authors focus on asset purchases and the collateral framework, which, naturally, are of the greatest relevance for green bonds, and express a cautiously positive view of the possibility of including climate-related criteria in asset purchase programmes, subject to principles like the open market economy or proportionality. The authors are more reluctant towards bolder measures, such as "Green" Targeted Longer-Term Refinancing Operations (TLTROs) due to unlevel playing field considerations, exacerbated by informational gaps, or the "tilting" of the collateral framework, although without closing the door to expanding the ESCB analytical capacity to be able to justify such measures. The authors also explore the legal reasons that can challenge the "greening" of the non-monetary policy portfolio and foreign reserves. The authors use this analytical framework to analyse the recent measures by the ESCB in their conclusions.

Chapter 13 by Hlásková Murphy complements and establishes a dialogue with Chapter 12 and raises some critical issues. First, in light of the ESCB efforts at "tilting" its portfolio, it is relevant to consider whether the EUGBS succeeds in its attempt to enhance transparency and comparability, especially in light of sovereigns' privileged treatment, as the proposed regulation does not require external reviewers to assess the taxonomy alignment of the economic activity of funding programmes, or the fact that they are not subject to a duty to obtain pre-issuance and post-issuance reviews by external reviewers. In the case of corporate purchases, the author also points out the relevance of the principle of an open market economy, by which the ESCB must refrain from policy measures which would unduly disrupt the functioning of markets or unduly restrict competition, and the pervasive data gaps, which will force the ECB to update its methodology to incorporate climate change considerations as more data become available. The author offers some arguments in favour of the changes in the collateral framework, to the extent that these reflect the importance of climate-related (including transition) risk, but points at the need to ensure better data collection, an aspect that, together with external verification, is also critical to ensure a credible system for the eligibility of loans before implementing any changes in TLTROs.

1.5 Overarching Themes of This Volume

The EUGBS was approved in February 2023. Notwithstanding the EU's high ambitions for its uptake, the EU's golden standard leaves many questions open. Doubts persist as to the respective desirability of a voluntary and mandatory aspects framework or the treatment of third-country regimes.

The authors and editors of this book have made their best to present a comprehensive overview on green bonds in the EU, offering all possible perspectives, organized in well-differentiated parts that follow a logical sequence, starting from a general approach to the market and regulation of green bonds, proceeding to its interplay with capital market rules, and finalizing with the role of prudential rules and supervisors and monetary authorities. Yet, throughout this sequence, some overarching themes emerge, in the form of tensions, which connect the different parts. First, the tension between legal certainty and flexibility. Second, the tension between the roles of public and private actors in the development of the green bond market. Third, the tension between science and politics, with policy acting in a mediating capacity, to foster green bond market development across Europe.

The first idea is present from the very outset. As exemplified by jurisdictions that operate in the absence of a clear regulatory framework, like Canada (Chapter 5), market discipline can provide some of the elements needed to bolster confidence, such as taxonomies, reporting or external verification. Yet, these leave important gaps concerning the reliability of taxonomies, the intensity of reporting or the oversight of external verifiers, which make some kind of regulatory intervention desirable to enhance legal certainty. At the same time, any regulatory intervention must input the necessary flexibility to allow the system to evolve, as explained in Chapter 2. The EUGBS presents important gaps, arising from data incompleteness or temporal incompleteness arising from grandfathering rules. Even more important are the potential inconsistencies arising from the interplay between the EUGBR and other capital markets regulations enhancing sustainable investments, as well as between those regulations themselves, as pointed in Chapters 7 and 8. This justifies the voluntary nature of the EUGBS, as well as the open questions about its application to certain instruments, like sovereign bonds or securitization bonds. But beware of excessive accommodations, as they may undermine the necessary certainty and dilute the prospect of enforcement by investors, as pointed in Chapter 6, which may, in turn, undermine trust in the market. A similar dichotomy is present in prudential and monetary frameworks, whereby the authorities must acknowledge, for example, that risk metrics can differ too much (as pointed in Chapter 8) to support decisive action, or that in the presence of major data gaps in monetary authorities cannot justify major shifts in their asset purchase programmes, collateral frameworks or refinancing operations, as argued in great detail in Chapters 12 and 13. Yet, as the same chapters also outline, as metrics converge and data gaps are covered, the case for a more decisive turn away from climate risks, and towards greener assets becomes desirable, if not legally required.

The second overarching theme, or tension, is between the role of public and private actors. One dimension of the theme concerns the "promotional" role of public authorities. This is evident in the practical experiences of some jurisdictions, especially those with less mature markets, as eloquently described in Chapters 3 and 10, where regulatory interventions and support by prudential authorities and central banks have been key in jump-starting the market in green bonds. Even in more mature markets, like Canada, public authorities have been the main players in the initial issuance of green bonds, as explained in Chapter 5. Such promotional role has obvious advantages, especially as it helps the market to grow and mature, but it also has problems. One problem is that public authorities may benefit from a preferential treatment, which, together with their share of the market, could undermine the credibility of the green bond standard, as pointed in Chapter 6 or 13. Another problem is that an excessively promotional role of public authorities may undermine other prudential or monetary goals, as pointed in Chapters 12 and 13. A second dimension of the public–private interplay concerns the respective responsibilities in developing the market standard and monitoring it. The EUGBS represents a clear statement in favour of public regulation, due to the perceived shortcomings of private standards, as explained in Chapter 2. However, the new EUGBS does not land in a vacuum, but in an environment where private standards like the ICMA, or the CBI, have been the norm, as explained in Chapter 4. The EUGBS should thus find its place, and improve the market, rather than simply sweep aside existing practices. At the same time, too much emphasis on public regulation and supervision should not lead us to overlook the fact that private actors are essential in the role of oversight, both through enforcement actions, as explained in Chapter 6, and by channelling investments towards clients, as explained in Chapter 7. An excessively rigid system, resting primarily on public authorities can crowd out, not foster, this private oversight role.

The third, and final theme, or tension, is between the role of science and the relevance of politics in the development of the green bond market. This tension has several dimensions. One of the dimensions concerns the relevance of taxonomies or classifications. As explained in Chapter 2, one of the major advantages of the EUGBS is that it can rely on the taxonomy of green investments, and, as explained in Chapter 5, one of the major challenges to create a similar regulatory standard in some jurisdictions is the absence of an agreed taxonomy, due to the tension between a purely scientific approach, and the political dimension of the decision to include certain activities within the taxonomy, or exclude them. The EU managed to reach a compromise, although, as outlined in Chapter 6, some parts of it remain controversial. A similar classificatory tension will become evident as the discussion moves from "green" investments to the need to fund the transition from red to yellow, as mentioned in Chapter 11. A second dimension concerns the use of data. As explained throughout the Book, one of the major challenges for this market is the existence of data gaps. Data gaps make it difficult to operationalize financial intermediaries' duties absent adequate disclosures, as pointed in Chapters 7 and 8, and the lack of uniform methodologies and metrics can hinder policy action, as explained in Chapters 9, 12 and 13. This creates obstacles to the growth of the market in green bonds. Yet, a purely scientific approach to issues like climate risk should be symmetric and account equally for the risk of action and inaction. The decision to place the whole burden on prudential, market and monetary authorities is a political decision, which is only legal if the legal principles reflect that political choice: detractors of greener markets need not oppose greening policies frontally, only allege that the science is not certain enough. Yet, such stance, on the face of overwhelming evidence about the risks of climate change, looks increasingly political. How best to proceed from here? Through an adequate combination of objectivity and legitimacy. As different chapters show, this may depend very much on the context. In the case of less mature markets, a more proactive role by public authorities may be needed, as explained in Chapters 3 and 10. In such cases, legitimacy comes from an adequate assessment of whether the policies are working, and what are their side effects (output legitimacy). When measuring risks and mitigating actions (e.g., through investments in green assets) it is necessary to choose between different metrics, which involves a policy decision. However, as explained in Chapter 9, better disclosures, transparency of metrics and methodology can help such choices be more objective, and enhance their legitimacy (input legitimacy). Finally, when devising changes in policy, authorities need to be aware that certain principles, like proportionality or the "open market economy" may place a higher burden on them, as explained in Chapters 12 and 13. However, as new data streams fill the gaps, the pressure may mount for more decisive action to, e.g., properly input climate risk in collateral, including corporate but also sovereign bonds. Absent a well-developed green bond market that can help the more exposed corporates and sovereigns transition by dramatically scaling up green investments, the decision to penalize brown issuers may be politically controversial. Yet, at some point the science underpinning the decisions may have a certain inexorability to it.

PART I

A General Perspective

CHAPTER 2

Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance

Nikos Maragopoulos

2.1 An Introduction to Green Bonds[1]

Since its debut in 2007, the green bond market[2] has been growing fast. Today, green bonds, which are defined as traditional bonds whose proceeds are used for projects that pursue specific environmental objectives,[3] are considered the most promising instruments of sustainable finance and the largest sustainable debt category. Annual worldwide

[1] The cut-off date for the information included therein is 21 May 2023. Special thanks to Professor Christos Gortsos and Agnieszka Smoleńska for their useful remarks and suggestions. Any errors or omissions are the sole responsibility of the author.

[2] This term refers to the amount of green bonds issued on an annual basis.

[3] What differentiates green bonds from traditional bonds is the focus on green use of proceeds and the detailed reporting on the allocation of proceeds and the environmental impact thereof, all of which are validated by external reviewers.

N. Maragopoulos (✉)
European Banking Institute, Frankfurt Am Main, Germany
e-mail: nikos.maragopoulos@ebi-europa.eu

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_2

issuances have increased from 37 billion dollar in 2014 to 487 billion dollar in 2022 (lower from the record high of 578 billion dollar in 2021, as a result of the tight conditions prevailing in financial markets in 2022).[4] Green bonds are issued by corporates, supranational, national, and local governments. Corporate green bonds are mainly issued by financials and companies in industries where the natural environment is financially material to their operations (e.g. energy). The EU is a leading player in the green bond market, as around half of the global issuance in 2022 came from EU companies and EU public bodies (229 billion dollar out of 487 billion dollar). Also, the euro is the most popular currency for green bonds with 47% of global green bonds denominated in euro.[5]

What drives issuers to green bonds is mostly related to reputational, rather than financial, gains. Companies issue green bonds to signal their commitment toward the achievement of the environmental objectives through the improvement of their firm-level environmental footprint.[6] Green bond issuers have a greater focus on reducing emissions than non-issuers. According to Fatica and Panzica (2020), based on a sample of 1,105 green bonds issued worldwide over the period 2007–2019, green issuers decrease the carbon intensity of their assets in the post-issuance period compared to conventional bond issuers with similar financial characteristics and environmental ratings. Reduced cost of funding seems to be an additional, but less significant, reason for companies to proceed to green bond issuances. The key question is whether there is a premium for green bonds compared to equivalent conventional bonds ('greenium'). The research in this area is inconclusive and the evidence on the existence and the direction of a 'greenium' is mixed.[7] The pricing advantage of

[4] Based on data published from the Climate Bonds Initiative. For more details on green bond issuances, see: Climate Bonds Market Data. 2023. https://www.climatebonds.net/market/data/. Climate Bonds Initiative. Accessed 18 May 2023.

[5] The euro is followed by the US dollar, with the two combined accounting for 69% of total issued amount. Climate Bonds, ibid

[6] ESMA. 2021. ESMA Report on Trends, Risks and Vulnerabilities, No 2. https://www.esma.europa.eu/sites/default/files/library/esma50-165-1842_trv2-2021.pdf. Accessed 15 May 2023: 95–105.

[7] At issuance green bonds are priced at a premium (on average) compared to conventional bonds. For more details, see Torsten Ehlers and Frank Packer. 2017. Green Bond Finance and Certification. *BIS Quarterly Review*. https://www.bis.org/publ/qtrpdf/r_qt1709h.pdf. Accessed 2 May 2023. Also, green bonds enjoy a small greenium of 8bps compared to conventional bonds based on John Caramichael and Andreas Rapp. 2022.

green bonds (i.e. lower yields compared to conventional bonds), if exists, seems to be small and not universal. What affects the cost of pricing of green bonds is the type of issuer,[8] whether green bonds have (or not) an external review,[9] and the frequency of taping capital markets for green bonds. An additional incentive for green bond issuances is the positive stock market reaction that seems to follow an issuance, which contributes

The Green Corporate Bond Issuance Premium. International Finance Discussion Paper No. 1346. http://dx.doi.org/10.17016/IFDP.2022.1346. Accessed 14 May 2023. On the contrary, based on a study on green bonds in the US municipal bonds market, there is no pricing difference between green bonds and quasi-identical brown bonds. Although the "*returns on brown bonds are on average higher than for green bonds, this spread can to a large extent be explained by properties of the respective issuing entity and of the bond. The "green nature" of the bond rather seems to be penalized by the market, as green bonds are traded at lower prices / higher yield than would be expected by their credit profiles*". For more, see Andreas Karpf, and Antoine Mandel. 2017. Does It Pay to Be Green? http://dx.doi.org/10.2139/ssrn.2923484. The finding of no pricing difference is confirmed in other studies as well. For more, see David Larcker and Edward Watts. 2020. Where's the Greenium? Rock Center for Corporate Governance. *Journal of Accounting and Economics* 69: 2–3. Caroline Flammer. 2021. Corporate Green Bonds. *Journal of Financial Economics* 142: 2. Dragon Yongjun Tang, and Yupu Zhang. 2018. Do Shareholders Benefit from Green Bonds?" http://dx.doi.org/10.2139/ssrn.3259555.

[8] The lack of consensus on the 'greenium' may depend on heterogeneity across types of issuer. Green bonds issued by supranational institutions and non-financial corporates have a greenium. A greenium is observed in the public green bond market, which is affected by issuer sector and credit rating. The greenium increases for supranational issuers with AAA rating, such as the EU. For more details, see Isabelle Cathérine Hinsche. 2022. A Greenium for the Next Generation EU Green Bonds Analysis of a Potential Green Bond Premium and Its Drivers. Center for Financial Studies Working Paper No. 663. http://dx.doi.org/10.2139/ssrn.3965664. On the contrary, green bonds issued by financial entities do not show any price differential compared to conventional bonds, all other factors equal. One possible reason behind this heterogeneity is that financial entities signal their environmental attitudes less clearly, as there are inherent difficulties to linking directly the proceeds of green bonds with specific green projects. For more, see Serena Fatica, Roberto Panzica, and Michaela Rancan. The Pricing of Green Bonds: Are Financial Institutions Special. *Journal of Financial Stability* 54.

[9] External review acts as a signal toward investors about the green bonds that actually pursue environmental objectives. Green bonds certified by an external reviewer attract more interest from investors and enjoy a greenium compared to the non-certified ones. For more details, see Malcom Baker, Daniel Bergstresser, George Serafeim, and Jeffrey Wurgler. 2022. Financing the response to climate change the pricing and ownership of U.S. green bonds. National Bureau of Economic Research Working Paper 25194. https://www.nber.org/papers/w25194. Accessed 25 April 2023.

to attracting investors that value the long-term and environmentally sustainable initiatives.[10]

As regards the framework governing green bonds, in the absence of a universally accepted classification and reference standard, the green bond market relies on private governance regimes. The Green Bond Principles (GBP) and the Climate Bonds Standard (CBS) are the two most well-known international market-based standards that are available to any issuer who wishes to issue green bonds and serve as certification mechanisms for the assessment of the eligibility and credentials of green bonds.

The GBP are the most widely used standard adopted by the International Capital Market Association (ICMA) in 2014.[11] The GBP constitute a set of market-based voluntary process guidelines that set out general criteria followed by most certification schemes. The four (4) core components for alignment with the GBP are: (i) use of proceeds, (ii) process for project evaluation and selection, (iii) management of proceeds, and (iv) reporting. In particular, the use of proceeds of a green bond should be specified in its legal documentation in order to justify its 'green' purpose. The proceeds raised should be used to finance or refinance projects that provide clear environmental benefits, which should be assessed and, where feasible, quantified by the issuer.[12] Under the project evaluation and selection process, issuers should provide investors with the information necessary to assess whether a project is 'green' and which are its environmental sustainability objectives. This component covers also the governance arrangements by which the issuer determines how the projects fit within the eligible green project categories and how the perceived social and environmental risks associated with the relevant projects are identified and managed. Also, issuers should disclose information on the management of proceeds. Net proceeds of green bonds should be tracked

[10] In 565 corporate green bonds issued by 169 public companies globally in the period 2013–2018, issuance of green bonds results in a positive stock market reaction for issuers. For more, see Caroline Flammer. 2021. Corporate Green Bonds. *Journal of Financial Economics* 142: 2.

[11] The International Capital Market Association (ICMA) is a leading industry association for financial market participants that provides principle frameworks for green bonds, social bonds, sustainability bonds, and sustainability-linked bonds.

[12] ICMA. 2022. Green Bond Principles, Voluntary Process Guidelines for Issuing Green Bonds. https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles_June-2022-280622.pdf. Accessed 12 May 2023.

by the issuer in an appropriate manner based on a formal internal process linked to its lending and investment operations for eligible green projects. Under the GBP's reporting requirements, issuers should issue an annual report until the full allocation of the green bond's proceeds. This report should include a list of the projects to which the proceeds have been allocated, as well as a brief description of the projects, the amounts allocated, and their expected environmental impact. On top of these core components, the GBP set out two recommendations for enhanced transparency. Firstly, issuers should explain the alignment of their green bond with the four aforementioned core components of the GBP in a Green Bond Framework or in the relevant legal documentation. Secondly, it is recommended that issuers appoint an external review provider to assess through a pre-issuance external review and the alignment of their green bond or Green Bond Framework with the core components of the GBP.[13] Post issuance, a third party should verify the internal tracking and the allocation of the green bond's proceeds to eligible green projects.

Launched in 2011 by the Climate Bonds Initiative, the CBS aims to allow investors and other stakeholders to easily assess the climate credentials and environmental integrity of green bonds. It sets out the requirements for issuers seeking certification of their green bond, which is provided once the Climate Bonds Standard Board validates, on the basis of an independent verification performed by an external reviewer, that the bond conforms to the requirements of the CBS and the issuer has in place the proper controls and processes.[14] The requirements of the CBS, which are stricter compared to the GBP's ones, are separated into pre-issuance and post-issuance ones. The former should be met by issuers seeking certification prior to issuance, while the latter by issuers seeking continued certification of their green bond. Under both options, the requirements of the CBS fall under the same four (4) areas set out by the GBP, namely (i) use of proceeds, (ii) process for evaluation and selection of projects, (iii) management of proceeds, and (iv) reporting. The CBS requires issuers to develop and disclose a Green Bond Framework prior to or at the time of issuance of a green bond. This document should

[13] According to ICMA, there are four (4) types of external reviews: (i) Second Party Opinions (SPOs), (ii) verification, (iii) certification, and (iv) green bond scoring/rating.

[14] Torsten Ehlers and Frank Packer. 2017. Green Bond Finance and Certification. *BIS Quarterly Review*. https://www.bis.org/publ/qtrpdf/r_qt1709h.pdf. Accessed 2 April 2023. 93.

describe how the issuer will meet the requirements of the CBS, including the use and management of proceeds and how the climate-related objectives of the green bond are positioned within the context of the issuer's environmental sustainability strategy. In the post-issuance period, issuers are required to publish an annual report that should cover 3 areas of reporting: allocation, eligibility, and impact. Allocation reporting should provide information on the allocation of the bond's proceeds to eligible projects and assets. Eligibility reporting should cover the characteristics and performance of projects/assets to demonstrate their eligibility to be considered 'green', while impact reporting, albeit not mandatory, is a disclosure of metrics or indicators which reflect the expected or actual impact of eligible projects and assets.

For clarity purposes, the following sections will refer to the "EU Green Bond Standard", or "EUGBS" in the context of the policy discussion. However, "EU Green Bond Regulation", or "EUGBR" will be used to refer to the actual legal text.

2.2 The European Green Bond Standard

2.2.1 The Need for Introducing a European Green Bond Standard

The transition to a climate-neutral economy and the achievement of the Union's environmental sustainability objectives require significant investments. Public and private money should be redirected toward green investments in order to achieve the ambitious targets of the European Green Deal, which is an overarching framework and program of actions adopted by the European Commission back in 2019 to make the European economy sustainable. Just to meet the climate and energy targets set for 2030 and mitigate climate change, the EU needs annual investments in energy systems (excluding transport) of approximately 350 billion euro and a further 130 billion euro for other environmental goals. Also, under the 2021–2027 Multiannual Financial Framework (MFF) and Next Generation EU (NGEU),[15] the EU aims to spend up to 605 billion euro

[15] Next Generation EU is a temporary recovery instrument worth 750 billion euro in 2018 prices, which is at the heart of the EU's response to the Covid-19 crisis. The European Commission will borrow on behalf of the EU in the capital markets between 2021 and 2026. All borrowing will be repaid by 2058.

on projects addressing the climate crisis and 100 billion euro in projects supporting biodiversity.

Against this backdrop, green bonds will play a crucial role in financing the transition to a low-carbon economy and achieving the net zero emissions target. The European Commission's intention is to raise at least 30% of the 750 billion euro for NGEU through the issuance of green bonds, which is equal to the total amount of green bonds (250 billion euro) issued in 2020.[16] As mentioned above, the green bond market has demonstrated a significant expansion over the previous years. However, it remains only a tiny fraction of the overall bond market. Green bond issuance in the EU represents ca 3% of the total bond issuance in the EU. The investor demand outweighs the supply of green bonds, which remains limited. The existing regime is largely grounded on the aforementioned industry-based voluntary process guidelines that provide some standardization in market practices, though inconsistencies still remain. What is holding back the further development of the green bond market is mostly related to the lack of a uniform framework regarding the definitions of green assets, the disclosure requirements, and the performance of external reviews.[17]

The absence of commonly agreed definitions and taxonomies is a major barrier to the development of the green bond market.[18] Issuers have difficulties to identify eligible green assets for financing, mainly due to the uncertainty about what could be perceived as 'green' from the markets. To date, the proceeds of green bonds are mostly oriented toward the areas of renewable energy, real estate, green transport, and sustainable water management.[19] Issuers' concerns about the unclear definitions of what is green are closely connected to the reputational risk of 'greenwashing'. Issuers are reluctant to proceed to issuances of green bonds if they run the risk of being blamed for 'greenwashing'. The risk of 'greenwashing' is present not only ex ante, but also ex post due to a potential failure to disclose the necessary information

[16] Based on data published from the Climate Bonds Initiative. See n. 3.

[17] Recitals (4)–(7) EUGBR.

[18] Ibid., 2.

[19] EU Technical Expert Group on Sustainable Finance. 2020. Financing a Sustainable European Economy. Usability Guide-EU Green Bond Standard. https://finance.ec.europa.eu/system/files/2020-03/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf. Accessed 15 May 2023: 21.

regarding the allocation of proceeds and the environmental impact of qualifying projects. Investors often lack sufficient information to evaluate issuers' commitment to the environmental objectives. While the market-based frameworks set out expectations regarding reporting, the quality and extent of that reporting have been inconsistent. For many market participants, the absence of uniform disclosure requirements based on standardized templates is a material source of concern. Lastly, although external reviews have become common practice in the European green bond market,[20] there are still significant divergences in the approaches employed under the existing market-based regimes. External reviewers issue reviews of green bonds based on their individual assessment methodologies, which may be opaque and inconsistent. Also, the governance and internal control arrangements of external reviewers are not subject to the scrutiny of a supervisory authority. Hence, it seems that there is a need for placing external reviewers under a regulatory-led regime in order to foster market transparency and integrity.

2.2.2 The Road Toward the European Commission's Proposal

The significance of green bonds has been recognized already from January 2018, when the High-Level Expert Group for Sustainable Finance (HLEG) proposed, among others, the introduction of an official EU Green Bond Standard and the establishment of accreditation criteria for external review providers,[21] while the European Green Deal highlighted the need to "*develop an EU green bond standard that facilitates sustainable investment in the most convenient way*".[22] Following that, under the Action Plan on "*Financing Sustainable Growth*", the European Commission committed to create standards and labels for green financial products and asked the Technical Expert Group for Sustainable

[20] Barclays. 2015. The Cost of Being Green. https://www.environmental-finance.com/assets/files/US_Credit_Focus_The_Cost_of_Being_Green.pdf. Accessed 6 May 2023: 6.

[21] EU High-Level Expert Group on Sustainable Finance. 2018. Financing a Sustainable Economy. https://finance.ec.europa.eu/system/files/2018-01/180131-sustainable-finance-final-report_en.pdf. Accessed 10 May 2023: 30–35.

[22] European Commission. 2019. The European Green Deal. Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee, and the Committee of the Regions. COM(2019) 640 final: 17.

Finance (TEG) to prepare a report on an EU Green Bond Standard by Q2 2019, building on current best practices.[23] In line with the European Commission's mandate and on the basis of the HLEG's recommendations, the TEG began work and published its final report in June 2019 with recommendations pertaining to the establishment of the EU Green Bond Standard by means of a non-binding EU act, such as a Recommendation or a Communication.[24] The TEG's recommendation on an EU Green Bond Standard is built on market practices, as represented by the GBP and the CBS, and consists of 4 elements: (i) alignment with the Green Taxonomy,[25] (ii) publication of a Green Bond Framework, (iii) allocation and impact reporting, and (iv) conduct of mandatory verification from external reviewers. The TEG's report recommended moving from the market-based regime to a centralized accreditation regime under the ESMA's oversight. Such a regime would establish a unified approach and be in line with the ESMA's comparable role over credit rating agencies (CRAs) allowing, thus, the creation of synergies with existing processes and procedures, particularly in light of the fact that supervised CRAs provide external review services and have integrated environmental aspects into their credit ratings. In December 2020, the European Council underlined the importance of developing common,

[23] For a detailed overview of the European Commission's Action Plan on "*Financing Sustainable Growth*", see Danny Busch, Guido Ferrarini, and Arthur van den Hurk. 2021. The European Commission's Sustainable Finance Action Plan and Other International Initiatives. In *Sustainable Finance in Europe: Corporate Governance, Financial Stability and Financial Markets*, ed. Danny Busch, Guido Ferrarini, and Seraina Grünewald, 19–59. Cham, Switzerland: Palgrave Macmillan.

[24] EU Technical Expert Group on Sustainable Finance. 2019. Report on EU Green Bond Standard. https://finance.ec.europa.eu/system/files/2019-06/190618-sustainable-finance-teg-report-green-bond-standard_en.pdf. Accessed 12 May 2023. Also, in March 2020, the TEG issued the "*EU Green Bond Standard Usability Guide*" providing recommendations on the practical application of the EUGB and the set-up of a market-based registrations scheme for external verifiers.

[25] 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*" (known as 'Taxonomy Regulation'). For a detailed analysis of the Taxonomy Regulation, including its broader impact on the financial system, see Christos Gortsos. The Taxonomy Regulation: More Important Than Just as an Element of the Capital Markets Union. In *Sustainable Finance in Europe: Corporate Governance, Financial Stability and Financial Markets*, ed. Danny Busch, Guido Ferrarini, and Seraina Grünewald, 351–395. Cham, Switzerland: Palgrave Macmillan.

global standards for green finance and invited the European Commission to put forward a legislative proposal for a green bond standard by mid-2021.[26]

In line with that mandate, on 6 July 2021, the European Commission issued a proposal for Regulation of the European Parliament and of the Council "*on European Green Bonds*" (EUGBR Proposal). The European Commission's proposal was based to a significant extent on the recommendations issued by the TEG. Leveraging on the best market practices, the European Commission sought to address the deficiencies of the market-based regimes mentioned above. To this end, the Regulation sets out (i) a framework of requirements for issuers of bonds that wish to use the designation 'European Green Bond' or 'EuGB' for their bonds, (ii) a system for the registration and supervision of external reviewers, and (iii) optional sustainability disclosure requirements for bonds marketed as environmentally sustainable and sustainability-linked bonds. As per the EUGBR, the EUGBS is intended to be a voluntary 'gold standard' for green bonds. Issuers may choose to align with the EUGBS or follow other market-based practices. The scope of the EUGBR is broad, as it does not set any restrictions on issuers of green bonds. The EUGBS is open to all types of issuers both inside and outside the EU, including corporates, financial institutions, sovereigns, and other public bodies, which may issue all types of (green) bonds, including covered bonds, securitizations,[27] and project bonds.

2.2.3 *The Key Elements of the European Union Green Bonds Regulation (EUGBR)*

The EUGBR introduces 3 novelties (analyzed in detail below) that significantly differentiate EUGBs from the market-based green bond standards. Firstly, the funds raised by an EUGB should be allocated (mostly) to Taxonomy-aligned projects, namely to environmentally sustainable assets

[26] European Council. 2020. Conclusions. https://www.consilium.europa.eu/media/47296/1011-12-20-euco-conclusions-en.pdf. Accessed 26 April 2023.

[27] In accordance with Art. 13a EUGBR, the originator is considered the issuer of a securitization designated as EUGB. The originator has the responsibility to ensure compliance with the EUGBR. Synthetic securitizations cannot be eligible to use the designation EUGB. Additional requirements for eligible securitizations are set out in Art. 13c–13d EUGBR.

and economic activities in line with the Taxonomy Regulation. Secondly, issuers should be subject to stringent disclosure requirements to ensure full transparency on the allocation of proceeds and the environmental impact of the EUGB. Thirdly, external reviewers, which should confirm that the aforementioned disclosures comply with the requirements of the EUGB, have to be registered with and supervised by the ESMA. This requirement seeks to ensure the quality of their services and the reliability of their reviews to protect investors and promote market integrity.

2.2.3.1 Use of Proceeds from European Green Bonds

Under the existing market-based standards, green bonds may finance climate-mitigating investments, including resource efficient housing, energy production and distribution, and low-carbon infrastructure. However, there are still many grey areas on what is considered green. The GBP suggest categories for assets and projects to be financed by a green bond, while they only recommend the (voluntary) disclosure of official and/or market-based Taxonomy-alignment. The existing lack of clear definitions for green projects creates uncertainty resulting in added costs and risks for issuers and investors. Against this backdrop, the EUGBR intends to provide certainty by aligning the use of proceeds with the Green Taxonomy.[28] The Taxonomy Regulation should be used as a benchmark to define whether an economic activity and the related assets/projects are green and whether full compliance with minimum social safeguards is ensured.

In accordance with Art. 4 EUGBR, proceeds from an EUGB[29] should be used to finance either Taxonomy-aligned environmentally sustainable economic activities or economic activities that contribute to the transformation of activities to become environmentally sustainable within a reasonably short period from the EUGB issuance. The proceeds from an EUGB can be used to finance such activities either directly through the financing of assets and expenditures relating to environmentally sustainable activities or indirectly through financial assets that finance environmentally sustainable activities. In particular, issuers may use the proceeds of an EUGB to finance (i) fixed (tangible or intangible) assets

[28] This requirement is applicable also to projects located outside the EU, where issuers have to meet the same requirements (including Taxonomy-alignment) as for EU projects.

[29] Issuers are allowed to deduct issuance costs from the collected proceeds for the purposes of allocation.

that are not financial assets, (ii) capital expenditures (CapEx), and/or operating expenditures (OpEx) with a 3-year lookback limitation, (iii) financial assets (i.e. financial claims and equity instruments), created no later than five years after the issuance of the EUGB, (iv) assets and expenditures of households, or (v) a combination of the aforementioned categories.[30] Sovereigns, in addition to the above, may allocate the proceeds of an EUGB to indirectly finance economic activities that are aligned with the Green Taxonomy through the use of programs of tax expenditures or transfers.[31]

The EUGB's proceeds can be used for CapEx and OpEx relating to economic activities that meet or are expected to meet the taxonomy requirements, as set out in a CapEx plan[32] within 5 years from the bond issuance, unless a longer period is objectively justified by specific features of the economic activity and the upgrade concerned, with a maximum of 10 years.

The proceeds of financial assets should be allocated to any of the uses mentioned above. Issuers may allocate proceeds from a portfolio of outstanding EUGBs to a portfolio of Taxonomy-aligned fixed assets or financial assets. Financial assets can be allocated up to 3 subsequent financial assets in a row, provided that issuers can guarantee the possibility of external reviewers to effectively review the final allocation of proceeds.

As mentioned above, assets and expenditures funded by the proceeds of an EUGB should meet the technical screening criteria established under the Green Taxonomy.[33] The Commission's proposal had not accommodated the TEG's recommendation to provide flexibility in relation to the requirement for full alignment with the Green Taxonomy where no technical screening criteria have been developed yet (particularly relevant for the environmental objectives not covered by the first Commission

[30] Art. 4 EUGBR.

[31] Proceeds can be allocated to tax relief, subsidies, intermediate consumption, current transfers within a general government, current international cooperation, or other types of public expenditure.

[32] The CapEx Plan should specify a deadline (prior to EUGB' maturity) by which CapEx and OpEx funded by the EUGB will be Taxonomy-aligned. Also, the issuer should obtain an assessment from an external reviewer about the taxonomy-alignment of CapEx and OpEx that are included in the CapEx plan and funded by the EUGB. Where relevant, a summary of the CapEx plan should be included in the prospectus of the EUGB issuance.

[33] For more details on the Green Taxonomy, please see Chapter 1 by David Ramos Muñoz and Agnieszka Smoleńska.

Delegated Regulation) or in specific cases where the technical screening criteria are considered not directly applicable by the issuer due to factors such as the innovative nature, the complexity, and/or the location of the green project(s). However, the co-legislators finally agreed on a 'flexibility pocket' of up to 15% of the EUGB's proceeds that issuers can allocate to activities for which there are no technical screening criteria in force at the date of issuance, provided the activities comply with the generic criteria for 'Do No Significant Harm', as laid down in Regulation 2021/2139, or where proceeds are allocated in the context of international support, provided those activities comply with the relevant technical screening criteria on the best effort basis. This flexibility aims to strike the right balance between the ambitious approach of the EUGB and the actual applicability of the Green Taxonomy in the short and medium term.[34]

Where issuers allocate the EUGB's proceeds in line with the Green Taxonomy, they should apply the technical screening criteria applicable at the time of issuance of the EUGB.[35] However, the technical screening criteria are expected to be regularly developing over time to reflect the technological progress in the area of environmental sustainability. In this context, the EUGBR provides for a partial grandfathering period if there is a change in the technical screening criteria after a bond issuance. Under this grandfathering period, the former technical screening criteria will remain applicable for outstanding EUGBs for a transitional period of 7 years (instead of 5 years initially proposed by the Commission).[36] After this period, the issuer should allocate based on the amended criteria (i) any proceeds not yet allocated and (ii) any proceeds covered by a CapEx plan that have not yet met the Green Taxonomy. The EUGBR does not follow the TEG's recommendation for a full grandfathering of the EUGB designation, which would entail that the former technical screening criteria would remain applicable for outstanding EUGBs for the whole period until maturity.

[34] The Council had initially proposed a 'flexibility pocket' of up to 20% of an EUGB's proceeds. Council of the EU. 2022. Regulation of the European Parliament and of the Council on European green bonds—mandate for negotiations with the European Parliament. https://data.consilium.europa.eu/doc/document/ST-7379-2022-ADD-1/x/pdf. Accessed 10 May 2023. Proposed Art. 6(1a)(b).

[35] Recital (11) EUGBR.

[36] Art. 7 EUGBR.

Thus, the final approach addresses to a significant extent, albeit not fully, the uncertainty both for issuers and investors on whether EUGBs will preserve their designation following a change of the technical screening criteria. Under the Commission's proposal, the possibility that a EUGB might lose its designation at a certain point in time due to no longer meeting the technical screening criteria would discourage both issuers and investors from EUGBs. From an issuers' perspective, the partial grandfathering could bring extra costs and uncertainty, as issuers would have to reallocate proceeds in line with the amended technical screening criteria or to adapt assets/projects already funded by the EUGB proceeds in order to comply with the amended technical screening criteria. The unpredictability of the EUGB designation would have an impact on secondary market pricing and liquidity of a long-term EUGB during this period, especially if it were anticipated to lose the EUGB designation. Also, issuers would be inclined to postpone the issuance of EUGBs if changes to the technical screening criteria were expected, or could prefer shorter maturities in order to avoid the aforementioned negative consequences of an expected change in the technical screening criteria. As regards investors, they would have the operationally challenging task to constantly monitor that the EUGB designation is still in place, and, if not, they would need to liquidate their positions resulting in a devaluation of the outstanding EUGB.

2.2.3.2 Disclosure Requirements for Issuers

Overview of Disclosure and External Review Requirements

The Regulation seeks to promote transparency and market integrity by providing investors with the necessary information to assess the compliance of issuers with the EUGBR and to evaluate the environmental impact of EUGBs. In this context, the EUGBR establishes standardized disclosure requirements for issuers in order to promote comparability among EUGBs. Issuers should publish (i) pre-issuance EUGB factsheets, (ii) post-issuance annual allocation reports, and (iii) at least 1 report on the environmental impact of the EUGB, based on common templates included in the annexes of the EUGBR. These documents should be published and maintained on issuers' websites until at least 12 months after the maturity of EUGBs. In case of more than 1 EUGB, issuers may issue a single report for each of the aforementioned types of reports.[37] This flexibility is justified by the fact that issuers may not be able to match the proceeds of each EUGB with the distinct financial assets financed by that bond due to a mismatch in terms of maturity and volume of funding between the EUGBs and financial assets.

A significant novelty of the EUGBR pertains to the mandatory external review of (i) the pre-issuance EUGB factsheet and (ii) the allocation report published after the full allocation of the EUGB's proceeds. This obligation aims to ensure that a third party assesses and validates the accuracy of information contained in issuers' disclosures and their compliance with the EUGBR requirements. External reviewers' reports should be published both on their own websites and issuers' ones.[38]

The Regulation provides some flexibility to sovereigns in relation to the obligation to obtain post-issuance reviews from external reviewers. In particular, a sovereign may obtain post-issuance reviews either from (i) an external reviewer or (ii) an external reviewer and a state auditor, whereby the state auditor shall review the allocation of bond proceeds and the external reviewer shall assess the compliance of economic activities funded by the EUGB's proceeds.[39]

Lastly, the EUGBR introduces a mandate for the Commission to publish pre-issuance and post-issuance disclosure templates for bonds marketed as environmentally sustainable[40] or sustainability-linked bonds.[41] Issuers of such bonds can publish on a voluntary basis to these templates, along with other disclosure documentation. These templates should include information on the allocation of proceeds to economic activities aligned with the Green Taxonomy, including the share of proceeds allocated to gas and nuclear energy.[42]

[37] Art. 8(2), 9(2) and 10(2) EUGBR.

[38] Art. 13(1) and 30(1)–(2) EUGBR.

[39] Art. 11 EUGBR.

[40] This term refers to a bond whose issuer provides investors with a commitment or any form of pre-contractual claim that the bond proceeds are allocated to economic activities that contribute to an environmental objective.

[41] This term refers to a bond whose financial or structural characteristics vary depending on the achievement by the issuer of predefined sustainability objectives.

[42] Recital (13a) EUGBR.

EUGB Factsheet

Prior to an EUGB issuance, issuers are required to publish an EUGB factsheet under a common template setting out the concrete funding goals and environmental objectives of the EUGB.[43] Under that factsheet, issuers should state that they adhere to the requirements of the EUGBR and provide detailed information on how the EUGB aligns with their environmental strategy, as well as on whether the use of the 'flexibility pocket' allowance is made and the economic activities concerned.[44] The EUGB factsheet is structurally different and more detailed compared to the respective report published under the GBP, notably as regards the obligation of issuers to disclose information on the EUGB's compliance with Green Taxonomy.

The largest part of the factsheet should cover the intended allocation of the EUGB's proceeds. Specifically, the factsheet should provide detailed information on the estimated time until the full allocation of proceeds and the process for selecting green projects, including a description of the technical screening criteria taken into account and the methodology/assumptions used for the calculation of the key impact metrics. Also, the factsheet should contain information at least at the level of the economic activity, and ideally at the level of the project(s).[45] This information should cover, among others, the environmental objectives pursued under each project, as per the Green Taxonomy, the type and sector of the project, and the amount of the bond's proceeds allocated to that.

Once the issuer has prepared the factsheet, the external reviewer should perform a pre-issuance review to ensure that the EUGB meets the requirements of the EUGBR. The pre-issuance review should be disclosed under a uniform template, which should include a detailed list of information.[46] In specific, the external reviewer should express a positive/negative opinion in relation to the compliance of the bond with the requirements of the EUGBR. Furthermore, the external reviewer should

[43] Where a prospectus is published in accordance with Regulation 2017/1129, that prospectus should clearly state that this issuance is an EUGB and includes the information contained in the green bond factsheet.

[44] Art. 8(1) EUGBR.

[45] Information at project level may be limited, where this is justified by confidentiality agreements, competitive considerations, or a large number of underlying qualifying projects.

[46] Art. 8(3) EUGBR.

describe the sources relied upon to prepare the review, including links to measurement data and the methodology applied, as well as an explanation of the assessment methodologies, key assumptions, and taxonomy requirements used.

Annual Allocation Report

Following the issuance of an EUGB and until the full allocation of its proceeds,[47] issuers should publish, no later than 9 months following the end of the reference year, annual reports to demonstrate how they are allocating the proceeds of the EUGB to economic activities aligned with the Green Taxonomy and, where relevant, to economic activities falling under the 'flexibility pocket'. Such an allocation report is envisaged also under the GBP, which most issuers already provide on a voluntary basis. As is the case with the EUGB factsheet, the allocation report shall be based on a common template providing investors with comparable information. The information included in the annual allocation report is very similar to that required under the pre-issuance factsheet (e.g. type and sector of projects, amount and percentage of proceeds allocated). Additional areas covered in the allocation report refer to a progress update in the implementation of a CapEx plan for assets falling under such a plan and how the EUGB's proceeds contribute to the funding and implementation of the issuer's transition plan, where relevant.[48] In case of issuers that allocate proceeds from a portfolio of several EUGBs to a portfolio of assets, the allocation report shall provide both an overview of the outstanding EUGBs, indicating their individual and combined value, and an overview of the eligible assets, indicating their value, environmental objectives, and sectors.

Under the proposed EUGBR, issuers shall obtain an external review only for the allocation report issued after the full allocation of the proceeds. The only exception refers to issuers that allocate the proceeds from a portfolio of EUGBs to a portfolio of assets.[49] For these entities an external review is required for each annual allocation report, which is

[47] Where applicable, an allocation report shall be published annually until the completion of the CapEx plan.

[48] This information relating to issuer's transition plan shall be included also in the EUGB factsheet and the optional pre-issuance and post-issuance periodic disclosures for bonds marketed as environmentally sustainable and sustainability-linked bonds.

[49] Art. 9(5) EUGBR.

similar to the GBP recommendation to all issuers (i.e. annual review of issuers' management of proceeds). In any case, the post-issuance review shall provide, among others, a detailed assessment of whether the issuer has allocated the bond's proceeds in line with the EUGBR and the intended use of proceeds, as set out in the EUGB factsheet.[50]

EUGB Impact Report

Under the current market-based regime, impact reporting is not mandatory, though recommended as a best practice. Hence, whereas investors and other stakeholders need detailed information on the environmental impact of the investment projects for which green bond's proceeds are earmarked, this information is seldom disclosed on a regular basis.[51] Therefore, the EUGBR introduces an additional disclosure requirement for issuers, which pertains to the publication of a report on the overall environmental impact of EUGBs. This report shall be published after the full allocation of proceeds, and at least once until the maturity of the EUGB. The impact report shall give insight into both the positive and adverse environmental impact of the EUGB in aggregate and per project, as well as on the metrics, methodologies, and assumptions applied in the assessment of that impact. This is a key difference compared to the current practice, where issuers disclose information only on the positive effects of green bonds. Mandatory impact reporting is important in demonstrating the environmental effects of the EUGB, though the collection, aggregation, and reporting of the required data/information might be challenging for issuers.

Whereas the EUGB factsheet and the post-issuance allocation report shall be reviewed by an external reviewer, in the case of the impact report this is an option for issuers. The EUGBR does not introduce such a requirement, which would provide investors with assurance about the actual environmental impact of the EUGB, enhancing further the credibility of the EUGBS and limiting the room for 'greenwashing'.[52] In any case, the (optional) review of the impact report should include, among others, (i) an assessment of whether the bond issuance aligns with

[50] Art. 9(7) EUGBR.

[51] Serena Fatica and Roberto Panzica, n. 7: 6.

[52] For further details on the issue of 'greenwashing', see Chapter 6 by Federica Agostini and Elia Cerrato.

the issuer's broader sustainability strategy and (ii) an assessment of the indicated sustainability impact of the EUGB.

Powers of Competent Authorities Regarding Disclosure Requirements

The EUGBR assigns specific supervisory and investigatory powers on National Competent Authorities (NCAs) to ensure that non-sovereign issuers comply with the aforementioned disclosure requirements.[53] As regards the supervisory powers, NCAs may require issuers, among others, to publish pre-issuance and post-issuance reports and to include therein the information listed in the relevant annexes of the EUGBR. If an NCA considers there are reasonable grounds that the disclosure requirements have been infringed, it may (i) make public this assessment, (ii) proceed to a suspension of the offer of the EUGB for a maximum of 10 working days, (iii) prohibit the offer of the EUGB, or (iv) prohibit/suspend advertisements relating to that issuance. Also, in case of repeated and severe infringements, NCAs may prohibit issuers from issuing EUGBs for up to 1 year. NCAs also have (investigatory) powers to require auditors and senior management of the issuer to provide information and documents, while they may also carry out on-site inspections and/or investigations at the issuer's premises, where necessary. NCAs may exercise the aforementioned powers (i) directly, (ii) in collaboration with other authorities,[54] (iii) under their responsibility by delegation to such authorities, or (iv) by application to the competent judicial authorities.[55]

In addition to the aforementioned powers, Member States shall provide NCAs with the power to impose administrative sanctions and other administrative measures, where they identify infringements of the disclosure requirements of the EUGBR or a failure of the issuer to cooperate in an investigation/inspection.[56] Indicatively, for the purpose of addressing the risk of 'greenwashing', NCAs may impose sanctions to

[53] Art. 36–37 EUGBR.

[54] Art. 38-40 EUGBR set out detailed arrangements for the cooperation between competent authorities and the ESMA.

[55] Art. 37(2) EUGBR.

[56] Member States may provide for and impose criminal sanctions under their national law in case of breach of the relevant obligations established under the Regulation. In that case, Member States may decide not to lay down rules for administrative sanctions for these infringements.

issuers where they find that the post-issuance disclosures (e.g. allocation report) include invalid/misleading information about the use of the proceeds in accordance with the Green Taxonomy. NCAs may impose pecuniary and/or non-pecuniary sanctions to natural persons and/or legal entities that are responsible for the relevant infringement(s).[57] The determination of the type and level of the administrative sanctions/measures shall be made on the basis of certain elements, including the gravity and duration of the infringement, as well as the degree of responsibility of the person responsible for the infringement.[58]

2.2.3.3 Registration and Supervision of External Reviewers

Registration

The current market-based regime lacks an effective framework for the supervision of external reviewers, which fails to provide assurance to issuers and investors on the greenness of their investments. Among others, this could be attributed to a potential lack of independence resulting in perceived or actual conflicts of interest and limited disclosure of environmental performance criteria.[59] The EUGBR seeks to address this

[57] In accordance with Art. 41(2) EUGBR, Member States must ensure that competent authorities have the power to impose the following administrative sanctions and measures:

(a) a public statement indicating the natural person or the legal entity responsible and the nature of the infringement;
(b) an order requiring the natural person or legal entity responsible to cease the conduct constituting the infringement;
(c) an order prohibiting the natural person or entity concerned from issuing EUGBs for a period of up to 1 year;
(d) maximum administrative pecuniary sanctions of at least twice the amount of the profits gained or losses avoided because of the infringement where those can be determined;
(e) in the case of a legal person, maximum administrative pecuniary sanctions of at least 500,000 euro, or 0.5% of the total annual turnover of that legal person according to the last available financial statements approved by the management body; or
(f) in the case of a natural person, maximum administrative pecuniary sanctions of at least 50,000 euro.

[58] Art. 42 EUGBR.

[59] EU Technical Expert Group on Sustainable Finance. 2019. Report on EU Green Bond Standard. https://finance.ec.europa.eu/system/files/2019-06/190618-sustainable-finance-teg-report-green-bond-standard_en.pdf. Accessed 25 April 2023: 34.

deficiency through the adoption of 2 measures. Firstly, the establishment of requirements pertaining to the registration and supervision of external reviewers. Secondly, the conferral upon the ESMA of the sole responsibility to ensure the uniform application of these rules across the EU, which is aligned with the TEG's proposal for an ESMA-led centralized accreditation regime for external reviewers. The TEG had also assessed an alternative option for the establishment of a decentralized regime, which would involve NCAs, possibly coordinated by the ESMA in cooperation with other EU institutions. However, this option was finally dismissed as it could result in an inconsistent application of the EU rules across Member States giving rise to market distortions and regulatory arbitrage. The proposal to assign the supervision of external reviewers to a supranational authority seeks both to promote a level playing field and to reduce compliance costs for supervised entities. External reviewers will benefit from having a single supervisory authority instead of a number of different national authorities, which would create a fragmented regulatory and supervisory landscape. This centralized approach builds on the ESMA's expertise and existing core competences in the areas of regulation (e.g. development of technical standards and guidelines) and supervision of CRAs, which play a critical role in bond markets and some of which are already active in the external review market.[60] Thus, the expansion of the ESMA's tasks and responsibilities is expected to yield economies of scale and to ensure high standards of supervision.

In accordance with the EUGBR, external reviewers should register with the ESMA by submitting an application accompanied by specific documentation. Among others, applicants should provide the ESMA with information about the members of their senior management and the number of employees directly involved in assessment activities, as well as the level of qualification, experience, and training of those persons. Furthermore, external reviewers should provide the ESMA with the procedures and methodologies used for the issuance of reviews, and the policies or procedures applied to identify, manage, and disclose any conflicts of interests. The ESMA should approve the application of an external reviewer where three conditions are met. Firstly, the senior management of the applicant fulfills criteria relating to reputation, skills, qualifications, and experience, which are necessary to perform

[60] The ESMA has also direct supervisory powers in relation to trade repositories.

the required tasks. Secondly, the number of analysts and the level of their experience and training are sufficient to perform the required tasks. Thirdly, the governance arrangements of the applicant are appropriate and effective.[61] The ESMA may refuse to register an external reviewer or decide to withdraw its registration under certain conditions, including in case of submission of false statements during the registration process or non-compliance with the transparency rules.[62]

Governance and Internal Control Requirements for External Reviewers

Once registered, an external reviewer will be permitted to conduct its activities across the EU provided that it meets the conditions for registration on an ongoing basis. In addition, the EUGBR sets out governance and internal control requirements for external reviewers seeking to promote market transparency and investor protection. Therefore, external reviewers are required to employ the appropriate systems, resources, and procedures to monitor and evaluate the adequacy and effectiveness thereof, and, where needed, to take measures to address any deficiencies.

Under the EUGBR, external reviewers have to comply with specific corporate governance requirements to ensure that their reviews are independent, objective, and of good quality.[63] In this context, the EUGBR establishes obligations for the senior management, the analysts, and other employees that are directly involved in the assessment activities. In particular, the senior management of external reviewers shall have sufficient expertise in financial services and environmental issues and shall ensure the sound and prudent management of the external reviewer, the independence of assessment activities, as well as the compliance with the requirements of the EUGBR. Also, the reviews shall be performed by a sufficient number of employees having the necessary knowledge and experience to perform their duties.

External reviewers shall avoid situations of conflict of interest, or, if this is not possible, shall take measures to identify, manage, and disclose any conflicts of interest that relate to analysts, employees, shareholders, or any other person involved in assessment activities, including persons

[61] Art. 15(2) EUGBR.

[62] Art. 51(2) EUGBR.

[63] Recital (23) EUGBR.

approving pre-issuance and post-issuance reviews.[64] External reviewers shall ensure the timely disclosure of situations of conflict of interest and keep a record of potential threats to their independence along with the measures taken to address these threats. External reviewers shall not charge fees based on the result of the pre-issuance or post-issuance review, while the analysts and other employees involved in the assessment activities shall not initiate or participate in negotiations regarding fees or payments with any assessed entity or related party thereof. Also, external reviewers that provide other services shall ensure that those services do not create conflicts of interest with their assessment activities for EUGBs.[65]

External reviewers should also adopt and implement internal due diligence policies and procedures to ensure that their business interests do not impair the independence or accuracy of the assessment activities.[66] Also, external reviewers shall implement sound administrative and accounting procedures, as well as effective control and safeguard arrangements for information processing systems. Reviews shall be based on a thorough analysis of the information that is available to external reviewers and shall be of sufficient quality and from reliable sources. Lastly, external reviewers shall disclose to investors the key steps taken to arrive at the conclusions of their reviews.

Furthermore, based on the EUGBR, external reviewers shall establish and maintain a compliance function, equipped with the necessary means to perform its tasks properly and independently, including the necessary resources and expertise, and access to all relevant information.[67] The compliance function shall not monitor or assess its own activities and not be compensated based on the business performance of the company. The findings of the compliance function shall be made available to a supervisory/administrative organ of the external reviewer.

Lastly, based on Art. 25(1) of EUGBR, external reviewers may outsource their assessment activities to third-party servicers provided that the latter have the ability and capacity to perform their tasks in a reliable and professional manner, and the outsourcing does not materially impair

[64] Art. 27(1) EUGBR.

[65] Art. 28 EUGBR.

[66] Art. 22(1) EUGBR.

[67] Art. 21(2) EUGBR

the quality of the reviewers' internal control and the ESMA's ability to supervise them. External reviewers remain responsible for any outsourced activity and, therefore, shall take organizational measures to ensure that third-party servicers carry out their assessment activities in line with the regulatory requirements and the applicable Union and national laws. External reviewers shall monitor on a periodic basis the outsourced activities, identify any risks relating to those activities, and adequately address any identified failures. Lastly, external reviewers shall take measures to ensure adequate control procedures for outsourced assessment activities and business continuity of those activities.[68]

Provision of Services by Third-Country External Reviewers

The market for environmentally sustainable bonds is inherently international and issuers of EUGBs may seek access to the services of third-country external reviewers. It is therefore necessary to lay down rules on the provision of services by third-country external reviewers in the EU on the basis of (i) an equivalence assessment, (ii) recognition, or (iii) endorsement. These arrangements aim to address the risk of regulatory arbitrage from issuers which could resort to external reviewers located in third countries where less stringent requirements apply.[69]

Under the equivalence assessment regime, the European Commission may adopt a decision for a third country stating that the legal and supervisory arrangements applied in that country are equivalent to those applied in the EU (equivalence decision) and establish cooperation arrangements with the relevant competent authority of that country.[70] Once such a decision is adopted by the European Commission, an external reviewer located in that country may submit an application for registration to the ESMA and apply its services in the EU without being obliged to meet any additional requirements.

Until such a decision is adopted, the ESMA may recognize an external reviewer located in a third country provided that certain conditions are met. To that end, an external reviewer should submit an application for

[68] Art. 25(6) EUGBR.

[69] Such regimes govern also the provision of services by third-country entities in other areas of EU financial legislation, including CRAs under Regulation 462/2016 (CRA Regulation) and Central Clearing Counterparties (CCPs) under Regulation 648/2012 (EMIR).

[70] Art. 32(1)–(3) EUGBR.

prior recognition to the ESMA providing the latter with all the required information to demonstrate compliance with the requirements set out in the EUGBR (i.e. requirements applicable also to EU-based external reviewers). On top of those obligations, third-country external reviewers shall have a legal representative located in the EU, which has to meet the requirements of the EUGBR and be accountable to the ESMA for the conduct of the third-country external reviewer in the EU.[71]

Lastly, registered external reviewers in the EU can endorse services provided by third-country external reviewers for any of the following reasons: (i) specificities of the underlying markets or investments, (ii) proximity of the endorsed reviewer to third-country markets, issuers, or investors, or (iii) expertise of the third-country reviewer in providing the services of external review or in specific markets or investments.[72] Under this endorsement regime, the EU-based external reviewer is subject to specific conditions. Firstly, the endorsing external reviewer shall demonstrate that the provision of the endorsed services by the third-country external reviewer meets requirements that are at least as stringent as those set out in the EUGBR. Secondly, the endorsing external reviewer has the necessary expertise to monitor effectively the provision of endorsed services and manage any risks arising from them. In any case, the EU-based external reviewer remains fully liable for the endorsed services provided by the third-country external reviewer and for ensuring that the provision of those services complies with the requirements set out in the EUGBR.

Supervisory and Investigatory Powers Conferred upon the ESMA

Under the Regulation, the ESMA has supervisory and investigatory powers over external reviewers. For the effective execution of its tasks,[73] the ESMA may require the submission of necessary information from all persons who are related to external reviewers.[74] In addition, the ESMA

[71] Art. 34(1)–(3) EUGBR.

[72] Art. 35 EUGBR.

[73] In accordance with Art. 58(1) EUGBR, the ESMA will be able to charge registration and supervisory fees to external reviewers for the costs incurred regarding their registration, recognition, and supervision. Supervisory fees should cover all administrative costs incurred by the ESMA and be proportionate to the turnover of each external reviewer.

[74] Art. 47(1) EUGBR.

may investigate any of the aforementioned persons requiring the submission of relevant material (e.g. records, data, procedures) and oral or written explanations on facts or documents relating to the subject matter and purpose of the inspection.[75] Lastly, the ESMA may carry out on-site inspections at the business premises of the external reviewer or any other entity related to that.[76]

According to Art. 51 EUGBR, the ESMA may take supervisory measures where external reviewers or persons related to them commit any of the following infringements.[77] Firstly, non-compliance with the organizational and governance requirements of the EUGBR or submission of false statements in the application of registration. Secondly, failure to provide the requested information or provision of incorrect or misleading information in response to a request for information from the ESMA. Thirdly, obstruction or non-compliance with an investigation or on-site inspection performed by the ESMA. Fourthly, the performance of the activities of the external reviewer without having registered as such. Based on the infringement committed, the ESMA may select the appropriate measure from a large list of options.[78] Initiating from milder measures, the ESMA may (i) adopt a decision requiring the end of the infringement, (ii) issue public notices, or (iii) impose fines or periodic penalty payments.[79] More intrusive measures include (i) the temporary prohibition of the external reviewer from pursuing assessment activities until the end of the infringement, (ii) the withdrawal of the registration of an external reviewer or the recognition of a third-country external reviewer, or (iii) the suspension of the registration of a third-country external reviewer.[80] For these infringements, the ESMA may impose a fine from

[75] Art. 48(1) EUGBR.

[76] Art. 49(1) EUGBR.

[77] Art. 52(2) EUGBR.

[78] Art. 51(1) EUGBR.

[79] Based on Art. 54(1) EUGBR, the ESMA has to disclose every fine and period penalty payment, unless such disclosure would seriously jeopardize the financial markets or cause disproportionate damage to the parties involved.

[80] In accordance with Art. 51(2) EUGBR, the ESMA has to withdraw the registration or recognition of registration of an external reviewer in any of the following cases: (i) if the external reviewer has expressly renounced the registration or the recognition or has not made use of the registration or the recognition within 36 months after the registration or the recognition has been granted, (ii) the external reviewer has obtained the registration

20,000 euro to 200,000 euro, while if a person has directly or indirectly benefited financially from the infringement, the amount of the fine should be at least equal to that financial benefit. As regards the periodic penalty payments, the ESMA may proceed to such a measure in order to compel a person to put an end to an infringement or to comply with an information request, investigation, or on-site inspection performed by the ESMA.[81] The periodic penalty payment should be imposed for each day of delay and be equal to 3% of the average daily turnover in the preceding business year (for legal persons) or 2% of the average daily income in the preceding calendar year (for natural persons).

The EUGBR relies solely on public enforcement regimes both for external reviewers and issuers. Public enforcement arrangements could be supplemented by the introduction of a civil liability mechanism, similar to that applied to persons responsible for the prospectus under the Prospectus Regulation and to credit rating agencies under the CRA Regulation. This private enforcement regime would operate in a decentralized way and allow investors to bring their own action when they are harmed strengthening, thus, the overall enforcement level.[82]

Transitional Arrangements for Registration and Supervision of External Reviewers

The EUGBR envisages a transitional period for the full implementation of the new rules on the registration and supervision regime of external reviewers. This transitional period takes into account the time needed for the entry into force of the Commission Delegated Regulations, which will specify significant elements of the new requirements. Thus, from the entry into force of the EUGBR until 30 months after that date, external reviewers that intend to provide their services shall notify the ESMA of their intention and submit an application for registration with

or the recognition by making false statements or by any other irregular means, or (iii) the external reviewer no longer meets the conditions under which it was registered or recognized.

[81] Art. 53(1) EUGBR.

[82] For a detailed proposal on the civil liability mechanism under the EUGBR, see European Parliament. 2022. Green Bonds: An assessment of the Proposed EU Green Bond Standard and Its Potential to Prevent Greenwashing. https://www.europarl.europa.eu/RegData/etudes/STUD/2022/703359/IPOL_STU(2022)703359_EN.pdf. Accessed 14 May 2023: 95–105.

all the required information set out in Art. 15 EUGBR.[83] Within this 30-month period, external reviewers should make their best efforts to comply with the key organizational and governance requirements set out in Art. 16–30 EUGBR, while after that date they have to meet all the requirements established under EUGBR and the relevant Commission Delegated Regulations.

2.3 Concluding Remarks

The EUGBR is strongly focused on promoting sustainable finance by making it easier for market participants to raise large-scale financing for climate and environmentally friendly investments. The development of a market for high-quality green bonds is necessary for the achievement of the EU's climate and environmental objectives. Further growth in the market for green bonds will provide significant green investment, thereby helping to close the European Green Deal investment gap. The existing market-based initiatives for green bonds lack common definitions for environmentally sustainable economic activities creating uncertainty about the truly green economic activities. Against this backdrop, investors cannot easily compare bonds whose proceeds can be used for meeting environmental objectives. The EUGBS is expected to increase market efficiency by reducing discrepancies and costs for investors to assess those bonds.[84] The EUGBS aims both to allow issuers to demonstrate their strong environmental commitment in a credible manner and to provide investors with confidence that their investments are sustainable. The EUGBS aspires to set a new benchmark for green bonds through the standardization of market practices and the introduction of high standards both for issuers and external reviewers. The EUGBR aims to protect investors from the risk of 'greenwashing' by setting high standards for the issuance of green bonds, in particular through the removal of the existing barriers to the development of the green bond market, namely the lack of common definitions for green assets/projects and the inconsistent application of disclosure and verification requirements. To this end, the Regulation links the allocation of EUGBs' proceeds to the

[83] Art. 62(1) EUGBR.

[84] Recital (7) EUGBR.

Green Taxonomy, introduces enhanced disclosures based on standardized templates, and requires external reviewers to be registered with and supervised by the ESMA.

As regards the prospects of the EUGBS, the voluntary (instead of mandatory) nature of the green bond standard seems appropriate, at least in the medium term, in order to avoid unintended consequences for the green bond market triggered by potential migration of issuers to other non-EU markets with less stringent requirements and/or a switch of issuers to other traditional (non-green) funding sources.[85] This approach is in line with the ECB's Opinion on the proposed EUGBR[86] that argued for a voluntary nature of the EUGBS considering "*this a balanced approach in the short term, as an immediate shift to a strictly mandatory standard might lead to divestment from non-taxonomy-aligned green bonds and a sudden drop in Union-based green bond issuance*". However, the ECB stressed the need for a "*clear commitment to making the standard mandatory for newly-issued green bonds within a reasonable time period (3–5 years)*". On the basis of the ECB's Opinion, the Parliament's report proposed the European Commission to submit, 2 years after the entry into force of the EUGBR, a report based on an impact assessment on whether the EUGBR should become mandatory and the timeframe of such an approach.[87] However, the Regulation has not incorporated the aforementioned Parliament's proposal for a phased-in approach under which the standard could become mandatory within a reasonable horizon, once the currently low proportion of Taxonomy-aligned activities has been increased.

Nonetheless, this could be the end-state for the EUGBS, considering the developments in the coming years and the extent of take-up from issuers. In particular, the success of the EUGBS (i.e. whether it will become the market standard in the EU) depends on the extent of take-up

[85] For more details, see ICMA. 2022. Analysis of the Amendments to the EUGB Regulation Proposed by the Rapporteur of the EU Parliament. https://www.icmagroup.org/assets/ICMA-update-to-its-analysis-of-the-EuGB-Regulation-05012022.pdf. Accessed 15 May 2023.

[86] ECB. 2021. Opinion of the European Central Bank of 5 November 2021 on a Proposal for a Regulation on European Green bonds (CON/2021/30): 6.

[87] European Parliament. 2022. Report on the Proposal for a Regulation of the European Parliament and of the Council on European Green Bonds. https://www.europarl.europa.eu/doceo/document/A-9-2022-0156_EN.pdf. Accessed 5 July 2022.https://www.europarl.europa.eu/doceo/document/A-9-2022-0156_EN.pdf. Accessed 5 April 2023.

among market participants. Issuers will have a choice of whether to use the EUGB designation or not. Some issuers may decide to not use it given that compliance with the requirements of the EUGBR, and in particular the Green Taxonomy, might be more onerous and costly for them than the existing industry standards.[88] Such burdensome requirements along with the risks arising from sanctions in case of failure to adhere to those requirements may discourage issuers from using the EUGBS, especially in light of the limited (if any) regulatory or financial incentives to counterbalance this. Nonetheless, it is reasonable to expect that investors would prefer green bonds that carry the EUGB designation due to the enhanced disclosure requirements and the strict verification arrangements. If issuers start to see explicit reference to the EUGBS in investor mandates (i.e. only investments in EUGBs permitted), market pressure and lower funding cost might drive them to the EUGBS for raising funds for sustainable activities. Against this backdrop, issuers should weigh the benefits of accessing a wider investor base and avoiding the risk of being accused for 'greenwashing' against the costs arising from compliance with additional disclosure requirements subject to the scrutiny of ESMA-supervised external reviewers.

[88] Alexander Lehmann. 2021. The EU Green Bond Standard: Sensible Implementation Could Define a New Asset Class. Blog Post. https://www.bruegel.org/2021/07/the-eu-green-bond-standard-sensible-implementation-could-define-a-new-asset-class. Accessed 9 May 2023.

CHAPTER 3

Member States Sovereign Green Bond Issuance and the Development of Local Green Bond Markets in the EU

Wojciech Lewandowski and Agnieszka Smoleńska

3.1 Introduction: Green Bonds as a "Silver Bullet" for Financing the Sustainability Transition?

In 2016 Poland was the first EU country to issue a Green Bond Principles-aligned bond to finance environmental projects. Since then, sovereign issuance in the EU grew enormously. In just over five years the market grew to over 290 billion euro outstanding sovereign ESG

W. Lewandowski · A. Smoleńska (✉)
Institute of Law Studies, Polish Academy of Sciences, Warsaw, Poland
e-mail: a.smolenska@inp.pan.pl

W. Lewandowski
e-mail: w.lewandowski@inp.pan.pl

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_3

bonds in the EU in 2022.[1] While almost 40% of that amount has been raised by the European Commission to fund pan-EU programmes such as Recovery and Resilience Facility (RRF) or the pandemic employment assistance programme (SURE), 16 Member States have chosen to issue green and social bonds in that time (see Fig 3.1).

The reasons why sovereigns become active in the sustainable finance segment are more complex than for corporates.[2] Surely, reputational factors play an important role, especially as green bond issuance may

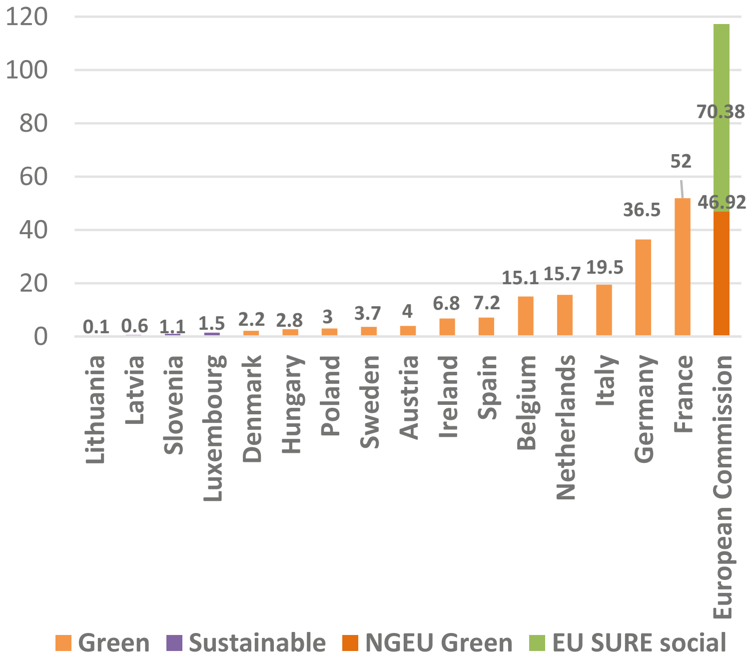

Fig. 3.1 Outstanding ESG government bonds by country (billion euro) (*Source* Own study, data retrieved from AFME)

[1] AFME. Government Bond Data Report—Q3 2022. https://www.afme.eu/Portals/0/DispatchFeaturedImages/AFME%20Government%20Bond%20Data%20Report%20Q3%202022.pdf. Accessed 28 November 2022.

[2] See Chapters 2 by Nikos Maragopoulos and 4 by Climate Bonds Initiative in this volume.

improve the perception of sustainability transformation in the society. Likewise, countries want to finance sustainable projects and diversify their investor base. There is, however, very little evidence that investors reward such sovereign issuers with lower borrowing costs.[3] It appears that very often sovereign issuers want to rather use their position as simultaneous market players and regulators, to facilitate the development of a domestic green bond market to stimulate private sector interest in sustainability transition and to close the investment gap.[4] When is such a strategy successful? That is, under what conditions can sovereign green bond issuance meaningfully contribute to the development of sustainable private capital markets? This question is of utmost importance especially for countries with less developed capital markets in Central and Eastern Europe. For them the sustainable finance strategy continues to be a double policy challenge, namely the absence of well-developed and liquid capital markets may further increase the costs of the transformation, already high given the legacy inefficient and highly fossil fuel reliant energy systems. In this chapter we analyse first the features of EU Member States bond issuances and in particular, their conditions, objectives and governance structures. The goal is to identify conditions under which sovereign issuance can meaningfully contribute to facilitating trust and crowding-in of corporate ESG issuance. To this end, Section 3.2 presents the ESG bond issuances across the EU Member States, noting in particular the wide geographical uptake across the EU. Section 3.3 discusses the legal-institutional differences in issuance, including issuance standards, governance provisions and issuance objectives and use of proceeds. Section 3.4 analyses any impact of sovereign ESG issuance on broader market trends and discusses the significance of individual issuance characteristics such as governance in establishing market credibility. Section 3.5 concludes, discussing as well—in the light

[3] Grzegorczyk, Monika and Wolff, Guntram. 2022. Greeniums in Sovereign Bonds Markets. Bruegel Working Paper 17/2022. https://www.bruegel.org/working-paper/greeniums-sovereign-bond-markets. Accessed 28 November 2022.

[4] Damerow Frank. 2018, Green Bonds: A Key Catalyst Within the Broader Subject of Climate Finance Post COP21. In *Positive Impact Investing. A Sustainable Bridge Between Strategy, Innovation, Change and Learning*, ed. Karen Wendt, 113–143, Cham: Springer International Publishing. Wiśniewski, Marcin Zieliński Jakub. 2019. Green Bonds as an Innovative Sovereign Financial Instrument, Ekonomia i Prawo. *Economics and Law* 18(1): 83–96.

of the findings of the chapter—the potential impact of EU Green Bond Standard adoption.

3.2 Sovereign ESG Bond Issuance in the EU

Although the first ESG-type bond issuance is attributed to an EU public institution—the European Investment Bank (EIB) with its 2007 Climate Awareness Bond, until recently the role of state issuance in the expanding ESG bond market was limited. As the Bank of International Settlements (BIS) estimates, by 2021 the share of sovereign issues in the total 2.5 trillion-dollar outstanding Green, Social and Sustainability (GSS) bond market was only 4.2%.[5] However, the role of EU's sovereigns has been growing in this market segment, in particular since the COVID-19 pandemic. Poland was the first EU Member State to issue a green bond in 2016, raising 0.75 billion euro. France followed in 2017, raising 12 billion euro dedicated to green transformation funding. In 2018, the governments of Belgium, Ireland and Lithuania issued their own green debt. By the third quarter of 2022, the total outstanding ESG public debt in the EU was almost 290 billion euro (see Fig 3.1).[6] EU common issuance, that is the employment support scheme SURE and post-pandemic recovery funding (NextGenerationEU), constituted 40% of that amount. Nevertheless, an increasing interest of individual Member States is visible: by the end of 2022 16 Member States have issued ESG debt.

ESG-type issuance by sovereigns is not as straightforward as in the case of corporate issuance due to the characteristics of public budgets. In particular, as authors of a recent BIS feature point out, the "use of proceeds" requirements of ESG debt are at odds with the general fungibility of public budgets and the flexibility needed in public spending.[7] Moreover, despite the growing interest in green issuances, ESG is on average only 3% of the overall sovereign borrowing: ranging from a mere

[5] Cheng, Gong, Ehlers, Torsten and Packernote. Frank. 2022. Sovereigns and Sustainable Bonds: Challenges and New Options. BIS Quarterly Review September 2022, p. 49.

[6] AFME, supra note 1.

[7] See chapters by Nikos Maragopoulos and Climate Bonds Initiative in this volume.

0,4% of outstanding medium- and long-term debt in Lithuania to the outlier Luxembourg with 10%.[8]

Why have the sovereigns then decided to enter this space? The primary reason appears to be the recognition that public funds will not suffice to finance the economic transformation needed for the green transition: private investment is indispensable if the climate neutrality bonds are to be achieved. In the absence of generally binding standards, sovereign issuance can help foster trust in the market segment, in particular where such issuance adheres to high standards. Reputational drivers also play an important role, as EU countries want to convince markets of the credibility of their commitments to sustainability transition. Growing public financing needs during the pandemic—in particular for ESG-aligned initiatives relating to healthcare or increasing economies' long-term resilience—were another reason for sovereigns to tap the growing sustainable finance market segment.

Conversely, the "greenium" factor, that is the lower cost of ESG-aligned debt and the key driver of corporate green issuance, seems to be less visible in the sovereign bond markets, unlike that for corporates. For example, Grzegorczyk and Wolff find greenium on green sovereign bonds in the EU to range from around—3 basis points (bps) in Denmark to—16 bps in Spain on average.[9] The absence of a consistent high greenium can be explained by the fungibility of public debt, mentioned above. In other words, the investors have little guarantee that the funds used through green bonds will actually be used for that specific purpose. Where the lower cost of debt issue is less of an incentive for sovereign issuers than for corporates, public policy goals related to sustainability transition are considered important drivers of sovereign ESG issuance. In other words, most Member States are believed to use their central position in the market to generate crowding-in effects and stimulate the growth of the green finance market segment. When does this gambit work, and where does it fail?

A number of scholars have looked into the question of whether sovereign issuance has a broader impact on corporate markets. For example, Cheng, Ehlers and Packer suggest that sovereigns set an example

[8] The median ESG share of outstanding medium- and long-term debt for the 16 Member States is 2%. Data for September 2022 following ECB. 2022. Statistical Data Warehouse: Debt securities issuance and service by EU governments.

[9] See Grzegorczyk and Wolff, supra note 3.

for green bond documentation and verification, in particular increasing the number of private issuances which use a Second Party Opinion (SPO).[10] As far as the quantitative impact on market segment growth, in the EU the impact on the ESG markets is ambiguous. For example, the absence of sovereign ESG debt issuance did not preclude the development of ESG corporate debt markets especially in Finland, but also in Portugal and Greece.[11] Corporate ESG issuance predated public entry into the market in 13 EU Member States,[12] with a concurrent immediate increase in corporate issue amounts visible so far only in Belgium, France, Germany, Luxembourg, Netherlands and Sweden. Meanwhile, among the three countries where the sovereigns were the first to take the ESG plunge, namely Hungary, Ireland and Poland, only in the first two can we observe a subsequent increase in the corporate ESG issuance. Such heterogeneous experience warrants further qualitative inquiry into the EU sovereign market segment, and in particular the role of the different legal-institutional features of sovereign green issuance in the EU.

The 16 EU Member States which have issued green debt are quite geographically representative of the EU in terms of the economies and different levels of development of the capital markets (see Fig 3.2). At the same time, as we will show, we can observe important differences in the institutional and legal features of the debt, as well as how the broader policy context is being communicated to the investors. We consider these elements as critical in building trust in the sustainable finance market segment, which is indispensable to achieve the scale needed for the transformation of the entire economy to climate neutrality. We understand such trust-building factors to be a credible, stable set of high standards for green issuance (reducing the risk of greenwashing) and a clear commitment to a broader sustainability transition policy, critical to ensure the viability of ESG investments in the medium to long term. While with the

[10] Gong et al., supra note 5, 52. Under ICMA standard, which is followed by three quarters of global corporate ESG bond issuers, external verification is non-mandatory.

[11] Corporate ESG issuance is also found in Czechia, Estonia, Romania and Slovak Republic albeit with marginal amounts. However, in Czechia this entail relatively small issuances of subsidiary of Raiffeisenbank and Czech Gas Network operator. Meanwhile in the Slovak Republic, the issuer was also a bank—Tatra banka, with the support of EBRD—and was of small volume and aligned with ICMA Green Bond Principles.

[12] Austria, Denmark, Italy, Spain, Sweden, Slovenia, Netherlands, Italy, Lithuania, Luxembourg, Belgium, France and Germany.

forthcoming EU Green Bond standard it can be expected that sovereign ESG bond issuance in the EU will further converge, our analysis points to the possible further scope for local gold-plating (i.e., some governments may impose more stricter standards regarding sustainability in their markets) and varying degrees of policy alignment (i.e., how governments may choose to implement EU policy goals—e.g., regarding emission reductions or renewable energy sources deployment in different ways).

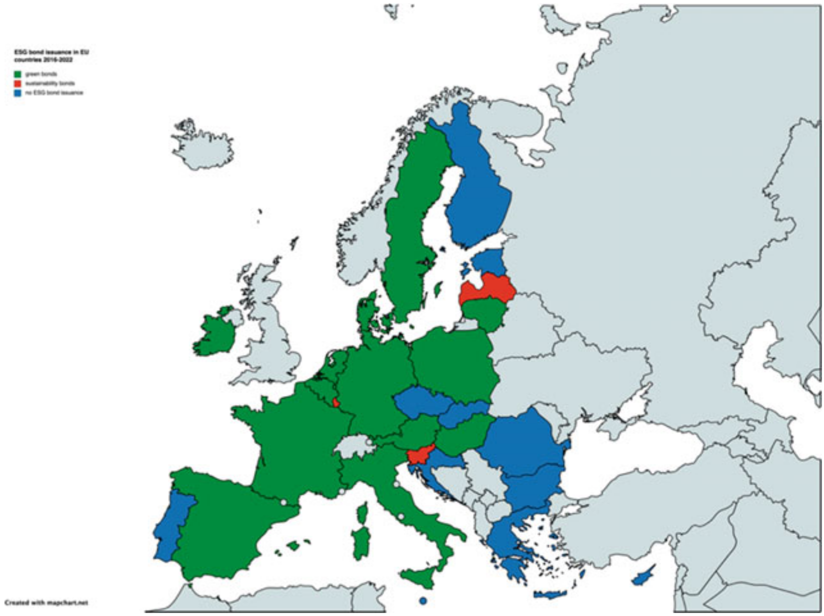

Fig. 3.2 ESG bond issuance by EU Member States 2016–2022 (*Source* Own compilation on the basis of AFME [2022])

3.3 Different Shades of Greenness of EU Member States' ESG Issuance

A number of features stand out when comparing the ESG issuance of the 16 EU Member States which have entered the sustainable finance market segment.[13] First, while all the countries broadly follow the ICMA market standard,[14] we can identify different additional commitments relating to the early uptake of specific EU laws (Green Taxonomy, EU Green Bond standard), in particular in more recent years. Second, while all Member States have opted for seeking a Second Party Opinion (SPO) on their green issuance, the issuance accountability standards—understood as the quality of verification and the auditing commitment—vary significantly. Thirdly, while generally the issuances follow green (or in three cases also social) objectives, we observe significant variance in the framing of the objectives of the issuance as well as alignment with broader sustainability transition goals. In these sections we consider in detail these three features of EU Member States green bond issuance.

3.3.1 Sovereign Green Bond Standards and the Uptake of Relevant EU Law

The first EU sovereign issuances—by Poland and France in particular—predate the EU's Sustainable Finance Action Plan (SFAP) as well as the Green Bonds Proposal. The issuers adopted the market standard of ICMA, as it existed at the time. Since then, we see different EU Member States' sovereign green bond issuances evolving in tandem with EU law and global standards (see Fig 3.3).

ICMA, the capital markets industry standard-setter published the first version of Green Bond Principles (GBP) in 2014. Since then, the GBPs have been founded on four components relating to the use of proceeds, the process for project evaluation and selection, management of proceeds and reporting. All issuers have to disclose however a dedicated Green

[13] Our analysis draws here on the publicly available documents made available on the Member State treasury websites, such as Green Bond Frameworks, SPOs, Allocation Reports and Investor Presentations, which we have analysed comparatively as regards their principal features and content. Annex to this chapter contains a detailed list of the relevant Member State issuances. In this article we cite selected few of GBF directly.

[14] See chapters by Nikos Maragopoulos and Climate Bonds Initiative in this volume.

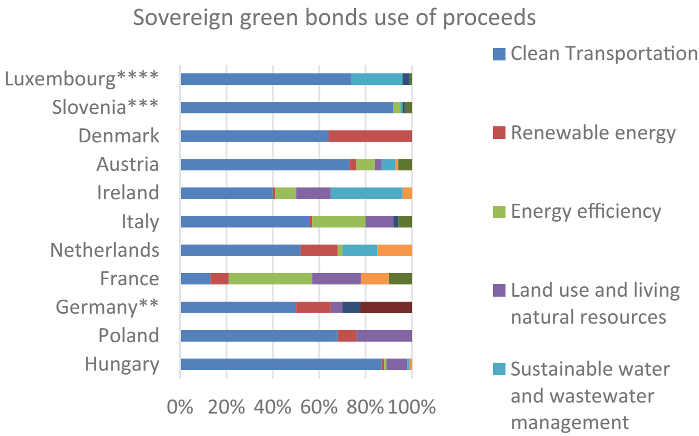

Fig. 3.3 Breakdown of the use of proceeds per EU Member State per sector (*"Others" covers: circular economy, preventing air pollution, multi-sector, environmental protection; **Data for Germany presented for 2021; ***Data for Slovenia presented for green component corresponding to the 39% of total allocation; ****Data for Luxembourg presented for green component corresponding to the 50% of total allocation. *Source* National investor presentations and national debt offices)

Bonds Framework outlining how they intend to use the proceeds and the relevant governance structures. While the principles cover a recommendation to provide external verification of the information in the framework (so-called Second Party Opinion), this is not mandatory. With subsequent iterations the ICMA guidance became somewhat more detailed and granular,[15] specifically with respect to Green Bond Frameworks, External Reviews as well as impact reporting, however the core of the regime remained the same. ICMA GBPs are widely adopted, with over 75% of global green issuance following this standard.

Unsurprisingly therefore all EU Member States have followed the ICMA GBPs, with the exception of Luxembourg, Latvia and Slovenia which have opted for the parallel ICMA Sustainability Green Bond regime, in order to use the proceeds to finance projects relating to housing and healthcare in particular (see further Section 3.3.3). This

[15] Compare 2014 Green Bond Principles and 2021 Green Bond Principles.

means that all these Member States have published dedicated Green/Sustainability Green Bond Frameworks which are available publicly, together with the Second Party Opinion (SPO) and dedicated reporting (allocation, impact). This already reflects the fact that accountability standards for sovereign issuers are necessarily higher than for standard corporate issuers who are the primary adopters of the ICMA standards.

Two sets of reservations can be expressed vis-à-vis the ICMA GBPs. First, that being an industry minimum standard, they set the bar very low and entail a high risk of greenwashing. Second, that being a private governance regime, their legitimacy to constrain public budgets is limited. Arguably on both these counts, most Member States have taken steps to limit the perceived shortcomings of the ICMA standard and boost the credibility of their green issuance.

As far as the risk of greenwashing is concerned, all Member States have opted for the non-mandatory external review, obtaining a Second Party Opinion on their Green Bond Framework from one of the recognised external verifiers, in most cases following up with a dedicated allocation report audit (see further Sect. 3.3.2). Only the Netherlands have also certified their green bond issuance with the Climate Bond Initiative, in order to additionally prove that the bond proceeds will finance meaningful and impactful projects. Lithuania meanwhile flagged in its Green Bond Framework, the reliance on the World Bank Guide for Public Sector Green Bond Issuers—reflecting the role of international financial institutions in facilitating the development of the ESG bond segment in less developed financial markets. A number of Member States have further committed to an upfront spending of the proceeds to address the concerns relating to the fungibility of public budgets.[16] Nevertheless, the level of detail in the state Green Bond Frameworks differs substantially, and such difference is only partially explained by the development of the green bond issuance in general. As emerged from our comparative analysis of the Green Bond Frameworks and related Investor Presentations prepared by the Member States, some of them provide complex analyses of how the proceeds of the bond issuance will finance specific Taxonomy-aligned activities and Sustainable Development Goals

[16] Gong et al., supra note 5.

(for example Denmark).[17] At the same time, France's Green Bond Framework dating to the first issuance in 2017 remains largely concise, however is supplemented by highly granular and comprehensive annual reporting of allocation and impact (see further Sect. 3.3.2).

The broad uptake of the ICMA standard reflects the fact that the well-established insight from transnational governance studies that private governance schemes, such as the Green Bond Principles, can influence public authorities.[18] As Kawabata argues, however, such effects lead to a transfer of sovereignty to external entities—in this case international industry standard setters—that lack democratic control. While such global standards facilitate broad convergence and introduce a degree of non-partiality in a highly politicised sphere of public budgets, they shift away the responsibility and competencies to influence the market away from the national states. It is hardly surprising therefore, that once relevant EU and other national legal standards were on the table, almost all Member States have expressly added references to either the Green Taxonomy or the EU Green Bond standard in particular.[19] Such pieces of EU legislation, negotiated in detail by the Member States, incorporate the specific concerns of Member States.

The EU's Green Taxonomy, which was proposed by the European Commission in 2018 and adopted in 2020, introduces a common classification system for business activities and projects in order to determine their contribution to sustainability objectives and is a natural benchmark for the use of proceeds. It is therefore hardly surprising that a number of Member States, which have issued their bonds already after the European Commission put forward its proposal, have opted for an early alignment by including reference to high-level principles and committing to following the Technical Screening criteria once these were put in place (e.g., Netherlands and Germany). For example, alignment of the use of proceeds with the Green Taxonomy is expressly referenced in the Netherlands' 2019 issuance, Luxembourg's 2020 issuance, Italy's

[17] Denmark. 2022. Green Bond Framework.

[18] Kawabata, Toyo. 2020. Private Governance Schemes for Green Bond Standard: Influence on Public Authorities' Policy Making. *Green Finance*, 2(1): 35–54.

[19] See Introduction in this volume.

2021 issuance and Austria's 2022 issuance.[20] Such references are therefore made also before the Green Taxonomy has entered into force. Among the issuances after 2018 (when the Green Taxonomy regulation was proposed), only the Hungarian, Irish, Lithuanian and the Swedish Green Bond Frameworks do not mention the Green Taxonomy. The use of the Green Taxonomy does not preclude, however, a Member State pursuing more stringent standards: for example Austria, a vocal opponent to considering nuclear energy production as sustainable, explicitly excludes in its Green Bond Framework any possibility to finance such products, notwithstanding the reliance on Green Taxonomy.[21]

The EU Green Bond standard, meanwhile, is the flagship product of the EU's 2018 Sustainable Finance Action Plan. The European Commission put forward the proposal in July 2021 with the negotiations between the EU Council and the European Parliament ongoing in 2022. Nevertheless, countries such as Denmark, Austria, Italy and Luxembourg already refer to the European Commission's proposal in their respective Green Bond Frameworks. Such *ex ante* alignment reflects *inter alia* the ambition of the EU to set the global "gold standard" for green bonds.[22] Hungary is meanwhile the only country which issued its bonds not only under the international/EU standards, but also in alignment with the Chinese and Japanese Green Bond standards.[23]

The EUGBR seeks to address a number of the shortcomings of international standards.[24] For example, the European Commission proposed to strongly link the EUGB regulation with the Green Taxonomy classification of sustainable activities to ensure alignment with the climate objectives and obligations, but also establish common denominator and standard for the claims on the green purpose of the proceeds—as we have

[20] See respective Green Bond Frameworks.

[21] Austrian Government. 2022. Green Bond Framework. https://www.oebfa.at/en/financing-instruments/green-securities/green-framework.html. Accessed 28 November 2022.

[22] See chapter by Nikos Maragopolous in this volume and Bradford, Anu and Kalin, Janse. 2021. Europe greening the world: the "Brussels effect" on sustainable finance. ESM Blog. https://www.esm.europa.eu/blog/europe-greening-world-brussels-effect-sustainable-finance. Accessed 28 November 2022.

[23] AKK. 2022. Green Bond Presentations. https://akk.hu/green-bond. Accessed 28 November 2022.

[24] For an analysis of the policy problems which the EU Green Bond Standard seeks to address as well as critical assessment of the EUGBS design see Chapter 2 by Nikos Maragopolous and Chapter 6 by Federica Agostini and Elia Cerrato.

seen, a number of Member States already anticipate this requirement in their post-2020 issuance. To strengthen the anti-greenwashing effect, the European Commission proposed a mechanism for verification of the use of proceeds. The issuer is also to be made subject to additional transparency requirements in both the pre-issuance and post-issuance phase. The proposal therefore seeks to address the information gap between the investors and the issuers on the use (and impact) of proceeds. The discussed proposal also includes a number of dedicated exemptions for sovereign issuers, in particular relating to the external audit control (see further Sect. 3.3.2).

While Member States generally have followed the ICMA market standard which existed at the time of the issue, many have taken additional steps to emphasise *ex ante* alignment with the emerging EU regulations in this sphere. The early flagging of the Green Taxonomy and the EU Green Bond standard is important to note here, to the extent the sovereign issuance already appears to be intended to raise awareness as to these regulations among the market participants. Notwithstanding such efforts to address greenwashing concerns, most Member States evidently wish to maintain a degree of flexibility, and only the Netherlands has decided to additionally obtain a Climate Bond Initiative certificate of alignment for their bond.[25]

3.3.2 Sovereign Green Bonds' Internal and External Governance Mechanisms

Dedicated internal and external governance mechanisms are what differentiates green bond issuance from regular bonds. With regard to internal governance, the ICMA's Green Bonds Principles require that the issuer put in place a dedicated internal process to decide on the selection of eligible projects. Most sovereigns that have issued green bonds elaborate in their Green Bond Frameworks detailed governance mechanisms relying on inter-ministerial coordination structures (see further below). External governance meanwhile can be broken down into stages of the life cycle of the bond. First, an external verifier assesses the compliance of the particular issuance framework with the chosen standards (ICMA). Second, the issuer commits to cyclical disclosures and reporting on how the proceeds

[25] On the CBI and its relation to the ICMA standard in particular see this chapter by Climate Bond Initiative in this volume.

were used. Third, as a number of Member States additional committed audit procedures over the course of the bond life cycle further attest to the proper use of funds. In this section we quantitatively and qualitatively compare EU Member States' issuances along these dimensions.

ICMA standards require a dedicated procedure for the management of proceeds, and in particular the selection and assessment of eligible projects. For sovereign issuers this requirement represents an interesting challenge: while typically it is the Treasury or the national debt offices that are in charge of issuance, the Green Bond Framework necessitates broad governmental engagement. Here the Member States' documentation we have analysed[26] reveals an array of practices. In a number of cases the Finance Ministry remains in the lead (e.g., in Italy, Luxembourg, Poland) when it comes to the selection of eligible projects. Other countries have joint leadership of ministers for finance and environment or sustainability (e.g., Belgium, Austria, France). Environmental ministry may also have a dedicated control function vis-à-vis the green bond proceeds spending as in Denmark. Other practices involve delegating decision-making to the development agency (Lithuania) or directly to parliament (Sweden).

In the case of most of the sovereign issuers, the green bond life-cycle leads to the creation of multi-tiered coordination structures serving not only the coordination for the use of proceeds but as well broader sustainable finance policy, as evident by Spain's "Working Group for the Structuring of Sovereign Green Bonds of the Kingdom of Spain and the Promotion of Sustainable Finance" established in 2021 and described in Spain's Green Bond Framework. Broad cross-ministerial green bond working groups (with over five governmental portfolios involved) have been established in Slovenia, Ireland, Latvia, Netherlands and Germany. Furthermore, the green bonds governance structures may also allow for a more open involvement of experts and stakeholders beyond the government such as academia (e.g., in Austria).

As far as external governance is concerned, all sovereign issuers have had a third party verify their Green Bond Framework ex ante using five different verification service providers. Sustainalytics has been the most popular choice, especially for the early issuers, and has been used by Ireland, Luxembourg, Netherlands, Poland and Slovenia.[27] A total of five

[26] Green Bond Frameworks, Investor Presentations, see Annex.

[27] Belgium has also used Sustainalytics before switching to Moody's ESG.

Member States have also opted for Moody's ESG Solutions and Vigeo Eiris (acquired by Moody's in 2019).[28] Three Member States each have opted for Cicero and ISS ESG (Institutional Shareholders Solutions).[29] The diversity of the SPO providers reflects broadly the unconcentrated market,[30] however the sovereign's choices in this respect reflect also the level of green ambition as well as an ESG-rating industrial policy. For example, we see issuers clustering around the verifiers originating from their jurisdiction—France opting for Vigeo Eiris (originating from France), Germany for ISS ESG (acquired by Deutsche Börse in 2020), Sweden and Denmark for the Norway-based Cicero and the Netherlands for Sustainalytics (headquartered in Amsterdam).[31]

Post-issuance reporting on the use of proceeds and the use of external audit to verify the internal tracking method and the allocation of funds from the green bond proceeds are key features of the GBP framework followed by all Member States. These accountability mechanisms are intended to ensure that any risks of greenwashing are mitigated. We observe significant variance in these two aspects between Member States.

First, as regards the reporting, the general GBP recommendation is that the Member States report on the allocation of proceeds on an annual basis. By November 2022, 11 countries have published dedicated reports specifying the raised funds' allocation (how the proceeds were used) and impact (changes in environmental/social indicators). Significant differences in the quality and regularity of these reports can be observed. For example, the Polish government has sporadically published reports and these have focused mainly on informing the investors about the government programmes which were refinanced using the proceeds of the issuance. Meanwhile other countries, publish detailed documents outlining complex analysis of financed projects, in some cases providing

[28] Lithuania, Belgium, France, Italy and Spain.

[29] Cicero: Denmark, Hungary and Sweden; ISS ESG: Austria, Germany and Latvia.

[30] In 2020 Sustainalytics was the market leader with 24% market share, followed by Cicero (16%), Vigeo Eiris (14%) and ISS ESG (7%). See Unicredit. 2020. ESG—A Comprehensive Guide to a Growing Asset Class Research. https://www.research.unicredit.eu/DocsKey/credit_docs_9999_177798.ashx. Accessed 28 November 2022 and ESMA. 2022. Results of Call for Evidence on ESG Ratings. https://www.esma.europa.eu/press-news/esma-news/esma-publishes-results-its-call-evidence-esg-ratings. Accessed 20 December 2020.

[31] Sustainalytics is owned by the US Morningstar company since 2020.

detailed spending tables (e.g., Luxembourg) as well as detailed reports on the impact of specific green bond-financed projects (e.g., France). In some cases, a learning curve is visible: for example, Lithuania's allocation reports published since 2018 on the dedicated website of the Ministry of Finance have become more detailed, revealing a transformation of the governance framework for identifying the eligible projects for example.

In most cases such reports are supplemented by a third-party opinion or a limited assurance report and in one case—France—both. Here Sustainalytics is the assurer of choice with almost half of the published allocation reports assessed by them. However, the level of detail of disclosed assurance reports differs. Interestingly, the published allocation reports for sustainability bonds (Luxembourg, Slovenia) have slightly more detailed assurance reports, which may suggest that an additional level of assurance was required by investors fearful of greenwashing for this broader category of bonds. Three further aspects draw attention with respect to the audit and verification of green bond proceeds' allocation. First, while only specialised ESG verification service providers have been used for the SPO, in the case of allocation reports, a number of countries have used the services of audit companies (KPMG—Netherlands, Belgium, France; Deloitte—Germany). This may signify that while non-financial verification can be relied on for the purpose of assessing the overall Green Bond Framework design, as far as actual spending is concerned, strong financial audit credentials (and capacities) are needed. Second, and a connected point, the majority of countries have used the same company for external verification of the GBF and the allocation reports. Where this is not the case (e.g., Germany, Belgium, France), arguably an additional level of control is created as conflicts of interest which may arise in the context of repeated use of the same provider are mitigated. Third, a number of countries have rejected the external assessment of the use of proceeds, which may result *inter alia* from domestic budgetary procedures, relying instead on national audit procedures (Lithuania, Sweden).[32]

[32] This aspect has subsequently been raised also in the context of EU GBS Regulation, with those Member States pushing for national audit to be recognised as an adequate verification mechanism for the purpose of post-issuance reporting. See art. 11 EUGBS proposal, where: "An issuer that is a sovereign may obtain pre-issuance and post-issuance reviews from an external reviewer, or from a state auditor or any other public entity that is mandated by the sovereign to assess compliance with this Regulation".

3.3.3 Sovereign Green Bond Issuance Objectives and Use of Proceeds

As emerges from the analysis of Member States' Green Bond Frameworks, EU countries largely point to three reasons for issuing green bonds: to obtain cheaper funding for sustainability transition projects (with mixed results), to diversify their investor base and to facilitate the development of a domestic sustainable finance market segment. These three objectives require a credible framework within which the issuance is embedded. What matters, in other words, is not only the legal and governance framework governing the issuance, but also how the use of proceeds is embedded in a broader transformation agenda of a country. It is only if the transition agenda is clearly articulated, based on credible objectives and aiming to achieve targets aligned with the international obligations of the issuer, can we really expect that the issuance of green bonds will also accelerate the pace of the green transformation and ensure that targeted expenses facilitate the development of sustainable technologies and services. It is necessary therefore that the sovereign issuers in their Green Bond Frameworks expressly align the level of ambition required for successful transition and phase-out of fossil fuels technologies and commit to the objectives of emission reductions aligned with the scientific evidence, or at least the objectives set by the 2015 Paris Agreement. In the case of the EU, the clear point of reference is the target of climate neutrality by 2050 articulated in the European Green Deal and enshrined in the EU Climate Law regulation.[33] An ambitious approach and a well-planned transition strategy can be expected to increase investors' confidence in the integrity of issuers' intentions and decrease risks related to misspending and greenwashing. Therefore, the climate policy framing (including specific ambitious policy targets) of green bond issuance, set by public authorities, is a relevant factor when considering the ESG bond issuance's potential to mobilise private investment in the sustainability transition.

We observe here significant differences among the issuance of Member States in how they frame the green bond issuance in the context of

[33] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('*European Climate Law*'), PE/27/2021/REV/1, OJ L 243, 9 July 2021, pp. 1–17.

global, EU and state sustainability transition-related policies.[34] This is also reflected in the level of ambition and scale effects of the projects financed with proceeds from issuance. Many Member States point to their level of climate ambition understood in terms of the pace of emission reductions or deployment of the renewable energy sources to strengthen the credibility of their issuance. Among the countries analysed here, the reference to the Paris Agreement and Sustainable Development Goals adopted by the United Nations was present in all presentations for investors, and many referred to the EU policies and the net-zero target by 2050 (including countries whose governments are perceived to be hostile to EU ambitious targets such as Hungary and Slovenia).

As the Green Bond Frameworks and the dedicated investor presentations make clear, the Member States with higher levels of ambition and more precise and robust policy frameworks were more outspoken about their national initiatives, whereas the laggards referred more frequently to the international frameworks and fora of cooperation. Countries such as Germany, France, the Netherlands, Italy, Austria, Sweden, Denmark and Slovenia described in detail their climate objectives and reduction targets for 2030 and 2050 (and sometimes intermediary targets like 2025 or 2040). Some—such as Germany, France, Austria, Italy or the Netherlands—provided detailed overviews of the pathway and the trajectory of emissions reductions with the reference to the national legislation (both horizontal and sectoral), country strategies and National Climate and Energy Plans (NECPs).

Also, the more precise description of the national objectives, strategies and legislation, the more substantiated are the claims about the credibility of the intentions of the issuer. Thus, the Member States with the highest climate ambitions position themselves as the best performers (also in terms of the international rankings) in climate transition—this applies in particular to Austria, Denmark and Sweden. At the same time, Member States contextualise their green bond issuance also by their broad fiscal policy performance such as the level of public debt and deficit (Ireland, Netherlands) as well as financial sector properties. Luxembourg, for example, emphasised its position as the "world centre of sustainable finance", which suggests that, for this country, the development of the

[34] Retrieved from the investors presentations of issuers—see Annex 1 with the list of references.

ESG market segment development may have outstripped any fiscal motivations.[35] A strong focus of Member States on climate ambitions and reference to the level thereof serves to convince investors that the desired objective of sovereign green bond issuance is the mobilisation of finance for climate change mitigation investments. The clear articulation of the transition pathway and an express and coherent policy commitment from the issuer serve here not only to mitigate greenwashing risk of the issuer, but also to convince the markets that the policy direction articulated is credible enough to be followed by other, private projects and investments.

The Green Bond Frameworks and Presentations for Investors act in this sense as commitment devices for government policy. A further way of anchoring the issuance in public policy resides in how the sovereign issuers present the intended use of proceeds to finance (and in a few cases refinance) eligible projects. Many Member States provide detailed information about the sectors that will be particularly supported by the investments financed with the issuance of green sovereign bonds. Renewable Energy, Clean Transport and Energy Efficiency are the most frequently included ones, with Water Management and Biodiversity less prominent. Three countries have chosen to finance social (e.g., housing, healthcare) as well as green projects through sustainability bonds (Luxembourg, Latvia and Slovenia) (see Fig. 3.3). As discussed above, after the Green Taxonomy was put on the table in 2018, a number of countries, like Germany, France, the Netherlands, Austria, Denmark, Luxembourg and Slovenia, chose to expressly declare the alignment of the use of proceeds with the EU Green Taxonomy and/or the EU GB standard. This alignment is most frequently represented by the preference for the activities that significantly contribute to the sustainable objectives and the fulfilment of the "do no significant harm" principle. Few countries, which have issued their green bonds before the Green Taxonomy came into force, such as Ireland and Sweden provided a detailed presentation of the sectoral use of proceeds. However, they did not use any other classification of sustainable activities—they were related to the sectors such as Renewable Energy, Clean Transport and Energy Efficiency. Without technical criteria used to establish the alignment of these activities with the reduction targets, more detailed information provided by the issuer might

[35] Luxembourg is notably the home of majority of EU's ESG funds.

significantly improve the level of trust of investors and the transparency of the use of proceeds.

Given the special nature of the sovereign issuance, as important as the *what* is and the *how* specific projects were financed. Here we observe significant differences in country approaches as well. The proceeds of Poland's 2016–2019 green issues were used mostly to refinance already existing agricultural projects, and the allocation report review pointed to the absence of adequate analysis of the impact of the proceeds. Other countries have financed specific subsidies for the development of clean transport (e.g., Italy), grants for technology development or fiscal incentives (e.g., tax breaks in Denmark or Belgium financed with green bond proceeds). From the perspective of stimulating the development of the financial market, the Hungarian use of the proceeds for subsidising energy-efficient loans is important as it shows clearly the double objective of sovereign issuance: that of directly financing sustainability transition and of stimulating local financial market development. As to the *what* is financed, the answer is presented in Fig. 3.3. It shows that the Member States were mostly using the proceeds to finance investments in public transport support schemes and infrastructure projects, energy efficiency (insulation and heat replacement) programmes (frequently addressed at the public and public services buildings) and to a lesser extent the public renewable energy projects. It may suggest that the projects in energy market are mostly targeted by the commercial financing or covered from other public sources (EU Emissions Trading Scheme revenues or targeted public funds) and the governments focus on expenditures related to the biggest direct impact with the use of bond proceeds.

As far as the use of proceeds and the articulated objectives of the green bond issuance are concerned, the following observations could be formulated. First, the wide and detailed overview of the national initiatives, policy framework and sectoral legislation was included in the investor presentations of the Member States that could be regarded as the front-runners in climate actions (in particular Denmark, Austria, France, Germany and the Netherlands as the best practices). Second, the concentration of financing around the three sectors—the Renewable Energy, the Clean Transport and the Energy Efficiency—could be also observed. Only Slovenia, Latvia and Luxembourg have opted for the wider understanding of the sustainable development and did not limit their issuance only to the "green" activities but, including also the social objectives aligned with the respective UN Sustainable Development Goals. The higher level of climate ambition and the more credible pathway, objectives and trajectory of emissions reductions, the more detailed reference to the alignment of the use of proceeds with meaningful classification and the EU Taxonomy was included.

Countries that are less precise in their sustainability transition strategy—such as Hungary or Poland—have been frequently regarded as having lower levels of ambition than the EU average and not fully in line with the EU climate objectives.[36] The "ambition gap" has been also determined on the basis of the analysis of local national LTS—Hungary and Poland tend to have lower targets for renewable energy share and energy efficiency than the EU trajectory, slower pace of GHG emissions reduction and not ambitious approach towards financing.[37] This gap is also evidenced by the Eurostat in a report for renewable energy targets for 2020, where Poland, Hungary as well as the Netherlands and Luxembourg were in the group of Member States with the lowest share of renewables in their energy mixes.[38] However, the Netherlands and Luxembourg are considered to be actively involved in climate action and constructively contributing to the EU policies and targets. Their Green Bond Frameworks and Investor Presentations are consistent with the public image and are filled with detailed information about ambitions and future plans. Whereas in the case of Poland and Hungary, the public image of their attitude is one of hostility and resistance towards climate objectives—in the context of their investors presentations this translates into a vaguer description of national objectives, overall climate policy framework presentation and more general reference to the international and EU initiatives that these countries are part of.

[36] Duwe Matthias et al. 2019. Planning for Net Zero: Assessing the Draft National Energy and Climate Plans. https://www.ecologic.eu/sites/default/files/publication/2019/2149-necp-assessment-ecologic-institute-climact_20190516.pdf. Accessed 29 November 2022.

[37] Kobyłka Krzysztof et al. 2022. Long-Term Strategies Assessment of the Visegrád Group Countries. https://wise-europa.eu/wp-content/uploads/2022/01/Long-Term-Strategies-Assessment-of-the-Visegr%C3%A1d-Group-Countries.pdf. Accessed 29 November 2022.

[38] Eurostat. 2022. EU Overachieves 2020 Renewable Energy Target—https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220119-1. Accessed 29 November 2022.

3.4 Sovereign Green Bond Issuance Market Impact

Sovereign issuance is not a precondition for the development of a green bond market: the absence of state ESG bonds did not preclude the development of corporate ESG corporate debt markets in Finland, Portugal and Greece.[39] Furthermore, corporate ESG issuance has predated public entry into the market in 13 EU Member States.[40] Based on the above analysis, we can formulate some tentative conclusions about when sovereign green bond issuance has a positive impact on private market development, both in cases where green bonds were already present (France, Germany, Luxembourg, Netherlands, Sweden) and those where they are not (Hungary, Ireland). Conversely, we put forward some possible explanations for the curious case of Poland, where an early entry into the sovereign bond market did not have a stimulating impact on the private market. Likewise, we suggest that the absence of a clear signal from the sovereign issuer is a factor stifling the development of green bond market in countries such as Czechia and Slovakia where private issuance remains limited.

France, Germany and the Netherlands are the leaders of the EU ESG bond market.[41] This is partly explained by the sheer market size and maturity. However, based on our analysis, the role of an articulated transition pathway and policy consistency cannot be dismissed as a key factor shaping the market expectations and in particular convincing investors of the policy direction of travel.

Credibility and trust in the market segment are strengthened also by sovereign issuers endorsing a clear set of standards, including *ex ante* uptake of mandatory EU rules (e.g., EU Green Taxonomy). Relevant scholarship already suggests that standardisation in green bond markets plays a key role for enabling more dynamic growth and avoidance of

[39] Corporate ESG issuance is also found in Czechia, Estonia, Romania and Slovak Republic albeit with marginal amounts. However, in Czechia this entails relatively small issuances of subsidiary of Raiffeisenbank and Czech Gas Network operator. Meanwhile in the Slovak Republic, the issuer was also a bank—Tatra banka, with the support of EBRD—and was of small volume and aligned with ICMA Green Bond Principles.

[40] Austria, Denmark, Italy, Spain, Sweden, Slovenia, Netherlands, Italy, Lithuania, Luxembourg, Belgium, France and Germany.

[41] Environmental Finance. 2021. Sustainable Bonds Insight.

negative effects, such as fragmentation of the market and greenwashing.[42] All the EU issuers have relied on the ICMA standards, while expressly choosing to use have their Green Bond Frameworks verified externally. Nevertheless, given the low bar set by ICMA, greenwashing problems are evident and arising in the context of insufficient availability of information on the use of proceeds and coherent categorisation of expenses.[43] Consequently, it is hardly surprising that the countries which are serious about stimulating the market segment, place emphasis on shoring up the credibility of their issuance by explicit reliance (also anticipatory) on emerging EU standards as well as high quality of external verification and certification (e.g., CBI standards). Likewise, market guidance in the countries, leading the ESG market segment, resides as well in the high quality of post-issuance accountability.[44]

Policy commitment can nonetheless be expressed in different ways. In countries whose issuance relies less strictly on a clear transition pathway and EU legal standards, a concerted action by institutions can yield positive effects on market development. This is the case of Hungary, where a significant development of corporate ESG bond and loan market can be found. Here the key role was played by Hungarian sovereign bond proceeds being used to *inter alia* directly de-risk sustainable finance products for retail borrowers, with further prudential initiatives for financial institutions to introduce such products in their offer.[45] Arguably, low

[42] Nozdreva, Raisa B. 2022. Green Bonds in the System of International Environmental Financing of Industry 4.0 Projects. In *Industry 4.0. Fighting Climate Change in the Economy of the Future*, ed. Zavyalova, Elena B., Popkowa Elena G. Cham: Springer Professional "Wirtschaft+Technik"; Bogacheva, Olga V. Smorodinov Oleg V. 2016. Green Bonds as a Key Instrument for Financing Green Projects. *Finansovyj zhurnal—Financial Journal*, 2: 70–81; Talbot, Kevin M. 2017. What Does „Green" Really Mean?: How Increased Transparency and Standardization Can Grow the Green Bond Market. *Villanova Environmental Law Journal*, 28: 127: see also: Malzacher Annalena. 2020. What Makes a Bond Green? An analysis of Green Bond Standards and the Need for a Development of the Green Bond Market. Hochschule Furtwangen.

[43] Berensmann, Kathrin. 2017. Upscaling Green Bond Markets: The Need for Harmonised Green Bond Standards. Briefing Paper, Deutsches Institut für Entwicklungspolitik (DIE), No. 12, Bonn.

[44] On the importance of policy guidance in guiding sustainability transition of banking markets see: Smoleńska, Agnieszka and van 't Klooster, Jens. 2022. Risky Bet a Risky Bet: Climate Change and the EU's Microprudential Framework for Banks. *Journal of Financial Regulation* 8(1): 51–74, April 2022.

[45] See further chapter by Gabor Gyura in this volume.

investor awareness may yield such a course of action more appropriate in the case of less developed financial markets in particular.

The availability of supportive infrastructure—such as external verifiers and secondary market—is also an important facilitative factor. Here we also see a role of the state in supporting second-party opinion providers with local links (France—Vigeo Eiris, Netherlands—Sustainalytics and Germany—ISS ESG).

A final positive factor to consider, on which there is so far insufficient empirical evidence, is the role of greenium in stimulating investor and issuer interest. As Grzegorczyk and Wolff find in a recent contribution, the level of "greenium" for sovereign issuers is generally quite low, but varies somewhat.[46] It cannot be excluded that in countries where the sovereign markets where greenium is somewhat higher (Austria, Spain, France), this also represents an important incentive for private issuers.

In Poland green bond issuance remains subdued with the government tap having had little effect on the local market. We propose that the low credibility of the Green Bond Framework in terms of articulation of public sustainability transition pathway, use of proceeds primarily for refinancing of government programmes and low quality of reporting in terms of regularity and content, undermined rather than fostered broad investor trust in the market segment. However, in countries whose sovereigns are yet to enter the market—Czechia, Romania, Croatia or Slovakia—this represents an important factor to consider when designing the Green/Sustainability Bond Framework and the governance structure in particular. The growing concerns about "green bleaching" in those countries where the awareness and expertise in climate transition is low further warrant a nuanced approach in this area.

A final element to consider in this context is currency. While euro dominates as the currency of choice for the ESG market segment, lack of euro area membership did not impede the development of green bond markets in Sweden or Hungary. Nevertheless, fragmentation of the currency market may constitute a constraining factor for the non-euro area countries, and euro-denominated bonds providing an option to reach a broader investor base.[47]

[46] See Grzegorczyk and Wolff, supra note 3.

[47] Pawłowski, Maciej. 2017. Zielone obligacje rządowe. *Ekonomiczne Problemy Usług* 4(129): 219–227.

3.5 Conclusions

In this chapter, we have analysed the ESG issuance of EU Member State governments with view to identify the features of such bonds which meaningfully contribute—or not—to the development of a local sustainable finance market for corporates. From a policy perspective, building an understanding of such causal links is critical to ensure adequate funds are made available to finance the sustainability transition, in particular in countries with less developed capital markets for whom financing the transition constitutes a double policy challenge. It is also evident from most of the state ESG bond issuance that market development is a key motivation for state entry into the market segment.

Our analysis suggests that—from a legal-institutional perspective—a number of elements are critical for creating a conducive environment and trust among potential ESG bond issuers and investors. In particular these relate to anchoring of the issuance in credible standards, internal and external governance mechanisms and a use of proceeds consistent with transition and market development objectives. First, while all Member States have issued ESG bonds under the ICMA standards, all of them have also opted for external verification by one of the established providers. The issuances, which appear to be the most credible among the market participants, and have additionally generated positive crowding-in effects for private issuers, *ex ante* adopt emerging EU standards, such as the Green Taxonomy or the EU Green Bond standard. With regard to internal and external governance, we see first the Member States using the green bond issuance procedures to create transition coordination structures. Transparency on such structures may additionally shore up the sustainability transition of a country. A number of features characterise the high quality of green bond issuances: using different verifiers for pre- and post-issuance verification, regular publication of detailed allocation and impact reports as well as publishing results of assurance. Finally, the issuers with high credibility tend to showcase their transition pathway with intermediate targets, which helps align issuer and investor expectations.

In the context of the finalisation of the negotiations on the EU Green Bond standard, our findings bear implications for the expected implementation of the new EU standard. As the lack of credible and ambitious standards is a major impediment to market development we see the early uptake of Green Taxonomy and EU Green Bond standard across a number of EU Member States, with important caveats. Though according to the regulation the use of the EUGB standard (also by the public authorities) would be voluntary, sovereign issuance will be an important benchmark for all ESG issuers (also those not following the EU standard), with the Green Taxonomy further attaining a central role. Conversely, ensuring the alignment of the national actions of public bodies with the publicly adopted standard should be perceived as the method to increase the confidence of investors in the integrity of the issuers.[48] At the same time, we can expect an element of industrial policy regarding the choices met by the authorities. Including with regard to the specific external verifiers popular in a given local market or any caveats on the uptake of the Green Taxonomy (e.g., with regard to investments in nuclear energy)—they might have impact on the credibility of the claims of the issuers and translate into effective use of the proceeds. Thereby the positive attitude towards the sustainability transformation increases the opportunities to receive better financing conditions and allow for crowding-in of private investments—thus reducing the costs of investments in sustainable activities with the public means. Therefore, the issuance of the sovereign green bonds might be regarded as the method to fulfil policy objectives and guide the green transformation in a smarter way.

Annex 1

The list of references for Green Bond Framework and investors presentations

No.	*Member state*	*Green Bond Framework*	*Investor presentation*
1.	Austria	The Republic of Austria's Green Bond Framework, April 2022	The Green Investor Presentation of the Republic of Austria, September 2022
2.	Belgium	Kingdom of Belgium Green OLO Framework, June 2022	Unavailable
3.	Denmark	Kingdom of Denmark Green Bond Framework, December 2021	Kingdom of Denmark Sovereign Green Bond Investor Presentation, December 2021
4.	France	République Française Framework for the Green OAT, January 2017	Towards a second green OAT Still the best of both worlds, March 2021

(continued)

48 Bieliński Tomasz, Mosionek-Schweda Magdalena. 2018. Green Bonds as a Financial Instrument for Environmental Projects Funding. *Unia Europejska* 248(1): 13–21.

(continued)

No.	*Member state*	*Green Bond Framework*	*Investor presentation*
5.	Germany	Green Bond Framework Federal Republic of Germany, August 2020	Federal Republic of Germany Green Bond Investor Presentation, August 2022
6.	Hungary	Hungary Green Bond Framework, May 2020	Hungary Green Bond Investor Presentation, April 2021
7.	Ireland	Ireland Irish Sovereign Green Bond Framework, July 2018	Irish Sovereign Green Bonds, October 2018
8.	Italy	Framework for the Issuance of Sovereign Green Bonds Republic of Italy, February 2021	Republic of Italy Green Bond Investor Presentation, March 2021
9.	Latvia	Republic of Latvia Sustainability Bond Framework, November 2021	Unavailable
10.	Lithuania	Republic of Lithuania Green Bond Framework, April 2018	Unavailable
11.	Luxembourg	Sustainability Bond Framework, August 2020	Sustainability Bond Framework Investor Presentation, September 2020
12.	Netherlands	State of the Netherlands Green Bond Framework, May 2022	Investor Presentation Green Dutch State Loan (DSL) 2040, May 2022
13.	Poland	Republic of Poland Green Bond Framework, December 2016	Unavailable
14.	Slovenia	Slovenian Sovereign Sustainability Bond Framework, June 2021	Sustainability Bond Framework Investor Presentation, June 2021
15.	Spain	The Kingdom of Spain's Green Bond Framework, July 2021	Kingdom of Spain Green Bond Investor Presentation, October 2022
16.	Sweden	Sweden's Sovereign Green Bond Framework, June 2020	Sweden's Sovereign Green Bond Investor Presentation, August 2020

CHAPTER 4

Issuing a Green Bond: A Practical Perspective

Caroline Harrison, Liam Jones, and Zofia Wetmańska

The green bond market, which was anointed in 2007 by the first ever green bond from the European Investment Bank, employs a set of principles to ensure capital is deployed to support climate-aligned causes. At the end of September 2022, the Climate Bonds Initiative (Climate Bonds), an international not-for-profit influential in the market's development, had recorded more than ten thousand green bonds with cumulative volumes of USD2.02 trillion in its Green Bond Database (GBDB).[1] Climate Bonds GBDB captures only green bonds that are Paris-aligned and reach sufficient reporting standards, and therefore the volume of self-labelled green issuance is even larger.

[1] Green Bond Database. 2022. Climate Bonds Initiative. https://www.climatebonds.net/market/data/. Accessed 16 November 2022.

C. Harrison (✉) · L. Jones · Z. Wetmańska
Climate Bonds Initiative, London, UK
e-mail: caroline.harrison@climatebonds.net

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_4

4.1 Benefits of Issuing a Green Bond

Climate Bonds has published the results of two research projects designed to determine the challenges and benefits resulting from green bond issuance. The Climate Bonds Green Bond Treasurer Survey was published in 2020 and considered the experiences of 86 treasurers who had issued green bonds.[2] This was followed in 2021 by the Sovereign Green, Social, and Sustainability Bond Survey which summarised the results of 23 issuer experiences.[3] The two papers captured multiple benefits arising from issuing green labelled debt and treasurers overwhelmingly described the experience as a positive one for the issuing entity. The benefits can broadly be described as follows:

1. **A green bond can contribute to transition, risk management, and future proofing of the issuing entity**. Green bonds are well-understood, transparent instruments among issuers and investors, that can help to catalyse and fund the process of transition. The activity of issuing a green bond includes an internal audit of climate risks which can help to give issuers greater visibility of climate-related risks present within the business. For example, in preparation for issuing a green bond, a bank may perform a green tagging exercise to classify its loan portfolio according to a green taxonomy. This will help the bank to determine the nature of its often longer dated lending exposure and uncover potential business level risk.
2. **Issuing a green bond can also necessitate a thorough review of processes, monitoring, and accountability, and improvements to IT to capture relevant data that could be identified**. The financial costs of this exercise could be justified by the resulting visibility of risks in the business, and the ability to classify expenditures according to their climate compatibility.

[2] Harrison C., Muething L., and Tukiainen K. 2020. Green Bond Treasurer Survey, Climate Bonds Initiative. https://www.climatebonds.net/resources/reports/green-bond-treasurer-survey-2020. Accessed 16 November 2022.

[3] Harrison, C., and Muething, L. 2021. Sovereign Green, Social, and Sustainability Bond Survey, Climate Bonds Initiative. https://www.climatebonds.net/resources/reports/sovereign-green-social-and-sustainability-bond-survey. Accessed 16 November 2022.

3. **Issuing a green bond can broaden the investor base and introduce new engagement opportunities**. The dialogue with investors can be more extensive for green bonds, with senior management often participating in roadshows. Issuer profile is boosted, as the green bond signals to the market that the organisation is incorporating green considerations directly into capex planning. According to the Climate Bonds Treasurer Survey, 98% of respondents said that their green bond attracted new investors, 91% of respondents said a green bond facilitated more engagement with investors compared to a vanilla one, and 70% of respondents said the demand for their green bond was higher than for vanilla equivalents. Evidence from Climate Bonds Green Bond Pricing in the Primary Market H1 2022 suggests that on average, 65% of green bonds are allocated to investors describing themselves as green.[4] At the EU level, the recently introduced Sustainable Finance Disclosure Regulation is expected to make this classification even easier as its implementation will give issuers the option to preference investors achieving the greenest classifications of dark green funds, the terms and conditions of which are determined by Article 9 requirements.[5]
4. **Enhanced reputation and visibility**. Green bonds are a statement of strategy. After issuing a green bond, issuers report being offered more opportunities to participate in green projects and banks often launch green lending products to provide more assets to roll into future issuance.
5. **Issuing a green bond can enhance internal relationships**. Preparation of frameworks and reporting, and identification of green assets, typically involve close collaboration among various departments of an entity. In the case of sovereigns, the required cross ministerial collaboration is described as having benefits that extend beyond the green bond enabling a swifter reaction to unexpected events. A sustainability committee is not a prerequisite for green

[4] Harrison, Caroline. 2022. Green Bond Pricing in the Primary Market H1 2022, Climate Bonds Initiative. https://www.climatebonds.net/resources/reports/green-bond-pricing-primary-market-h1-2022. Accessed 16 November 2022.

[5] European Commission. 2019. 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. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R2088. Accessed 16 November 2022.

bond issuance, but most issuers are motivated to establish one either during or because of the exercise. Issuing a green bond sharpens internal commitment to sustainability.

6. **Green bonds can offer pricing benefits to the issuer**. Since 2017, Climate Bonds has published at least semi-annually on the topic of Green Bonds Pricing in the Primary Market. This series of research papers notes that green bonds repeatedly achieve larger book cover and greater spread compression than vanilla equivalents during bookbuilding.[6] Around a third of green bonds price inside their own yield curves, in other words, are issued at a higher price than the prevailing price of equivalent instruments from the same issuer in the secondary market. Green bonds consistently demonstrate more aggressive tightening in the immediate secondary market (7 and 28 days after pricing) compared to vanilla bonds too. This can be an important motivation for repeated issuance as treasurers will encourage other market participants to show preference for green expenditures which can qualify for inclusion in green bonds.
7. **A sovereign green bond can catalyse green market development**. Sovereign issuers cite local green market creation as both a motivation and a result of green bond issuance. Green market creation can extend to dedicated segments on local stock exchanges, a community of verifiers and Second Party Opinion providers, and dedicated investment mandates. A green sovereign provides a reference benchmark for other issuers and shows strong leadership in climate-friendly development. Through signalling their own commitment to green expenditures, sovereign green bonds can attract crowding in.
8. **Gains compensate for the effort**. When asked whether they had advice for other treasurers thinking of issuing green bonds, as part of Climate Bonds Treasurer surveys mentioned above, time and again treasurers simply say: 'Do it'. Costs associated with issuing a green bond are usually regarded either as negligible or valid due to other benefits. This is contrary to the perception that green bonds carry considerably higher costs, which can be a barrier to market entry. The Climate Bonds Green Bond Treasurer Survey revealed that for

[6] Climate Bonds Initiative. 2022. Green Bond Pricing in the Primary Market. https://www.climatebonds.net/resources/reports?field_report_type_tid=583&field_report_language_tid=All. Accessed 16 November 2022.

90% of respondents, the cost of borrowing for green bonds was either very similar to or lower than for vanilla equivalents.

4.2 The Process of Issuing a Green Bond

Any entity wishing to issue a green bond must first establish a clear mandate to do so from the top. In the case of sovereign issuers, this should come from government, and for other types of entities, the board. Such endorsement will galvanise internal cooperation and any involved departments will be aligned in their mission.

In 2014, consortium of investment banks established a set of best practice guidelines for green bond issuance, with the International Capital Markets Association (ICMA) appointed as the Secretariat. The Green Bond Principles (GBP) were designed by various stakeholder groups including issuers, investors, and underwriters and environmental groups as voluntary guidelines on recommended processes for the development and issuance of green bonds. By 2021, these had evolved into the four principles:

1. Use of Proceeds,
2. Process for Project Evaluation and Selection,
3. Management of Proceeds,
4. Reporting.[7]

Issuers were recommended to incorporate transparency and clarity on these features into the green bond issuance process.

Table 4.1 describes the process of issuing a green bond, highlighting the elements which comply with the ICMA Green Bond Principles.

4.3 The Importance of Definitions

Confidence in the climate credentials of green bonds is essential to the growth of a sustainable market and will enable the scale required to finance the journey to net zero. In 2019, Climate Bonds published the

[7] ICMA. 2021. Green Bond Principles, Voluntary Process Guidelines for Issuing Green Bonds. https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles_June-2022-280622.pdf. Accessed 16 November 2022.

Table 4.1 Process comparison between vanilla bond and green bond issuance process

A. Issuing a regular bond	*B. Issuing a green bond—additional steps*
Pre-issuance • Get rated • Gather market intelligence on currency, tenor, size • Select underwriters • Register with local regulator • Prepare and issue prospectus • Comfort letter/due diligence • Outreach through road shows, one-on-ones, and sales	**Pre-issuance** • Define a green bond framework • Define how the project or expenditures meet the green bond eligibility criteria **(Use of Proceeds)** • Implement project selection process and select eligible projects **(Process for project evaluation and selection)** • Set up accounts and process to earmark and allocate proceeds **(Management of Proceeds)** • Establish reporting processes **(Reporting)** • Get a pre-issuance external review • Check for support mechanisms
Issuance: Launch the bond into the market • Build the book of investors who are interested in the bond	**Issuance: Launch the bond in the market** • Include the green attributes in marketing materials • Prepare to discuss reporting commitments and details such as baseline for impact reporting. with investors (roadshow)
Post-issuance • Price and allocate bond to support secondary market performance • Communication to the market • Monitor the secondary market	**Post-issuance** • Allocate proceeds to the projects • Monitor the projects and track the allocation over time • Publish the impact report • Post-issuance audit if necessary

Green Bond European Investor Survey, which was based on conversations with 48 of the largest Europe-based investment managers.[8] Respondents stated that the most important factor for making a green bond investment decision was satisfactory green credentials at issuance. Accountability and discoverability (i.e. ease of identification) were described as the main advantages that green bonds brought to the capital markets. Respondents

[8] Almeida, M., Filkova, M., Harrison, C., and Sette, P. 2019. Green Bond European Investor Survey, Climate Bonds Initiative. https://www.climatebonds.net/resources/reports/green-bond-european-investor-survey-2019. Accessed 16 November 2022.

demonstrated high expectations of integrity, with 79% saying they would not buy a green bond if the proceeds were not clearly allocated to green projects at issuance.

Transparency into the underlying asset is important in allowing investor due diligence. Credible, science-based, widely supported guidelines about what constitutes a qualifying investment help investors to make informed decisions about the environmental credentials of a bond. While the finance sector has realised that risk might be incurred through climate inaction and even produce rewards for climate pioneers, market forces alone are unlikely to procure ambition in-line with international targets on climate change.

The Climate Bonds Standard and Certification Scheme is a labelling scheme for bonds and loans that aims to address this. It ensures that funds can be counted upon to deliver climate change solutions, addressing concerns relating to the burden of information and reporting requirements, while maintaining the robustness and reliability of net zero targets and associated transition plans.[9,10] In order to receive this mark of best practice, a prospective issuer of a green bond must appoint a third-party Approved Verifier, who will provide a verification statement that the bond meets the Climate Bonds Standard. The Climate Bonds Standard allows Certification of a bond prior to its issuance, enabling the issuer to use the Climate Bonds Certification in marketing efforts and investor roadshows. The Climate Bonds Standard Board confirms Climate Bonds Certification once the bond has been issued and the proceeds have been allocated to the projects and assets.

Recently it seems we are entering into a new chapter of green finance, as increasing number of governments and regions are using, or intend to use taxonomies as tools that help to define which economic activities can be credibly deemed as sustainable. By September 2022, almost 30 jurisdictions either had a sustainable finance taxonomy in place or perceived its development as crucial for scaling up the green finance market (Fig. 4.1). Although there are differences in the taxonomy development processes, the common aim is to provide transparency and clarity for the financial market with regard to investments that support the achievement of the

[9] Climate Bonds Initiative. 2022. Climate Bonds Standard V4.0. https://www.climatebonds.net/climate-bonds-standard-v4. Accessed 16 November 2022.

[10] Climate Bonds Initiative. 2022. Climate Bonds Certification. https://www.climatebonds.net/certification/get-certified. Accessed 16 November 2022.

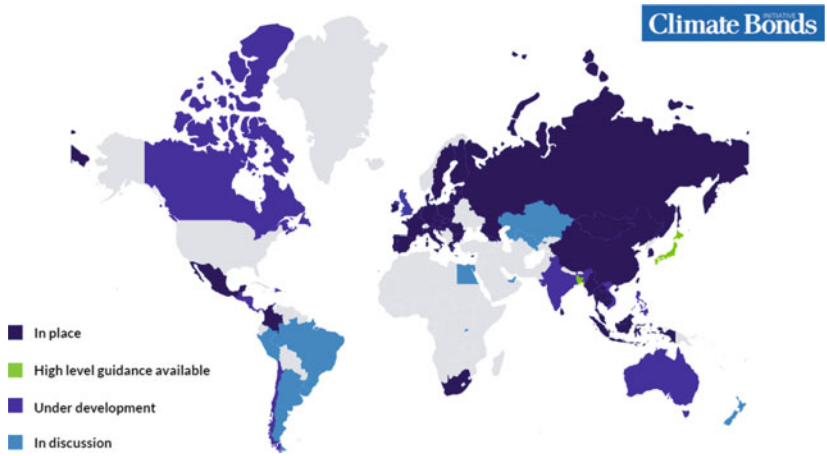

Fig. 4.1 Taxonomy development processes around the world[11]

goals set by the Paris Agreement as well as broader, global sustainability agenda.

Taxonomies are multipurpose tools and their role in the green bonds market is increasing, given the ongoing legislative works on incorporating the EU Taxonomy into the European Green Bond Standard, as part of efforts to further reduce greenwashing.[12,13] The EU has taken a lead role in the development of standards and regulations in the sustainable finance market, and the EU sustainable finance framework, and especially its taxonomy component, often acts as a blueprint for other economies. Similar developments in other parts of the world are anticipated.

[11] Climate Bonds Initiative. 2022. Taxomania! An International Overview. https://www.climatebonds.net/2021/09/taxomania-international-overview. Accessed 20 May 2023.

[12] European Commission. 2022. EU Taxonomy for Sustainable Activities. https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en. Accessed 16 November 2022.

[13] European Commission. 2022. European Green Bond Standard. https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/european-green-bond-standard_en. Accessed 16 November 2022.

CHAPTER 5

Issuing Green Bonds Without a Green Bonds Regulation: Canadian Experiences

Bruno Caron and Bernard Blouin

5.1 Introduction

Preserving environmental integrity and mitigating and adapting to climate change has become an existential issue that concerns the planet as a whole. Canada is not indifferent to this planetary phenomenon. To that end, the Canadian government recently enhanced its Paris Agreement Nationally Determined Contribution and announced a target to cut greenhouse gas

The authors would like to thank Annafaye Dunbar for her valued research and editorial work performed in connection with the writing of this chapter.

B. Caron (✉) · B. Blouin
Miller Thomson LLP, Montréal, QC, Canada
e-mail: bcaron@millerthomson.com

B. Blouin
e-mail: bblouin@millerthomson.com

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_5

("GHG") emissions by 40–45% from 2005 levels by 2030.[1] Canada has also legislated a commitment to reaching net-zero emissions by 2050.[2] It is, therefore, somewhat surprising to see the slow adoption of green finance within Canada—a G7 country—and especially the use of green and sustainable bonds by Canadian stakeholders.

Although the first reported use of green bonds dates back to the World Bank's inaugural green bond issuance in 2008, it took another six years before a Canadian issuer used this green financing tool.[3] In January 2014, Export Development Canada ("EDC") became the first Canadian issuer to issue a green bond of a principal amount of 300 million US dollars with a five-year tenure, the proceeds of which funded nine transactions.[4] In October 2014, the Province of Ontario became the first sub-sovereign to issue a 500 million Canadian dollar-denominated green bond.[5] Since then, this Canadian province has become the largest issuer of Canadian dollar-denominated green bonds, with eleven green issues totalling 12.5 billion, of which 12.0 billion is currently outstanding.[6]

[1] Minister of Environment and Climate Change. 2021. https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/actions-healthy-environment-economy.html. Accessed 23 December 2022.

[2] Canadian Net-Zero Emissions Accountability Act, S.C. 2021, c. 22, sec. 6, https://laws-lois.justice.gc.ca/eng/acts/c-19.3/fulltext.html. Accessed 23 December 2022.

[3] The first green bond issued by the World Bank was for an amount of Skr.3.35 billion (approximately USD 440 million), see "10 Years of Green Bonds: Creating the Blueprint for Sustainability Across Capital Markets," World Bank. 2019. https://www.worldbank.org/en/news/immersive-story/2019/03/18/10-years-of-green-bonds-creating-the-blueprint-for-sustainability-across-capital-markets. Accessed 23 December 2022. However, it is recognized by some that the European Investment Bank's ("EIB") May 2007 EUR 600mn senior unsecured climate awareness bond was the first green bond issuance. For more, see: "15 years of EIB green bonds: leading sustainable investment from niche to mainstream," European Investment Bank. 2022. 15 Years of EIB Green Bonds. https://www.eib.org/en/press/all/2022-308-15-years-of-eib-green-bonds-leading-sustainable-investment-from-niche-to-mainstream#:~:text=On%20July%205th%202007,of%20social%20and%20sustainability%20bonds. Accessed 23 December 2022.

[4] EDC. 2017. *Green Bond Impact Report*: 2, https://www.edc.ca/content/dam/edc/en/non-premium/green_asset_portfolio_reporting.pdf. Accessed 23 December 2022.

[5] For more about Ontario's first green bond issuance, see: Province of Ontario. 2014. Strong Demand for Ontario's First Green Bond. Press Release. https://news.ontario.ca/en/release/30630/strong-demand-for-ontarios-first-green-bond. Accessed 23 December 2022.

[6] Ontario Financing Authority. 2022. Province of Ontario Green Bonds. https://www.ofina.on.ca/greenbonds/. Accessed 23 December 2022.

In 2018, the Canadian green bond market saw the world's first green bond from a pension fund with the Canada Pension Plan Investment Board 1.5 billion Canadian dollar-denominated inaugural green bond issuance.[7] More recently, in March 2022, Canada entered the green bond market with its 5 billion maiden Canadian dollar-denominated green bond issuance, making this the largest single green bond issuance by any Canadian issuer.[8]

In line with the fact that bond markets generally attract large seasoned issuers, over the last eight years, the Canadian green bond market has evolved and matured with large corporate issuers, mainly banks and renewable energy companies, tapping into this nascent market. According to a market survey performed in 2021, as of the first quarter of 2021, financial institutions and local governments (provincial and municipal) accounted for the largest share of the aggregate amount of green bond issuances originating from Canadian issuers (10.7 billion and 9.2 billion US dollars, respectively), with private corporations (excluding financial institutions) ranking third (4.7 billion US dollars).[9]

According to market data compiled by the Climate Bonds Initiative ("CBI"), the aggregate amount of funds raised by Canadian issuers up to June 30, 2022 totals 48.2 billion US dollars, representing 3% of the aggregate amount raised through the issuance of green bonds worldwide, valued at 1.9 trillion US dollars.[10] In absolute terms, this places Canada in 9th place in the CBI's global country ranking of green bond issuers by cumulative amount raised up to the first half of 2022, behind the

[7] CPP Investments. 2018. Canada Pension Plan Investment Board to Issue Green Bonds. https://www.cppinvestments.com/public-media/headlines/2018/cppib-issue-green-bonds. Accessed 23 December 2022.

[8] Department of Finance Canada. 2022. Canada Issues Inaugural Green Bond. Press Release. https://www.canada.ca/en/department-finance/news/2022/03/canada-issues-inaugural-green-bond.html. Accessed 23 December 2022.

[9] Caroline Harrison and Leah Muething. 2021. North American State of the Market 2021. Climate Bonds Initiative. https://www.climatebonds.net/resources/reports/sustainable-debt-north-america-state-market-2021. Accessed 23 December 2022.

[10] Data derived from country-specific data on cumulative issuances made available by the "Climate Bonds Interactive Data Platform," CBI. https://www.climatebonds.net/market/data/. Accessed 23 December 2022. The CBI data is based on its Green Bond Database Methodology. For more, see: CBI. 2022. Green Bond Database Methodology. https://www.climatebonds.net/files/files/CBI_Method_Criteria_03A.pdf. Accessed 23 December 2022.

United States (U.S.), China, and certain European countries.[11] The green bond market in Canada is, however, characterized by larger deals than in the U.S. market, with an average deal size of 380 million US dollars.[12] Larger deal sizes help attract a broad range of international investors, which is also reflected by the fact that, to date, Canadian entities have issued green bonds in six currencies (Australian dollar, Canadian dollar, US dollar, Euro, Sterling Pound and Yen).[13]

At the time of writing, Canadian securities regulators have yet to adopt specific rules to regulate the growing green bond market and protect the public. Perhaps this is because the client base for green bonds is institutional investors, such as pension funds, mutual funds, insurance companies, and sovereign wealth funds, rather than retail investors who often lack the sophistication of institutional investors and often need regulatory protection. Regulatory intervention is important as it will help ensure that green bond proceeds are allocated to environmentally sustainable projects, and will also alleviate concerns over corporate greenwashing.[14] This is especially important as smaller, less sophisticated Canadian issuers, begin to consider issuing green bonds, since they may not have the internal infrastructure, expertise, and resources required to accurately select green projects, manage green bond proceeds, and report on project impact.

With this portrait of the Canadian green bond landscape in mind, this chapter will discuss: how Canadian issuers of green bonds have defined

[11] *Ibid*. Canada is ranked 10th when issuances from supranational organizations are counted.

[12] Harrison and Leah Muething, supra note 9, 15.

[13] *Ibid*. The Royal Bank of Canada (RBC) has issued green bonds denominated in USD, GBP, EUR and AUD. For more information on these issuances, see: RBC. 2022. RBC Green Bond Report: 4. https://www.rbc.com/investor-relations/_assets-custom/pdf/RBC-Green-Bond-Report-2021.pdf. Accessed 23 December 2022. Manulife Financial Corporation issued a 500 million green bond denominated in SDG on November 21, 2017. For more, see: Cision PR Newswire. 2017. Manulife First Life Insurer to Offer a Green Bond. https://www.prnewswire.com/news-releases/manulife-first-life-insurer-to-offer-a-green-bond-657439743.html. Accessed 23 December 2022. Canadian Solar Infrastructure Corporation issued a JPY 3,800 million green bond issuance in January 26, 2021. For more, see: Canadian Solar. 2022. Green Bond. https://www.canadiansolarinfra.com/en/esg/greenbond.html. Accessed 23 December 2022.

[14] "Greenwashing" is the act of providing the public or investors with misleading or outright false information about the environmental impact of a company's products and operations or investments. See further Chapter 6 by Federica Agostini and Elia Cerrato.

an investment as "green" or "sustainable" in the absence of prescriptive rules (Sect. 5.2); how Canadian issuers of green bonds have ensured an appropriate use of proceeds (Sect. 5.3); what standard of disclosure have been adopted by Canadian issuers of green bonds (Sect. 5.4); when and under what circumstances Canadian issuers solicit third-party opinions with respect to their green bond offerings (Sect. 5.5); the trading venues for Canadian green bonds (Sect. 5.6); and how Canadian sovereign issuers (such as provinces and territories) and sub-sovereigns (such as crown corporations) access green bond markets and what potential sources of liability arise from such green bond offerings (Sect. 5.7).

5.2 How Canadian Issuers Define an Investment as Green or Sustainable in the Absence of Prescriptive Rules

Canadian regulators have yet to adopt specific rules that serve to define what types of projects are considered "green" and thus eligible for green bond financing. With the aim to fill this regulatory gap, Canada's Expert Panel on Sustainable Finance recommended in its 2019 report that a Canadian green and transition taxonomy be developed to help clarify what projects and/or economic activities would be considered as green or sustainable for investment purposes.[15] Unfortunately, as will be explained in this section, the organization in charge of developing the taxonomy, the Canadian Standard Association (the "CSA Group"), never reached a consensus on what should be included in the taxonomy and this initiative became moot. However, we will see that in March 2023, the project of a made-in-Canada taxonomy was re-launched. Pending conclusion of

[15] The Expert Panel on Sustainable finance was mandated by Canada's federal minister of Environment to provide recommendations on mobilizing finance for sustainable growth, see Minister of Environment and Climate Change. 2019. Final Report—Mobilizing Finance for Sustainable Growth: 28. https://publications.gc.ca/collections/collection_2019/eccc/En4-350-2-2019-eng.pdf. Accessed 23 December 2022. Recommendation 9.1 within the report provides for the convening of key stakeholders to develop Canadian green and transition-oriented fixed income taxonomy. The CSA Group is an independent, Standards Council of Canada accredited not-for-profit membership association serving industry, government, consumers and other interested parties in Canada and the global marketplace. For information on the CSA Group's work on the taxonomy, see Standards Council of Canada. 2022. Sustainable Finance-Defining Green Taxonomy for Canada. https://www.scc.ca/en/standards/notices-of-intent/csa/sustainable-finance-defining-green-taxonomy-for-canada. Accessed 20 September 2022.

this re-launched initiative, Canadian issuers are left to rely on international voluntary frameworks. Finally, Canadian issuers have also begun to look at taxonomies being developed and implemented in other jurisdictions, particularly the EU Taxonomy for Sustainable Activities (the "EU Taxonomy") for guidance to fill this gap.[16] In doing so Canadian issuers are not alone as shown by the recent "Green Taxonomy Survey" published by the Asia Securities Industry and Financial Market Association which shows that 75% of the survey participants have adopted the EU Taxonomy to help with their disclosures.[17]

5.2.1 *International Voluntary Frameworks and Their Shortcomings*

In line with global market practice, Canadian issuers widely align their green bond issuances and associated frameworks with the Green Bond Principles ("GBPs"), voluntary guidelines developed in 2014 by the International Capital Market Association ("ICMA").[18] Likewise, to demonstrate their commitment to the GBPs, Canadian issuers commonly commission pre-issuance Second-Party Opinions ("SPOs"), which provide an external assurance that their respective green bond frameworks are aligned with the GBPs.[19] With respect to green project

[16] For more on the EU Taxonomy, see European Commission. 2022. EU taxonomy for sustainable activities. https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en. Accessed 22 November 2022.

[17] See ASIFMA. 2022. Green Taxonomy Survey. https://www.asifma.org/wp-content/uploads/2022/12/final_ey-asifma-taxonomy-survey_report_december-202248.pdf. Accessed 23 December 2022.

[18] The GPBs are structured around for pillars—(i) use of proceeds—identifying eligible "green" projects; (ii) process for project selection and evaluation; (iii) management of proceeds-ring fencing or notional equivalent; (iv) and reporting—and have been updated several times to reflect ongoing developments within the green bond space. For the most up-to-date version of the GBPs, see: ICMA. 2021. Green Bond Principles Voluntary Process Guidelines for Issuing Green Bonds. https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles_June-2022-280622.pdf. Accessed 23 December 2022.

[19] For examples of SPOs prepared for Canadian issuers, see: Center for International Climate Research (CICERO). 2017. Second Opinion on Québec's Green Bond Framework. http://www.finances.gouv.qc.ca/documents/Autres/en/AUTEN_Quebec_2nd_Opinion.pdf. Accessed 23 December 2022. Sustainalytics. 2021. Second-Party Opinion for Choice Properties REIT Green Financing Framework. https://www.choicereit.ca/wp-content/uploads/2021/11/Sustainalytics-Second-Party-Opinion-Choice-Properties-Green-Financing-Framework.pdf. Accessed 23 December 2022.

selection, the GBPs only provide ten high-level categories of eligible green projects and leave it to other classification standards or taxonomies to provide more detailed definitions or classifications of what constitutes an environmentally sustainable project.[20]

The reliance on voluntary frameworks and certification schemes may constitute a hindrance to the further maturation of the Canadian green bond market and cross-border capital flows of green capital, especially as other jurisdictions work to define what kinds of projects are considered "green" via taxonomies. Likewise, leaving it up to issuers to determine what projects are considered "green" may expose Canadian green bond issuers to future claims of greenwashing and complicate green bond buyers' investment decisions. It would therefore be beneficial for Canada to conceive a standard or systematic classification system delineating what constitutes a climate-aligned project or investment, while also ensuring that such scheme is mapped against existing taxonomies to reduce the risk that such a taxonomy would create additional uncertainty for market participants resulting in further market fragmentation.

5.2.2 *The Failed Attempt at a Canadian-Made Taxonomy*

Canada is mainly a natural resources export-led economy. The problem resulting from this economic dependency is compounded by the fact that Canada must both confront its stated ambition to reach carbon neutrality by 2050 and find tangible, economically viable, and socially acceptable replacements for nearly eight percent of Canada's GDP that relies on oil and gas.[21] Keeping this in mind, the CSA Group began to develop a

[20] The CBI's Climate Bonds Standard, for example, provides sector-specific science-based definitions on what types of projects are "green." For more information, see: CBI. 2022. Climate Bonds Standard V3.0. https://www.climatebonds.net/climate-bonds-standard-v3. Accessed 23 September 2022. Only one Canadian green bond offering has been certified as being aligned with the Climate Bonds Standard by a 3rd party provider. For information on this offering, see: CBI. 2022. Manulife Financial Corporation. https://www.climatebonds.net/certification/manulife-financial-corporation. Accessed 23 December 2022.

[21] Source: Percentages calculated from Statistics Canada. Table 36-10-0401-01 Gross domestic product (GDP) at basic prices, by industry (x 1,000,000), https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610040201.

sustainable finance taxonomy in 2019 pursuant to the recommendations of Canada's Expert Panel on Sustainable Finance.[22]

The aim of this industry-led project was to create a taxonomy that would be aligned with the demands of financial market stakeholders, which could be used for any financial product (not just "green" projects).[23] It specifically aimed to provide for a "broader mapping of transition and resiliency-linked economic activities and asset classes" compared to other taxonomies being developed at that time, most notably, the EU Taxonomy.[24]This approach was taken to ensure that companies in Canada's natural resource sectors (specifically in the oil and gas industry) would be eligible and qualified for the purpose of obtaining sustainable financing in Canada and who would not otherwise necessarily qualify for green financing under other taxonomies.[25]

At the time of writing, the only publicly available documentation shedding light on the CSA Group's work on the taxonomy is found within a leaked draft of the taxonomy from November 2021 entitled *CSA SPE-1200:21 A Canadian guide to transition finance: Principles and taxonomy*

[22] Environment and Climate Change Canada, supra note 15, 28.

[23] The CSA taxonomy project was made possible, in part, by the financial support of six Canadian banks, six Canadian Pension funds, four Canadian insurance organizations, an investment dealer and an investment manager. We note that the CSA Group's intention was that this taxonomy would meet the strategic needs of banks, pensions, wealth and asset managers, insurance companies, rating agencies, regulators, industry associations, individual companies, interest groups, service providers, foundations, endowments, consultants, professional associations, federal and provincial governments and other stakeholders involved in the "green" and "transition" financial products and services ecosystem. Paul Verney. 2022. Canada's transition taxonomy paused due to fundamental differences of opinion. *Responsible Investor,* April 25. https://www.responsible-investor.com/canadas-transition-taxonomy-paused-due-to-fundamental-differences-of-opinion/#:~:text=Return%20to%20search-,Canada's%20transition%20taxonomy%20paused%20due%20to%20'fundamental%20differences%20of%20opinion,part%20of%20inaugural%20climate%20strategy. Accessed 23 December 2022.

[24] For more see, Environment and Climate Change Canada, supra note 15, 28.

[25] *Ibid*. The Final Report explicitly noted that it found that the precedents emerging concerning the way in which taxonomies were defining projects as "green" were restrictive and could thus "exclude some of Canada's core economic sectors from certain investment mandates, benchmarks, funds, and accreditation standards—even if companies in these sectors are pursuing projects and strategies that lead to better environmental improvements than approved pure green projects."

(the “Draft Canadian Taxonomy”).[26] Unfortunately, the process begun by the CSA Group has been on hold as the Draft Canadian Taxonomy failed to secure a majority vote from its Technical Committee on Transition and Sustainable Finance, which was appointed to work on this project.[27]

5.2.3 The Content of the Draft Canadian Taxonomy

The Draft Canadian Taxonomy provides a classification system that provides clarity on what activities would be considered as sustainable in Canada across eight economic sectors: (i) agriculture; (ii) aluminum; (iii) cement and concrete; (iv) forestry; (v) mineral mining; (vi) oil and gas; (vii) electricity utilities and steel.[28] It also includes minimum social safeguards and inclusion opportunities.[29] Notably, the Draft Canadian Taxonomy is supportive of natural resource development (including the exploration and development of new oil and gas reserves) if these activities or projects support Canada’s net-zero commitments and could be shown by organizations to align with their GHG reduction targets in line with net zero by 2050.[30] It includes thresholds for continued, but more efficient operations of the oil and gas sector, confirming the important contribution of this industry and its vital role, at least for the Canadian economy, toward a controlled and smooth transition to net zero.[31] As such, in many respects, this taxonomy project is seen more as a “transition” taxonomy than a pure “green” taxonomy, as is the case with the EU Taxonomy, even when one accounts for the recent and controversial inclusions of nuclear and gas activities as “transition” activities within the EU Taxonomy.[32]

[26] CSA Group. 2021. CSA SPE-12000:21—A Canadian guide to transition finance: Principles and taxonomy: 27, https://drive.google.com/file/d/1GlBTwlVMc1WRiNogtrS72H410KOD_B6j/view. Accessed 23 December 2022.

[27] Verney, supra note 24.

[28] CSA Group, supra note 27, sec. 1.1, 19.

[29] Ibid, sec. 4.4, 24.

[30] Ibid, sec. 6.2.1, 27.

[31] Ibid, sec. 5.0, 25.

[32] As a result of the recent additions to the EU Taxonomy, it is argued that the taxonomy is no longer a pure “green” taxonomy. For more information on the inclusion of nuclear and gas activities, see: European Commission. 2022. EU Taxonomy: Commission

The Draft Canadian Taxonomy differs from other existing taxonomies that are widely adhered to, such as the CBI's Climate Bonds Taxonomy or the EU Taxonomy, in several respects. First, the Draft Canadian Taxonomy works to classify projects or activities, such as natural resource extraction, that would otherwise not be classified as environmentally sustainable economic activities under existing taxonomies, while also keeping in mind the linkages and connections required with existing taxonomies.[33] Second, it affirms the necessity of building strong partnerships with Indigenous and rural communities by inviting issuers of green bonds to pursue mutually beneficial relationships with these communities in the spirit of the United Nations Declaration of Rights of Indigenous Peoples.[34] To our knowledge, this singular objective is not found within other taxonomies. Third, the Draft Canadian Taxonomy does not contain, for each of its eight discussed taxonomy sectors, any specific thresholds and metrics or performance criteria under which proposed projects would be measured.[35] Users of the Canadian taxonomy would instead be

presents Complementary Climate Delegated Act to accelerate decarbonisation. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_711. Accessed 23 December 2022. The EU Taxonomy classifies a list of environmentally sustainable economic activities with thresholds and metrics and use a technical screening criteria-based approach in doing so. This approach provides detailed thresholds and screening criteria for economic activities and requires compliance with specific objectives. The goal of this approach is to determine whether economic activities are making a substantial contribution to the environment and do no significant harm to other environmental objectives. That being said, the recent classification under the EU Taxonomy of fossil gas and nuclear power as "sustainable investments" challenges the affirmation that the EU Taxonomy is entirely a "green" taxonomy. Within specific sectors, the technical screening criteria approach is intended to be technology-neutral in screening the eligible projects and assets for inclusion and therefore does not predetermine any specific technology or sub-sector activities.

33 CSA Group, supra note 27, sec. 4.4, 24.

34 Ibid, sec. 4.4, 24.

35 This contrasts with, the EU Taxonomy, South Korea's taxonomy (a.k.a. the K-Taxonomy), and South Africa's Taxonomy. As an example, Regulation (EU) 2021/2139 sets out technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harms. For more see: Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the European Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any

invited to provide entity or project-level metrics and targets, as applicable, aligned with key national and international decarbonization performance thresholds where they exist.[36] As mentioned earlier, the Draft Canadian Taxonomy failed to reach a consensus and work on its development stalled in 2021.

On March 3, 2023 the Sustainable Finance Action Council ("SFAC")[37], through a appointed technical experts group, released its Taxonomy Roadmap Report ("SFAC Report")[38] dated September 22, 2022 containing 10 recommendations addressing the merits, design, and implementation of a green and transition finance taxonomy for Canada and featuring a made-in-Canada framework to establish standardized and science-based definitions of climate-compatible investments. The authors of the SFAC Report indicated that they benefited from the work that had led to the Canadian Taxonomy.

The SFAC Report recommends that Canada develops a green and transition finance taxonomy involving a process led jointly by the federal government and the financial sector with a strong provincial and indigenous participation. The development of this new taxonomy would be conducted under a governance model that is transparent and results-oriented and safeguard the scientific integrity of the taxonomy. Initially, the SFAC Report recommends that the taxonomy be developed to support climate mitigation objectives constructed to support multiple use

of the other environmental objectives [2021] OJ L 442/1, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R2139&from=EN; National Treasury of the Republic of South Africa. 2022. South African Green Finance Taxonomy. International Finance Corporation. http://www.treasury.gov.za/comm_media/press/2022/SA%20Green%20Finance%20Taxonomy%20-%201st%20Edition.pdf. 23 December 2022. The Korean Green Taxonomy. 2022. The Korean Green Taxonomy (K-Taxonomy) Guideline and its Implications. http://www.koreanlii.or.kr/w/index.php?title=K-Taxonomy&oldid=26139&diff=prev&ckattempt=1. Accessed 23 December 2022.

[36] For example, for a renewable energy project core indicators or metrics are usually, annual GHG emissions reduced/avoided in tonnes of CO2 equivalent, annual renewable energy generation in MWh/GWh (electricity) and GJ/T (other energy) and capacity of renewable energy plant(s) constructed or rehabilitated in MW.

[37] The SFAC was launched by the Government of Canada in 2021 to bring toegether public and private sector financial expertise to support the growth of a strong, well-functionning, Canadian sustainable finance market.

[38] See the report at https://www.canada.ca/en/department-finance/programs/financial-sector-policy/sustainable-finance/sustainable-finance-action-council/taxonomy-roadmap-report.html.

cases and be designed to be updated regularly and support interoperability with other major science-based taxonomies such as the EU Taxonomy. The SFAC Report also recommends that companies issuing green or transition instruments under the future taxonomy be assessed against general requirements related to company-level net-zero target setting, transition planning, and climate disclosure. The SFAC Report recommends that project be determined to be taxonomy-eligible only if material scope 1, 2, and 3 emissions (excluding carbon offsets) are aligned with representative pathways in a 1.5 °C scenario. Finally, the SFAC Report recommends the adoption of an assessment of each eligible project against "do no significant harm" criteria, but enlarging the concept to include respect for Indigenous rights and reconciliation principles[39] and taking into account the concept of a just transition.

It is proposed that the future green and transition finance taxonomy be developed in two discrete phases. The first phase would consist in the design of a short-form taxonomy covering priority sectors and activities by mid-2023 and setting-up governance infrastructure applicable to the future development of the other phase of the taxonomy development. Phase 2 would involve the full implementation of the Canadian taxonomy initiative by the end of 2025 at the latest.

In light of the absence of a recognized "made-in-Canada" taxonomy, Canadian issuers accessing the green bond market have no choice but to rely on foreign developed taxonomies, such as the EU Taxonomy or the CBI's Climate Bonds Taxonomy, to determine the admissibility of their projects as "green" projects.[40] Failure to align themselves with such

[39] The Indian Residential Schools Settlement Agreement dated May 8, 2006, constitute the largest class-action settlement in Canadian history. This Settlement Agreement began to be implemented in 2007. One of the elements of the agreement was the establishment of the Truth and Reconciliation Commission of Canada (TRC) to facilitate reconciliation among former students, their families, their communities and all Canadians. In June 2015, the TRC held its closing event in Ottawa and presented the executive summary of the findings contained in its multi-volume final report, including 94 "calls to action" (or recommendations) to further reconciliation between Canadians and Indigenous Peoples.

[40] We note that at this time, only one issuer, Manulife Financial, has sought to certify one of its bonds as being compliant with the CBI Climate Bonds Taxonomy. Canadian issuers appear, in some cases, to make reference to the EU Taxonomy in their communications to investors. For example, the Province of Ontario's 2021 Ontario Green Bond Newsletter provides that "Ontario funds Green Bond projects that contribute to environmental objectives set out in the EU Taxonomy, primarily in Climate Change Mitigation and Climate Change Adaptation," see Ontario Financing Authority. 2021. 2021

taxonomies may result in the exclusion of Canadian issuers from green bond funds subject, for example, to EU regulations and may work to expose Canadian issuers to greenwashing claims. We expect that going forward, the International Platform on Sustainable Finance, launched in 2019, whose founding members include Canada, will provide a forum to discuss the alignment between the EU Taxonomy and Canada's taxonomy once it is finalized.[41] The net result of the absence of a Canada-specific taxonomy and a mapping between such Canadian taxonomy and the other internationally recognized classification systems at this time, particularly the EU Taxonomy, will likely disadvantage Canadian issuers and create barriers to cross-border flows of green capital.[42]

5.2.4 *Selection Process for Green Projects*

As a result of the absence of a regulatory or voluntary market-based taxonomy, Canadian green bond issuers generally state within their green bond frameworks the types of projects they consider eligible for financing under their respective green bond programs. The projects identified by Canadian issuers most often align with the ten broad project categories

Ontario Green Bond Newsletter: 3. https://www.ofina.on.ca/pdf/2021_ontario_green_bond_newsletter_en.pdf. Accessed 23 December 2022. This is in line with the GBPs second pillar (process for project evaluation and selection), which recommends that issuer provide information on exclusion criteria, ICMA, GBPs.

[41] The International Platform of Sustainable Finance has thus far worked to identify the similarities and differences between the EU Taxonomy and China's Green Bond Endorsed Projects Catalogue, which culminated in the release of a Common Ground Taxonomy in November 2021 (and updated in June 2022), that ultimately aims to make these two taxonomies more comparable and interoperable. For more, see: European Commission. 2022. International Platform on Sustainable Finance. https://finance.ec.europa.eu/sustainable-finance/international-platform-sustainable-finance_en. Accessed 8 November 2022. We note that the alignment of activities or projects identified as environmentally sustainable with reference to "other taxonomies" has been flagged by the European Economic and Social Committee ("**EESC**") as an important aspect for non-EU issuers, as compliance with deviating regulations may result in additional costs and efforts for issuers. For more see: European Economic and Social Committee. 2021. Opinion on the EU green bond standard. https://webapi2016.eesc.europa.eu/v1/documents/EESC-2021-03634-00-00-AC-TRA-EN.docx/content. Accessed 23 December 2022.

[42] For example, green bonds from a Canadian issuer might not be included into the portfolio and a green bond fund subject to EU regulation and whose portfolio needs to be aligned with the EU Taxonomy.

enumerated within the GBPs.[43] In order to delineate what projects are eligible for financing, some Canadian green bond issuers mention what types of projects they do not consider to be green, such as electricity generation projects involving nuclear energy.[44] Sometimes issuers will also show how their selected projects align with one or more of the 17 United Nations Sustainable Development Goals (the "SDGs").[45]

In general, a Canadian issuer, as part of its green bond program, will set up a dedicated committee that is responsible for assessing and selecting green bond projects that are aligned with that issuer's green bond framework.[46] The same committee will assess the social and environmental risks of a given project, which, in Canada, may include a consideration of the rights of certain indigenous communities concerning the development of projects located on indigenous lands or hunting territories. Once this is accomplished, bond proceeds can be allocated to eligible projects.

[43] These ten categories are: (i) renewable energy; (ii) energy efficiency; (iii) pollution prevention and control; (iv) environmentally sustainable management of living natural resources and land use; (v) terrestrial and aquatic biodiversity conservation; (vi) clean transportation; (vii) sustainable water and wastewater management; (viii) climate change adaptation and resilience; (ix) eco-efficient and/or circular economy adapted products; and (x) production technologies and processes and green buildings. For more information on what is included, see: ICMA, supra note 18, 4–5.

[44] For example, the Province of Quebec's Green Bond Framework specifically provides that projects involving fossil fuels or nuclear energy are not "eligible projects," which the framework defines as projects that "offer tangible environmental benefits for protecting the environment, reducing GHG emissions or adapting to climate change in Quebec." Minister of Finance. 2022. Quebec Green Bond Framework. http://www.finances.gouv.qc.ca/documents/Autres/en/AUTEN_Green_Bond_Framework.pdf. Accessed 23 December 2022.

[45] This is a recommendation under the second core component of the GBPs (Process for Project Evaluation and Selection), which recommends high-level mapping to the SDGs. For more, see: ICMA, supra note 18, 5.

[46] This committee generally consists of representatives within the issuer's organization, and is often comprised of heads of relevant business units, the issuer's sustainability team and treasury functions responsible for the assessment and selection of their green bond eligible projects.

5.3 How Canadian Issuers of Green Bonds Have Ensured an Appropriate Use of Proceeds

The type of green bond being issued affects how proceeds will be allocated. Although there are four different types of green bonds being used in the market according to ICMA[47]: (i) standard green use of proceeds bond; (ii) green revenue bond; (iii) green project bond; and (iv) green securitized bond, Canadian issuers have, for the most part, resorted to issuing plain-vanilla use of proceeds green bonds.[48] In a plain-vanilla use of proceeds green bond, the offering documentation generally indicates under the "use of proceeds" section that the proceeds from the sale of the green bonds will be directed exclusively to finance specific categories of green projects. In the section below, we will discuss in detail the steps Canadian issuers have taken to manage this process.

Under the GBPs, several proceeds management methods are recommended to ensure bond proceeds are appropriately accounted for.[49] More often than not, Canadian issuers of green bonds will choose to deposit the use of proceeds into their general account and earmark an equivalent amount to be allocated to eligible green projects instead of holding them in a segregated account. As long as the balance of the earmarked amount is positive, amounts equivalent to the allocated funds will be deducted from the general account balance. This explains why, despite the recommendations in the GBPs, Canadian issuers rarely indicate to investors the intended types of temporary placement for the balance of unallocated net proceeds. If they do, the disclosure provided will very often indicate that the issuer does not invest in short-term investment instruments that would have a GHG reduction impact.[50] To ensure the intended purpose of use of proceeds green bonds, Canadian issuers should

[47] For more, see: ICMA, supra note 18, 8.

[48] Ibid.

[49] The GBPs recommend that the net proceeds of any green bond offering be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner, Ibid, 6.

[50] For example, the Canadian Imperial Bank of Commerce's (CIBC) Green Bond Framework provides that any portion of the green bond net proceeds that have not been allocated to eligible assets will be invested in accordance with the CIBC Treasury's existing liquidity management procedures. For more, see: CIBC, *Green Bond Framework*, March 2020, sec. 2.4, https://www.cibc.com/content/dam/about_cibc/investor_relations/pdfs/debt_info/cibc-green-bond-framework-en.pdf.

probably take measures to ensure that such short-term investment instruments are not invested in areas not compatible with ICMA's ten project categories. Recent developments in the design of green bonds could soon allow Canadian issuers to invest in short-term debt instruments as demonstrated by the Republic of Austria's October 2022 first ever issuance of green T-bills.[51]

Issuers often indicate the maximum period they will take to fully allocate the green bond proceeds, which usually varies from about 18 to 24 months. Indication of the use of proceeds to refinance green projects will also be mentioned in the framework. Canadian issuers will also commit to reporting annually until full allocation on the use of proceeds. They often will also indicate a look back period during which the green bond use of proceeds could fund investments made by the issuer. Canadian issuers will also follow the key recommendations of ICMA, and engage an external auditor or other third party, to verify the internal tracking and the allocation of funds from the green bond proceeds to eligible green bond projects, which will be discussed further in subsection 5.5.2 of this chapter on issuer reliance on third-party opinions.

Generally speaking, Canadian issuers do not indicate at the issuance level the split allocation of use of proceeds among the various categories of admissible projects identified in their framework. The lack of forward visibility from an investor's perspective created by this practice may prejudice such an investor from obtaining the comfort that the funds it has invested will be dedicated most efficiently toward, for example, a specific GHG reduction target such investor may have set for itself.[52] A recent study performed by CBI indicates that many post-issuance reporting will only indicate allocation of use of proceeds to one category although the issuer

[51] https://www.oebfa.at/en/financing-instruments/tbills.html. See also ESG commercial paper: the next frontier for sustainable finance? by Dr. Arthur Krebbers—Head of Corporate Climate & ESG Capital Markets at NatWest in the January 2023 Capital Market Data Ltd newsletter at page 8.

[52] For example, a given fund might have decided that electrification of transport was the most efficient method of reducing GHG emissions. As such, the issuer's decision post-issuance to investing *only* in projects favoring renewable natural gas development (rather than electrification of transport projects) may not align with that fund's investment strategy.

had initially indicated several possible categories.[53] While it is understandable that providing a long list of eligible projects categories in a green bond framework offers flexibility for issuers, we questioned the benefit of doing so from an investor's perspective if, at the end of the day, only one category of projects are funded and that category does not fit into that investor's intended investment profile.

5.4 What Standard of Disclosure Has Been Adopted by Canadian Issuers of Green Bonds

As all green bond investors will know, post-issuance disclosure provides the market with transparency, ensures that issuers of green bonds respect their pre-issuance undertakings, guarantees accountability, and underpins the credibility of green bonds. Our review of the Canadian green bond landscape shows that Canadian issuers are good pupils and do their homework.

5.4.1 Reporting on the Use of Proceeds

In line with the fourth pillar of the GBPs, most Canadian issuers of green bonds will report post-issuance on the use of proceeds, this is specifically true when the green bonds are listed on recognized stock exchanges, such as the Luxembourg Green Exchange ("LGX") that requires listed issuers to follow the GBPs as a listing condition.[54] To report on the use of proceeds, Canadian issuers have opted for several different means of disclosing recommended information, such as by disclosing information on bond use of proceeds on dedicated webpages, in stand-alone green bond reports, or by providing such information in general sustainability or Corporate Social Responsibility reports.

[53] Miguel Almeida and Prashant Lonikar. 2021. Post-Issuance Reporting in the Green Bond Market 2021: 12. https://www.climatebonds.net/files/reports/cbi_post_issuance_2021_02g.pdf. Accessed 23 December 2022.

[54] For more on LGX, see: United Nations Climate Change (UNFCCC). 2022. The Luxembourg Green Exchange I Luxembourg. https://unfccc.int/climate-action/momentum-for-change/financing-for-climate-friendly-investment/luxembourg-green-exchange. Accessed 23 December 2022.

Most Canadian issuers will report on a project-level basis and provide disclosure on the advancement of each project funded and the allocation of the green bond proceeds on a project-by-project basis.

Some Canadian issuers provide as part of their use of proceeds reporting a limited or reasonable assurance report conducted in accordance with *ISAE 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information* of the International Auditing and Assurance Standards Board, issued by the Auditing and Assurance Standards Board.[55] Our research shows that a majority of the assurance opinions commissioned by Canadian green bond issuers are limited assurances, which provide lower levels of assurance than a reasonable assurance. In a *reasonable* assurance engagement, the practitioner's conclusion is expressed in a positive form that conveys the practitioner's opinion on the outcome of the measurement or evaluation of the underlying subject matter. For example, an audit of financial statements is a reasonable assurance engagement. By contrast, in a *limited* assurance engagement, the practitioner's conclusion is expressed in a form that conveys whether, based on the engagement performed, a matter has come to the practitioner's attention to cause the practitioner to believe the subject matter information is materially misstated. For example, a review engagement of financial statements is a limited engagement.

The timing of such disclosure usually occurs concurrently with the disclosure of the issuer's annual financial information, if required under securities laws, which is generally the case. Our survey of Canadian green bond issuers' use of proceeds reporting practices did not reveal a trend that such issuers fail to report on the use of proceeds. This is explained by the fact that the majority of Canadian green bond issuers are large corporations or financial institutions whose shares are often listed on the

[55] IAASB. 2013. ISAE 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information. International Federation of Accountants (IFAC). https://www.ifac.org/system/files/publications/files/ISAE%203000%20Revised%20-%20for%20IAASB.pdf. Accessed 23 December 2022. For an example of a reasonable assurance, see: Office of the Auditor General of Ontario. 2021. Schedule of Use of Green Bond Proceeds. https://www.ofina.on.ca/pdf/assurance_audit_nov21_en.pdf. Accessed 23 December 2022. For an example of a limited assurance report, see: The Bank of Nova Scotia. 2021. Green Bond Report. https://www.scotiabank.com/content/dam/scotiabank/canada/en/documents/about/investors-shareholders/funding-programs/2021-Green-Bond-report.pdf. Accessed 23 December 2022.

senior board of stock exchanges, as well as sovereign and sub-sovereigns and large pension funds who all have a stellar reputation to maintain with the investment public.

The GBPs require reporting on a timely basis in case of material developments, such as the exclusion post-issuance of a project which had already received a portion of the use of proceeds. Such timely reporting would also be required under the continuous disclosure regime of Canadian securities laws should the issuer of the green bond also be a reporting issuer in a jurisdiction within Canada.[56]

With the year-over-year growth experienced in the green and sustainable bond market and the popularity of this market with the investment public, we can foresee that smaller issuers with less internal reporting capabilities might soon be tempted to enter this market. The consequences of this might be a deterioration in the quality of reporting, and, in some instances failure to do so may result in potential liability for the at-fault issuers.

5.4.2 *Impact Reporting*

In addition to use of proceeds reporting, the GBPs also require that issuers of green bonds report on the expected environmental impact of the green bond proceeds that have been allocated.[57] Most Canadian issuers of green bonds commit to report on impact on an annual basis. At a minimum, the GBPs recommend that impact reporting be done until the full allocation of the green bond proceeds. Ideally, according to the GBPs, this impact reporting should be through the life of the green bond.[58] In most instances, Canadian issuers use estimates to gauge future

[56] See Part 7 of National Instrument 51–102—*Continuous Disclosure Obligations*, https://www.asc.ca/-/media/ASC-Documents-part-1/Regulatory-Instruments/2018/10/5931703-v1-51-102-NI-Consolidation-Eff-November-18-2020.ashx and its equivalent in Québec: *Regulation 51-102 Respecting Continuous Disclosure Obligations (V-1.1, r. 24)*, https://lautorite.qc.ca/en/professionals/regulations-and-obligations/securities/5-ongoing-requirements-for-issuers-and-insiders-51-101-a-58-201/51-102-continuous-disclosure-obligations/.

[57] ICMA, supra, note 18, 6.

[58] ICMA. 2022. Pre-Issuance Checklist for Green Bonds / Green Bon Programmes. https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Pre-Issuance-checklist-Green-Bonds_June-2022-280622.pdf. Accessed 23 December 2022.

performance report on expected or forward-looking impacts, called *ex-ante assessment*. This is because most eligible projects financed through green bonds are not yet completed. In the event eligible projects funded with green bond proceeds are completed by the time of publication of the impact report, Canadian issuers will report "after the fact," also known as *ex-post assessment*, and based on actual measurements or estimates. Certain Canadian issuers design their reporting according to the ICMA's June 2022 *Harmonised Framework for Impact Reporting Handbook* and reference it in their impact report, which is generally included in the annual green bond report prepared by the issuer.[59] The ICMA's Harmonised Framework provides 16 guiding core principles and recommendations for reporting and provides specific project category reporting templates within Chapter V. These templates provide examples of the specific core indicators or reporting metrics recommended for each of the ten GBPs eligible green project categories. Other Canadian issuers present more fragmented impact reporting information limited only to certain projects financed.[60]

Overall, the landscape of impact reporting practices by Canadian green bond issuers is varied and lacks uniformity and comparability. This demonstrates the need for harmonization of the frameworks and core indicators or metrics used by Canadian issuers when they assess and report on impact. While the recently created International Sustainability Standard Board ("ISSB") is currently undertaking efforts to globally standardize reporting practices among companies, and published its first two standards in June 2023 that will ultimately be transposed into the national legislation, once integrated into the Canadian sustainability disclosure environment the proposed rules will not help resolve the issue, at least

[59] ICMA. 2022. Handbook—Harmonised Framework for Impact Reporting. https://d1bf23g64f8xve.cloudfront.net/sites/default/files/downloads/tools/Harmonised-Framework-for-Impact-Reporting-Green-Bonds_June-2022-280622.pdf. For an example of a Canadian issuer that uses the ICMA Handbook, see: Manulife Financial Corporation. 2021. 2021 Green Bond Report. https://www.manulife.com/content/dam/corporate/global/en/documents/pas/MFC_GBR_2021_EN.pdf. Accessed 23 December 2022.

[60] For example. the Province of Quebec's most recent newsletter to investors only provides impact reporting for two out of the six projects financed through green bond proceeds (e.g. subway train and electric bus purchase impact). For more, see: Ministère des Finances du Québec. 2022. Green Bond Newsletter—August 2022. http://www.finances.gouv.qc.ca/documents/Autres/en/AUTEN_MFQ_OblVertes_Bulletin_August2022.pdf. Accessed 23 December 2022.

for North American issuers.[61] Specifically, the ISSB's first general sustainability standard contained within *IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information* is based on an approach where materiality is evaluated at the issuer level only and is not based on a double materiality standard, such as the one adopted by the European Financial Reporting Advisory Group ("EFRAG"), which contrary to ISSB standards take into account the impact of an investment on the environment.[62]

Independent confirmation of alignment of an issuer's framework with the GBPs brings credibility to the green bond market and provides certain guarantees to investors against greenwashing. Similarly, third-party confirmation that the issuer has allocated the use of proceeds in the manner and for the projects identified within that issuer's framework will provide comfort to the market. Finally, robust reporting practice around impact will assure the continued growth of the green bond market and confirm its usefulness in accomplishing a transition toward net zero. In the following section, we will examine the independent review mechanisms adopted by Canadian green bond issuers.

[61] The ISSB is a standard setting body of the International Financial Reporting Standards ("IFRS") Foundation, and published in March 2022 two exposure drafts—ED/2022/S1 and ED/2022/S2—that were specifically developed in response to calls from primary users of general purpose financial reporting for more transparent, reliable and comparable reporting on sustainability-related financial information to help them more accurately assess an entity's enterprise value. The two ISSB Exposure Drafts were finalized in June 2023 and now form the basis of the IFRS Sustainability Disclosure Standards that aim to provide a comprehensive global baseline for sustainability and climate-related disclosures that meet the informational needs of investors. For more, see ISSB. 2022. IFRS S1General Requirements for Disclosure of Sustainability-related Financial Information. https://www.ifrs.org/content/dam/ifrs/project/general-sustainability-related-disclosures/exposure-draft-ifrs-s1-general-requirements-for-disclosure-of-sustainability-related-financial-information.pdf. Accessed 23 December 2022. ISSB. 2022. IFRS S2 Climate-related Disclosures. https://www.ifrs.org/content/dam/ifrs/project/climate-related-disclosures/issb-exposure-draft-2022-2-climate-related-disclosures.pdf. Accessed 23 December 2022.

[62] EFRAG PTF-ESRS. 2022. [Draft] ESRS 1 General principles Exposure Draft. https://efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FSiteAssets%2FED_ESRS_1.pdf. Accessed 23 December 2022. For a criticism of the ISSB proposals, see: Environmental Finance. 2022. ISSB to extend business-as-usual says Mirova's Zaouati. https://www.environmental-finance.com/content/news/issb-to-extend-business-as-usual-says-mirovas-zaouati.html. Accessed 23 December 2022.

5.5 Reliance on Third-Party Opinion Providers

In this section we will discuss pre-issuance and post-issuance external reviews and highlight the absence of any regulatory supervisory regime in Canada that would offer some guarantees on the qualification and the independence of external reviewers.

5.5.1 Second-Party Opinion

One of the key recommendations contained in the GBPs is that issuers of green bonds appoint independent external review provider(s) to confirm the alignment of their green bonds or green bond programs with the four pillars of the GBPs.[63] In the green bond jargon, this opinion is referred to as a second-party opinion ("SPO") and is conducted pre-issuance.

Our research shows that almost all Canadian issuers of green bonds have obtained such SPOs, which have been made public on that issuer's website. For the most part, these SPOs contain assessments of that issuer's overarching objectives, strategy, policy, and/or processes relating to environmental sustainability. Within the SPO, an external reviewer assesses (i) the environmental features of the type of projects to be funded by the use of proceeds; (ii) the environmental benefits and impacts targeted by the eligible green projects; and (iii) the potential material environment and/or social risks associated with the projects to be funded.

We note that it has become a trend among SPO providers to append, at the end of their SPOs, ICMA's developed green bond independent external review form or template.[64] ICMA recommends the use of this template as a standard feature of any SPO, and the template helps confirm the alignment of the issuer's framework with the GBPs, and helps in

[63] ICMA, supra, note 19, 6. In 2021 the GBPs were updated to include key recommendations based on the best practice seen in the market in recent years. It is to be noted that the previous version of the GBPs already recommended that issuer seek external review of their green bonds. In that sense, the 2021 GBPs upgrade simply elevate this recommendation to the level of "key" recommendation.

[64] For example, Sustainalytics systematically append this template to its SPO and CICERO (now part of S&P Global) is also appearing to follow this trend.

comparing the allocation and impact reporting practices among issuers of green bonds.[65]

5.5.2 *Verification*

As part of the key recommendations contained in the GBPs, ICMA recommends, on a post-issuance basis, that an issuer's management of proceeds be supplemented by the use of an external auditor or another third party, to verify the internal tracking and the allocation of the funds from the green bond proceeds to the eligible projects.[66] Our research shows that Canadian issuers of green bonds, for the most part, and with rare exceptions, will seek assurance from a third party on their allocation of the use of proceeds and will publish such assurance on their websites. An accounting firm is generally hired to provide such verification, which will take the form of a limited assurance opinion. In rare instances, this assurance opinion will also opine that the eligible project met the issuer's use of proceeds criteria and reporting commitments on key metrics contained in the issuer's framework.[67]

Another type of verification can take the form of a certification or conformity to external standards, such as the CBI's Climate Bonds Standard.[68] This type of verification occurs post-issuance and is performed by

[65] For more, see: ICMA. 2021. Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews. https://www.icmagroup.org/assets/documents/Sustainable-finance/Guidelines-for-GreenSocialSustainability-and-Sustainability-Linked-Bonds-External-Reviews-February-2021-170221.pdf. Accessed 23 December 2022.

[66] ICMA, supra, note 18, 6.

[67] See for example, Sustainalytics limited assurance review issued for Canadian Imperial Bank of Commerce. Sustainalytics. 2021. CIBC Annual Review. https://www.cibc.com/content/dam/about_cibc/investor_relations/pdfs/debt_info/sustainalytics-2021-annual-review-en.pdf. Accessed 23 December 2022. Sustainalytics also issued a limited assurance review for Manulife. Sustainalytics. 2022. Limited Assurance Statement, May 2022. https://www.manulife.com/content/dam/corporate/global/en/documents/pas/MFC_GB_LAS_2022_EN.pdf. Accessed 23 December 2022.

[68] CBI, supra note 20.

external reviewers accredited by the standard setter. In our survey of the Canadian green bond landscape, we found only one such verification.[69]

Our survey of Canadian green bond issuers' reporting practices also revealed that issuers rarely hire independent reviewers post-issuance to confirm the impact reporting metrics they use within their impact reports. We note, however, that an assurance on such metrics could be obtained through the use of specific assurance standards.[70] Such external verifications are important to ensure the credibility and reliability of a green bond issuer's reporting practices, which in turn may provide a protective measure against greenwashing allegations. Likewise failing to adequately report on impact may impede or hinder future flows of capital into green bond projects that this issuer is trying to finance.

Contrary to the European Green Bond Regulation, which required that external reviewers of European green bonds be registered with the European Securities and Market Authority and meet conditions for registration, on an ongoing basis, the Canadian Securities Administrators, an umbrella organization of Canada's provincial and territorial securities regulators, have no such proposal currently under considerations.[71] The goal of this European regulatory regime is to ensure, for the benefit of investors, that external reviewers have adequate qualifications,

[69] The post-issuance verification performed by Sustainalytics in relation to Manulife Financial Corporation's November 21, 2017 issuance of SGD500 million subordinated notes Sustainalytics. 2018. CBI Post-Issuance Verification Manulife Green Bond. https://www.manulife.com/content/dam/corporate/global/en/documents/pas/CBI%20Post-Issuance%20Verification_Manulife%20Green%20Bond_Nov2018.pdf. Accessed 23 December 2022.

[70] Existing assurance standards include, for example, ISAE 3410 and ISO 14064-Part 3:2019. For more see: IAASB. 2012. ISAE 3410, Assurance Engagements on Greenhouse Gas Statements. International Organization for Standardization (ISO). 2019. ISO 14064-3:2019 Greenhouse gages—Part 3: Specification with guidance for the verification and validation of greenhouse gas statements.

[71] European Commission, Proposal for a Regulation of the European Parliament and of the Council on European Green Bonds COM/2021/391 final, https://eur-lex.europa.eu/resource.html?uri=cellar:e77212e8-df07-11eb-895a-01aa75ed71a1.0001.02/DOC_1&format=PDF. In February 2023 a political agreement was reached between the European Parliament and the European Council on the European Commission's proposal for a European Green Bond Regulation. This political agreement is provisional as it still needs to be confirmed by the European Council and the European Parliament, and adopted by both institutions before it is final. It will start applying 12 months after its entry into force.

professional experience, and independence to ensure accurate and transparent reporting. Canadian investors of green bonds are thus reliant on the voluntary compliance by issuers of the principles recommended by CBI or ICMA with respect to third-party reviews and or opinions.[72] Consequently, Canadian issuers wanting to avoid situations of conflict of interests and ensure the independence of their reviewers, should, according to the CBI pay attention to the following criteria: (i) the verifier should not be related to the issuer; (ii) the verifier should not benefit from the bond issuance other than from the fee billed for providing the verification services and should not receive fees from the issuer for another engagement at the same time that the verification engagement is being carried out; and (iii) the verifier should not receive a material portion of its revenue from the green bond issuer. In addition to these criteria, the GBPs recommend that all firms providing external reviews be guided by the following five fundamental ethical and professional guiding principles: (i) integrity; (ii) objectivity; (iii) professional competency and due care; (iv) confidentiality; and (v) professional behavior. With respect to competency, at a minimum external reviewers should have sufficient expertise in financial services and environmental matters and sufficiently good governance process to ensure that quality control measures are well designed and implemented. We believe that such governance process and qualification should be disclosed in any third-party review or opinion.

5.6 Trading Venues for Canadian Green Bonds

5.6.1 Canadian Venues

Since November 2020, the Toronto Stock Exchange ("TSX"), the principal exchange in Canada, has maintained a centralized repository for information related to green social and transition bonds in the Canadian market called the Sustainable Bonds Portal ("SBP").[73] All bonds featured on the SBP are offered for trading to retail investors on the TSX, and can be accessed through the usual brokerage platform. Green bonds

[72] For ICMA requirements, see: ICMA, supra note 66,"; For CBI, see: CBI. 2019. Climate Bonds Standard and Certification Scheme Guidance for Verifiers Version 2.0. https://www.climatebonds.net/files/files/cbs-guidance-for-verifiers-v2.pdf. Accessed 23 December 2022.

[73] TMX. 2022. Sustainable Bonds Portal. https://sustainable-bonds-portal.tsx.com/indicators/global_bonds. Accessed 27 September 2022.

included on the SBP are mostly from sovereigns, sub-sovereigns (Canadian provinces and territories and crown corporations), municipalities, and supranational organizations whose green bond issuances are denominated in CAD.[74] Contrary to certain stock exchanges in Europe, the SBP does not mandate any listing requirements which are specific to green bond issuers, other than the usual listing requirements applicable when listing a normal bond on such exchange.[75]

5.6.2 International Venues

In a country-specific report on Canada's green bond market published in 2018, the CBI reported that the most popular trading venues for Canadian green bonds were the Frankfurt Open Markets, the London Stock Exchange, the Berlin Stock Exchange, and the Luxembourg Stock Exchange ("LuxSE"). Our experience shows that among the four stock exchanges mentioned in the 2018 CBI report, LuxSE with its dedicated LGX platform developed in 2016 that is entirely dedicated to sustainable securities, appears to have gained dominance over its other European competitors and has become one of the world's leading listing venue for sustainable securities.[76] LGX is not a separate market of LuxSE, but is rather a dedicated platform for securities that are listed on one of LuxSE's markets (Bourse de Luxembourg, Euro MTF) or registered on the Securities Official List ("SOL"). In other words, LGX complements LuxSE's existing markets by focusing on green, social, or sustainable securities. Therefore, to be displayed on LGX, those sustainable financial instruments need to be listed/admitted to trading on either Bourse de Luxembourg or Euro MTF, or registered on SOL.

[74] TMX. 2022. Green Bonds Dashboard. https://sustainable-bonds-portal.tsx.com/indicators/global_bonds/green_bonds/dashboard_all_public_bonds_greenbond_ind. Accessed 27 September 2022.

[75] For more on listing criteria, see: TMX Group. 2020. Thinking of listing fixed income securities on TSX? Here are a few things that you should know," TMX Toronto Stock Exchange. https://www.tsx.com/company-services/learning-academy?id=433. Accessed 23 December 2022. TSX. 2020. TSX Corporate Manual. Part III. https://decisia.lexum.com/tsx/m/en/nav_date.do. Accessed 23 December 2022.

[76] LGX displays over 796 green, social and sustainable securities totalling USD 356 billion, and has an international footprint with 135 issuers from 32 countries, issuing securities in a total of 32 currencies. For more, see: UNFCC, supra note 51.

Today, LGX has a leading market share of listed green bonds worldwide including Canadian issuers, such as Export Development Canada, National Bank of Canada, the Province of Ontario, and the Province of Québec, and now counts over 796 listed green, social, sustainability, and sustainability linked bonds.[77] It is the first platform that makes industry best practices for sustainable securities, including green bond, a mandatory requirement. It is also the only exchange requiring issuers to commit to post-issuance reporting, once a green bond has been registered or listed. In line with emerging industry best practices, LGX recognizes the GBPs and CBI's Climate Bonds Standard (for green bonds). In that sense, the fact that LGX has become the favorite listing venue for green bonds has led to a standardization of the disclosure practice. The LGX platform offers an environment where issuers of green bonds and other sustainability securities can market their instruments and publish relevant information throughout the life of their bonds (e.g., frameworks, external reviews, allocation, and impact reporting).

5.7 Methods Used by Canadian Green Bond Issuers to Access Green Bond Markets and Related Liability

As noted previously, most green bond offerings have, to date, come from sovereign issuers, including provinces, and sub-sovereigns, such as crown corporations.[78] This section therefore examines the various methods used by these entities when they access green bond markets and the steps and documentation required in such green bond offerings.

5.7.1 Overview of the Methods

In order to issue and distribute their green bonds, Canadian sovereigns have used various types of issuances methods, namely: (1) Canadian public offerings or Canadian offerings under Medium Term Notes programmes;

[77] Ibid.

[78] For the purposes of our discussion, sovereign issuers include provinces, territories and sub-sovereigns, such as crown corporations (i.e., corporations directly and wholly owned by the federal government or provincial governments within Canada).

(2) global public offerings using a U.S. registration statement; and (3) European offerings under European Medium Term Notes programmes.

A public offering refers to a stand-alone financing of securities to the public. A Medium Term Notes programme ("MTN Programme") is a specific offering method that allows issuers to issue and distribute debt securities on a continuous basis on the market, without the need to provide extensive legal documentation each time they want to make a public offering. In this section, the generic expression "bond" is used to refer to debt securities issued in a public offering and under MTN Programmes for ease of reference, even though the technical term "note" should be used for MTN Programme offerings.

5.7.2 *Canadian Offerings*

5.7.2.1 Domestic Public Offerings

Process

Contrary to corporates, Canadian sovereigns are exempted from the prospectus requirements under Canadian securities laws when they issue debt securities to the public. As such, they are not bound by any prospectus rule disclosure and continuous disclosure obligations. Debt securities issued by sovereigns are usually sold through an underwriting syndicate and then negotiated on over-the-counter markets using trading platforms, such as the TSX's SBP. These debt securities are registered as global certificates in the name of a nominee of the Canadian Depository for Securities Limited ("CDS"), which acts as a registrar, payment, and settlement agent for payments related to such debt securities.[79]

In the context of a green bond issuance, an issuer invites potential investors to a roadshow in order to gauge investor appetite for a proposed green bond offering. During this roadshow, the issuer provides information to investors in the form of a presentation outlining the specific types of projects that would be financed or eligible for financing under the green bond offering. This presentation will be published on the issuer's website but will not be considered as forming part of the offering documents. If a decision is made to launch the bond issuance, the sovereign issuer and the underwriters will start finalizing a term sheet (containing

[79] The Canadian Depository for Securities Limited is Canada's national securities depository, clearing, and settlement hub supporting Canada's equity, fixed income, and money markets. The nominee for CDS is usually CD&Co.

information on the pricing of the bond), an offering circular, and an underwriting agreement.

Documentation

Under this offering method, the particular "green" aspects of the issuance are found within the green bond presentation and the offering circular. The presentation specifically contains disclosure about: (a) the issuer's green bond framework; (b) the type of projects eligible; and (c) any projects identified to be financed under bond issuance. The offering circular will contain information on: (a) the principal characteristics of the bonds; (b) information on use of proceeds, including information on the types of projects for which proceeds may be allocated to, in line with the green bond issuer's framework; and (c) information on how the funds will be managed.

A review of the green bond offering circulars used by Canadian sovereigns revealed that in earlier issuances, sovereigns used to expressly state that investors would not assume any risks related to the projects to be financed. However, more recently, sovereigns have started to include, within their offering circulars, statements relating to the risk factors associated with the issuance of green bonds, namely on the use of proceeds and the completion of projects eligible to be financed under the green bond.

5.7.2.2 Offerings Under a Canadian MTN Programme

Process

Most large Canadian debt securities issuers have already put in place Canadian MTN Programmes ("CMTN Programmes") and certain Canadian provinces have started to use their CMTN Programmes to issue notes that will be considered green bonds under their respective green bond frameworks.[80] The process for this offering method is similar to one used

[80] Ontario has offered four green bond issues under its domestic MTN program. The most recent issuance was on February 2, 2022, when the Province of Ontario priced a CAD 1.75 billion dollar re-opening of its green bond due November 2029. For more information, see: Ontario Financing Authority. 2022. Ontario 8-Year -$1.7 Billion DMTN CAD Green Bond. https://www.ofina.on.ca/pdf/Feb4_22_DMTN251_en.pdf. Accessed 23 December 2022. Likewise, Quebec has also offered green bonds through its Canadian MTN Program. For more information, see: Minister of Finance. 2022. Green Bond Investor Presentation. http://www.finances.gouv.qc.ca/documents/Autres/en/AUTEN_Green_Bounds_Presentation_PPT_202205.pdf. Accessed 23 December 2022.

for domestic public offerings previously discussed above, except that in the case of a CMTN Programme, an offering circular supplement and a pricing supplement are also prepared, which provide details of the bond specifics, particularly with respect to use of proceeds.

Documentation

The documentation required for a green bond offering under a CMTN Programme is the same as for a standard CMTN Programme offering. The documentation will contain an offering circular and a distribution agreement with a syndicate of dealers. Once a green bond offering is launched under a CMTN Programme, the issuer will prepare an offering circular supplement, which will contain information relating to (i) the green bond financing; (ii) the issuer's green bond framework; (iii) the use of proceed; and, in some cases, (iv) the risk factors related to the green bond financing and project selection. The issuer will also prepare a pricing supplement containing specific information on the bonds being issued, and in particular, an undertaking with respect to the use of proceeds and its management pending allocation under a section entitled "additional items."

5.7.2.3 Liability Under Canadian Offerings

While sovereigns are exempt from the prospectus obligation, they may nevertheless be subject to statutory liability for any misrepresentation or omission of material facts in their offering documents under certain Canadian securities laws.[81] As a result, sovereigns must ensure that the descriptions contained within their offering circular supplements and pricing supplements dealing with their green bond programs and framework are accurate. Likewise, this is why it is also important that a description of the use of proceeds is clearly set out in the offering circular and/or the pricing supplement.

Although not a widely adopted market practice for domestic public offerings and CMTN Programme offerings, we believe that the inclusion of risk factors concerning the specific aspects of the green bond issuance, particularly with respect to the use of proceeds and environmental impacts of funded projects should be clearly set out in the offering documents.

[81] In Canada, provinces and territories have exclusive jurisdictions on the trading of securities. Consequently, each province and territory of Canada has adopted its own securities law.

This appears to be a current market practice when sovereigns issue debt securities on the European green bond market, which will be examined later in this section.

5.7.3 Public Global Offering (U.S. Registered)

5.7.3.1 The Process

Canadian issuers wanting to distribute their green bonds worldwide can use an offering method known as *Public Global Offering*. This method allows sovereigns to issue and distribute U.S. registered green bonds through a syndicate of underwriters or dealers who will then distribute the green bonds in the U.S., but also in the rest of the world, including Europe and Asia.

To issue debt securities within the U.S. using this offering process, Canadian issuers must comply with U.S. securities laws.[82] To do this, issuers must file with the U.S. Securities and Exchange Commission ("SEC") a disclosure document known as a "registration statement," which contains a base prospectus providing a general description of the issuer's legal status, financial conditions, activities and a description of the securities intended to be issued. Canadian sovereigns benefit from a special status as foreign governmental issuers and are recognized as "Schedule B issuers" under Sect. 7 of the *Securities Act of 1933* through the issuance by the SEC of no-action letters.[83] Importantly, the disclosure required by Schedule B issuers pursuant to the no-action letters is far less onerous than what is required by corporations that do not benefit from such status. Likewise, Schedule B issuers are exempt from various U.S.

[82] This includes, the Securities Act of 1933, as amended and the Securities Exchange Act of 1934, as amended, see: U.S. Congress. 1934. United States Code: Securities Act of 1933, 15 U.S.C. §§ 77a-77mm. https://www.loc.gov/item/uscode1934-001015002a/. Accessed 23 December 2022. U.S. Congress. 1934. Securities Exchange Act of 1934. ch. 404, title I, Sec. 1, 48 Stat. 881., https://www.nyse.com/publicdocs/nyse/regulation/nyse/sea34.pdf. Accessed 23 December 2022.

[83] Within no-action letters, the SEC typically sets out the conditions upon which such governmental entities can issue securities on a continuing basis within the United States, and includes details on the level of disclosure to be included within that issuer's prospectus, as well as periodic disclosure required by the issuer. For more, see: U.S. Securities and Exchange Commission. 2022. Staff No Action, Interpretive and Exceptive Letters. https://www.sec.gov/regulation/staff-interpretations/no-action-letters. Accessed 23 December 2022.

securities regulatory requirements, as long as they do not list their securities on a recognized stock exchange in the U.S. In all cases, Schedule B issuers will be required to file with the SEC an annual report under Form 18-K and interim amendments for material changes and interim financial statements under Form 18-K/A, all of which will be incorporated by reference in any offering documents used by the issuer under this offering method.

When getting ready for a global offering of green bonds using the Public Global Offering method, a sovereign will begin by preparing an information document (which will usually be in the form of a presentation), which explains how the proposed bond issuance will qualify under the issuer's green bond framework. Similarly to a Canadian offering, this document will be used for the roadshow with potential investors. Following the roadshow, if the sovereign and the underwriters' syndicate agree to issue a green bond, the sovereign will then prepare and file with the SEC a preliminary prospectus supplement to solicit investors.

Following a due diligence call and the pricing of the offering, the sovereign will prepare and file with the SEC a final term sheet, which will include all the details and conditions of the bonds to be issued. This final term sheet expressly states that the offering is a green bond issuance and includes details on the issuer's green bond framework, the eligible projects, and the use of proceeds. This final term sheet will constitute a free writing prospectus under Rule 433 of the *Securities Act of 1933*.[84] Usually, the issuer undertakes to have the bonds listed on an internationally recognized stock exchange in Europe on or soon after the closing date. To avoid being subject to European market regulations and European securities regulator oversight, sovereigns have opted to list their green bonds on the professional sections of the relevant stock exchanges, such as the Euro MTF of the LuxSE, whose listing requirements will be discussed in Sect. 5.7.4.

5.7.3.2 Documentation

Specific disclosure concerning the green bond program, including the framework, use of proceeds, and selection of eligible projects will appear in the roadshow presentation, the final term sheet, the prospectus supplement, and the terms agreement that complement the underwriting

[84] 17 CFR § 230.433, https://www.law.cornell.edu/cfr/text/17/230.433.

agreement. To protect themselves from possible greenwashing claims, Canadian sovereigns have also begun to include risk factors in their prospectus supplements concerning the projects and the use of proceeds.

5.7.3.3 Liability Under Public Global Offerings

When preparing green bond presentations, sovereigns should be careful not to include any information that could be seen as constituting a solicitation that could subject them to free writing prospectus rules.[85] Information to be avoided broadly deals with the creditworthiness and credit rating of the issuer or the proposed debt securities issuance, the issuer's financial condition, and any of the expected terms of the proposed debt securities, such as the interest rate, maturity period, redemption rights, or other specific covenants. The same is true when issuers issue traditional bond securities.

While underwriting agreements used for Public Global Offerings are of a standard form, one must pay particular attention to the representations given by the sovereign issuers within relevant documentation. Under this offering method, underwriters will demand that issuers confirm that all the information contained in their prospectus, their prospectus supplements, their free writing prospectus, their terms agreements (as well as all the information incorporated by reference), are complete and accurate at the time of the launch and closing date of the offering. Likewise, underwriters will also require that issuers confirm that no material facts have been omitted that would make the information contained in such documents misleading. This is done to ensure that underwriters will have a due diligence defense in case of a lawsuit against them and not face what is commonly known as Rule 10b-5 liability. Rule 10b-5 aims to protect investors against fraudulent or deceptive practices by issuers.[86] We note that more sovereigns have recently included additional disclosure about risk factors concerning the specific aspects of the green bond issuance,

[85] A free writing prospectus is defined in Rule 405 under the *Securities Act of 1933* as "any written communication…that constitutes an offer to sell or a solicitation of an offer to buy the securities" made by means other than a final prospectus, a preliminary prospectus, a written communication made in reliance of Rule 167 or Rule 426 (communication made in connection with certain offerings of asset-backed securities), or any written communication delivered together with the final prospectus, see: 17 CFR § 230.405, https://www.law.cornell.edu/cfr/text/17/230.405.

[86] 17 CFR § 240.10b-5, https://www.ecfr.gov/current/title-17/chapter-II/part-240/subpart-A/subject-group-ECFR71e2d22647918b0/section-240.10b-5.

particularly with respect to the use of proceeds and the environmental impact of funded projects with the aim of reducing their potential liability under Rule 10b-5.

5.7.4 European Market Offering

5.7.4.1 The Process

A third option Canadian sovereigns are utilizing to issue and distribute green bonds is through a euro medium-term note programme ("EMTN Programme"), which allows large issuers to access the European market on a continuous basis.

Sovereign issuers of green bonds using the EMTN Programme method will generally list their green bonds on a European stock exchange, which may be a regulated market if requested by an underwriter.[87] If listed on a regulated market, the issuer will need to elect to be subject to the jurisdiction of an EU-member state for the purpose of the approval of the EMTN Programme prospectus and applicable continuous disclosure rules (i.e., transparency regulation).[88] In addition, sovereign issuers will be subject to insider information regulations (i.e., market abuse regulations).[89]

At the time of writing, most Canadian sovereigns have opted to list their green bonds on non-regulated European markets, such as the Euro MTF segment of the LuxSE. A non-regulated market is essentially a market open only to professional investors and sophisticated accredited investors, which market is supervised exclusively by the relevant

[87] For a definition of what constitute a *regulated* market, see: Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (recast) [2014] OJ L 173/349, http://data.europa.eu/eli/dir/2014/65/oj.

[88] Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonization of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC [2004] OJ L 390/38, http://data.europa.eu/eli/dir/2004/109/oj.

[89] Regulation (EU) 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC [2014] OJ L 173/1, http://data.europa.eu/eli/reg/2014/596/oj.

stock exchange and thus not supervised by applicable European securities regulators.

Upon a decision being made by a sovereign to launch an issuance of green bonds under its EMTN Programme, the sovereign will enter into a subscription agreement with underwriters and the sovereign will also finalize a document called the *final terms* (in the case of an offering conducted through a prospectus for an issuance on a regulated market), or a *pricing supplement* (in the case of an offering conducted through an offering circular for an issuance on a non-regulated market) that will include the specific terms attached to the notes.

Canadian sovereign issuers of green bonds making use of an EMTN Programme have mostly sought quotation of their securities on LuxSE, the dedicated green bond segment of the Euro MTF market. As part of admission to LuxSE, the issuer will be required to file all its green bond program documentation, green bond framework, the relevant standards or principles the green bond offering aligns with (e.g., GBPs or the CBI Climate Bond Standards), a second-party opinion, and an audit report (if available), as well as reports on green bond use of proceeds and impact when available.[90]

5.7.4.2 Documentation

Relevant disclosures concerning green aspects of bonds offered using an EMTN Programme are found within the prospectus and final terms (in the case of a regulated market issuance) or the EMTN offering circular and pricing supplement (in non-regulated market issuance).

The prospectus or offering circular will specifically include a section describing the issuer's green bond program, the process used to select eligible green projects, and information on how the proceeds will be allocated. It will also include disclosure of the risk factors relating to the green bond framework, the eligible projects, and the use of proceeds. The issuer's green bond framework will also be included in the prospectus or offering circular using a hyperlink for information purposes only rather than as a document incorporated by reference therein. As such, the green bond framework is not considered part of the prospectus or offering

[90] For more on LGX listing criteria, see: Luxembourg Stock Exchange. 2022. Displaying bonds on LGQ. https://www.bourse.lu/displaying-bonds-on-lgx. Accessed 23 December 2022.

circular and will thus not subject the sovereign to any liability in the event the sovereign misrepresents content within the framework.

The final terms or pricing supplement will include specific references to the green bond framework, details of the categories of eligible projects under the green bond framework, and the method for allocating the use of proceeds.

5.7.4.3 Liability Under European Market Offering

As noted previously, most Canadian sovereign issuers of green bonds list on non-regulated European markets, as such, the present discussion focuses on liabilities arising from a listing on a non-regulated market.

Our review of EMTN offerings by Canadian sovereigns on non-regulated markets revealed that in earlier issuances, sovereigns only included broad descriptions of their green bond frameworks in their offering circulars and made limited disclosure on use of proceeds in their pricing supplements. However, market practice has evolved, and sovereign issuers now include detailed disclosure on the matters noted above within their offering circulars, as well as thorough disclosure on the risk factors associated with the green bonds. In some cases, sovereigns will also warn investors that the eligible projects noted may not be fully funded and that bond use of proceeds may be reallocated as a result. All this is done to mitigate any potential liability that may arise as the result of misrepresentations on aspects of their green bond programs. Similar to the other offering methods discussed in this section, Canadian issuers using EMNT Programmes to issue green bonds only face liability for misrepresentations.

The pricing of green bonds is mostly based on the creditworthiness of the issuer and its ability to pay the principal and the interest owed when due, and not on the risks associated with the eligible projects financed. Thus far, investors have attributed limited premiums to green bonds versus standard bonds, which has led investors to accept lesser levels of disclosure and due diligence in connection with green bond offerings. Consequently, there is little liability associated with establishing a green bond programme for a Canadian issuer. In general, for a sovereign, liability arising from a green bond offering is limited to actual misrepresentations in the information disclosed in the documents used for the green financing. Nevertheless, we currently can observe a general trend in the sovereign market practice for more extensive disclosure of the green bond framework, the selection process of eligible projects, the allocation of the use of proceeds, and the management of accounts holding the use of proceeds in the information documents. In addition, sovereigns have started to add more risk factors related to the eligibility of projects and the allocation of the use of proceeds. We believe, however, that the European Green Bond Regulation will be difficult to comply with for non-European issuers and in particular for sovereigns due to the risk associated with providing forward-looking statements on environmental impact and the requirement imposed by such regulation that the green bond use of proceeds be aligned with the European taxonomy. This situation might be a hindrance for Canadian issuers wanting to have access to the European green bond market. It would most likely lead such Canadian issuers to seek either a listing on a non-regulated market in the EU with lighter disclosure regime or alternatively look for other markets outside of the EU.

5.8 Conclusion

Given the urgent need for climate finance, propelled by the increased awareness of the climate crisis and the rise in net-zero commitments, from sovereigns and corporates alike, coupled with louder voices of stakeholders, it is only logical that the green bond market will reach new highs in the coming years. The rise in popularity of this green financing tool, however, comes with risks, and thus requires that regulators, including Canadian regulators, implement rules guaranteeing the alignment of issuers' framework with existing market standards. Likewise, regulators must also implement rules to ensure that the green projects selected by issuers be based on a taxonomy designed using a technical screening criteria-based approach. Lastly, regulators will also need to supervise the qualification and independence of third-party reviewers and regulate the content of pre-issuance and post-issuance third-party reviews performed in connection with green bond offerings. A robust regulatory regime will bring greater transparency and standardization, in particular with respect to the impact of such investments on the environment, and will enable green bonds to play their role in funding the type of fixed investments required to reach the goals of the Paris Agreement and a carbon–neutral economy by 2050.

Unfortunately, Canada has been lagging in the construction and implementation of the regulatory infrastructure needed to propel to a new level the Canadian green bond market and more generally the sustainable bond market. With more frequently reported cases of green-washing, the need for a Canadian-designed taxonomy aligned with what is becoming market standard in other parts of the world is becoming urgent. Compulsory disclosure of credible and science-based transition plan by Canadian issuers of green bonds would also be welcome by the investment community. Finally, regulatory actions with respect to third-party opinion providers are also required in short order. A large-scale green washing scandal occurrence within the Canadian green bond issuer community may have a permanent damping effect on this growing market. This would be detrimental to Canada's environmental and climate ambitions. Let us hope that the Canadian Securities Administrators hear this call for action.

PART II

Green Bonds and Banking and Capital Markets

CHAPTER 6

The Green Bonds Market in the Light of European Commission's Proposal: Implications for Greenwashing Liability

Elia Cerrato García and Federica Agostini

6.1 Introduction

The European Union Green Bond Standard, enshrined in the Green Bond Regulation (EUGBR),[1] constitutes one of the core and more

[1] As the volume was going to print, there has been no final vote on the regulation, but a political agreement had been reached between Parliament and Council; thus, reference

F. Agostini (✉)
University of Glasgow, Glasgow, Scotland, UK
e-mail: Federica.agostini@glasgow.ac.uk

E. C. García
CUNEF University, Madrid, Spain
e-mail: Elia.cerrato@cunef.edu

F. Agostini
EUI Florence School of Banking and Finance, Florence, Italy

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_6

ambitious measures within the EU's sustainable finance policy agenda, unveiled in the 2018 and 2021 Action Plans.[2] The EUGBR[3] should set a standard for "high-quality green bonds" while addressing the risk of "greenwashing".[4] The latter term, created by the environmentalist Jay Westerveld,[5] and later developed in management, economics and communication studies,[6] captures a series of advertising and corporate communication practices suggesting a positive environmental performance, which is not substantiated in reality.

As green-labelling is getting popular in driving market demand, a concern for "greenwashing" has also driven, and should drive, a series

E. C. García
Alma Mater Studiorum-Università di Bologna, Bologna, Italy

shall be made to the EUGBS, when discussing it as a "standard" in terms of policy, and to the EUGBR, when referring to the regulation, and its specific provisions; please note, however, that the numbering of some provisions may have changed.

[2] Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, 2018. Action Plan: Financing Sustainable Growth 097. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0097. Accessed 23 September 2022; Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. 2021. Strategy for Financing the Transition to a Sustainable Economy.2021. 390. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0390. Accessed 23 September 2022.

[3] Regulation of the European Parliament and of the Council on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and sustainability-linked bonds (2023) xx (hereinafter: EUGBR)

[4] See eg "Explanatory Memorandum", Proposal for a Regulation of the European Parliament and of them Council on European Green Bonds. 2021. COM/2021/391 final. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0391. Accessed 23 September 2022. (hereinafter: Proposal for a EUGBR)

[5] Jay Westerveld. 1986. "Greenwashing—"Go green, think green"". This essay criticizes how the hotel industry *falsely* promoted its reusable towel service as part of a strategy to protect the environment when, in fact, the resort was having a devastating effect on the local wildlife. The hotel's "sustainable" reusal service was, in reality, a cost-saving measure. See Pauline Deschryver and Frederic de Mariz. 2020. What Future for the Green Bond Market? How Can Policymakers, Companies and Investors Unlock the Potential of the Green bond Market? J. Risk Financial Manag, 13(3), 61.

[6] Magali A Delmas, Vanessa C Burbano. 2011. "The Drivers of Greenwashing" 54 California Management Review 64.

of other EU initiatives within the EU sustainable finance agenda.[7] For instance, the Green Taxonomy Regulation defines "greenwashing" as the practice of "marketing a financial product as environmentally friendly", when "basic environmental standards have not been met."[8] It also represents one of the priority areas for action for the European Securities and Markets Authority (ESMA) as identified by the agency's 2022–2024 roadmap.[9]

This chapter discusses how the EUGBR will affect the liability regime for issuers engaging in "greenwashing" practices. Taking into account the various stages of the legislative process, from the European Commission's Proposal to the final version of the Regulation, we will discuss the extent to which the various provisions and enforcement mechanisms will suffice to mitigate and address all "greenwashing" risks.

To this end, Sect. 6.2 provides an overview of the key features and of the policy objectives of the EUGBR. Sects. 6.3 and 6.4 discuss the "greenwashing risks" of the EUGBR emerging from the European Commission's proposal,[10] the negotiating positions by the co-legislators[11] and the final version of the EUGBR.[12] In particular, Sect. 6.3 conceptualises the specific meaning of "greenwashing" in the context of

[7] See eg "sustainability benchmarks", 2.5, Communication from the Commission (2018); see also potential changes to supervisory powers, action 5, Communication from the Commission (2021).

[8] See recital (11) 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 (hereinafter: Green Taxonomy Regulation).

[9] ESMA. Sustainable Finance Roadmap 2022- 2024 https://www.esma.europa.eu/sites/default/files/library/esma30-379-1051_sustainable_finance_roadmap.pdf. Accessed 23 September 2022.

[10] Proposal for a EUGBR.

[11] See EU Parliament. Report on the Proposal for a Regulation of the European Parliament and of the Council on European green bonds. COM/2021/391. https://www.europarl.europa.eu/doceo/document/A-9-2022-0156_EN.html. Accessed 22 December 2022. (hereinafter: EP's negotiating position); Council of the European Union. 2022. Regulation of the European Parliament and of the Council on European green bonds - mandate for negotiations with the European Parliament ST 7379 2022 INIT-NOTE, https://data.consilium.europa.eu/doc/document/ST-7379-2022-ADD-1/x/pdf. Accessed 22 December 2022 (hereinafter: EC's negotiating position).

[12] EUGBR.

green bond issuances and examines the private and enforcement mechanisms which allow to establish formal “greenwashing liability”. Sect. 6.4 analyses the potential “greenwashing effects” which may follow from the application of the EUGBR, while not leading to issuers’ and reviewers’ liability. These latter effects may specifically arise in the context of (1) external reviews (2) the use of green bonds for nuclear and gas activities and (3) across complex financial transactions like “green securitisations”. Sect. 6.5 proposes some amendments to the review processes and supervision mechanisms over the EUGBR to address these risks. Sect. 6.6 concludes.

6.2 The EUGBS: Key Features and Policy Objectives

The European Union Green Bond Standard (EUGBS) represents a milestone in the EU efforts to boost investments towards sustainability objectives and the fight against climate change, enshrined in the 2018 Sustainable Finance Action Plan[13] and the more recent 2021 Strategy for Financing Transition to a Sustainable Economy.[14] The EUGBS should specifically address environmental challenges, including but not restricted to those posed by climate change mitigation and adaptation.[15] As extensively discussed in this volume,[16] the EUGBR seeks to regulate the green bond sector at three levels: (1) by determining the criteria for the award of the European green bonds (EuGB) label[17]; (2) by defining the disclosure and reporting requirements for market actors before and after the issuance,[18] and (3) by setting rules for the external review over EUGBR-compliant bonds and for the accreditation as reviewers.[19]

As regards the first level, defining green bonds through a science-based approach is a cornerstone of the EUGBS. The standard builds on market best practices such as the non-binding ICMA Green Bond

[13] Communication from the Commission (2018).

[14] Communication from the Commission (2021).

[15] See Art 1 Green Taxonomy Regulation.

[16] See Chapter 2 by Nikos Maragopoulos in this volume.

[17] Especially Arts. 3–7, 13a EUGBR.

[18] Artt, 10–13 EUGBR.

[19] Artt. 14–17 EUGBR. See also Chapter 2 by Nikos Maragopoulos in this volume.

Principles (GBPs), which describe bonds as "green" on the basis of the use of proceeds, i.e. of the kind of projects which are developed through the funds raised from the issuance.[20] The soft law nature of these frameworks has given wide flexibility to market actors within the EU and globally to autonomously identify their bonds as "green". They have often listed the criteria for the selection of environmental projects throughout internal "frameworks" and provided very limited guidance on these "green" characteristics across the transactional documentation.[21]

By contrast, the EUGBR tries to dispel these doubts, as it only identifies bonds that finance projects in line with the Taxonomy Regulation as eligible for the EUGBR. The Taxonomy defines economic activities and financial instruments as "sustainable" if they "contribute to" one of six environmental objectives of the Taxonomy.[22] In doing so, they should also not cause any "significant harm" to any of the other objectives, meet minimum governance standards and satisfy the technical screening criteria.[23] In other words, bonds in line with the Standard will be those that finance capital and operating expenditures as well the purchase of fixed and financial assets in line with a series of technical requirements set in the Delegated Regulations adopted on the basis of the Taxonomy.[24]

[20] For the updated version of the Principles, see International Capital Market Association (ICMA). 2022. The Green Bond Principles—Voluntary Process Guidelines for Issuing Green Bonds. 8, https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles_June-2022-280622.pdf. Accessed 23 September 2022; Technical Expert Group on Sustainable Finance. 2020. Usability guide. TEG Proposal for an EU Green Bond Standard. 10, 20. https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-green-bond-standard-usability-guide_en.pdf. Accessed 23 September 2022. (hereinafter: TEG. 2020. Usability guide).

[21] Federica Agostini. 2023. From "green bond principles" to "green bond clauses": mitigating "greenwashing" through contract law. In *Quo vadis Commercial Contract? Reflections on Sustainability, Ethics and Technology in the Emerging Law and Practice of Global Commerce*, eds M. Heidemann, and M. Andenas. (Springer) https://doi.org/10.1007/978-3-031-14105-8_6.

[22] Art 9 Green Taxonomy Regulation lists the environmental objectives goals: climate change mitigation; climate change adaptation; the sustainable use and protection of water and marine resources; the transition to a circular economy; pollution prevention and control; the protection and restoration of biodiversity and ecosystems.

[23] See also Introduction.

[24] For instance, Commission Delegated regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions

Second, the rules also articulate a series of disclosure requirements before and after bond issuance. Such documents would attest to how the issuance contributes to the environmental objectives enshrined in the Taxonomy and describe the intended allocation of proceeds within a standardised "Bond factsheet".[25] Subsequently, the issuer is required to disclose "Allocation Reports"[26] annually and "Impact reports" at least once or after the full allocation of the proceeds,[27] also following standard templates.[28]

Third, issuers will have to obtain an external review of such pre- and post-issuance documents by entities accredited with ESMA.[29] This aspect of the EUGBR represents a significant innovation oriented at correcting the wide discrepancy across the current market practice in the use of external reviews within the EU Green Bond market.[30] The ICMA GBPs distinguish four different types of pre-issuance and post-issuance external review, i.e. Second Party Opinions (SPOs), Green Bond Ratings, Verifications and Certifications, which external providers sometimes provide jointly.[31] SPOs are issued by independent organisations with expertise in sustainability matters. The "verification" process allows to evaluate issuers' claims around their environmental commitment against a designated set of criteria. The award of "Certifications", like the one developed

under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives.

[25] Art. 8, Annex I EUGBR.

[26] Art. 9 EUGBR.

[27] Art. 10 EUGBR.

[28] Annex II—3 EUGBR.

[29] Artt. 18–30 EUGBR.

[30] See the 2021 Sustainable Bond Market Report, noting that 88% of green bonds added to the Climate Bonds Initiative database in 2021 had a form of external review, and that non-reviewed bonds are predominantly issued in China and US, see Climate Bonds Initiative. 2021. Sustainable Debt—Global state of the market. 13. https://www.climatebonds.net/files/reports/cbi_global_sotm_2021_02h_0.pdf. Accessed 23 September 2022.

[31] ICMA. 2022. Guidelines for external reviewers. 3. https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/External-Review-Guidelines_June-2022-280622.pdf. Accessed 23 September 2022. (hereinafter ICMA, 2022. Guidelines for external reviewers).

by Climate Bonds Initiative,[32] depends on the compliance with a set of criteria and targets set by third parties. Lastly, ratings apply specific methodologies to provide a score to the bond credentials on the basis of green bond frameworks.[33] Organisations offering these services include traditional credit rating agencies or audit firms, global technical certification bodies and also new non-financial rating agencies (especially for SPOs).[34] These various providers have developed widely different methodologies, which cause fragmentation and confusion for investors.[35] By contrast, the EUGBS aims to establish a level playing field on the criteria and methodologies for external review.[36]

Overall, it is possible to summarise the policy objectives of the EUGBS as three-fold: (1) contributing to the "standardisation" of green bonds within the EU market; (2) ensuring that only "high-quality green bonds", underpinned by a truthful environmental commitment, use the EUGBS label (what will be referred to as the "credibility objective"); and (3) to accelerating investments towards sustainability objectives, thereby fostering "sustainable finance".[37]

In particular, the common requirements for the issuance and the review process should "standardise" all EUGB-compliant bonds by making them easily comparable. In turn, this should reduce the costs and attract investment, especially from climate-conscious market actors.[38] At the same time, it may result in a pricing advantage which may stimulate further issuances.[39]

[32] See Climate Bond Initiative, Climate Bonds Standard. 2019. Version 3.0—International best practice for labelling green investments https://www.climatebonds.net/files/files/climate-bonds-standard-v3-20191210.pdf. Accessed 23 September 2022.

[33] ICMA, 2022. Guidelines for external reviewers. 3, 5–6.

[34] TEG. 2020. Usability guide. 33–34.

[35] TEG. 2019. Report—Proposal for an Eu Green Bond Standard. 32–33 https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-green-bond-standard_en.pdf. Accessed 23 September 2022 (hereinafter: TEG. 2019. Report on the Proposal); Agostini. 2022. From "green bond principles" to "green bond clauses".

[36] TEG. 2019. Report on the Proposal 34. Recital (7) EUGBR.

[37] As defined by Colaert, Veerle A. 2022. The Changing Nature of Financial Regulation. Sustainable Finance as a New Policy Objective. Working paper. https://ssrn.com/abstract=4087166 or http://dx.doi.org/10.2139/ssrn.4087166

[38] Recital (7)–(14) EUGBR.

[39] Explanatory Memorandum (Impact assessment), ibid.

Such uniform requirements, along with the link to the Taxonomy criteria, should also make these securities more "credible". They should ensure that issuers use EUGB-compliant bonds for projects which effectively make a positive contribution to the environmental agenda. The disclosure requirements, which inform investors about such positive contribution, should improve their "trust"[40] and further stimulate investment.

Furthermore, the EUGBS is a strategic tool for EU "sustainable finance" policies, especially the goal to mobilise more capital towards sustainability objectives. This goal is inextricably linked to the other objectives, and it is in line with the general duty of EU institutions to protect the environment, enshrined in Art. 3 TEU and Art. 11 TFEU.[41] More specifically, it is instrumental to the commitments of the EU towards the fight against climate change, resulting from international instruments like the Paris Agreement[42] and the Glasgow Climate Pact[43] and articulated in the EU Green Deal[44] as well as in the EU Climate law.[45] At the same time, investors' appetite for EUGB-compliant bonds could also make the EU market more competitive at the global level for the issuance of green bonds. Therefore, the standard may contribute to the creation of a European "green finance hub", where the EU market would become

[40] See Explanatory Memorandum, Recital (4) ibid.

[41] For an analysis of the implication of these provisions for the policies and laws of the Eurosystem, see Solana J, "The Power of the Eurosystem to Promote Environmental Protection" [2019] 30 European Business Law Review 4 547.

[42] United Nations Framework Convention on Climate Change (UNFCC). 2015. Paris Agreement.

[43] UNFCC. 2021. Glasgow climate pact. 3 https://unfccc.int/sites/default/files/resource/cop26_auv_2f_cover_decision.pdf. Accessed 23 September 2023.

[44] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. 2019. The European Green Deal. 640. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2019%3A640%3AFIN . Accessed 23 Septmeber 2022.

[45] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (2021) L 243/1. (hereinafter: EU Climate Law').

the default one for "sustainable" financial products,[46] and may thereby reinforce the international role of the euro.

Overall, the "standardisation", "credibility" and "sustainable finance" goals of the EUGBS resonate with the traditional objectives of financial regulation, like transparency, "investor protection" or the efficiency and competitiveness of the (EU) market.[47]

At the same time, the EUGBS also refers to "greenwashing" as a risk,[48] which has the potential to undermine the other policy objectives, and the EUGBS should address. Therefore, our priority in this chapter is the analysis of how different aspects of the EUGBS tackle greenwashing and the assessment of the legal consequences. We will distinguish between the aspects that effectively lead to "liability", and those related to general "greenwashing effects".

6.3 EUGBR Shortcomings from the Perspective of Greenwashing Risks (I): Liability for Greenwashing

"Greenwashing" has become a catch-all idea in policy, but it is difficult to define in legal terms. The EU Commission's Proposal also uses the term ambiguously, sometimes—but not always—linking it to liability.

[46] As envisaged by the European Commission. See 3., Introduction., Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions. 2021. Action Plan—the European economic and financial system: fostering openness, strength and resilience, COM (2021) 32; see also IV. Communication from the Commission (2021).

[47] See e.g. Recitals (4)—(20)—(21) EUGBR, mentioning traditional financial regulation goals. Other measures to improve transparency and investor protection include, among others, the Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC (hereinafter: Prospectus Regulation). Harmonisation measures to improve competitiveness and efficiency include, among others, the Prospectus Regulation and the Market Abuse Regulation, Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC.

[48] Recital (5) EUGBR.

The following section seeks to elaborate a *legal* definition of "greenwashing" under EU sustainable finance law (6.3.1). The conceptualisation is the first step for the analysis of the enforcement mechanisms under the EU Commission's Proposal (6.3.2) and of the legal consequences of the voluntary nature of the Standard (6.3.3–6.3.4).

6.3.1 Conceptualising Greenwashing in Relation to Green Bonds

Taken together, the Green Taxonomy Regulation and the MIFID II Delegated Regulation 2021/1253 provide a very persuasive definition of "greenwashing" in the financial context.[49] They both refer to the practice of "gaining an unfair competitive advantage" as a result of "marketing" or recommending "a financial product as environmentally friendly", when actually "basic environmental standards have not been met".[50]

One of the challenges of defining greenwashing risk in legal terms emerges if we compare it to financial risk. If one issuer recommends or markets a financial product with a lower default risk than it otherwise should be, the issuer will have an unfair advantage over competitors and investors will have a higher risk of losing their returns. Such advantage can be measured with a reasonable degree of accuracy in economic terms (e.g., in relation to investors' losses, by calculating the difference between the returns promised and the returns received).

By contrast, "greenwashing" is not only a driver of financial risk,[51] but also has broader implications for society and sustainability policies in general. It may result into an undue competitive advantage for "greenwashers", while also resulting in investors, competitors and consumers losing faith in the transition of society at large. Detecting "greenwashing" behaviours sheds light on the damage of those who relied on companies'

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

[50] Recital (11) Green Taxonomy Regulation; see also (7) Commission Delegated Regulation (Eu) 2021/1253.

[51] As also argued in the case against Enea, where the directors decided to invest in a coal mine project. Clientearth argued that the "stranded asset" may have a "core risk" of not being profitable, see ClientEarth v ENEA (2018) as summarised by Clientearth (2018). Ostrołęka C, 2, 4 http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2018/20180920_Not-Available_na-1.pdf .

statements, while also undermining the broader trust in "green" financial instruments.[52] At the same time, every "greenwashing" behaviour also poses an obstacle, and may eventually prevent, the achievement of science-based goals of climate neutrality, as enshrined in international agreements[53] and in EU legislation.[54]

The assessment of elements, typical in damages claims, such as the competitive advantage of a market actor, or investors' losses, can be particularly complicated in "greenwashing" claims. For instance, what are the consequences for investors, and what is the nature of their loss, if a given issuer undertakes to use 100% of the bond proceeds for projects complying with the Taxonomy criteria, but in reality, they only allocated 75% to these purposes, while using the remaining 25% for general corporate purposes? How can financial and supervisory authorities assess these elements? Can investors access to effective legal mechanisms to protect their rights?

The EUGBR does not provide a straightforward answer to this question as it has introduced a patchy liability regime for breach of the requirements. The Parliament's negotiating position recommended the integration of a civil liability regime for "lying" about the alignment with the Taxonomy,[55] drawing from the Prospectus civil liability regime, as we will discuss below.[56] Similarly, the Recitals to the final text of the

[52] Nikolai Badenhoop. 2022. Green Bonds. An assessment of the proposed EU Green Bond Standard and its potential to prevent greenwashing. 19. In relation to the growth of ESG funds, see also Laurence Fletcher and Joshua Oliver. 2022. Green investing: the risk of a new mis-selling scandal. *Financial Times*, February 20. More specifically in relation to green bonds, Chris Flood. 2022. Fears rise over "greenwash" bonds. *Financial Times*, March 21. https://www.ft.com/content/178449a7-8897-4359-b23a-e85524c3e227. Accessed 22 December 2022.

[53] Like the Paris Agreement, Glasgow Climate Pact, UNFCC, 2015; UNFCC, 2021.

[54] See The European Green Deal, EU Climate Law.
UNFCC. 2015.
UNFCC. 2021, 3.

[55] See Art. 12a EP's negotiating position. See Sect. 6.3.2.

[56] At this point we should clarify two aspects. First, since the EP's negotiating position proposes the integration of a civil liability provision, we will focus in this section on prospectus civil liability. We will leave aside public enforcement under the Prospectus Regulation. Also, in accordance with Art. 11, civil liability provisions cannot be omitted even when applying public enforcement measures. Second, as explained in Ramos Muñoz, Cerrato and Lamandini. 2021. The EU's "green" finance, it is more difficult to measure liability resulting from green defaults (false information contained in the prospectus, other

EUGBR refer to the "liability provisions" of the Prospectus Regulation.[57] However, applying the Prospectus civil liability to greenwashing claims is not a problem-free solution.

The liability standard under the Prospectus Regulation is equated to the "materiality" standard,[58] i.e. the alleged misleading statements were sufficiently relevant as to conclude that the investor relied upon them (*reliance*) when making the investment choice.[59] The terms "materiality" or "reliance" are open-textured, not defined in the EU financial regulation, and will need to be interpreted on a case-by-case basis.[60]

Under the current regulatory framework, whether a (greenwashing) risk is *material* or not would be a matter of interpretation that would depend on the information published by the issuer and the preferences demanded by the investor. Therefore, the difficulties in interpreting the materiality standard would remain if the EUGBR integrates a civil "greenwashing liability" regime that mirrors the prospectus civil liability.

In other words, transposing the prospectus civil liability regime means that it would remain unclear whether the failure to meet green goals (i.e.,

offering documents, or the reporting information periodically disclosed to the market) than liability arising from information integrated in the bond. In the latter situation the parties may stipulate, in accordance with freedom of contract, liability in the offering documents themselves and the actions that may be further required by the issuer/offeror in case of default.

57 Recital (19a) EUGBR.

58 Art. 11 read together with Art. 6 Regulation 2017/1129. On the interpretation of the materiality standard by national courts of Member States see D. Busch, Guido Ferrarini and Jan Paul Franx (eds). 2020. Prospectus Regulation and Prospectus Liability. Oxford University Press.

59 See also Dany Busch (2020). Prospectus Regulation and Prospectus Liability, Chapter 9, 9.23 ("the materiality test using the average investor threshold as described above will be applied, therefore also if an investor instituting a (p. 206) prospectus liability claim is not a consumer").

60 Some national courts have applied the "reasonable average" investor approach to interpret the materiality standard. For example, in the Netherlands, Supreme Court 27 November 2009, JOR 2010/43 (World Online): the Court cited Art 6:194 of (old) Dutch Civil court and held that, irrespective of whether the investor is professional or not, "the expectations of an averagely well-informed, prudent and observant ordinary investor must be assumed". In Germany, BGH, 12 07 1982, II ZR 175/81 in NJW 1982, S. 2823. The court held that an average investor could understand a financial statement, but she does not have to have specific financial knowledge. See also Danny Busch, Emilios Avgouleas and Guido Ferrarini (eds). 2018. Capital Markets Union in Europe. OUP, 1st Edition, p. 325.

fully allocation of the use of the proceeds of the EUGB to taxonomy-aligned projects, as announced in the EUGB factsheet) would attach civil responsibility on the basis of providing inconsistent information or omitting *material* information about the allocation of the use of the proceeds of EUGBs.

Assuming that the falsity or omission included in the EUGB factsheet exacerbate greenwashing risks and can be considered "material", another relevant question concerns the damage to be requested. Prospectus civil liability is grounded in non-contractual or tort cause of action against the issuer, offeror or person responsible for drawing up the prospectus.[61] Hence, the investor bears the burden of proof damage, that the issuer has committed fault, and causation.[62]

First, the degree of fault that investors need to demonstrate encompasses, at least, negligence and negligence is interpreted under national private law criteria.[63] Second, even a bigger hurdle for investors is proving the causal link between the alleged damage and the investor's choice to purchase the green bond. In plain-vanilla bonds the expected returns are financial. For that reason, the link between a misleading statement that affects the financial performance of the bonds may be measured by using objective elements to assess the damage, like the market price of the bonds. However, in the case of "green bonds", the source of comparison of the harm resulting from greenwashing cannot be, at least in purity, a shortfall in market price.[64] Therefore, the reference to prospectus liability provisions within the EUGBR can be a step forward and supplement the other public enforcement mechanisms, but some questions remain unresolved.

Overall, the magnitude and potential adverse consequences of "greenwashing" require clear enforcement avenues for the affected parties,

[61] See Article 11 Regulation 2017/1129.

[62] A complete analysis on the particularities of the standard of liability in each EU jurisdictions is included in Danny. Busch, Guido Ferrarini and Jan Paul Franx (eds). 2020. Prospectus Regulation and Prospectus Liability. Oxford University Press.

[63] ESMA. 2013. Comparison of liability regimes in Member States in relation to the Prospectus Directive, Sect. 3.1.4. https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-619_report_liability_regimes_under_the_prospectus_directive_published_on_website.pdf. Accessed 28 February 2023.

[64] Ramos Muñoz, Cerrato and Lamandini. 2021. The EU's "green" finance: "it is an opportunity cost, in the sense that the investor would have been better investing their money someplace else".

such as investors, issuers' competitors and the civil society. Otherwise, in the absence of clear provisions and connected remedies, "greenwashing" behaviours may remain undetected, while not giving rise to any legal consequences. We will refer to these latter situations as examples of "greenwashing effects". In the following section, we will evaluate different aspects of the EUGBS on the basis of this dichotomy.

6.3.2 Private and Public Enforcement Mechanisms to Address Greenwashing

6.3.2.1 Private and Public Enforcement Mechanisms

The EUGBR, in line with all the previous versions of the Proposal and with negotiating positions, introduced a three-pronged "light supervisory approach", involving national competent authorities (NCAs), ESMA and external reviewers.[65] This translates into a combination of public and private enforcement mechanisms, while revealing a strong preference for the former.

As Fig. 6.1 shows, the main actors involved in the enforcement of EUGBR-compliant bonds should be public authorities, i.e. NCAs and ESMA. As regards NCAs, they can exercise a wide array of supervisory and sanctioning powers over the green bond documentation. Among others, they may require issuers to incorporate additional information in the EUGB factsheet or to publish outstanding allocation and/or impact reports as well as requiring auditors or senior managers to provide more information. If there are reasonable grounds for believing that there has been an infringement of the Regulation, they may carry out an on-site inspection to access relevant documents and data, suspend the offer and/or suspend or prohibit all advertisements concerning green bonds for a maximum of ten working days. They may also rely on "naming-and-shaming" mechanisms, like publicly disclosing that issuers have not complied with the EUGBR or even preventing them from issuing any other EUGBs for a year after repeated and severe infringements.[66]

At the same time, the EUGBR empowers NCAs to issue administrative sanctions, while giving Member States the option to provide

[65] Explanatory Memorandum (Impact assessment) EUGBR, Nikolai Badenhoop. 2022. 77.

[66] Art. 37 EUGBR.

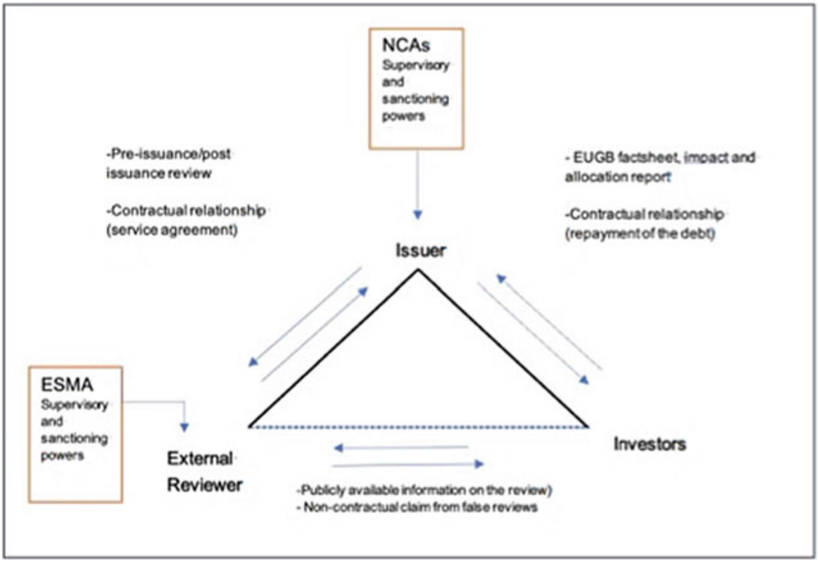

Fig. 6.1 Private and public enforcement mechanisms under the EUGBR[67]

for criminal liability too.[68] NCAs could also make infringements of the EUGBR publicly available.[69] Circumstances where issuers could face administrative and reputational sanctions include, among others, failing to provide NCAs, or to publish on their websites, external reviews, fact-sheets, allocation reports, impact reports, as well as failing to indicate in the Prospectus that the bond complies with the EUGBS.[70] These monitoring and sanctioning powers resonate with the ones that NCAs exercise when scrutinising the content of prospectuses.[71] However, it remains

[67] Authors' own elaboration. Orange squares relate to public enforcement mechanisms, while grey squares relate to private enforcement mechanisms.

[68] Pecuniary sanctions should be at least EUR 500.000 for legal persons or 50.000 for natural persons and at least twice the amount of the profits gained or losses avoided because of the infringements. Art. 41(1)-(2)(c)(d)(e) EUGBR.

[69] Art. 41(1) EUGBR.

[70] Ibid.

[71] Under Art. 32 Regulation 2017/1129.

unclear whether they would translate into a formal control over the publication of the documentation, or into a substantive control over its content and over any "greenwashing" practices. While Member States may clarify the scope of NCAs' powers in their national provisions, this may also create inconsistencies across the various public enforcement mechanisms, as it also occurred after the approval of the Prospectus Regulation.[72]

The EUGBR also gives ESMA strong powers vis-a-vis reviewers[73]: they may impose fines or temporarily prevent their activity when they: (1) provide false information in their applications to become external reviewers or do not notify subsequent material changes; (2) obstruct investigations or fail to provide information in response to requests by ESMA; (3) obstruct inspections or (4) act as external reviewers without registrations. When ESMA wants to compel issuers to cooperate with investigations, respond to its requests or stop infringements, it may also impose periodic penalty payments.[74] Lastly, there may be sanctions for (3) failing to comply with procedural and governance requirements,[75] (4) not keeping adequate records of the persons, methodologies, internal measures and documents and communications regarding their reviews (provided that their behaviour is intentional or negligent); (5) breaching the rules on conflicts of interests; (5) referring to ESMA in their reviews in a way that indicates that ESMA endorses the review.[76] Despite the relevance of these formal powers, the text falls short from clarifying whether ESMA can assess reviewers' methodologies in practice to verify whether they can ensure a comprehensive and reliable assessment of green bonds. It is also unclear whether ESMA can take action if reviewers' statements do not provide an accurate picture of green bonds and leave "greenwashing" practices undetected.

One may argue that the primary role of supervisors, like NCAs and ESMA, should be to ensure the sound functioning of the market, while investors and external reviewers have better information for reviewing the

[72] For a comprehensive analysis, see Danny Busch, Guido Ferrarini and others. 2020. Prospectus Regulation and Prospectus Liability. *Oxford University Press*, ch 18.

[73] Art 51 (1)(a)–(f) EUGBR.

[74] Artt. 52–53(1) EUGBR. In case of serious infringements, ESMA may also withdraw third country reviewers' registration. Art 33 EUGBR.

[75] Under Chapter II, Artt 18–27 EUGBR. See also below Sect. 6.4.1.

[76] Artt. 52 (2), also referring to Artt. 18–Art 30 EUGBR.

substantive content of the documentation, which is inevitably a private law matter. Some commentators have also questioned the general desirability of EU statutory provisions with a direct impact on individual interests and private relationships.[77]

In fact, the EUGBR contemplates the involvement of private actors too. Figure 1 also represents the triangular relationship between issuers, external reviewers and investors. First, a contractual agreement links green bond investors and issuers. An "underwriting agreement", together with a prospectus,[78] will generally determine the terms of the issuance, like investors' right to the repayment of the securities and issuers' duty to fulfil a series of other conditions.

A private service agreement also links issuers and external reviewers. This agreement is to contain the terms and conditions of the review over the issuance of green bonds under the EUGBS, including reviewers' fees.[79] Several statutory obligations under the EUGBR will influence this contract, such as the duty to disclose any actual or potential conflicts of interest,[80] the duty to separate the fees for the review from the outcome thereof,[81] the duty to publish pre-issuance and post-issuance reviews on reviewers' website as well as the duty to implement reviewers' procedural and organisational requirements cited above.[82]

According to the EUGBR, reviewers shall conduct "a thorough analysis of all the information that is available to them and that, according to their methodologies, is relevant to their analysis" in the Factsheet and Allocation Reports.[83] The clauses of the contract will, however, also determine other substantial conditions for the review, like the data

[77] Stephan Grundmann. 2015. The Banking Union Translated into (Private Law) Duties: Infrastructure and Rulebook. Eur Bus Org Law Rev 16, 357–382. https://doi.org/10.1007/s40804-015-0021-z

[78] Art. 12 EUGBR.

[79] Art. 27(2) EUGBR.

[80] Art. 27(1) EUGBR.

[81] Art. 27(2) EUGBR.

[82] Artt. 18–Art. 30 EUGBR.

[83] Artt.8–9 EUGBR.

to be analysed[84] and the steps that reviewers must take.[85] Besides, the EUGBR imposes a series of already mentioned stringent obligations as regards reviewers' organisational requirements and processes,[86] which would prevail over the private service agreement between the issuer and the reviewer.

Furthermore, Fig. 6.1 illustrates an indirect, non-contractual relationship, between external reviewers and investors. The EUGBS compels reviewers to make the outcomes of their reviews publicly available,[87] the underlying idea being that investors will access these reports and make investment decisions based on the reviewers' positive and negative assessments. However, it is not entirely clear what investors could do if external reviewers' reports are false or misleading, e.g. where they provide an overall positive assessment, but they have failed to indicate the potential adverse impacts of the issuance. This lack of clarity also derives from the inherently problematic assumption that private market actors, like external reviewers, assess the substantive compliance of the documentation with statutory requirements, i.e. those of the Taxonomy.[88] It is reasonable to assume that actors who rely on reviewers' statements ahead of their investment decisions and suffer financial losses may be able to rely on non-contractual remedies. However, further clarifications on the liability regime would have been appropriate.

Finally, while the investment also gives rise to a contractual relationship between issuers and investors, the EUGBR fails to introduce clear remedies if the terms of the security about the expected use of proceeds or the environmental impact of the bonds are false or misleading. This ambiguity falls short from addressing market practice, where bond documentation, including the one for "green securitised bonds",[89] generally fails to link

[84] In fact, Art. 29 EUGBR prevents reviewers from referring to ESMA or any NCA in a way that "could indicate or suggest" that ESMA or any NCA "endorses or approves that review or any assessment activities of the external reviewer".

[85] Artt. 23–24 EUGBR.

[86] Artt. 18–30 EUGBR.

[87] Art. 30 EUGBR.

[88] Nikolai Badenhoop. 2022. 77.

[89] See below Sect. 6.4.3.

environmental objectives to "Events of default". In other words, investors cannot take action to demand the early redemption of the securities.[90,91]

To ensure enforceability, the prospectus of EUGBR-compliant bonds shall also include a statement about such responsibility.[92]

All in all, the EUGBR introduces a few explicit enforcement mechanisms for "greenwashing liability" in a piecemeal fashion. One of the most problematic aspects is the lack of a coordinated enforcement system. By focusing on the powers of public authorities, the Regulation tends to ignore the broader spectrum of contractual provisions and the non-contractual liability regime linked to the issuance of green bonds.[93] The reference to the prospectus liability regime, which we will discuss below, does not give rise to an integrated enforcement system either.[94]

In his preparatory study on the EUGBS, Badenhoop argues that the unclear allocation of responsibilities across parties with different interests may foster "enforcement diffusion."[95] An example could be the case where ESMA withdraws the registration of an external reviewer after one or more reviews.[96] Would the withdrawal lead to the "automatic" nullity of the agreements that external reviewers and issuers have already signed? It could perhaps trigger the early termination of the contract if the contract so establishes, but what impact would the withdrawal of a registration have on EUGBS-compliant bonds already purchased by investors, also on the basis of that review?

6.3.2.2 The Extension of Private Enforcement Mechanisms

While the EU Commission's Proposal was silent on private enforcement mechanisms, the EP and the EU Council have proposed some amendments drawing from similar provisions in other areas of EU capital markets law.

[90] Federica Agostini. 2023. On the consequences for issuers' liability under securitisation deals, see below Sect. 6.4.3.

[91] Art. 13d EUGBR. See below Sect. 6.4.3. See EBA. 2022. Consultation on Sustainability Disclosures for Securitisations. 29–31.

[92] Art. 13d(1) EUGBR.

[93] Ibid.

[94] See Sect. 6.4.2.2 below.

[95] Badenhoop. 2022. Green Bonds. 66–67.

[96] Art. 51 (1) EUGBR.

As noted by Badenhoop, the decentralisation of private law enforcement (in the form of private claims by investors) could be more beneficial than the exclusive reliance on public law mechanisms. It allows those who are damaged, i.e. investors, to act in their own interest and to receive direct compensation. By contrast, public enforcement mechanisms like NCAs' fines would enrich the public budget. Private claims would not lead to a benefit for the claimant, but they would be in line with the public and general interest, by adding an element of distributive justice.[97]

The EP's negotiating position built on the private enforcement mechanisms "mirroring" the Prospectus Regulation and Credit Rating Agencies (CRA) Regulation. According to the EP's negotiating position, issuers *or* administrative and management bodies *or* supervisory bodies should be responsible for infringements of the requirement to use the proceeds in line with the Taxonomy.[98]

However, the final version of the EUGBR contains a slightly amended version of the wording proposed by the EU Council, which only indirectly refers to the Prospectus Regulation.[99] Only the recitals contain a reference to the Prospectus liability provisions.[100] Based on the literal wording of the provisions, one could reasonably conclude that as prospectuses of EUGBs will cross-refer ("incorporate by reference") to the respective green bond factsheets, describing the environmental projects linked to the issuance, issuers will be subject to the same liability standard for the content of their prospectuses and for "green" information.

[97] Ibid. on the link between the compensation of damages, distributive justice and the public interest, See also Nikolai Baadenhoop. 2020. The Individual Protection Goal in EU Banking Regulation. SRRN. 78. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3411430. Accessed 23 September 2022.

For a similar analysis in relation to competition law, which could be however transposed to the present analysis, See Petra Joanna Pipková. 2021. *The Public Interest in Private* Enforcement *of Competition Law via Damages Claims*. Cambridge: CUP, parts II and III.

[98] Art. 12a (1)–(2) EP's negotiating position.

[99] "The designation "European green bond" or "EuGB" shall only be used for bonds for which the issuer has published a prospectus in accordance with Regulation (EU) 2017/1129 (…)" Art. 12 (1) EUGBR.

[100] SeeRecital (19a) EUGBR, when referring to the Prospectus Regulation, "That Regulation includes liability provisions".

The Prospectus Regulation allows investors to take legal action against issuers when they have suffered a damage for false or misleading statements in prospectuses before national civil courts.[101] As a result, investors should be able to bring legal proceedings at national level in case of “greenwashing” claims in the EUGB documentation. These disputes would be dealt according to jurisdiction-specific civil liability measures, different across Member States. The limitations of this civil liability regime are, at least, two.

On the one hand, as mentioned above, investors encounter several hurdles to prove damage before national courts.[102] On the other hand, the suggested civil liability regime would contribute to the maintenance of a heterogeneous judicial system across Member States given that greenwashing claims would be interpreted by courts in light of national standards of review.[103] In turn, different interpretations of akin disputes may lead to different outcomes across the EU, and this may create confusion among investors.

Despite the welcome steps to improve the private enforcement mechanisms, EP’s and EU council’s negotiating position, as well as the final wording of the EUGBR, only partially address the challenges of the EU Commission’s proposal. Even before the final wording of the EUGBR industry representatives, like the ICMA, have criticised the widened liability regime. ICMA has considered the link between civil liability and the Prospectus in the EP’s negotiating position disproportionate. It noted that the contents of prospectus statements, especially related

[101] “Member States shall ensure that responsibility for the information given in a prospectus, and any supplement thereto, attaches to at least the issuer or its administrative, management or supervisory bodies, the offeror, the person asking for the admission to trading on a regulated market or the guarantor, as the case may be”, Art 11 (1) Regulation 2017/1129. A similar model allows to bring legal proceedings vis-a’-vis CRAs if investors suffer damages for the credit rating agencies’ intentional or negligent behaviours. See Art 35a (1) Regulation 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies, as subsequently amended by Regulation (EU) No 462/2013 of the European Parliament and of the Council of 21 May 2013.

[102] See Sect. 6.3.1. Even under the CRA, which establishes a similar liability regime to the one for prospectuses, agencies are only liable in case of “intention” or “gross negligence”. Ibid.

[103] Art. 35a (4) of CRA Regulation states that terms like ““damage”, “intention”, “gross negligence”, “reasonably relied”, “due care”, “impact”, “reasonable” and “proportionate” shall be “interpreted” and “applied” in accordance with the applicable national law.

to how they will comply with the Taxonomy criteria, inherently have a forward-looking and subjective nature. The provision would also require issuers to understand and assess the differences of their liability regimes across different EU member states, resulting in additional costs.[104] Similarly, ICMA also criticised the wording of the EU Council's negotiating position, which also provided an additional link to the green bond documentation.[105] This could have additional unintended consequences since misstatements or non-compliance with the information contained in the green bond documentation may represent an "Event of Default", which may allow bondholders to accelerate the repayment of the security. Depending on the drafting of the bond terms, non-compliance may also cause the issuer to "cross-default" on all their other obligations.[106] In other words, according to ICMA, these amendments would unduly expand what we have defined as "greenwashing liability". Due to all these shortcomings, the association proposed removing all the amendments proposed by the EP and EU council on prospectuses, compensation for damages and liability under the bond documentation.[107]

The expansion of enforcement mechanisms is certainly a welcome step to fight "greenwashing", which can improve the scrutiny over the content of issuers' statements within the documentation. The broader liability regime should not be seen as an obstacle, as envisaged by the ICMA, but rather as an opportunity to make green bonds more "credible". At the same time, it could bring about several challenges and suggests a lack of coordination between different levels of enforcement mechanisms. The option for Member States to develop their own liability measures may leave room for discrepancies and fragmentation, which have already been

[104] As noted by ICMA.2022. Updated analysis of the proposals for the EuGB Regulation. https://www.icmagroup.org/assets/EU-GB-Updated-ICMA-commentary_220622.pdf. Accessed 23 September 2022. (hereinafter: ICMA.2022. Updated analysis of the proposals for the EuGB Regulation).

[105] See "Issuers shall undertake towards the investors by means of a binding clause in the terms and conditions or the final terms of the European green bond to comply in all material respects with the requirements applicable to issuers set out in this Title art 12a EC's negotiating position" Art. 12 (4) EC's negotiating position. The provision is no longer in the final wording of the EUGBR.

[106] Hornuf L, Reps M and Schäferling S. 2015. 'Covenants in European Investment-Grade Corporate Bonds. *Capital Markets Law Journal* 10 345, 355, 357.

[107] Specifically, art 12a EP's negotiating position, art 12(4) EU Council's negotiating position. See ICMA. 2022. 3.

evident in the implementation of the Prospectus and CRA regimes. It may also lead to an inconsistent treatment of investors depending on the surrounding procedural requirements and on the access to civil remedies.[108] As we will argue below, a more integrated enforcement regime could overcome some of the enforcement challenges.[109]

6.3.3 The Design of the EUGBS as a Voluntary Standard (I): a Missed Opportunity?

Another crucial aspect which will affect the standard for "greenwashing liability" is the voluntary nature of the EUGBS. The Impact Assessment of the Proposal examined whether the standard should be implemented (1) on a voluntary basis, whereby "green bond issuers" would be "free to choose" whether or not to align with the future European green bonds initiative", or (2) on a mandatory basis, whereby "all green bonds issued in the EU" or the bonds issued "by an EU-based issuer" would have to "make use of the European green bonds initiative."[110] The Parliament's negotiating position, while depicting the EUGBS as voluntary, required the Commission to produce an impact assessment two years after the entry into force of the regulation and every three years thereafter in order to reassess the merits of making the Standard mandatory.[111] The final version of the EUGBR adopts the same voluntary approach, however, it fails to include a timeline for the review of the prescriptiveness of the Standard.

Several reasons led the Commission to choose a *voluntary* standard, while linking it to the "common framework of rules" under the Green Taxonomy Regulation.[112] First, a 2020 Consultation on the Standard was the opportunity for several stakeholder groups to comment and express their support to a voluntary scope of the EUGBS, which would be in line with "market best practice and the Green Taxonomy

[108] On the divergencies across Member states, see Ch 17 Rudiger Veil. 2017. European Capital Markets Law. Bloomsbury

[109] See Sect. 6.5.1.

[110] Explanatory Memorandum (Impact assessment) EUGBR.

[111] Recital (36a); Art 63a (2) EUGBR.

[112] Both the European Parliament and the Council proposed a voluntary standard. See Recitals (3), (5) and (8) EP's negotiating position and Recital (8) EU Council's negotiating position.

Regulation."[113] Many of the respondents were representatives of corporations and business associations.[114] Second, the ICMA, bringing together several key market actors in the bond industry, welcomed the establishment of a voluntary standard in order to avoid "disruption to the existing self-labelled market".

The association noted that a binding standard would give rise to considerable additional costs, especially associated with the external review, and expose issuers to significant liability risks.[115] This would in turn prompt market actors to access other jurisdictions with lighter regulatory requirements for the issuance of these securities.[116] It also raised concerns around the potential migration from "green" to traditional financing techniques.[117] Lastly, industry bodies have noted that a mandatory label exclusively applicable to green bonds may create inconsistencies as other "sustainable" financial products would continue to be subject to voluntary standards. Under these circumstances, issuers would be incentivised to opt for sustainability-linked or social bonds[118] over green

[113] See European Commission. 2020. Summary Report of the Stakeholder Consultation on the Renewed Sustainable Finance Strategy. https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/2020-sustainable-finance-strategy-summary-of-responses_en.pdf. Accessed 23 September 2022.

[114] According to the report, companies and business organisations represented 26% in total (business associations 23%, companies/ business organisations 26% in total). These could arguably have conflicting incentives since the lower disclosure requirements of a voluntary standard are also likely to lead to lower compliance costs and turn in their favour.

[115] As also analysed above, see Sect. 6.4.2.2.

[116] ICMA. 2022.

[117] Ibid, 2–4

[118] "Social bonds" are similar to green bonds, but they advance social objectives, see ICMA. 2018. Social Bond Principles - Voluntary Process Guidelines for Issuing Social Bonds. ICMA. https://www.icmagroup.org/green-social-and-sustainability-bonds/social-bond-principles-sbp/. Accessed 23 September 2022; "sustainability-linked" bonds tie the repayment conditions or other characteristics of the bonds to specific "sustainability performance targets". For instance, failure to achieve the targets may result in a step-down to the coupon, see ICMA. 2020. Sustainability-Linked Bond Principles. https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Sustainability-Linked-Bond-Principles-June-2020-171120.pdf. Accessed 23 September 2022. No EU regulatory requirements have been developed so far for these financial instruments.

bonds. Other scholars emphasise that the transition to sustainability-linked bonds, which also often support environmental objectives, may create further confusion among investors.[119]

However, the preference for a voluntary standard has not been unanimous. Other respondents to the Consultation and commentators have advocated for a mandatory EUGBS.[120] Even the European Central Bank (ECB) warned against the risks of a proliferation of voluntary standards, which may have an adverse impact on the quality and pricing of green bonds.[121] The fragmentation between several industry-designed standards could specifically give rise to cliff effects if investors perceive that certain green bonds have unreliable environmental credentials. The lack of investors' confidence may also trigger the repricing of green bonds, which may also affect high-quality green bonds. Thus, the ECB invited the Commission to reassess the voluntary nature of the EUGBS by December 2023 and to shift to a mandatory standard "within a reasonable time frame, e.g. in three to five years" for "newly issued" green bonds.[122]

6.3.4 The Design of the EUGBS as a Voluntary Standard (II): Implications

As market actors are not required to adopt the EUGBS, its uptake will largely depend on the incentives for issuers and reviewers to comply with it, i.e. "carrots and sticks". Regulators can only nudge issuers by

[119] See, *Inter alia,* M. Driessen. 2021. Sustainable Finance: An Overview of ESG in the Financial Markets. In *Sustainable Finance in Europe*, eds Danny Busch, Guido Ferrarini and Seraina Grünewald. Palgrave Mcmillan. 329–350.

[120] Badenhoop. 2022. Green Bonds. 22–28. For example, Accountancy Europe and Finance Watch. See Accountancy Europe. 2021. Building a credible Green Bond market. https://www.accountancyeurope.eu/publications/building-a-credible-green-bond-market/ Accessed 23 September 2022; Finance Watch. 2020. Our response to the consultation on the establishment of an EU Green Bond Standard. https://www.finance-watch.org/wp-content/uploads/2020/10/green-bonds-standard-consultation.pdf. Accessed 23 September 2022.

[121] European Central Bank (ECB) and ESRB. 2022. The macroprudential challenge of climate change and financial stability, https://www.esrb.europa.eu/pub/pdf/reports/esrb.ecb.climate_report202207~622b791878.en.pdf. Accessed 23 September 2022. 110.

[122] European Central Bank. 2021. Opinion of the European Central Bank of 5 November 2021 on a Proposal for a regulation on European green bonds, (CON/2021/30), para 3.1.3, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021AB0030&from=E. Accessed 23 September 2022.

highlighting the reputational advantages[123] or presenting cost–benefit assessments.[124] When designing the EUGBS as a voluntary standard, EU Regulators have also assumed that deterrent measures would prevent market actors from engaging in "greenwashing" practices.

However, this regulatory approach does not take into account that the objectives and company purposes differ. A voluntary standard could certainly attract companies with traditionally positive ESG profiles, also incentivising them to be more transparent regarding their environmental commitments within the bond documentation. It may also be appealing for companies seeking to enhance their reputation on environmental matters but not willing to increase their exposure to litigation risks.

At the same time, the costs to issue an EUGBR-compliant bond, especially associated with the external review requirements, are considerably higher than those for the alignment with other market standards like the ICMA Green Bond Principles (which only recommend, but do not require, an external review).[125] Issuers with a strong focus on economic performance or reluctant to adjust their business models and strategy are unlikely to bear those costs.[126] Therefore, the EUGBS is unlikely to provide sufficient incentives to attract all potential issuers and it may rather exacerbate the existing market fragmentation issues between market practices on green bonds. For this reason, the voluntary scope of the Standard sits uneasily with the underlying "standardisation" objective.[127] As long as the EUGBS remains unattractive for actors which would otherwise enter the green bond market, it also goes against the objective to mobilise more investments towards sustainability projects ("sustainable finance" objective).[128]

[123] Nikolai Badenhoop. 2022. 22.

[124] Issuers will adopt the voluntary EUGBR only if the expected utility of compliance is greater than non-compliance. In this calculation, the cost of adapting their business, profits and the costs of being sanctioned will be taken into account.

[125] See Sect. 6.2. On other market standards, see Chapter 2 by Nikos Maragopoulos and Chapter 4 by Climate Bonds Initiative in the present volume.

[126] David Ramos Muñoz, Elia Cerrato and Marco Lamandini. 2021. The EU's "green" finance. Can "exit", "voice" and "coercion" be enlisted to aid sustainability goals? *European Banking Institute Working Paper Series 2021 – no. 90* (hereinafter: Ramos Muñoz, Cerrato and Lamandini. 2021. The EU's "green" finance).

[127] See Sect. 6.3.

[128] See Sect. 6.3.

Another challenge of the voluntary design of the EUGBS would be the problematic link to the enforcement mechanisms described above.[129] Scholars have praised the benefits of the voluntary compliance with rules, which would stimulate the dialogue between market participants while reducing compliance and enforcement costs.[130] However, a system relying on voluntary compliance may only be effective *if* the enforcement strategies are effective and deter opportunistic behaviour. We have extensively discussed the limitations of public and private enforcement mechanisms under the Standard, which only allow reviewers, but not NCAs and ESMA, to assess the substantive elements of green bond documentation.[131] The EUGBS is also unclear on the powers of public authorities when reviewers commit wrongdoings or provide false or misleading opinions within their review reports. There are also several legal uncertainties surrounding the behaviours that would allow private actors to bring legal action.[132]

Therefore, the voluntary design of the standard is inconsistent with its very objectives. It would fail to create a uniform "greenwashing liability" regime for all market actors issuing green bonds. More importantly, due to the inadequate enforcement mechanisms, it may give rise to legal uncertainties on the liability regime even across the actors that voluntarily comply with the EUGBS.

6.4 EUGBS Shortcomings from the Perspective of "Greenwashing Risk" (II): "Greenwashing Effects"

This section focuses on the other "greenwashing risks" emerging from the EUGBR beyond issuers' liability. First, it analyses the rules and the lack of enforcement mechanisms in the relationship between external reviewers and issuers (Sect. 6.4.1). Second, it deals with potential "greenwashing effects" beyond greenwashing liability resulting from the integration of gas and nuclear activities into the Taxonomy (Sect. 6.4.2).

[129] See Sect. 6.3.2.1.–6.3.2.1.

[130] John T. Scholz. 1984. Voluntary Compliance and Regulatory Enforcement. 6 *Law&Policy* 4. 385–404.

[131] See above Sect. 6.3.2.

[132] See above Sect. 6.3.1.

Finally, it discusses the application of the EUGBR to securitisation, and the potential greenwashing practices which could materialise as a result (Sect. 6.4.3).

6.4.1 *The External Review Framework and Its Shortcomings*

The EUGBR will require an external review, which should be performed by an actor with experience, sufficient skills and good reputation.[133] The EUGBR also seeks to clarify that the compliance with the EUGBS falls within the "procedural" duties of reviewers: these experts shall employ adequate and effective "systems, resources and procedures",[134] internal due diligence and effective procedures throughout the review processes.[135] Their task will be to verify the alignment of the projects funded through the issuance of green bonds with the technical criteria of the Taxonomy.

As discussed above, other supervisory authorities, i.e. NCAs and ESMA, will have an equally crucial role, with NCAs formally overseeing green bond documentation[136] and ESMA accrediting organisations and individuals as external reviewers.[137] It has several powers to monitor whether reviewers meet the conditions for registration on an ongoing basis, including the option to revoke registration or impose administrative sanctions should they not comply with the requirements of the review process "intentionally or negligently".[138] For intentional wrongs, ESMA should find "objective factors" which demonstrate that such a reviewer "acted deliberately to commit the infringement". Although those "objective factors" are not defined in the EUGBR, the Regulation empowers ESMA to appoint an independent investigating officer within ESMA with the capacity to investigate a potential infringement.[139]

[133] Art. 15(2) EUGBR.

[134] Art. 18(1), 20(1), 21(1) EUGBR.

[135] Art. 22(1) EUGBR.

[136] For their enforcement function, see above Sect. 6.3.2.

[137] Art 14–15 EUGBR.

[138] Art 51, 52 (2) ibid. See below Sect. 6.5

[139] Art 55(1) EUGBR.

All in all, these checks should further contribute to the standardisation and credibility of green bonds.[140] In principle, these three layers of review (see Fig. 6.2) should contribute to making external reviewers, the ESMA, as well as national competent authorities "gatekeepers",[141] with powers to monitor the environmental qualities of bonds and de facto contributing to the "credibility" of such securities. In particular, the expert judgement of reviewers and supervisors could guarantee the quality of the securities and of the related sustainability objectives through their reputation.[142]

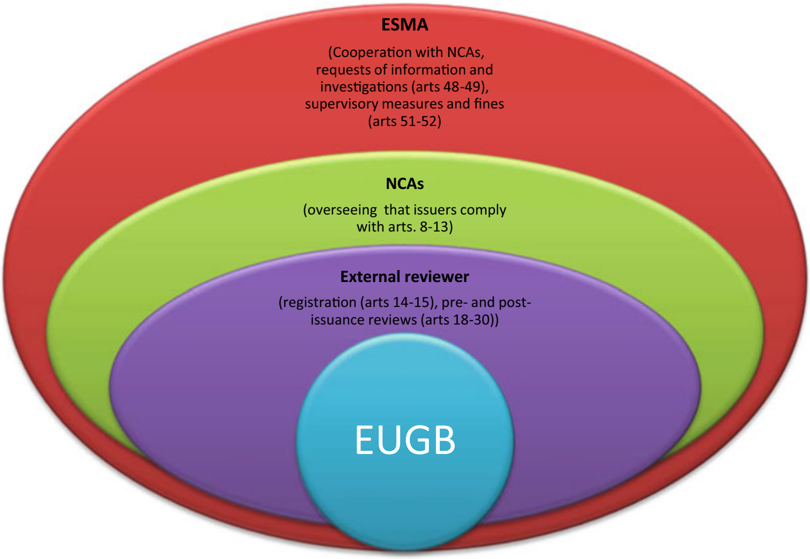

Fig. 6.2 Layers of review under the EUGBR[143]

[140] See above Sect. 6.3.

[141] On the role of "green gatekeepers" see Ramos Muñoz, Cerrato and Lamandini. 2021. The EU's "green" finance, and references cited therein.

[142] Ibid. On gatekeepers see John Coffee. 2006. *Gatekeepers: The Role of the Professions and Corporate Governance*. Oxford: OUP. R. H. Kraakman. 1986. Gatekeepers: The Anatomy of a Third-Party Enforcement Strategy, *Journal of Law, Economics & Organization* 2(1): 53–104.

[143] Authors' own elaboration based on the EUGBR.

Reviewers' registration with ESMA and their repeated involvement in several review processes should effectively confirm their competence. This should reassure investors of the reliability of their statements. Misstatements, negligent and fraudulent behaviours give rise to considerable reputational risk.[144]At the same time, the EUGBS leaves several questions open, which may limit the extent to which reviewers may effectively act as "green gatekeepers", as we discuss below.

Although the external review mechanism is a positive aspect, the EUGBR's current wording fails to clarify several aspects, which may have an impact on the standard for "greenwashing liability".

First, the function of external reviews is ultimately ambiguous. Pre-issuance reviews can be helpful to orient investment decisions: especially negative opinions could be a particularly powerful tool to discourage investors from financing certain issuances or certain companies, although a negative external review does not necessarily lead to conclude that such a bond will not become part of a portfolio of mixed assets to be sold on the secondary market.[145] In other words, negative reviews over the Allocation and Impact Report may have a reputational deterrent function, but they do not effectively allow investors to divest.

It is also questionable whether the Standard would entitle investors to initiate legal proceedings against the issuer to seek redress under the purchase agreement. This may be possible if the terms of conditions of the green bond sold in the secondary market include direct covenants allowing bondholders to bring action if issuers fail to use the proceeds for the promised environmental purposes or report misleading information.

Second, the EUGBR does not provide any legal consequences following a negative external review, or whether investors may have a cause of action against "wrong" reviews or misbehaviour of external reviewers.[146] For example, if the reviewer wrongly provides a positive review, investors will likely be damaged. However, the EUGBR fails to empower investors to "appeal" the review or to sue the reviewer for non-contractual liability. On the public side, the Proposal does not enable

[144] Art 51 EUGBR.

[145] I.e. under Art. 4a, issuers may allocate up to 15% of the proceeds to economic activities that comply with the relevant technical screening criteria on a "best effort" basis. See above Sect. 4.3.

[146] See Figure 6.1, which shows that investors and external reviewers are linked via a non-contractual relationship.

NCAs or ESMA to use supervisory powers or sanctions against the merits of the review.[147] This situation may encourage issuers to produce "lenient" EUGBR factsheets and allocation reports if they notice that their reports will hardly be rejected.

Third, the scope and consequences of the external review are so far unclear. The EUGBR clarifies that the pre-issuance review should focus on the Green Bond Factsheet and assess the alignment of the intended use of proceeds outlined therein with the technical screening criteria of the Taxonomy.[148] The Post-issuance Review, which rather relates to the Allocation Report, allows the reviewer to evaluate the extent to which the issuer has effectively complied with the Gren Taxonomy and with the Factsheet.[149] The work of the reviewer should result in a report, circulated with investors.[150] Annex IV of the EUGBR provides high-level templates with the information that Reviewers should include in their statements.[151]

The expected Level 2 delegated acts based on the EUGBR[152] have the crucial task to address the outstanding open questions concerning external reviews. For example, the templates only refer to "Positive" and "Negative" opinions, but they fail to specify whether the statement

[147] We refer to the power of ESMA to check whether or not the substance of the review infringes the Standard. See art 52(2)(a) in relation to arts 16(1) (material changes in the information provided by the reviewer); 18(1) (appropriate systems, resources and procedures); 20(1) (necessary experience and knowledge of the employees and analysts of external reviewers); 21(1) ("permanent, independent and effective" compliance function); 22(1) (internal due diligence policies and procedures to ensure independence of the assessment activity). For example, the external reviewer might be sanctioned for not being *independent* when performing the review. The senior manager of the external reviewer might be sanctioned for not *establishing* and *maintaining* effective compliance function, not *adopting* due diligence policies, not identifying, disclosing and managing conflicts of interest or disregarding the requirements of the EUGBR. However, the regulation does not clarify whether external reviewers and their management body can be sanctioned for their wrongdoings. see Badenhoop. 2022. Green Bonds. 73.

[148] Art 7 EUGBR.

[149] Art 9 EUGBR.

[150] Art 9 (7) EUGBR.

[151] Cédric Merle & Emma Brand. 2021. The European Green Bond Standard: a future gold standard for green bond issuance? https://gsh.cib.natixis.com/our-center-of-expertise/articles/the-european-green-bond-standard-a-future-gold-standard-for-green-bond-issuance. Accessed 23 September 2022.

[152] According to Art 23 (3) EUGBR.

should also "rate" the degree of compliance with the EUGBR. If delegated Acts do not address these uncertainties, they may exacerbate the existing discrepancies among the current non-binding external accreditation processes.[153] They may also leave room for boilerplate or ambiguous review statements, which may fail to reveal all potential "greenwashing" practices to investors.

The current focus on the Factsheet and Allocation or Impact reports is also misplaced. The Proposal does not explicitly require reviewers to check other crucial aspects of the underlying decision-making processes on "green" aspects or other documents and announcements to the public. One may think of resolutions taken at board or general meetings related to the selection of projects or the expenditures after the issuance, press releases or presentations to investors. While these aspects of the overall governance structure may have an impact on investors' interest and on bonds' pricing, there would not be an explicit requirement for reviewers to scrutinise them. It is also not clear that these statements and decisions would give rise to directors' liability or companies' liability vis-a-vis third parties. Therefore, the current narrow focus of external review processes risks leaving room for untruthful and exaggerated statements related to issuers' environmental commitments or for decisions deviating from the Taxonomy. Their effect would in practice be "greenwashing", but they would not necessarily give rise to liability.

6.4.2 *The "Greenwashing Effects" of the Link to the Green Taxonomy Regulation*

One of the most problematic features of the EUGBS is the link to the Green Taxonomy Regulation,[154] given the controversial spectrum of activities falling under the scope of such Regulation. The Green Taxonomy currently operates as a classification system, identifying some economic activities as "environmentally sustainable" because they are Taxonomy-aligned, enable other activities to contribute to one or more environmental objectives, or is a transitional activity.[155] As a consequence, there is a grey area of activities which do not fall within its scope,

[153] See above.

[154] As described in Sect. 6.2.

[155] Arts. 10–15, 16 Green Taxonomy Regulation.

including the activities which "do significant harm" to sustainability objectives ("brown activities").[156]

To this end, the Delegated Regulation 2021/2178 has recently provided technical criteria to consider gas and nuclear activities as Taxonomy-aligned based on the potential of these activities to "decarbonize the Union's economy". The delegated act follows a Communication by the European Commission, where it was clarified that "if a company does not have Taxonomy-aligned activities, "conclusions can(not) be drawn regarding the company's environmental performance or its ability to access finance". The Communication also clarifies that gas and nuclear could not be automatically classified as environmentally unsustainable.[157]

The Delegated Regulation classifies gas and nuclear as "transitional" activities, which the Taxonomy allows where "no technologically and economically feasible low-carbon alternative."[158] The Delegated Act further specifies that nuclear must fulfil environmental safety requirements and that gas must contribute to the transition from coal to renewables".

The UN Principles for Responsible Investment (PRI) have expressed their concerns on the evident "greenwashing" risks of including these sectors in the Taxonomy in a letter to finance ministers of EU member countries in December 2021.[159] In a position paper they have also proposed acknowledging a separate status for these energy sources.[160] Several NGOs have also urged EU law makers to reconsider their decision.[161] The ECON Committee of the European Parliament raised a formal objection after criticising the Delegated Regulation,[162] bringing the chamber to a vote on extending the scope of the Taxonomy-eligible

[156] Art 3 (b) ibid.

[157] Ibid.

[158] Art 10(2) Green Taxonomy Regulation.

[159] PRI. 2022. Letter to finance minister of EU Member countries. https://dwtyzx6upklss.cloudfront.net/Uploads/x/u/y/letter_eu_member_states_alt_solutions_862656.pdf Accessed 23 September 2022.

[160] UNPRI. 2021.'Position Paper' https://www.unpri.org/download?ac=15189

[161] Various signatories. 2021. Joint letter to MEPS on EU sustainable finance taxonomy. https://www.beuc.eu/publications/beuc-x-2021-057_joint_letter_to_meps_on_eu_Taxonomy_delegated_act.pdf. Accessed 23 September 2022.

[162] Paul Tang, representative of the ECON, criticised this proposal for not being in line with the Green Taxonomy Regulation regarding the substantial contribution to climate

activities to gas and nuclear.[163] However, as an absolute majority could not be reached, the Delegated Regulation for gas and nuclear came into force on January 1, 2023.[164] Some Member States and NGOs have announced their intention to bring the provision to the Court of Justice of the EU and request the annulment of the Delegated Act for contravening secondary legislation (Green Taxonomy, EU Climate Law) as well as for infringing principles of institutional balance.[165]

All in all, the expected eligibility of certain gas and nuclear activities for the Taxonomy is problematic. In particular, it means that a wide range of energy sources—with very mixed environmental impacts - will potentially fall within the scope of the Green Taxonomy. This situation may create confusion among investors around the characteristics of Taxonomy-aligned EUGBS, especially for those who reject nuclear and

change mitigation and the requirement of doing no significant harm to the other environmental objectives. See Draft Report on the proposal for a regulation of the European Parliament and of the Council European green bonds (COM(2021)0391—C9-0311/2021—2021/0191(COD)).

163 ECON committee, Draft Motion for a Resolution pursuant to Rule 111(3) of the Rules of Procedure on Commission delegated regulation of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities. 2022. https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/CJ36/RD/2022/06-14/1257367EN.pdf. Accessed 23 September 2022.

164 European Parliament. 2022. Taxonomy: MEPs do not object to inclusion of gas and nuclear activities. https://www.europarl.europa.eu/news/en/press-room/20220701IPR34365/Taxonomy-meps-do-not-object-to-inclusion-of-gas-and-nuclear-activities. Accessed 16 May 2023.

165 One example is Austria, already announcing its intention to bring legal proceedings. More recently, Greenpeace and the coalition including Client Earth and WWF have filed two separate legal claims before the EU General Court. These cases should relate to the compatibility of the inclusion of gas and nuclear with the principles under EU treaties and EU law. Analysing these aspects falls outside the scope of this piece. See René Repasi. 2022. The Legal Standing of a Member of the European Parliament in an Action for Annulment. EULaw Live. https://eulawlive.com/op-ed-the-legal-standing-of-a-member-of-the-european-parliament-in-an-action-for-annulment-by-rene-repasi/. Accessed 22 December 2022. Also, Reuters. 2022. Anti-nuclear Austria files legal challenge to EU green investment rules https://www.reuters.com/world/europe/anti-nuclear-austria-files-legal-challenge-eu-green-investment-rules-2022-10-07/ Accessed 16 May 2023; and See Euronews.green. 2023. Environmental groups sue EU for labelling gas and nuclear as 'green' investments https://www.euronews.com/green/2023/04/18/environmental-groups-sue-eu-for-labelling-gas-and-nuclear-as-green-investments. Accessed 16v May 2023.

gas as "environmentally sustainable" activities. Such investors may lose their trust in the standard as a tool to support the sustainability transition. In turn, the EUGBS may lose "credibility".[166] The resulting loss in appetite for green bonds may also have a cascade effect on other "sustainable" financial instruments like sustainability-linked bonds.

More importantly, the inclusion of these energy sources goes against EU net-zero targets under the EU Climate Law and international commitments, requiring the urgent phasing-out of fossil fuels, including gas.[167] Therefore, EUGB-compliant bonds in support of gas activities arguably do not mobilise capital towards sustainability objectives, but they rather frustrate the overarching "sustainable finance" objective.[168]

However, it is essential to draw a distinction between these critiques to the EUGBS and the hypotheses of "greenwashing liability" discussed above. Incorporating criteria for gas and nuclear is the result of questionable political and legislative choices. These may indeed foster "greenwashing effects" for companies active in the gas and nuclear sectors, which may comply with the Taxonomy on the surface but would not de facto make an equally positive contribution to the transition to a net-zero economy like other green bond issuers. However, such practices would not give rise to legal liability as they would be formally compliant with the EUGBS.

6.4.3 The "Greenwashing Effects" of the Applicability to Securitisation

All the versions of the Proposal extended the applicability of the rules to "securitisation" and to "covered" bonds.[169] However, how the EUGBR will fit within the existing securitisation framework is still an unresolved issue, which may also open the door to "greenwashing" risks. Securitisation is a financing technique that converts a portfolio of credit claims into tradable securities (Asset-Backed Securities, ABS) through the use of an

[166] See Sect. 6.3.

[167] See recital (29) of the EU Climate Law; see also the recent Glasgow Climate Pact,urging countries to "accelerat[e] efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies" UNFCC.2021. 3.

[168] See Sect. 6.3.

[169] "Explanatory memorandum" EUGBS; see also TEG (2020). Taxonomy Technical Report, (TEG Taxonomy Technical Report), pp. 2–4.

intermediating entity (Special Purpose Vehicle, SPV).[170] So far, companies and financial institutions engaging in securitisations have defined these operations as "green" in two possible scenarios: (1) where they have undertaken to use the proceeds raised from the issuance of ABS for environmental projects ("green proceeds securitisation"), or (2) when they have aggregated "green" credit claims, like loans and leases for hybrid vehicles or energy-efficiency upgrades, for the operation ("green collateral securitisation").[171] According to the ICMA GBP, "green securitised bonds" would be "collateralized by green projects", i.e. they would need to meet both requirements.[172]

The definition of "green securitisation bonds" under the EUGBR remains unclear in the initial Proposal as well as in the subsequent amendments put forward by the EU Council and the European Parliament's negotiating positions."[173] It also remains to be seen whether there will be concurrent definitions within the broader securitisation regime. Following EBA's recommendations, in response to the requirement to provide a report on a potential sustainable securitisation framework,[174] the EUGBR

[170] A comprehensive analysis of the role of the different entities participating in securitisation transactions and the implications of the contractual relationships among them is developed in Ramos Muñoz, David. 2010. *The Law of Transnational Securitisation*. Oxford University Press, ch 4.

[171] See the distinction drawn by James K & Parker I. 2019. New Growth in the Green Securitisation Market. https://files.simmons-simmons.com/api/getasset/New_Growth_in_the_Green_Securitisation_Market_January_2019.pdf?id=blt0df47a9a3f7faef0. Accessed 23 September 2022. The authors also add a third possible scenario ("green capital securitisations"), where market actors engage in these transactions to free up capital in order to develop sustainability projects. However they also fall within "green proceeds securitisation" as they ultimately lead to the financing of new sustainability projects, as clarified by Petit C and Schlosser P. 2020. Rationale , Potential and Pitfalls of Green Securitisation. *EUI working papers*. 2-3 https://cadmus.eui.eu/bitstream/handle/1814/67018/RSCAS%202020_35.pdf?sequence=1.

[172] ICMA. 2022. 8.

[173] Fn 11 EUGBS amendments.

[174] EBA. 2022. Report on developing a framework for sustainable securitisation (EBA/REP/2022/06). https://www.eba.europa.eu/ebarecommends-adjustments-proposed-eu-green-bond-standard-regards-securitisation-transactions, pp. 39–40. The Regulation 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 Directive 2017/35 (hereinafter: Securitisation Regulation) gave EBA the mandate to produce such recommendations.

will apply to securitisations as an "alternative voluntary standard".[175] The European Supervisory Authorities (ESAs)[176] are, however, also concurrently working on the development of Regulatory Technical Standards for securitisation-related disclosures.[177]

An issue deriving from the ambiguity of the notion of "green securitised bonds" is the difficult "traceability" of greenwashing risk. Starting from the wording proposed by the European Commission, all the various versions admitted that green bond issuers may, among other things, finance "financial assets" in line with the technical criteria of the Taxonomy.[178] At the same time, the European Parliament's amendments also added that when the EUGBR is applied to securitisation transactions, the proceeds must be Taxonomy-aligned.[179] One possible interpretation of these provisions could have been that EUGBR-compliant bonds may be those that meet both the requirements above, following the ICMA GBP. In other words, the SPV is assigned the legal rights over portfolios of Taxonomy-aligned assets ("green collateral securitisation") and the

[175] The report also contained three alternative routes for the development of a standalone standard should the EU commission prefer this alternative. see EBA. 2022, pp. 50–52.

[176] I.e., the EIOPA and the ESMA.

[177] ESAs. 2023. Final Report on Draft regulatory technical standards with regards to the content, methodologies and presentation of disclosures in respect of the sustainability indicators in relation to adverse impacts of the assets financed by the underlying exposures for STS securitisations on the climate and other environmental, social and governance-related adverse impacts pursuant to Article 22(6) and 26d(6) of Regulation (EU)2017/2402. https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Draft%20Technical%20Standards/2023/JC%202023%2013/1055704/JC%202023%2013%20-%20Final%20report%20on%20ESG%20disclosure%20for%20STS%20securitisations.pdf. Accessed 2 August 2023. SAs.2 3 See also arts Article 22(4) and 26d(4) Securitisation Regulation.

[178] Art 5, EUGBR.

[179] Art. 6a EP's negotiating position.

proceeds also comply with these technical criteria ("green proceeds securitisation").[180] The final version of the EUGBR clarifies that green securitised bonds are such because of their *proceeds*, while also excluding that portfolios comprise "exposures financing the exploration, mining, extraction, production, processing, storage, refining or distribution, including transportation, and trade of fossil fuels".[181]

Despite the clarification, the literal wording of the EUGBR does not seem to rule out the possibility that the transaction does not comply with the Taxonomy. First, the EUGBR relaxes the obligation to allocate *all* the proceeds of EUGBs to economic activities that meet the technical screening criteria.[182] Issuers may allocate up to 15% that meet the taxonomy requirements "with the exception of technical screeding criteria" where the proceeds are used to financing economic activities for which technical eligibility criteria have not entered into force at the date of issuance of the EUGB, or economic activities in the context of international aid notified in accordance with internationally agreed guidelines.[183] The flexibility in the use of proceeds allowed by the EUGBR would be also reflected in the pool of securitised exposures.

Second, the EUGBR excludes securitised exposures financing the abovementioned "brown" activities,[184] and increases transparency about the "green" criteria of the securitised exposures.[185] These additional requirements are subject to exceptions. In particular, exclusion requirements *should not* capture exposures where the link with fossil fuel activities

[180] One of the questions posed within a consultation on the securitisation framework launched by the Commission also seems to suggest this interpretation. See European Commission. 2021. Consultation Document - Targeted Consultation on the Functioning of the EU Securitisation Framework. Question 6.6. https://finance.ec.europa.eu/regulation-and-supervision/consultations/2021-eu-securitisation-framework_en. Accessed 23 September 2022. See also Elia Cerrato García. 2022. El mercado de instrumentos financieros "verdes", ¿paradoja o realidad? *Revista del Derecho de Mercado Financiero*, No. 4, julio-diciembre. (hereianfter: Cerrato García, 2022. El mercado de instrumentos financieros "verdes"). R. Berrou et al (2019). An Overview of Green Finance.17. .

[181] Recital 20a, Art 2(5)(x-ac), 13c (1) (2) EUGBR.

[182] Art. 4a EUGBR.

[183] Ibid.

[184] Art. 13c(1) EUGBR.

[185] Art. 13d EUGBR.

is "marginal" or "incidental", where marginal and incident are non-defined terms under the EUGBR.[186] On the other hand, the EUGBR integrates the disclosure of taxonomy-alignment and taxonomy-eligible activities of securitized exposures as a "best effort" obligation. This means that the originator shall attempt to disclose the pool of securitised exposures that are taxonomy-eligible or taxonomy-aligned, but without any guarantee provided that it will succeed.[187] Thus, the EUGBR does not exclude the possibility of pooling together "green" and conventional assets (or, at least, assets with a "marginal" or "incidental" link to brown activities) as part of the portfolio if they are "homogeneous" in "asset type".[188] In these circumstances, originators could still use the EUGB label. Thus, the lack of clarity on the qualities of "green" securitisations' portfolios may foster "greenwashing effects".[189]

Safe for these limited exceptions, the lack of clear requirements surrounding portfolios suggests that issuers will hardly have any incentives to disclose complete and sufficient information about the neutral or adverse impact of their assets if these do not specifically fall within the abovementioned examples of "brown" activities. Issuers may also make misleading claims, which would inevitably represent examples of "greenwashing". We qualify this situation as an example of "greenwashing effect" as the lack of requirements for the portfolios of EUGB-compliant securitised bonds also means that no legal consequences, i.e. no "greenwashing liability", would follow from using "brown" assets or misleading investors. The general framework for securitisation may also exacerbate such effects: the regime for "simple, transparent and standardised" securitisation transactions (STS)[190] currently gives issuers the *option* to disclose on the "environmental impact" or on the "principal adverse impact"

[186] Art. 13c read together with Recital 20b EUGBR.

[187] Art. 13d(3) ibid read together with Recital 20b (to the best of the originator's ability, using available data such as data gathered in the originator' internal database or IT system).

[188] Arts 20(8) (for STS securitisations) and 24(15) (for ABCP transactions) of the Securitisation Regulation.

[189] Cerrato García, 2022. El mercado de instrumentos financieros "verdes".

[190] Resulting in additional disclosure and risk-retention requirements, but also awarding originators with a preferential capital treatment, see Securitisation Regulation; Artt 242–243 Regulation (EU) 2017/2401 of the European Parliament and of the Council of 12 December 2017 amending Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms.

(PAI) on sustainability factors of their securitisation portfolios when it comprises auto or residential mortgages or leases.[191]

Yet, the provision only applies to STS-compliant transactions and, even in such cases, it would fail to cover portfolios composed of different assets, like consumer or corporate loans. More importantly, its wording allows issuers not to disclose such information when the data is not available.[192] No other rules of the securitisation regime require disclosure on environmental matters.

Facing this legal uncertainty, issuers may also draft the securitisation documentation to exclude any remedies, for investors on sustainability matters or to limit them. For example, they will have no interest in linking the non-compliance with, or the breach of sustainability objectives to "Events of Default" clauses, which will allow investors to demand the acceleration and early repayment of their securities.[193] Issuers may also use contractual provisions to waive their liability for "green" clauses or environmental risks: this may occur, among other things, by adding a disclaimer waiving any responsibility for the sustainability risks included in the offering documentation.[194] The problem can spill over to the entire financial value chain (from issuers, sponsors, originators to institutional investors, trustees, etc.) until green securitised bonds are purchased by end investors.

Another problem related to the "traceability" of greenwashing risk is to determine the person responsible for the securitised exposures. In securitisation operations, the entity formally issuing "green" securities

[191] The EBA has recommended extending the disclosure requirement concerning the PAI of the portfolio to *all* securitised assets, even if the transaction is not in STS-aligned. Overall, reporting on the sustainability risks of the portfolio is essential in order to enhance the transparency of all "green securitisation" deals. See Art 1 (9) Regulation (EU) 2021/557 of the European Parliament and of the Council of 31 March 2021 amending Regulation (EU) 2017/2402 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation to help the recovery from the COVID-19 crisis.

[192] It is also working on the development of appropriate templates for other categories of assets. See EBA (2022) 50–51.

[193] For a series of examples in the green bond sector in general, see Federica Agostini (2022). See also Sect. 6.4.2.1.

[194] Cerrato García. 2022. (see the examples cited therein). Environmental finance, "Sustainable bond insight 2021" 4, https://www.environmental-finance.com/assets/files/research/sustainable-bonds-insight-2021.pdf.

differs from the one setting up the transaction and implementing the related environmental projects. This means that it is in principle necessary to assess "greenwashing liability" at the level of the entity which technically issues ABSs, i.e. the intermediating entity (SPV), and not of the owner or the originator of the assets. Making the SPV legally liable would, however, be at odds with the very nature of these entities, generally having very little capitalisation, operations or substance. It would also increase the challenges of enforcing any penalties. Therefore, Art 13d of the EUGBR, following the EBA's recommendations, places the responsibility for the compliance with the Taxonomy criteria on the originator. The reasons are twofold: (1) the originator is the entity that uses the proceeds of the bonds to allocate financing for economic activities, and (2) this approach is more efficient and pragmatic in the transition period until the taxonomy-aligned assets are plentiful. Finally, it is not entirely clear what documents financial service providers will need to review and if they should also assess the credit claims backing these transactions. Thus, reviewers' final statements may be incomplete or misleading on the environmental qualities of the portfolio.[195] As in all other cases of EUGB-compliant bonds, there would also be limited remedies for investors against reviewers.[196]

6.5 Proposals to Strengthen the Application of the EUGBR and Prevent Greenwashing

The procedure to approve the EUGBR shows remarkable efforts to develop enforcement mechanisms that try to prevent greenwashing and to compensate the adverse impact of greenwashing. Despite the efforts, the regime for greenwashing liability remains fragmented across the proposal, and some effects of greenwashing are still excluded from it. Given these shortcomings, we propose some amendments to the EUGBR that can bring the standard more in line with the EU sustainable finance agenda. Certainly, the regulatory effort behind the design of the EUGBR is remarkable due to the science-based approach applied in the Taxonomy. At the same time, it is essential to set the right incentives that can

[195] See above Sect. 6.4.1.

[196] Ibid.

allow market actors to engage and to make an effective contribution to sustainability objectives while addressing "greenwashing" risks.

If the EUGBR should primarily be a "credible" standard, following the broader climate-related goals of the EU,[197] the Regulation should delineate a comprehensive liability regime, which should address *all* potential forms of "greenwashing". In this section we suggest two proposals which aim to reinforce both the public and private enforcement mechanisms.

6.5.1 Strengthening Accountability Mechanisms Over the Review Process

The external review process as currently envisaged deserves some improvements, which should target both the regulation and the Delegated Acts. Under the EUGBR, the lack of a standard review methodology means that it may suffice for reviewers to issue a positive or negative report, with little control over the "substance" of green bonds. Arguably, the Regulatory Technical Standards should establish a rating system to provide a score to the "green" qualities of the securities.

In addition, a relevant aspect of the Regulation is the goal to ensure the accountability of external reviewers. We have mentioned above that external reviewers are experts in a good position to act as gatekeepers since they control the access to green bond markets and have the expertise to verify the "green" qualities of bonds. Nonetheless, the EUGBR provisions may not suffice to ensure that reviewers can be held accountable for their statements.

As the EUGBR fails to introduce any power to scrutinise external reviewers' decisions and reports, they do not effectively face any legal consequences. As a result, in our view the proposal seems to encourage the responsibility of the external reviewers, i.e. that they effectively complete the task of providing a review, rather than encouraging their accountability, i.e. that they provide answers for the outcomes of the review. For example, reviewers negligently or intentionally providing a positive opinion of a green bond despite issuers' poor environmental performance will not be legally liable, but they will mislead investors, and may also undermine the efficiency of the market.[198]

[197] See above Sect. 6.2.

[198] On the competition law implications of greenwashing, see above Sect. 6.3.1.

On the contrary, introducing deterrent measures and empowering other EU authorities to scrutinise the effective content of pre-issuance and post-issuance reviews is imperative to ensure reviewers' accountability. To this end, ESMA is in a unique position as the EU supervisor for the securities markets.[199] Among other activities, it shall ensure a "sound, effective and consistent" level of supervision and regulation.[200]

The Proposal confers ESMA the power to supervise whether external reviewers (1) have the knowledge and expertise necessary, (2) adopt appropriate procedures, (3) use adequate resources and quality information and (4) develop internal prudent management policy when performing pre-issuance and post-issuance reviews.[201] The EUGBR should clarify if ESMA would be entitled to supervise and review the application of the technical criteria, and specifically whether they are consistent with the reviewer's methodology.[202] It should also be able to supervise the substance of the review, i.e. whether the reviewers' conclusions are consistent with the Green Taxonomy Regulation requirements.[203] On the contrary, the EUGBR only delegates to ESMA the development of technical criteria regarding possible conflicts of interests.[204]

[199] It should also more broadly identify threats to financial stability, promote investor protection and the well-functioning of the market. Art 1(5)(a) and (e)Regulation 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Supervisor Markets Authority).

[200] Ibid.

[201] Arts. 18–30, together with the technical standard that ESMA and the Commission shall develop.

[202] In the case of CRA, see the decision of the Board of Appeal in Scope Ratings GmbH v ESMA, Decision Ref.: 2020-D-03, 28 December 2020.

[203] Recital (22) EUGBR states that reviewers should disclose to the users of pre-issuance and post-issuance reviews the methodologies and key assumptions. Art. 23 EUGBR allows in general terms that reviewers develop and apply their own methodologies. In relation to the methodology applied by credit rating agencies in accordance with Art. 8 CRA (credit rating agencies shall use methodologies that are "rigorous, systematic and continuous ". In Scope Ratings GmbH v ESMA, Decision Ref.: 2020-D-03, 28 December 2020, paras 112, 114, 150. The Board of Appeal recognised that Art. 22a expressly and directly "reference to ESMA's supervisory obligations as regards examination of compliance with methodologies" and "shared the view put forward by ESMA" that "the systematic application of a methodology does not imply the mechanistic application of the methodology and allows for an appropriate margin of judgment".

[204] Art 19 (2) EUGBR.

Strengthening ESMA's supervisory powers would also require a clearer definition of the conducts that would give rise to an infringement of reviewers' duties under EUGBR (e.g., abuse, intentional wrongdoing within the review process, negligent assessment of green bond documentation). ESMA has shown its willingness to do so. In addition, ESMA could also cooperate with other institutions, like the European Environmental Agency (EEA),[205] that might provide ESMA with relevant information to perform the review.

In our view, the reviewer providing a negative review should notify ESMA and the NCAs *why* the issuer has not been awarded the EUGBR, so ESMA can evaluate whether there is a risk against the market that should be assessed at the EU level or in coordination with the NCAs.

At the same time, it is essential to strengthen the cooperation between reviewers and NCAs. Issuers' non-compliance with the Green Taxonomy is exclusively subject to the negative review of external reviewers. This means that NCAs supervise and investigate whether issuers have published the pre-issuance green bond Factsheet and the Allocation Reports, but not whether the targets and activities within the reports are effectively Taxonomy-aligned.[206] Therefore, the EUGBR should be amended to require external reviewers to cooperate with NCAs to facilitate the investigation of any potential "infringements".[207] Failure to cooperate should also lead to sanctions, like the withdrawal of reviewers' registration by ESMA.

6.5.2 *Strengthening the Cooperation Between Supervisors and Between Reviewers and Supervisors*

There is also room for the adjustments to the EUGBR in relation to the supervisory and enforcement regime and a strengthened cooperation between public and private authorities. The application of the prospectus

[205] Ramos Muñoz, Cerrato and Lamandini. 2021. The EU's "green" finance, s 3–4.

[206] Art. from the language of the text the content of what is disclosed is not an issuer subject to their supervision.

[207] In this regard, a clarification or what "infringement" means under the EUGBR is necessary. In our view, infringement should include both the failure to comply with procedural and organisational requirements by issuers and external reviewers, but also the lack of compliance with the Taxonomy "substantive" requirements.

liability regime will also cause divergencies in the application across EU Member States, as previously discussed.[208]

For example, the Regulation empowers ESMA to act facing "intentional" or "negligent" conduct of external reviewers.[209] However, the Regulation does not specify the rules that shall apply to determine whether the infringement has been committed intentionally or negligently. Yet, intentional infringement is subject to the objective factors that ESMA might find in a particular situation, but the Regulation should clarify whether those objective factors are examined under normative standards developed at EU level, if they can be influenced by the choice of law issuers and reviewers agreed on in their assessment service agreement, or if they are based on national laws.[210] In any case, the application of national legal standards to conclude whether the external reviewer acted negligently or intentionally may increase market fragmentation given that national jurisdictions will inevitably have different standards to establish intention or negligence.

The Regulation should also clarify whether and to what extent private investors may rely on ESMA's or NCAs' decisions in their private claims for greenwashing liability before national courts, or whether and to what extent national civil courts may rely on the evidence and conclusions of ESMA's and NCA's decisions when assessing issuers' and reviewers' behaviours.[211]

Title IV of EUGBR[212] reflects ambiguity insofar it encourages the cooperation in investigation, supervision and enforcement (power to

[208] See above Sect. 6.3.1.

[209] Art 51 read together with Art. 52 EUGBR.

[210] Likewise, Artt. 38 and 42 EUGBR also confer supervisory and sanctioning powers on NCAs. It encourages them to cooperate in the exercise of their supervisory and investigative powers to provide effective and appropriate sanctions. Yet, national administrative laws and liability regimes vary across Member States.

[211] For example, investors may bring a claim against an issuer for misleading information in the green bond documentation. If a NCA has previously sanctioned the issuer, how and to what extent would the sanction be relevant in order to assess the issuer's liability in the private claim?.

[212] Articles 36–45 EUGBR.

impose sanctions) between NCAs of home and host Member States,[213] and between the NCAs and ESMA.[214]

Art. 43 of the EUGBR states that Member States shall ensure that "decisions taken under this Regulation [by the NCAs]" are "subject to a right of appeal before a court". The legal avenues to appeal decisions under the EUGBR are, however, not always clear from the wording of the EUGBR.

Art. 40(3) of the EUGBR states that ESMA may act "in accordance with the powers conferred on it by Article 19 of the Regulation No 1095/2010" if a NCA disagrees with any of the measures adopted by another NCA against the infringement of an issuer of EUGBs.[215] Article 19 enables ESMA to act as a conciliator between the NCAs in order to help them reach an agreement.[216] Alternatively, ESMA might adopt a final decision if the NCAs failed to reach an agreement.[217] A problem is that decisions adopted by ESMA in accordance with Article 19 can be appealed before the ESMA Board of Appeal by "any natural or legal person" where such decision "although in the form of a decision addressed to another person" is of "direct and individual concern to that person".[218]

The language and application of articles 40(3) and 43 of the EUGBR could give rise to ambiguity. This raises the question of whether a decision adopted by ESMA against an issuer following the procedure described in Art. 40 would entitle the issuer to appeal the decision before the ESMA Board of Appeal, or otherwise the issuer should file a civil claim before the competent national court, in accordance with Art. 43. Therefore, the EUGBR should offer the opportunity to reinforce the

[213] Art. 38(1) EUGBR.

[214] Art. 40(1) EUGBR.

[215] Article 40(2) EUGBR.

[216] Art. 19(1) and (2) of Regulation No 1095/2010.

[217] Art. 19(3) of Regulation No 1095/2010 following the decision making procedure envisaged in Art 44 of the same regulation.

[218] Art. 60 of Regulation No 1095/2010: "<u>Any natural or legal person, including competent authorities, may appeal against a decision of the Authority referred to in Articles 17, 18 and 19</u> and any other decision taken by the Authority in accordance with the Union acts referred to in Article 1(2) <u>which is addressed to that person</u>, <u>or</u> against a decision which, although in the form of a decision addressed to another person, <u>is of direct and individual concern to that person</u>." (Emphasis added).

interplay between public and private enforcement regime, and to clarify the remedies available after the decisions by supervisory authorities.

Finally, developing a harmonised enforcement system to address greenwashing requires effective coordination mechanisms between European and national institutions,[219] which are crucial to achieve convergence in practices. An option is the establishment of a "communication cooperation network" between external reviewers, ESMA and NCAs where they should exchange information to avoid the risk of an infringement against investors and against the market. To prevent greenwashing, an alternative is that these authorities refer to each other situations where it is the issuer who did not provide relevant information in the pre-issuance review (which will affect the subsequent review by the reviewer). They should also have the power to exchange information about external reviewers and whether they infringe the EUGBR.

6.6 Conclusions

The EUGBR is a welcome initiative, which should place the EU at the forefront of the global regulatory arena for green bonds. Despite the commendable steps towards for the standardisation of disclosure and review practices, the Regulation fails to effectively address all "greenwashing risks". It falls short from introducing a coordinated enforcement regime for "greenwashing liability". It will also leave room for "greenwashing effects" after reviewers' statements, when market actors issue green bonds in the gas and nuclear sector, as well as when they design and issue green securitisation bonds. Given these shortcomings, we propose some amendments to the EUGBS that can bring the standard more in line with the EU sustainable finance agenda.

Adjustments to the rules on the external review process are also imperative to address all potential "greenwashing" risks. In particular, it is essential to streamline the format and content of external reviews, as well as the relationship between the issuer and the external reviewer. These changes would make external review statements more uniform and comparable to investors, in line with the other documents for the

[219] There have already been extensive appraisals of the merits of increasing the coordination between EU institutions on banking law matters, see Marco Lamandini & David Ramos Muñoz. 2022. Banking Union's accountability system in practice: A health check-up to Europe's financial heart. *European Law Journal*: 1– 31.

compliance with the EUGBR label (Factsheet, Allocation Report, Impact Report). At the same time, it is essential to enhance the cooperation between reviewers, NCAs, ESMA and national courts in order to ensure that all actors involved in the monitoring and supervision of green bond issuers have effective powers to detect "greenwashing" practices and to promptly intervene. Further adjustments to the EUGBR would provide a crucial opportunity for EU authorities to trigger a "Brussels effect",[220] where the EUGB becomes the globally leading and ambitious "gold standard".

[220] I.e. the effect also achieved by the UCITS directive, where the EU framework became the global standard, see Lehmann, A. (2021) 'The EU green bond standard: sensible implementation could define a new asset class', Bruegel Blog. https://www.bruegel.org/blog-post/eu-green-bond-standard-sensible-implementation-could-define-new-asset-class. Accessed 23 September 2022.

CHAPTER 7

Integrating Sustainability in the MiFID II Package-Based Regulation: Effects on Financial Intermediaries' Accountability and Potential Conflict Between Regulatory Objectives

Maria Elena Salerno

7.1 Introduction

The European Commission's Sustainable Finance Action Plan for financing the transition to a sustainable economy gives sustainable finance a key role in supporting financial stability by incorporating environmental, social and governance (ESG) factors into the business models,

M. E. Salerno (✉)
University of Siena, Siena, Italy
e-mail: mariaelena.salerno@unisi.it

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_7

services and products of financial market participants.[1] This perspective has led to a regulatory intervention in the MiFID II disclosure and the conduct-of-business framework for advisors and portfolio managers, which complements the EU Green Bond Standard (also referred to as the EU Green Bond Regulation, or EUGBR) in the overall perspective of protecting investors in financial products.[2]

The chapter critically analyses the amendments to the delegated acts concerned, put forward in the sustainable finance package of 21 April 2021.[3] It argues that EU policy on sustainable finance in this regulatory context is able to create an additional accountability framework for financial intermediaries but, if not properly enforced, this sustainability-related reform could jeopardise the protection of financial investors due to the adoption of a product-oriented model for the distribution of sustainable financial instruments.

The chapter begins by outlining the legal basis and rationale for sustainable finance regulation at EU level. It goes on to examine the amendments to the legislation that introduce sustainability concerns into the rules of conduct laid down in the European Commission Delegated Regulation (EU) 2017/565[4] and the product governance norms established in the European Commission Delegated Directive (UE) 2017/593.[5] The analysis highlights the weaknesses in the new rules, despite

[1] Mezzanotte, Félix E. 2022. Recent Law Reforms in EU Sustainable Finance: Regulating Sustainability Risk and Sustainable Investments (March 01, 2022): 4 published in *American University Business Law Review*, 2023, v. 11(2): 215–276: https://ssrn.com/abstract=4098053 or http://dx.doi.org/10.2139/ssrn.4098053; Brozzetti, Antonella 2022. La transizione verde europea e lo sviluppo sostenibile: rinnovate coordinate di fondo per sistema finanziario e imprese. *Diritto della banca e del mercato finanziario* I: 411–495, *passim*.

[2] See Chapter 2 by Nikos Maragopoulos on the EU Green Bond Standard (EUGBS) Regulation and Chapter 6 by Federica Agostini and Elia Cerrato Garcia on Greenwashing Risks in the EUGBS.

[3] European Commission. 2021. Sustainable finance package. https://finance.ec.europa.eu/publications/sustainable-finance-package_en. Accessed 29 July 2023.

[4] European Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms, OJ L 277, 2.8.2021, 1–5.

[5] European Commission Delegated Directive (EU) 2021/1269 of 21 April 2021 amending Delegated Directive (EU) 2017/593 as regards the integration of sustainability factors into the product governance obligations, OJ L 277, 2.8.2021, 137–140.

the effort of the European Commission to address the potential conflict between the two worthwhile regulatory objectives: ensuring sustainability and investor protection.

7.2 The Legal Context of Sustainable Finance

In order to fulfil its international commitments,[6] and in line with the role bestowed on it by the Treaty on European Union (Articles 3(3) and (5) and 21(2) TEU) to promote sustainable development, in March 2018 the European Commission published a Sustainable Financial Action Plan (Action Plan). The Action Plan specifically foresees a significant role for sustainable finance in contributing to sustainable and inclusive growth through long-term financing of society and consolidating financial stability through the integration of environmental, social and governance (ESG) factors in investment decision-making processes.[7]

To this end, in line with the Lamfalussy architecture, the implementation of the European agenda for sustainable finance uses Level 2 acts, such as delegated regulations by the European Commission, as

[6] See: Paris Agreement on climate change adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016, available at https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement; the United Nations 2030 Agenda for Sustainable Development Goals available at https://unric.org/it/wp-content/uploads/sites/3/2019/11/Agenda-2030-Onu-italia.pdf. On the international initiatives facing sustainability-related issues see Siri, Michele, Zhu, Shanshan. 2020. L'integrazione della sostenibilità nel sistema europeo di protezione degli investitori. Banca Impresa Società 1: 3-45 spec. 3-5; Id. 2019 Will the EU Commission Successfully Integrate Sustainability Risks and Factors in the Investor Protection Regime? A Research Agenda. *Sustainability* 11: 6292, spec. 1 and 2 of 23.

[7] See Communication from the European Commission to the European Parliament, to the European Council, the Council, The European Central Bank, the European Economic and Social Committee and the Committee of the Regions Action Plan: Financing Sustainable Growth (COM(2018)097 final), 1, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0097 Accessed 29 July 2023. On this basis, on 6 July 2021, the European Commission published its 'strategy for financing the transition to a sustainable economy' (see Communication from the European Commission to the European Parliament, to the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions Strategy for Financing the Transition to a Sustainable Economy—COM/2021/390 final, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0390). The EC strategy is an ambitious and comprehensive package of measures to help improve the flow of money towards financing the transition to a sustainable economy by enabling investors to re-orient investments towards more sustainable technologies and businesses.

well as Level 3 soft-law measures by the European sectoral supervisory agencies (the European Banking Association (EBA), the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA). The regulatory instruments introduced and discussed are by now so numerous that, according to some academics,[8] once it has been fully implemented, the harmonised ESG framework will inevitably become the fifth pillar of financial regulation (together with the pillars of rules, namely prudential, conduct, anti-money laundering, payment systems and market infrastructures).

To date, three pieces of EU legislation implementing the Sustainable Finance Action Plan (SFAP)[9] have had the most significant impact on the financial sector. The first is Regulation (EU) 2019/2088, the so-called SFDR (Sustainability-related disclosures in the financial sector regulation), which deals with sustainability disclosures in the financial services sector.[10] The second is Regulation (EU) 2019/2089, the so-called Low Carbon Benchmark Regulation, which sets EU benchmark indices of climate transition, EU benchmark indices aligned to the Paris Agreement and sustainability-related disclosures for benchmark indices.[11]

[8] See Quaglia, Giuseppe, Mastroianni, Alessio, Donato, Daniela, Ceruti, Nicolò. 2021. Rischi finanziari legati al clima: una prospettiva sulle misure prudenziali europee. *dirittobancario.it*, February: 1-11, spec. 1 and 11. https://www.dirittobancario.it/wp-content/uploads/sites/default/files/allegati/quaglia_g._mastroianni_a._donato_d._e_ceruti_n._rischi_finanziari_legati_al_clima_una_prospettiva_sulle_misure_prudenziali_europee_2021pdf; Cavallo, Silvio. 2021. Il nuovo paradigma di sostenibilità e la centralità della ESG per l'industria finanziaria. *dirittobancario.it*. March: 1–22, in part. 1, 5. https://www.dirittobancario.it/wp-content/uploads/sites/default/files/allegati/cavallo_s._il_nuovo_paradigma_di_sostenibilita_e_la_centralita_della_esg_per_lindustria_finanziaria_2021_0.pdf. Accessed 29 July 2023.

[9] This sustainability-related regulatory reform is based on the recommendations of a High-Level Expert Group on Sustainable Finance set up by the EC to help develop an EU strategy on Sustainable Finance. See Siri, Michele, Zhu, Shanshan. 2020. 6 above: 3.

[10] Regulation (EU) 2019/2088 of the European Parliament and of the EU Council of 27 November 2019 on sustainability-related disclosures in the financial services sector [2019] OJ L317/1, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088. For details see, among the latest, Hooghiemstra, Sebastiaan Niels. 2020. The ESG Disclosure Regulation—New Duties for Financial Market Participants & Financial Advisers. March 22. SSRN: https://ssrn.com/abstract=3558868 or http://dx.doi.org/10.2139/ssrn.3558868.

[11] Regulation (EU) 2019/2089 of the European Parliament and of the EU 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

The last is Regulation (EU) 2020/852, the so-called Green Taxonomy Regulation,[12] to which the allocation of proceeds from a European Green Bond is strictly linked.[13] Seeking to encourage sustainable investments in environmentally sustainable economic activities, this Regulation establishes harmonised rules allowing to qualify a business activity as environmentally sustainable. To this end, the Green Taxonomy Regulation identifies, on the one hand, uniform criteria (sustainability-related objectives, sustainability-related ambitions and adverse effects on sustainability factors) for classifying an activity as 'environmentally sustainable' and, on the other, disclosure rules for the distribution of financial products falling within the category of 'eco-sustainable investments' (i.e. investments in compliance with environmental objectives).

In addition to these Regulations of the European Parliament and the EU Council (Level 1 EU legislation according to the Lamfalussy procedure), the European Commission has further put forward a number of non-legislative delegated acts supplementing existing EU financial market rules as part of the April 2021 Sustainable Finance Package.[14] These draft delegated acts were prepared on the basis of ESMA's two Technical Advice documents (published on 30 April 2019). The first of ESMA's reports covered the integration of sustainable finance in MiFID II package on financial investment services[15] and the second the integration of sustainable finance in the UCITS and AIFM frameworks on mutual investment schemes.[16]

benchmarks [2019] OJ L317/17, available at https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32019R2089.

[12] Regulation (EU) 2020/852 of the European Parliament and of the EU Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 [2019] OJ L198/13, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852.

[13] See Chapters 2 and 6

[14] See n. 3.

[15] Final Report ESMA's technical advice to the European Commission on integrating sustainability risks and factors in MiFID II, 30 April 2019 (ESMA35-43-1737), available at https://www.esma.europa.eu/sites/default/files/library/esma35-43-1737_final_report_on_integrating_sustainability_risks_and_factors_in_the_mifid_ii.pdf

[16] Final Report ESMA's technical advice to the European Commission on integrating sustainability risks and factors in the UCITS Directive and AIFMD, 30 April 2019

In examining the European Commission's delegated act measures, our analysis will focus on the changes arising from the addition of sustainability factors and risks in the provisions to ensure investor protection under the so-called MiFID II package.[17] Specifically, these changes are contained in Delegated Regulation (EU) 2021/1253 (amending Delegated Regulation 2017/565)[18] regarding organisational requirements

(ESMA34-45-688), available at https://www.esma.europa.eu/sites/default/files/library/esma34-45-688_final_report_on_integrating_sustainability_risks_and_factors_in_the_ucits_directive_and_the_aifmd.pdf.

[17] For more information on financial investor protection regulation, allow me to refer to: Salerno, Maria Elena. 2016. La tutela dell'investitore in strumenti finanziari nella MiFID II: problemi di enforcement della disciplina. In *Regole e Mercato*, eds. Mancini, Marco, Paciello, Andrea, Santoro, Vittorio, Valensise, Paolo, I, 427-475. Torino: Giappichelli; Id. 2016. La disciplina in materia di protezione degli investitori nella MIFID II: dalla disclosure alla cura del cliente. *Dir. banc.* I: 437-492; Id. 2021, Prospettive di regolamentazione a protezione dell'investitore finanziario alla luce dell'emergenza COVID-19, in *Sistema produttivo e finanziario post COVID-19: dall'efficienza alla sostenibilità*, eds Malvagna, Ugo, Sciarrone Alibrandi: 289-294. Pisa: Pacini. Among the latest, see: Bartalena, Andrea. 2020. La disciplina dei servizi e delle attività e i contratti, in *Il Testo Unico finanziario. Prodotti e intermediari*, eds Mario Cera, Gaetano Presti, I, 356- 415. (Bologna: Zanichelli; Rimini, Emanuele. 2020. Le regole di condotta, in *Il Testo Unico finanziario. Prodotti e intermediari*, eds Mario Cera, Gaetano Presti, I, 416-453. (Bologna: Zanichelli; De Poli, Matteo. 2020. I conflitti di interessi e gli inducements, in *Il Testo Unico finanziario. Prodotti e intermediari*, eds Mario Cera, Gaetano Presti, I, 454-514. Bologna: Zanichelli; Rabitti, Maddalena 2020. Prodotti finanziari tra regole di condotta e di organizzazione. I limiti di MiFID II. *Riv. dir. banc*. Genuary/March: 145-177. https://rivista.dirittobancario.it/sites/default/files/pdf_c/rabitti.pdf; Annunziata, Filippo. 2021. *La disciplina del mercato mobiliare*. Torino: Giappichelli, 11th. 143–178. Concerning investor protection regulation in relation to insurance-based investment products see, among the latest, Salerno, Maria Elena. 2020. La tutela dell'investitore in prodotti di investimento assicurativi nella nuova disciplina Consob. *Dir. banc*. I: 565-623; CORVESE, Ciro Gennaro. La disciplina del 'governo e controllo' dei prodotti assicurativi ed i suoi riflessi sul governo societario di imprese di assicurazione e di intermediari. *Dir. banc.*, II: 146-181; Marano, Pierpaolo. 2021. Le regole autarchiche sul governo e controllo (Product Oversight and Governance) dei prodotti assicurativi nel prisma dell'ordinamento europeo. *Riv. dir. banc*. January/March: 217-235; Pierpaolo Marano, Kiaraki Noussia, eds. 2021 *Insurance Distribution Directive. A legal Analysis. AIDA Europe Research Series on Insurance Law and Regulation.* III, https://library.oapen.org/bitstream/handle/20.500.12657/43280/2021_Book_InsuranceDistributionDirective.pdf?sequence=1. Cham: Springer; Volpe Putzolu, Giovanna. 2020. La realizzazione del POG nell'ordinamento italiano. *Diritto dei mercati finanziari e assicurativi:* 163.

[18] This Regulation arises from the EC proposal C/2021/2616 and it is published in [2021] OJ L 277/1, available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R1253&from=EN. The current version of the delegated Regu-

and operating conditions for investment firms, and Delegated Directive (EU) 2021/1269 (amending MiFID II Delegated Directive 2017/593)[19] concerning product governance obligations. These European Commission Delegated Acts entered into force on the fourth of August 2021.

7.3 Investment-Services Regulation in the Sustainability-Related Realm

It is first necessary to identify what the provision of investment services from the perspective of sustainability refers to. It centres on the notion of 'sustainable financial investment', which both the SFD Regulation (Regulation (EU) 2019/2088) and the Green Taxonomy Regulation (Regulation (EU) 2020/852) contribute to defining.[20] Both are expressly referenced by European Commission Delegated Regulation 2021/1253 and Delegated Directive (EU) 2021/1269 of interest here.

The SFDR contains a general definition of 'sustainable investment' (Art 2(17)), whereby an investment is considered 'sustainable' when it concerns an economic activity that complies with the following three

lation is the fourth of a set of drafts issued by the EC between 2018 and 2021. For more details on the evolution of the content of these drafts and its implications, see Mezzanotte, Félix E. 2021. Accountability in EU Sustainable Finance: Linking the Client's Sustainability Preferences and the MiFID II Suitability Obligation. *Capital Markets Law Journal* 16/4: 482–502. https://doi.org/10.1093/cmlj/kmab027; Id. 2020. The EU Policy on Sustainable Finance: A Discussion on the Design of ESG-Fit Suitability Requirements (November 30, 2020). *Rev. Banking & Fin. L.* 40: 249–313, SSRN: https://ssrn.com/abstract=3769009 or http://doi.org/10.2139/ssrn.3769009. 249–313; Siri, Michele, Zhu, Shanshan. 2020. L'integrazione n. 6 above: *passim*; Id., Will n. 7 above: *passim*. On the differences between MiFID II- based and IDD-based investor protection disciplines see Colaert, Veerle A. 2020. Integrating Sustainable Finance into the MiFID II and IDD Investor Protection Frameworks November 1,: 1–20 SSRN: https://ssrn.com/abstract=3786624 or http://doi.org/10.2139/ssrn.3786624 passim. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3786624 (now in 2021. *Sustainable Finance in Europe. EBI Studies in Banking and Capital Markets Law*, eds Danny Busch, Guido Ferrarini, Seraina Grünewald, 455–475 Cham: Palgrave Macmillan).

[19] The delegated Directive is published in [2021] OJ L 277/137.

[20] For an analysis of the SFD Regulation and the Green Taxonomy Regulation and their impact on the MiFID II-based disclosure obligations see, also for references Salerno, Maria Elena. 2022. L'integrazione dei fattori di sostenibilità nelle regole di comportamento dell'intermediario finanziario: un ritorno al modello di distribuzione 'orientato al prodotto'. *Dir. banc.* I: 53–104, in part. 53, 70–76.

conditions: it contributes to an environmental or social objective; it does not significantly harm any of these objectives; and the companies carrying it out follow good governance practices. However, the SFDR does not limit the scope of its sustainability transparency (disclosure) rules to the strict notion of sustainable investment; it also includes products with different levels and objectives of sustainability-related materiality. These include, first, those that, according to Article 9 (Transparency of sustainable investments in pre-contractual disclosures), pursue the objective of sustainable investments and do not cause significant harm (referred to as 'dark green' products). Second, they comprise those which, falling within the scope of Article 8 (Transparency of the promotion of environmental or social characteristics in pre-contractual disclosures), promote, among other things, environmental or social characteristics, or a combination of these, provided by companies that follow good governance practices, without becoming a benchmark of sustainable investment (so-called 'light green' products). In addition, Article 6 (Transparency of the integration of sustainability risks) of the SFDR implicitly envisages a third category of investment products developed by the financial industry, which is residual compared to the first two. This category includes investments in products that take into account the likely impacts of sustainability risks on the returns of the financial products, where relevant.

The Green Taxonomy Regulation contributes in part to defining the notion of sustainable investment (it only considers activities that comply with an environmental goal). It establishes a unified classification system for eco-sustainable activities (i.e., those that pursue environmental objectives), leaving it to the European Commission's delegated acts to quantify an adequate level of sustainability for economic activities so that they are in line with the various environmental sustainability objectives set out therein.[21] Art. 9 of the Green Taxonomy Regulation refers to the EU's six environmental objectives: climate change mitigation, climate change adaption, the sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control and the protection and restoration of biodiversity and ecosystems, with regard to which an economic activity can be qualified as

[21] In performing this task, the EC is supported by the *International Platform on Sustainable Finance*. It is a permanent forum for dialogue between policymakers, created by the European Union on 18 October 2019 to replace the *Technical Expert Group on Sustainable Finance* for updating the green taxonomy.

'environmentally sustainable'. Once the environmental objectives have been defined, and in order to establish the degree of sustainability of an investment on the environmental profile, the Regulation (in its Art. 3) requires that an activity (1) contributes substantially to the achievement of one or more of the environmental objectives, (2) does not significantly harm any of the environmental objectives, (3) is carried out in compliance with the minimum social safeguards,[22] and (4) complies with the technical screening criteria established by the European Commission. In other words, the qualification of an activity as sustainable (and the corresponding investment as a 'sustainable investment') is based on the concept of a 'substantial' rather than marginal 'contribution' to the achievement of environmental objectives and the principle of 'not significantly harming' any of them, the general contents of which (specifying the technical assessment criteria) are laid down in the Regulation itself (in Art. 10 et seq.) and referred to the European Commission's quantitative indicators.[23]

From the regulatory framework outlined above, we can draw the conclusion that the EU Green Taxonomy and the notion of sustainable investment in the SFD Regulation do not wholly coincide, as 'sustainable investment' is potentially broader under the SFDR than the EU Green Taxonomy. In fact, a 'sustainable investment' under SFDR could comprise

[22] According to Article 18, the minimum safeguards shall be 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.

[23] To date, the EC has issued delegated Regulation 2021/2139 of 4 June 2021, in [2021] OJ L 442/1, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32021R2139. The regulation establishes the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives. For more information on the next adoption of complementary Delegated acts of the EU Green Taxonomy Regulation covering activities not yet covered in the EU Taxonomy Climate Delegated Act see the Communication from the European Commission to the European Parliament, the EU Council, the European Economic and social committee and the Committee of the Regions EU Taxonomy, Corporate Sustainability Reporting, Sustainability Preferences and Fiduciary Duties: Directing finance towards the European Green Deal (COM/2021/188 final), 6 ff. (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0188).

investments where the three conditions required (substantial contribution to sustainability, no harm to any sustainable objective, following good governance practices) are present, but where the activities are not Taxonomy-eligible. In addition, the SFDR acknowledges the existence of products financing economic activities that promote environmental or social characteristics and/or take into account the main negative impacts on sustainability, despite not actually making a 'substantial contribution'. It also recognises the indicators (of qualification and quantification) of the principle of 'not causing significant harm' to sustainability factors as contained in the Green Taxonomy Regulation and specified in the delegated acts of the European Commission.

The European Commission also relies on these considerations when, in adding sustainability factors (as defined in the SFDR) to the provisions of the MiFID II package in question, it (implicitly) expresses itself on the objective delineation of ESG investment advice and portfolio management services. In so doing, it identifies eligible products as those constituting 'sustainable investments in the financial sector'. This category includes investments in all financial instruments that have some impact in terms of sustainability, i.e. they are used, at least to some extent, either for activities that comply with Art. 3 of the Green Taxonomy Regulation, or for sustainable investments under Art. 2(17) of the SFDR, which also includes Green Taxonomy-aligned assets. Otherwise, they may even be used in investments which, despite not falling into these categories because they do not comply with pre-established sustainability criteria, take into account the material negative externalities they bring to the environment (or society) in terms of the main adverse impacts they have on sustainability.

In other words, in order to apply the MiFID II delegated acts on investment advice and portfolio management, the updated versions of Delegated Regulation 565/2017 (on the organisational requirements and rules of conduct of investment firms) and Delegated Directive 2017/593 (on the product governance obligations) include financial instruments/assets with different declared levels of sustainability and sustainability-related ambitions within the notion of sustainability-compliant financial investment. These include investments that comply with higher sustainability standards (or 'maximum level'), i.e. they fall within the scope of Green Taxonomy-aligned activities, which distinguish sustainable activities (and sustainable investments) according to the indicators of positive effects on 'sustainability factors' and 'not causing significant harm' to them. However, MIFID II-compatible sustainable investments also comprise those with lower sustainability (or 'minimum level') standards, associated with businesses not directly geared towards promoting sustainable objectives but which nevertheless take into account their main adverse impact on sustainability factors (so as to mitigate them).[24]

7.4 The Inclusion of Sustainability Factors in the Organisational Requirements of Financial Intermediaries

The introduction of sustainability elements in the MiFID II framework concerning the *governance* profile of financial intermediaries is limited to sustainability risks, since these risks, like financial ones, must be managed and monitored to meet prudential objectives (namely the intermediaries' solvency and the stability of the financial system) rather than investor protection. More precisely, the integration of sustainability risk occurs at the level of processes, systems and the internal controls of investment firms, as well as at the level of the technical capacity and knowledge necessary to analyse it. The changes introduced by the European Commission with Delegated Regulation 2021/1253 affect Articles 21 and 23 of the Delegated Regulation (EU) 2017/565. In the context of the general organisational requirements set out in Art. 21, investment firms are required, in accordance with the principle of proportionality[25] to also consider sustainability risk in their procedures and systems, namely—under Art. 2 SFDR, expressly referred to in the Regulation at hand—the risk of an 'environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of the investment'.

[24] In this connection, the EC states '*The rules on sustainability preferences ensure consistency with the SFDR and the Taxonomy Regulation and considerably strengthen the effectiveness of sustainability-related disclosures under those Regulations. The Taxonomy Regulation requires disclosures of the degree to which investments are aligned with the EU Taxonomy*'. See EC Explanatory Memorandum to the Regulation 2021/1253, 2 (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32021R1253, https://eurlex.europa.eu/legal-content/EN/TXT/PDF/?uri=PI_COM:C(2021)2616&from=EN).

[25] Such that, in complying with general organisational requirements, they must take into account the nature, scale and complexity of the client's business, as well as the nature and range of the investment services and activities that they provide.

As for the amendment to Art. 23 (Risk Management), investment firms are required to adopt policies and procedures to identify, assess, manage and monitor on an ongoing basis not only all the relevant financial risks, but also all relevant sustainability risks, directly involving the risk management function and, indirectly, compliance and internal audit functions.[26]

In order to achieve the convergence of regulatory and supervisory practices in this area, the production of the specific content of these general provisions is left to future soft-law measures (Q&A and/or guidelines) falling within ESMA's technical expertise, including those relating to the methods of testing staff knowledge and competence regarding sustainability issues. Nevertheless, it is not difficult to imagine the impact of the new provisions on how the investment firms operate. They will have to adapt their governance structures in order to intensify the attention dispensed to sustainability factors in the risk management function, including within the board of directors (or the board of directors in the one-tier model and the management board in the two-tier model). Similarly, it will be necessary to reinforce—in both qualitative and quantitative terms—the compliance and internal audit functions, which will need to consider ESG profiles when monitoring the adequacy and effectiveness of corporate policies and procedures. Of course, adapting a company's organisation to sustainability requirements will result in increased costs for firms in terms of both structure and human resources. However, if sustainability risks were ignored or mismanaged, the costs for the real economy and the financial stability arising from environmental and social disasters would be significantly higher.

[26] For the necessary involvement of sustainability risks in the internal organisational structure, due to their systemic relevance proved by the recent pandemic crisis, see, Locci, Lorenzo. 2020. Brevi riflessioni in materia di fattori ESG e informativa non finanziaria nella crisi da Covid–19. Riv trim. Dir. Ec. 1: 124-144, in part. 132-133. http://www.fondazionecapriglione.luiss.it/2020_01_RTDE_supplemento.pdf. See also Maugeri, Marco. 2019. Informazione non finanziaria e interesse sociale. *Riv. soc.*, 5/6: 992-1031 ss., in part. 1005.

7.5 Changes to Conflicts of Interest Regulation

The additional sustainability requirements in the conflicts of interest rules for undertakings qualified[27] to provide investment services[28] under Delegated Regulation 2017/565 concern the 'conflict identification' phase, during which, by means of a self-assessment process, the investment firm is required to fully map current and potential conflict situations involving it or a relevant person (a director, partner or equivalent, manager or tied agent of the firm), or a person directly or indirectly linked by control to the firm or other kinds of activities performed by the same firm (e.g., banking and insurance).

More specifically, the European Commission's Delegated Regulation 2021/1253 amends Art. 33 of the Delegated Regulation (EU) 2017/565 (Conflicts of interest potentially detrimental to a client), requiring investment firms to include in the identification of conflict-generating situations also those where the conflict (actual or potential) arises from the interest of the investment firm (or related parties) and the client's sustainability preferences. It follows that an inadequate identification of potential conflicts arising from an integration of the client's sustainability preferences can trigger a breach of the rules of conduct and expose the firm to additional liability.[29]

However, the inclusion of sustainability factors in the regulation of conflicts of interest should only result in the breaches and potential liability indicated above in the case of potentially *detrimental* conflict of interest, i.e. cases where the investment firm's interest in conflict with that of the client is not sufficient but necessarily entails a disadvantage for the

[27] On the subject matter of investment services regulation, see, among others: Mondini, Paolo Flavio. 2020. I soggetti abilitati, in *Il Testo Unico* n. 19 above: 162-212; Urbani, Alberto. 2019. In *Manuale di diritto bancario e finanziario,* 2nd, ed Francesco Capriglione 235–251, in part. 238–243, Milano: Cedam-Volters Kluwer; Troiano, Vincenzo. 2019. I soggetti operanti nel settore finanziario. In *Manuale di diritto bancario e finanziario,* 2nd, ed Francesco Capriglione: 365–386, in part. 365–370. Milano: Cedam-Volters Kluwer.

[28] For further information, see De Poli, Matteo. I conflitti n. 19 above: 454–514; Salerno, Maria Elena. 2016. La disciplina n. 18 above: 470–474. The new conflicts of interest framework is not a change of course for Sacco Ginevri, Andrea. 2016. *Il conflitto di interessi nella gestione delle banche*: 180. Bari: Cacucci.

[29] On breaches of conflicts of interest regulation and possible remedies concerning their enforcement see De Poli, Matteo. I conflitti n. 19 above: 489–499.

investor[30] where the preferences, ergo the 'sustainability interests', of the client may be harmed.

Conversely, situations of potential conflict between the goal of sustainability and investor protection are not considered, although they could be problematic as well. These are the cases where a potential detriment to the client's financial interest may arise from the existence of economic and financial links between the investment firm and undertakings which, having environmental or social characteristics, perform an economic activity whose financing constitutes a 'sustainable investment'. In such cases, there is a risk that the investment offered or recommended, while responding to the client's sustainability preferences, not constitute the client's best possible interest in economic and financial terms, which is the mainstay of investor protection regulation and must always and in all circumstances guide the investment firm's conduct (see Art. 24(1) MIFID II).

Of course, by indicating minimal criteria for identifying conflict situations, Art. 33 of the Regulation contributes to overcoming the problem. Under this provision, during the prior identification of these situations, investment firms will be obliged to include the conflicts that may arise from the distribution of sustainable investments and clearly indicate in the conflicts of interest policy how conflicts relating to the inclusion of sustainability factors in investment advice and portfolio management services are identified and managed. In practice, once again, conflict resolution depends on the autonomy of the investment firm in setting up organisational and administrative measures able to prevent and manage conflicts of interest. In connection with this, they must also ensure that the inclusion of sustainability considerations in the investment advice and portfolio management process does not damage investors' interests (and confidence in the sector) through improper sales practices (such as the use of sustainability factors as a pretext for selling their own or more expensive products, thus bringing about an unnecessary reversal of clients' portfolios) or misrepresentations (e.g., from firms that misrepresent products or strategies as complying with sustainability preferences when they do not).

[30] On the concept of *detrimental conflict of interest* and its progressive implementation by European law, see De Poli, Matteo. I conflitti n. 19 above: 468–489.

7.6 The Effects of Sustainability on Investment Advice Provision

The changes brought to the regulation of investment advice by the European Commission Delegated Regulation 2021/1253[31] to include sustainability factors affect disclosure requirements, notably those pertaining to the presentation of products and their selection process, as well as rules of conduct for assessing suitability.[32] These changes also involve the portfolio management service.

As for the pre-contractual disclosure requirements of the investment firm when providing investment advice, Delegated Regulation 2021/1253—by including sustainability factors—aligns with, and adds a further layer of sustainability information to, the disclosure rules established (i.e., for the 'financial market participants', which include investment firms and credit institutions providing portfolio management services, as well as 'financial advisors', including investment firms and banks providing investment advice) by the SFDR and the Green Taxonomy Regulation in general.[33]

Specifically, with regard to the information provided in the product description (Art. 52(3) Delegated Regulation 2017/565—Information about investment advice), the investment firm is required to provide the client with a description of, *inter alia*, the sustainability factors taken into consideration in the financial instrument selection process.

Sustainability factors, i.e. 'environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters' (as defined in the SFDR and expressly referred to in the 2021 Delegated

[31] On investment advice regulation and its evolution see, among the most recent: Guaccero, Andrea Ciocca, Nicoletta. 2020. Servizi e attività di investimento. In *Il Testo unico finanziario* n. 18 above: 125–162, in part. 149–152 ff.; Michieli, Nicoletta. 2020. La consulenza: le nuove frontiere dei servizi di investimento. *Banca, impresa soc.*, 3: 521–548.

[32] For further information on the subject see Rimini, Emanuele, Le regole n. 18 above: 430–435.

[33] Both SFRD and Green Taxonomy Regulation laid down a harmonised framework for sustainability disclosure. For the moment, they do not modify MiFID II- package regulation directly, even though the *Final Report ESMA's Technical Advice to the Euroepan Commission on integrating sustainability risks and factors in MiFID II* hopes for a future amendment of disclosure obligation set forth in Regulation 2017/565 (art. 54(9. For further information on this subject see Hooghiemstra, Sebastiaan Niels. 2020. The ESG Disclosure Regulation n. 10 above.

Regulation, which adds it to the definitions contained in Art. 2 of the 2017 Delegated Regulation of the MIFID II) are, therefore, part of the general information relating to the nature and risks of the financial instruments recommended by the advisor.

In practical terms, this provision will entail:

- an addition to the pre-contractual and any other general informative material to provide clients or potential clients with early specific information on "sustainable investments" in terms of costs, associated risks, and product complexity;
- the inclusion of sustainability factors among the elements to be taken into consideration during the process of selecting financial instruments to recommend to clients in the investment advice (and asset management) framework contract.

The amendments introducing sustainability factors[34] into the regulatory framework concerning suitability assessment outlined in the Delegated Regulation (EU) 2017/565 affect all aspects of assessment: from the assessment parameters through the verification methods, to the related disclosure requirements.[35] More precisely, the sustainability-related reform introduced by the European Commission with Delegated Regulation 2021/1253 focuses on Art. 54 of the 2017 Delegated Regulation dealing with the '*Assessment of suitability assessment and suitability reports*'. Its provisions apply to both the investment advice and portfolio management services.

The intermediary's benchmarks for assessing suitability consist of the client profile on the one hand and the product profile, on the other.

[34] The EC Delegated Regulation 2021/1253 and the EC Delegated Directive 2017/593 recall the definition of 'sustainability factors' laid down by the SFDR (Article 2, point (24), of Regulation (EU) 2019/2088). In addition, in specific connection with the organisation requirements, the Regulation refer to the SFDR (Article 2, point (22), of Regulation (EU) 2019/2088) notion of 'sustainability risk', that means «*an environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of the investment*».

[35] For more details on MiFID II-based suitability regulation see, also for references, Salerno, Maria Elena. 2016. La disciplina n. 18 above: 437, 474–478.

As regards investor or potential investor profiling, the updated version of Delegated Regulation 2017/565 (Art. 54(5)) requires the intermediary to obtain information, including information of a 'non-financial' nature, from the client. This forms part of the information required to ascertain the client's goals in making the investment, which, in addition to the time horizon (the length of time for which the client wishes to hold the investment), risk-taking preferences, risk tolerance and the purposes of the investment, will also include sustainability preferences.[36]

In reality, the delegated rule-maker's choice in this regard results from the process of evolution of the amending Delegated Regulation 2021/1253. This process was characterised by some hesitations, uncertainties and indecisions on the part of the European Commission as far as the desirability of incorporating 'sustainability preferences' among the client's investment objectives was concerned, with the result of giving the latter greater weight from an enforcement perspective, or to generically include them within the investor's other personal characteristics, which would have a lesser impact on enforcement.[37]

The European Commission then proceeded to define the term 'sustainability preferences' (inserting a new point in Art. 2 of the 2017 Delegated Regulation), referring to the choice of a client or potential client as to

[36] ESMA *Final Report—Guidelines on certain aspects of the MiFID II suitability requirements* (available at https://www.esma.europa.eu/press-news/esma-news/esma-publishes-final-guidelines-mifid-ii-suitability-requirements) already includes a similar provision (Annex IV, point 28) stating «*it would be a good practice for firms to consider non-financial elements when gathering information on the client's investment objectives, and [...]collect information on the client's preferences on environmental, social and governance factors*». However, being not binding, this rule was not implemented by intermediaries in an adequate manner, as the EC underlines in its Action Plan on Sustainable Finance (7). On 29 January 2021, ESMA launched a public consultation to gather feedback on how to take into account sustainability factors and risks in the suitability assessment under MiFID II. See ESMA *Consultation Paper. Guidelines on certain aspects of the MiFID II appropriateness and execution-only requirements* (available at https://www.esma.europa.eu/press-news/esma-news/esma-consults-appropriateness-and-execution-only-under-mifid-ii, 1, 16 and Q16 at 18.

[37] Unlike the 2019 and 2020 versions of the Regulation, available at https://ec.europa.eu/info/law/markets-financial-instruments-mifid-ii-directive-2014-65-eu/amending-and-supplementary-acts/implementing-and-delegated-acts_en, and https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12068-Sustainable-finance-obligation-for-investment-firms-to-advise-clients-on-social-and-environmental-aspects-of-financial-products_en. For the analysis of these changes see Mezzanotte, Félix E. 2021. Accountability n.19 above: 21–28.

whether or not, and to what extent, to include a financial instrument in his or her investment and regarding which he or she determines:

- a minimum proportion (minimum level) to be invested in environmentally sustainable investments within the meaning of the EU Green Taxonomy Regulation, and/or;
- a minimum proportion (the minimum level) to be invested in sustainable investments according to the SFDR and/or;
- the qualitative (type) or quantitative (degree) elements demonstrating the 'consideration' of principal adverse impacts on sustainability factors at the basis of investments that take that consideration into account.

Three elements relevant to our research may be derived from this definition. Firstly, the European Commission identifies three general categories of eligible financial instruments with regard to client sustainability preferences: those that fully or partially pursue sustainable investments in economic activities that, according to the Green Taxonomy Regulation, are environmentally sustainable, those that pursue sustainable investments in accordance with the SFDR, and those that take the main adverse effects on sustainability factors into account. Secondly, the regulation leaves it to the client to decide his or her 'sustainability preferences' regarding the quality (type) and quantity (degree) of sustainability of the eligible financial instruments that the intermediary may recommend or offer to the client. Lastly, the fact that the regulator incentivises investment in instruments that finance 'environmentally sustainable' businesses, pursue 'sustainable investments' or take into account and reduce significant adverse effects on sustainability factors caused by investments in financial instruments, does not translate into an obligation for clients or potential clients to provide information on their interests in sustainability issues, unlike the requirement to provide other personal and financial information. As we will see below, this conclusion implicitly arises from the consideration that the lack of or insufficient information about sustainability preferences does not prevent intermediaries from making a financial investment recommendation (or concluding a financial investment contract) concerning sustainable products insofar as these products are in line with the client's financial profile (see paragraph 8 of Art. 54

Delegated Regulation which is not involved by the sustainability-related reform).

In practical terms, applying the provision in question requires the addition of new questions to the profiling questionnaire in order to obtain more detailed information from clients on their sustainability preferences.[38] The intermediary will have to take this information into account when deciding on the list of products to recommend as potentially suitable for a specific customer. Thus, according to the new paragraph 9 of Art. 54 of Delegated Regulation 2017/565, the intermediaries must implement appropriate policies and procedures demonstrating their ability to understand the nature and characteristics, including costs and risks, of the investment services and financial instruments they select for the client, including any sustainability factors. Advisors and portfolio managers must also assess—taking into account costs and complexity—whether any investment services or equivalent financial instruments match the client's profile. Sustainability performance indicators thus feature among the elements intermediaries have to take into account in the product-selection/offering process when formulating a suitable investment proposal/decision.

According to the updated version of Delegated Regulation 2017/565, once any sustainability factors have been added to the subjective (client preferences) and objective (characteristics of the financial instruments) parameters, the intermediary must also perform a suitability assessment on these. Specifically, the reform (new Art. 54(2)(a)) requires intermediaries to verify whether the specific financial instrument to be recommended or offered when providing investment advice or portfolio management services actually corresponds to their client's investment objectives, including risk tolerance and any sustainability preferences.

Assuming that the expressed sustainability preferences relate to financial instruments falling into the three eligible categories, an intermediary may not propose financial instruments that do not satisfy certain criteria. They must not fall below the minimum sustainability proportion established by the client for sustainability-related investments in accordance with the green taxonomy, sustainable investments under the SFDR or

[38] In relation to the granularity requirement, many scholars highlight that this provision is disproportionate and difficult to implement, at least at the first stage. See Siri, Michele, Zhu, Shanshan. 2020. Will n. 6 above: 9-10.

investments that take into account the main adverse effects on sustainability factors. However, the European Commission points out that

> Given the rules on sustainability preferences, financial instruments with different levels of sustainability-related materiality will not need to be adapted. Those financial instruments will either benefit from the regime of sustainability preferences or will continue to be recommendable, but not as financial instruments meeting the sustainability preferences of the client or potential client, as defined in this Regulation.[39]

This means that if clients express sustainability preferences, intermediaries may only recommend or trade on their behalf, eligible financial instruments compatible with the 'minimum sustainability proportion' established by the client. Conversely, if an investor does not express any such preferences, an intermediary may offer or recommend a much broader range of financial products (with a wider variety of sustainability levels), provided that they meet the MiFID II suitability criteria. In other words, hypothetically eligible (under the sustainability profile) financial instruments that are not, however, in line with the level of sustainability indicated by the client may not be recommended as being a match to the individual's sustainability preferences. Nevertheless, they may be proposed on the basis of the suitability assessment results, i.e. if they fit the client's financial and personal characteristics. As part of this process, Delegated Regulation 2021/1253 (new Art. 54(10)) allows investors to change their sustainability preferences (i.e., the minimum level of sustainability they establish during the profiling phase), adapting them to the sustainability characteristics of the available products. The new paragraph 10 states that if no instrument (among the hypothetically eligible ones) meets the client's (or potential client's) sustainability preferences, the latter may adapt his or her sustainability preferences so that further recommendations may be made. In this case, investment firms have to keep a record of the decision to change and the reasons for it, in order to prevent mis-selling and greenwashing.[40]

[39] Se EC Explanatory Memorandum to the Regulation 2021/1253, 4.

[40] See Chapter 6 by Federica Agostino and Elia Cerrato on Greenwashing Risks and Effects in EU's sustainable finance framework

It is evident that through this last provision, the European Commission has adopted a 'product-oriented' distribution model for sustainable financial instruments, i.e. adapting the client's profile to that of the product, in order to encourage this type of investment. Nevertheless, the evolution of investment services regulation has gradually abandoned this paradigm for the distribution by investment firms providing investment advice and portfolio management services of financial instruments per se, preferring a 'client-oriented' model (i.e., adapting the product profile to that of the client), which offers greater protection for the investor.

The measures contained in the 2021 Delegated Regulation reflect the regulator's conception of a binary characterisation of the sustainable or non-sustainable nature of the financial instruments to be recommended or offered. In order to curb improper sales practices, despite the inclusion of sustainability preferences features in the investor's investment objectives, the 2021 Delegated Regulation clearly distinguishes between the client's financial and sustainability profiles, laying down in relation to the former more stringent regulation of the intermediary's conduct. With this in mind, and in line with the principle of acting in the best interests of the client, the European Commission underlines in its explanatory memorandum to the provision in question (p. 4) that sustainability factors should not be considered of greater weight than the client's financial investment objective. It also states that sustainability preferences should only be considered during the suitability assessment process after the client's (financial) investment objective has been taken into account, thus introducing a system of two-pronged and sequential suitability assessment. Similarly, the last paragraph of recital 5 of the Regulation reads:

> In order to avoid such [mis-selling] practices or misrepresentations, investment firms providing investment advice should first assess a client's or potential client's other investment objectives, time horizon and individual circumstances, before asking for his or her potential sustainability preferences.

One of the measures introduced by the European Commission to ensure the necessary differentiation, in terms of weight, between the investor's financial and sustainability profiles is the updated rule on the consequences of product unsuitability. According to the renewed version of paragraph 10 of Art. 54 of the Delegated Regulation 2017/565, if an instrument is deemed unsuited to the client's (financial and sustainability) profiles, it may be neither proposed nor negotiated. If the instrument is incompatible with the client's sustainability preferences, the unsuitability (which must be explained and documented) will exclude the proposal or transaction presented in accordance with the investor's sustainability profile, unless the client adjusts, as is their right, their sustainability preferences to be compatible with the degree of sustainability of the proposed instrument. However, this will not prevent the intermediary from making the proposal or transaction if the characteristics of the instrument are appropriate to the client's financial profile. This means *mutatis mutandis* that with regard to the financial instruments hypothetically eligible when sustainability preferences are expressed, the law allows the intermediary to recommend or trade them insofar as the instrument in question is suited to the client's financial profile *even though it is unsuited to his or her sustainability profile* since it does not meet the level of sustainability chosen by the client during the profiling phase. Instead, the opposite is unlawful. The regulation does not allow an investment proposal if the financial instrument is suited to the client's sustainability preferences but not to his or her financial profile.

The more stringent regulation regarding the consequences linked to the suitability assessment for the client's financial profile is also confirmed by the fact that the rule contained in Art. 54(8) of the 2017 Delegated Regulation is unchanged (insofar as it does not extend to information regarding the client's sustainability preferences). According to this rule, when an intermediary offers advice, he or she must not propose a transaction without (sufficient) information from the client such as to prevent financial profiling (i.e., necessary information regarding knowledge and experience with investments in the type of product or service in question and the client's financial situation, including the ability to bear losses, as well as their investment objectives, including risk tolerance). Instead, in the event of a lack of, or insufficient, information from the client making it impossible to draw up a sustainability profile, the law permits the intermediary to propose financial instruments in general—including those hypothetically permissible from the sustainability point of view—if the intermediary has sufficient information to determine the investors' financial profile, and, on the basis of the suitability assessment, recommended financial instruments are appropriate to this latter aspect.

In addition, pursuing its regulatory objective of facilitating sustainable finance, Delegated Regulation 2021/1253, unlike previous projects, seeks to strengthen the enforcement capacity of the additional regulations concerning sustainability by opting, in the context of the rules on suitability assessment, to equate sustainability preferences with client investment objectives rather than other personal characteristics (as in the 2019 and 2020 versions).[41] This choice brings with it two implications. The first is that, if a client or potential client expresses sustainability preferences, the law requires intermediaries to take them carefully into account when selecting the financial instruments to recommend or offer and to conciliate them with the client's financial needs. The second is that if the intermediary fails to take the client's declared sustainability preferences into account during the suitability assessment, and given the relative equivalence to the investor's investment objectives legally imposed as a parameter for assessing suitability, he or she may face liability for breach of the rules of conduct, and specifically for breach of the suitability requirements under Art. 25(2) MiFID II, at least when taking into account sustainability preferences does not compromise compliance with the client's financial objectives.[42]

Despite the lack of an express provision by the European Commission, it is implied that sustainability preferences should also be taken into account during periodic suitability assessments. This will occur when these preferences have served as a parameter for initial suitability assessment, or else, if the client's sustainability profile changes, due, for example, to subsequent increase in awareness of sustainability issues or, on the contrary, a lack of any such interest. Sustainability preferences must also be taken into account if the product's sustainability characteristics change, due, for example, to an increase in the investment's sustainability risk.

Lastly, the revised text of Art. 52 of Delegated Regulation 2017/565 requires (with regard, of course, to the distribution of eligible financial instruments deemed suited both to the client's financial profile and sustainability preferences) intermediaries providing the investment advice to supplement the statement on suitability that must be provided before concluding the proposed transaction, by including an explanation of how the recommendation meets the client's financial and sustainability profiles equally.

[41] For a critical analysis of the 2020 version of the Regulation, where the suitability assessment in relation to the sustainability preferences was treated as those connected to other personal characteristics, see Colaert, Veerle A. 2020. Integrating n. 19 above: 9–10.

[42] See Mezzanotte, Félix E. 2021. Accountability n. 19 above: 32.

Concerning periodic suitability reporting, since Delegated Regulation 2017/565 only requires reports subsequent to the initial conclusion of the investment contract to record the changes that have occurred to the services or instruments concerned and/or the client's circumstances, and they do not necessarily have to repeat all the details recorded in the initial statement, it is merely necessary to state the reasons why the investment continues to be aligned to the client's sustainability preferences only in the event of changes to the client's sustainability profile or the sustainability characteristics of the product.

7.7 The Insertion of Sustainability Factors in Product Governance Regulation, also in the Light of EU Green Bond Standard

The European Commission's additional intervention on the investor protection regulation, set forth in the Sustainable Finance Package of 21 April 2021, concerns the effects of sustainability issues on the MiFID II-based product governance regulation by the amendments to Level 2 MiFID II Delegated Directive 2017/593 made by Delegated Directive (EU) 2021/1269 of 21 April 2021.[43] Through this intervention the sustainability factors come to affect the product's entire life cycle, impinging on the definition of the target market, affecting the characteristics of the products and the type of client or potential clients, and therefore the manufacturers and distributors of financial instruments, in reshaping their production and distribution processes.

[43] The legal framework on product governance is composed of: Article 16 of MiFID II; Articles 9-10 of Directive 2017/593; ESMA *Guidelines on MiFID II product governance requirements* (https://www.esma.europa.eu/sites/default/files/library/esma35-43-620_guidelines_on_mifid_ii_product_governance_requirements_0.pdf). On this subject, see, among the latest, also for references: Colaert, Veerle A. 2019. Product Governance: Paternalism Outsourced to Financial Institution? (November 1,), (accepted for publication in the European Business Law Review): 1-21, in part. 2. SSRN: https://ssrn.com/abstract=3455413 or http://dx.doi.org/10.2139/ssrn.3455413; Rimini, Emanuele. 2020. Le regole n. 18 above: 438–444; Perrone, Andrea. 2019. Oltre la trasparenza, Product Governance e Product Intervention e le 'nuove' regole di comportamento. In *Efficienza del mercato e nuova intermediazione*, ed. Enrico Ginevra, 75-84. Torino: Giappichelli; Salerno, Maria Elena. 2020. La tutela dell'investitore in prodotti di investimento assicurativi n. 18 above: 614.

The EU drive to create 'sustainable' product governance processes takes the form of interventions to modify the obligations of manufacturers and distributors in the three phases of a finance product lifecycle, i.e. pre-distribution, marketing and distribution and post-distribution.

The sustainability-related reform, which affects Articles 9 and 10 of the 2017 Delegated Directive, requires manufacturers and distributors of financial instruments to provide, in relation to each financial instrument, a fine-grained description[44] of the positive target market (i.e., the set of potential clients or groups of clients targeted by the instrument in question), both in the abstract and concrete, taking elements of sustainability into account. Thus, it is necessary to specify, with regard to each financial instrument, the type(s) of client whose financial and sustainability profile (i.e., needs, financial characteristics and investment objectives, including any sustainability-related objectives) is compatible with its characteristics. To this end, the European Commission requires that sustainability features be added to the product's risk-return and suitability characteristics. These are factors which, together with the product's other financial characteristics, the manufacturer must consider when designing and implementing it in order to assess its compatibility with the financial and sustainability needs of the target market (potential clients). During the pre-distribution phase, the product's sustainability factors are included in the information flow regarding financial instruments from the manufacturer to the distributor; they are also part of the process in which the distributor defines the boundary limits of the real positive target market. Lastly, in the post-distribution phase, both manufacturers and distributors are required to periodically review the financial instruments produced and distributed in order to ascertain that they continue to meet clients' needs and objectives, including those of sustainability.

The examination of the changes imposed by adding sustainability factors to the sphere of product governance shows that the rules for defining the potential and real negative target market remain unaffected. In other words, for the conception and distribution of sustainability-related financial products, categories of clients to whom the product cannot be distributed because their sustainability preferences are not ordinarily and hypothetically compatible with the sustainability level of the product do not exist. This is the result of a reasoned choice of

[44] For many doubts regarding this provision, see Colaert, Veerle A. 2020. Integrating n.19 above: 15–16.

the European Commission in line with the EU product-oriented distribution model, which, in order to ensure that hypothetically eligible (under the sustainability profile) financial instruments remain easily available to clients who show preferences, i.e. levels of sustainability different from those of the instrument in question, has deemed unnecessary and inappropriate—in the case of sustainable instruments/investments—to identify the set of clients or categories of clients to whom the instruments/investments may not be proposed because of incompatible needs, characteristics and sustainability objectives.[45]

In the context of the product regulation, the EU Green Bond Regulation will have a significant impact, since, for bonds that pursue environmentally sustainable objectives, it requires manufacturers to be aligned with the objectives laid down in the Taxonomy Regulation and issuers to allocate proceeds from a European Green Bond to the environmentally sustainable activity set out in the EU Green Taxonomy.[46]

7.8 Concluding Remarks

The European Union's objective to give effect to a sustainable transition is present in the relevant rules on investor protection, that complement the framework of rules for issuers of bonds that pursue environmentally sustainable objectives, set out by the EUGBR. As far as the legislation protecting those investing in financial instruments is concerned, this goal is reflected in the inclusion of sustainability preferences in the client's investment objectives and the adoption of a product-oriented model for distributing products financing sustainable economic activities.

Concerning the first point—the inclusion of sustainability preferences in MiFID II-based securities rules—this entails additional accountability of financial intermediaries, as they have to take into account these preferences both in the identification and management of conflicts of interests, and in the suitability assessment requirements. In particular, as for disclosure obligations, investment managers and advisors are expected to explain to clients the sustainability characteristics of financial instruments and how these characteristics match their sustainability preferences, allowing the client or potential client to understand different levels of

[45] See Recital 7 of the Delegated Directive 2021/1269.

[46] See Chapter 2 by Nikos Maragopoulos.

sustainability and take informed investment decisions. In addition, and above all, from an enforcement perspective of suitability requirements, the incorporation of sustainability preferences in the client's investment objectives rather than in the investor's other personal characteristics make these preferences a parameter for assessing suitability under Art. 25(2) MiFID II with consequent stronger liability for investment firms, incentivising the latter to adequately treat their clients' sustainability preferences.

However, the second specificity of the sustainability-related reform—the adoption of a product-oriented model for distributing eligible financial products—could jeopardise the regulatory objective of protecting financial investors. From the provisions examined, it is evident that the product-oriented model is to be favoured when the product has elements of sustainability. As for conflicts of interest rules, the sustainability-related reform is limited to the identification of situations where the financial intermediary's interest is in conflict with the client's sustainability preferences, but it fails to consider cases where these sustainability preferences can become a potential source of conflict with the client's economic or financial interest. As for the norms underpinning the suitability assessment, we have seen that, in comparison with the financial assessment parameters, the inclusion of sustainability as an assessment parameter is regulated less severely. This is true of the legal consequences (no block) when a (sustainable) product does not comply with the client's sustainability preferences and, above all, as the client is free to adjust his or her sustainability preferences so that investment proposals that otherwise would not comply with the type or 'minimum proportion' of sustainability chosen may become available.

Concerning the regulatory framework on product governance, we have highlighted that, with reference to sustainable products, alongside the new responsibility for manufacturers and distributors to consider clients' sustainability preferences in identifying the positive target market, the regulator did not deem it appropriate to require manufacturer and distributor intermediaries to identify the negative target market, i.e. categories of clients to whom the product cannot be distributed because their sustainability preferences are not ordinarily and hypothetically compatible with the sustainability level of the product. Consequently, and without prejudice to compliance with the MiFID II financial suitability criteria, there is nothing to prevent them also being distributed to clients who have not expressed sustainability preferences or have expressed different suitability preferences.

Without doubt, these choices are the result of commendable considerations seeking to promote the transition to a sustainable economy. Nevertheless, the application of sustainability-related reform will have to be carefully tested and monitored, since it is just as likely that it might produce risky situations for investors by offering intermediaries new opportunities to steer the latter's sustainability preferences to their own advantage. The European Commission is certainly aware of this and has repeatedly stressed the supremacy of what constitutes the bulwark of the regulations protecting the client, namely the requirement that intermediaries must always act in the (economic) best interest of the client, and that they should consider the investor's financial investment objectives before their sustainability objectives when assessing suitability. However, integrating sustainability issues into the general framework may create circumstances in which the client's economic and sustainability interests collide, as investing in eligible financial instruments when sustainability preferences have been expressed may not actually serve the client's best interest, which the intermediary must always pursue. There is also no doubt that this integration may give rise to a risk of greenwashing in its multiple forms of misrepresentation, mislabelling, misinformation, misselling and/or mis-pricing phenomena.[47] In investment services, risks arise with regard to how conduct-of-business rules, such as suitability, product governance and information requirements, should be applied when selling ESG products. This can arise in cases where the intermediary induces the client to change his or her sustainability preferences in order to sell financial instruments aimed at financing a company with a sustainable business and with which the intermediary has economic or legal ties, even though this would not be in the client's best interest. This increases the potential risk of litigation between clients and intermediaries, in which it will be more difficult for the investor to prove the damage caused by

[47] On the definition of the term 'greenwashing', see ESMA *Sustainable Finance Roadmap 2022-2024* (https://www.esma.europa.eu/sites/default/files/library/esma30-379-1051_sustainable_finance_roadmap.pdf), 8. In this connection, ESMA notes (12) that "«*Investor education also plays a role in making sure that product offerings related to ESG investing can be properly understood, for example in relation to the sustainability impact of different investment strategies put in place to integrate ESG factors*»". On this subject, see the in-depth analysis of: Mezzanotte, Félix E. 2022. Recent n. 1 above: 22–26; Cerrato Garcia. Elia and Agostini. Federica. Chapter 6 in this book.

the counterparty's conduct[48] which, under the reform examined, would be formally lawful.

Faced with the above-mentioned risks for the investor, the regulator recommends that the *priority* must always be the best possible (economic and financial) interest of the client. Will this recommendation be sufficient?

Certainly, the supervisory convergence measures to address greenwashing risks to financial investors, envisaged by the ESMA in the Sustainable Finance Roadmap 2022–2024,[49] can make an important contribution to the issue of reconciling potential conflicting (public and private) interests. But, for the moment, we can only hope that sustainability-related revision will be properly implemented by financial intermediaries and enforced by National Authorities.

[48] On the difficulty for investors to prove the breach of conduct of business regulation by financial intermediaries, see: Della Negra, Federico. 2019. *MiFID II and Private Law. Enforcing EU Conduct of Business Rules.*Oxford-Chicago: Hart Publishing; Id. 2020.The civil effects of MiFID II between private law and regulation. In *Private and public enforcement of EU investor protection regulation*, eds Raffaele D'Ambrosio, Stefano. Montemaggi. *Quaderni di ricerca giuridica della consulenza legale di Banca d'Italia 90:* 115–143 (https://www.bancaditalia.it/pubblicazioni/quaderni-giuridici/2020-0090/qrg-90.pdf); Cherednychenko, Olha O. 2021. Two Sides of the Same Coin: EU Financial Regulation and Private Law. *European Business Organization Law Review* 22: 147–172. https://doi.org/10.1007/s40804-020-00202-y.

[49] See, ESMA *Sustainable Finance Roadmap 2022-2024*, n. 48 above: 8 and 27–28.

CHAPTER 8

Discussion: Green Bonds and Banking and Capital Markets from a Practitioner's Perspective

Alexia Femia

The European Union (EU) has been in the forefront in the development of a concrete strategy to support the transition to a low-carbon, resource-efficient, and sustainable economy. Under the European Green Deal, the EU has committed to no net emissions of greenhouse gases by 2050, which will be achieved by carrying out a set of actions clearly defined by the European Green Deal roadmap[1] virtually impacting every area of the economy. Additionally, with the 2030 climate target plan,[2] the EU

[1] European Commission, "Communication from the Commission: The European Green Deal", COM (2019) 640 final.

[2] European Commission, "Communication from the Commission to the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Stepping up Europe's 2030 climate ambition", COM (2020) 562 final.

A. Femia (✉)
European Banking Federation, Brussels, Belgium
e-mail: a.femia@ebf.eu

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_8

has set an intermediary target of an at least 55% net reduction in greenhouse gas emissions by 2030. To implement this ambitious agenda, it is approximated that the EU will need to invest 350 billion Euro more every year during the 2021–30 decade compared to the decade before. The mobilisation of such a substantial amount of investment is not left to chance, and the European Green Deal Investment Plan (EGDIP), also referred to as Sustainable Europe Investment Plan (SEIP), was envisioned to achieve the main objectives of increasing funding for the transition and mobilising at least 1 trillion Euro to support sustainable investments over the next decade, create an enabling framework for private investors and the public sector, and finally provide support to identify, structure and execute sustainable projects.[3]

The success of the EU sustainability agenda will, also, heavily rely on the extent to which sustainable finance will be able to support the channelling of private investment into the transition. In this respect, the European Commission's Sustainable Finance Strategy[4] sets out a comprehensive action plan to further connect finance with sustainability. The EU's Taxonomy Regulation can be considered a central building block for the success of the action plan for it serves as a science-based classification system defining which activities can be deemed sustainable therefore clarifying where capital flows should be oriented to move towards a more sustainable economy. Although this provides a solid basis, there are still many other pieces to the puzzle which are key for the achievement of certainty and clarity for investors, as well as practitioners, for example when seeking to offer financial products and services in line with clients' sustainability preferences.

At present, the EU sustainable finance framework is becoming increasingly intricate and intertwined due to the inevitable overlaps between the multiple legislative initiatives. Financial institutions have been placed at the centre of the vast regulatory framework already foreseen by the EU governing bodies; the complexity of the legislative framework and existing gaps are materialising into concrete issues which need to be addressed to

[3] European Commission, "Communication from the Commission to the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Sustainable Europe Investment Plan and European Green Deal Investment Plan", COM (2020) 21 final.

[4] European Commission, "Communication from the Commission. Action Plan: Financing Sustainable Growth", COM (2018) 97 final.

reach the EU goals for a sustainable economy. For the financial sector, this materialisation is already visible in the following legislative pieces as well as in their mutual interaction: the Sustainable Finance Disclosure Regulation (SFDR),[5] the Taxonomy Regulation,[6] the Corporate Sustainability Reporting Directive (CSRD),[7] the ESG disclosure requirements under the Capital Requirements Regulation[8] (CRR) and in particular Pillar 3 ITS, the upcoming Regulation on European Green Bonds[9] and the integration of sustainability risks and factors in Markets in Financial Instruments Directive II (MiFID II) suitability.[10]

The first roadblock is characterised by the current lack of reliable and comparable data. As a result, financial institutions struggle to assess the extent to which their portfolio is "green" or taxonomy-aligned, implement risk management practices, but also provide financial products meeting their clients' sustainability preferences. Indeed, access to

[5] 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 [2019] OJ L317/1.

[6] 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 [2020] OJ L198/13.

[7] Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting.

[8] Regulation (EU) No 575/2013 of the European Parliament and of the Council 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 [2013] OJ L 176/1.

[9] European Commission, "Proposal for a Regulation of the European Parliament and of the Council on European green bonds", COM (2021) 391 final 2021/0191(COD). Political agreement on the regulation was reached as this volume was going to print. This has been reflected where necessary.

[10] Article 25(2), "Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU", [2014] OJ L173/349; Articles 54 and 55, "Commission Delegated Regulation (EU) 2017/565 of 25 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive", [2017] OJ L87/1; and "Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions for investment firms", [2021] OJ L277/1.

reliable data can be considered the foundation of progress in achieving the challenging EU objectives. In this respect, the CSRD represents the additional central building block accompanying the EU Taxonomy, as it will foster transparency and strengthen sustainability disclosure by European companies.[11] However, it is reasonable that we should not expect public disclosures under the proposed directive before 2025.[12] On the other hand, banks and investment firms have to start integrating sustainability preferences into suitability assessments already as of August 2022 while the SFDR Regulatory Technical Standards (RTS) will shortly enter into force, as of January 2023. The data gap is further amplified by the fact that EU Taxonomy data will not yet be available either (with the first disclosures on EU Taxonomy alignment available in 2023). The sequencing proposed by the legislators, therefore, creates two types of issues:

- The first is the data gap resulting from the EU Taxonomy and CSRD data only being available after the entry into force of MiFID II;
- The second is represented by the SFDR RTS also only applying after MiFID II. The former, however, define the details necessary to identify financial products able to meet sustainability preferences as defined by MiFID II.

Ultimately, misalignment of the application timelines will result in uncertainty for investment firms and ultimately for clients. This is then further amplified by the divergences among the definitions provided by the aforementioned legislations. In particular, although ESMA recognises (i) the different product scope of MiFID II, the SFDR and the EU Taxonomy Regulation and (ii) states that the definition of "sustainability preferences" "ensures that financial instruments with sustainability-related features are eligible for recommendation to the clients or potential clients who express sustainability preferences",[13] in practice this renders meeting

[11] At the time of the publication, the CSRD, published in the EU Offical Journal, also includes reporting requirements applicable to non-EU companies operating in Europe.

[12] The final CSRD text foresees a phase-in of reporting companies, with a first set of companies reporting under the CSRD for the first time in 2025.

[13] European Securities and Markets Authority (ESMA), "Consultation Paper: Guidelines on certain aspects of the MiFID II suitability requirements", 2022. https://www.esma.europa.eu/sites/default/files/library/esma35-43- 2998_consultation_

the definition of *sustainable investment* highly difficult or even impossible. Meeting the definition of "sustainable investment" for certain MiFID II financial instruments will, indeed, likely not be possible.

In essence, one of the main underlying issues is the risk of overcomplication given the overlaps between various frameworks in place. The financial sector, as already mentioned, has to comply with the SFDR, the EU Taxonomy, the CRR and the CSRD. Moreover, this is now being complemented by other legislations including the EU Green Bond Standard proposal and the integration of sustainability risks and factors in MiFID II suitability. This risk of overcomplication has translated quite clearly in the latter, that is the integration of sustainability in MiFID II suitability, where legislators have had to come to terms with the fact that we currently do not have a common definition of "sustainable investment" across frameworks. On top of this, MiFID II will come before the SFDR RTS (which will provide clarity on the content, methodology and presentation of ESG disclosures at product level), so the implementation will only be based on the interpretation of the SFDR. Ultimately, this means that the clarity for practitioners will still be low, which in turn reduces clarity for retail investors, contrary to the objective, risking general mistrust in sustainable products probably for years to come. Retail investors must also face the challenge of understanding an entirely new category of financial products, while about half of the EU adult population does not have a good enough understanding of basic financial concepts.[14]

While banks will be stepping up advisory services, action will also be needed from national governments by actively embedding financial literacy into national frameworks to ensure we match the rapid developments of our time.

To avoid slowing down the offer of services for the entire market, due to the current lack of implementation guidance for MiFID II and of data due to the aforementioned sequencing issues, what would be needed, in an initial period, is a flexible approach that enables offering solutions to clients based on the availability of instruments, while considering all of the components of product governance and product distribution (time

paper_on_review_mifid_ii_guidelines_on_suitability.pdf

[14] OECD/INFE, "International survey of adult financial literacy", 2020. https://www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport.htm

horizon, risk appetite, knowledge of the client). In the current circumstance, characterised by a lack of data or guidance, it is likely that there will be an inconsistency between the sustainability preferences of investors and what is available on the market in terms of financial products. Engagement with clients on their sustainability preferences will be necessary in this respect to ensure that a satisfactory service is provided.

A flexible approach would also be beneficial in the application of the upcoming European Green Bond Standard (EU GBS), and indeed a voluntary scope was maintained in the final version of the regulation, also with regard to environmentally sustainable bonds and sustainability-linked bonds.[15] Since the proposal has been published by the European Commission, many concerns have been raised around the potential risk of greenwashing and how to ensure the success of the uptake of the standard. Consequently, there has been much debate on the nature of the standard, in exact whether it should be a voluntary or mandatory standard.[16]

In this respect, there would be benefits in adhering to the European Commission's original proposal for a voluntary standard for a variety of reasons. Starting from the bottom, it is important to understand the purpose of the proposal, which is to provide a gold standard in the green bond market. At present, the main concern for which several stakeholders are supporting the idea of a possible mandatory standard or a potential shift to a mandatory standard over time stems from the idea that, otherwise, the standard will not be picked up by the market. This, however, does not reflect the trend characterising the last few years with the market and issuers increasingly focusing on renewing their green bond frameworks in order to align their projects (at least partially) with the EU Taxonomy and their processes with the EU GBS.

This brings to light a few things. First, there is already a willingness to use the EU Taxonomy as a tool to provide evidence of the green nature of bonds. Second, the observation that in many cases alignment to the

[15] The political agreement on EUGBR was reached as this volume was going to print, however, the final text was yet not available. General aspects of the co-legislators' compromise were included in the text where most relevant.

[16] A voluntary standard would entail that an issuer choosing to issue under the EU GBR, would be subject to the rules foreseen by the Regulation. If the EU GBR were to be mandatory, any EU issuer of a green bond would be subject to the Regulation and would not be free to choose issuing under other existing standards.

EU Taxonomy is only partial suggests that this is likely a consequence of the difficulties faced by market participants when applying the EU Taxonomy, and in particular in meeting the Technical Screening Criteria (TSC) and "do no significant harm" (DNSH) criteria. In addition, the European Commission's Platform on Sustainable Finance estimates in its report on an extended EU Taxonomy[17] that the volume of finance that would currently meet EU Taxonomy alignment green criteria is 1–5% of all financial assets. Under this current circumstance, it is clear that, at least for the time being, the door should be kept open to other standards to satisfy the wide range of needs of green financing.

For the purpose of catering to the green financing demand, flexibility should be foreseen in the framework also when it comes to grandfathering. The proposal states that in the event of evolving TSC[18] the issuer of an EU green bond may have up to 5 years to reallocate proceeds in order to comply with the new criteria). This further limits the amount of projects for which such a tool will be appropriate. If we look at green projects, a large part of these require long-term financing. A concrete example could be an issuer who may choose to fund electricity generation using solar photovoltaic (PV) technology (which is covered by the TSC), but the project upon completion may no longer meet the future Biodiversity criteria. The solar PVs could in a few years be deemed "near" a biodiversity-sensitive area if a newly added site on the UNESCO World Heritage list[19] is near the project (for reference 34 sites were added to the list since 2020). To meet the investor's time horizon and due to potential costs, the issuer cannot consider the EU GBS as an appropriate tool for the financing of the project and should have the option to opt for an alternative standard that meets their specific needs.

The real advantage provided by the EU GBS is its tight link to the EU Taxonomy and the review process that issuers must undergo increasing the credibility of bonds issued under this standard. The combination

[17] Platform on Sustainable Finance, "The Extended Environmental Taxonomy", 2022. https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/220329-sustainable-finance-platform-finance-report-environmental-transition-taxonomy_en.pdf

[18] According to the Taxonomy Regulation, the Technical Screening Criteria (TSC) is subject to review every three years.

[19] UNESCO. World Heritage List. https://whc.unesco.org/en/list/. Accessed 13 Sep 2022.

of these two elements will likely ensure a natural attraction of investors towards the green bonds issued under the European standards, therefore encouraging issuers to pursue taxonomy-aligned projects.

It is relevant that the use of the standard, however, remains voluntary. While the mandatory nature of the standard would increase the chances of its uptake, it could, on the other hand, inadvertently limit market developments and create an unlevelled playing field, leaving European issuers constrained in a format which only evolves at the pace of the development of the TSC of the EU Taxonomy.

Ultimately, while the greening of the bond market is essential, it is a multiple step process that requires various pieces of legislation to converge in a moulded and well-functioning practice allowing issuers and investors to apply suitable and practicable solutions to pursue the transition to a greener economy in a manner that does not hinder its financing.

PART III

Micro- and Macro-Prudential Perspective on Green Bonds

CHAPTER 9

Method Transparency for Green Bonds: Learnings from Climate Transition Risk Metrics

Julia Anna Bingler, Chiara Colesanti-Senni, and Pierre Monnin

9.1 Introduction

Measuring the greenness of a bond relies on the appropriate definition of what green means, but also on the appropriate metrics to measure that definition. Take the example of climate change. There is widespread consensus that climate-related impacts should be measured. However, in

J. A. Bingler (✉)
Smith School of Enterprise and the Environment, University of Oxford, Oxford, UK

C. Colesanti-Senni · P. Monnin
Council of Economic Policies, Zurich, Switzerland

J. A. Bingler · C. Colesanti-Senni
Institute for Banking and Finance, University of Zurich, Zurich, Switzerland

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_9

times of transition finance and discussions on how to finance the decarbonisation of the economy, simple backward-looking approaches do not seem to be sufficient to steer the change. Forward-looking approaches to understand the contribution of a corporate or project bond to a greener, climate-friendly economy are therefore on the rise. These approaches are usually based on scenario analyses.

Yet, the methodologies, data, and assumptions underpinning these forward-looking approaches vary substantially.[1] This does not come as a surprise: it reflects the underlying complexity and uncertainty in the analysis of climate risks. It has been shown that environmental, social, and governance (ESG) ratings could vary considerably across metric providers, for the same firm.[2] Focusing on physical risk metrics, Hain et al. (2022) find considerable divergence across six risk measurement approaches.[3] Given the deep uncertainty around climate risks, this divergence is not avoidable, and per se not an issue, as long as the key drivers of risk are properly understood. Such understanding is key for investors and supervisors, and also crucial for reliable research. Research on climate performance and asset pricing disagrees on whether climate risks are priced efficiently or not.[4] Whilst various asset classes and maturities are one reason for the diverging academic results, the studies barely relate their results to the specific climate indicators they use.

The present analysis shows that the selection of specific metrics should be explicitly justified and documented together with the metrics' key assumptions in order to enable users and investors to understand the underlying approaches that define the "greenness" of a certain

[1] Bingler, Julia. Anna., Colesanti Senni, Chiara. 2022. Taming the Green Swan: A Criteria-Based Analysis to Improve the Understanding of Climate-Related Financial Risk Assessment Tools. *Climate Policy* 22, 356–370.

[2] Berg, Florian., K¨olbel, Julian. F., Rigobon, Roberto., 2022. Aggregate Confusion: The Divergence of ESG Ratings. Review of Finance Forthcoming.

[3] Hain, Linda. I., K¨olbel, Julian. F., Leippold, Markus., 2022. Let's Get Physical: Comparing Metrics of Physical Climate Risk. *Finance Research Letters* 46.

[4] Campiglio, Emanuele., Monnin, Pierre., von Jagow, Adrian., 2019. Climate Risks in Financial Assets. CEP Discussion Note 2019/2. Gros, Daniel., Lane, Philio. R., Langfield, Sam., Matikainen, Sini., Pagano, Marco., Schoenmaker, Dirk., Suarez, Javier., 2016. Too Late, Too Sudden: Transition to a low-carbon economy and systemic risk. Reports of the ESRB Advisory Scientific Committee. Hong, Harrison., Li, Frank.Weikai., Xu, Jiangmin., 2019. Climate Risks and Market Efficiency. *Journal of Econometrics* 208, 265–281.

bond. Furthermore, "climate risk" and the "greenness" of the exposures of financial institutions are becoming increasingly interconnected. The Implementing Technical Standards (ITS) proposed by the EBA on banks' disclosures of climate risks also require disclosure of "mitigation actions", including the relative importance of Green Taxonomy-aligned investments, expressed in the Green Asset Ratio (GAR).[5]

To identify which elements should be disclosed in addition to the core metric that defines the "greenness", we use the example of climate transition risk metrics. We report the results of our analysis why climate risk metrics of different providers tend to converge or diverge for the same firm, and which metric characteristics are associated with changes in the estimated transition risk exposures. The underlying analysis for this chapter has first been published by Bingler et al.[6] The book chapter builds on the main results and derives the implications for Green Bond transparency, since the underlying metrics to define the climate alignment component of corporate and project bonds could be similar to the ones used in climate transition risk analyses.

9.2 Data and Variables

We focus on a sample of 1,565 companies included in the MSCI World Index as of 31 January 2020. We consider forward-looking climate risk and alignment metrics, which assess the transition risk at the individual firm level. Most forward-looking climate transition risk metrics employ various building blocks, such as climate transition scenarios, firm-level economic impact analysis, and financial impact analysis.

We identified six core categorical variables that are likely to exert the largest influence on the final metric value. The variables include the underlying climate *scenario-specific* variables, and *provider-specific* variables. Table 2.1 provides the definitions of the explanatory variables (Fig. 9.1).

[5] See EBA 'Final Report. Implementing Technical Standards (ITS) on prudential disclosures on ESG risks in accordance with Article 449a CRR'. EBA/ITS/2022/01, 24 January 2022.

[6] Bingler, Julia. Anna., Colesanti Senni, Chiara., Monnin, Pierre., 2022. Understand what you Measure: Where Climate Transition Risk Metrics Converge and why they Diverge. *Finance Research Letters* 50, 103265.

Variable	Type	Definition
Climate scenario-specific variables		
Temperature target	*Categorical*	The temperature target to be achieved within the climatescenario.
Time horizon	*Categorical*	The time horizon considered in the climate scenario.
Provider-specific methodology variables		
Output	*Categorical*	Type of climate-adjusted financial risk metric that is provided.
Firm target	*Dummy*	Consideration of the firms' climate targets.
CAPEX	*Dummy*	Consideration of firms' capital expenditures.
Approach	*Categorical*	Modelling approach for calculating the risk value.

Fig. 9.1 Definitions of the explanatory variables

9.3 Results

We find that climate risk metrics display a significant degree of heterogeneity, which reflects the complexity of assessing climate risks, as well as the different methodologies and data underpinning these metrics. Yet, risk assessments across metrics tend to converge on firms that are most exposed to transition risks. Second, we find strong evidence that the methodology adopted and the inclusion of forward-looking information affect the estimated risk value more than the underlying scenario. Last, we show that within the same modelling approach, lower temperature targets increase risk estimates, longer time horizons increase the estimated risk, and an orderly transition scenario delivers lower risk estimates than a disorderly transition scenario.

9.3.1 Convergence Across Risk Metrics

To assess the convergence between metrics, we first rank the firms according to their metric-specific estimated risk exposure. We then classify them into five risk categories—from 1 for the least exposed firms to 5 for the most exposed firms and assess the degree of convergence between each pair of metrics. Our results show that sharing similar scenario characteristics, having similar horizon, temperature target, and hypotheses on the shape of the transition improves the coherence between metrics. We also find that metrics from different providers tend to converge more for firms that are the most exposed to transition risk.

9.4 Across-Metrics Analysis

To formally identify the main drivers of the divergence, we conduct various panel OLS regressions with the risk metric as the dependent variable and the explanatory variables as identified above.

Most striking, we find that changes in the temperature target are not statistically significant. Hence, we cannot infer that a higher temperature target, compared to the baseline (which is a 1.5 °C temperature target), is associated with a lower risk assessment—even though the sign of the estimated coefficients is in line with our expectations (a higher temperature target implies a less stringent transition and hence lower transition risk—yet potentially higher physical risks, which are not assessed by the metrics considered).

Adopting a longer time horizon of analysis is associated with higher risks until 2050 compared to the baseline (2025). This is in line with the fact that most climate transition scenarios assume transition activities to start relatively slowly in the near future, ratcheting up ambition considerably until 2050, when the climate targets are then fulfilled. Yet, given that most of the coefficients are statistically non-significant, we cannot infer that a longer time horizon is associated with first a higher and later a lower risk. For the year 2100, the estimated coefficient (although non-significant) suggests that such a long-term horizon is associated with a lower risk, compared to 2025. This is likely because all transition activities are assumed to be implemented by then at the latest, and the risks in the very distant future have—albeit being very uncertain—less impact on today's economic and financial values than risks in the near future. Specifying no time horizon compared to adopting the baseline horizon, is associated with a decrease in risk, with a strongly statistically significant coefficient. This effect is likely to capture the fact that metrics, which do not account for any time horizon, are structurally different from metrics that do assess climate transition pathways over time. Hence, this effect might also capture modelling differences other than considering the time horizon itself.

In contrast to the temperature target and the time horizon, the types of output produced by the metric are statistically significant. Holding everything else constant, if the output is a financial indicator, a gap, or a risk score, the associated risk is higher than in the case in which the output metric captures balance sheet effects. This effect has a similar magnitude for financial metrics and alignment gaps and is a bit less pronounced for metrics that are risk scores. This finding suggests that the metrics' output type is an important driver of the metrics' risk assessments. In other words, the modelling approach adopted to produce a specific output type is a key driver of the quantified risk exposure.

Considering individual firms' climate targets and CAPEX plans in the climate transition risk metrics quantification is associated with a higher risk. The variables are both statistically significant at the 1% level and exhibit a strong quantitative effect. Intuitively, firms' climate targets should be associated with higher risks, since the firm would be better prepared for the transition. However, the climate targets might not be sufficient for companies to align their activities with the transition. Hence, one reason for this result could be that analysts looking at the firm climate targets consider them as not sufficient, and hence find the respective firms riskier. With regards to the CAPEX plans, similar considerations can be made: Today's CAPEX plans are rarely aligned with what would be required to achieve the climate targets. To the contrary, they currently tend to lock-in companies into carbon-intensive technologies. Considering this lock-in effect in the risk analysis intensifies the anticipated transition risks. Finally, holding everything else constant, adopting a combined top-down and bottom-up approach compared to a bottom-up approach is associated with lower risk. Adopting a top-down approach does not have a significant impact on the risk assessment.

9.5 Within-Provider Analysis

Some providers deliver multiple specifications for their metrics. Specifically, they assessed the companies in our sample for different temperature targets, time horizons, and transition paths. We thus run an OLS regression to investigate the impact of these characteristics on the output produced by the same provider.

Overall, for the within-provider analysis, we see that within a certain metric, temperature target, horizon, and transition pathway matter for the risk assessment. A 1.5 °C and below 2 °C temperature target is associated with a higher risk compared to a 2 °C target. Considering a 3 instead of a 2 °C temperature target decreases the risk, as expected. A longer time horizon is associated with a lower risk compared to the baseline horizon of 2025. Assuming that additional climate transition activities become mainstream across all firms is associated with a lower risk, compared to the situation in which companies are inactive in the transition and just follow the market because it implies that companies are more ready for the transition. The assumption of an immediate transition pathway could increase or decrease the estimated risk, depending on the metric provider.

9.6 Implications

Our results of the analysis of the climate risk metrics bear important implications for the transparency provisions of Green Bonds. First, our finding that metrics tend to converge on those firms are the most exposed to transition risks shows that, despite the general heterogeneity, climate transition risk metrics generally provide more coherent signals for the most and least climate-aligned firms. This implies that greenness indicators will likely also converge on most and least green firms and projects. Second, the scenario and methodology underlying the metrics do have a considerable impact on the estimated value of the metric. It is therefore important to understand how metrics are built and estimated, to choose the ones that are the most appropriate for specific use cases. Third, firms, which disclose climate alignment and greenness metrics should also report the underlying methods, data sources, and scenario assumptions in addition to the metrics' values, to allow third parties to properly understand the disclosed information.

For finance research and academia, our results show that an explicit justification of the selection of a specific climate or "greenness" metric, instead of just using any metric which is available, should become a standard quality criterion. This also implies that all findings should be interpreted in light of the metric assumptions.

CHAPTER 10

The Role of Prudential Requirements in Fostering Green Bond Markets: The Experience of Hungary

Gabor Gyura

10.1 Introduction

Just as human-caused climate change itself is a market failure, it can be argued that another market failure is present in financial markets resulting in a lack of adequate consideration of long-term sustainability risks in lending and investment decisions, and in a suboptimal supply of funds to finance low-carbon investments in the real economy. There is a broad consensus about the need of regulatory intervention to improve climate

The author of this chapter used to be the Central bank of Hungary's Head of sustainable finance department between 2019 and 2022 and was responsible for the design of many of the policy steps discussed in the chapter.

G. Gyura (✉)
Department of Finances, Budapest University of Technology and Economics, Budapest, Hungary
e-mail: gabor.gyura@outlook.com

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_10

risk management in the financial sector, to enhance transparency, to limit the risk of greenwashing and ultimately to close the funding gap for the Sustainable Development Goals. In the EU, the European Sustainable Finance Action Plan targets all the aforementioned areas.

The emergence of dedicated green financial instruments started already before sustainable finance-related regulatory steps were first implemented, although their magnitude still falls short of the level required to meet Europe's climate and other environmental goals.[1] Moreover, the development of the green bond market in Central-Eastern Europe (CEE) started later and at a slower pace than the growth seen in Western-Europe. Focusing on the case of Hungary, the chapter analyses both supply and demand side factors for such a pattern in CEE and sets the question whether a more activist regulatory approach, involving also prudential requirements is warranted to help foster sustainable finance markets where the current, predominantly light-touch (disclosure based) European regulation might not provide sufficient incentives.

The main subject of prudential regulation is commercial banking, since the protection of depositors and the social and economic functions of banking is a special public good. Accordingly, the chapter itself focuses mainly on banks, which are also among the most important investors in green bonds in many markets. That said, in some parts the chapter also briefly mentions the regulatory approach applicable to asset managers, so as to shed light on specific, relevant market failures and/or regulatory considerations. As for environmental risks, to keep the chapter scope manageable, I do not cover physical environmental risks, given their special nature (i.e. in case of assets exposed to physical risks, the financed activity itself is not necessarily the cause of the sustainability anomaly). Finally, the chapter mainly focuses on the European Union and its policies, but the author hopes that the analysis can be useful also beyond Europe.

Greening the financial market entails at least two elements: first, decreasing the financing of unsustainable activities, and second, increasing the financing of green activities. The chapter also follows this logic: first, it

[1] European Commission. 2019. Financing sustainable growth—factsheet. Available at: https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/finance-events-190321-factsheet_en_0.pdf. Accessed 23 December 2022.

discusses the theoretical links between prudential regulation and "greening", starting with risk management, followed by the analysis of the ideas about encouraging green financing, after which the chapter explains the developments in the Hungarian green bond market, where prudential regulation has been playing a role in shaping such market. The discussion concludes by drawing some preliminary conclusions from the lessons in Hungary which might be generalized internationally.

In the chapter, I consider the objective of prudential regulation given, i.e. to promote the maintenance of a sound and efficient financial system. Therefore, the question is to assess if prudential regulation can play a role in the development and growth of the green bond (or generally the green finance) market without prejudice to its original objective.

10.2 Links Between Prudential Regulation and the Greening of the Financial System

10.2.1 Risk Management Requirements, Corporate Governance

There is a global consensus about the importance of prudential regulation's covering more thoroughly climate and/or environmental risks ("sustainability risks", hereinafter), by requiring financial institutions to develop their corporate governance and risk management processes. International bodies such as the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS) published recommendations,[2] and many financial regulators issued guidance at the national level in that spirit.[3]

[2] FSB. 2022. Supervisory and regulatory approaches to climate-related risks: final report. Available at: https://www.fsb.org/wp-content/uploads/P131022-1.pdf. BCBS. 2022. Principles for the effective management and supervision of climate-related financial risks. Available at: https://www.bis.org/bcbs/publ/d532.pdf. Accessed 23 December 2022.

[3] See for instance Monetary Authority of Singapore. 2020. Guidelines on environmental risk management for banks. Available at: https://www.mas.gov.sg/-/media/MAS/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Commercial-Banks/Regulations-Guidance-and-Licensing/Guidelines/Guidelines-on-Environmental-Risk---Banks/Guidelines-on-Environmental-Risk-Management-for-Banks.pdf/. Accessed 23 December 2022. Central Bank of Kenya. (2021). Guidance on climate-related risk management. Available at: https://www.centralbank.go.ke/wp-content/uploads/2021/10/Guidance-on-Climate-Related-Risk-Management.pdf. Accessed 23 December 2022.

Binding regulations are also under development in some of the jurisdictions, such as the proposal to amend the Capital Requirement Directive and Regulation (CRD/CRR) in the EU, which targets—among others—the development of ESG risk management in the banking sector, requiring—inter alia—that short, medium and long-term horizons of ESG risks be included in credit institutions' strategies and processes for evaluating internal capital needs as well as adequate internal governance. The proposal goes even as far as requiring dedicated plans adopted by the management body to deal with ESG risks and empowering competent authorities to review banks' alignment with the relevant Union policy objectives or broader transition trends relating to ESG factors.[4]

It could be argued that the requirement to integrate sustainability factors in the risk management process can indirectly already help green financing, if unsustainable activities get less funding or get funding only with stricter conditionality, and if we can assume that a part of that decreased funding supply is re-allocated to more sustainable activities. Importantly, this approach also assumes the market failure that profit-maximizing lenders and investors themselves have been so far partly or fully ignoring certain risk drivers (possibly due to limited rationality, short-termism or information asymmetries), which is why regulation itself needs to intervene in risk management.

A perfectly prudent risk management approach would be able to incorporate the transition risks stemming from issues like the expected change of environmental regulations, technological change, the greening of consumer preferences etc. If the goals of the Paris Agreement and other SDGs are believed by market participants to be truly achieved in the coming years and decades, the prudent risk management approach would indeed virtually automatically integrate that "new baseline" into the lending and investment decisions, hence resulting indirectly in, if not the greening of finances, but at least in making finance less brown.

Obviously, this underscores the importance of environmental regulation of the real economy: the development of sustainability risk management among financial institutions will only come with a strong impact on

[4] European Commission. 2021. Proposal for a directive of the European Parliament and of the Council amending Directive 2013/36/EU as regards supervisory powers, sanctions, third-country branches, and environmental, social and governance risks, and amending Directive 2014/59/EU. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0663. Accessed 23 December 2022.

financial flows if expected tightening of environmental regulations (i.e. drivers of transition risks) are considered credible. In this very ideal theoretic scenario, prudential regulation would be simply reflecting on the environmental regulation of the real economy, and there would be no trade-off with prudential goals.

10.2.2 Disclosure Requirements

Risk management-related prudential measures are often accompanied by disclosure requirements as well, in line with the philosophy of the Basel Capital Regime. The underlying logic is that by requiring financial institutions to make transparent their treatment of sustainability risks, market discipline can work, i.e. investors and wholesale creditors will shy away from less prudent partners, thereby creating an incentive to improve sustainability (ESG) risk management. This approach can work both in commercial banking and (looking beyond prudential regulation) in asset management, as reflected in the above-mentioned CRD/CRR proposal and in the Sustainable Finance Disclosure Regulation (SFDR), which makes it mandatory that financial market participants disclose their sustainability risk policies (Articles 4, 5 and 6 SFDR[5]).

In the EU, an additional layer of transparency will be required both for banks and other financial market players active in investment services (again, outside the prudential framework). The Green Taxonomy Regulation requires financial institutions to disclose specific KPIs about their business' alignment with the EU's environmental sustainability definition.[6] In case of banks, investors, depositors and other clients can create a positive pressure to increase this green asset ratio. Similarly, in case of investment products, the SFDR in combination with the Taxonomy Regulation's aforementioned provision[7] can make it possible

[5] 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. (2019). Official Journal L 317, 9.12.2019, pp. 1–16.

[6] 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. (2020). Official Journal L 198, 22.6.2020, pp. 13–43.

[7] Article 8 and 9 of the SFDR and Article 5 and 6 of the Taxonomy regulation.

that investors to have fairly accurate and comparable information about the investment products' "greenness".

Needless to say, this approach assumes at least two important elements to be in place, in order to have an impact on green financial flows. In case of banks, capital market presence or at least the importance of wholesale funding (i.e. entities that can assess the adequacy of banks' sustainability risk management) and/or conscious retail consumers (who—based on their values—would be ready to differentiate between banks according to their performance in green lending) would be needed. In the case of asset managers, the logic is similar: wholesale or retail investors would be required, that can and are willing to evaluate the sustainability risk management policy of the fund manager of the fund itself, and/or place a value on the "greenness" of the funds' investments.[8]

As for the disclosure channel's effectiveness, it is important to mention that the effectiveness of the Basel framework's third pillar has long been debated from many angles,[9] and—as I detail it in the analysis of the Hungarian market—there are obviously many regions anyhow, where capital markets have a relatively smaller role in the financial system.

Mandatory TCFD[10]-style reporting from banks can have the potential to make certain investors or wholesale creditors shy away from institutions perceived to be overly exposed to sustainability risks. The message of climate stress tests and other analytical tools will be a key factor here. Obviously, if climate stress tests show moderate potential losses, little such risk-based divesting can be expected. The first-generation climate stress tests show mixed results, using heterogenous methodologies and assumptions. While risks are not downplayed in the reports of these stress tests, some of the early results do not seem to be forceful. For instance, the exposure of French banks and insurers to transition risk was deemed as "moderate", with an increase in French banks' cost of risk

[8] See also Chapter 7 by Maria Elena Salerno.

[9] See for instance Vauhkonen, J. 2012.The Impact of Pillar 3 Disclosure Requirements on Bank Safety. Journal of Financial Services Research 41, 37–49. Scannella, E. 2018. Market risk disclosure in banks' balance sheets and the pillar 3 report: the case of Italian banks. In: García-Olalla, M., Clifton, J. (eds) Contemporary Issues in Banking. Palgrave Macmillan Studies in Banking and Financial Institutions. Cham: Palgrave Macmillan.

[10] Task Force on Climate-related Financial Disclosures, created by the Financial Stability Board.

between 30 and 40%.[11] To compare, the COVID-19 crisis increased this metric by 100%.[12] To take another example, the results of the ECB's 2022 climate stress test also projected potential impacts which were interpreted by analysts as modest. Market commentaries pointed to the fact that the worst-case scenario in the ECB stress test showed possible losses amounting to less than 0.2% of banks' loan books,[13] even though the ECB itself emphasized that the exercise's estimate significantly understates the actual risks.[14]

10.2.3 The Brown Penalizing Factor

The idea to make prudential regulation play a more active role in encouraging more green financing, or at least to discourage brown financing has been heavily debated in academic papers and public discussions in recent years,[15] with the European Banking Authority (EBA) itself having been appointed to prepare a report about the possibility of a differentiated treatment of assets based on their environmental or social characteristics in EU prudential regulation.

There is probably more support for increasing capital charges for brown exposures than for the green support factor idea. For instance, in a recent paper published by the European Central Bank, the authors

[11] Banque de France. 2021. A first assessment of financial risks stemming from climate change: The main results of the 2020 climate pilot exercise. https://acpr.banque-france.fr/sites/default/files/medias/documents/20210602_as_exercice_pilote_english.pdf#page=6. Accessed 23 December 2022.

[12] Murzeau,V., Huys, M. 2021. Climate Stress Tests: how to read the results of the exercise? https://www.carbone4.com/climate-stress-tests-how-to-read-the-results-of-the-exercise Accessed April 2022.

[13] Arnold, M.. 2022. Eurozone banks are underestimating the hit from climate change, warns ECB. Financial Times, July 8. https://www.ft.com/content/2a35b552-e76a-47f7-8c7e-a5c123eebe87. Accessed 30 November 2022. Natixis. 2022. ECB climate stress test unveils shortcomings in climate risk management. https://gsh.cib.natixis.com/our-center-of-expertise/articles/ecb-climate-stress-test-unveils-shortcomings-in-climate-risk-management. Accessed 23 December 2022.

[14] ECB. 2022. 2022 climate risk stress test. www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.climate_stress_test_report.20220708~2e3cc0999f.en.pdf. Accessed 23 December 2022.

[15] See for instance Thomä, J., Gibhardt, K. 2019. Quantifying the potential impact of a green supporting factor or brown penalty on European banks and lending. Journal of Financial Regulation and Compliance 27: 3380-394.

argue that macroprudential policies could strengthen banks' resilience to climate risks and also affect the allocation of new funding to investments less exposed to climate risk.[16] Importantly, any prudential measure limiting brown exposures can have both a microprudential and a macroprudential, macroeconomic aspect: they can not only reduce individual banks' sustainability risks but also decrease the risks for the economy (and society) as a whole.

In practice, the brown penalizing approach already appears to receive some support from policymakers. For instance, in Canada, a legislative proposal has been submitted to Parliament to introduce a prohibitive, 1250% risk weight for new fossil fuel-linked exposures, considered in the bill to constitute "acute transition risk".[17]

While the EBA is still to finalize and publish its report mentioned above, in its discussion paper published in May 2022, it already spelled out its preliminary views. The discussion paper argues that "the Pillar 1 framework already includes mechanisms that allow the inclusion of new types of risk drivers such as those related to environmental risks", and that "targeted amendments to the existing prudential requirements would address these risks more accurately than such adjustment factor".[18]

To sum up, it can be argued that the goal of prudential regulation can harmonize well with the goal of greening finance in decreasing the funding of unsustainable activities. Requiring the incorporation of sustainability factors into risk management and making sustainability-related exposures transparent can provide an incentive to reduce brown financing, with increased capital requirements for brown activities being a much more direct tool for the same objective. However, less "brown" financing obviously does not automatically lead to more green financing, leading to the question if prudential regulation can play a stronger role here to contribute more substantially to the transition to a sustainable economy.

[16] Baranović, I. et. al. 2021. The challenge of capturing climate risks in the banking regulatory framework: is there a need for a macroprudential response?. Macroprudential Bulletin, European Central Bank, vol. 15.

[17] See BILL S-243—An Act to enact the Climate-Aligned Finance Act and to make related amendments to other Acts—https://www.parl.ca/DocumentViewer/en/44-1/bill/S-243/first-reading

[18] EBA. 2022. The role of environmental risks in the prudential framework discussion paper. EBA/DP/2022/02. Available at: www.eba.europa.eu/regulation-and-policy/credit-risk/discussion-paper-role-environmental-risk-prudential-framework. Accessed 23 December 2022.

10.3 Closing the Green Funding Gap—Could and Should Prudential Regulation Play a More Assertive Role?

10.3.1 The Green Support Factor Dilemma

Taking into account the less obvious effectiveness of the disclosures in prudential regulation in general and the less striking modelled (short term) losses of climate stress tests, there is probably little reason to assume that the development of risk management and increased transparency about sustainability risks in themselves would create a significant reallocation of funding towards more sustainable economic activities. Since capital requirements constitute perhaps the most important element of the banking prudential framework, it led already in the previous decade to the question if they could be deployed for "greening" purposes.

While the debate to have a special treatment in the prudential regulation for green assets has not yet been ultimately decided in Europe, the author of this chapter does not perceive much support by policymakers for a positive discrimination of green assets. The lack of support is mainly based on the argument that there is little evidence that green assets represent smaller credit risk, especially based on historic data.[19] While there appears to be at least sporadic support for the brown penalizing approach (as mentioned above with the Canadian example for instance), there is even less support for the green support factor idea.

Historically, the European Parliament was among the first actors to officially call for a green support factor, which was initially positively viewed by the European Commission, mentioning the possibility of lowering capital requirements for certain climate-friendly investments, such as energy-efficient mortgages or electric cars.[20] Nonetheless, sceptical and critical opinions quickly emerged about the idea. There are two main doubts about the green support factor: first, the coherence of the prudential framework, and second, the question of effectiveness.

[19] Ibid.

[20] Dombrovskis, V. 2017. Greening finance for sustainable business. Speech by Vice-President for the Euro and Social Dialogue, Financial Stability and Financial Services Valdis Dombrovskis. https://ec.europa.eu/commission/presscorner/detail/fr/SPEECH_17_5235. Accessed 23 December 2022.

10.3.2 The Question of Coherence and Integrity

Interestingly, even banks themselves are just partly in favour of the support proposal. For instance, in its position paper, the European Bank Federation cautiously argued that *if* the lower credit risk of green assets is underpinned by evidence, "*an appropriate prudential treatment, conceding the lower risk of these assets, would incentivise the financing and investment of the transition to a two-degree economy*".[21]

Those against the green support factor also frequently argue that a green support factor, introduced out of environmental sustainability motivations, instead based on prudential considerations are likely to undermine the credibility of the prudential regime.[22] This also translates to the position that any green support factor can be supported if it is risk-based, which calls for more empirical study of the performance of green loans and/or borrowers, compared to brown and environmentally neutral ("grey") ones.

In this field, evidence is still scarce and mixed, with energy-efficient mortgages being probably the only segment where evidence appears to gravitate in one direction. For instance, a study on the Italian mortgage market showed a negative correlation between energy efficiency and owners' probability of default.[23] Similar results were found for Dutch mortgages.[24] Besides energy-efficient mortgages, the author of this chapter is unaware of any other asset class where a strong case would be for green assets having better risk characteristics. Importantly, the economics of energy-efficient loans work through the higher disposable income (due to lower utility bills) and a more stable collateral value (due to the demand for energy efficiency). In case of other lending areas

[21] European Banking Federation. 2017. Towards a Green Finance Framework: 38 https://www.ebf.eu/wp-content/uploads/2017/09/Geen-finance-complete.pdf. Accessed 23 December 2022.

[22] Schoenmaker, D., Boot, A. 2018. Climate change adds to risk for banks, but EU lending proposals will do more harm than good. Blog Post. https://www.bruegel.org/blog-post/climate-change-adds-risk-banks-eu-lending-proposals-will-do-more-harm-good. Accessed 23 December 2022.

[23] EeDaPP. 2020. Final report on correlation analysis between energy efficiency and risk. www.aaa-h2020.eu/sites/default/files/2020-09/EeDaPP_D57_27Aug20.pdf. Accessed 23 December 2022.

[24] Billio M. et al. 2022. Buildings' energy efficiency and the probability of mortgage default: the Dutch case. The Journal of Real Estate Finance and Economics 65: 419-450.

(economic activities) such economic conditions might not be present, in many cases probably exactly because of the lack of internalization of negative environmental externalities by environmental regulation.

10.4 The Question of Effectiveness

The effectiveness of any green support factor is also subject to debate. To take another example of views, the Dutch Banking Association (NVB) stated not only that it was "*not in favour of specific capital requirements for green or brown asset classes, unless these are truly risk-based*", but also that "*prudential requirements are not considered to be the most important factor in the decision to finance 'green' or other assets. There are more effective ways to stimulate the transition to a carbon–neutral economy, such as carbon pricing*".[25]

Many other papers argue that effectiveness is questionable. For instance, Dankert et al.—in addition to mentioning that there is no evidence yet that green is less risky—refer to studies about similar (although non-green) support measures, including in particular the SME supporting factor, for which there is currently no evidence that it resulted in increased lending to SMEs.[26] The authors of the above-mentioned paper see two main reasons for the limited effectiveness: first, the limited magnitude of additional funding costs imposed by capital requirements, and the possibility that other risk management functions compensate for lower capital requirements (when a green support factor is not risk-based).

The importance of the integrity of the prudential framework and obviously also the effectiveness are key. In the following, I strive to keep these aspects in the discussion of the Hungarian experience with green bonds.

[25] Nederlandse Vereniging van Banken. 2018. Position paper on the prudential treatment of climate-related assets. https://www.nvb.nl/media/1318/nvb-position-paper-on-the-prudential-treatment-of-climate-related-assets_september-2018.pdf. Accessed 23 December 2022.

[26] Dankert, J., L. et. al. 2018. A green supporting factor—the right policy? SUERF Policy Note, Issue No 43. https://www.suerf.org/policynotes/3473/a-green-supporting-factor-the-right-policy. Accessed 23 December 2022.

10.5 Greening the Bond market—The Case of Hungary

10.5.1 The Development of the Green Bond Market in CEE and in Hungary

The most developed economies and financial markets—unsurprisingly—generally have a larger green bond market (see Chapters 2 and 4 for further insights on green bonds). However, the green bond segment in emerging market countries has also started with some lag. According to the IFC's analysis published in 2021, since 2012, 43 emerging market economies have issued green bonds, amounting to a cumulative issuance of US$226 billion. Importantly, the IFC's analysis also explains that "*in many emerging market economies, limited capital market depth and under-developed financial market infrastructure remain key hindrances to boosting green bond issuance*". (…) "*As these capital markets are developed, countries have an opportunity to simultaneously incorporate green and sustainable financial frameworks*".[27]

Focusing on CEE, we see interesting developments in the green bond market, with several countries debuting just in the 20s. Before 2020, there were non-sovereign (corporate) green bonds only in Latvia, Lithuania, Poland and Slovenia. The segment started to emerge just after 2020 in Czechia, Hungary, Romania and Slovakia (1st chart) (Fig. 10.1).

Looking at the share of green bonds within the general bond market (instead of comparing to GDP) shows an even stronger growth. In Hungary, by the end of 2021, the share of green corporate bonds reached about 10% of the Hungarian corporate bond market, far exceeding the European average, where the similar indicator is estimated to be about 3.5%. Among the bank issuers, the share of green covered bonds exceeded 8.7% (as a proportion of the total covered bond market), which compares to an estimated 1.2% average share in Europe.[28]

This sharp growth in Hungary can very much be attributed to dedicated central bank measures to step-up green finance. Between 2019 and 2021, a combination of monetary policy and prudential measures

[27] IFC. 2021. Emerging market green bonds report 2020. https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/resources/emerging+market+green+bonds+report+2021. Accessed 20 August 2022.

[28] Becsi et.al. 2022. First steps—the nascent green bond ecosystem in Hungary. Cognitive Sustainability 1: 1.

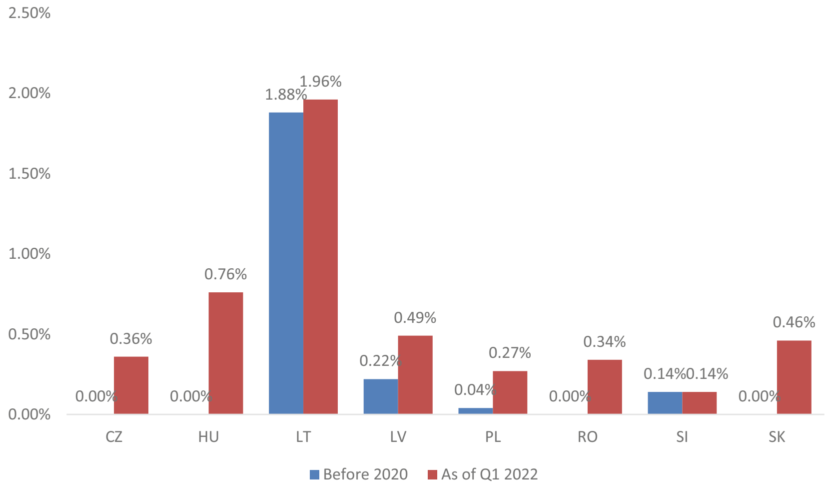

Fig. 10.1 Stock of non-sovereign green bonds.[29] As a proportion of GDP (*Note* GDP at market prices, using 2021 figures [for both time periods], *Source* Bloomberg, Eurostat)

have been implemented, out of which the chapter focuses mainly on the prudential ones. However, in order to understand the regulatory measures, first it is useful to see what barriers were present on the local market before 2019.

10.5.2 The Barriers to the Green Bond Market in Hungary

In Hungary, just like in many countries, there is a significant sustainable investment gap. A recent analysis estimates based on the country's National Energy and Climate Plan (NECP), that the extra investments needed (on top of available and planned public funds) to reach the country's climate targets are projected to range between approximately HUF 2,642 billion and HUF 3,700 billion (around EUR 642 to 900 billion)

[29] Includes corporate, municipality and bank issuances.

until 2030.[30] Closing this gap with private funds is highly challenging due to the barriers listed below.

Underdeveloped capital markets: First of all, corporate bond markets are fairly small generally in the CEE region, falling short of the levels seen in more developed European countries. In the previous decade, within the CEE countries not using the euro, the Czech Republic and Poland had the largest corporate bond portfolios as a per cent of GDP, which exceed 5% of GDP in both countries. In the region, Hungary's corporate bond market was one of the smallest, amounting to 1.5% of GDP in 2018.[31] Looking beyond the green bond market, a low stock market penetration coupled with a weak sustainability reporting of firms posed further obstacles to the growth of the green finance market.

Little awareness and capacities about green finance in the financial sector: As shown by surveys of the central bank, organically there was very low awareness about green finance among credit institutions. In the survey conducted in 2020, 58% of banks reported that they did not have a responsible person or unit for sustainability and the majority of banks was yet to identify climate risks at all (with 10% of respondents explicitly mentioning the lack of expertise and resources to deal with climate risks). Tellingly, just a small fraction (13%) of banks mentioned that they saw an opportunity in green bonds at that time.[32](Fig. 10.2).

Taking into account that banks are among the most important investors in green bonds globally, such a low level of interest and awareness clearly meant a structural barrier to the green bond market's growth.

Low penetration of ESG mutual funds: Besides banks, mutual funds with an ESG or impact investment policy are another potentially key investor segment. In 2020, just 0.5% of the Hungarian mutual fund

[30] Deloitte. 2022. Designing recommendations for a sustainable capital markets strategy and action plan for Hungary. https://www.mnb.hu/letoltes/recommendations-report-deloitte-sustainable-capital-market.pdf. Accessed 23 December 2022.

[31] MNB. 2019. Green Program. https://www.mnb.hu/letoltes/mnb-green-program-en.pdf. Accessed 22 April 2022. MNB. 2019. Considerations behind the launch of the bond funding for growth scheme and main features of the programme. https://www.mnb.hu/letoltes/no-vekede-si-ko-tve-nyprogram-eng-0326-2.pdf. Accessed 23 December 2022.

[32] MNB. 2021. Green Finance Report 2021. https://www.mnb.hu/letoltes/20210303-zold-penzugyi-jelentesangol.pdf. Accessed 23 December.

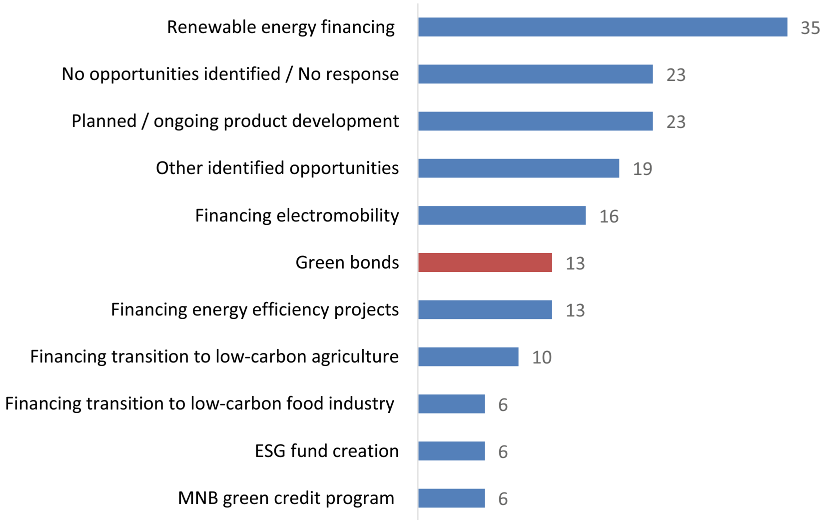

Fig. 10.2 Identified opportunities by Hungarian credit institutions about climate change (*Source* MNB)

segment had such an investment policy, compared to double-digit shares in more developed European markets.[33]

Less conscious consumers: Logically closely linked to the small volume of ESG funds, it is also worth mentioning that Hungarian citizens' attitudes about sustainability appear to be less conscious. As an example, surveys suggest that in Hungary, less than one in ten respondents (8%, much below the EU average of 18%) consider climate change to be the single most serious problem facing the world, and—even more importantly for our subject—less than a quarter of respondents (23%,

[33] Ibid.

largely below the EU average of 41%) feel personally responsible for tackling climate change.[34] Surveys about green financial products specifically showed similar patterns: very little awareness and demand.[35]

Such structural features also indicate why a mainly disclosure-based EU sustainable finance policy might not be satisfactory in Hungary, where—as mentioned above—the channels of disclosures are all weak due to a combination of (few) listed companies' weak sustainability reporting, low penetration of ESG funds, coupled with less responsible consumer attitudes.

10.5.3 Measures of the Central Bank of Hungary

MNB, the Central Bank of Hungary launched its Green Program in early 2019, with the aim to address climate change and other environmental anomalies that pose severe ecological, economic and financial risks also to Hungary. Building on a series of domestic and international dialogues, in 2020, it published the document titled "Opportunities to jump-starting the green bond market in Hungary". In the document, the central bank declared that "*The promotion of green bond issuances in Hungary could contribute to the financing of the country's climate, sustainability, and energy strategy objectives, and could support the general competitiveness turn advocated by the MNB. In our view, however, the issuance of green bonds by companies, banks and municipalities will not proceed to the desired extent at the beginning without incentives and supporting actions by the MNB and other regulators. Similarly to other countries, Hungary may also need to introduce developing and facilitating measures*".[36]

10.5.3.1 Capital Requirement Incentives

In 2020, the Central Bank of Hungary introduced capital requirement incentives linked to green lending and green bond investments both in

[34] Eurobarometer. 2021. Special eurobarometer 513—Climate change. https://ec.europa.eu/clima/system/files/2021-06/hu_climate_2021_en.pdf. Accessed 22 April 2022.

[35] Scale Research. 2021. Bankindex research 2021 February. https://scale.hu/wp-content/uploads/Scale-Resarch_Sajtokozlemeny_Bankindex_Zold-penzugyek_2021_02_17.pdf. Accessed 30 November 2022.

[36] MNB. 2020. Opportunities to jump-starting the green bond market in Hungary. https://www.mnb.hu/letoltes/opportunities-for-jump-starting-the-green-bond-market-in-hungary.pdf. Accessed 22 April 2022.

retail and in corporate business. The discount is a deduction from the SREP[37] capital requirement and is applied under Pillar 2 of the capital adequacy regime. Banks can apply a lower (5% of the notional amount of the loan) and a higher (7%) discount, depending on the green criteria of the asset. The higher discount requires the application of the EU Green Taxonomy with its documentation requirements, while the lower one allows a less strict green definition.

In the retail segment energy-efficient mortgages are eligible for the discount. In the official reasoning of the scheme, the central bank argued that "*In their lending activities, banks typically do not take the energetic characteristics of buildings into consideration, although the average overhead costs of energy efficient (green) properties are lower. Consequently, consumers taking out a green loan have a higher disposable income available for monthly repayments, and more favourable energetic properties may improve the ability of the given property to retain its value. For this reason, green housing mortgages can have lower risks than similar but not energy efficient loan products. (...) In Hungary, the volume of green financial products is still low despite their favourable characteristics. The MNB's aim is to ensure that the systematic collection of energy efficiency data related to loan transactions becomes standard in the domestic banking sector and that such data are incorporated into risk analysis and management models*".[38]

The central bank used the Energy-Efficient Mortgages Initiative's (EEMI) preliminary results, acknowledging that (especially at that time) empirical evidence was not fully conclusive about green mortgages' better risk profile, and that the EEMI data did not cover the Hungarian market.[39]

In the corporate segment, banks can apply the discount for both green loans and green bond investments. As for bonds, if the eligible assets'

[37] SREP stands for Supervisory Review and Evaluation Process.

[38] MNB. 2021. The MNB takes a further step towards a green economy and a modern real estate market. https://www.mnb.hu/en/pressroom/press-releases/press-releases-2021/the-mnb-takes-a-further-step-towards-agreen-economy-and-a-modern-real-estate-market. Accessed 18 April 2022. MNB. 2019. MNB introduces a Green Preferential Capital Requirement Programme. Press Release. mnb.hu/en/pressroom/press-releases/press-releases-2019/mnb-introduces-a-green-preferential-capital-requirement-programme. Accessed 23 December 2022.

[39] MNB. 2019. Green retail lending in Hungary. Background Material about MNB's decisions and planned actions. Available at: https://www.mnb.hu/letoltes/green-retail-lending-in-hungary.pdf. Accessed 23 December 2022.

definition is in line with the EU Green Taxonomy, the higher discount applies, whereas investments in green bonds in line with ICMA'S Green Bond Principles or with the Climate Bond Standards make it possible to apply the lower discount.

In the official reasoning of the corporate scheme, the central bank referred to "*the transition risks related to climate change and other environmental anomalies*", highlighting that it is "*desirable that the share of environmentally sustainable (green) industries and customers in bank balance sheets should increase compared to brown exposures, ie. those exposed to stricter environmental regulations, and which could therefore well be riskier in the long run*". In the same statement, the central bank expressed that it "*intends to improve the risk profile of the banking sector and encourage green lending through a positive incentive, by releasing a part or all of the capital requirements prescribed in Pillar 2 of capital regulation for environmentally sustainable corporate and municipal exposures, that meet the criteria set out in the detailed terms and conditions*".[40]

10.5.4 Liquidity Regulation Incentives

In 2021, the Central Bank of Hungary revised its regulation on the so-called Mortgage Funding Adequacy Ratio, stipulating that green (mortgage) covered bonds can be taken into account in the calculation of the ratio with a preferential weighting. The statement said that "*the amendment encourages the future domestic issuance of green mortgage bonds, which are becoming more and more widespread internationally, and through this the spread of mortgage loans financing green buildings. (…) On the one hand, they help improve the energy efficiency characteristics of the housing stock; on the other hand, they may have more favourable risk characteristics based on preliminary international experience. Due to the growing interest in green investments, green instruments may also provide a new, more diversified stable funding opportunity for the banking sector in the future*".[41]

[40] MNB. 2020. MNB introduces preferential capital requirements for green corporate and municipal financing. Press release. https://www.mnb.hu/en/pressroom/press-releases/press-releases-2020/mnb-introduces-preferential-capital-requirements-for-green-corporate-and-municipal-financing. Accessed 18 April 2022.

[41] MNB. 2021. MNB supports future issuance of green mortgage bonds and spread of green mortgage loans by amending regulation on forint maturity mismatch. Press

Thus, the central bank argued that the launch of the green covered bond market could support financial stability by, firstly, contributing to the spread of green mortgage lending (which in turn is also beneficial from a financial stability perspective due to the expected lower credit risk, as explained in 3.2 above), and secondly, by helping the stable funding of banks, via attracting a new and wider range of investors.[42]

10.5.4.1 Further Non-Prudential Measures

It is important to highlight that the above prudential measures came alongside monetary policy measures. The central bank's Growth for Bonds programme was instrumental to jump-start the corporate bond market itself. However, since this asset purchase programme did not apply any green criteria, it is safe to assume that, if the capital requirement incentive (mentioned above) and the other non-regulatory measures (listed below) had not been in place, the green bond breakthrough would not have taken place. In the covered bond segment, a Green Mortgage Bond Purchase Programme was also introduced in 2021.[43] The non-prudential measures taken by the Central Bank of Hungary for green bonds were the following:

Leading by example: the central bank created already in 2019 a dedicated green bond portfolio as a part of its foreign currency (FX) reserves.[44] While by definition no domestic green bonds could be purchased into that portfolio, its creation sent a strong signal to market players.

Financial education and awareness raising: by supporting and facilitating trainings, publishing articles and through a series of awareness-raising events (such as conferences and workshops), the central bank also contributed to placing green bonds "on the radar" of the relevant corporate, banking and investment service provider market players.

release. https://www.mnb.hu/en/pressroom/press-releases/press-releases-2021/mnb-supports-future-issuance-of-green-mortgage-bonds-and-spread-of-green-mortgageloans-by-amending-regulation-on-forint-maturity-mismatch. Accessed 18 April 2022.

[42] For insights about green securitization, please also see Chapter 6 by Elia Cerrato and Federica Agostini.

[43] MNB. n. 40.

[44] See also Chapter 12 by Basil Scouteris and Elli Anastopoulou on FX portfolios.

Green bond issuance manual: the central bank also prepared a manual about how firms can issue green bonds, explaining the relevant standards, the benefits of issuances, and the practical steps to do so.[45]

10.6 Analysis of the Regulatory Measures' First Experience

10.6.1 *Experience with the Integrity of the Prudential Regime*

Unsurprisingly, the long-term financial stability impact of the measures cannot be drawn at this stage, but we can already discuss some interesting elements and envisage how we can monitor the longer-term effects. As for the (*ceteris paribus*) presumably lower credit risk of green mortgages, several years of track record and a sufficient sample size will be required to judge, whether the lower capital charge at the micro-level would be justified with better financial performance.

Even when we have the track record, it will be important to control for "noises" such as wealth and income effects among borrowers. Another feature will make it difficult to analyse the probability of default (PD) and loss-given default (LGD) effects in Hungary: retail energy prices are heavily regulated, so far artificially shielding most citizens from price increases.

As mentioned above, in the corporate segment the capital requirement discount is not based on such a loan level hypothesis, but the central bank used a more macro-oriented argument, according to which the discount can increase the share of assets less exposed to transition risks.

The banking sector's total transition risk can be captured with various tools. One indicator the Central Bank of Hungary has been using is the so-called Bank Carbon Risk Index.[46] This indicator has worsened during 2019–2020, but has stagnated in 2021, with a slight improvement at the end of the year. It cannot yet be claimed that this promising improvement

[45] MNB. 2022. Zöld kötvény kibocsátási útmutató. Green bond issuance manual. https://www.mnb.hu/letoltes/mnb-zold-kotveny-utmutato.pdf. Accessed 23 December 2022.

[46] Bokor, L. 2021. Bank Carbon Risk Index—A Simple Indicator of Climate-Related Transition Risks of Lending Activity. MNB Occasional Papers 141. https://www.mnb.hu/letoltes/mnb-op-141-final.pdf. Accessed 23 December 2022.

is a direct result of the "greening" central bank incentives, but it will be possible to analyse this in the coming years.

There are several features in the central bank regulation which also safeguard the prudential framework's integrity:

The capital requirement discount is conditional on extra reporting: Banks are required to commit to increased reporting requirements. Already the flagging of loans means a step forward in risk culture: many banks, for instance, had not differentiated between renewable and conventional energy production loans before the incentive was introduced.[47]

The discount is capped: Banks cannot apply a higher discount than 1,5% of their total risk exposure amount, thereby making sure that the incentive is large enough to work (see below effectiveness as well), but that the total possible capital relief is limited.

"Dark green" means such exposures are better documented and least exposed to transition risks: An important feature of the framework is that full alignment with the EU Green Taxonomy makes a higher discount possible compared to a less stringent green definition. The logic is that Green Taxonomy eligibility's rigorous documentation requirements can come with better project quality and that, by definition, such assets come with very little transition risk.

10.6.2 Experience with Effectiveness

Since the introduction of the capital discount, there has been a persistently strong growth in the corporate green loans' share within the general corporate loan segment (3rd chart). Of course, such developments should be interpreted with care, as the green loan stock's growth started from a very low (zero) base (Fig. 10.3).

A similar growth pattern exists among green corporate bonds. Importantly, banks became by far the most important investors (besides the central bank's asset purchase programme) (4th chart) (Fig. 10.4).

An important lesson for any similar incentive scheme is to find a healthy balance between discount scheme conditionality and the discount's value

[47] Gyura, G. 2021. Central banks can help finance renewables. OMFIF Sustainable Policy Institute Journal 4.

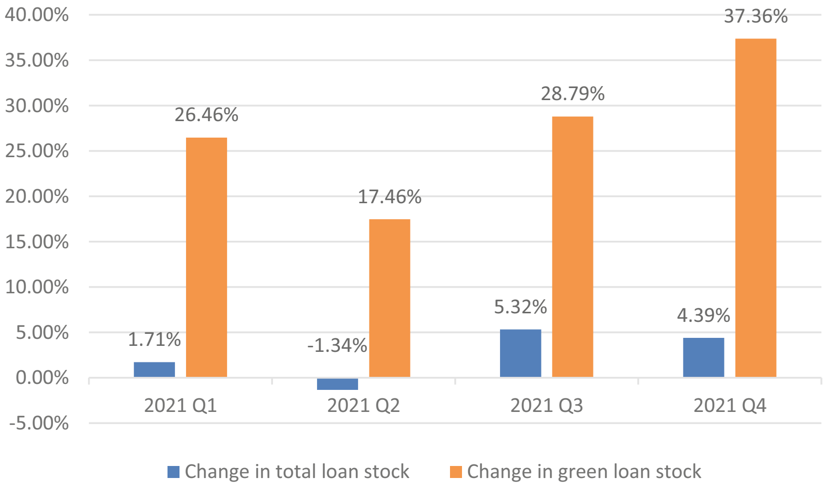

Fig. 10.3 Growth in the corporate loan segment (*Note* The chart shows only those green loans which were tagged in the capital requirement discount scheme. For other potential green loans, there was no data available, *Source* MNB)

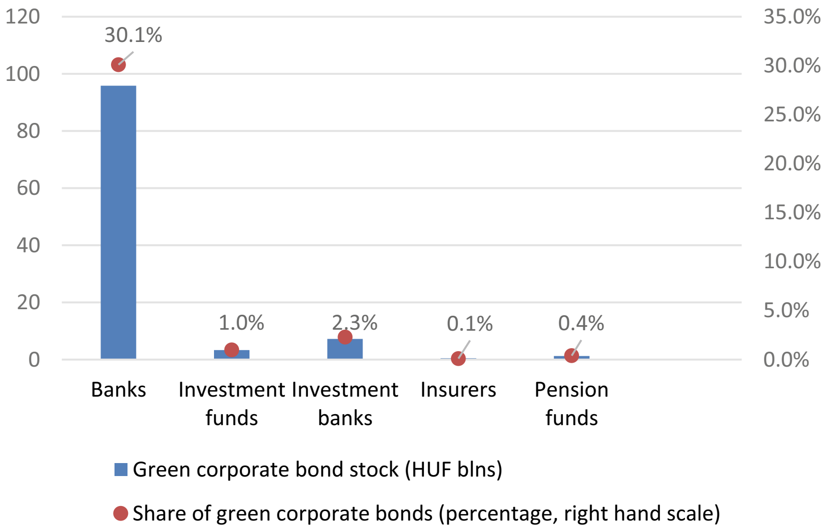

Fig. 10.4 Investors in corporate green bonds (*Source* MNB [2022a])

for banks. In the retail segment, the initial conditionality for green mortgages was so strict, that the requirements had to be eased before banks started to offer the first green loans.

10.6.3 Other Lessons

Regulation of green defaults: With the rise of green finance, the importance of the treatment of green defaults (i.e. when the issuer of a green bond or the borrower of a loan fails to accomplish the committed green projects or other substantial sustainability conditions) also increases.[48] Sustainable finance policies focused on green bonds or loans can unintendedly even encourage greenwashing (with discounts), but can also be a tool to reduce such risks. In the Hungarian capital requirement framework, the possible future green default events were addressed by stipulating that banks would lose the discount in case of the green default. How effective this provision will be, remains to be seen. In an ideal case, the banks could increase their engagement efforts (e.g. monitoring the completion of green projects in order not to lose the discounts), but due to a moral hazard element, the working of such a market discipline mechanism is not obvious.

Data Availability Problems: For both green loans and green bonds data is key to ensure alignment with taxonomies and standards. For example, in case of green mortgages and green covered bonds, access to Energy Performance Certificate data is instrumental, and the lack of such access can constitute a structural barrier to either growth in supply or may increase uncertainty about the eligibility of assets with taxonomies. Likewise, the lack of data makes it impossible to integrate energy efficiency's PD or LGD features into the risk management process. Regulators can act as brokers with ministries, database managers etc. to solve such problems and thus support the functioning of markets. The Central Bank of Hungary also made steps on this front by publishing recommendations on how to facilitate access to data for the bank.[49]

Ambition in "greenness": In Hungary, so far just green bonds according to ICMA's Green Bond Principles have been issued with

[48] See also Chapter 6 by Federica Agostini and Elia Cerrato on the issue of green defaults.

[49] MNB. 2022. Green Finance Report 2022. https://www.mnb.hu/letoltes/20220718-green-finance-report-2022-3.pdf. Accessed 23 December 2022.

one Climate Bonds Initiative (CBI) exemption in the covered bond segment.[50] Similarly, despite the greater incentives, no green loans have so far followed the EU Green Taxonomy with its stricter conditionality. While some banks are planning to provide Green Taxonomy-aligned green loans, it is evident from the first period's experience that any incentive scheme needs to be well designed to make sure that market participants also try to meet the high standards of carbon neutrality.

10.7 Preliminary Conclusions

Thanks to a combination of monetary policy and prudential measures, in Hungary the green bond market was successfully jump-started. No green bonds were issued before 2020, and with the country's less developed capital markets in general and less aware consumer base, it is clear that the central bank measures have been instrumental in such a development. This is even more important in light of the huge sustainable investment gap of the country, which underlines the importance of mobilizing private funds.

The financial stability implications of the green capital requirement scheme cannot be assessed yet. There is insufficient loan and bond history to evaluate credit performance, but it is promising from a risk perspective that some greening of banks' balance sheets appears to have started.

The Hungarian experience so far shows that prudential measures can be effective in greening the financial sector, and especially for less mature financial markets, it suggests that green support factor-like approaches should not be excluded *ab ovo*.

Moreover, the authors hope that the lessons explained above can contribute to the international debate about the potential role of prudential measures to actively green the financial system. The Hungarian case so far appears to suggest that the sheer fact that there is no evidence that green assets generally come with lower risks does not necessarily mean that with carefully designed conditions, prudential rules encouraging green lending and green bond investments could not contribute to reducing transition risks in bank balance sheets or to the transformation of the real economy, without undermining the financial stability objectives of the prudential framework.

[50] See also Chapter 4 on Climate Bonds Initiative.

In any case, a general lesson for policymaking can be drawn that green bond markets can be catalysed even in countries where little awareness and capacities exist about the links between sustainability and finance. Such addressing of market failures should however ideally happen with a comprehensive set of measures (e.g. capturing also the demand side, building capacities), instead of just focusing on a single regulatory incentive or programme. Central banks and financial regulators have powerful tools to trigger those changes, yet, their respective legal mandates need to be carefully taken into account to design their level of involvement and especially responsibility.

CHAPTER 11

Discussion: Micro- and Macro-prudential Issues Regarding Green Bonds from a Practitioner's Perspective

Claudia Pasquini

In this contribution, I engage with the chapters of this volume dealing with forward-looking metrics and prudential adjustments to facilitate the development of sustainable finance and the green bond market in a manner aligned with risk-based regulation of the financial sector.

11.1 Chapter 9: Metrics and Methodological Considerations

This is an interesting research field for various reasons and particularly because it tackles the forward-looking nature of indicators: this is what banks are looking for. Forward-looking indicators able to predict (under certain scenarios) not only the ESG performance of firms but also their

C. Pasquini (✉)
Italian Banking Association, Rome, Italy
e-mail: c.pasquini@abi.it

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_11

ESG-related financial performance (and, first of all, the financial risks and opportunities associated with climate change) are essential.

Future research developments are of particular interest to banks: it is understandable that the main goal of the paper was to detect if the metrics converge on the most exposed firms. However, the banking industry needs to come up with metrics and methodologies that detect not only the most exposed firms but also the least exposed ones (or those that will take advantage of certain scenarios). I wonder if, reading the data from a different perspective, there are hidden results showing that the forward-looking metrics also converge on firms that will become less risky due to their good ESG and climate change risk profiles.

It is important to identify firms that, due to their actual and/or prospective good ESG profiles, have a high probability of becoming less risky in absolute terms. Otherwise, the message would be that banks cannot take into account the improved performance of their counterparties (lower financial risk in the ESG world) and are only able to stigmatise their bad performance (higher financial risk).

This approach could also be useful in view of the EBA mandate under article 501c of the CRR to assess if there would be justification for a dedicated prudential treatment of exposures to assets or activities adversely affected by environmental and/or social factors: in the view of industry bodies such as the Italian Banking Association (ABI), a dedicated prudential treatment would also include an adjustment or reduction on evidence of exposures that benefit from environmental and/or social factors and become less risky. However, we need metrics able to capture this.

We are very interested in this metric because, as ABI, we presented an amendment to the CRR proposing a mechanism called the Sustainable Adjustment Factor (SAF). Basically, the SAF makes a small reduction to the RWA, applicable only to suitable exposure classes. The suitable exposures need to be connected to special subsets of Taxonomy-aligned economic activities. These special subsets are those that evidence a reduction in the prospective financial risk. The question is who should identify these subsets?

We propose that the EBA should identify these subsets; in any case, this should be done by an EU Institution and not by individual banks.

Another question is how should the subsets be identified? Perhaps by sampling the different kinds of economic activity subdivided into Taxonomy aligned and non-aligned. A forward-looking metric should be applied to these samples in order to verify if the Taxonomy-aligned part of the sample has a reduced prospective financial risk.

Where this reduced prospective financial risk is identified, we could argue that this might also be the case for "out of the sample" exposures connected to activities that are Taxonomy aligned and belong to that special subset.

For this reason, we propose that the SAF should only make a small temporary adjustment to the RWA. Once the Internal Ratings Based (IRB)/Internal Ratings Based Approach (IRBA) models have been integrated with the ESG risk drivers and validated by Supervisors, the SAF would no longer be applicable to IRB/IRBA banks.

It must be noted that the SAF is intended to apply to all kinds of exposures subject to a credit risk RWA computation, regardless of the kind of banking product related to the exposures. Therefore, exposures financed by issuing Green Bonds aligned with the EU Green Bond Standard also fall within the scope of the SAF.

I would like to stress that we are restricting the SAF proposal to suitable exposures with the interesting characteristic of having a high chance of being less risky. The SAF is therefore a risk-driven measure: an understandable important characteristic for Supervisors.

This is the fundamental difference between the SAF and the so-called Green Supporting Factor, which applies an RWA reduction to all exposures linked to any Taxonomy-aligned economic activity.

11.2 Chapter 10: The Role of Prudential Requirements in Fostering Green Bond Markets: The Experience of Hungary

The second paper describes the Hungarian experience that is absolutely in line with the SAF proposal, even if there are differences (the SAF acts on Pillar 1, whereas the Hungarian measure acts on Pillar 2; the SAF could also apply to exposures other than mortgages).

The really interesting aspect of the Hungarian experience is that its proactive supervisory approach balances the need to protect financial stability against ESG-related risks (following the risk-driven approach) with the need to act now (even without all the evidence in place), giving direction and impulse for future long-term sustainable business models financially supported by banks.

The magnitude of the adjustment proposed (about 10% of RWA) is small and, alone, it would not always be sufficient to stimulate new projects for the transition but, in any case, it would be a signal. This is exactly the kind of signal we need in order to mainstream sustainable and transition finance, while avoiding scary scenarios.

Suggestion for future work (not just for our Hungarian colleagues): the Platform for sustainable finance has released a paper stressing the importance of financing the transition from the so-called red area to the yellow and green areas.

Consider for a moment the exposures generated by providing financial support for transition plans from one area to another. All other conditions being equal, what are the chances of these exposures being less risky than those that are neutral in this respect?

Requesting financial support for the transition is evidence of a more vital firm with a sound business plan, which will be better positioned in the competitive arena under future scenarios. How can we simulate this?

Might they deserve a differentiated (beneficial) prudential treatment, like the energy-efficient mortgages in Hungary?

Is there an appetite for something that can help stimulate investments to improve the ESG profiles of banking counterparties, thus stabilising or even improving their financial outlook?

The SME Supporting Factor has delivered benefits to SMEs in terms of lending volume and the cost of borrowing and has given EU SMEs better access to bank lending, both in absolute terms and compared to larger firms.

In conclusion, in addition to the SAF, what about a Transition Adjustment Factor for exposures related to economic activities not yet aligned with the Taxonomy, but "on the road" towards better ESG performance? This would also hold for Transition Bonds aligned with a potential new Transition Bond Standard.

CHAPTER 12

Green Bonds and the ECB: A Tale of (Measured) Promise and (Required) Caution

Basil Scouteris and Elli Anastopoulou

12.1 Introductory Remarks

As if the step-by-step transition to a new, post COVID-19, 'normal' was not challenging enough for central banks around the world, the dramatic effects of Russia's invasion of Ukraine, which extend far beyond monetary policy, financial stability and any other central banking task, further complicate the forecasts for activity and inflation and the respective central

This chapter is based on a paper presented at the European Banking Institute's (EBI) Green Bonds Conference '*Greening the Bond Market: A European Endeavour*', held on 28 April 2022, which has since been updated to reflect further developments until 30 September 2022. The paper benefited from comments by Phoebus Athanassiou (ECB) and Eleni Argiri (BoG), for which the authors are grateful. The views expressed herein are purely personal and they are in no way intended to represent those of the Bank of Greece or of the EBI.

B. Scouteris
Legal Department, Bank of Greece, Athens, Greece

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_12

bank choices, in ways that were unimaginable until very recently.[1] They also call into question, the longer this armed conflict persists, the appropriate speed of a clean energy transition and the viability of some of the means already decided to combat one of the most significant threats of our times (or, at least, so many of us thought), i.e., climate change.[2] Reflecting on green bonds and the ECB in this context thus becomes a somewhat different exercise than the one envisioned in early 2022.

This chapter seeks to offer some insights into the permitted/desired role of the ECB regarding green bonds, by focusing on certain questions related to the monetary policy instruments and its collateral framework, and, to a more limited extent, to the role of the ECB's foreign reserves and the Eurosystem non-monetary policy portfolios in promoting the green bond market. It is divided into 6 sections. Section 12.2 introduces the subject, by *inter alia* outlining the ECB's action plan, following the conclusion of the ECB strategy review of 2020–21, to further incorporate climate change considerations in its monetary policy strategy, as well as the Eurosystem common stance for climate-change-related sustainable investments in non-monetary policy portfolios. Section 12.3 revisits the question of the ECB's primary and secondary objectives, as any lawful ECB action in the matter at hand presupposes a corresponding mandate (the 'why the ECB could or should act' question). Section 12.4 deals with green bonds in the context of outright purchases and examines the ECB's options and corresponding limitations associated with the

E. Anastopoulou (✉)
European Banking Institute (EBI), Frankfurt, Germany
e-mail: Elli.Anastopoulou@ebi-europa.eu

[1] For further details on the associated central bank challenges in the euro area see *inter alia* Bank of Greece, "Governor's Annual Report 2021," press release, April 07, 2022. Last accessed September 30, 2022, https://www.bankofgreece.gr/en/news-and-media/press-office/news-list/news?announcement=672dcad9-1bfc-4e2f-917a-51084664261d, and ECB, "Monetary policy decisions," press release, April 14, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220414~d1b76520c6.en.html.

[2] On the challenges posed by the current energy crisis and what a late and disorderly transition towards net zero emissions might entail see Network for Greening the Financial System (NGFS), "Not too late—Confronting the growing odds of a late and disorderly transition", Technical Note, September, 2022. Last accessed September 30, 2022, https://www.ngfs.net/sites/default/files/media/2022/09/07/not_too_late_-_confronting_the_growing_odds_of_a_late_and_disorderly_transition.pdf.

use of such non-standard monetary policy measures (the 'what could or should be done' question—Part I). Section 12.5 turns to possible ways of expanding green credit by employing a variant of another non-standard monetary policy measure, i.e., via the so-called "green TLTROs" (the 'what' question—Part II), while Sect. 12.6 examines issues relating to green bonds and other sustainable finance instruments in the Eurosystem collateral framework (the 'what' question—Part III). Finally, Sect. 12.7 deals with sustainable investments and related legal considerations in the Eurosystem non-monetary policy portfolios and in the ECB's foreign reserves (the 'what' question: Part IV). An overview of the most recent ECB Governing Council decisions (as per the 4 July 2022 ECB press release),[3] followed by the authors' conclusions, appears at the end of this study.

12.2 Laying the Contours

In order to tackle risks arising from climate change, the ECB has committed to incorporate climate change considerations in its monetary policy framework, while the Eurosystem central banks have agreed on a common stance regarding sustainable investments in non-monetary policy portfolios.

The primary responsibility to act on climate change rests with the national governments and parliaments, which possess the appropriate tools to advance the transition to a sustainable economy. Nevertheless, the ECB has recognised that climate considerations should be incorporated into its monetary policy framework, under the strict condition that it acts within the constitutional limits of its mandate (see relevant discussion in Sect. 12.3). To this end, on 8 July 2021, in the context of its monetary policy strategy review, the Governing Council of the ECB published an action plan mapping the ambitious actions it has, since, taken or plans to take, to adjust its monetary policy framework to include climate-related considerations in its monetary policy operations.[4]

[3] See ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations," press release, July 04, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html.

[4] See ECB, "ECB presents action plan to include climate change considerations in its monetary policy strategy," press release, July 08, 2021. Last accessed September

Before exploring these commitments in greater detail, the first question that begs an answer is *why* the ECB should, in the first place, care about climate change and, accordingly, consider adjusting its monetary policy framework by including in it climate-change-related considerations. The answer lies in the fact that climate change and the policies relating to its mitigation have triggered structural changes in the financial system, altering the dynamics of the economy[5] and affecting various macroeconomic indicators, such as inflation, output, employment, and interest rates as well as financial stability. They also have a direct impact on the monetary policy transmission mechanism, which ultimately affects the ability of the ECB to fulfil its primary objective, that is, to maintain price stability.

According to *Benoît Coeuré*,[6] former ECB Executive Board Member, climate change will affect monetary policy whether climate change is left unchecked, or mitigation measures are adopted to tackle it. In the first scenario, correctly identifying shocks relevant to the medium-term inflation outlook will be complicated, while extreme weather phenomena may erode central banks' conventional policy space on a more frequent basis, increasing the number of instances in which central banks need to trade-off stable prices against output. Equally though, in the second scenario, climate change and the transition to a sustainable economic model are expected to significantly affect monetary policy. More specifically, the transition to a carbon-neutral economy entails business opportunities for those financial institutions that will take an active role in diverting fund flows from savers to green projects.[7] However, it also involves serious

30, 2022, https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html.

[5] ECB, "An overview of the ECB's monetary policy strategy," July 2021. Last accessed September 30, 2022, https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview_monpol_strategy_overview.en.html.

[6] Benoît Cœuré, "Monetary policy and climate change," speech delivered at Conference on 'Scaling up Green Finance: The Role of Central Banks', organised by NGFS, Deutsche Bundesbank and Council on Economic Policies, Berlin, November 08, 2018. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181108.en.html.

[7] Clara I. González and Soledad Núñez, "Markets, Financial Institutions and Central Banks in the face of climate change: challenges and opportunities," Banco de España Documentos Ocasionales No 2126, October, 2021, 8–10, 41. Last accessed September 30, 2022, https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeriadas/DocumentosOcasionales/21/Files/do2126e.pdf.

physical and transitional risks for them,[8] which are potential sources of credit, market, and operational risks.[9]

Extreme climatic phenomena have the potential to reduce the value of assets held by households and firms,[10] thereby affecting their ability to repay loans and impairing the value of the collateral that underpins credit, giving rise to credit risk for banks. Similarly, firms that have not incorporated climate risks into their business models may suffer a severe and sudden drop in their profitability, thus exposing banks to further credit risk.[11] The transformation of the economic model into a green one, together with the growing awareness of investors regarding climate change risks, will lead to a repricing of securities (stocks and bonds), thus increasing market risk. Such an increase will be more acute in countries expected to be more severely affected by climate change, leading to a further deterioration in the credit rating of their sovereign debt. As a result, their cost of borrowing will rise, limiting their market access.[12] Given the forward-looking nature of markets, market risk could be expected to materialise well in advance of physical or other transitional risks. On the operational risk side, extreme meteorological conditions and phenomena put at stake business continuity, whereas an upwards adjustment of prices in natural resources, materials, and inputs (such as energy) will result in increasing operating costs.[13]

[8] Clara I. González and Soledad Núñez, "Markets, Financial Institutions and Central Banks," 9–10.

[9] Bank of England—Prudential Regulation Authority, "Transition in thinking: The impact of climate change on the UK banking sector," September 26, 2018. Last accessed September 30, 2022, https://www.bankofengland.co.uk/prudential-regulation/publication/2018/transition-in-thinking-the-impact-of-climate-change-on-the-uk-banking-sector.

[10] Pierre Monnin, "Integrating Climate Risks into Credit Risk Assessment Current Methodologies and the Case of Central Banks Corporate Bond Purchases," Council on Economic Policies, December, 2018, 4. Last accessed September 30, 2022, https://www.cepweb.org/wp-content/uploads/2019/02/CEP-DN-Integrating-climate-risks-into-credit-risk-analysis.pdf.

[11] Clara I. González and Soledad Núñez, "Markets, Financial Institutions and Central Banks," 36–37.

[12] Clara I. González and Soledad Núñez, "Markets, Financial Institutions and Central Banks," 37.

[13] For the latest ECB/ESRB Report on how climate shocks can affect the European financial system see ECB/ESRB, "The macroprudential challenge of climate change,"

The materialisation of such risks affects the outlook for prices, potentially compromising the primary objective of central banks (price stability over the medium term). At the same time, it also exposes the Eurosystem to climate-related financial risks, since the transition to a carbon-neutral economy may adversely affect the risk profile of the assets held on the Eurosystem's balance sheet. Considering the above, ECB action is deemed necessary for the ECB to get ahead of the climate change curve and deliver on its mandate.[14]

In its action plan the ECB thus committed to (i) further incorporate climate change considerations into its monetary policy framework; (ii) expand its analytical capacity in macroeconomic modelling, statistics, and monetary policy with regard to climate change; (iii) include climate change considerations in its monetary policy operations in the areas of disclosure, risk assessment, collateral framework, and corporate sector asset purchases; and finally, (iv) implement the action plan in line with progress on the EU policies and initiatives in the field of environmental sustainability disclosure and reporting. Annexed to the action plan is a 'detailed roadmap of climate-change-related actions', mapping out the ECB's actions up to 2024.[15]

Earlier the same year, on 4 February 2021, the Eurosystem—that is the 19 national central banks of the euro area and the ECB—agreed on a common stance for applying sustainable and responsible investment principles in their *euro-denominated non-monetary policy portfolios*,[16] with an emphasis on promoting climate-related disclosures for these portfolios[17]

July, 2022. Last accessed September 30, 2022, https://www.esrb.europa.eu/pub/pdf/reports/esrb.ecb.climate_report202207~622b791878.en.pdf.

[14] Benoît Cœuré, "Monetary policy and climate change."

[15] Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1_annex~f84ab35968.en.pdf.

[16] See ECB, "Eurosystem agrees on common stance for climate-change-related sustainable investments in non-monetary policy portfolios," press release, February 04, 2021. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210204_1~a720bc4f03.en.html.

[17] ECB, "Eurosystem agrees on common stance for climate-change-related sustainable investments," which states: "*The common stance prepares the ground for the measurement of greenhouse gas emissions and other sustainable and responsible investment-related metrics of these portfolios. The Eurosystem aims to start making annual climate-related disclosures for these types of portfolios within the next two years, using the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) as the initial framework and reporting,*

and their understanding of climate-related risks. The Eurosystem aimed to start annual climate-related disclosures for these types of portfolios within two years from February 2021.

12.3 Why the ECB Could or Should Act (the ESCB/ECB Mandate Question)

Despite the afore-mentioned developments, it remains the case that any action on the part of the ECB in relation to green bonds or other sustainable finance instruments, as well as any ECB action related to climate change and environmental protection in general, however desirable from an ethical, societal, or policy perspective, must be firmly grounded in its EU primary law mandate. Otherwise, the ECB risks attempting to right one wrong by committing another. This explains the extensive legal debate within the Eurosystem, especially in the context of the recently concluded ECB strategy review,[18] as well as in academia[19] regarding the precise contours of the ECB's primary and secondary objectives and the extent to which ECB action related to climate change could fall thereunder.

The purpose of this section is not to recount or dissect every facet of this fascinating debate but, rather, to offer a succinct analysis of some of the more pertinent questions, thus further setting the stage for the legal analysis that is to follow in Sects. 12.4 to 12.7.

as a minimum, in the category of metrics and targets. Several Eurosystem central banks already make climate-related disclosures for some of their non-monetary policy portfolios".

[18] See, in particular, Michael Ioannidis, Sarah Jane Hlásková Murphy, and Chiara Zilioli, "The mandate of the ECB: Legal considerations in the ECB's monetary policy strategy review," ECB Occasional Paper Series No 276, September, 2021. Last accessed September 30, 2022, https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op276~3c53a6755d.en.pdf.

[19] See *ex multi* Javier Solana, "The Power of the Eurosystem to promote environmental protection," *European Business Law Review*, 30(4), 2021, 547–575; David Ramos Muñoz, Antonio Cabrales and Anxo Sánchez, "Central Banks and Climate Change. Fit, Opportunity and Suitability in the Law and Beyond," (European Banking Institute Working Paper Series, No 119, March, 2022). Last accessed September 30, 2022, https://ssrn.com/abstract=4054908 or http://dx.doi.org/10.2139/ssrn.4054908. The fact that this is not only a European debate is evidenced moreover by the following report compiled by the NGFS group of experts on monetary policy and climate change, "Climate Change and Monetary Policy Initial takeaways", Technical Document, June, 2020. Last accessed September 30, 2022, https://www.ngfs.net/sites/default/files/medias/documents/climate_change_and_monetary_policy.pdf.

The starting point of any discussion on the ECB/ESCB objectives[20] are the relevant EU primary law provisions, namely Articles 119(2), 127(1), and 282(2) of the Treaty on the Functioning of the European Union (TFEU), pursuant to which (a) the primary objective of the ECB "*shall be to maintain price stability*" and (b) without prejudice to that objective, to "*support the general economic policies in the Union with a view to contributing to the achievement of its objectives as laid down in Article 3 of the treaty on European Union (TEU)*". According to Article 3(3) TEU, the Union shall work for "*the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment*". Provisions that also deserve to be mentioned are, furthermore, Article 11 TFEU (pursuant to which "*[e]nvironmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development*") and Article 7 TFEU (setting out a 'consistency clause', which requires the Union to "*ensure consistency between its policies and activities, taking all of its objectives into account and in accordance with the principle of conferral of powers*").

The first question that beckons in this context is whether and under what conditions climate change-based measures adopted by the ECB could fall under its *primary objective of preserving price stability*. This question, which was debated at length, both prior to and during the ECB strategy review exercise, appears to have been now provisionally answered by the Governing Council, as evidenced by the relevant references in the ECB's monetary policy strategy statement and in the action plan to include climate change considerations in its monetary policy strategy. According to these, "*climate change has profound implications for price stability through its impact on the structure and cyclical dynamics of the economy and the financial system*" and "*climate change and the transition towards a more sustainable economy affect the outlook for price stability through their impact on macroeconomic indicators such as inflation, output, employment, interest rates, investment and productivity; financial stability; and the transmission of monetary policy*", respectively. Given the ECB's judicially recognised broad discretion in both identifying risks to price

[20] For ease of reference, this chapter will henceforth make reference only to the ECB objectives.

stability *and* delineating the preconditions necessary to achieve its primary objective,[21] it can hence be argued that, although the primary responsibility to act on climate change undeniably remains with governments and parliaments, the ECB is empowered to adopt measures addressing the duly identified risks posed by climate change *as a means of pursuing its primary objective*.[22]

As regards the pursuit of the ECB's secondary objective *to support the general economic policies in the Union*, an issue that arises relates to the scope of the said 'general economic policies' and whether or not environmental protection policies could fall thereunder. According to a minority view, the term 'economic policies' refers to Member State and Union policies directed at balanced economic growth, thus excluding policies pursuing other objectives, such as full employment, social progress, or environmental protection. The more widely accepted and, in our opinion, better view is that the term 'general economic policies in the Union' covers *all* EU and Member State policies with a general economic dimension encompassing, in other words not just 'fiscal policies' but, also, any other policy that has an impact on the economy in the broad sense.[23] Thus, climate change or environmental protection policies with a broad scope of application would clearly be captured thereunder.

Given that the Treaties do not provide for a hierarchy of such general economic policies or the objectives of the Union as laid down in Article 3 TEU and assuming that not all general economic policies can be supported simultaneously, how is the ECB to determine which of the general economic policies is to be given priority? An ECB Occasional Paper on the mandate of the ECB, published on the occasion of its strategy review, argues that the ECB enjoys, in principle, discretion as to

[21] See Case C-62/14, *Peter Gauweiler and Others v Deutscher Bundestag* [2015], ECLI:EU:C:2015:400 (hereinafter *Gauweiler*), para. 68; Case C-493/17, *Heinrich Weiss and Others* [2018], ECLI:EU:C:2018:1000 (hereinafter *Weiss*), para. 73.

[22] Such measures would thus not qualify as environmental protection measures, but as measures aimed at maintaining price stability. In adopting these measures, the ECB must, moreover, as in all cases, comply with all relevant procedural and substantive safeguards, as further explained in Sect. 12.4 of this chapter.

[23] Ioannidis, Hlásková Murphy, and Zilioli, "The mandate of the ECB," 13. On the interpretation of the secondary objective of the ECB see also the extensive analysis in Chiara Zilioli and Michael Ioannidis. 2022. Climate change and the mandate of the ECB: Potential and limits of monetary contribution to European green policies. Common Market Law Review, 59(2): 363–394.

the said choice. The authors, however, also propose five criteria derived from primary law to be considered to adequately justify the prioritisation. These are (a) deference to the choices made by the competent institutions, not only as to the content of general economic policies but, also, as to the hierarchy of priorities (in view of the supporting role of the ECB), (b) the potential impact of a particular policy on the primary objective or the proximity of that policy to the primary objective and the ECB's main field of expertise (given the primacy of price stability and the ECB's corresponding expertise), (c) the degree of discretion left to the ECB when exercising its supportive competence (in the sense that policies which are more precise and unconditional than others may be prioritised), (d) the impact or importance of an ECB measure in terms of its support for the Union's objectives under Article 3 TEU and, finally, (e) a criterion derived from the "horizontal" or "cross-sectional" provisions of general application in the Treaties and the Article 7 TFEU requirement that the Union ensures consistency between its policies activities (meaning that the requirement to comply with these horizontal provisions may also further justify affording priority to certain general economic policies that pursue the objectives laid down in Article 3 TEU).[24]

While a thorough discussion of the proposed criteria would clearly call for a dedicated analysis, which cannot be undertaken in the context of this chapter, the authors would argue that the discretion attributed to the ECB in this context should not be conflated with the wide discretion it rightfully enjoys in the pursuit of price stability. Moreover, of all the afore-mentioned criteria, valid as they may all be, it is the potential impact of a certain general economic policy on the ECB's primary objective that should, in the authors' view, take precedence in guiding the ECB choices, given the Treaty-prescribed primacy of the price stability objective. In other words, measures in support of a general economic policy *without a prejudicial impact on price stability* or, alternatively, measures in support of an economic policy seeking to address a 'condition' *posing genuine risks also to price stability* should, in principle, be afforded priority.

Does the above imply that the ECB's support of a secondary objective should always run parallel with the action it takes based on the primary objective? To phrase the question differently, is pursuing a secondary objective subject to the condition of actively pursuing price stability? This

[24] Ioannidis, Hlásková Murphy, and Zilioli, "The mandate of the ECB," 17–19.

question is an intriguing one considering, *inter alia*, the fact that reliance on a secondary objective had never been invoked, until very recently,[25] as an independent legal basis for the adoption of an ECB legal act and, thus, has yet to be judicially tested. Its practical significance, however, should not be overstated, especially in the current context in which the Eurosystem relies not on a single instrument (i.e., the interest rate), but on a package of instruments for the attainment of its primary objective. This use of numerous monetary policy instruments affords opportunities for 'goal sharing' (i.e., the pursuit of both price stability *and* support for general economic policy) in a manner that would, at least according to one view, not have been possible with only one instrument.[26]

On the more specific question of whether climate-change-related policies can or must be afforded priority by the ECB, amongst all 'general economic policies in the Union', the primary focus should be, as explained above, on whether this 'condition' (i.e., climate change), which is addressed by the respective climate change mitigation policies, poses high risks to price stability, viewed both in isolation and in comparison to other 'conditions' being currently addressed by other general economic policies in the Union. Given the very strong ECB Governing Council statements on the implications of climate change for price stability, which, according to the majority view, justify action already in pursuit of the primary objective, it appears that the answer here is a rather straightforward 'yes'. Moreover, the high priority currently afforded to environmental protection policies by the Union, as reflected in a multitude of measures,[27] the existence of binding climate-related goals at both Union and Member States level, as opposed to mere policy

[25] See the last part of this chapter.

[26] See Carel C.A. van den Berg, *The Making of the Statute of the European System of Central Banks: An Application of Checks and Balances* (Dutch University Press, Amsterdam, 2005), 55.

[27] In this respect, reference should foremost be made to the European Climate Law (Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999, PE/27/2021/REV/1, OJ L 243, 9.7.2021, p. 1) enacted in June 2021, which establishes a framework "*for the irreversible and gradual reduction of anthropogenic greenhouse gas emissions*". In its recital 25, it emphasises that, "*[t]he transition to climate neutrality requires changes across the entire policy spectrum and a collective effort of all sectors of the economy and society, as highlighted in the European Green Deal*".

intentions, and the valid argument that climate stability is, in essence, a necessary precondition to the achievement of other Article 3 TFEU objectives, further support the view that climate-change-related policies must henceforth be prioritised by the ECB, but in a manner that respects the general provisions of EU primary law, including the principles of conferral, proportionality, and an open market economy with free competition.

Finally, an additional specific legal basis for ECB action in this field is to be found in Article 18.1 of the ESCB/ECB Statute, according to which the ECB and the NCBs may conduct credit operations with credit institutions and other market participants, with lending based on adequate collateral. Prescribing what constitutes adequate collateral is a matter for the Governing Council to decide upon, with the current specification reflected in the provisions of the General Documentation (GD),[28] pursuant to which, "*[e]ach NCB shall apply contractual or regulatory arrangements which ensure that, at all times, the home NCB is in a legal position to realise all assets provided as collateral without undue delay and in such a way as to entitle the NCB to realise value for the credit provided, if the counterpart does not settle its negative balance promptly*".[29] Amendments to the collateral or counterparty frameworks in order to address possible inaccuracies in the reflection of climate change-related risks in the market prices of assets or credit ratings (to protect the ECB and the Eurosystem NCBs against risks to their balance sheets) would thus fall squarely within the remit of Article 18.1 of the Statute. The same applies to possible changes to the said frameworks to support the smooth conduct of monetary policy, in the sense that the effectiveness of monetary policy transmission also relies on the extensiveness of the Eurosystem's collateral framework.[30]

[28] Guideline (EU) 2015/510 of the European Central Bank of 19 December 2014 on the implementation of the Eurosystem monetary policy framework (ECB/2014/60) (OJ L 91, 2.4.2015, p. 3).

[29] Article 166(4) of the GD.

[30] See excellent analysis in Ulrich Bindseil, Marco Corsi, Benjamin Sahel, and Ad Visser, "The Eurosystem collateral framework explained", ECB Occasional Paper Series, No 189, May, 2017. Last accessed September 30, 2022, https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op189.lv.pdf.

12.4 What Could or Should Be Done—Part I (Green Bond Purchases)

Having established that the ECB *should* care and *is* empowered to act in response to the exigencies of climate change, let us turn to the 'what could or should be done' question by first examining certain issues relating to the Eurosystem's outright purchases and, in particular, its green bond purchases.

It is recalled, for present purposes, that the Eurosystem has been conducting purchases (whether *net* or *reinvestment* purchases) under five different purchase programmes and that asset purchases are expected to continue to be part of the Governing Council's toolkit for an extended period of time.[31]

Purchases are namely conducted under the asset-backed securities purchase programme (ABSPP),[32] the third covered bond purchase programme (CBPP3),[33] the public sector purchase programme (PSPP)[34] and the corporate sector purchase programme (CSPP),[35] which are collectively referred to as the asset purchase programme (APP). While *net* purchases under the APP, which commenced in October 2014, were

[31] It should furthermore be noted, for the sake of completeness, that secondary market purchases of securities in particular jurisdictions could henceforth also be conducted under the recently announced Transmission Protection Instrument (TPI), following its potential activation (to be decided by the Governing Council in order to counter unwarranted, disorderly market dynamics that pose a serious threat to the transmission of monetary policy across the euro area). On the eligibility and purchase parameters of the TPI see ECB, "The Transmission Protection Instrument," press release, July 21, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220721~973e6e7273.en.html.

[32] Decision (EU) 2015/5 of the European Central Bank of 19 November 2014 on the implementation of the asset-backed securities purchase programme (ECB/2014/45) (OJ L 1, 6.1.2015, p. 4).

[33] Decision (EU) 2020/187 of the European Central Bank of 3 February 2020 on the implementation of the third covered bond purchase programme (ECB/2020/8) (recast) (OJ L 39, 12.2.2020, p. 6).

[34] Decision (EU) 2020/188 of the European Central Bank of 3 February 2020 on a secondary markets public sector asset purchase programme (ECB/2020/9) (recast) (OJ L 39, 12.2.2020, p. 12).

[35] Decision (EU) 2016/948 of the European Central Bank of 1 June 2016 on the implementation of the corporate sector purchase programme (ECB/2016/16) (OJ L 157, 15.6.2016, p. 28).

concluded on 1 July 2022,[36] the Governing Council has also decided, and subsequently reconfirmed, that it intends to continue *reinvestment* purchases "*for an extended period of time past the date when it starts raising the ECB interest rates and, in any case, for as long as necessary to maintain ample liquidity conditions and an appropriate monetary policy stance*".[37]

Purchases are furthermore conducted under the temporary pandemic emergency purchase programme (PEPP).[38] This programme, which was launched in March 2020 in view of the exceptional economic and financial circumstances associated with the spread of COVID-19, was also discontinued as far as net asset purchases go (as of the end of March 2022), but is to remain operational via reinvestments of principal payments from maturing debt securities, i.e., reinvestment purchases, until at least the end of 2024.[39]

Purchasable public sector or private sector assets must fulfil specific eligibility criteria set out in the legal acts establishing each of the purchase programmes. To the extent that they fulfil the relevant criteria, green assets are already eligible for purchases, and have been purchased, by the ECB and the Eurosystem NCBs.[40]

[36] See ECB, "Monetary policy decisions," press release, June 09, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220609~122666c272.en.html.

[37] See ECB, "Monetary policy decisions", press release, July 21, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220721~53e5bdd317.en.html.

[38] Decision (EU) 2020/440 of the European Central Bank of 24 March 2020 on a temporary emergency purchase programme (ECB/2020/17) (OJ L 91, 25.3.2020, p. 1).

[39] See ECB, "Monetary policy decisions," press release, December 16, 2021. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.mp211216~1b6d3a1fd8.en.html, as reconfirmed by the ECB "Monetary policy decisions," press release, February 03, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220203~90fbe94662.en.html. ECB, Monetary policy decisions," press release, March 10, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220310~2d19f8ba60.en.html. ECB, "Monetary policy decisions," press release, April 14, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220414~d1b76520c6.en.html. ECB, "Monetary policy decisions," press release, July 21, 2021. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220721~53e5bdd317.en.html.

[40] See Robert A. De Santis, Katja Hettler, Madelaine Roos and Fabio Tamburrini, "Purchases of green bonds under the Eurosystem's asset purchase programme," ECB,

Considering that *government bonds* and *supranational bonds* represent the bulk of the secondary market purchases under the APP (and the PEPP) and that the European Commission will seek to raise up to 30% of the NextGenerationEU funds through the issuance of NextGenerationEU green bonds, one could perhaps consider such supranational bonds as the primary avenue for a further 'greening' of the Eurosystem's monetary policy. In fact, after adopting the independently evaluated NextGenerationEU Green Bond framework, the European Commission proceeded with the issuance of the first, 15-year NextGenerationEU green bond in October 2021, raising €12 billion, and marking the world's largest green bond transaction to date; it then raised a further €2.5 billion *via* an issuance of this bond in January 2022.[41] With an overall NextGenerationEU green bond programme of up to €250 billion, the EU is expected to become the largest green bond issuer worldwide. These bonds, which also benefit from a higher (issue and issuer) purchase limit in the PSPP, namely 50% per International Securities Identification Number (ISIN) for eligible marketable debt securities and 50% of the outstanding securities of an issuer,[42] thus represent an (arguably) important asset type for expanding Eurosystem green outright purchases (even in a purely 'reinvestment purchases' context, under specific conditions).[43]

In view of the ECB action plan and detailed roadmap, and the references contained therein to the corporate sector purchase programme (CSPP), we shall, however, focus more in this section on green purchases under this particular programme. More specifically, we intend to examine the potential adjustments to be considered thereunder, emphasising the construction of green benchmarks in order to 'tilt' or 'steer' purchases of corporate securities towards issuers with certain climate performance characteristics (or away from high-polluting issuers).

Economic Bulletin, Issue 7/2018. Last accessed September 30, 2022, https://www.ecb.europa.eu/pub/economic-bulletin/focus/2018/html/ecb.ebbox201807_01.en.html.

[41] Updated information available at https://ec.europa.eu/info/strategy/eu-budget/eu-borrower-investor-relations/nextgenerationeu-green-bonds_en.

[42] See Article 5 of Decision (EU) 2020/188 of the European Central Bank of 3 February 2020 on a secondary markets public sector asset purchase programme (ECB/2020/9) (recast) (OJ L 39, 12.2.2020, p. 12).

[43] On the existing deficiencies of external reviews of green bonds, in general, and on the more specific issues associated with such review of *government* and *supranational* bonds; see the respective analysis in Chapters 2 and 13 of this book.

To begin with, one must understand both what a benchmark in the context of a monetary policy measure is and what the '*market neutral*' benchmark, applied to date by the ECB in the implementation of the CSPP, entails. In the asset purchases context, benchmarks influence the scope and breadth of each purchase programme by guiding the relative proportion of purchasable assets in each asset category. They are, thus, one of the several design features of each programme and, alongside eligibility criteria, issue and issuer purchase limits and other modalities, they jointly provide the monetary policy boundaries of each purchase programme. The CSPP benchmark applied thus far—centred around the 'market neutrality' concept—essentially entails that the ECB purchases securities in proportion to their relative market capitalisation. As carbon-intensive corporates represent a large share of the European corporate bond market, the ECB's CSPP market neutral portfolio is carbon-intensive.[44]

However, the Treaty requirement that the ECB "*shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources*" should be read for what it is and not be equated, in effect, with the concept of market neutrality, which is neither mentioned in the Treaties nor enjoys a clear meaning in EU doctrine.[45] More specifically, the open market economy principle is a general principle imposing conditions and outer limits on ECB action, in the sense that the ECB should refrain from policy measures that would unduly disrupt the normal functioning of financial markets or restrict competition, and encapsulates the hypothesis that the pricing mechanism in an open and competitive market, serves as the primary mechanism for efficient resource allocation. At the same time, it neither empowers the ECB to act with the sole or primary aim of correcting market inefficiencies

[44] See, for example, evidence presented by Pierre Monin, "Central banks and the transition to a low-carbon economy," CEP Discussion Notes, 2018/1, April 29, 2019, 8–10. Last accessed September 30, 2022, https://ssrn.com/abstract=3350913; Melina Papoutsi, Monika Piazzesi and Martin Schneider, "How unconventional is green monetary policy?", March 30, 2021. Last accessed September 30, 2022, https://web.stanford.edu/~piazzesi/How_unconventional_is_green_monetary_policy.pdf.

[45] See György Várhelyi, "EU Taxonomy and the monetary policy prism," in *ESCB Legal Conference*, February 2020, 169–170 (February 2021 publication, also available in online format albeit with slightly adjusted page numbering) at https://www.ecb.europa.eu/pub/pdf/other/ecb.escblegalconferenceproceedings2020~4c11842967.en.pdf; Ramos Muñoz, Cabrales and Sánchez, "Central Banks and Climate Change," 83–87.

nor represents an absolute prohibition on interferences with the market mechanism and market functions, as long as such interferences are properly justified and proportional to the objective pursued by the measure in question.[46]

As regards the market neutrality concept and its current operationalisation in the APP/CSPP context, reference should be made to the following extract from the ECB's Economic Bulletin: "*[W]hen implementing the APP, the Eurosystem aims to ensure market neutrality in order to minimise the impact on relative prices within the eligible universe and unintended side effects on market functioning. For instance, while aimed at affecting bond prices, the APP purchases were conducted with a view to preserving the price discovery mechanism and limiting distortions in market liquidity*".[47] It is, however, important to also understand that the Eurosystem already applies systematic deviations from this concept in its private sector asset purchases, necessary for monetary policy reasons, through, *inter alia*, the application of eligibility criteria and risk management measures. Moreover, when it comes to public sector asset purchases, sovereign bond purchases are guided first and foremost by the ECB's capital key rather than market capitalisation. Freed from the erroneous, and now largely rejected, view that market neutrality is an unavoidable legal and operational requirement for ECB action,[48] let us consider two alternative benchmarks for the CSPP.

ECB Executive Board Member *Isabel Schnabel* initially proposed replacing the market neutrality principle by a 'market efficiency' principle. In her words, "*such a principle would explicitly recognise that a supposedly "neutral" market allocation may be suboptimal in the presence of externalities. It would allow us to acknowledge that market failures may drive a wedge between market prices on the one hand and efficient asset values*

[46] For further discussion on the implications of the 'open market economy' principle see Chapter 13 of this book.

[47] Felix Hammermann, Kieran Leonard, Stefano Nardelli and Julian von Landesberger, "Taking stock of the Eurosystem's asset purchase programme after the end of net asset purchases," ECB Economic Bulletin, Issue 2/2019, 73. Last accessed September 30, 2022, https://www.ecb.europa.eu/pub/pdf/ecbu/eb201902~a070c3a338.en.pdf.

[48] For argumentation in support of the view that the authors consider flawed see Jens Weidmann, "Combating climate change—What central banks can and cannot do," speech at the European Banking Congress, November 20, 2020). Last accessed September 30, 2022, https://www.bundesbank.de/en/press/speeches/combating-climate-change-what-central-banks-can-and-cannot-do-851528.

that internalise externalities on the other".[49] Although Schnabel did not go into the details of what a market efficiency benchmark would entail or how it could be construed, it is probably safe to assume that benchmark weight calculations under this proposal would somehow incorporate the adverse price impacts (for a firm's realised earnings, equity prices and bond prices) that would materialise if the social and environmental costs of carbon were to be actually internalised. Schnabel concurrently notes, however, that considering climate externalities under the market efficiency principle would need to be consistent with maintaining a functioning price discovery mechanism, and that monetary policy implementation in line with the market efficiency principle would need to remain without prejudice to the ECB's primary mandate of safeguarding price stability. She goes on to add that the operational implementation of such a principle entails significant challenges. By way of example, a certain "tilting strategy", under which the ECB would gradually adjust its monetary policy operations in line with sustainability considerations, could, given the still nascent state of the green bond market, "*adversely affect market liquidity or unduly influence the price discovery mechanism*".[50]

Another alternative would arguably be a 'Paris-aligned' CSPP benchmark. Although the EU Benchmarks Regulation (BMR)[51] does not apply to central banks, certain features of such a benchmark could perhaps be derived from the European Commission Delegated Regulation (EU) 2020/1818 supplementing the Benchmarks Regulation as regarding minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned benchmarks.[52] According to the afore-mentioned delegated act—which lays down specific rules on two different types of

[49] Isabel Schnabel, "From market neutrality to market efficiency," welcome address at the ECB DG-Research Symposium on *Climate change, financial markets and green growth*, June 14, 2021. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210614~162bd7c253.en.html.

[50] Therefore, one could consider tilting strategies that also favour issuers that have a clear path and commitment to reducing their greenhouse gas emissions. Tilting strategies could be performed at the level of sectors, firms or bonds.

[51] Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 (OJ L 171, 29.6.2016, p. 1).

[52] European Commission Delegated Regulation (EU) 2020/1818 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the

benchmarks whose methodology is based on commitments laid down in the Paris Agreement—the more ambitious *Paris-aligned benchmark* (PAB) requires an initial greenhouse gas (GHG) intensity reduction of at least 50% compared to the investable universe, and a mix of norm-based and activity-based exclusions, while the more modest *Climate Transition Benchmark* (CTB) requires an initial GHG intensity reduction of at least 30% and only some norm-based exclusions. Having said that, any CSPP-specific benchmark would have to be skillfully adjusted, so as to adequately account for the specificities of a central bank purchase programme, and not lead to unwarranted effects such as, for instance, an exclusion of a significant part of the currently eligible euro area corporates from future purchases and/or large divestments.

What can, perhaps, already be deduced from the foregoing is that off-the-shelf solution(s) do(es) not exist in this context and that there are both operational and legal challenges associated with the development and application of any new benchmark to guide private sector purchases. As far as, more specifically, legal challenges go, we would argue that the choice of legal basis for the application of a new benchmark, and the safeguarding of the proportionality principle are amongst the most significant.

Regarding the appropriate legal basis, one should first recall that "*favouring an efficient allocation of resource*s" (or fixing market failures) is not in itself a monetary policy objective or task. In other words, attempting to correct carbon prices or to better reflect their social and environmental costs is not a task that the ECB can undertake autonomously. Having said that, if a change in the benchmark fosters an (efficient) allocation of capital to more sustainable sectors and firms, which is likely to mitigate the impact of climate-change-related (physical) shocks on a macro level, such action would arguably facilitate the maintenance of price stability alongside contributing to the secondary objectives. Equally, in the authors' view, a Paris-aligned benchmark, which would result in an active tilting of the CSPP portfolio towards the Paris objectives but without seeking to actually alter or correct bond prices, could be duly justified, either as a measure necessary for the continued pursuit of the price stability objective (i.e., by relying on the existing legal basis

Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks (C/2020/4757) (OJ L 406, 3.12.2020, p. 17).

for the CSPP) or as a means to support the EU climate change mitigation framework, as part of the general economic policies in the Union.

Any change in the CSPP benchmark must, in any event, comply with the EU principle of proportionality, set out in Article 5(4) TEU, which requires that any action of the EU "*[does] not exceed what is necessary to achieve the objectives of the Treaties*". The scope of judicial review under the said principle in the field of monetary policy has been laid out in the *Gauweiler*[53] and *Weiss*[54] judgments and was most ably explained by ECJ President *Koen Lenaerts* in his keynote speech at the 2021 ECB Legal Conference.[55] Suffice it to note, in this context, that the broad discretion afforded to the ECB, in view of the fact that it needs "*to make choices of a technical nature and to undertake complex forecasts and assessments*",[56] by no means implies an absence of judicial control. Such control is both procedural and substantive. The ECB is, more specifically, under an obligation "*to examine carefully and impartially all the relevant elements of the situation in question and to give an adequate statement of the reasons for its decisions*"[57] and must, moreover, "*use its economic expertise and the necessary technical means at its disposal to carry out that analysis with all care and accuracy*".[58] In deciding on a new CSPP benchmark, any potential change must accordingly be carefully designed, on the basis of existing evidence/data, its effects on the Eurosystem's monetary policy and financial risk must be assessed diligently, prior to its actual application, and the ECB must provide adequate justification for its final decision (in terms of both the 'suitability' and the 'necessity' elements of the proportionality assessment).[59] Furthermore, were the choice of a revised benchmark

[53] *Gauweiler*, paras. 66–92.

[54] *Weiss*, paras. 71–100.

[55] Koen Lenaerts, "Proportionality as a matrix principle promoting the effectiveness of EU law and the legitimacy of EU action," keynote speech at the ECB Legal Conference 2021, November 25, 2021. Last accessed available at https://www.ecb.europa.eu/pub/conferences/shared/pdf/20211125_legal/ECB-Symposium_on_proportionality_25_November_2021.en.pdf

[56] *Gauweiler*, para. 68; *Weiss*, para. 73.

[57] *Gauweiler*, para. 69; *Weiss*, para. 30.

[58] *Gauweiler*, para. 75; *Weiss*, para. 91.

[59] On the justiciability of central bank monetary policy decisions and the standard of review see also Ramos Muñoz, Cabrales and Sánchez, "Central Banks and Climate Change," 35–41.

to be based exclusively on the secondary objective of supporting the general economic policies in the Union, it should not be ruled out, as aptly argued by *Ioannidis/Hlásková Murphy/Zilioli*, that the burden of establishing the ECB's motivation for complying with the proportionality principle might be more onerous, considering the ECB's supportive role.[60]

It should, finally, be recalled, in this context, that the ECB in 2021 also announced its intention to introduce disclosure requirements for private sector assets *as a new eligibility criterion or as a basis for a differentiated treatment* for both collateral and asset purchases, with a detailed plan scheduled to be announced already in 2022.[61] What has since been concretely decided will be outlined at the end of this chapter, but for the present purposes it suffices to note that disclosures are expected to enhance the availability of information necessary for the assessment of climate-related financial risks, safeguard compliance with the open market economy principle and be easier to justify in terms of their proportionality, also considering the express ECB commitment for "*adjusted requirements for small and medium-sized enterprises*". Outright exclusions of carbon-intensive issuers, on the contrary, although perhaps more attractive in terms of simplicity, would arguably both jeopardise the price stability objective of asset purchases and be of questionable proportionality.

12.5 What Could or Should Be Done—Part II (Green TLTROs)

This section turns to possible ways of expanding green credit by employing a variant of another non-standard monetary policy measure, i.e., *via* Targeted Longer-Term Refinancing Operations (TLTROs) conditioned on green lending or so-called "green TLTROs", deemed to be a complementary (albeit not pursued, at this stage) policy to the 'greening' of the CSPP. More specifically, this part critically reviews the main arguments and proposed design features of green TLTROs and assesses the main legal, as well as operational, issues associated with the

[60] Ioannidis, Hlásková Murphy, and Zilioli, "The mandate of the ECB," 27.

[61] See ECB, "ECB presents action plan to include climate change considerations in its monetary policy strategy," press release, July 08, 2021. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html.

potential use of this instrument in view of the TLTROs' role in serving the ECB's primary objective.

TLTROs support the transmission of monetary policy by incentivising lending through their targeting feature and by providing a reduction in bank funding costs. In other words, they provide longer-term financing to credit institutions with favourable borrowing conditions so as to encourage them to lend to the real economy. In this way, TLTROs support spending and investments. Currently, TLTROs provide credit without considering whether the credit institutions direct the loans to financing green or non-green activities. Research suggests that credit institutions continue to direct fund flows mainly to unsustainable activities, while they are hesitant to promote green bank lending practices by, e.g., funding "energy efficient home retrofitting".[62],[63]

It has thus been argued that, in their current form of a low-cost source of borrowing that does not incorporate environmental criteria, TLTROs reinforce unsustainable market practices and do not motivate credit institutions to reduce the funding of carbon-intense activities. Following the growing debate on how the ECB could incorporate climate factors into its monetary policy operations, *Jens van 't Klooster* and *Rens van Tilburg* have accordingly advocated that, in order to make bank lending greener, the ECB should initiate green TLTROs[64] in which a preferential interest rate (lower than the regular LTRO rate) will apply, depending on the volume of credit that is compliant with the EU Taxonomy Regulation.[65]

[62] See Jan van 't Klooster and Rens van Tilburg, "Targeting a sustainable recovery with Green TLTROs," report by Positive Money Europe & Sustainable Finance Lab, September, 2020, 9. Last accessed on September 30, 2022, https://www.positivemoney.eu/wp-content/uploads/2020/09/Green-TLTROs.pdf; Louis-Gaëtan Giraudet, Anna Petronevich, and Laurent Faucheux, "How Do Lenders Price Energy Efficiency? Evidence from Personal Consumption Loans", (Working paper Paris: Banque de France, March, 2019). Last accessed September 30, 2022, https://econpapers.repec.org/paper/bfrbanfra/716.htm.

[63] For an overview on how TLTROs could contribute to building renovation as a key priority to reduce carbon emissions across the EU and to reduce energy poverty see Uuriintuya Batsaikhan and Stanislas Jourdan, "Money looking for a home. How to make the European Central Bank's negative interest rates pay for building renovations," *Positive Money Europe,* February 24, 2021. Last accessed September 30, 2022, https://www.positivemoney.eu/2021/02/report-building-renovation-wave-tltros/.

[64] Van 't Klooster and van Tilburg, "Targeting a sustainable recovery with Green TLTROs," 9.

[65] Várhelyi, "EU Taxonomy and the monetary policy prism," 157.

In particular, they propose that the preferential interest rate should be determined based on "*the percentage of new loans for which that bank can document that they are Taxonomy-compliant*". However, they also stress the need to avoid a situation where banks would be able to cherry-pick green loans to benefit from the preferential interest rate, when most of the loans they grant are intended to fund unsustainable investments. To this end, they suggest that it is necessary to develop a benchmark that takes into account both the "*total volume of Taxonomy-compliant lending and the volume of new loans*".[66] Hence, green TLTRO credit should only be available if the bank's lending meets this benchmark.

In its recent strategy review, the ECB considered this proposal but justifiably concluded that the ground is not yet fertile for the seed of green TLTROs to be sown. Granted, such a measure clearly constitutes a monetary policy instrument (being a '*credit operation with credit institutions*' as per Article 18.1 of the ESCB/ECB Statute) and would, moreover, share the same main monetary policy objective of existing TLTROs.[67] Arguably, it could also be a key lever in adopting a 'greener' approach in the ECB's refinancing operations, by actively promoting sustainable credit.[68] Hence, such a measure would, in our view, fall within the remit of the ECB's primary and secondary objectives and could, indeed, form

[66] Their proposal seems to be reflected in the Green Asset Ratio (GAR). The Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 which supplements the Green Taxonomy Regulation provides guidelines for the calculation for the GAR which is the main key performance indicator for credit institutions that are subject to the disclosure obligations laid down in Articles 19a and 29a of Directive 2013/34/EU. The GAR shows the proportion of exposures related to Green Taxonomy-aligned activities compared to the total assets of those credit institutions. It is noted that, in the context of the EBA's ITS on binding standards for Pillar 3 disclosures on ESG risks, GAR is used as a tool to assess how credit institutions have incorporated ESG risks into their risk management.

[67] See Recital 2 of Decision (EU) 2019/1311 of the European Central Bank of 22 July 2019 on a third series of targeted longer-term refinancing operations (ECB/2019/21) (OJ L 204, 2.8.2019, p. 100).

[68] Van 't Klooster and van Tilburg, "Targeting a sustainable recovery with Green TLTROs," 10. According to the ECB, "Climate change and monetary policy in the euro area," Occasional Paper Series No 271 (jointly produced by the Eurosystem work stream on climate change and monetary policy), September 2021, 153. Last accessed September 30, 2022, https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op271~36775d43c8.en.pdf: "Green TLTROs could be structured to preserve the objective and modalities of standard TLTROs, while at the same time including incentives for banks to invest in green activities".

part of an overall package of non-conventional measures.[69] Despite this, significant legal and operational considerations arise as to the implementation of green TLTROs, which explain the ECB's hesitation to embark on it.

More specifically, from a legal perspective, green TLTROs are very likely to give rise to unlevel playing field considerations. The ECB's Occasional Paper on Climate change and monetary policy in the euro area highlights the fact that the transition to a carbon-neutral economy does not advance at the same pace in all Member States. It also emphasises that the distribution of potential 'green borrowers' is asymmetric across the Member States, thereby affecting the volume of loans available to banks that would qualify for the preferential interest rate of the green refinancing operations.[70] Although *Van 't Klooster* and *van Tilburg* acknowledge that, "*some banks may have more Taxonomy-compliant customers than others*" they conclude that there is no "*need to offset every competitive advantage that results from the heterogeneity of Eurozone banking systems*".

This conclusion leads, however, to an outcome that would not be acceptable in view of the monetary policy objectives pursued by TLTROs. Although the Eurosystem's purpose, when performing its tasks, is not to ensure an even playing field across all banks, it should nonetheless avoid adopting measures that manifestly create competitive advantages for certain banks while at the same time disadvantaging others. Having said that, we would also argue that the said level playing field concerns could be addressed, provided that the benchmark to be developed, based both on the total volume of Green Taxonomy-compliant lending and on the volume of new loans (discussed above), would be adjusted taking into account the availability of Green Taxonomy-compliant customers in each jurisdiction.

The hurdles for implementing green TLTROs are, nonetheless, greater from an operational point of view. To understand the operational complexity, it is appropriate to first examine the source that will feed data in relation to green loans and, thus, determine the preferential interest rate in the green TLTROs, that is the Green Taxonomy Regulation. The Green Taxonomy Regulation lays down the criteria based on

69 Várhelyi, "EU Taxonomy and the monetary policy prism," 158.

70 ECB, "Climate change and monetary policy in the euro area," 153.

which to determine whether an economic activity qualifies as environmentally sustainable. Such qualification is relevant for establishing "*the degree to which an investment is environmentally sustainable*".[71] It also sets out reporting and disclosure obligations on companies regarding the environmental impact of economic activities. The qualification as environmentally sustainable is based on technical screening criteria laid down in the European Commission's delegated acts that complement the Taxonomy Regulation.[72] However, the Green Taxonomy universe is not yet complete as the second European Commission's delegated act[73] will be applicable as of January 2023, whereas disclosure obligations are not yet fully applicable.[74] Linking the preferential interest rate to the volume of Green Taxonomy-compliant credit is, thus, not a straightforward task given the absence of a proper definition of "green lending".[75] Until recently, only two out of the six environmental objectives pursued under the Taxonomy Regulation had been defined through the afore-mentioned technical screening criteria, while discussions are still ongoing around the introduction of a social taxonomy. In light of this, the ECB has remarked that "*the taxonomy is not sufficiently prescriptive at present*".[76]

[71] Várhelyi, "EU Taxonomy and the monetary policy prism," 149.

[72] For an overview of the Taxonomy Regulation see Christos. V. Gortsos, "The Taxonomy Regulation: More Important Than Just as an Element of the Capital Markets Union," in *Sustainable Finance in Europe* (Springer International Publishing, 2020).

[73] Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities, C/2022/631, *OJ L 188, 15.7.2022*, pp. 1–45. This delegated act concerns the technical screening criteria for economic activities with significant contribution to the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems.

[74] See European Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation, *OJ L 443*, 10.12.2021, pp. 9–67.

[75] In order to avoid a granular attachment of the label of 'green lending' or 'green credit' which could lead to a fragmented and thus ineffective approach of what constitutes 'green lending', it is essential that a single and commonly applicable definition thereof applies.

[76] ECB, "Climate change and monetary policy in the euro area," 153.

The ability of banks to collect information is also subject to constraints, since disclosure obligations are not yet fully applicable,[77] whereas small firms and households are not subject to any disclosure obligations at all.[78] Therefore, even when disclosure obligations for larger entities within the scope of the CSRD will be fully applicable, comprehensive data coverage for the sustainability of the activities pursued by small firms and households will still not be available. Another important operational aspect underpinning green TLTROs is the lack of a verification system to ensure that borrowers will indeed use green credit for green projects.[79]

In view of these operational but, also, legal challenges, the authors of this chapter believe that it is questionable whether green TLTROs could, at least at the current juncture and before these challenges are overcome, serve their role and effectively support the economy. Therefore, caution is advisable before any steps towards 'greening' TLTROs are taken.[80]

[77] The EU is examining how to make sustainability considerations an integral part of its financial policy in order to support the European green deal. Sustainable finance refers to the process of taking environmental, social, and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects. Three EU legal acts play a prominent role in the sustainable finance framework. First, the Non-Financial Reporting Directive (NFRD), which sets a corporate reporting framework for non-financial information. It requires large public-interest entities (of more than 500 employees) to disclose information in their non-financial statements relating to Environmental, Societal, and Governmental (ESG) matters. NFRD is amended by the Corporate Sustainability Reporting Directive (CSRD), which expands the scope of NFRD in order to include all large companies beyond the 500-employee threshold. Second, the Sustainable Finance Disclosure Regulation (SFDR) sets forth reporting requirements for financial products and financial participants on how they account for sustainability risks. Third, the EU Taxonomy Regulation, which establishes a 'green' classification system that translates the EU's climate and environmental objectives into criteria to establish which economic activities are sustainable for investment purposes.

[78] Given that 'greening' the TLTROs will take time to become operationally possible, Batsaikhan and Jourdan, "Money looking for a home," 16, have advocated adopting "*a pilot project dedicated to housing renovation: a renovation-targeted longer-term refinancing operations (R-TLTROs). […] Under the R-TLTROs pilot programme, the ECB would tweak the TLTRO rules by granting a deeply negative discount rate to banks on their portfolio of loans that is for EE housing renovations*".

[79] Batsaikhan and Jourdan, "Money looking for a home," 19.

[80] At the same time, given that purchases under the current asset purchase programmes will at some point end, the door to such an alternative instrument should not be completely closed, as climate change remains a long-term issue.

12.6 What Could or Should Be Done—Part III (Collateral Framework)

This section examines issues relating to green bonds and other sustainable debt instruments in the Eurosystem collateral framework. Building on the notion of adequate collateral as a proviso of the Eurosystem's conduct of credit operations with credit institutions and other market participants (as outlined in Sect. 12.3), it first offers some thoughts on the recent granting of eligible collateral status to sustainability-linked bonds (SLBs) and then deals with the more general question of how to better incorporate climate risk into the Eurosystem collateral framework (and at what pace), in view also of the conceptual differences[81] between asset purchases and collateral in credit operations. The critical reflections in this section address not only the current situation where the Taxonomy Regulation standards have yet to be fully developed but also the future steady-state when Green Taxonomy and Green Bond standards will be clear, consistent, transparent, and fully developed.

According to the ECB's action plan of 8 July 2021, the ECB will adjust its monetary policy framework also on the side of its collateral framework by (i) incorporating climate change risks in the valuation and risk control measures applicable to assets mobilised as collateral by its monetary policy counterparties in the context of the ECB's refinancing operations. Equally, the ECB committed to (ii) "*monitor structural changes in the markets for sustainability products to support innovation in sustainable finance within the scope of its mandate*".

It is in the latter context that the ECB decided to expand the pool of eligible assets by accepting SLBs as collateral as of 1 January 2021.[82] Such instruments are part of the broader world of sustainable finance alongside, *inter alia*, sustainability bonds, social bonds, and transition bonds, and distinguish themselves as bonds having coupon structures linked to

[81] Including the different financial risks posed by asset purchases and collateral, respectively.

[82] See ECB, "ECB to accept sustainability-linked bonds as collateral," press release, September 22, 2020. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200922~482e4a5a90.en.html.

certain sustainability performance targets.[83] The General Documentation's definition of such targets, added to accommodate the respective amendment of Article 63 of the GD on "*Acceptable coupon structures for marketable assets*", refers, specifically, to "*a target set by the issuer in a publicly available issuance document, measuring quantified improvements in the issuer's sustainability profile over a predefined period of time with reference to one or more of the environmental objectives set out in Regulation (EU) 2020/852 of the European Parliament and of the Council [i.e. the EU Taxonomy Regulation] and/or to one or more of the Sustainable Development Goals set by the United Nations relating to climate change or environmental degradation*".[84]

The fact that this specific measure was decided before the conclusion of the ECB strategy review and the climate-change-specific action plan signifies, first of all, that the ECB examined and concluded that the primary EU law requirements relevant for the acceptance of assets as collateral for the Eurosystem monetary policy operations (including the 'adequacy of collateral' and 'proportionality of the measure' requirements) had been satisfied in the case at hand. This is important, both in and of itself, but also in the sense that this measure could serve as a yardstick for future developments. Moreover, the press release[85] announcing the measure includes a reference to "*non-marketable assets with comparable coupon structures*" being "*already eligible*"[86] and how, therefore, this decision "*aligns the treatment of marketable and non-marketable collateral assets with such coupon structures*". It, thus, effectively reveals the level playing field considerations that also played a role in this case and are yet another factor to bear in mind as the Eurosystem advances its thinking and proceeds with additional adjustments to its collateral framework in the future.

Moving forward and in relation to the more general question of possible further changes to the collateral framework, it should first be

[83] The decision of the ECB to amend Article 63 of the GD and accept such bonds as collateral for Eurosystem credit operations meant that they would also become eligible for Eurosystem outright purchases, provided they comply with all other eligibility criteria.

[84] Contained in the '2030 Agenda for Sustainable Development' adopted by the UN General Assembly on 25 September 2015.

[85] ECB, "ECB to accept sustainability-linked bonds as collateral".

[86] Non-marketable assets featuring floating coupon structures were already eligible for the Eurosystem collateralised operations in accordance with Article 90 of the GD.

recalled that Main Refinancing Operations (MROs)—the main category of regular open market operations—play an important role in steering market interest rates, managing the amount of liquidity in the financial system and signalling the ECB's monetary policy stance. They are implemented on a weekly basis according to a pre-announced tender calendar, and they feature a maturity of one week. MROs provide liquidity to Eurosystem monetary policy counterparties. Any credit operations with credit institutions and other market participants can take place only against adequate collateral as set forth by Article 18.1 of the ESCB/ECB Statute. Eligible assets that can be mobilised as collateral for monetary policy credit operations include both marketable and non-marketable assets. The acceptance of assets as collateral is subject to risk control measures which include valuation, haircuts, and limits applicable to the mobilised collateral.[87] Save for certain eligibility criteria that the mobilised collateral should fulfil, the Eurosystem also imposes credit quality requirements for the said collateral.

The concept of 'adequate collateral' is, as previously described, not defined in the ESCB/ECB Statute, yet it has been interpreted as entailing two objectives. On the one hand, adequate collateral means that in the event of default of their counterparty, Eurosystem central banks should be able, from a legal standpoint, to "*realise all security provided as collateral without undue delay and in such a way as to entitle them to realise value for the credit provided*". In this vein, the applicable risk control measures (i.e., valuation, haircuts, and limits) aim to raise a line of defence against losses that the Eurosystem may incur in case of default of its monetary policy counterparty. On the other hand, the existence of broad-based collateral is a prerequisite for the smooth conduct of monetary policy. Importantly, this presupposes that the pool of eligible collateral available to banks be sufficient. The lack of a sufficient pool of eligible assets available to banks would hinder their access to MROs and could lead banks to insolvency on account of an acute lack of liquidity.

[87] The concept of 'valuation' refers to valuing all eligible assets mobilised as collateral by the counterparties, based on market prices, in order to determine the recovery value that the Eurosystem is expected to obtain when it realises security provided by a counterparty which defaulted. 'Haircuts' refer to a reduction in the value of the mobilised collateral applied by the Eurosystem as a mitigation measure hedging against potential market, liquidity and credit risks. Finally, 'limits' to the exposure to individual counterparties are applied to avoid concentration risks.

Bearing in mind the importance of the collateral framework, along with the fact that many green assets are already eligible as Eurosystem collateral not because of their environmental protection attributes but because they fulfil the existing eligibility criteria laid down in the GD, we now turn to the question of a potential *preferential treatment of green bonds or green issuers* as a means of introducing climate-change-related considerations in the collateral framework.

More specifically, besides the possible *expansion of the current list of assets eligible as collateral*, of which the afore-mentioned acceptance of sustainability-linked bonds represents an example, many scholars and commentators advocate a "steering" or "tilting" in the allocation of the Eurosystem's assets accepted as collateral towards low-carbon sectors, thereby granting preferential treatment to Green Taxonomy-compliant assets compared to non-compliant assets. Such preferential treatment would be reflected in an adjustment of risk control measures and/or the eligibility criteria.

Although such steering or tilting would arguably be desirable from an environmental perspective, its practical implementation in the collateral framework poses a significant challenge on a variety of fronts. First of all, the risk control measures currently in place reflect risks associated with the potential default of counterparties and the ensuing liquidation scenario that would force the Eurosystem to realise the collateral it holds. Green Taxonomy, on the other hand, is not primarily risk-oriented and Green Taxonomy-compliant assets do not necessarily benefit from enhanced liquidity. In other words, Green Taxonomy compliance cannot, in and of itself, render eligible the collateral which does not meet the minimum credit quality requirements of the Eurosystem and/or should not lead to large-scale exclusions of issuer categories, as this might well expose the ECB and NCBs to credit risk running against the requirement of Article 18.1 of the ESCB/ECB Statute. The actual/permitted scope of adjusting the risk control framework or eligibility criteria in order to grant preferential treatment to Green Taxonomy-compliant assets is thus narrower than some might envision.

Moreover, one could argue that at the current juncture, when the Taxonomy Regulation is still not fully applicable and with the Corporate Sustainability Reporting Directive (CSRD) entering into force only in 2023, the ECB lacks the appropriate data to incorporate climate risks in its risk control framework in an effective and efficient manner, such as to ensure that the very purpose of the risk control framework is not undermined. A different conclusion could of course be drawn once the Green Taxonomy and CSRD rules are fully applicable and credit rating agencies have developed an accurate, consistent, and comparable treatment of environmental, social, and corporate governance (ESG) credit risks and reflected them in their ratings, but this will require some time. Nonetheless, even in this scenario, any adjustment of the haircuts or limits in the collateral framework should ensure effective risk protection to adhere to the requirement of 'adequate collateral'.

Finally, overly ambitious or extensive greening measures might result in counterparties in some euro area jurisdictions facing particularly acute collateral or liquidity squeezes. They could further create an indirect incentive for counterparties to move towards collateral assets/types exempted from such measures (e.g., certain non-marketable assets).

Does the above imply a blanket rejection of preferential treatment for green assets or a suggestion to idly await external developments before considering or implementing further changes to the collateral framework, even though high-polluting issuers and their assets face or lead to ever-increasing risks (including systemic risks)? The authors of this chapter would argue that it does not. On the contrary, the Eurosystem should further enhance its analytical capacity *and* explore pragmatic solutions, while EU legislation and industry practices evolve, under however the proviso that any such measures, be they in the form of collateral limits for specific counterparties, haircut add-ons for high-emitters or otherwise, are carefully assessed from a risk and monetary policy but also from a legal perspective. How the concrete measures announced by the ECB in July 2022 fare in this respect is succinctly assessed in the last part of this chapter.

12.7 What Could or Should Be Done—Part IV (Eurosystem Non-Monetary Policy Portfolios and ECB Foreign Reserves)

Finally, we turn our attention to two areas that have so far attracted less attention in the ongoing debate and consider the possible 'greening' of the Eurosystem's non-monetary policy portfolios and the ECB's foreign reserves.

As regard to non-monetary policy portfolios, one should perhaps start with the main drivers behind such action, which are best summarised by the *Network For Greening the Financial System* (NGFS) in a 2019 Technical Document. According to this text: "*[T]he adoption of Sustainable and Responsible Investment (SRI) practices by central banks is important and can help to demonstrate this approach to other investors and mitigate material ESG risks as well as reputational risks. As public institutions, central banks are subject to public scrutiny if they fail to address stakeholders' concerns related to climate change. This is especially true if a central bank calls upon the financial sector to take account of climate-related risks, but fails to appropriately address these risks in its own operations*".[88]

Prior to offering some thoughts on the recently agreed 'Eurosystem common stance for climate-change-related sustainable investments' in such non-monetary policy portfolios (as described in Sect. 12.2), it is important to highlight three factors. First, *investment* portfolios and *staff pension* portfolios, i.e., the two main components of the Eurosystem's euro-denominated non-monetary policy portfolios, each have by their nature distinct characteristics. While investment portfolios typically prioritise returns, to help cover the NCBs' operating expenses within the predetermined risk-tolerance levels, staff pension portfolios are managed on behalf and for the benefit of their beneficiaries, with a corresponding fiduciary duty and a longer-term investment horizon. Second, the fact that these portfolios/operations are part and parcel of the NCBs' national competences and can thus be exercised freely, provided there is no interference with monetary policy,[89] also means that Eurosystem NCBs have (or may have) different mandates and objectives for their respective portfolios. This, in turn, signifies that the integration of sustainable and

[88] NGFS, "A sustainable and responsible investment guide for central banks' portfolio management," Technical Document, October, 2019. Last accessed September 30, 2022, https://www.ngfs.net/sites/default/files/medias/documents/ngfs-a-sustainable-and-responsible-investment-guide.pdf. The follow-up NGFS, "Progress report on the implementation of sustainable and responsible investment practices in central banks' portfolio management," December 2020. Last accessed September 30, 2022, https://www.ngfs.net/sites/default/files/medias/documents/sri_progress_report_2020.pdf.

[89] See Basil Scouteris and Phoebus Athanassiou, "National central bank tasks and the boundaries of the ECB Governing Council's powers under Article 14.4 of the Statute: State of play and future prospects," in *Commemorative Volume for Leonidas Georgakopoulos* (Bank of Greece publication, Vol. II, 2016), 797-817. Last accessed September 30, 2022 https://www.bankofgreece.gr/Publications/Georgakopoulos_vol_II.pdf.

responsible investment principles in each of those portfolios must be a unique exercise.[90] Third, the impact and feasibility of the five commonly identified SRI strategies, namely (i) exclusions/negative screening, (ii) best-in-class, (iii) ESG integration, (iv) impact investing, and (v) voting and engagement, vary significantly for each of the main asset classes used for central banks' investment portfolios, i.e., government bonds, SSAs (sub-sovereign, supranational and agencies), corporate bonds, and equities. For example, while exclusions/negative screening are hardly feasible (for a host of reasons, going beyond the lack of sufficiently developed data) and of questionable environmental impact as regards government bonds, such a strategy certainly works better in terms of financial risk reduction and contribution to EU climate targets, if applied to corporate bonds.

Considering the above, it becomes clear that what might be perceived, from an outside perspective, as a simple or straightforward exercise, on the argument that central banks are free of their monetary policy mandate/constraints when making their own account investments, is actually anything but. In fact, there are, besides various operational, also valid legal reasons, such as the afore-mentioned differences in individual NCBs' mandates and assets used, the existence of fiduciary duty for staff pension portfolios and the special legal/investor status of NCBs, which call for and explain the step-wise, cautious approach adopted by the Eurosystem central banks in relation to such portfolios and the emphasis currently given to (a) disclosures and (b) a better understanding of climate-related risks. In addition, the legal and reputational risks associated with 'greenwashing', however unintentional—were, for example, all Eurosystem NCBs to promptly start buying corporate bonds labelled as 'green' in the context of their non-monetary policy portfolios—are, in our view, significantly more acute for public institutions serving the public good, as in the case of central banks, than they are for private actors or companies. So, while calls for swifter and more decisive action (*inter alia* in the form of more concrete ESG integration commitments) might be warranted, the criticism that "*Eurosystem central banks remain in their*

[90] ECB, "Climate change and monetary policy in the euro area," 155.

ivory tower and continue to ignore both climate science and financial players' best practices"[91] is based on the wrong assumptions.

In relation to ECB's foreign reserves, which were originally established by means of the transfer of foreign reserve assets from the euro area NCBs when Stage Three of the Economic and Monetary Union began on 1 January 1999, it is, first of all, important to recall that the main purpose of holding such reserves is to ensure that the Eurosystem has a sufficient amount of liquid resources, whenever needed, for its foreign exchange policy operations involving non-EU currencies. An ECB intervention is precisely required to prevent disorderly market conditions that could have an adverse effect on price stability in the euro area and at the global level.[92]

The main investment principles for the portfolio management of the ECB's foreign currency reserves are thus, in order of importance, *liquidity*, *security,* and *return*. This means that priority is afforded to the possibility of converting the portfolio into cash balances in a short time frame and at a minimal cost. To achieve this, while also serving the security principle, a large part of the ECB foreign reserves, which consist of US dollars, yen, renminbi, gold and IMF special drawing rights, is invested in US and Japanese government bonds with a relatively short residual maturity.[93] As for maximising investment returns, the ECB applies active portfolio management with incentives to make use of an allocated risk budget and allows the use of investment instruments that yield a spread over government bonds or facilitate the expression of investment views, subject to risk management limits. Such investment instruments include supranational and agency bonds, money market and

[91] See Paul Schreiber, "Below the Radar: Central banks investing unsustainably," report by *Reclaim Finance*, October 2021. Last accessed September 30, 2022, https://reclaimfinance.org/site/wp-content/uploads/2021/11/Report-Below-the-radar-Central-banks-investing-unsustainably.pdf.

[92] See Livia Chiţu, Joaquim Gomes, and Rolf Pauli, "Trends in central banks' foreign currency reserves and the case of the ECB," (published as part of the *ECB Economic Bulletin*, Issue 7/2019). Last accessed September 30, 2022, https://www.ecb.europa.eu/pub/economic-bulletin/articles/2019/html/ecb.ebart201907_01~c2ae75e217.en.html.

[93] The most recent figures on the ECB's, as well as on the Eurosystem NCBs', official reserve assets can be found in the "Template on international reserves and foreign currency liquidity." Last accessed September 30, 2022 https://www.ecb.europa.eu/stats/balance_of_payments_and_external/international_reserves/templates/html/index.en.html.

bond futures, commercial bank deposits, repos and reverse repos, foreign exchange hedged swaps, and interest rate swaps.[94]

Thus, the first question that deserves attention is whether adding sustainability to the afore-mentioned triad of foreign reserves' investment principles (liquidity, security, and return) is possible for the ECB and, if so, how it can be achieved. It could be argued that given the inherent connection between foreign exchange operations and the price stability objective in a monetary union and, moreover, in light of the contributory ECB competence regarding the general economic policies in the Union, such an integration is legally permissible and can take either the form of an 'explicit' integration, i.e., by adding sustainability as a fourth objective of foreign reserve management or that of an 'implicit' integration, i.e., by expressly incorporating sustainability considerations in the pursuit of the traditional economic uses of reserves. The latter approach would be based on the recognition that sustainability, or the lack thereof, can affect the attainment of existing policy objectives, starting from the security objective (e.g., when possible long-term financial losses arising from climate risks are ignored).

As to the tools for implementing sustainability in this context, a 2020 BIS Working Paper, drawing on the results of a respective survey on reserve management and sustainability, identifies a preference for green bond investments but also points to other possible ways, such as the management of investments using ESG criteria, integrating notions of climate risk in reserve managers' investment beliefs and performing environmental risk management. The chapter then goes on to assess green bonds in terms of liquidity, safety, and return and comes to the following conclusion(s): on the one hand, sustainability objectives can be integrated into reserve management frameworks without forgoing safety and return. In fact, the results of an illustrative portfolio construction exercise suggest that adding both green and conventional bonds can help generate diversification benefits and thus improve the risk-adjusted returns of traditional sovereign bond portfolios. On the other hand, an analysis of the asset class properties of green bonds reveals that their accessibility and liquidity remain subject to certain constraints. This would explain why reserve managers may wish (as per the BIS Paper) to impose limits on the

[94] For greater detail see Chiţu, Gomes, and Pauli, "Trends in central banks' foreign currency reserves."

total volume of green bonds held, considering the rapidly growing but nonetheless still relatively small size of the respective market.[95]

To sum up, adding sustainability to the triad of foreign reserves' investment principles is legally feasible and a case for an increased focus on 'greening' the ECB's foreign reserves can certainly be made. This, however, requires yet another careful balancing act on behalf of the ECB, considering, on the one hand, the necessary trade-offs between the applicable investment principles which thereby arise and, on the other hand, some persisting limitations. These stem not only from the current state of the green bond market in terms of size but also from the asset and currency composition of ECB foreign reserves, in the sense that: (a) ECB foreign reserves, as the preponderance of central bank reserves, are still largely invested in sovereigns, in this case US and Japanese, as opposed to corporate bonds and (b) nearly half of the 2020 Green bond issuance was in euro and less than one-third in US dollar,[96] which is the primary currency of investment of the ECB's official reserves.

12.8 Most Recent Developments and Authors' Conclusions

As previously indicated, on 4 July 2022 the ECB took, consistent with the climate action plan and related climate roadmap announced in July 2021, *further steps* to incorporate climate change considerations into its monetary policy operations by deciding to (i) adjust corporate bond holdings in the Eurosystem's monetary policy portfolios and its collateral framework, (ii) introduce climate-related disclosure requirements, and (iii) enhance its risk management practices.[97]

[95] See Ingo Fender, Mike McMorrow, Vahe Sahayan, and Omar. Zulaica, "Reserve management and sustainability: the case for green bonds?," (BIS Working Papers No 849, 2020). Last accessed September 30, 2022, https://www.bis.org/publ/work849.htm.

[96] See figures in Arnab Das & Jennifer Johnson-Calari, "Central bank foreign currency reserves management, The greening of central banks and reserves management," paper included in *Invesco's central bank Reserves Management Series*, 2021. Last accessed September 30, 2022, https://www.invesco.com/apac/en/institutional/insights/esg/the-greening-of-central-banks-and-reserves-management.html.

[97] See ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations," along with the "ECB climate agenda 2022", annexed therein. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704_annex~cb39c2dcbb.en.pdf.

More specifically, as regards corporate bond holdings under the APP/PEPP the Eurosystem announced its aim to gradually decarbonise its corporate bond holdings, on a path aligned with the goals of the Paris agreement.[98] To serve this purpose, the Eurosystem will tilt its holdings towards issuers with better climate performance through the reinvestment of the sizeable redemptions expected over the coming years. Better climate performance will be measured with reference to a triad of (i) lower greenhouse gas emissions, (ii) more ambitious carbon reduction targets, and (iii) better climate-related disclosures. The ECB expects the measures to apply from October 2022, as further detailed in a follow-up press release.[99]

In relation to the *collateral framework*, the ECB's press release explicitly notes that the Eurosystem will limit the share of assets issued by entities with a high carbon footprint that can be pledged as collateral by individual counterparties when borrowing from the Eurosystem. As a first step, the Eurosystem will apply such limits only to marketable debt instruments issued by companies outside the financial sector (non-financial corporations). Additional asset classes may also fall under the new limits regime as the quality of climate-related data improves. The measure is expected to apply before the end of 2024 provided the necessary technical preconditions are in place. As an additional step in 'greening' the collateral framework, the Eurosystem will, starting from 2022, consider climate change risks when reviewing haircuts applied to corporate bonds used as collateral. In any case, *"all measures will ensure that ample collateral remains available, allowing monetary policy to continue to be implemented effectively"*.[100]

Regarding *climate-related disclosure requirements for collateral*, the Eurosystem will only accept as collateral for Eurosystem credit operations (once the Directive has been fully implemented) marketable assets and

[98] See ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

[99] See ECB, "ECB provides details on how it aims to decarbonise its corporate bond holdings," press release, September 19, 2022. Last accessed September 30, 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220919~fae53c59bd.en.html.

[100] ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

credit claims from companies and debtors that comply with the Corporate Sustainability Reporting Directive (CSRD).[101] The implementation of the CSRD has been delayed, and the ECB's new collateral eligibility criteria are therefore expected to apply as of 2026. However, a significant proportion of the assets that can be pledged as collateral in Eurosystem credit operations, such as asset-backed securities and covered bonds, does not fall under the CSRD. In light of this and in order to ensure a proper assessment of climate-related financial risks for those assets as well, the Eurosystem will further *"support better and harmonised disclosures of climate-related data for them and, acting as a catalyst, engage[s] closely with the relevant authorities to make this happen"*.[102]

Finally, the Eurosystem decided to further enhance its *risk assessment tools and capabilities* to better include climate-related risks. More specifically as noted in the ECB's press release, to improve the external assessment of climate-related risks, the Eurosystem will urge rating agencies to be more transparent on how they incorporate climate risks into their ratings and to be more ambitious in their disclosure requirements on climate risks, while at the same time remaining in close dialogue with the relevant authorities on this matter.[103] Additionally, the Eurosystem agreed on a set of common minimum standards for how national central banks' in-house credit assessment systems should include climate-related risks in their ratings. These standards will enter into force by the end of 2024.[104]

From the afore-mentioned measures, many features of which merit closer attention, three observations can be made already at the current juncture in the light of the analysis elaborated in this chapter, in anticipation of the communication of further details from the ECB in the upcoming months.

Firstly, as regard to CSPP tilting, it is important to note that its *objective* has been identified as being directly linked to the Eurosystem's financial

[101] ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

[102] ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

[103] ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

[104] ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

risk management ("[the measures] are designed in full accordance with the Eurosystem's primary objective of maintain price stability … [and] … this (i.e., tilting) aims to mitigate climate-related financial risks on the Eurosystem balance sheet", as per the language in the 4 July 2022 ECB press release). Moreover, the said tilting has also been expressly identified as serving the ECB's secondary objective to support the general economic policies in the Union, ("*with reference to our secondary objective, [these measures] support the green transition of the economy in line with the EU's climate neutrality objectives*", as per the language in the 4 July 2022 ECB press release), marking the first instance when this legal basis will feature explicitly in an ECB legal act, alongside the pursuit of price stability.

Secondly, the measures announced in relation to the collateral framework and the climate-related disclosure requirements for collateral are highly indicative of the ECB's struggle to strike the right balance between ambition, gradualism, and flexibility. They will most certainly provide ample material for in-depth analysis, also from a legal perspective, once further details, including their timeline, are communicated (and, possibly, legally challenged).[105]

Finally, the Governing Council makes an extra point of underlining its commitment "*to regularly reviewing all the measures*",[106] both in order to assess their effects and to adapt them, if necessary, so as to confirm that they continue to fulfil their objectives, to respond to future improvements in climate data and climate risk modelling or changes in regulation and to address additional environmental challenges, within its price stability mandate. This, read in conjunction with the reminder that "*companies and governments need to do their part to address climate risks by enhancing disclosures and following up on their commitments to reduce carbon emissions*",[107] further underscore the balancing act required of the ECB in this field, as well as the complexity of the task at hand.

For the reasons set out in the previous sections, the authors of this chapter are of the view that the ECB is both within its mandate *and* has

[105] The question of the measures' proportionality to the objective(s) pursued will, in our view, feature prominently in this context.

[106] ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

[107] ECB, "ECB takes further steps to incorporate climate change into its monetary policy operations."

genuinely good reasons to further incorporate climate change considerations into its monetary policy framework, expanding its corresponding analytical capacity. At the same time, expecting the ECB to do the equivalent of "*whatever it takes*"[108] in the fight against climate change would be as flawed as the ECB choosing to completely ignore climate change risks and the associated repercussions for its primary task of defining and implementing the monetary policy of the Union so as to maintain price stability.

With that in mind, the authors consider that the ECB decisions to date, as initially set out in the 2021 action plan and detailed roadmap and as further developed in the July 2022 announcements, are *inter alia* a valid attempt to find a compromise between 'doing too much' and 'doing too little', even if such criticisms are bound to, nonetheless, follow the ECB follow-up choices in this field for years to come.

As for the specific means or ways that the ECB could further 'green' its operations, it has here been argued that expanding green bond purchases under the CSPP is both legally and operationally possible, provided it is done in a way that corresponds to the monetary policy objective of such central bank asset purchases and complies with the proportionality principle. Introducing green TLTROs, on the other hand, as a policy measure complimentary to green bond purchases, presents a number of challenges that cannot be overcome at the current juncture, for reasons going beyond the need to commit a significant amount of central bank resources to such an endeavour in a way that would be detrimental to other ongoing tasks or projects. Moreover, changes in the collateral framework, either in the form of expanding the list of currently eligible assets, granting preferential treatment to green bonds/assets, or applying limits to the share of assets issued by entities with a high carbon footprint, are possible (including legally permissible), provided they are implemented carefully and in stages, as pertinent data and methodologies evolve, so as not to endanger the 'adequacy of collateral' requirement.

Finally, in relation to Eurosystem non-monetary policy portfolios and ECB foreign reserves, the authors of this chapter have explained why 'greening' such portfolios would equally require prudent consideration

[108] Referenced here is the famous "Whatever it Takes" speech of former ECB President Mario Draghi, delivered in London, on July 26, 2012, at the Global Investment Conference. Last accessed September 30, 2022, www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html.

of their distinct characteristics *and* a step-wise, cautious approach to the introduction of requirements/changes in each case, in the light of both existing limitations and legal as well as operational considerations.

CHAPTER 13

Discussion: Green Bonds and Monetary Policy

Sarah Jane Hlásková Murphy

13.1 Introduction

In this chapter, I discuss some of the issues that have been addressed in Chapter 12 on *Green bonds and the ECB: A Tale of (Measured) Promise and (Required) Caution* by Basil Scouteris and Elli Anastopoulou. Their chapter addresses the important question of what the European Central Bank (ECB) can do in accordance with its mandate to address the risks posed by climate change when defining and implementing monetary policy. My observations are more limited in scope and do not cover all the

The views presented in this chapter are those of the author and are not of the European Central Bank. They reflect monetary policy and legal developments as at November 2022. I would like to thank Chiara Zilioli, Bram van der Eem, Marguerite O'Connell and Caoimhe Cotter for comments on a draft of this chapter.

S. J. Hlásková Murphy (✉)
European Central Bank, Frankfurt Am Main, Germany
e-mail: sarah_jane.hlaskova_murphy@ecb.europa.eu

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3_13

issues raised in their very comprehensive chapter.[1] Instead, these observations focus on issues that are relevant to the overarching theme of this book. Specifically, what are the implications of regulatory and market developments in relation to green bonds for monetary policy from a legal perspective? The comments are structured around the two main uses of green bonds when implementing monetary policy: (i) the purchase of green bonds in the ECB's asset purchase programme (APP) and (ii) the use of green bonds as collateral. They also touch on proposals to amend or introduce terms in refinancing operations that integrate climate change considerations.

13.2 Green Bonds and the ECB's Asset Purchase Programme

One of the points the authors make at the outset is that green bonds have been eligible for purchases and have been purchased in the APP, whether as net or reinvestment purchases. The ECB has purchased green bonds issued by governments and supra-nationals in the public sector purchase programme (PSPP) as well as those issued by the private sector in the corporate sector purchase programme (CSPP).[2] More recently, the Governing Council has communicated its intention to continue reinvesting in full the principal payments from maturing securities purchased under the APP for an extended period of time past the date on which it started raising ECB interest rates, and for as long as necessary to maintain liquidity conditions and its monetary policy stance.[3] The Governing

[1] See further Ioannidis, Michael, Hlásková Murphy, Sarah Jane and Zilioli, Chiara, 2021. The mandate of the ECB: Legal considerations in the ECB's monetary policy strategy review. Occasional Paper Series. No. 276, 21 September 2021. https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op276~3c53a6755d.en.pdf. Chiara Zilioli and Michael Ioannidis. 2022. Climate change and the mandate of the ECB: Potential and limits of monetary policy contribution to European green policies. *Common Market Law Review* 59(2):363–394. https://doi.org/10.54648/cola2022029. Accessed 30 November 2022.

[2] De Santis, Roberto A., Hettler, Katja, Roos, Madelaine and Tamburrini, Fabio. 2018. Purchases of green bonds under the Eurosystem's asset purchase programme. ECB Economic Bulletin, Issue 7/2018. https://www.ecb.europa.eu/pub/economic-bulletin/focus/2018/html/ecb.ebbox201807_01.en.html. Accessed 30 November 2022.

[3] ECB. 2022. Press release—Monetary policy decisions. 8 September. https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220908~c1b6839378.en.html. Accessed 30 November 2022.

Council has also announced its decision to gradually decarbonize its corporate bond holdings on a path aligned with the goals of the Paris Agreement[4] and published further details on how it will tilt the Eurosystem's corporate bond purchases towards issuers with a better climate performance.[5] Although the monetary policy stance is subject to ongoing change, the issue of what could or should be done with respect to green bond purchases continues to be highly relevant.

Turning first to purchases of bonds issued by governments and supranationals, the authors correctly note these represent the bulk of the purchases under the APP. As such, they consider NextGenerationEU green bonds as the primary avenue for greening Eurosystem purchases. One development that warrants further consideration in this context is the EU's regulatory initiative in this field, namely, the proposal for a regulation on European green bonds (the 'proposed regulation').[6] As a key objective of the proposed regulation is to increase sustainable investment opportunities and the issuance of new green bonds, it has important implications for the implementation of monetary policy and was welcomed by the ECB in its opinion on the proposal.[7] However, two core questions arise which will influence how well the proposed regulation will serve its key objectives.

First, will the proposed standard achieve the right balance in its attempts to enhance transparency and comparability? The ECB has welcomed the alignment of the proposed regulation with the Green Taxonomy Regulation[8] as it provides a sound basis for assessing the

[4] ECB. 2022. Press release—ECB takes further steps to incorporate climate change into its monetary policy operations. 4 July. https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html. Accessed 30 November 2022.

[5] ECB. 2022. Press release. ECB provides details on how it aims to decarbonise its corporate bond holdings. 19 September. https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220919~fae53c59bd.en.html. Accessed 30 November 2022.

[6] Proposal for a Regulation of the European Parliament and of the Council on European green bonds (COM(2021) 391 final). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0391. Accessed 30 November 2022.

[7] Opinion CON/2021/30 of the European Central Bank of 5 November 2021 on a proposal for a regulation on European green bonds (OJ C 27, 19.1.2022, p. 4).

[8] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13).

sustainability of the use of proceeds of issuances of green bonds.[9] But it is important to note that sovereign issuers have a privileged position, as the proposed regulation does not require external reviewers to assess the Green Taxonomy alignment of the economic activity of funding programmes. Instead, they assess the alignment of terms and conditions of the funding programmes concerned with the Green Taxonomy requirements.[10]

Second, the question also arises as to whether the proposed Regulation will enhance the credibility of the green bond market. The proposed Regulation relies on external review procedures to support the credibility of disclosures and the European Commission itself has ensured its NextGenerationEU green bond framework has been reviewed by a second party opinion provider.[11] Unlike corporate issuers, however, issuers of sovereign bonds are not subject to a duty to obtain pre-issuance and post-issuance reviews. Instead, they may opt to obtain a review from an external reviewer, a state auditor or another public entity that is mandated by the sovereign to assess its compliance.[12] The absence of a duty to obtain any external review is another example of a difference in the standards applied to corporate and sovereign bonds. This could open up the possibility for there to be a credibility gap between corporate and sovereign bonds issued in line with the proposed Regulation and reduces the comparability of the different instruments.[13] Given that sovereign bonds represent the bulk of purchases under the APP, a more level playing

[9] Para. 3.2.2 of Opinion CON/2021/30. (n 8).

[10] Recital 16 of the proposed regulation. Para. 6.3 of Badenhoop, Nikolai. 2022. Green Bonds—An assessment of the proposed EU Green Bond Standard and its potential to prevent greenwashing. European Parliament Research Service. https://www.europarl.europa.eu/RegData/etudes/STUD/2022/703359/IPOL_STU(2022)703359_EN.pdf. Accessed 30 November 2022.

[11] European Commission. 2021. Press release. NextGenerationEU: European Commission gearing up for issuing €250 billion of NextGenerationEU green bonds. 7 September. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_4565. Accessed 30 November 2022.

[12] Article 11 of the proposed regulation.

[13] See arguments in favour of a single standard for corporate and sovereign bonds in Section 6 of Badenhoop, Nikolai. 2022. Green Bonds—An assessment of the proposed EU Green Bond Standard and its potential to prevent greenwashing. European Parliament Research Service. https://www.europarl.europa.eu/RegData/etudes/STUD/2022/703359/IPOL_STU(2022)703359_EN.pdf. Accessed 30 November 2022.

field in the regulation of corporate and sovereign green bonds would contribute meaningfully to the greening of monetary policy.

Turning to purchases of bonds issued by corporates, a complex set of legal issues arises when considering possible changes to the CSPP to reflect climate change considerations. In this context, reference can be made to the ECB's decision to incorporate climate change considerations into the benchmark allocation that defines certain purchase limits for issuer groups.[14] By implementing this decision, the Eurosystem tilted CSPP holdings towards issuers with better climate performance through the reinvestment of the redemptions. Better climate performance is measured with reference to lower greenhouse gas emissions, more ambitious carbon reduction targets and climate-related disclosures.

The authors correctly identify many of the potential legal issues that have arisen in public discussions relating to these proposals. One such issue that warrants more careful examination in this context is compliance with the principle of an open market economy with free competition, favouring an efficient allocation of resources.[15] The question should not only focus on whether a move away from a benchmark reflecting a market neutrality concept is justifiable. The principle of an open market economy imposes conditions and outer limits on the action of the ECB, implying that the ECB should refrain from policy measures which would unduly disrupt the functioning of markets or unduly restrict competition. In the case of the amendments to the CSPP, purchase limits that tilt CSPP holdings towards issuers with better climate performance do not contravene the open market economy principle. Indeed, the benchmark allocation continued to be based on an issuer group's market capitalization to ensure a diversified allocation of purchases across issuers and issuer groups.[16] The 'tilting' was achieved by applying objectively measurable criteria that serve to reduce exposure to climate-related financial risk, thereby counteracting distortions in the pricing of climate risks by financial markets. Any indirect effect on the functioning of corporate bond markets, including the cost

[14] Decision (EU) 2022/1613 of the European Central Bank of 9 September 2022 amending Decision (EU) 2016/948 on the implementation of the corporate sector purchase programme (ECB/2016/16) (ECB/2022/29) (OJ L 241, 19.9.2022, p. 13).

[15] Article 127(1) (third sentence) of TFEU.

[16] Article 4(3) of Decision (EU) 2016/948 of the European Central Bank of 1 June 2016 on the implementation of the corporate sector purchase programme (ECB/2016/16) (OJ L 157, 15.6.2016, p. 28).

of funding of issuers, was justified on the grounds that the measures were necessary for the price stability objective and proportionate, not going beyond what was necessary to achieve this objective. Measures that incentivize improvements in disclosure are also aligned with the open market economy principle as they enhance the availability of information necessary to assess financial risks, which can in turn be expected to favour an efficient allocation of resources.

Another issue that could be explored in this context is the incomplete regime for the disclosure of sustainability-related data on issuers. Disclosures in line with the Corporate Sustainability Reporting Directive[17] (CSRD) would provide a dataset that would significantly enhance the ECB's capability to monitor and assess the impact of climate change on monetary policy transmission and address financial risks it holds on its balance sheet.[18] As the application of the CSRD reporting requirements will take place in four stages from 2025, the ECB's methodology to incorporate climate change considerations will need to be updated over time to reflect the increasing availability of climate data, as well as future improvements in climate risk modelling and other regulatory developments. In addition, it is important to note that the CSRD is of particular importance because the reporting requirements in the Green Taxonomy Regulation, which applied from 1 January 2022, only focus on the positive contribution that certain investments or activities can make to environmental protection objectives. Although this is relevant for the use of proceeds of green bonds, it does not aid in the assessment of an issuer's climate performance, where the central bank needs information on the impairment of the value or risk profile of the assets on its balance sheet.

[17] Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (OJ L 322, 16.12.2022, p. 15–80).

[18] Para. 2.2.3 of Opinion CON/2021/27 of the European Central Bank of 7 September 2021 on a proposal for a directive amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting (OJ C 446, 3.11.2021, p. 2).

13.3 Green Bonds and the Eurosystem's Collateral Framework

Green bonds are also relevant in the context of the Eurosystem's collateral framework. As in relation to the APP, the ECB has already expanded the pool of eligible assets by accepting sustainability-linked bonds as collateral since 1 January 2021.[19]

The authors are, however, critical of proposals to afford preferential treatment to green bonds in the context of the collateral framework, via adjustments to risk control measures or eligibility criteria. They emphasize the importance of ensuring the collateral framework complies with the requirement to conduct credit operations with lending being based on adequate collateral, in line with Article 18.1 of the Statute of the European System of Central Banks and ECB. It is clear that compliance with the Green Taxonomy Regulation requirements does not ensure a green bond meets the requirements for adequate collateral. As noted above, the Green Taxonomy focuses on the positive contribution an investment makes to environmental protection objectives, rather than a possible impairment of the value or risk profile of the assets on the balance sheet that would be relevant to consider whether a green bond comprises adequate collateral. At the same time, it is also clear that measures intended to reduce the financial risks posed by climate change to the Eurosystem's credit operations, such as by limiting the share of assets issued by entities with a high carbon footprint that can be pledged as collateral or considering climate change risks when reviewing haircuts applied to corporate bonds used as collateral,[20] have a firm legal basis in Article 18.1 of the Statute.

Ultimately, the quality and scope of data on climate-related financial risks that will be available will be influential in determining whether specific risk reduction measures can be justified as ensuring lending is based on adequate capital. One meaningful measure to address the limited extent to which the collateral framework may take into account climate

[19] ECB. 2022. Press release. ECB to accept sustainability-linked bonds as collateral. 22 September. https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200922~482e4a5a90.en.html. Accessed 30 November 2022.

[20] ECB. 2022. Press release—ECB takes further steps to incorporate climate change into its monetary policy operations. 4 July https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html. Accessed 30 November 2022.

change considerations would be to improve the availability of data on the climate-related financial risks to which a much wider range of assets eligible as collateral are exposed. The CSRD ensures that many types of issuers, guarantors or debtors of assets eligible as collateral will be covered by reporting requirements. In particular, a large majority of eligible issuers of corporate bonds and unsecured bank bonds are within scope, with limited exceptions for unlisted small and medium-sized enterprises and micro-undertakings.[21] However, there are significant gaps in coverage for certain categories of assets which are important sources of collateral.[22] Sovereigns and non-corporate public sector entities are outside the scope of reporting requirements. Special Purpose Vehicle issuers of asset-backed securities are also likely to be excluded on account of their low turnover and number of employees. Moreover, the current regulatory framework for covered bonds, which account for a large share of collateral mobilized by Eurosystem counterparties, does not require the disclosure of information on the climate performance of the underlying loans in covered bond pools to investors.[23]

13.4 Climate Change Considerations in Refinancing Operations

The authors also review the main legal issues associated with proposals to amend or introduce terms in refinancing operations to integrate climate change considerations, sometimes described as 'Green Targeted Longer-Term Refinancing Operations' (GTLTRO). These would afford more favourable interest rates for loans, depending on the climate risk exposure of the assets held by or the loans made by the borrowing bank. Green bonds are not directly relevant to an assessment of the legal issues

[21] Article 19a of Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (OJ L 322, 16.12.2022, p. 15–80).

[22] See ECB website. Eurosystem Collateral Data at https://www.ecb.europa.eu/paym/coll/charts/html/index.en.html. Accessed 30 November 2022.

[23] Article 14 of Directive (EU) 2019/2162 of the European Parliament and of the Council of 27 November 2019 on the issue of covered bonds and covered bond public supervision and amending Directives 2009/65/EC and 2014/59/EU (OJ L 328, 18.12.2019, p. 29).

relating to Green TLTROs. They could comprise collateral that has to be posted for TLTRO operations, but in this case, the usual eligibility requirements for collateral would apply and the issues outlined in relation to the collateral framework above would be relevant.

Two brief remarks on proposals for GTLTROs are, however, warranted. The first is that from a legal and operational perspective, determining the eligibility of loans based on the use of the loan proceeds is at present challenging. The ECB collects over 90 data attributes concerning loans of 25,000 euro or more made by credit institutions in the euro area,[24] but these do not currently provide an insight into the environmental impact of the use of the proceeds. An effective GTLTRO would also rely on comprehensive disclosure of the climate-related impact of business activities, from which small firms and households would most likely be excluded. The lack of a verification system or external review process would also undermine credibility. At the same time, these are not insuperable obstacles and they do not suggest that a legal basis for GTLTROs would necessarily be lacking.

13.5 Concluding Remarks

In conclusion, the author's chapter on green bonds and monetary policy addresses many important questions on what the ECB can do in accordance with its mandate to address the risks posed by climate change when implementing monetary policy. When focusing on the possible uses of green bonds in this context, regulatory developments open up many other questions which will continue to engage central banks as the legal framework and market for green bonds evolves.

[24] Regulation (EU) 2016/867 of the European Central Bank of 18 May 2016 on the collection of granular credit and credit risk data (ECB/2016/13) (OJ L 144, 1.6.2016, p. 44).

Index

D. Ramos Muñoz and A. Smoleńska (eds.), *Greening the Bond Market*, EBI Studies in Banking and Capital Markets Law,
https://doi.org/10.1007/978-3-031-38692-3