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ABSTRACT

This paper exposes some prominent issues that arise when banks label their contingent convertible bonds (CoCos) as "green," and proposes a mechanism to improve green CoCos as climate change mitigation instruments. The green label is weakly protected due to regulatory requirements for capital instruments issued by banks. Current and proposed green bond frameworks, when applied to standard green bonds are insufficient in ensuring real environmental impacts from the bonds, are not prepared for the novelty of labeling CoCos as green. The result is a financial instrument through which issuing banks unsuccessfully try to achieve both regulatory and environmental aims. The paper also demonstrates that the legality of green CoCos under eligibility criteria for capital instruments is questionable. Thus, this paper argues that they are unsuitable as climate change tools unless regulatory changes are made. The paper explores ring-fencing of banks' green assets into separate legal entities as one such possible change. Ring-fencing, the paper argues, would increase the effect of green CoCos as a climate change tool and make them more than just another form of greenwashing.

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I. INTRODUCTION

A. BACKGROUND

Climate change is arguably the greatest challenge faced by humankind.[1] Failure to avoid an excessive rise in global average temperature relative to pre-industrial levels will result in drastic changes to the planet, endangering life as we know it.[2] In 2015, 196 of the world's nations adopted the Paris Agreement,[3] aiming to limit temperature rise to 1,5 °C.[4] The nations made the commitment to 1,5 °C firmer at COP26 in Glasgow in November 2021.[5] Achieving this goal will require unprecedented action and dedication from all parties. The Paris Agreement stipulates the use of finance as a tool to lower greenhouse gas emissions and promote a climate resilient development,[6] and with good reason: Sustainability projects are often capital intensive,[7] and immense amounts of capital are needed to power the shift towards a sustainable world.[8]

"Green finance" has emerged to tailor to this need.[9] A widely used green financial instrument is *green bonds*. In essence, green bonds are regular

1. The United Nations Environment Programme estimates that we need to cut global greenhouse gas emissions by 7.6% every year between 2020 and 2030 to limit global warming to 1.5 °C above pre-industrial levels, *see* U.N. Env't Programme, Emissions Gap Report 2019, 26 (2019), https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y. The European Environment Agency simply states that "[c]limate change is one of the biggest challenges of our times", *see* EUR. ENV'T AGENCY, https://www.eea.europa.eu/themes/climate/climate-change-is-one-of (last visited Jan. 26, 2022). In the recital of the UNFCCC of 1992, the parties acknowledge "that change in the Earth's climate and its adverse effects are a common concern of humankind . . . ." United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107.

2. The IPCC 2021 report describes several of the challenges we must overcome to save the planet, such as rising sea levels and more intense and frequent extreme weather, forcing large populations to emigrate. Valérie Masson-Delmotte et al. eds., *Summary for Policymakers, in Climate Change 2021: The Physical Science Basis. Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change,* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) (Aug. 7, 2021), https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf.

3. Paris Agreement to the U.N. Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

4. *Id.* at 3.

5. *See* Glasgow Climate Pact, P 21, U.N. Doc. FCCC/PA/CMA/2021/L.16 (Nov. 13, 2021) ("*resolves* to pursue efforts to limit the temperature increase to 1.5 °C . . . ").

6. Paris Agreement to the U.N. Framework Convention on Climate Change, *supra* note 3, at 3.

7. OECD, *Mobilising Green Bond Markets for a Low-Carbon Transition*, GREEN FIN. AND INV. 21-22 (2017), https://read.oecd-ilibrary.org/environment/mobilising-bond-markets-for-a-low-carbon-transition_9789264272323-en#page1.

8. One report estimates the cost of reaching the 1.5 °C target to be $131 trillion between now and 2050, *see* INTERNATIONAL RENEWABLE ENERGY AGENCY, WORLD ENERGY TRANSITIONS OUTLOOK: 1.5 °C PATHWAY 28 (June 2021). The 2017 OECD report estimates that the transition to a low-carbon future requires $89 trillion in infrastructure investments over the next 15 years. OECD, *supra* note 7, at 18. In comparison, the world's GDP in 2020 was $84,9 trillion (a decrease from 87.3 in 2019 due to Covid-19), *see* STATISTA, https://www.statista.com/statistics/268750/global-gross-domestic-product-gdp/ (last visited Jan. 21, 2022). Statista's estimation for the 2021 world GDP is $ 94.9 trillion. *Id.*

9. Empirical analysis identifies green finance as the best financial strategy for reducing CO2 emissions. Muhammad Saeed Meo & Mohd Zaini Abd Karim, *The role of green finance in reducing* CO_2

bonds whose proceeds are applied toward green projects.[10] Since their inception in 2007, the issuance of green bonds has grown rapidly.[11] Several types of entities may issue green bonds—companies, governments, NGOs, and banks. Banks sometimes issue a special kind of instrument known as contingent convertible bonds (CoCos). These are debt instruments that convert to bank equity upon the occurrence of a pre-determined trigger event.[12] A novelty in green finance is the labeling of CoCos as green. The nascent green bond market is littered with issues regarding transparency, accountability, and legitimacy. Green CoCos raise issues of their own, on top of those related to conventional green bonds.

B. PROBLEM

Given the seriousness of the climate crisis, one might assume that any tool created to try to mitigate climate change should be welcomed. This paper argues otherwise. Issuers of green CoCos try to make these instruments be both a financial tool and a climate change tool. This attempt is unsuccessful and undermines the original purpose of CoCos—to function as a regulatory capital instrument in the wake of the 2007–08 financial crisis. Therefore, regulatory changes are needed if green CoCos are to play an effective role in the green shift. In the following, I first provide an overview of the sources of law that I will apply and my methodological approach (Section I.C). I subsequently define green bonds, briefly touch on bank capital regulation, and explain green CoCos (Section II) before I assess how current and proposed regulation of the greenness of bonds applies to CoCos (Section III). Section III also exposes some adverse consequences of this regulation. Next, I discuss the legality of green CoCos under the eligibility criteria for what capital may constitute part of a bank's own funds, specifically the requirement that the instrument cannot include any incentives to redeem the instrument (Section IV). In Section V, I propose ring-fencing of banks' green assets as a mechanism to improve green CoCos' fitness as a climate change tool. Finally, I draw conclusions in Section VI.

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emissions: An empirical analysis, BORSA ISTANBUL REV. (2021), https://www.sciencedirect.com/science/article/pii/S2214845021000223?via%3Dihub.

10. *See infra*, Section II, for a more thorough explanation of green bonds.

11. Issuance grew approximately 175 times between 2007 and 2018 when, in comparison, issuance of ordinary bonds grew by 1.6 times. Caroline Flammer, *Green Bonds: Effectiveness and Implications for Public Policy*, *in* ENVIRONMENTAL AND ENERGY POLICY AND THE ECONOMY 95, 96 (Matthew J. Kotchen et al. eds., 2020). In 2020, the market reached $1 trillion worth in cumulative green bond issuance. STATISTA RSCH. DEP'T, *The green bond market in Europe - statistics & facts*, STATISTA (Dec. 16, 2021), https://www.statista.com/topics/6233/green-bonds-in-europe/#dossierKeyfigures.

12. *See*, *e.g.*, Angelos Delivorias, *Briefing May 2016: Contingent convertible securities: Is a storm brewing?*, EUR. PARLIAMENT RSCH. SERV. 1 (May 2016), https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/582011/EPRS_BRI(2016)582011_EN.pdf and TIMO KÖFFER, BASEL III – IMPLICATIONS FOR BANKS' CAPITAL STRUCTURE: WHAT HAPPENS WITH HYBRID CAPITAL INSTRUMENTS? 15 (2013).

C. SOURCES OF LAW AND APPLIED METHODOLOGY

The problem raised in this paper requires solicitation of both legal and quasi-legal frameworks, covering two main areas of law. One area is the regulation of financial instruments, and the other is the regulation of bank capital requirements.

The bond market is regulated by domestic and international securities laws. In the European Union (EU), which will be the jurisdiction of focus in this paper, MiFID II[13] and MiFIR[14] serve as core regulatory frameworks. The parties' rights and obligations vis-à-vis each other are primarily contractually regulated.[15] The *greenness* of bonds is currently regulated mainly by private governance in the form of market and issuer developed standards.[16] Two of the main market-developed standards are the Green Bond Principles (GBP) from the International Capital Market Association (ICMA) and the Climate Bonds Initiative's Climate Bonds Standard (CBS).[17] They contain no threats

13. Directive 2014/65, 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 O.J. (L 173) 349.

14. Regulation No 600/2014, of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation No 648/2012, 2014 O.J. (L 173) 84 (EU).

15. THOMAS LEE HAZEN, THE LAW OF SECURITIES REGULATION 717 (8th ed. 2021).

16. Some countries, for example Vietnam and China, have developed national standards. *See* THE PEOPLE'S BANK OF CHINA, *Notice on Issuing the Green Bond Endorsed Projects Catalogue (2021 Edition)*, NAT'L DEV. AND REFORM COMM'N & CHINA SEC. REGUL. COMM'N (Apr. 2, 2021) (Unofficial translation courtesy of the Climate Bonds Initiative), https://www.climatebonds.net/files/files/the-Green-Bond-Endorsed-Project-Catalogue-2021-Edition-110521.pdf; Vu Le Bang & Nguyen Thi Thanh Tram, *Vietnam: New corporate green bond legal framework*, INT'L FIN. L. REV. (Mar. 18, 2019), https://www.iflr.com/article/b1lmx9g42gd3rh/vietnam-new-corporate-green-bond-legal-framework (discussing Vietnam's legal framework for corporate green bonds under Decree 163/2018/ND-CP). An example of an issuer-developed standard is Citi's Green Bond Framework, which "Citigroup Inc and / or its subsidiaries may issue green bonds in accordance with." CITIGROUP INC., CITI GREEN BOND FRAMEWORK 3 (Jan. 2019), https://www.citigroup.com/citi/fixedincome/data/Citi-green-bond-framework.pdf. The Framework is developed in line with ICMA's Green Bond Principles. *Id.*

17. *See* ICMA, *Voluntary Process Guidelines for Issuing Green Bonds*, THE GREEN BOND PRINCIPLES (June 2021), https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Bond-Principles-June-2021-140621.pdf, and Climate Bonds Initiative (CBI), *International best practice for labelling green investments*, CLIMATE BONDS STANDARD VERSION 3.0 (Dec. 2019), https://www.climatebonds.net/files/files/climate-bonds-standard-v3-20191210.pdf, respectively. ICMA is a not-for-profit association serving the interests of its members consisting of, among others, banks, stock exchanges members, securities dealers, and asset and fund managers. *See* ICMA, https://www.icmagroup.org/About-ICMA/ (last visited Jan. 13, 2022). CBI is an international investor-focused not-for-profit organization, more specifically focused on climate-friendly investing. Its purpose is "to promote large-scale investments that will deliver a low-carbon and climate-resilient global economy", aiming to "mobilise investors, industry and government to catalyse green investments at the speed and scale required to avoid dangerous climate change and meet the goals of the Paris Climate Agreement". Climate Bonds Initiative, *supra* at 3. The drafting of the CBS is overseen by the Climate Bonds Standard Board, which also awards CBS certifications. The board comprises "large institutional investors and leading environmental NGOs…." *Id.* at 4. As of January 2022, the Board consists of seven entities, among others, California State Teachers Retirement System, Investor Group on Climate Change, and The Natural Resources Defense Council. Together, the Board members represent USD 51 trillion of assets under management. *Climate Bonds Standard Board,* CLIMATE BONDS INITIATIVE, https://www.climatebonds.net/standard/governance/board (last visited Jan. 13, 2022). The composition

of sanctions other than revocation of the green label to issuers who breach such a revocation may have reputational consequences–the standards remain pure soft law.[18] However, there are developments in Europe. In July 2021, the European Commission put forth a proposal for regulating European green bonds.[19] I will come back to this proposal in section III.

As to prudential regulation,[20] the EU framework is vast and detailed. The EU Capital Requirements Directive IV (CRD IV)[21] and Capital Requirements Regulation (CRR),[22] as amended by CRD V[23] and CRR II,[24] respectively, build on Basel III.[25] Basel III is developed by the non-governmental Basel Committee on Banking Supervision (BCBS) and has no legal authority.[26] Rather, the BCBS relies on the nations and regions of the

and leadership of both ICMA and CBI illuminate the prominent self-regulation that is characteristic for the green bond space, and the potential conflicts of interest this constellation may create.

18. Further development of the legal framework is seen by many as a necessity for further growth of the market. *See*, *e.g.*, Stephen Kim Park, *Investors as Regulators: Green Bonds and the Governance Challenges of the Sustainable Finance Revolution*, 54 STAN. J. INT'L L. 1, 46 (2018): "The future of the green bond market hinges on its legal infrastructure at least as much as—if not more than—its financial underpinnings."

19. *Proposal for a Regulation of the European Parliament and of the Council on European Green Bonds*, COM (2021) 391 final (July 6, 2021) [hereinafter the EuGB Proposal].

20. Prudential regulation is rules related to the stability and safety of both financial institutions and the financial system as a whole. *See*, *e.g.*, LARISA DRAGOMIR, EUROPEAN PRUDENTIAL BANKING REGULATION AND SUPERVISION: THE LEGAL DIMENSION 2 (2010): "[P]rudential issues encompass all those preventive measures intended to ensure the soundness and safety of individual institutions (micro-prudential aspects) and of the system as a whole (macro-prudential aspects) so as to preclude the emergence of individual or systematic banking crises." *See also*, AUSTRALIAN PRUDENTIAL REGUL. AUTH. (APRA), https://www.apra.gov.au/what-prudential-regulation (last visited Jan. 13, 2022): "[P]rudential regulation is a legal framework focused on the financial safety and stability of institutions and the broader financial system." EU rules on prudential requirements mainly concern the amount of capital and liquidity that banks hold. EUROPEAN COMMISSION, https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-supervision-and-risk-management/managing-risks-banks-and-financial-institutions/prudential-requirements_en (last visited Jan. 13, 2022).

21. Directive 2013/36, of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, 2013 O.J. (L 176) 338 [hereinafter CRD IV].

22. Regulation No 575/2013, of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 Text with EEA relevance, 2013 O.J. (L 176) 1 [hereinafter CRR].

23. Directive 2019/878, of the European Parliament and of the Council of 20 May 2019 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures, 2019 O.J. (L 150) 253.

24. Regulation 2019/876, of the European Parliament and of the Council of 20 May 2019 amending Regulation 575/2013 as regards to the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation 648/2012, 2019 O.J. (L 150) 1, 225.

25. BIS, THE BASEL FRAMEWORK, https://www.bis.org/basel_framework/index.htm?m=3_14_697 (last visited Nov. 24, 2021).

26. BIS, BASEL COMMITTEE CHARTER Article 3, https://www.bis.org/bcbs/charter.htm. BCBS members include organizations with "direct banking supervisory authority and central banks." *Id.* Article 4. This includes 45 institutions from 28 jurisdictions, among them major powers such as the EU, the US,

Committee members to implement its decisions and recommendations as law.[27]

When interpreting EU legislative acts, EU legal method must be applied. The European Court of Justice (ECJ) laid out its rules of interpretation in *CILFIT*.[28] The starting point is the natural meaning of the provision's language, comparing the equally authentic language versions.[29] The Court underlines that legal concepts may not have the same meaning in EU law and the Member States' national law.[30] EU law provisions must furthermore be placed in their context and read "in the light of the provisions of community law as a whole, regard being had to the objectives thereof and to its state of evolution at the date on which the provision in question is to be applied."[31] These guidelines will govern the interpretation of the CRD IV, the CRR, and the European green bond standard proposal. Regarding the EU's state of evolution at the time of application entails that the Union's green objectives, as expressed in the EU Green Deal,[32] will guide the interpretation. Case law from EU courts interpreting the provisions of EU legislative acts relevant to this paper, is scarce. Other EU institutions, however, have published comments and guidelines.[33] EBA is an important prudential regulator in the EU and has wide discretion in determining the eligibility of instruments as capital instruments. Therefore, the regulator's view, expressed through reports or other statements, carries weight in interpreting eligibility criteria under the CRR.

II. GREEN BONDS, BANK CAPITAL REQUIREMENTS, AND COCOS

A. DEFINING A GREEN BOND

A *bond* is essentially a certificate of indebtedness,[34] issued by corporations, governments, and non-governmental organizations to borrow

and China. *See* BIS, BASEL COMMITTEE MEMBERSHIP, https://www.bis.org/bcbs/membership.htm (last visited Nov. 24, 2021).

27. BASEL COMMITTEE CHARTER Article 3.

28. Case 283/81, Srl. CILFIT and Lanificio di Gavardo SpA v. Ministry of Health, 1982 E.C.R. 3415.

29. *Id.*, at para. 18.

30. *Id.*, at para. 19.

31. *Id.*, at para. 20.

32. The European Green Deal Investment Plan of January 14, 2020, "is the Union's response to the climate and environment-related challenges that are this generation's defining task. It is a new growth strategy this generation. It aims to transform the Union into a modern, resource-efficient and competitive economy with no net emissions of greenhouse gases by 2050." EuGB Proposal, *supra* note 19, at 4.

33. *See, e.g.*, European Banking Authority, EBA REPORT ON THE MONITORING OF ADDITIONAL TIER 1 (AT1) INSTRUMENTS OF EUROPEAN UNION (EU) INSTITUTIONS – UPDATE, EBA/REP/2021/19 (June 24, 2021), https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2021/1015682/Report%20on%20the%20monitoring%20of%20Additional%20Tier%201%20instruments%20of%20EU%20institutions.pdf.

34. American Bar Association. Young Lawyers Division. Securities Law Committee. *Securities Law Glossary.* (1991).

money from the market.[35] Investors lend long-term capital to issuers by purchasing their bonds.[36] These investors become bondholders. As compensation for their credit risk, bondholders receive regular interest payments until the bond matures or otherwise retires,[37] and the issuer repays the principal. The large number of bondholders enables the issuer to lend larger sums of money cheaper than it would through a bilateral or syndicated bank loan.[38] This feature is especially attractive to governments and corporations developing capital intensive sustainability projects where the financial returns are slow.

Green bonds are financially structured similarly to conventional bonds.[39] The term "green finance" is generally used to describe any structured financial activity created to improve environmental outcomes.[40] Therefore, the main difference between green and conventional bonds, lies in how the bond proceeds are used. The term "green", however, is inherently ambiguous. Several attempts have been made to coin a more precise term.[41] One can combine the definition of a bond with a general explanation of green finance, making green bonds "fixed-income instruments aimed at financing environmental and sustainable development projects[42] or debt securities that link "finance to projects that claim environmental benefits."[43] The Climate Bonds Standard defines a green bond as "[a] bond … where the proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible green projects, and which is aligned with the four core components of the Green Bond Principles or the Green Loan Principles."[44] The definitions, although not completely harmonious, illustrate the essential difference between a green and conventional bond: green bonds finance sustainable projects in some form. However, determining which securities deserve the label "green," remains one of the

35. Ryan Jones, et al., *Treating Ecological Deficit with Debt: The Practical and Political Concerns with Green Bonds*, 114 GEOFORUM 49, 50 (2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7274626/.

36. *Id.*

37. *Id.* It is not uncommon that bonds are callable or redeemable. Such bonds can be paid off by the issuer prematurely. Because their rate of return is known to the investor, bonds are commonly known as a type of fixed income instruments. *See* U.S. Securities and Exchange Commission, *Callable or Redeemable Bonds*, INVESTOR.GOV, https://www.investor.gov/introduction-investing/investing-basics/glossary/callable-or-redeemable-bonds (last visited Jan. 26, 2022).

38. *See* OECD, *supra* note 7, at 21.

39. Ryan Jones, et al., *supra* note 35, at 50.

40. Sean Fleming, *What is Green Finance and Why Is It Important?*, WORLD ECON. F. (Nov. 9, 2020), https://www.weforum.org/agenda/2020/11/what-is-green-finance/.

41. *See* Nannette Lindenberg, DEFINITION OF GREEN FINANCE 1-2 (June 6, 2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2446496, with further references.

42. Pauline Deschryver & Frederic de Mariz, *What Future for the Green Bond Market? How Can Policymakers, Companies, and Investors Unlock the Potential of the Green Bond Market?*, 13(3) 61 J. OF RISK AND FIN. MGMT. 2 (2020), https://doi.org/10.3390/jrfm13030061.

43. Ryan Jones, et al., *supra* note 35, at 49.

44. Climate Bonds Initiative, *supra* note 17, at 8.

main challenges facing the market in its search for further growth, transparency, and legitimacy.

A special type of bonds are *convertible bonds*. Holders of convertible bonds may convert the bonds into common stock or other securities of the issuer.[45] As such, convertible bonds are hybrid securities—they combine debt and equity features in one instrument.[46] Convertible bonds may be labeled green under the same standards as conventional bonds.[47] Another novel development in the green finance sphere is to label *contingent convertible bonds*, or "CoCos," as green.[48] This instrument is the focus of this paper. To explain CoCos, it is necessary to first briefly explain the regulation of bank capital requirements.

B. BANK CAPITAL REQUIREMENTS IN THE EU

Under prudential regulatory frameworks, banks must maintain certain minimum capital requirements[49] (i.e., a certain amount of assets). A bank's assets consist of loans, securities, and other claims on customers.[50] The bank finances these assets with capital instruments, customer obligations, and senior debt.[51] The capital instruments are made up of obligations of the bank's investors and are divided into Common Equity Tier 1 capital (CET1), Additional Tier 1 capital (AT1), and Tier 2 capital (T2).[52] Chapter 4 of CRD IV regulates capital buffers,[53] while Chapter 3, Section 1 of CRR sets out the criteria for financial instruments to qualify as AT1 capital.

The purpose of these requirements is to ensure the solvency of institutions and thus avoid a disturbance of banks as critical institutions in

45. William W. Bratton, *The Economics and Jurisprudence of Convertible Bonds*, 1984 WIS. L. REV. 667, 669 (1984).

46. *Id. See also*, KAMIL LIBERADZKI & MARCIN LIBERADZKI, HYBRID SECURITIES: STRUCTURING, PRICING AND RISK MANAGEMENT 1-2 (1st ed. 2016) (describing convertible bonds as "transforming" instruments).

47. An example is renewable energy producer Neoen's 2020 €170 million European green convertible bond issue, aligned with the GBP and the main provisions of the proposed EU Green Bond Standard, verified by external reviewer Vigeo Eiris. *See* Vigeo Eiris, *Vigeo Eiris has Provided an SPO on the Sustainability of Neoen's Green Bond Framework*, VIGEO EIRIS: COMPANY AND ORGANIZATION NEWS (June 4, 2020), https://vigeo-eiris.com/vigeo-eiris-has-provided-an-spo-on-the-sustainability-of-neoens-green-bond/.

48. One example is the bank BBVA's 2020 €1 billion green hybrid bond issue. *See* BBVA, *BBVA raises €1bn in first-ever green CoCo bond by a financial institution*, BBVA COMMUNICATIONS (July 8, 2020), https://www.bbva.com/en/bbva-is-the-first-financial-institution-in-the-world-to-issue-green-coco-bonds/.

49. *See, e.g.*, CRD IV, *supra* note 21, at Chapter 4.

50. Thomas Huertas, *A Resolvable Bank* (2015). *Chapter in Making Failure Feasible: How Bankruptcy Reform Can End Too Big to Fail* 132 (Ken Scott & John Taylor eds., 2015), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2571176.

51. *Id.*

52. BIS, *supra* note 25, at Article 10.1; CRR Articles 4(71), 72, and 25. *See also* Latham & Watkins, *Contingent Convertible Bonds in the European Union: Structuring Considerations and Current Legal Issues*, 1373 CLIENT ALERT NUMBER 1-2 (July 24, 2012), https://www.lw.com/thoughtLeadership/contingent-convertible-bonds-eu.

53. *See*, especially, Articles 129-33 and 141-42.

society.[54] By requiring banks to maintain capital buffers, taxpayers are less likely to suffer through the types of bail-out that were necessary under the 2007–08 financial crisis.[55] Contingent convertible bonds are meant to alleviate some of the restraints that prudential regulations impose on the banks, such as limitations on banks' ability to grant loans.

C. GREEN CONTINGENT CONVERTIBLE BONDS

Capital requirements are the background for why banks are the main issuers of contingent convertible bonds.[56] This is debt that banks can issue and that converts into equity under certain conditions. CoCos' hybrid nature—the combination of debt and equity—allows banks to count CoCos' value towards their AT1 capital, thus making it easier to maintain their capital buffers. They are in a sense "bail-out" bonds, but the bail-out comes from the bondholders and not the public. Because of CoCos' function as AT1-boosters, they are commonly referred to as AT1 bonds when they are issued by banks.

CoCos have two main characteristics: a trigger mechanism and a loss absorption mechanism.[57] This distinguishes CoCos from simple convertible bonds, where the investors freely choose when to convert the bonds into equity.[58] The trigger is important because it determines the probability, and therefore, the risk of conversion.[59] The trigger can be either mechanical, discretionary, or a combination of both features.[60] While mechanical triggers are based on either market value or book value of the issuing bank, discretional triggers are activated by a supervisory authority (i.e., a prudential regulator.)[61] The loss absorption mechanism either converts the debt into equity at a predetermined rate or writes down the principal by reducing the book value of the debt.[62] While CET1 is the primary source of loss absorption, and the most expensive, AT1 equity instruments "are intended to absorb low-probability, relatively high-impact losses, such as

54. CRD IV Recital (34). *See also* CRR Recital (32) ("Considering the devastating effects of the latest financial crisis the overall objectives of this Regulation are to encourage economically useful banking activities that serve the general interest and to discourage unsustainable financial speculation without real added value.").

55. CRD IV Recital (34) ("If, notwithstanding the solvency requirements, a crisis occurs, it is necessary to ensure that institutions can be resolved in an orderly manner, limiting the negative impact on the real economy and avoiding the need for taxpayers to step in.").

56. CoCos are also issued by insurance companies and other financial institutions.

57. CRR Article 52(1)(n). *See also*, Delivorias, *supra* note 12. KÖFFER, *supra* note 12. Köffer defines contingent convertible bonds as "[a] convertible bond which automatically converts into a previous amount of shares when a pre-set trigger is reached within the duration of the bond."

58. The loss absorption mechanism also makes CoCos a riskier investment than conventional senior-ranked bonds.

59. KÖFFER, *supra* note 12, at 24.

60. Delivorias, *supra* note 12.

61. Jan De Spiegeleer & Wim Schoutens, SUSTAINABLE CAPITAL INSTRUMENTS AND THEIR ROLE IN PRUDENTIAL POLICY: REVERSE GREEN BONDS 7 (July 4, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3415184.

62. Delivorias, *supra* note 12, at 4.

those that would cause the bank to breach a minimum requirement or become insolvent."[63]

The main effect of CoCos, therefore, is to allow banks to be self-funded and fulfill their capital requirements more cheaply than they would with equity.[64] These instruments can repair balance sheets or facilitate orderly resolutions of banks, without necessitating issuance of extra equity by banks in crises.[65] Triggering CoCos is "a quick and effective way" of bringing a bank that has incurred losses back on sounder financial footing.[66] Moreover, the shift of the costs of bank failure from taxpayers to equity and debt investors incentivizes the investors to more closely monitor the banks.[67]

The rationale behind green CoCos, in addition to that behind CoCos in general, is essentially the same for green conventional bonds: to funnel capital towards sustainable activities. Issuers might also pursue reputational benefits[68] by highlighting green objectives and dedications to all its stakeholders.[69] And, naturally, green bonds can help issuers achieve those objectives.[70] However, CoCos are still, first and foremost, a financial tool to maintain bank capital requirements. Their regulatory functions differentiate CoCos from other financial instruments that in recent years have been used in attempts, with varying degrees of success, to promote sustainability. Such instruments include equities like green index funds or actively managed portfolios.[71] Green CoCos are also different from any green conventional

63. *Id.* at 3.

64. *Id.* at 1.

65. *Id.*

66. Stefan Avdjiev, et al., COCO BOND ISSUANCE AND BANK FUNDING COSTS (2015), https://www.aeaweb.org/conference/2016/retrieve.php?pdfid=12867&tk=8yHfbDKy. CoCos also face criticism, *see*, Delivorias, *supra* note 12, at 6-7. An analysis of CoCos in themselves is outside the scope of this paper.

67. *See* Natalya Martynova & Enrico Perotti, *Convertible bonds and bank risk-taking*, 480 DNB WORKING PAPER 1 (Aug. 2015), https://www.dnb.nl/media/wk2lxkc5/working-paper-480.pdf; Delivorias, *supra* note 12, at 6.

68. BANK+INSURANCE HYBRID CAPITAL, GREENING BANK CAPITAL 34 (2Q 2018), http://bihcapital.com/wp-content/uploads/bihc15.pdf: (comment from participant John Arne Wang) ("Green capital would also be about messaging . . .").

69. EU TECHNICAL EXPERT GROUP ON SUSTAINABLE FINANCE, FINANCING A SUSTAINABLE EUROPEAN ECONOMY: REPORT ON EU GREEN BOND STANDARD 19 (June 18, 2019), https://ec.europa.eu/info/files/190618-sustainable-finance-teg-report-green-bond-standard_en.

70. BBVA, for example, states that its green CoCo contributes toward the bank's objective of "[h]elping [its] clients transition toward a sustainable future." BBVA, *supra* note 48. The bank has committed to providing €100 billion in sustainable financing by 2025. *See* Charlene Malik, *Green AT1 Raises More Questions Than Answers*, VONTOBEL: TWENTYFOUR ASSET MGMT. (July 7, 2020), https://am.vontobel.com/en/insights/green-at1-raises-more-questions-than-answers.

71. James Chen, *What is Green Investing?*, INVESTOPEDIA (Sept. 12, 2021), https://www.investopedia.com/terms/g/green-investing.asp (last visited Jan. 23, 2022) (naming "green bonds, green ETFs, green index funds, green mutual funds, or hold[ing] stock in environmentally-friendly companies to support green initiatives" as examples of green investments). While such instruments may prove good investments financially, the actual environmental impact may be questionable. *See, e.g.*, Jan P. Krahnen et al., *A primer on green finance: From wishful thinking to marginal impact*, 87 SAFE WHITE PAPER (Oct. 2021), https://safe-frankfurt.de/fileadmin/user_upload/editor_common/Policy_Center/SAFE_White_Paper_No._87.pdf.

bonds a bank may issue because these bonds do not convert to equity, thereby dodging the issues highlighted below in Section III.C. The vast range of already existing options for corporations to pursue environmental objectives should prompt scrutinous review of any novel instrument's eligibility as a climate change tool. For green CoCos, at least one important question arises: What happens when sustainability objectives of a bank issuing green CoCos clash with prudential regulation? And if the sustainability objectives yield in this conflict, what is left of the issuer's green commitments?

III. PROTECTION OF THE GREEN LABEL UPON CONVERSION OF A GREEN COCO

A. IMPLICATIONS OF CONVERSION UNDER CURRENT REGULATION OF GREENNESS

Upon conversion, CoCos cover losses across the whole balance sheet of the bank, regardless of whether those losses relate to green assets or not.[72] Currently, the regulatory function of AT1 instruments prohibits mechanisms that prevent this entity-wide coverage.[73] Therefore, the voluntary standards that govern the greenness of bonds, such as the GBP and the CBS, are inadequate to regulate green CoCos. These instruments are not mentioned in the GBP and appear to be ineligible for certification under the CBS.[74] The first ever issuer of a green CoCo, the Spanish bank BBVA, does apply the GBP eligibility criteria in the bank's definition of "Green Projects" that may be funded through its green CoCo.[75] However, any initial eligibility of the bond is necessarily unprotected upon conversion, exactly because the debt converted to capital may be applied to absorb losses across the whole balance

72. Under CRR Article 52(1)(f), the instruments cannot be subject to "any arrangement . . . that enhances the seniority of the claim under the instruments in insolvency or liquidation" and under Article 52(1)(o), the provisions governing the instruments cannot include any feature that could "hinder the recapitalisation of the institution."

73. *See* European Banking Authority, *supra* note 33, at 33. ("From a regulatory perspective, it is key to guarantee that there is no direct link between the ESG assets and the notes.") EBA wants issuers to include "explicit provisions in the documentation stating that proceeds from own funds and eligible liabilities issuances should cover all losses in the balance sheet regardless of whether the bonds are labelled Green or ESG and regardless of whether the losses stem from Green/ESG assets or other assets." *Id.*

74. Annex 1 to the CBS lists the "[b]onds, loans and other debt instruments which are eligible" for certification. Climate Bonds Initiative, *supra* note 17, at 30. The wording "[t]he following types of debt instruments are eligible for Certification" suggests that the list is exhaustive. Convertible bonds, which investors have "the right but not the obligation" to convert, are listed, but not contingent convertible bonds. *Id.* Investors are, as mentioned above, obliged to convert these bonds upon occurrence of the trigger event.

75. BBVA, SERIES 10 €1,000,000,000 NON-STEP-UP NON-CUMULATIVE CONTINGENT CONVERTIBLE PERPETUAL PREFERRED TIER 1 GREEN SECURITIES 140 (July 16, 2020), https://shareholdersandinvestors.bbva.com/wp-content/uploads/2020/07/2020-07-15-BBVA-Folleto-AT1-VERSIÓN-FINAL.pdf [hereinafter BBVA Prospectus]. With its 2020 €1 billion AT1 issue, BBVA became the first bank to issue a green CoCo. BBVA, *supra* note 48.

sheet of the bank. In other words: the bank's sustainability objectives yield to prudential regulation.

B. IMPLICATIONS OF CONVERSION UNDER THE PROPOSED EU REGULATION ON GREEN BONDS

i. Background of the EuGB Proposal

In June 2021, the European Commission proposed an EU regulation on green bonds (the "EuGB Proposal") as part of the broader EU agenda on sustainable finance.[76] The EuGB Proposal sets out "uniform requirements for issuers of bonds that wish to use the designation 'European green bond' or 'EuGB,'" and "establishes a registration system and supervisory framework for external reviewers" of such bonds.[77] The Commission wants to "facilitate further developing the market for high-quality green bonds, thereby contributing to the Capital Markets Union, while minimizing disruption to existing green bond markets and reducing the risk of greenwashing."[78] And aiming to operationalize targets formulated in the EU Green Deal,[79] the Commission anchors the standard in the EU Taxonomy Regulation.[80] A core requirement under the EuGB Proposal is that the use of proceeds "shall relate to economic activities that meet the taxonomy requirements . . . ." or will meet them within a certain time.[81] This provides an unprecedented system for classifying activities as eligible for financing from green bonds and may greatly improve the legitimacy and accountability of the green bond market.

ii. The EuGB Proposal's Application to CoCos

The proposed regulation will apply to "bonds."[82] Under its plain meaning, this includes any type of bond, including contingent convertible bonds. The term is not further defined neither in the EuGB Proposal nor other EU legislative acts. Article 4(1) does admittedly state which assets the proceeds must be allocated to "[b]efore the maturity of the bond . . . ." This

76. EuGB Proposal, *supra* note 19.

77. *Id.* at Article 1.

78. *Id.* The Capital Markets Union (CMU) is "a plan to create a single market for capital. The aim is to get money – investments and savings – flowing across the EU so that it can benefit consumers, investors and companies, regardless of where they are located." EUROPEAN COMMISSION, https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union/what-capital-markets-union_en (last visited Jan. 22, 2021). Among the main objectives is to "help Europe deliver its New Green Deal and Digital Agenda." *Id.*

79. The European Green Deal Investment Plan of January 14, 2020, "is the Union's response to the climate and environment-related challenges that define this generation. It aims to transform the Union into a modern, resource-efficient and competitive economy with no net emissions of greenhouse gases by 2050." EuGB Proposal, *supra* note 19, at 4.

80. Regulation (EU) 2020/852, of the European Parliament and of the Council of June 18, 2020, on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. 2020 O.J. (L 198) 13, 43 [hereinafter the EU Taxonomy Regulation].

81. EuGB Proposal, *supra* note 19, at Article 6(1).

82. *Id.* at Article 1.

phrasing may implicitly suggest that the bond cannot be perpetual. CoCos are perpetual instruments.[83] However, a bond without a maturity date would also be able to fulfill the criteria: If maturity by definition never happens, the allocation can still happen "before maturity." Furthermore, the Commission comments on the relationship to CRD IV. A EuGB designation "is without prejudice to the requirements of" CRD IV, and the EuGB Proposal should not "be interpreted as restricting the power to write down or convert relevant capital instruments or liabilities of an institution pursuant to" that directive. These comments imply that capital instruments such as CoCos may be labeled green under the European standard. However, the statement also shows that the EuGB Proposal does not offer any stronger protection of the green label upon conversion than what the current standards for green labels do. The Commission's weighing of interests, from which the interest of preserving financial stability comes out heavier than the interest of increasing the accountability of the green bond market, illustrates and highlights CoCos' inadequacy as a climate change tool without regulatory amendments.

C. SOME CONSEQUENCES OF INADEQUATE REGULATION

The current and proposed regulation of the greenness of bonds exposes several weaknesses in how any type of bonds, hereunder CoCos, ensure actual, positive environmental impacts. Here, I will discuss a few of them, using the terms of the BBVA green CoCo issue as an illustration.

i. The regulation allows for vague and flexible sustainability commitments

According to the prospectus (the "Prospectus"), BBVA will apply "[a]n amount equal to the net proceeds from the issue" to finance or refinance green projects on a portfolio basis.[84] If the bank follows through, they will dedicate almost €1 billion to green activities. From an environmental perspective, that would naturally be beneficial. Put the terms under stricter scrutiny, however, and the commitments towards sustainability goals appear vague, unable to guarantee any environmental benefits.

It is the "intention" of BBVA to apply the proceeds towards green projects, but there can be "no assurance" that the bank will be able to do this.[85] The plain meaning of the word "intention" is merely to want to accomplish something. The language entails no legally binding commitment

83. *See, e.g.*, CRR Article 52(1)(g).

84. BBVA Prospectus, *supra* note 75, at 140.

85. *Id.* at 41. Furthermore, on page 140 of the Prospectus, BBVA states that it "will endeavour to apply a percentage of the net proceeds of the Preferred Securities in financing Green Projects originated in 2020." *Id.* at 140. Some have interpreted "endeavor to apply a percentage of the net proceeds" as relating to any use of the proceeds at all, *see* Malik, *supra* note 70. A contextual read of the terms, however, makes it clear that the "endeavour" ties to applying a percentage of proceeds towards green projects from 2020. The overall commitment remains to spend an amount "equal to the net proceeds" towards green projects, but projects of any age.

to achieve specific results—the green objectives are to be pursued on a best-effort basis. Moreover, the "intention" only covers using the proceeds "substantially in" the manner as described in the Prospectus.[86] BBVA also makes a disclaimer as to the completion [87]

BBVA does exclude financing of certain activities. The proceeds "will not be used" to finance, among other things, nuclear power generation, "carbon related" activities, or oil and gas activities.[88] The term "carbon related" is broad. Its plain meaning excludes large parts of possible non-green investments. However, not all non-green investments are environmentally damaging because of their connection to carbon. Under the EU Taxonomy Regulation, for example, an economic activity does not qualify as environmentally sustainable if it "significantly harm[s]" the "sustainable use and protection of water and marine resources," where that activity is "detrimental . . . to the good environmental status of marine waters . . . ."[89] Such activities are not explicitly excluded under BBVA's own framework.

The language "will not be used" indicates that BBVA obliges itself to not use bond proceeds towards the listed activities. The bank's green bond framework seems to confirm such an interpretation. In their Sustainable Developments Goals (SDGs), BBVA emphasizes that bond proceeds will "not . . . under any circumstances" be used towards these activities.[90] This seemingly contradicts the best-effort commitment in the Prospectus, even more so when the Prospectus defines "Green Projects" as those projects eligible under BBVA's own SDGs, the GBP, or the EU Taxonomy Regulation.[91] The SDGs, however, do not constitute a legal obligation. The Prospectus explicitly states that "[n]either the SDGs Bond Framework, nor any of the . . . reports [or] verification assessments . . . are incorporated in or form part of" the Prospectus.[92] A breach of the SDGs would therefore not be sanctionable under the EU Prospectus Regulation.[93] And because the framework in itself constitutes no formal regulation, breaching it would also be without any other legal consequences.

86. BBVA Prospectus, *supra* note 74, at 41.

87. *Id.*

88. *Id.* at 140.

89. EU Taxonomy Regulation Article 17(1)(c)(ii). *Cf.* Article 3(b).

90. BBVA, SUSTAINABLE DEVELOPMENT GOALS (SDGS) BOND FRAMEWORK 6 (Apr. 2018), https://shareholdersandinvestors.bbva.com/wp-content/uploads/2018/04/BBVA-SDGs-Bond-Framework_23042018_Eng.pdf [hereinafter BBVA SDGs]. The SDGs are BBVA's green bond framework.

91. BBVA Prospectus, *supra* note 75, at 140. Green Eligible Categories under BBVA's framework are energy efficiency, sustainable transport, water, waste management, and renewable energy, *see* BBVA SDGs, *supra* note 89, at 5.

92. BBVA Prospectus, *supra* note 75, at 140.

93. 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, 2017 O.J. (L 168) 12, 82 [hereinafter the Prospectus Regulation].

A final remark to the vagueness of BBVA's commitments, relates to the question of what happens when green projects cease to exist. An important feature of CoCos is that they are perpetual,[94] meaning that they have no maturity date.[95] Meanwhile, current green bond frameworks are linked to *assets* when defining eligible uses of proceeds. For banks, this means that the frameworks are linked to the loans they are providing in the green sector. Unlike CoCos, assets are not perpetual. Therefore, the banks need to keep a sufficiently large pipeline of green projects to fund with the bond proceeds to not violate the framework during the lifetime of the bond. This creates an additional burden for issuing banks as they need to commit, virtually in perpetuity, to re-plenish and maintain their green portfolios. For this reason, some market practitioners even claim that the concepts on which the current green bond frameworks are built—mainly the use-of-proceeds model—do not work for capital instruments such as AT1s.[96] Nonetheless, BBVA has apparently taken on this additional burden. BBVA claims it will substitute financed green projects that cease to exist or cease to be eligible, with a compliant green project within the relevant portfolio.[97] However, the documentation does not solve the issue of what happens when there are no compliant substitutes available. Since the pursuit of the green objectives is a best-effort commitment, it is reasonable to understand the documentation's silence as that BBVA simply will not reinvest in green projects should their portfolio be empty.

The commitments are not only vague—they are also flexible, seemingly undermining the outwardly expressed intention of making green investments. It is sufficient for meeting BBVA's definition of green projects that either 80% of the amount of financing is used for eligible projects, or that 80% of the business of the borrower of the funds falls under the eligible projects.[98] Eligible project types are, as mentioned, those listed in BBVA's own framework, the GBP, or the EU Taxonomy Regulation.[99] Although 80% is a substantial amount, it leaves room for circumvention. In theory, a borrower may receive funds from BBVA and spend them on the 20% of its business that is not green, and the projects would still count towards BBVA's green portfolio. That would constitute a flagrant example of greenwashing. Since green finance also is about messaging, one could hope that both BBVA and borrowers avoid such solutions. Legally, however, there are no obstacles. Obtaining and publishing "the relevant reports, assessments, opinions and certifications" as defined in the terms and SDGs, efforts that

94. *See, e.g.*, CRR Article 52(1)(g).

95. James Chen, *Perpetual Bond*, INVESTOPEDIA (Mar. 19, 2020), https://www.investopedia.com/terms/p/perpetualbond.asp (last visited Jan. 22, 2022).

96. *See* BIHCapital, *supra* note 68, at 27 (a comment from participant John Arne Wang).

97. BBVA Prospectus, *supra* note 75, at 140.

98. *Id.*

99. *Id.*

are meant to increase transparency and accountability as to the greenness of the instrument,[100] are merely committed to on a best-effort basis.[101]

If it were to be shown that the issuer violated any of these vague terms, the investor protection is weak. Such a violation is often referred to as a "green default," and the limited recourse investors have in these situations is a problem that relates to all green finance instruments.[102] Events of default are predefined circumstances that would put the borrower in breach of contract,[103] set out in the bond documentation. If such an event occurs, the lender may usually demand full repayment immediately. The function of these clauses is to provide recourse for the bondholders should the issuer fault. A "green default," therefore, occurs if the issuer defaults on its environmental objectives and commitments.[104] While conventional events of default normally tie to financial circumstances, green defaults are non-financial.

The BBVA Prospectus states that there are "no events of default" for the CoCo.[105] Nor will a green default give rise to any claims against the bank.[106] The bank openly admits that this can have adverse effects for investors,[107] especially for investors with specific mandates to maintain a certain portion of its portfolio green.[108] Such investors may face sanctions of its own should they breach the mandates. Nor is it a good option to include a sustainability trigger or call option. Similar solutions have successfully

100. Such measures are recommended under ICMA's GBP and required under CBI's CBS. *See* ICMA, *supra* note 17, and Climate Bonds Initiative, *supra* note 17.

101. BBVA Prospectus, *supra* note 75, at 40.

102. Leading practice in the green bond market is to include a disclaimer saying that loss of green certification does not constitute an event of default. Clare Corke, Julie Myers & Cameron Busch, *Green Bonds Series: Part 4 - When "green" bonds go brown,* LEXOLOGY (Oct. 17, 2019), https://www.lexology.com/library/detail.aspx?g=0a6503d3-d4ff-44fc-ab2b-5166c157f630. *See also*, Lloyd Freeburn & Ian Ramsay, *Green Bonds: Legal and Policy Issues*, 15:4 CAP. MKTS. L.J. 418*,* 441 (2020), htthttps://ssrn.com/abstract=3715969.

103. *See* AMERICAN BAR ASSOCIATION, *supra* note 34, defining "default" as "the failure to fulfill a contract." Default generally "refers to the failure to pay interest of principal on debt obligations." *Id. See also* Adam Hayes, *Event of Default*, INVESTOPEDIA (Nov. 29, 2020), https://www.investopedia.com/terms/e/event-of-default.asp (last visited Jan. 22, 2022). Typical events of default are non-payment or late payment of interest, breach of material representations and warranties or covenants, and insolvency. *Id.*

104. An example of a green default was when the Syracruse Industrial Development Agency, to finance an addition to a shopping mall, issued a green bond promising to develop a 45 MW power plant running on soybean and recycled cooking oils, enough solar panels to cover six football fields, and 7 MW worth of fuel cells. The issuer never delivered on its promises. *See* Motoko Aizawa, *Green Bonds: a reflection by Climate Bonds Senior Fellow Motoko Aizawa from our NYC legal workshop*, CLIMATE BONDS INITIATIVE (May 3, 2015), https://www.climatebonds.net/2015/05/reflections-legal-issues-associated-green-bonds-reflection-climate-bonds-senior-fellow.

105. BBVA Prospectus, *supra* note 75, at 36.

106. *Id.* at 37. Nor will failure to fulfill any green commitments or related actions such as reporting lead to an obligation for BBVA to redeem the bond. *Id.*

107. *Id.* at 41.

108. *See id.* ("Green Projects may not meet any or all investor expectations regarding such 'green' or other equivalently-labelled performance objectives or fulfil any environmental, social, sustainability and/or other criteria or guidelines with which such investor is or its investments are required to comply.").

been applied in the green loan market and might be viable in green conventional bond terms.[109] Application to green CoCos, however, would prejudice the bond's function as AT1 capital[110] and is therefore explicitly stated by the European Banking Authority to be ineligible with the CRR criteria for AT1 capital instruments.[111]

The weak investor protection ties to the fact that there is no legal definition of green, something BBVA also emphasizes.[112] The bank states that the bond might not comply with any such definition that may be developed in the future.[113] The lack of a universal definition is one of the main hurdles in expanding the area of green finance.[114] Capital markets are dependent on standardization and precise definitions because these features limit the need for negotiation between involved parties in every transaction.[115] Unclarity and disparity in practice harm market efficiency and increase transactional costs. Lack of standardization leaves investors reliant on their own research[116] and leads some investors to stay away from green bonds.[117] Moreover, it may be difficult to tie legal obligations to a criterion that has no universally agreed upon definition. Although BBVA references the GBP and the EU Taxonomy Regulation in its own definition of a "Green Project," BBVA seems to hedge its commitments when the bank also includes projects eligible under its SDGs, a non-binding document. As long as banks and other issuers can retain this flexibility while successfully marketing their financial products, the uncertainty surrounding the content of definitions of "green" can be expected to persist.

109. Freeburn & Ramsay, *supra* note, 102 at 26; Kristina Forsbacka & Gregor Vulturius, *A Legal Analysis of Terms and Conditions for Green Bonds: Focus in the Financial Markets in the Nordics*, 3 EUROPAR. . .TTSLIG TIDSSKRIFT 397, 435 (2019), https://ssfc.wpenginepowered.com/wp-content/uploads/2022/05/Forsbacka_Vulturius_2019.pdf.

110. Tessa Walsh, *Debate continues on green bank sub debt*, INT'L FIN. REV. (July 24, 2020), https://www.ifre.com/story/2466034/debate-continues-on-green-bank-sub-debt-l5n2ev3xx.

111. European Banking Authority, *supra* note 33, at 30-31.

112. BBVA Prospectus, *supra* note 75, at 40.

113. *Id.*

114. Several commentators highlight the need for standardization. *See*, *e.g.*, Deschryver & de Mariz, *supra* note 42, at 11.

115. *See*, *e.g.*, Cenzi Garcaro, Karsten Wöckener, Olga Fedosova & Mindy Haumand, *The new EU Green Bond Regulation – Fortune Green or Fortress Green?*, WHITE & CASE: ALERT (July 23, 2021), https://www.whitecase.com/publications/alert/new-eu-green-bond-regulation-fortune-green-or-fortress-green.

116. From interviewing market participants, Deschryver and de Mariz found that 28% relied on their own due diligence, and an equal amount relied on external certification. *See* Deschryver & de Mariz, *supra* note 42, at 11.

117. Some describe the amount of research necessary for investors to verify a bond's real green credentials before investing is "disproportionate," *see* Madeleine Taylor, *Just How Green are "Green" Bonds? Issuers Come Under Scrutiny as Supply and Demand Mushroom*, INST. ASSET MANAGER (Aug. 13, 2020), https://web.archive.org/web/20210906010945/https://www.institutionalassetmanager.co.uk/2020/08/13/288568/just-how-green-are-green-bonds-issuers-come-under-scrutiny-supply-and-demand.

ii. The regulation does not ensure additionality

BBVA suggested it will spend some of the proceeds from the green CoCo to redeem an existing CoCo from 2016 that pays a higher coupon.[118] The issue of refinancing outstanding debt with new, green-labelled debt, ties to the more general problem with demonstration of environmental additionality from green bonds. Additionality is essentially to add something "extra" in relation to a reference point.[119] As such, to require additionality from green bonds is to require causation between the investment in the bond and the positive environmental impact that the proceeds are being used for, and that this impact would not have come without the investment.[120] Current green bond standards do not require that issuers demonstrate such additionality. The use of green bonds to refinance conventional bonds is a practical and illustrative example of this deficiency. Refinancing is permitted under both the GBP, the CBS, and the EuGB Proposal.[121] In fact, most bonds, including green bonds, "refinance green projects or assets after the project construction phase is complete."[122] When a green bond is used to refinance already initiated green activities in this way, purchasing the bond does not contribute to additional environmental benefits beyond those that would have come from issuance of the conventional bond.[123] This undermines green bonds' potential as a climate change tool.

Some green finance practitioners argue that additionality is an unfair demand,[124] and that "…the raison d'être of the green bond market is not the

118. Marcus Ashworth & Elissa Martinuzzi, *A CoCo Bond That Wants to Save the World*, BLOOMBERG QUINT (July 10, 2020), https://www.bloombergquint.com/gadfly/bbva-sells-a-coco-bond-that-wants-to-save-the-world.

119. Michael Gillenwater, *What is Additionality? Part 1: A long standing Problem, Version 03*, GREENHOUSE GAS MGMT. INST. 21 (Jan. 2012), https://ghginstitute.org/wp-content/uploads/2015/04/AdditionalityPaper_Part-1ver3FINAL.pdf.

120. S Such a description is consistent with more general definitions of additionality. *See*, *e.g.*, Steve Carr et al., *Additionality Guide Third Edition* 1, ENG. P'SHIP (Oct. 2008), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/191511/Additionality_Guide_0.pdf: "Additionality is the extent to which something happens as a result of an intervention that would not have occurred in the absence of the intervention." The definition is similar to that sometimes referred to as impact investing, where an "impact" is made only where "an investment increase[s] the quantity or quality of the enterprise's social output beyond what would otherwise have occurred." Paul Brest & Kelly Born, *Unpacking the Impact in Impact Investing*, STANFORD SOC. INNOVATION REV. (Aug. 14, 2013), https://ssir.org/articles/entry/unpacking_the_impact_in_impact_investing.

121. ICMA, *supra* note 17, at 4; Note, Climate Bonds Initiative, *supra* note 17, at 3; Note, EuGB Proposal, *supra* note 19, Article 4(3).

122. Sean Kidney, *Green Bond Additionality: The Big Picture*, BONDS & LOANS (Dec. 25, 2018), https://bondsloans.com/news/green-bond-additionality-the-big-picture.

123. *Id.*

124. *See*, *e.g.*, Ryan Jones et al., *supra* note 35; Jacob Michaelsen, *Green bonds: A Different Take on 'Additionality'*, ENV'T FIN. (Oct. 26, 2018), https://www.environmental-finance.com/content/analysis/green-bonds-a-different-take-on-additionality.html; Peter Cripps, *Green Bond Comment, August 2018: Upgrading the Hot Air Balloon*, ENV'T FIN. (Aug. 1, 2018), https://www.environmental-finance.com/content/analysis/green-bond-comment-august-2018-upgrading-the-hot-air-balloon.html.

direct impact of the green bond itself but rather the broader aspects around the integration of sustainability into the financial discussion. . .."[125] The popularity of green bonds is inducing companies and other issuers to create a "stronger internal strategy of green" which can be viewed as "a form of additionality."[126] Therefore, one should assess green bonds' longer-term impact rather than searching for additionality from individual bonds. And there definitely is a case to be made for more tangible effects of green bonds. Green bonds highlight the issuer's sustainability objective to all stakeholders.[127] Even when simply refinancing unlabeled bonds, the certification process provides transparency, enabling investors to better assess the funded project's environmental impact over time.[128] Refinancing also frees up more capital for the issuer to spend on transitioning to a more sustainable operation.[129]

However, the tangible, real environmental impacts—the type of impacts that are needed to meet the goals of the Paris Agreement and Glasgow Climate Pact—remain limited. For example, Germany's green government bonds do not funnel additional funds to sustainability projectsis already planned, regardless of how the bonds are labeled.[130] The effect is even more obvious when the green bond refinances old debt. Then, the spending is not only planned, but executed. By allowing refinancing, therefore, the BBVA issuance might be financially well-founded, but not necessarily a great win for the climate.

IV. LEGALITY OF GREEN COCOS UNDER AT1 ELIGIBILITY CRITERIA

Green CoCos do not only have problematic consequences—they might even contradict the CRR eligibility criteria for AT1 capital. Financial instruments only qualify as AT1 instruments if the provisions governing them include no incentive for the issuing institution to redeem them.[131] EU regulators have so far not struck down on green CoCos. The regulators do however have broad discretion in determining whether the formal requirements are met, and their view might change as the importance of green assets increases.[132] And the European Banking Authority has already commented on technical features such as links between performance of the

125. Michaelsen, *supra* note 124.

126. Kidney, *supra* note 122. *See also* Aaron Maltais & Björn Nykvist, *Understanding the Role of Green Bonds in Advancing Sustainability*, 11 J. OF SUSTAINABLE FIN. AND INV. (2021), https://www.tandfonline.com/doi/full/10.1080/20430795.2020.1724864. Study respondents "are more consistent in pointing to benefits such as attracting customers and staff, mainstreaming sustainability into internal operations, and broader signaling effects…." Green bonds are "perceived to provide incentives to issuers to raise the 'green ambitions' of specific projects and their organizations." *Id.*

127. EU Technical Expert Group on Sustainable Finance, *supra* note 69, at 19.

128. *Id.*

129. *Id.*

130. Krahnen et al., *supra* note 71, at 15.

131. CRR Article 52(1)(g).

132. European Banking Authority, *supra* note 33, at 31.

bond and the performance of the underlying green assets. Such features can be seen as incentives to redeem before the time of performance assessment because the issuer faces the risk of paying fees or higher yields if the environmental targets are not met. These types of mechanisms should therefore "not be allowed or encouraged . . . ."[133] But how about not purely financial incentives, such as an issuer's fear of reputational harm from not complying with its own green framework? Can that constitute an "incentive to redeem" under the CRR?

Green instruments are, as mentioned, partly about messaging. Issuers and other market participants want to show stakeholders, regulators, and the public that they are making an effort to facilitate the transition into a sustainable economy. Even when the issuer, pursuant to the bond documentation, legally has the right, like BBVA, to change the purpose of the bond if there are no more green projects to fund, there still is a reputational incentive to redeem the bond. An issuer that has built an image as green, committed to communicating its green objectives to investors, would recognize how not redeeming could hurt business. The situation could also be that a bank group undergoes restructuring, and the green CoCo is placed to a part of the group without green assets. Since the environmental purpose of the instrument would no longer be there, investors might pressure the issuer to redeem the bond.[134]

Whether such sustainability-linked, non-technical incentives violate the eligibility criteria for AT1 capital or not[135] an incentive to redeem shall mean "all features that provide, at the date of issuance, an expectation that the capital instrument is likely to be redeemed." Article 20(2) provides a list of forms of incentives. These are largely technical in nature, indicating that other types of incentives might not be covered by the law. Still, this understanding is not supported by any explicit statement.

One of the listed forms of incentives is "a marketing of the instrument in a way which suggests to investors that the instrument will be called."[136] It is an extra burden for an issuing bank to maintain, virtually in perpetuity, a green portfolio of fundable assets. Marketing a CoCo as green might therefore suggest that the CoCo will be called because investors understand that the bank may not cope with this burden. As mentioned, the issuer might not have a legal obligation to redeem even though it would violate its own framework by not doing so. The motivation to show investors and others that it performs in line with green promises could nonetheless lead to redemption.

133. *Id.* at 30-31. The EBA concluded that "step-up and/or fees based on missing certain ESG targets or other performance indicators" could be seen as incentives to redeem.

134. *See* Michael Benyaya's prediction in BIHCapital, *supra* note 68, at 38.

135. Commission Delegated Regulation 241/2014 of Jan. 7, 2014, Supplementing Regulation 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for Own Funds requirements for institutions, 2014 O.J. (L 74) 8, 26.

136. *Id.* at Article 20(2)(f).

Regardless of whether a non-technical sustainability-linked incentive fits into Article 20(2)(f), it might still fall under the broader definition in the first paragraph. The list in Article 20(2) does not appear to be exhaustive. The wording "shall include" is not clear in this regard but does not exclude the possibility that other forms of incentives may fall under the rule. The regulator EBA does not view the list as exhaustive. Because of constant innovation in financial engineering, the regulator cannot foresee all mechanisms that might constitute redemption incentives.[137] Regulators will therefore always be able to exercise discretion.[138] As such, any form of incentive may in theory be an incentive covered by the law. The word "feature" in Article 20(1) does not exclude non-technical features, and under its plain meaning, the green label of a CoCo could be a "feature" of an instrument. Moreover, considering that the purpose of the rule is to improve the quality of capital by ensuring permanence,[139] one could take a broader view in which any feature that enables or increases the chance of redemption constitutes a "feature" under the law. A motivation to maintain a green reputation fits well into this scheme. And, finally, the EU's enactment of its Green Deal shows the importance of sustainability and green finance at the Union's current state of evolution. The notion of "green" is no longer an intangible thing but, especially since the enactment of the EU Taxonomy Regulation, a more precise and functional term. This development suggests that an issuer's motivation to stay green should be taken into account by both issuers and regulators when determining if a CoCo feature constitutes an incentive to redeem.

The term "likely" in Article 20(1) of the Delegated Regulation, however, may be more problematic to apply to non-technical standards. The wording suggests that there needs to be more than a 50% chance for the issuer to redeem the bond. A step-up mechanism, for example, gives mathematical grounds for assessing that an issuer, based on rational economic considerations, will redeem the bond. When the feature of the bond gives more intangible motivations to redeem, such as possible pressure from investors who want to ensure that they themselves comply with internal investing mandates to stay green, the assessment necessarily becomes more uncertain. In any event, it might be hard, at the time of issuance, to determine whether the issuer will run out of green projects.

137. European Banking Authority, *EBA Final Draft Regulatory Technical Standards on own Funds (Part 1) Under Regulation (EU) No 575/2013*, EBA/RTS/2013/01, at 54-55 (July 26, 2013), https://www.eba.europa.eu/sites/default/documents/files/documents/10180/359901/d1217588-ff05-4063-8d6f-5d7c81f2cc64/EBA-RTS-2013-01-draft-RTS-on-Own-Funds-Part-1.pdf?retry=1.

138. *Id.* at 55.

139. *Id.* at 44; László Seregdi, *A Prohibition on Incentive to Redeem in Capital Regulation*, 7 ECON. AND FIN. 3 352, 353 (Sept. 2020), http://real.mtak.hu/115839/1/352-364ESeregdi.pdf. The economic rationale is that it will contravene the purpose of permanence if the features of the bond suggest that the originally perpetual bond in reality will have shorter maturity. The investor would then only plan to hold the bond until redemption, as opposed to a longer term. *Id.* at 356-357.

The uncertainty suggests that whether non-technical sustainability-linked incentives fall under the CRR criteria, must be determined on a case-by-case basis. The regulator could then consider the issuer's amount of green assets at the time of issuance, as well as its record of funding green projects. Such considerations would fall in line with the fact that the regulator has wide discretion in determining eligibility. Discretion is in itself an issue, however, especially in relation to a novel instrument such as green CoCos, because it fosters insecurity for issuers. EBA did not discuss non-technical incentives in a June 2021 report on the monitoring of AT1 instruments. Still, EBA will "continue to monitor and assess these features going forward."[140] Incentives such as avoiding a reputation for greenwashing may be, albeit more indirectly, found to be based on financial motivations. It is in practice not always easy to determine what is an incentive and what is not.[141] The last word is likely not said on non-technical incentives to redeem.

V. IMPROVING GREEN COCOS AS A CLIMATE CHANGE TOOL BY RING-FENCING GREEN BANK ENTITIES

The foregoing analysis demonstrates that investors to whom sustainability is a major concern should deter from investing in green CoCos.[142] These instruments are simply not applicable as effective climate change tools under current regulation. But even though investors enlighten themselves about the reality of the product, the branding as green remains misleading considering the lack of guarantees of greenness that legally can accompany it. Solutions to how green CoCos may in fact become green, should therefore be explored.

One promising option is to ring-fence green parts of bank groups into independent legal sub-entities in the group. In general, ring-fencing can be done with fences of varying heights. A virtual (or low) ring-fence may be built through accounting techniques, separating a portion of an entity's financial assets from the rest.[143] Separation of specific assets and liabilities within a group into different legal entities under a parent company, which is

140. European Banking Authority, *supra* note 33, at 31.

141. László Seregdi, supra note 139, at 357.

142. Louie Woodall suggests that "the dual nature of this CoCo may deter some who don't like the idea that their green capital could underwrite non-green assets." Louie Woodall, *Building green fortresses: Should banks' climate-friendly assets be ring-fenced?*, CLIMATE RISK REV. (July 13, 2020), https://web.archive.org/web/20220518194225/https://www.climateriskreview.com/p/building-green-fortresses.

143. Will Kenton, *Ring-Fence*, INVESTOPEDIA, https://www.investopedia.com/terms/r/ringfence.asp (last updated June 15, 2020). In the standard green bond market, investors emphasize the importance of ring-fencing and overall transparency, but ring-fencing remains an unusual approach for issuers. *See*, *e.g.*, Office of the New York City Comptroller, A GREEN BOND PROGRAM FOR NEW YORK CITY 3 (Apr. 2015), https://comptroller.nyc.gov/wp-content/uploads/2016/06/Green_Bond_Program_Update.pdf; Julius Huttunen & James Rich, *Green Bonds: Peeling Back the Label*, AEGON ASSET MGMT. 2 (Jan. 2021), https://www.aegonam.com/globalassets/aam/news—insights/responsible-investing/1-14-21-green-bonds-peeling-back-the-label/aegonam_green_bonds_peeling_back_the_label.pdf.

the relevant method here, is a higher, and more of a true, ring-fence. One example of bank group ring-fencing exists in UK prudential regulation.[144] The largest UK banks are required to separate their retail banking from their investment banking activities.[145] The purpose is to avoid adverse effects on the banks' core services and promote depositor protection.[146] This requirement is, like the capital requirements, motivated by experience from the 2007–08 financial crisis. By separating the riskier investment banking activity from the retail activity, such as providing mortgages to the general public, the financial infrastructure is more shielded from adverse impacts from speculative activities. A similar type of ring-fence for green entities, however, has yet to be implemented by any prudential regulator.

Fundamentally, a green ring-fence would have to balance the interest in facilitating the transition to a sustainable economy with the purpose of CoCos as capital instruments ensuring financial stability. The idea is to separate a bank group's green assets into own sub-entities. Each entity—each "side of the fence"—would then have to meet capital and liquidity requirements on its own. When it comes to the suitability of green CoCos as a climate change tool, the most important and obvious benefit is that in a wholly green entity there are only green losses to absorb with equity–from any conversion that may be effectuated. This would ensure the greenness of the capital instrument not only as debt, but also after conversion. Furthermore, the separation of green and non-green may give the green entity better terms with investors, because their credit rating would be higher considering the reduced climate change risks related to non-green assets.[147]

The green bank entity may also be put under easier capital requirements from prudential regulators. This would not only be positive for the entity but also reduce the risk of bond conversion. Regulators are currently contemplating to introduce such a green supporting factor (GSF) as an interim measure until green becomes the new norm.[148] The idea is to facilitate

144. Financial Services (Banking Reform) Act 2013. The EU decided against a Commission proposal for a regulation containing similar rules. *See Proposal for a Regulation of the European Parliament and of the Council on Structural Measures Improving the Resilience of EU Credit Institutions*, COM (2014) 43 final (Jan. 29, 2014)., and the subsequent withdrawal, *Withdrawal of Commission Proposals*, 2018/C 233/05, 2018 O.J. (C. 233) 6. As such, there are currently no ring-fencing requirements in the EU/EEA area.

145. Financial Services (Banking Reform) Act 2013, c. 33, § 142C (UK).

146. *Id.* at Section 1.

147. *See* Woodall, *supra* note 142; *See also* S&P Global Ratings' general criteria for incorporating ESG principles in credit ratings, S&P GLOB. RATINGS (Oct. 10, 2021), https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/sourceId/12085396.

148. *See* EU High-Level Expert Group on Sustainable Finance, *Financing a Sustainable European Economy: Final Report 2018* (Jan, 31, 2018), https://ec.europa.eu/info/sites/default/files/180131-sustainable-finance-final-report_en.pdf. Hungary has already introduced a GSF related to Pillar 2 capital requirements (AT1 capital is part of Pillar 1). In early 2021, the Central Bank of Hungary (Magyar Nemzeti Bank (MNB)), introduced a program that eases part of or all capital requirements for environmentally sustainable corporate and municipal exposures that meet certain criteria. MAGYAR NEMZETI BANK (MNB), PREFERENTIAL CAPITAL REQUIREMENTS PROGRAM FOR GREEN CORPORATE AND MUNICIPAL FINANCING (ENGLISH SUMMARY) (Aug. 31, 2021), https://www.mnb.hu/letoltes/preferential-

and incentivize lending to green activities by lowering the lending bank's capital requirements when providing such loans.[149] To minimize the risk of a green bubble following overvaluation of green assets,[150] a GSF should be based on an actual risk differential between green and non-green assets. It should not be based on the green feature of the assets in itself because, if the risk is the same but the capital buffers smaller, any losses arising from green exposures would, by definition, be insufficiently covered by the bank's resources.[151] A differentiated risk might very well be justified because the Paris Agreement has made carbon-intensive assets riskier than green assets.[152] So far, however, there is no evidence of "significantly lower risk at the micro-level,"[153] indicating that it might be too early to introduce a GSF. Moreover, any effects of a GSF may be limited compared to other measures.[154] The idea of a GSF is also criticized.[155] Another proposed option, either in combination with a GSF or on its own, is a brown penalty factor (BP).[156] In any event, whether brown portfolios are penalized, green portfolios awarded, both, or no explicit differentiation is made through regulation, a ring-fenced green entity would be positioned to receive preferable treatment caused by potential systematic changes in how the markets perceive and deal with climate risk. Therefore, a green ring-fence presents an opportunity that is beneficial not only to the environment, but also to the business of banks.

Implementation of green ring-fencing would admittedly pose challenges. Separating green assets from non-green assets could undermine the main rationale behind CoCos, which is to ensure financial stability by enabling the banks to sustain themselves with capital. Ring-fencing limits the ability of the entity's stronger parts to support weaker parts because the capital is compartmentalized across different legally separated group entities, thus weakening banks' overall capital resilience.[157] And on a more

capital-requirements-for-green-corporate-and-municipal-financing-summary.pdf. These exposures must in large part be towards EU Taxonomy Regulation- or CBS-eligible activities. *Id.* The program was recently extended due to its success. Press Release, Magyar Nemzeti Bank (MNB), Banks Will Soon Have A Wider Variety Of Green Loans To Offer To Companies And Local Governments (Sept. 1, 2021), https://www.mnb.hu/en/pressroom/press-releases/press-releases-2021/banks-will-soon-have-a-wider-variety-of-green-loans-to-offer-to-companies-and-local-governments.

149. EU High-Level Expert Group on Sustainable Finance, *supra* note 148, at 68.

150. Fernando Restroy, *The role of prudential policy in addressing climate change*, BIS MGMT. SPEECHES (Oct. 22, 2021), https://www.bis.org/speeches/sp211008.htm.

151. *Id.*

152. EU High-Level Expert Group on Sustainable Finance, *supra* note 148, at 69.

153. *Id.* at 68.

154. Jakob Thom. . . & Anuschka Hilke, *The Green Supporting Factor: Quantifying the impact on European banks and green finance*, 2 DEGREES INVESTING INITIATIVE, WORKING PAPER NO. 1 (Apr. 2018), https://2degrees-investing.org/wp-content/uploads/2018/04/The-Green-Supporting-Factor.pdf.

155. Restroy, *supra* note 148.

156. *See, e.g.*, EU High-Level Expert Group on Sustainable Finance, *supra* note 148, at 68.

157. Wilson Ervin finds that pervasive ring-fencing may increase bank failure risk by a large multiple. Wilson Ervin, THE RISKY BUSINESS OF RING-FENCING (Dec. 12, 2017), https://ssrn.com/abstract=3085649. *See also* Taylor, *supra* note 117.

practical note, the mere infrastructure of green ring-fencing could be difficult.[158] Green finance is not, unlike retail banking or investment banking, a banking segment of its own. Rather, it is a sub-activity within different segments, for example in the form of green investment within the segment asset management.

However, the work on precise definitions has already come a long way. The newly adopted and continuously developed EU Taxonomy Regulation represents important progress in that regard. Moreover, the argument that ring-fencing impairs financial stability might not be as relevant when it comes to green ring-fencing. Green is the future, and allowing green entities to thrive on their own, unencumbered by any implications of the transitional risks associated with brown assets, could actually improve the banks' resilience.

This is fundamentally the same idea on which the UK ring-fencing scheme is based. The riskier investment banking activity is separated from the safer retail banking activity, aiming to improve the resilience of the retail division. Drawing the parallel here is not meant as neither a defense nor a critique of that regime.[159] The point is merely to use the group structures the Banking Reform made the banks create as inspiration for a green ring-fencing scheme. For example, the British bank Barclays established Barclays Bank UK PLC (BBUKPLC) as a new, ring-fenced bank.[160] As a sub-group of the listed entity Barclays PLC, the new bank provides day-to-day products and services to individuals and small and medium-sized enterprises. BBUKPLC operates alongside, but independently from, the non-ring-fenced sub-group Barclays Bank PLC. This entity was continued from before the ring-fence operation, and does now solely serve Barclays' larger corporate, wholesale, and international banking clients. Although independent banks, the entities both remain part of the group Barclays PLC. This allows them to retain synergy effects they had pre-ring-fencing, such as shared services.[161] Still, the separate sub-groups are independently rated by credit agencies.[162]

158. In a 2014 paper, Deloitte presented several issues arising for banks that were to adapt to the European Commission proposal on ring-fencing and the UK Banking Reform. DELOITTE, STRUCTURAL REFORM OF EU BANKING: REARRANGING THE PIECES (2014), https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/financial-services/deloitte-uk-fs-structural-reform-eu-banking-april-14.pdf. Many of these issues would be relevant under a green ring-fencing scheme, such as ensuring compliance with minimum regulatory and supervisory requirements, choosing an optimal business model and strategy, modelling of capital and funding, designing operating models and governance frameworks, and other transactional issues associated with legal entity change.

159. The UK scheme faces criticism. *See*, *e.g.*, David Wighton, *Barclays results show ringfencing critics were spot on*, FIN. NEWS (July 29, 2020), https://www.fnlondon.com/articles/barclays-results-show-ringfencing-critics-were-spot-on-20200729.

160. *Ring-Fencing Explained,* BARCLAYS, https://home.barclays/who-we-are/ring-fencing-explained/ (last visited Jan. 22, 2022).

161. At Barclays, Barclays Services Limited delivers services to the Barclays Group and its divisions. *Id.*

162. See the overview of current credit ratings of the Barclays sub-groups here: *Credit Ratings*, BARCLAYS, https://home.barclays/investor-relations/fixed-income-investors/credit-ratings/#standardpoors (last visited Jan. 22, 2022).

Similarly, a bank's riskier brown activities could be separated from its green activities in a sibling structure, where the sub-entities, sitting side-by-side under a holding company, deal with each other at an arm's length distance (i.e., commercial terms). This would promote stability by improving resilience of the green entity. It might even help mitigate a future market crash caused by devaluation of non-green assets due to climate risk. And when the green entity no longer would have to subsidize the climate risk in the non-green entity, the green entity would have more capital available to grant sustainable loans. Combined with preferable terms incentivizing banks to grow their green entities, this would expedite the transition to a sustainable economy. Because immense amounts of capital are needed for the green shift, any instrument that legitimately and transparently can help that shift, should be applied. Green ring-fencing is a way to enable green CoCos to be such an instrument.

VI. CONCLUSION

This paper demonstrates that green CoCos' inherent features render the instrument deficient as a climate change tool under current prudential regulation. The main issue is that the bonds, at any time, can be converted into equity. Thus, banks cannot guarantee that investing in the bonds will make any real, positive environmental impact. Investors might even end up inflicting more harm than good if the losses absorbed by the CoCo, are non-green. Consequently, the issuing banks' commitments to sustainability appear illusory. CoCos play a particular and critical role in supporting the banking system. Adding to them a feature of promoting environmental sustainability, unaccompanied by regulatory changes, is a failed attempt at simultaneous use.[163]

Current and proposed green bond standards are inadequate to regulate the greenness of CoCos. Application of these standards to CoCos have several undesirable consequences, some of which are due to the requirements of bank capital instruments under prudential regulation, others of which follow from the standards themselves. As such, CoCos do not fit into current regulatory frameworks for green finance. Regulators know investors will bear the losses if the banks are required to use the bonds to absorb losses, and it therefore seems reactionary, if not hypocritical, for regulators working towards a more sustainable economy to allow green labeling of CoCos. The discussion on the prohibition of incentives to redeem the bond in CoCo documentation, shows that green CoCos should perhaps be disallowed altogether under current market regulations.

To improve green CoCos applicability as a climate change tool, this paper suggests introducing ring-fencing of banks' green assets into separate legal entities. This will ensure that the bonds only absorb losses from green assets upon conversion. Given CoCos inherent and very intentional design-

163. Ashworth & Martinuzzi, *supra* note 118.

feature as a regulatory capital instrument to cover a bank's losses in a crisis, it is hard to see how these instruments can hold a legitimate green accreditation without further regulatory changes. Therefore, unless a system of green ring-fencing can be successfully implemented, use of green CoCos, even if deemed to fulfill AT1 capital requirements, should be discontinued.