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The Constitutive Role of Law in Sustainable Finance

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ABSTRACT

The sustainability transition requires a fundamental change in the way economies function to align socioeconomic systems with planetary boundaries. From a legal perspective, such a shift should entail a transformation of the prevailing legal coding of economic relations to enable consistent integration of social and environmental considerations. Within the emerging sustainable finance trend, shoots of change are visible: new financial instruments, such as green or sustainability-linked bonds and loans, appear to be reorienting the market relationships around sustainability impact issues. A sociolegal and legal institutionalist analysis of this trend reveals how such instruments shape and are shaped by different facilitative, regulatory and constitutive facets of law. Using EU green bond issuances as a case study, the article highlights how law expands and limits the transformative potential of such novel financial instruments. The analysis is revealing of the co-constitutive dynamics of law and sustainable finance. In this context, the article makes three contributions. Firstly, it offers a comparative case study of law's co-constitutive dynamics in the case of financial innovation designed for environmental and social impact. Secondly, it identifies the co-constitutive dynamics of law and (sustainable) finance relating to differentiation and expansion.Thirdly, it finds variance in the law's co-constitutive role at the micro-level of financial interactions, and in meso-structures that emerge in the context of sustainable finance specifically. To the extent that sustainable debt instruments are increasingly linked to a company's overall performance and corporate governance, the article's findings have implications for the integration of social concerns in financial instruments.

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1. INTRODUCTION. LEGAL CODING FOR SUSTAINABILITY: A DANGEROUS MIRAGE?

In 2013, the Swedish property developer Vasakronan was the first corporation to issue a bond with a pre-defined sustainable purpose, namely to finance the improvement of the energy performance of buildings in its portfolio.[1] In 2019, the Italian energy company ENEL raised capital through general-purpose issuance linked to a commitment to decarbonise its activities over the lifecycle of the bond, agreeing to a step-up on the repayment costs in the alternative.[2] These two types of financial instruments, offered as loans or bonds, are known respectively as 'use of proceeds' instruments to finance pre-defined social or environmental projects and 'sustainability-linked' instruments involving commitments to improve performance over specific time horizons. Both have seen increased interest from corporations, banks and investors, with sustainable corporate bonds comprising just under 10% of global bond issuance in 2023, and sustainable commercial loans covering 6% of overall lending at peak volume in 2022.[3]

The sustainable finance trend instigated a rich debate as to the real economic impacts that sustainable finance may have.[4] Does the moniker ESG (environmental, social and governance) even make sense?[5] If all firms are faced with the looming threat of transition and physical risks, should not all investors take into account these factors across the board, rather than developing a suite of 'special' green financial products? And—regarding industrial relations issues in particular—aren't such instruments just fancy packaging for simply following the relevant environmental and labour laws? While such questions are undoubtedly well founded, the focus on the immediate outcomes of deploying such instruments arguably overlooks the

[1]The framework was developed together with the World Bank and certified by Cicero. Vasakronan, 'Vasakronan issues the world's first green corporate bond' (Vasakronan, 18 November 2013) https://vasakronan.se/pressmeddelande/vasakronan-issues-the-worlds-first-green-corporate-bond/ accessed 8 July 2024.

[2]ENEL, 'Sustainability-linked finance' (ENEL, 2019) https://www.enel.com/investors/investing/sustainable-finance/sustainability-linked-finance/sustainability-linked-bonds/ accessed 8 July 2024.

[3]OECD, *Global Debt Report 2024: Bond Markets in a High-Debt Environment* (Paris: OECD, 2024). Note, however, the significant differences among jurisdictions.

[4]Recent empirical evidence provides mixed insights as to the ESG performance impact of sustainable debt. See e.g. Julian Kölbel and Adrien-Paul Lambillon, 'Who Pays for Sustainability? An Analysis of Sustainability-Linked Bonds' (2022) *Swiss Finance Institute Research Paper* 23-07; Aleksander Aleszczyk, Maria Loumioti and George Serafeim, 'The Issuance and Design of Sustainability-Linked Loans' (2022) *NYU Stern Working Paper*.

[5]Elizabeth Pollman, 'The Making of ESG' (2022) *ECGI Working Paper* 656/2022; Alex Edmans, 'The End of ESG' (2023) 52 *Financial Management* 3, 3–17.

transformative potential that they may have with respect to the legal coding of capitalism.[6] As I argue in this article, analysing sustainable finance instruments such as green bonds from a legal institutionalist and sociolegal perspective reveals avenues for reimagining the extractive coding of key legal modules, including company and contract law, in a way that differentiates such financial instruments from 'traditional' finance. Expanding the analysis beyond the formal terms of debt instruments to consider how the legal environment more broadly shapes the coming together of actors (negotiation) and enforcement (also via monitoring, marketing and macrofinancial regime) further captures the potential for capitalism's mesostructure transformations.

Sustainable finance is already recognised as a legal and regulatory phenomenon.[7] In many jurisdictions, it is associated mostly with public regulation (taxonomies and disclosure rules) and strategic litigation that expands the scope of corporate governance rules to mandatory social and environmental considerations.[8] Legal scholars have also already explored how the legal structuring of green bonds differs from a governance perspective by enabling investors to regulate company behaviour[9] and how it is shaped (and constrained) by the prevailing corporate governance regimes.[10] Such

[6]Katharina Pistor, *The Code of Capital: How the Law Creates Wealth and Inequality* (Princeton: Princeton University Press, 2019); Anna Chadwick, Marco Goldoni, Iagê Miola, Sol Picciotto and Katharina Pistor, 'Katharina Pistor's 'The Code of Capital: How the Law Creates Wealth and Inequality'' (2021) 30 *Social and Legal Studies* 291–326.

[7]Saga Eriksson, 'The Centrality of Law for EU Sustainable Finance Markets: Outlining a Research Agenda' (2024) 33 *Review of European, Comparative & International Environmental Law* 1, 57; see also, critically on the potential of capitalist law to extend to sustainability concerns, Katharina Pistor, 'Avoiding Real Change: The Myth of Green Capitalism' (*Project Syndicate*, 21 September 2021) https://www.project-syndicate.org/commentary/green-capitalism-myth-no-market-solution-to-climate-change-by-katharina-pistor-2021-09/ accessed 8 July 2024.

[8]Misato Sato, Glen Gostlow, Catherine Higham et al., 'Impacts of Climate Litigation on Firm Value' (2024) 7 *Nature Sustainability* 1461; Adam B Badawi and Frank Partnoy, 'Social Good and Litigation Risk' (2022) 12 *Harvard Business Law Review* 315.

[9]E.g. Stephen Kim Park, 'Investors as Regulators: Green Bonds and the Governance Challenges of the Sustainable Finance Revolution' (2018) 54 *Stanford Journal of International Law* 1; Federica Agostini, 'From 'Green Bond Principles' to 'Green Bond Clauses': Mitigating Greenwashing through Contract Law' in Maren Heidemann and Mads Andenas (eds), *Quo Vadis Commercial Contract? Reflections on Sustainability, Ethics and Technology in the Emerging Law and Practice of Global Commerce* (Cham: Springer, 2023).

[10]This aspect has been explored, especially in the US context, given the importance of the doctrine of shareholder wealth maximisation—e.g. Virginia Harper Ho, 'US ESG Regulation in Transnational Context' in Jens-Hinrich Binder, Klaus J Hopt and Thilo Kuntz (eds), *Corporate Purpose, CSR and ESG: A Trans-Atlantic Perspective* (Oxford: Oxford University Press, 2024); Jonathan R Povilonis, 'Contracting for ESG: Sustainability-Linked Bonds and a New Investor Paradigm' (2022) 77 The Business Lawyer 3.

explorations reveal the role of law to have been ambiguous at best: existing law limits the process of integrating sustainability concerns in financial relationships,[11] and in fact undermines any sustainability commitments through widespread disclaimers and waivers that accompany sustainable finance instruments.[12]

However, how sustainable finance, such as green bonds, affects the legal structuring of individual financing relationships—as I argue in this article—is revealing of the transformative potential of the co-constitutive role of law in socioeconomic systems. If we broaden the legal analysis beyond the formal terms of the debt instrument, and consider the legal environment that shapes its content and the mutual expectations of actors before, during and after the negotiations, that is, in the various forms of enforcement, a fuller picture emerges, one that suggests opportunities for the law to transform finance so as to serve shared prosperity, notwithstanding the constraints of the market-based socioeconomic models.[13]

To this end, the article analyses the 'green terms' in green bond prospectuses issued by 35 corporations in four EU Member States between 2019 and 2024.[14] As is further explained below, such green terms appear not only in the context of specific 'green' or 'sustainability' commitments of the issuing firm, but also in the context of waivers or risk disclosures—indeed suggesting that legal coding of capital may shield such transactions against integrating sustainability goals. However, this finding is not universal—differences among jurisdictions offer avenues for enforceability. Furthermore, supplementing the legal analysis with insights from interviews with lawyers and bankers involved in the structuring of the transactions can identify changes in the broader institutional environment that influence the mutual expectations and relationships between the actors, notwithstanding the apparent constraints of the law. Overall, I show how sustainable debt's legal environment may entail changes in the terms of interaction between market actors that are regulatory (in the sense of shaping behaviour), facilitative (in the sense of how the actors are brought together) and foundational (in the sense of embedding new dimensions of environmental and social

[11] E.g. due to corporate law limitations, see Povilonis, n.10.

[12] See Agostini, n.9; and Quinn Curtis, Mark C Weidemaier and Mitu Gulati, 'Green Bonds, Empty Promises' (2023) 102 *North Carolina Law Review* 131.

[13] Marija Bartl, *Reimagining Prosperity: Toward a New Imaginary of Law and Political Economy in the EU* (Cambridge: Cambridge University Press, 2024).

[14] See supplementary material for full list of prospectuses analysed, see Agnieszka Smoleńska, 'Supplementary Material' (2025) https://doi.org/10.6084/m9.figshare.29286137.v1, last accessed 19 July 2025.

sustainability concerns into the firm–finance relationships).[15] To the extent that sustainable debt instruments are increasingly linked to a company's overall performance and corporate governance,[16] such financing trends have a bearing on broader industrial relations, even where they appear to be concerned only with environmental matters. For example, assessments of environmental impact that the company needs to put in place often involve new forms of engagement with company's stakeholders, including own workers and local communities.

This article proceeds as follows. Section 2 outlines the emergence and main features of sustainable debt instruments, focussing on the European Union (EU), where the trend has been particularly pronounced. Section 3 develops the methodological approach to investigating the co-constitutive dynamics between law and sustainable finance, one that looks beyond the formal terms of financial instruments and expands the analytical scope to capture the legal environments of the preceding negotiations and the modes of market and public enforcement once the debt is issued. Section 4 analyses the empirical findings in relation to how the different aspects of the legal environment interact with green debt across its lifecycle. Before concluding, Section 5 discusses the identified dynamics of differentiation and expansion in micro-level interactions and the meso-level structures as key insights into the potential co-constitution of law and (sustainable) finance. I show how law plays a co-constitutive role in sustainable finance by both enabling and constraining its transformative potential, as legal frameworks, negotiation practices, and macro-financial regimes shape how sustainability objectives are integrated into financial instruments like green bonds.

2. THE EXPANDING UNIVERSE OF SUSTAINABLE DEBT

Sustainable-themed debt instruments are financial products whose terms have been linked to sustainability factors, such as environmental or social performance. The universe of sustainable finance instruments spans bonds, which may involve raising funds on capital markets, and loans, typically

[15] The differentiation builds on Edelman and Suchman's exploration of legal environments shaping organisations—Lauren B Edelman and Mark C Suchman, 'The Legal Environments of Organizations' (1997) 23 *Annual Review of Sociology* 479.

[16] See also ClientEarth, *Guardrails to Address Greenwashing of Climate Transition Finance* (Report, 2024) https://www.clientearth.org/latest/documents/guardrails-to-address-greenwashing-of-climate-transition-finance/ accessed 8 July 2024.

extended by individual banks or through syndication involving several credit institutions. In addition to financing related to climate change (e.g. financing renewable energy or investing in energy efficiency), borrowers may be seeking funds for specific environmental purposes (e.g. 'blue bonds' dedicated to projects linked to ocean preservation). Social—and especially labour-related—issuances have been less popular among corporate issuers, with government actors remaining the key borrowers in this segment, in contrast to green and sustainability-linked financial products.[17] However, corporate sustainable finance instruments often include social objectives, either directly as a key performance indicator (KPI) or dedicated use of proceeds, or indirectly, for example, where the satisfaction of green-related objectives involves meeting minimum requirements regarding labour standards or taking into account the Sustainable Development Goals (SDGs).[18] All sustainable finance instruments, however, are inherently linked to the overall strategy of the firm, the time horizon of operations and the relationship with stakeholders, and therefore have a bearing on industrial relations even when the substantive scope of the financial instrument may be limited to environmental concerns.

From a market perspective, sustainable-labelled debt instruments are differentiated from traditional financing instruments by the fact that they are linked to specific sustainability objectives. As summarised in Table 1, two ways of linking financing with sustainability goals are distinguished: 'use of proceeds' terms, where firms commit to using the funds raised to implement specific projects selected in accordance with pre-defined objectives (e.g. related to climate change mitigation, such as renewable energy production, or social issues, such as housing availability), and 'sustainability-linked' terms, where the conditions of repayment are linked to the firm meeting specific KPIs on sustainability factors (e.g. related to environmental performance, such as reducing overall greenhouse gas emissions, or social goals, such as gender parity on boards).

[17] For example, in the EU, the SURE instrument involved the European Commission raising up to EUR 100 billion on the markets with a view to financing pandemic employment insurance programmes across the EU Member States. In the UK, the 'social impact bonds' framework involved promoting innovative financing methods to support government.

[18] For more on social bonds, see Stephen Kim Park, 'Social Bonds for Sustainable Development: A Human Rights Perspective on Impact Investing' (2018) 3(2) *Business and Human Rights Journal* 233; Diletta Lenzi, 'Corporate Social Bonds' (2020) 19(1) *Journal of Corporate Law Studies* 45.

Table 1. Universe of sustainability-labelled debt instruments

Debt instrument	Type of thematic debt	Financing mechanism	Purpose	Dominant sustainability mechanism	Applicable transnational standards	Transparency
Bond	Sustainable or green	Capital market	Project finance	Ex ante	ICMA Sustainable Bond Guidelines, Green Bond Principles, CBI	Rules on prospectus disclosure
	Sustainability-linked		General finance	Ex post	ICMA Sustainability-Linked Bond Principles	
Loan	Sustainable or green	Direct financing	Project finance	Ex ante and ex post	Green Loan Principles (GLP), Social Loan Principles (SLP)	No applicable rules
	Sustainability-linked		General finance		LMA/LSTA Sustainability-Linked Loan Principles (SLLP)	

Globally, two market standard-setters have developed frameworks for sustainable loans and bonds: the Loan Markets Association (LMA) and the International Capital Markets Association (ICMA), respectively.[19] While neither have introduced a mandatory definition of sustainability—either environmental or social—they do identify specific categories of projects or indicators that delimit sustainability concerns, e.g. related to renewable energy, affordable housing or access to basic infrastructure. The Green Bond Principles were published in 2014,[20] with Social and Sustainability Bond Principles following in 2018.[21]

[19] For the role of international organisations and transnational networks in developing global 'boiler plate' corporate financing instruments, see Heather McKeen-Edwards and Tony Porter, *Transnational Financial Associations and the Governance of Global Finance: Assembling Wealth and Power* (London: Routledge, 2013); Jordana Jacint, 'Trans-Governmental Networks as Regulatory Intermediaries: Horizontal Collaboration and the Realities of Soft Power' (2017) 670(1) *Annals of the American Academy of Political and Social Science* 245. For an exploration of ISDA in the context of the securitisation market, see Annelise Riles, *Collateral Knowledge: Legal Reasoning in the Global Financial Markets* (Chicago: University of Chicago Press, 2011); Eric Helleiner, *The Status Quo Crisis: Global Financial Governance After the 2008 Meltdown* (Oxford: Oxford University Press, 2014).

[20] International Capital Market Association, *Green Bond Principles* (ICMA 2014).

[21] International Capital Market Association, *Social Bond Principles* (ICMA 2018); International Capital Market Association, *Sustainability Bond Guidelines* (ICMA 2018).

For green bonds, the ICMA's guidance covers the use of proceeds, the process for evaluating and selecting projects and rules for managing the proceeds and reporting. In addition, the ICMA recommends that a Green Bond Framework (GBF), outlining how the issuer intends to comply with their principles, be developed and disclosed by the issuer. Such disclosure should be verified by an external reviewer with the latter's Second Party Opinion (SPO) to be published on the issuer's website. As regards general financing instruments, the ICMA's 2020 Sustainability-Linked Bond Principles require that the issuer select and calibrate appropriate KPIs and sustainability performance targets (SPTs), define features of the bond on how the financial conditions change when the KPIs are achieved, commit to regular reporting and secure verification of the sustainable finance framework.[22]

As regards loan financing, the LMA's 2018 Sustainable Loan Principles (SLPs)[23] and 2020 Sustainability-Linked Loan Principles (SLLPs)[24] established analogous principles. However, they are tailored specifically to lending relationships, and they offer more flexibility as regards the structuring of the loan terms. They also involve less granular guidance on social issues (i.e. there are no dedicated 'social' loan principles, as in the case of bond principles). Notwithstanding important differences between the standards, such as the required level of transparency, they share common features.[25] Firstly, sustainable finance instruments require an articulated link to 'sustainability' issues—either in terms of projects to be financed or the overall strategic commitments of the borrower to be outlined in a dedicated green financing document. Secondly, the standards and market practice foresee a key role for an external party in reviewing a corporation's sustainable finance framework in order to assess their compliance with standards and level of ambition. Thirdly, and this aspect is particularly important for the bond market, sustainable finance instruments come with novel obligations related to continuous monitoring and reporting of impact.

In parallel to the development of global market standards, the EU's sustainable finance agenda was introduced to support the rechannelling of

[22] International Capital Market Association, *Sustainability-Linked Bond Principles* (ICMA 2020).

[23] Loan Market Association, *Sustainable Loan Principles* (LMA 2018).

[24] Loan Market Association, *Sustainability-Linked Loan Principles* (LMA 2020).

[25] See e.g. Nikos Maragopoulos, 'Toward a European Green Bond Standard: A European Initiative to Promote Sustainable Finance' in David Ramos Muñoz and Agnieszka Smoleńska (eds), *Greening the Bond Market: A European Perspective* (Cham: Palgrave Macmillan, 2023) 21; Agnieszka Smoleńska, 'European Capitalisms in Sustainability Transition: The Case of Green Bonds', *European Journal of Public Policy* (2025).

capital flows into sustainable investments and to improve corporate governance through more comprehensively incorporating environmental and social considerations and extending corporates' time horizons.[26] The EU regulations have directly and indirectly created a system of labels for green and sustainable financial products and services that further substantiate the above-mentioned key characteristics developed by the ICMA and the LMA. The cornerstone of the EU's approach is the EU Green Taxonomy, which elaborates criteria for activities to be considered 'sustainable', while the EU Green Bond Regulation (EUGBR) introduces a voluntary regime for 'high quality' bond instruments whose proceeds are meant to finance environmentally beneficial projects.[27] Any issuer—public or private, based in the EU or a third country—can choose to issue a bond in line with the EUGBR requirements. Two aspects of the EU regime are central to its credibility. Firstly, the regulation requires granular pre- and post-issuance disclosures regarding the green financing, the overall strategy of the company and the impact on social aspects, such as just transition.Secondly, a mandatory supervisory regime is established for the external reviewers of such disclosures, whereby the European Securities and Markets Agency (ESMA) is tasked with registering and monitoring compliance of external reviewers of corporate GBFs with principles relating to framework's integrity and competence.[28] In addition to a binding regime for bonds identified as 'green', the EUGBR introduces a voluntary regime for sustainability-linked bonds, that is, bonds whose financial or structural characteristics vary depending on whether the issuer achieves predefined environmental sustainability objectives and links these to an overall transition strategy of the firm.[29] Despite most EU countries being predominantly bank-based systems, there

[26] Iris H-Y Chiu, 'The EU Sustainable Finance Agenda: Developing Governance for Double Materiality in Sustainability Metrics' (2022) 23 *European Business Organisation Law Review* 87; Agnieszka Smoleńska, 'Euro as the Currency of the EU's Green Transition' (2022) 1 *European Law Open*.

[27] Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds, OJ L, 2023/2631, 30 November 2023 (henceforth 'EUGBR'). For commentary, see Ramos Muñoz and Smoleńska, n.25.

[28] Adrienne Héritier and Magnus G Schoeller (eds), *Governing Finance in Europe: A Centralisation of Rulemaking?* (Cheltenham: Edward Elgar Publishing, 2020).

[29] European Commission, 'Communication from the Commission establishing guidelines for pre-issuance disclosure templates for issuers of bonds marketed as environmentally sustainable or of sustainability-linked bonds' (Commission Communication, 16 April 2025).

is currently no dedicated regulatory treatment for sustainable loan financing under EU law.[30]

The EU's intervention in the sustainable finance market extends beyond regulation: European institutions have leveraged their various positions as policymakers and legislators, supervisors and central banks and market participants to facilitate market development.[31] The impact of such multifaceted intervention on individual *private* financing relationships that are identified as 'sustainable' is rarely captured by the legal scholarship. However, the comprehensiveness of the EU intervention provides a unique test case for capturing the law's potential role in supporting transformation of the socio-economic system.[32] In the light of these puzzles, the following sections seek to answer two questions. Firstly, how are sustainable finance instruments different from non-sustainable finance from a legal perspective? And secondly, how can any such differences, and the institutional dynamics observed in their context, contribute to our understanding of the law's constitutive role in the economy and its transformative potential?

3. CONSTITUTIVE DYNAMICS OF LAW IN SUSTAINABLE FINANCE

That the law shapes and co-constitutes finance, including sustainable finance, is not self-evident. In fact, much of the existing sustainable finance literature treats law as epiphenomenal to the interests and practices of market actors or as an expression of the political preferences of the strongest players.[33]

[30] The European Banking Authority (EBA) did, however, put forward a proposal for an EU definition of green loans—EBA, 'Report in Response to the Call for Evidence from the European Commission on Green Loans and Mortgages' (2023). Note however, that under the CRR3 disclosures, large EU banks are obliged to disclose their sustainability lending, following own definitions—see Commission Implementing Regulation (EU) 2022/2453 of 30 November 2022 amending the implementing technical standards laid down in Implementing Regulation (EU) 2021/637 as regards the disclosure of environmental, social and governance risks, OJ L 324, 19 December 2022, pp. 1–54 ('Pillar III ESG ITS').

[31] Smoleńska, n.25.

[32] While sustainable finance is a global trend, this multifaceted nature of EU intervention warrants a dedicated analysis—see e.g. Ioannis Kampourakis, 'The Market as an Instrument of Planning in Sustainability Capitalism' (2023) 2(3) European Law Open 511. Future work may further expand the cross-jurisdictional perspective.

[33] Jan Fichtner, Robin Jaspert and Johannes Petry, 'Mind the ESG Capital Allocation Gap: The Role of Index Providers, Standard-setting, and 'Green' Indices for the Creation of Sustainability Impact' (2024) 18 *Regulation & Governance* 479; Matthew Archer, 'Governing through ESG and the Green Spirit of Asset Manager Capitalism' (2024) 56(2) *Environment and Planning A: Economy and Space* 662.

Such perspectives are revealing of political economy dynamics. However, by overlooking the legal environment dimension, they also limit the potential of legal coding as a vehicle for change. Entering into a dialogue with this sceptical perspective offers an avenue to explore what the law is, how the law may be co-constitutive of the economy and where specific features of the law preconfigure market interactions, such as how the legal terms distribute risk and reward.

The existing sustainable finance law is largely composed of mandatory corporate governance (disclosure) and financial regulation, in addition to the emerging transnational and private law rules.[34] A legal institutionalist perspective draws our attention to how these aspects 'code' or 'encase' specific types of power relationships, values and inequalities.[35] Here the law constitutes market interactions in the sense that it preconfigures and gives form to financial relationships.[36] Specific legal modules, such as contract, property or company law, distribute risk and reward and structure the interaction between actors over time (e.g. via monitoring and reporting obligations). For example, contract law may shift the downside risks to weaker parties (e.g. via limitation of liability clauses), while property law may elevate the claims of specific owners insulating them from losses (e.g. via priority claims). The 'legal encasing' of specific economic rationalities—such as those that silo economic and environmental realities—through deploying legal concepts, the role of lawyering and modes of legal enforcement, limits the possible market ordering alternatives within a particular jurisdiction.[37] As Lang proposes, law and legal practices may in different ways be part of the cognitive infrastructures of modern markets, that inform behaviour and are social in the sense they are shared, collectively produced and embedded.[38]

[34]See e.g. Megan Bowman, 'Law and Regulation for Climate Finance: Presenting a Legal Analytical Framework' in Rene Smits (ed), *Climate Change and Sustainable Finance: Law and Regulation* (Cheltenham: Edward Elgar, 2024).

[35]See especially Pistor, n.6 on Legal Theory of Finance, also from a regulatory perspective: Katharina Pistor, 'Regulating Financial Markets – An LTF Perspective' in Emilios Avgouleas and David C. Donald (eds), *The Political Economy of Financial Regulation* (Cambridge: Cambridge University Press, 2019) 19–37.

[36]Simon Deakin, David Gindis, Geoffrey M Hodgson and Kainan Huang, 'Legal Institutionalism: Capitalism and the Constitutive Role of Law' (2017) *Journal of Comparative Economics* 45(1) 188; Katharina Pistor, 'Law in Finance' (2013) 41 *Journal of Comparative Economics* 311; Geoffrey M Hodgson, *Conceptualizing Capitalism: Institutions, Evolution, Future* (Chicago: University of Chicago Press, 2015).

[37]Quinn Slobodian *Globalists: The End of Empire and the Birth of Neoliberalism* (Harvard: Harvard University Press, 2019).

[38]Andrew T F Lang, 'The Legal Construction of Economic Rationalities?' (2013) 40 *Journal of Law and Society* 155.

There are different aspects of such legal coding that can be captured by considering the different aspects of the legal environment as proposed by Edelman and Suchman, who have differentiated between those aspects that are regulatory (in the sense of introducing a mandatory set of behaviours), facilitative (in the sense of setting the terms of interaction between actors) and constitutive (in the sense of introducing legal forms and categories).[39] All three of these aspects relate to how law may be (co)constitutive of the financial outcomes, by creating a common framework for institutional interactions. They are also deeply intertwined with each other.[40] From an analytical perspective, this framework offers an elegant way to disentangle the salience of the different types of legal and other governance rules and their relationship to market practice and outcomes.

In addition to differentiating between the aspects of the legal environment of green bonds, as suggested above, sustainable finance instruments—as defined by the international standard-setters and EU legislation outlined above—draw our attention to the pre-contractual and post-contractual contexts that shape firms' financing choices.[41] To capture how these contexts differ from traditional finance, I analyse green bonds across three phases of the financial instrument lifecycle: negotiation, contracting and enforcement, with the latter category spanning monitoring, marketing and public oversight. Seeing sustainable finance law over time allows to explore how the different aspects of the legal environment shape and sustain specific forms of (extractive) capitalism centred on profit and logics of accumulation.In addition, an extended temporal view can more inclusively capture not only the legal coding of green finance, but also how intermediaries and non-legal professionals facilitate legal endogeneity, that is how legal provisions become law in action.[42]

The analytical perspective, which is summarised in Table 2, builds on other explorations of the transformative potential of law,[43] in that in addition to the immediate function of law, it also looks at how the (private) legal relationship is irrevocably intertwined with the different ways of lawyering

[39] The differentiation builds on Edelman and Suchman's exploration of legal environments shaping organisations—Edelman and Suchman, n.15.

[40] Edelman and Suchman, n.15, p. 507.

[41] Pistor, n.34, p. 325.

[42] Jean Pélisse, 'Varieties of Legal Intermediaries: When Non-Legal Professionals Act as Legal Intermediaries' in Austin Sarat (ed), *Legal Intermediation* (Studies in Law, Politics, and Society, vol 81, Leeds: Emerald Publishing, 2019) 101.

[43] Poul F. Kjaer, 'What Is Transformative Law?' (2022) 1(4) *European Law Open* 760.

Table 2. Legal environment aspects of sustainable debt

Legal environment aspect		Analytical question	Relevant legal environment aspect of green bonds (examples)
Regulatory	control-and-command law with organisational responses defining compliance	How are the rules for behaviour affected?	contracts, corporate law, confidentiality laws, product standards, enforcement rules
Facilitative	tools for interaction and dispute resolution in an organisational context	What are the tools/processes shaping interaction between actors?	negotiation, monitoring, marketing
Constitutive	legal forms and categories that help define the nature of organisations	What are the foundational properties?	definitions, default rules, roles and responsibilities

(i.e. who and how gives substance to the sustainability-related obligations between parties) and law-making (e.g. the role of the macrofinancial regime and financial supervision in shaping behaviour).[44] In so doing, this article expands on the legal institutionalist approaches[45] and draws on a broader regulation perspective,[46] in that it considers not only the direct and indirect changes in debt relationships in the context of sustainable finance standards, but also considers the other measures that shape actor behaviour (i.e.

[44]Daniela Gabor and Benjamin Braun, 'Green Macrofinancial Regimes' (2025) *Review of International Political Economy* 32(3) 542.

[45]Deakin et al., n.36.

[46]For more on the distinction between law, legislation and regulation, see Nir Kosti, David Levi-Faur and Guy Mor, 'Legislation and Regulation: Three Analytical Distinctions' (2019) 7(3) *The Theory and Practice of Legislation* 169; David Levi-Faur, 'Regulatory Capitalism' in Peter Drahos (ed), *Regulatory Theory: Foundations and Applications* (Canberra: ANU Press, 2017); and Bowman, n.34.

self-regulation and macrofinancial regimes).[47] The focus on private debt relationships additionally complements the transformative law debate on direct public and planning interventions in market ordering.[48] This perspective allows us to explore the role of law in expanding or constraining new ways of incorporating the social and environmental objectives whose pursuit is to be financed, as well as to differentiate between them.

4. EU GREEN BOND ISSUANCES: EVERYTHING HAS TO CHANGE SO THAT NOTHING CHANGES?

This section explores four dimensions of green bond development: the structure and legal framing of green bond prospectuses and documentation; the shifting dynamics in the negotiation process, including new actors and motivations; the post-issuance practices of monitoring and marketing that define the governance of these instruments; and the positioning of green debt within the context of macro-financial policy regimes. Each dimension sheds light on how law is being stretched, reshaped or bypassed to accommodate sustainability goals.

The findings in this section draw on the prospectus terms of 35 green bond issuances in the Netherlands, Spain, Sweden and Poland from 2019 to 2024, i.e. the period before the EU Green Bond Regulation entered into force. The analysis of green bond documentation was supplemented by 18 semi-structured interviews with lawyers, bankers and representatives of the broader ecosystem (public authorities and civil society organisations).[49] The interviewees were identified on the basis of their direct involvement in the structuring of green bonds as lawyers or bankers. The insights from the interviews were used to probe the validity of the inferences from the comparative legal analysis, e.g. by gauging the market participants' interpretation of the legal terms and their assessment of the evolution of green bonds over time.

[47] For more on law and development, see Douglas Arner, *Financial Stability, Economic Growth, and the Role of Law* (Cambridge: Cambridge University Press, 2007).

[48] Kampourakis, n.32; Paul Dermine, 'The Planning Method: An Inquiry into the Constitutional Ramifications of a New EU Governance Technique' (2024) 61 *Common Market Law Review* 959, 959–992.

[49] For a full list of the prospectuses and interviews, see Supplementary Material, n.14. The prospectuses were selected to ensure equal number of prospectuses from the four jurisdictions and a representativity of sectors of the issuer (energy and utility companies, banks and manufacturing).

A. Green Bond Prospectuses and Accompanying Documentation

Sustainable finance debt instruments, such as green bonds, are characterised by three key innovations when it comes to the terms of issue included in the prospectus and the accompanying documentation. Firstly, the final terms of issue include references to sustainability performance and new types of issuer obligations. Secondly, the borrower outlines the disclosure commitments in dedicated sustainable or green finance frameworks (GBFs) and regular reports. Thirdly, green bond issuances are accompanied by the SPOs by external reviewers, which are separately disclosed by the issuer and may be referenced in the prospectus terms.

The legal terms of sustainable finance are enshrined in loan contracts and bond indentures. The publicly available bond documentation allows for analyse of how some of the aspects of the legal environment shape the legal terms contained therein. What formal rules, related to contract, corporate or property (investor protection) law, shape the provisions on sustainability obligations in terms of financing? How detailed are the definitions of specific sustainability considerations? In what ways do the provisions relate to different stakeholders?

A comparative analysis of bond prospectuses reveals the issuers' inconsistent integration of sustainability commitments. From a regulatory legal environment perspective, this suggests that even where most issuances follow the ICMA's Green Bond Principles, the absence of mandatory rules regarding precisely how the sustainability objectives of the issuance relate to the terms of issue creates room for very different legal forms. In terms of integrating a green bond into the binding elements of a bond issue, the analysed prospectuses most commonly mention that the green bond use of proceeds is the 'reason for issue', or they refer to a separate 'use of proceeds' section which clarifies that the proceeds (or an equivalent amount) will be used to finance green projects in the disclosed bond terms. The level of commitment varies: generally, issuers 'will' use the proceeds to finance eligible green projects, although several issuers use lighter language, for example, referring to an 'intention'[50] or explicitly allowing for the fungibility of funds.[51] Only in five Polish bond issues was the green use of proceeds identified as a legally binding 'purpose of issue'. In one case, this was supplemented with a Supervisory Board resolution that further shores up the

[50] Swedish Volvo (2024), n.14.
[51] E.g. Swedish Fabege (2024), n.14.

commitment.[52] Such strong legal encasing of the commitment stems from local investor protection laws which foresee criminal sanctions for deviating from the stated purpose of issue. For sustainability-linked debt, where the achievement of specific targets is linked to structural features, the provisions are more detailed across jurisdictions.[53]

From a regulatory perspective, the legal environment plays a role in shielding the terms of issue *against* the sustainability commitments limiting the liability of the issuer for underperformance in this regard, as the green bond prospectuses are rife with waivers and disclaimers. Such disclaimers focus especially on clarifying the limited scope of 'forward-looking' statements, the possibility of not meeting investor expectations regarding environmental performance and limiting the borrower's liability for future contingencies.[54] The waivers insulate from liability the issuer, dealers and providers of external verification services,[55] although the disclaimers are much more detailed in the context of developed financial markets (e.g. Sweden or Netherlands) than in less developed ones (e.g. Poland).

The constitutive legal environment, relating to how the understanding around the sustainability features of projects is constructed and shared by the stakeholder involved, appears highly fragmented. Few issuers include specific definitions of environmental considerations in the terms of issue or refer to EU rules that include such definitions. In fact, many bond issues include phrasing in which the issuers emphasise that there is no common understanding of what activities are sustainable, only to follow this statement with a reference to the EU taxonomy. For example, in one Swedish bond issue, a reference to the EUGBR and the EU Green Taxonomy is followed by a statement that 'both of these initiatives are still under development and it is not clear to what extent they, or other developments in market practices or regulatory requirements in the area, will impact the Green Terms and/or the Company'.[56] Similar wording is found in most of the bond issues from multinational firms.

Moreover, references to what issuers mean by sustainability are often found in greatest detail in the *risk* section of the prospectus, rather than the sections that outline the purpose for seeking financing. Here, sustainability

[52] Polish Ghelamco (2023), n.14.
[53] Swedish H&M (2023) and Dutch Delhaize (2023), n.14.
[54] Agostini, n.9, p. 164.
[55] Dutch ING (2022) and Swedish Volvo (2024), n.14.
[56] Swedish Sveaskog (2023), n.14.

definitions are at times even considered to be a risk factor. The Swedish company Cibius, for example, in its 2024 prospectus, alerts potential investors to the losses that non-compliance with EU regulations can bring about in direct financial or reputational terms, even while making tentative pledges to comply with the standard.[57] It appears easier to apply the EU sustainable finance framework in Poland and Spain—at least according to the information disclosed in the prospectuses. The 2023 issue from the Polish bank Pekao includes commitments to follow the Green Taxonomy classifications when selecting eligible projects to be financed, without qualification.The Spanish bank BBVA, meanwhile, refers to its internal efforts to follow that regulation.[58]

This tension regarding the foundational aspects of sustainable finance extends to how the green financing frameworks are (not) being incorporated into legally binding terms of the prospectus. As part of GBFs, the borrower commits to specific governance procedures regarding the selection of projects (including cross-business line coordination) and their management (including tracking of the use of proceeds and audits thereof). For sustainability-linked debt, the documents disclose the relevant KPIs, such as greenhouse gas emission reductions in CO2e or energy efficiency savings in MWh, as well as the calibration of SPTs, which should correspond to a material improvement in performance along a predefined timeline. In addition, a key feature of the sustainability-linked products is that borrowers disclose specific financial and structural characteristics, including variation of the coupon linked to specific coupon events.[59] Both types of green financing frameworks include details on reporting (including its frequency) and external verification throughout the lifecycle of the financing. Despite the prominence of the GBFs as a key feature of sustainable financing, their link to the legal terms of financing differs across the bond prospectuses. EU issuers typically refer to the GBFs in the prospectuses, despite excluding them from the list of documents incorporated by reference (such as annual financial reports).[60] Investors 'should have regard' for GBFs, though they create

[57]See also Swedish SEB (2023); Dutch Green Storm (2023), n.14. For example, Swedish Fabege's issuance identifies the risk that bond issues might not meet EUGBR even in 2019.

[58]Spanish BBVA (2024), n.14.

[59]A coupon is the periodic interest payment that a bond issuer makes to the bondholder, usually expressed as a percentage of the bond's face value. A step-up/step-down coupon event are when the coupon rate changes under specified conditions, either being increased (step-up) or decreased (step-down).

[60]Dutch Stedin (2021) and Swedish Vasakronan (2022), n.14.

no legal obligations.[61] The issuers also shield themselves from any deviation from the use of proceeds under GBFs, emphasising that such situations should not be treated as an event of default.[62] However, the more recent issuances[63] across jurisdictions, and, as mentioned above, those in Poland,[64] show that it is possible to more directly integrate the documents outlining the commitments and the terms of issue.[65]

Despite the above-mentioned limitations, several types of contractual innovations with regard to sustainability-themed financing differentiate it from traditional forms of financing. Firstly, notwithstanding the limitations described above, bond issuers do include information related to their green and sustainability performance in their prospectuses. This may be either a reference to the GBF or other information related to decarbonisation pathways. Even where the prospectuses explicitly deny incorporation of these documents, they evidently create expectations in the investors. In the case of sustainability-linked bonds, the issuer's terms of issue include step-up or step-down provisions.[66] This information is subsequently integrated into the marketing of the instrument on secondary markets. Secondly, there were a few examples of contractual sanctions in the terms of the prospectus. Several Polish prospectuses explicitly provide for early redemption of bonds if the issuer does not use the proceeds in accordance with the green purpose.[67]

As far as the legal encasing of sustainable corporate debt is concerned, there is evident tension in the regulatory legal environment incorporating sustainability. On the one hand, GBFs and references to them in the prospectuses' terms of issue clarify the link between the financing and environmental or social impacts of firms' activity in a quasi-regulatory way.[68] In some jurisdictions, mandatory provisions related to the terms of green debt have been introduced. On the other hand, the legal incorporation of

[61] Dutch Delhaize (2023), n.14.

[62] Events of Default in bonds are specific situations or conditions, defined in the bond indenture or loan agreement, that constitute a breach by the issuer and allow bondholders (or the trustee on their behalf) to accelerate repayment of principal and interest. See e.g. Polish mBank (2022), n.14.

[63] Dutch Alliander (2024), n.14.

[64] Polish mBank (2023) and Famur (2021), n.14.

[65] Polish Ghelamco (2023), n.14.

[66] This is notwithstanding the structural loopholes which may be integrated into the terms, such as the option to buy-back debt before—Imtiaz Ul Haq and Djeneba Doumbia, 'Structural Loopholes in Sustainability-linked Bonds' (2022) *World Bank Policy Research Working Paper Series*.

[67] Polish Famur (2021), n.14.

[68] For more on green bond clauses' (representations, warranties and covenants) quasi-regulatory role, see Agostini, n.9, p. 161.

a GBF into the prospectus is often denied, with waivers and disclaimers explicitly limiting the liability of the borrower for achieving the outlined goals. This suggests that the law's co-constitutive role entails fragmenting the understanding of sustainability and shielding the actors involved from performance-related obligations. At the same time, even where the pre-existing regulatory environment struggles to grapple with the new types of obligations (and time horizons) of mutual commitments between the lender/investor and the borrower, the emerging regulatory standards result in (often disclosed) documentation that effectively becomes an integral part of mutual expectations. This begs the question of how tenable should be considered the waivers and disclaimers in formal documentation.Taking into account the negotiation and preparatory stage of sustainable finance, as well as the subsequent monitoring and marketing, can shed light on potential sites of legal environment transformation.

B. Negotiating Green Bonds: New Voices in the Room

Given the relative freedom involved in determining the terms of debt financing, the negotiation stage is broadly recognised as important and contingent on specific features of the borrower and the financing in general.[69] An understanding of the normative dimension of green bond terms is therefore incomplete without an analysis of how what preceded it—the negotiation phase—differs from the way in which financing would normally have been arranged. This aspect's importance is suggested by the emphasis that the standards for sustainable finance place on the development of the GBF, including the detail on project selection and management it entails, and by the role of external reviewers. What brings firms and banks together and motivates them to discuss sustainable finance instruments? How does the facilitative legal environment shape the green bond terms?

With regard to the regulatory and facilitative aspects of the legal environment that shape the motivations and roles of actors, the literature points to how banks and companies engage in sustainable finance for different reasons—reputational benefits, cost of capital[70] or broader strategy

[69]Ellis Ferran, 'Debt Corporate Finance – General Consideration' in Eilís Ferran, Elizabeth Howell and Felix Steffek (eds) *Principles of Corporate Finance Law* (Oxford: Oxford University Press, 2014), 270.

[70]With conflicting evidence regarding the cost of obtaining sustainable financing, the cost dimension of sustainable finance is less prominent—see Julian Kölbel and Adriene Lambillon, n.4.

implementation—without differentiating corporate governance or investor protection regimes.[71] However, interviews with market participants suggest that there are important distinctions in the actors' motivations that relate to law: for example, interviewees involved in Swedish issuances prioritise corporate governance rules, whereas in other jurisdictions it is rather the reputational and compliance considerations.[72] In addition, it is often the financial institutions that, e.g., due to investor demands or supervisory concerns, 'nudge' clients towards sustainable product offerings, as opposed to the other way round.[73]

Sustainable finance and the legal standards that shape it trigger shifts in the roles that affect more than the way the actors are brought together. Firstly, for sustainable finance transactions involving numerous financial institutions, a new role of sustainability coordinator has been created. This designated bank is tasked with a leading role in negotiating the sustainability-related aspects of the terms of issue, which requires a dedicated type of expertise on sustainability within the organisation.[74] Secondly, new actors gain influence over the type of projects that are to be financed. Specialised sustainability experts have emerged to provide external verification of the sustainability pledges outlined in GBFs of the firms seeking 'sustainable' financing. Such services take the form of second party opinions (SPOs), assurance or ESG ratings, which may inform the structure of sustainability-linked financing, for example, by being linked to specific step-up or step-down events triggering changes in coupon rates. In this way, (new) external parties become an integral part of the financing relationship up until the maturity of the debt, where they verify subsequent reports from the issuer or adjust the ESG rating of the company.

[71] See e.g. Marleen Dutordoir, Shengyu Li and João Queiroz Ferreira Neto, 'Issuer Motivations for Corporate Green Bond Offerings' (2024) 35 *British Journal of Management* 952, who compare US, Western European and Chinese issuances. Even where scholars observe the link to territorial aspects, the link to jurisdictional constraints is not made. See Alexander Monk and Richard Perkins, 'What Explains the Emergence and Diffusion of Green Bonds?' (2020) 145 *Energy Policy* 111641.

[72] Interview SE-1, Interview PL-3 and Interview SP-2, n.14.

[73] See Interviews in n.72. Reluctance from corporate clients for such a 'forensic' approach to their sustainability credentials is evident in market commentary: 'Many corporates prefer lenders to take a more holistic approach to their sustainability strategies in their credit discussions. This is in contrast to the forensic approach required for specific 'labelled' sustainable finance products', Herbert Smith Freehills and the Association of Corporate Treasurers, *Corporate Debt and Treasury Report 2024* (Herbert Smith Freehills/Association of Corporate Treasurers 2024) https://www.hsfkramer.com/insights/reports/corporate-debt-and-treasury-report-2024/ accessed 15 June 2025.

[74] Interview PL-3, n.14.

These transformations draw our attention to the dynamics of differentiation (vis-à-vis traditional finance) and expansion (in terms of the greater inclusivity of the process) in the legal environment of sustainable finance. Sustainable financing involves two important changes as compared to traditional negotiations: firstly, it accords a special place to sustainability topics as part of the discussion of mutual expectations; secondly, it involves new roles and actors. Both these changes are relevant and consequential from the perspective of exploring the constitutive role of law in sustainable finance, where they alter the facilitative legal environment and are intertwined with the regulatory aspects, such as the corporate governance regimes that frame the motivations of the actors. With the new motivations of borrowers and lenders comes the demand for new kinds of knowledge, namely sustainability knowledge. Such expertise is not external to the negotiation process, as might have been the case in the past (e.g. for technical expertise relating to the project's feasibility), but becomes an integral part and object of the discussions—the facilitative dimension of the legal environment thus contributes to laying the foundations for green bonds as a distinct financial instrument.

C. Monitoring and Marketing of Green Bonds

The sustainability performance of the corporations issuing green bonds is another area where we can identify distinguishing features of sustainability financing that influence and are influenced by the legal environment. Even the concern about greenwashing, so often raised in the context of sustainable finance, is evidence of increased scrutiny over the corporate bonds' financing terms as well as of increased access to information about the firms' environmental and social performance. As in the case of sustainable finance negotiations, the facilitative environment of green bonds following the issuances differs from that of 'traditional' financial instruments.

Following the conclusion of a contract and the issuance of debt, sustainable finance instruments are distinguished by the bespoke external governance regime that relies on monitoring and marketing rather than judicial routes. Cases of private enforcement related to sustainable finance instruments are almost non-existent,[75] not least because the options for redress

[75] Agostini, n.9, p. 165. For an overview of a 2023 Australian case where the Federal Court ruled that Vanguard Investments Australia's claims about an ethical bond were false and misleading, see Joanna Setzer and Catherine Higham, *Global Trends in Climate Change*

for bondholders in the event of breach of sustainability objectives are limited, especially where specific terms are not included in the prospectus or are drafted in an overly vague manner.[76] The EU Green Bond regime, meanwhile, relies mostly on procedural disclosure obligations rather than substantive provisions.[77] As the concerns about the credibility of sustainable finance instruments increase, several potential routes to such litigation by aggrieved investors, especially, have been identified in jurisdiction-specific contexts, especially regarding incorrect representations and breach of covenants, linked to intentional or negligent omissions and/or incorrect or defective reporting, for example.[78] Nevertheless, the interviewed legal practitioners were doubtful as to whether claims without an economic loss for the investors stemming from falling short of the 'green promises' would hold up in court.[79]

However, as in the case of those processes which precede the issuance of debt, the weakness of the regulatory legal environment for enforcement draws our attention to the facilitative aspects of the roles of different public and private actors and structures in monitoring and marketing green bonds and differentiating such instruments from other, 'unsustainable' debt. Exploring the facilitative aspects of the legal environment of green bonds captures two features of sustainable finance that demarcate these instruments from 'traditional' financing: the role of monitoring (reporting) and marketing.

As regards monitoring, to the extent that achieving specific sustainability objectives is the *raison d'etre* for sustainable debt, both ICMA and LMA

Litigation: 2024 Snapshot (London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, 2024) https://www.lse.ac.uk/granthaminstitute/publication/global-trends-in-climate-change-litigation-2024-snapshot/ accessed 15 June 2025.

[76] Victor Contreras Kong and Ebbe Rogge, 'Sustainability-linked Products: International Private Law Standards' (2024) 39(2) *Journal of International Banking Law and Regulation* 55, 55–63.

[77] Elia Cerrato García and Federica Agostini, 'The Green Bonds Market in the Light of European Commission's Proposal: Implications for Greenwashing Liability' in David Ramos Muñoz and Agnieszka Smoleńska (eds), *Greening the Bond Market: A European Perspective* (Cham: Palgrave Macmillan, 2023) 127–174.

[78] Agostini, n.9, p. 167.

[79] For the US context, see e.g. Motoko Aizawa, 'Reflections on Legal Issues Associated with Green Bonds: A Reflection by Climate Bonds Senior Fellow Motoko Aizawa from Our NYC Legal Workshop' (Climate Bonds Initiative, 5 May 2015) https://www.climatebonds.net/news-events/blog/reflections-legal-issues-associated-green-bonds-reflection-climate-bonds-senior-fellow-motoko-aizawa-nyc-legal-workshop accessed 8 July 2024.

standards encourage regular reporting.[80] The EU Green Bond regime, while being more prescriptive regarding the pre- and post-issuance disclosures, likewise relies on the disclosure of the relevant information, in line with the broader EU approach to regulating corporate governance in this way.[81] Such impact and allocation reports for bonds are another key differentiating feature of green debt, going beyond the standard process of 'the ongoing acquisition, processing, interpretation, and verification of information about the firm' known in the context of debt governance.[82] Sustainable finance, therefore, involves greater transparency about the terms of issue and performance through the scope of post-issuance disclosures and the publication of SPOs, which allow not just investors but also interested stakeholders to better monitor the companies' commitments. Some issuers further follow best practices by seeking and disclosing auditor reports (assurance) on the allocation of their green bond proceeds. While the credibility of such documents may still raise valid concerns (e.g. due to conflicts of interest), the fact that some issuers opt for this option, while others do not, is an important dimension that further differentiates sustainable debt instruments.

In addition to such new forms of reporting, sustainable debt is subject to differentiated marketing practices on secondary markets that effectively create another layer of dedicated sustainability monitoring. Firstly, green and sustainability bonds might be placed on special 'green' market segments on exchanges. Most large stock exchanges in the EU now have dedicated sustainable-bond market segments. The inclusion in such a segment may be made conditional on additional, explicit procedures to verify the greenness of issuances. Several issuers explicitly refer in their bond prospectuses to the intention to place the bond on such exchanges. The entry rules—and therefore the facilitative environment of such issuances—differ across markets. Of the four analysed jurisdictions, two exchanges have no explicit additional entry rules. In Sweden, the Nasdaq sustainable debt segment requires that green documentation be submitted as part of a listing's approval.[83] In Poland, issuers who wish to include their green bonds on the dedicated Catalyst secondary market segment are required to sign and

[80] Park, n.9.

[81] Iris H-Y Chiu, 'Disclosure Regulation and Sustainability: Legislation and Governance Implications' in Beate Sjåfjell and Christopher M Bruner (eds), *The Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability* (Cambridge: Cambridge University Press, 2019) 521–535; Virginia Harper Ho, 'Climate Disclosure Line-Drawing and Securities Regulation' (2023) 56 *UC Davis Law Review* 1875.

[82] George G Trantis and Ronald J Daniels, 'The Role of Debt in Interactive Corporate Governance' (1995) 83 *California Law Review* 1073, 1079.

[83] This is the same documentation that is already available on the issuer's website (i.e. GBFs and corresponding SPO).

disclose an additional document confirming their sustainability commitments at the entity level. A variant of this secondary market practice is the inclusion or exclusion of a given debt instrument in an ESG index. Benchmark composition methodology may distinguish such debt from non-sustainable finance[84] as well as *among* green debt, where regulatory standards differentiate different 'shades' of sustainability.[85] Effectively, such market mechanisms reinforce the differentiation of sustainable finance products from 'traditional' products, encasing the sustainability commitments of firms (through secondary market rules and practices) and shaping their motivations for seeking sustainable debt.

Secondly, financial data providers have begun to include information related to the sustainability performance of the borrower, together with impact information (in some cases), in the offered data products relating to specific financial instruments. Information included spans ESG ratings or scores (e.g. by MSCI, Bloomberg or Sustainalytics) which summarise the firms' profile, usually based on disclosures.[86] In addition, investors in the green debt product are provided with brief summaries of the overall ESG strategy of the firm (e.g. 'net zero'/biodiversity strategy, gender inclusion policies or business ethics). Although the extent to which investors may be guided by such information in their financial decisions cannot be determined by such features and services, it is doubtful that commercial data providers would develop them in the absence of any demand. Furthermore, such information impacts the firm through reputational channels, and may subsequently trigger controversies or litigation.[87]

[84] For a discussion on how this may amount to informational regulation, see Oren Perez, 'Private Environmental Governance as Ensemble Regulation: A Critical Exploration of Sustainability Indexes and the New Ensemble Politics' 12 *Theoretical Inquiries in Law* (2011) 2, 543; Stephen Park, 'Green Bonds and Beyond: Debt Financing as a Sustainability Driver' in Beate Sjåfjell and Christopher M. Bruner (eds), *Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability* (Cambridge: Cambridge University Press, 2019).

[85] The Sustainable Finance Disclosure Regulation (SFDR) introduces a mandatory disclosure regime for sustainable financial products in the EU. SFDR establishes different disclosure regimes for different types of products as regards their sustainability impact. While not a sustainability regime in the narrow sense, the SFDR differentiates between products that have some environmental and social characteristics (Art. 8 products) and those that actively promote sustainability objectives (Art. 9 products)—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, OJ L 317, 9 December 2019, pp. 1–16 ('SFDR').

[86] Ramos Muñoz and Smoleńska, n.25.

[87] Guy Ritchie and Alistair Marsh, 'Bankers Seek Legal Cover After Backing $1.5 Trillion of ESG Debt', 5 November 2023, Bloomberg https://www.bloomberg.com/news/articles/2023-11-05/bankers-seek-legal-cover-after-backing-1-5-trillion-of-esg-debt/ accessed 8 July 2024.

These external governance aspects are particularly important for bond financing, given the limited rights of bondholders (i.e. who have no voting rights as opposed to shareholders), and they effectively become a key part of the facilitative environment of sustainable finance.[88] The rules of the facilitative legal environment identified above relate to secondary market entry conditions, further discussed below, which shape actors' actions given the potential and actual impact on pricing. Whereas typically dispersed ownership is considered to loosen the covenant monitoring incentives,[89] in the case of green bonds, we can identify a *governance through ESG* dimension, that is, governance through classifications and inclusion in dedicated market segments.[90] The legal environment of the micro-level firm–finance relationship shapes and is shaped by new meso-structures that differentiate actor performance, facilitate interactions and—to a certain extent—serve to further substantiate the sustainability commitments of actors.

D. Green Bonds in Macrofinancial Policies

How green bonds are treated by central banks and financial market supervisors constitutes another key dimension of the facilitative legal environment shaping these instruments, yet it is often overlooked in legal analyses of sustainable finance. Meanwhile, legal institutionalist perspectives have long pointed to the hybridity of finance—the blending of public and private law elements that enable private actors to create enforceable financial claims with state-backed legal authority—as a key feature of the legal coding of capitalism.[91] Policies shaping the overall macrofinancial regime[92]—for example, monetary policy calibration, prudential regulations and market conduct oversight—shape the legal environment of sustainable finance along all the

[88] Park, n.9, p. 608.

[89] Yakov Amihud, Kenneth Garbade and Marcel Kahan, 'A New Governance Structure for Corporate Bonds' (1999) 51(3) *Stanford Law Review* 447.

[90] See n.33.

[91] Pistor, n.35. The financial system relies on the 'public' nature of money, that is, the different forms of guarantees and public status of money underpinning financial relationships. The hybridity of sustainable finance, however, is even broader. While legal scholars tend to analyse financial regulation in isolated terms, sustainable finance law functions by coupling public transition targets/objectives and individual financing relationships.

[92] A macrofinancial regime is defined here as system of policies, institutions and rules that governs the interaction between a country's macroeconomy (including inflation, growth and employment) and its financial system (including banks, markets and capital flows), shaping how financial and economic stability are maintained over time. See Gabor and Braun, n.44.

analysed dimensions: the regulatory, the facilitative and the constitutive. As in the case of green bond documentation or negotiation practices, we can identify several ways in which central banks and supervisors develop dedicated green bond practices (or not).

Central banks, supervisors and regulators may react in different ways to innovation in the market. They can adapt to the new challenge, for example, by providing guidance and expectations as regards the sustainable finance practices. Or they can adopt a position of forbearance: observing the market developments from a distance.[93] So far, most of the financial authorities have adopted the latter approach.[94] Efforts to further align market practice, especially by providing a framework for differentiating the supervision of sustainable issuances under the common rules, were made largely by EU agencies, such as the European Securities and Markets Agency, and are limited to identifying specific elements of green bond frameworks that supervisors should be paying attention to.[95]

Arguably, however, in the EU we have observed that most detailed guidance regarding sustainable finance products is generally developed not by the supervisors, but rather the prudential and monetary policy authorities, especially by the European Central Bank.[96] The EU macrofinancial regime increasingly allows for favourable treatment of sustainable issuances for prudential or monetary policy purposes, e.g. by extending to these instruments eligibility criteria for specific policies, which subsequently feed across the dimensions of the legal environment. For example, the European Central Bank developed a dedicated treatment of sustainability-linked bonds that has resulted in information on whether the financing meets the ECB's standard being included in both the ICMA Principles and investor platforms.[97] Such explicit reference suggests the ECB's framework is material to shaping actors' decisions. Further, following a 2024 reform of EU

[93] Ian MacNeil, 'ESG as a Case-Study in Legal Uncertainty' (2024) 29(6) *Butterworths Journal of International Banking and Financial Law* 406.

[94] The ESMA report on greenwashing practices, for example, draws attention to the few cases of enforcement in the EU so far, but also the possible avenues for such enforcement, including via authorisation of green bond prospectuses—European Securities and Markets Authority, Final Report on Greenwashing (ESMA36-287652198-2699, 4 June 2024).

[95] European Securities and Markets Authority, 'Public Statement on Sustainability Disclosure in Prospectuses' (Public Statement, ESMA32-1399193447-441, 11 July 2023).

[96] Agnieszka Smoleńska and Jens van 't Klooster, 'A Risky Bet: Climate Change and the EU's Microprudential Framework for Banks' (2022) 8(1) *Journal of Financial Regulation* 51, 51–74.

[97] Guideline (EU) 2022/987 of the European Central Bank of 2 May 2022 amending Guideline (EU) 2015/510 on the implementation of the Eurosystem monetary policy framework, OJ L 167, 24 June 2022, pp. 113–130.

prudential rules, prudential supervisors are required to consider the sustainable finance products offered by banks in their assessment of the adequacy of internal risk management.[98] Such measures create incentives for the EU's financial sector to actively promote sustainable finance products among their clients.

These practices of key public actors within the EU's macrofinancial regime may therefore shape the supply and demand for green credit in the pursuit of a sustainable future. They restrict financial market actors, constituting the relationships between the borrower and the creditor in a particular way and granting a privileged position to sustainability considerations. Since the Great Financial Crisis, regulations across the globe have regulated finance in an increasingly granular way, in particular restricting socially harmful risk-taking and requiring banks to make further provisions for cases of instability.[99] However, this transformation is not such a foregone conclusion as the pushback against prudential regulation in general and ESG in particular (e.g. in the USA) suggests. The divergent US and EU trajectories in this regard also suggest that whereas the euro may become 'the currency of the green transition', the dollar is less likely to see a similar transformational push.[100] In the context of the legally constituted hybridity of money, such differences in the macrofinancial regimes only reinforce the observation that they are a key feature of the legal environment shaping sustainable finance, and therefore integral part of law and finance's co-constitutive dynamics more broadly.

5. DYNAMICS OF SUSTAINABLE LAW AND FINANCE CO-EVOLUTION

The analysis of green bond issuances in the EU draws attention to several dynamics related to the co-constitutive role of the law. Firstly, the formal terms of the issue confirm the role of the legal structure in encasing the terms of the risk and reward in finance. The difficulty in integrating sustainability considerations into the formal legal terms highlights how the law

[98] Directive (EU) 2024/1619 of the European Parliament and of the Council of 31 May 2024 amending Directive 2013/36/EU as regards supervisory powers, sanctions, third-country branches, and environmental, social and governance risks (CRD VI) OJ L 1619, 19 June 2024.

[99] See: Agnieszka Smoleńska 'EU Bank Regulation after the Great Financial Crisis: Swinging the Regulatory Pendulum into a New Paradigm', in Alexis Drach, and Youssef Cassis (eds), *Financial Deregulation: A Historical Perspective* (Oxford: Oxford University Press, 2021).

[100] Smoleńska, n.26.

serves to encase the perceived trade-offs between sustainability objectives and profit within the prevailing system of capital accumulation.Legal modules such as corporate governance regimes and confidentiality rules serve to insulate finance from broader accountability and enforcement. However, such encasement is not absolute, and indeed it depends on the broader legal system, including that related to investor protection and corporate governance. In addition, the cross-jurisdictional variance at play in the prospectuses studied suggests that legal institutions are highly contingent on the broader political economy, including the relative strength of non-market forms of coordination between market actors.[101] At times, legal institutions appear to isolate actors through partitioning and waiving responsibility, for example, through provisions that entrench the differences in interests and undermine mutual responsibility and accountability for the delivery of environmentally and socially beneficial projects. Since these are key legal institutions related to property and contract law, it appears that the same features which give the law its constitutive function may preclude its role in supporting the collaboration that the sustainability transition requires, unless they are reformulated in collaborative, rather than fragmenting, terms.[102]

Expanding the analysis beyond the formal terms of green bonds to the different aspects of the legal environment across the lifecycle of the debt instrument provides further insight into the law's constitutive role, in particular via differentiation from 'traditional' finance and expansion of the existing categories. Expansion here relates to the ways in which existing legal notions are stretched to include sustainability considerations, even if this implies tensions within the existing capital coding. Differentiation relates to the ways in which the legal environment supports the emergence of new roles and processes, leading to accentuating the distinct properties of sustainable finance as compared to 'traditional' finance. Expansion involves the stretching of existing concepts, processes and definition to include sustainability considerations, even where this entails tensions and internal inconsistencies. Differentiation involves new concepts, processes and definitions. Both aspects are revealing of co-constitutive dynamics of law and finance, leading to different outcomes for sustainable and non-sustainable financial instruments in this context (see Table 3). Such expansion and differentiation are identified in the following ways in relation to the different aspects of the legal environment.

[101] Smoleńska, n.24.
[102] Bartl, n.13.

As regards the expansion dynamics, these are most clear in the context of the regulatory and constitutive aspects of the legal environment. Existing concepts, such as the use of proceeds or sanctioning mechanisms, may be expanded to incorporate sustainability objectives, even where this introduces tension with the prevailing accumulation-oriented legal coding. There is nothing inherent in the legal coding of finance that precludes the financing instruments to have a purpose 'other than profit'.[103] At the same time, prospectuses may draw on safe harbour provisions to erect complex waiver fortifications – though these may actually increase, rather than diminish, market participants' expectations over time. The co-constitutive role of law here is revealed through the tension between regulatory aspects and the potential for such tensions to be resolved through non-legal means.

The differentiation dynamics emerge first and foremost in the context of the dedicated standards regulating the key features of green bonds, such as a GBF, reporting obligations or external verification. Further, secondary market entry rules are likewise identified as key to regulating behaviour and subsequently feeding back into the legal terms of the issuances. Where such practices operate as well as a vehicle for sanctioning behaviour,[104] the different aspects of the legal environment are interwoven. These features further shape the facilitative environment, and more broadly coordination

Table 3. Expansion and boundary dynamics in sustainable law and finance

	Expansion	Differentiation
Facilitative	'Sustainable' roles in financing relationships (e.g. 'coordinators' in syndicated transactions)	External verifiers and verification processes
Regulatory	Sanctions for deviating from sustainability targets	Sustainable finance product standards and secondary market entry rules
Constitutive	Purpose of issue	Special treatment of sustainable finance products for supervisory and monetary policy purposes and sustainability definitions

[103] Dutch ING (2022), n.14.

[104] For more on the endogeneity between law and organisations, see Edelman and Suchman, n.15, p. 507.

between market actors, which have more fundamental impacts. The law plays a co-constitutive role in preconfiguring financial transactions not only at the micro-level, but also via the new forms of emerging meso-structures of market monitoring and regulatory intermediation.Furthermore, the differentiating practices of supervisory and monetary authorities are critical in constitutive terms. On the central banking side, (un)favourable treatment may entail the special inclusion of green assets in collateral or asset-purchasing frameworks. On the prudential side, in addition to prioritising climate and environmental risks, supervisors may opt for favourable treatment of green assets for the purposes of risk management in prudential regulation.[105]

What insights follow for transformative projects of reimagining the law and finance to support social and environmental prosperity? Firstly, the analysis reveals that the regulatory legal environment remains underutilised in several cases: there is room for stronger legal encasing of environmental and social goals. In the case of the EU's sustainable finance policy regime, this could include further engagement with substantive—rather than purely procedural—aspects of sustainable financing. Legal innovations here, as argued by Park and Agostini, could include a standardised 'green default' provision.Furthermore, requiring that GBFs are consistently incorporated into the prospectus documentation would resolve the ambiguity of 'empty promises'. However, these are still comparatively weaker than the 'declassification'[106] or '*rendez vous*' clauses that exist for sustainable loan instruments.[107] At the very least, the sanction mechanisms—such as early redemption if the proceeds are not used in accordance with the GBF—should be consistently adopted to avoid arbitrage and greenwashing.

Secondly, the identified relevance of the macrofinancial regime for the co-constitutive dynamics of law and finance suggests that a lack of credible differentiation within the macrofinancial regime may undermine the transformation efforts and legal reform agendas. In other words, supervisory forbearance or absence of dedicated monetary policy tools may limit the transformative impacts of sustainable law and finance. Such integration needs to be sufficiently flexible, however, and the inevitable risk and

[105] Smoleńska, n.25.

[106] In this case, a failure to meet the green obligation will lead to downgrading of the debt from the 'sustainable' status—see Alastair Marsh, 'Bankers Doing Bond Deals Jolted by New Era of Issuer Clauses' *Bloomberg News* (28 April 2024).

[107] Such clauses force a renegotiation of the terms should the borrower not meet the sustainability targets.

uncertainty that come with the transformation learning phase must be accepted—too strict and narrow an interpretation (boundary reinforcing) can stifle change.[108] The role of the macrofinancial regime is especially important in the context of arguments relating to how more 'stringent' legal requirements may disincentivise the uptake of particular legal instruments. Likewise, the existence or absence of a binding Green Taxonomy (providing a classification of 'green' projects) or specific bans on ESG integration in financial management impact market trends, both with regard to the type of financial instruments selected (i.e. use of proceeds or general corporate financing with sustainability KPIs) and the overall market dynamics (e.g. the slowdown in sustainable financing in several US states).[109]

6. CONCLUSIONS

Taking the example of green bonds, an emerging trend in sustainable finance, this article has contributed to the debate on the co-constitutive role of law in finance by drawing attention to how the different aspects of the legal environment interact with sustainable finance via the dynamics of differentiation (distinguishing sustainable from traditional finance) and expansion (new actors and broader stakeholder involvement). In the context of sustainable finance, the law shapes how market actors interact (facilitation), act (regulation) and share the cognitive infrastructure of the market (constitution).[110] Although formal law has been observed to stifle transformation through waivers included in contract terms in sustainable finance, it is the very fact that these are still the object of negotiation and *ex post* monitoring that the law, in a sense, despite itself, has a transformative effect. From this perspective, the criticism dismissing law as epiphenomenal to sustainable finance is revealed to also stem from a narrow understanding of what the law is and an underestimation of the law's impact once specific regulations are in place. Legal provisions not only enjoy a special type of authority backed by laws ('coercive force'),[111] but also shape market participants' motivations and expectations, leading to various forms of legal

[108] Eriksson, n.7. In the context of fiduciary duties specifically, see also MacNeil, n.93.

[109] Simon Mundy, 'US Green Retreat: How Much Do European Asset Managers Stand to Gain?' *Financial Times* (2 June 2025).

[110] Edelman and Suchman, n.15.

[111] Following the traditional legal realist approaches. See Robert L. Hale, 'Coercion and Distribution in a Supposedly Non-Coercive State' (1923) 38(3) *Political Science Quarterly* 470.

innovation.[112] The analysis reveals that co-constitutive dynamics of sustainable law and finance are revealed not just from the formal provisions, but in how green finance changes the terms of interaction and the monitoring of behaviour over time. This finding highlights the need for a more nuanced and dynamic legal analysis capable of capturing the intricacies of this evolving market. From this perspective, the emerging concern with greenwashing should be seen as evidence of transforming expectations, and not just of malpractice.[113]

The approach elaborated in the article and its findings have implications that go beyond the green finance trend, extending to broader integration of society's concerns in financial instruments. Firstly, they draw attention to how individual financial relationships may be leveraged to pursue an entity-wide (industrial) transformation with regard to environmental as well as social considerations. Secondly, they draw attention to the importance of considering the secondary markets and macrofinancial regimes in understanding the co-constitutive role of the law in finance. Finally, they open up the possibility of different outcomes of such co-constitutive dynamics. While sustainable finance is sometimes conceived of in terms of advancing processes of relentless commodification of environment and social issues, the identified dynamics may offer avenues for engaging with the legal structuring of this phenomenon to explore alternatives to fragmentation and profit-maximisation.

[112] Cristie Ford, *Innovation and the State: Finance, Regulation, and Justice* (Cambridge: Cambridge University Press, 2017).
[113] ICMA, *Market Integrity and Greenwashing Risks in Sustainable Finance* (Report, 2024).