Sustainable finance regulation- authoritative governance or market-based governance for fund management?

Iris H-Y Chiu, Professor of Corporate Law and Financial Regulation, University College London

Abstract

An innovative form of governance for sustainable investment products has been introduced in the E.U. in order to address the fears of investment mis-selling, as well as to actively steer sustainable investment allocations towards defined causes of sustainability, in particular, environmental sustainability. The E.U.'s sustainable regulation framework is discussed in this paper as an "authoritative" form of governance without being authoritarian. Investment allocation is a matter of market choice but regulation intends to achieve clarity in relation to sustainable costs and achievements in order to influence investor choice. The U.S. and U.K. are also developing reforms in sustainable finance regulation, but are more narrowly focused on anti-mis-selling and investor protection. This paper discusses their approaches as fundamentally market-based, in contrast to the E.U.'s, as the industry and investors remain in control of defining sustainability goals, if any, in investment. The paper critically discusses the prospects of market mobilization under these different approaches and what may entail from their regulatory competition.

1. Introduction

Investment fund products labelled "socially responsible" (SRI), or taking into account environment, social, and governance concerns (ESG), have existed in the market for some time [Puashunder (2016)], without specifically being regulated in relation to their claims or labels. General mandatory disclosures (pre- and post-sale) for investor protection focus on financial information and do not specifically guard against "greenwashing". There is a trend towards heightened demand for investment products with ESG characteristics [Apostolakis et al. (2018), Delsen and Lehr (2019)], but also increasing concern regarding "greenwashing" or "social-washing", where investment products labelled with certain characteristics may obscure other harmful ESG effects, or are disingenuous but inscrutable.[1] Further, policymakers are interested in mobilizing mainstream finance to play a part in: (a) changing corporate behavior in relation to unsustainable or externality-producing economic activities [Sakhel (2017), Ahlström (2019)]; and (b) financing economic activities that help achieve climate transition and social development goals[2] for a sustainable future (HLEG (2018), European Commission (2020), Adamowicz (2022)].

The E.U. has introduced a suite of sustainable financial regulations, with more to come, in order to embed financial regulatory policy into broader economic policy for a green and sustainable European future. The embedded nature of sustainable finance regulation results in a form of regulatory governance that is poised to be authoritative for steering investment market behavior. E.U. sustainable financial regulation has characteristics of authoritative steering but still working with choice in the market. The U.S. and U.K. have, however, chosen to deal more narrowly with investor protection needs, targeting "greenwashing" or "social-washing" as forms of mis-selling. In this manner, financial regulation may not affect broader economic agendas regarding what sustainable finance ultimately *does* in terms of economic and social outcomes.

Section 2 discusses the new authoritative governance in E.U. sustainable finance regulations. There are promises as well as weaknesses in this ambitious project, which gives rise to opportunities for regulatory competition. If viewed from the competitive lens, it can be argued that the market-based governance in the U.S. and U.K.'s proposed reforms, discussed in Section 3, may be easier for market adoption. That is, unless the market discriminates against these reforms, in light of the potentially higher-quality investment products governed by the E.U. regime. The jury is out and Section 4 briefly concludes.

2. Authoritative governance in E.U. sustainable finance regulation

The background policy papers for the E.U.'s pioneering Sustainable Finance Disclosure Regulation (2019) (SFDR) and Taxonomy Regulation (2020) refer to the need to mobilize public and private sector finance towards sustainable economic activities, enabling a just and green transition for European economies [European Commission (2020)]. In this manner, sustainable finance is part of "regulatory capitalism" (Levi-Faur, 2008), as policymakers influence the steer of financial allocations and productivity. The use of regulatory policy to achieve broader economic purposes is not new to the E.U. Much of the E.U. Single Market is built upon harmonizing regulations for ease of cross-border movement of business and capital [discussions and citations in Chiu (2008)]. Furthermore, after the global financial crisis 2007-9, E.U. regulatory policy is designed to achieve public interest goods rather than simply addressing market failures. As market participants are often not incentivized to act in the collective interests of "financial stability" and instead take chaotic or disruptive actions [Schwarcz (2008), Pistor (2013)], regulatory policy can be justified for collective action needs, as well as in the case of promoting sustainable economic activities [Arber and Waygood (2020)].

Sustainable finance regulation is also rooted in the Capital Markets Union project since 2015.[3] This is the 'opportunity'-based perspective for the E.U. in governing the sustainable finance market. Emerging from dealing with the covid-19 pandemic, the E.U. could proactively build up a competitive sustainable finance capital market that meets the long-term needs of European businesses in a transitioning environment. The first Commission Capital Markets Union action plan in 2015 sees economic growth as dependent upon broadening the sources of funding for all sizes of business and economic activities in the E.U., chiefly, by expanding capital markets.[4] There is a perceived need to reduce reliance on bank funding, whose lending to smaller businesses has, after the global financial crisis, shrunk [Paulet et al. (2014), Paulet (2018)]. In this light, sustainable finance regulation is an *instrumental* part of a policy agenda to enlarge the E.U.'s capital markets. With capital markets

[1] https://bit.ly/3GdFvde
[2] UNSDGs, https://bit.ly/3VG4StV
[3] Updated 2020, https://bit.ly/3Z8c6Kn
[4] 'Despite the progress that has been made over the past 50 years, Europe's capital markets are still relatively underdeveloped and fragmented. The European economy is as big as the American one, but Europe's equity markets are less than half the size, its debt markets less than a third.' [European Commission (2015)].

in the E.U. still in need of development, the extensive sustainable finance reforms are strategic in nature to redefine the terms of competition in global capital markets. Regulation plays an enabling role to attract domestic and foreign capital raising with the support of credible frameworks and standards in sustainable finance. Such regulatory policy may fulfil the E.U.'s desire to build up deep and competitive capital markets in hugely popular sustainable finance investments, in its bid against the established capital markets in the U.S. and U.K.

The E.U.'s sustainable finance reforms first focused on investment fund providers, managers, and their products. These, however, contain basic building blocks that support further "policy spread". The reforms crucially define *sustainability cost* and *opportunities*, and compel these to be embedded into investment fund designs. We anticipate that successes in implementing sustainable finance reforms for investment funds in the E.U. would likely pave the way for "policy spread" to other areas of financial regulation, such as bank regulation. The "elephant in the room" with regard to sustainable finance reforms in the E.U. is bank regulation, as much of the E.U. economy is bank-financed. Hence, choosing to launch fundamental regulatory reform for capital markets seems odd in relation to compelling behavioral change, when banks, as the main financiers for most economic activities, can pull more weight. However, if the new definitions of sustainability cost and opportunities are implemented in capital markets, and bed down with the anticipated development of more mature data and metrics standardization, these would ultimately support bank regulation reform [Smits (2021), Esposito et al. (2021)] and even central bank policies for asset purchases [Alexander and Fisher (2020)].[5] The potential "policy spread" would establish a new authoritative governance for financial allocation more broadly. But this can be seen to rescue, not destroy, the institutions of market-led economic governance that neoliberal economies cherish [Faroohar (2022)]. However, the jury is out on whether the reforms are able to "remake" markets in respects currently regarded to be dysfunctional.

2.1 Resetting norms in investment fund management

Securities products are ultimately the building blocks for investment funds. Investor choice and fund allocation have the potential to influence investee companies and their activities, hopefully minimizing their adverse sustainability impacts or achieving positive sustainability outcomes [Pilaj (2017)].[6] The "financial lever"' [MacNeil and Esser (2022)], however, works if the "investment chain" of intermediaries and ultimate beneficiaries operate on a common language of sustainability in finance in order for coherent actions to be taken in respect of investee companies in investment portfolios. The E.U. takes leadership over defining what "adverse sustainability impacts" and "positive sustainability outcomes" are, and these are the fundamental building blocks for investible economic assets to be judged, whether they are companies, real estate, infrastructure, or others.

E.U. policy leadership eclipses an approach where investors are left to "make sense" of investment product labels and guestimate their ultimate connection to influencing sustainable corporate behavior. In the hitherto self-regulatory market for socially responsible investments (SRI), ESG, or ethical investment products, market-based governance for sustainable economic activities seems, to date, lackluster [Dupré (2020), Grewal et al. (2016), Wagemans et al. (2018), Michelon and Rodrigues (2015)]. The E.U. is engaging in regulatory

---

[5] Existing bank regulation extends to entity-level mandatory disclosure for climate risks (i.e., the U.K.'s mandatory Task Force on Climate-Related Financial Disclosures (TCFD) reporting for banks, insurers, and regulated investment firms; European regulation for banks to make mandatory disclosure of ESG risks more broadly under Art 449a, Capital Requirements Regulation 2013, 2021, as well as European Banking Authority, Final draft implementing technical standards on prudential disclosures on ESG risks in accordance with Article 449a CRR (Jan 2022). Discussed in Bruno and Lagasio (2021) and Smoleńska & van 't Klooster (2021).

[6] The literature on investor influence on corporate strategy is mixed [Inigo et al. (2017)]. Whilst investors may mobilize specific actions, such as the appointment of two climate conscious directors onto the Board of Exxon Mobil, companies are influenced by various opportunity, strategic, cost and stakeholder factors. Allais et al. (2017), Dentchev et al. (2018), Fellnhofer (2017), Rahbek et al. (2018), Morioka et al. (2017), Yang et al. (2017), Bolton and Hannon (2016), Høgevold (2011), Høgevold et al. (2015), and Bocken (2017) look at strategic opportunities, or responsiveness to competitiveness and stakeholder drivers [Frishammar and Parida (2019), Esfahbodi et al. (2017), Sroufe (2017), Eweje (2011), Pedersen and Gwozdz (2014), Rogers and Serafiem (2019)], including inter-firm collaborations [Niesten et al. (2017)]; Murmura et al. (2017) on how adoption of SA8000 brought organizational and corporate change and Wiengarten et al. (2017), Eberhardt-Toth (2017), Szekely and Dossa (2017), and Baldo and Balderelli (2017) on corporate behavioral change from corporate governance change. See, however, discussions on impediments that are unrelated to the financial lever: Fouilloux and Viviani (2018), Chen et al (2017), Covington (2017), Delchet-Cochet and Vo (2018), Przychodzen and Przychodzen (2018), and Lueg et al. (2015) discuss cost constraints, cosmeticism, or inertia against heavy lifting.

competition by a race to the top, so that domestic and foreign financial intermediaries may be attracted to be bound by a new form of norm-setting in the definition of investible economic assets through the lens of sustainability.

The Sustainable Finance Disclosure Regulation (SFDR) makes two significant regulatory contributions. First, it reframes the universe of investment fund products through the lens of their "adverse sustainability impacts" and "positive sustainability outcomes". These definitional reforms are crucial in compelling the investment markets to count the cost of sustainability risks or price the opportunities relating to these accordingly. These are "market-resetting" measures [Schoenmaker (2017)] designed to shape price formation and allocation by funds, that are significant holders of corporate equities and other alternative assets in the E.U. Before we turn to these in detail, the SFDR also intervenes into the fiduciary aspect of investment management conduct.

The SFDR now imposes an across-the-board obligation for all fund providers and managers to make disclosure, at entity level, of their policies in relation to "integration of sustainability risks". This indirectly compels all fund providers and managers to regard sustainability risks as not optional in investment management, whether or not they currently offer products that may be SRI, ESG, or ethical. All retail mutual fund (UCITs) managers, as well as hedge and private equity fund managers regulated in the E.U. must integrate sustainability risks within their strategic, organizational, and risk management.

"Sustainability risk" is defined as an environmental, social, or governance risk that is financially material to investment performance. Arguably, the SFDR seems uncontroversial - there is now less resistance to acknowledging that the modern law of fiduciary duty in asset and portfolio management includes consideration of material ESG risks [UNEPFI and the Generation Foundation (2021), Jansson and Biel (2014)]. However, the SFDR establishes the normative expectation that fund management integrates material ESG risks *for the European market.* This changes fund managers' rubric of legal risk as well as establishes boundaries for the European investment market. Is this authoritarian for the market, as it is not definitive that a fund's investment performance is affected by ESG matters[7] [see citations in Bianchi and Drew (2012), Bassan et al. (2018), and Ielasi et al. (2018) on underperformance of ESG funds]? This regulatory recalibration of fund managers' legal duty in fiduciary management is significant, and underscores the reforms in fund design and labelling that now revolve around new definitions of sustainability cost and opportunities.

More importantly, the SFDR puts an end to the self-regulation of investment fund product labelling and marketing. Empirical evidence has uncovered "greenwashing" [Micilotta (2020)], that is, fund products with certain labels being substantively no different from other mainstream products [Nitsche and Shröder (2018), Arribas et al. (2019)]. This can amount to mis-selling since certain labelled fund products entail higher fund management fees on the basis of "expertise" in curating the fund. The SFDR now compels all products to account for sustainability cost and/or achievements in a more comparable manner [Kuhn (2022)]. Narrowly, this is a bid to weed out greenwashing in self-regulated fund products. However, it may be argued that greenwashing can be addressed by enhancing disclosure supervision (see the U.S. and U.K.'s reforms shortly) and empowering mis-selling litigation. The SFDR has, however, opted for a beyond-minimalist approach of combatting market failure. A fundamental overhaul of not only product disclosure, but product classification, is introduced.

The SFDR's product classification is based on a spectrum of concern for ESG or sustainability matters. The market is, therefore, reoriented to view fund products in this manner. This product classification and mandatory disclosure system has the potential to introduce information correction mechanisms into the market, therefore guiding choice and price formation, allowing institutional and retail investors to allocate optimally. It makes major interventions into how all fund products are designed,[8] managed, and offered, to both institutional and retail investors. The SFDR's reforms are indeed akin to a form of product regulation, although regulators do not merit-vet products and approve them.

Investment fund products fall within one of the three buckets of regulatory classification, as explained below. Global asset managers selling into the European market will be affected. The SFDR covers all of the collective

[7] There is empirical evidence on superior returns of funds that employ techniques to exclude "sin stocks" [to an extent until diversification losses bite, see Ghargori and Ooi (2016), Peylo and Schaltegger (2014)] or that select stocks based on "ESG" performance [Habermann (2021), Martindale et al. (2020), Sherwood and Pollard (2018), Dorfleitner et al. (2018), Friede et al. (2015), Ashwin Kumar et al. (2016), Schröder (2014)].
[8] The coverage is comprehensive but packaged retail products including an investment element, i.e., packaged retail investment and insurance products (PRIIPs), still need including, see https://bit.ly/3IkOlbV, para 3.10.

investment (or funds) market in the E.U., applying to all providers and managers of pension funds, insurance products with investment features, retail, alternative, and other E.U.-regulated funds, as well as institutions that provide portfolio management services (including banks).

Under the SFDR, investment fund products may be "Article 6", "Article 8", or "Article 9" products. The regulatory implications for all three classifications are vast, and give rise to needs for connecting policies to be developed. This will ultimately form a comprehensive and significant system of E.U. governance.

2.2 Norm-setting 1 in Article 6: counting the cost of principal adverse impacts in investible economic assets

All fund providers and managers in scope are subject to mandatory disclosure to declare if they consider "principal adverse impacts" (PAIs) to investment decisions as a matter of investment policy, and eventually at a product level. This measure intends to make all fund managers reveal to investors how they count the sustainability cost of their investments. In this way, investors can assess fund managers' strategies and products with reference to their concerns for sustainability cost and negative impacts. Crucially, the efficacy of such disclosure lies in whether the investors can obtain the cost and externality information in such a way that easily feeds into investment considerations. The design of disclosure currently leaves something to be desired but is a sound starting point.

Where fund providers and managers consider PAIs in their investment policies, they need to disclose their due diligence policies in accounting for PAIs. Fund managers can choose not to consider PAIs, and need to disclose this and why PAIs do not matter. In sum, what may otherwise be regarded as "mainstream" products (that do not fall within niche SRI, ESG, or ethical strategies), would be reframed as Article 6 products thath must all elucidate either their PAI footprints or their agnosticism to PAIs. Large fund providers or managers (or their parent companies) with an average number of 500 employees during the financial year must publish due diligence policies on PAIs, making it not an option for them to be agnostic to PAIs. This reflects a normative expectation that larger investment houses should take the lead in "counting the cost" of their investment impacts on the environment and society.

The design of this mandatory disclosure first disincentivizes Article 6 products from agnosticism to PAIs, although small fund houses can so declare. This is because agnosticism to PAIs raises the question whether the standard of fiduciary management discussed above is met. In this way, most investment fund products would unlikely declare agnosticism and have to publish PAI due diligence policies. This regulation addresses the fund industry's (as well as the market's) present dysfunctional lack in counting the environmental and social cost of investment allocations.

The disclosure of PAI due diligence is not selective, as policymakers prescribe a list of PAI indicators that all fund managers must disclose in their due diligence policies.[9] However, the identification of PAI indicators does not necessarily lead to clarity "what PAI measurements actually are" for each fund or investee company included in the fund. Due diligence policies discuss *how* fund managers "count", but do not provide investors with "the results of the count", which is what investors need for their decisions. It is arguably unreasonable to impose on fund managers the responsibility to count PAIs of economic assets, as there must be significant reliance on corporate data, which is not yet available [La Torre et al. (2020)], as well as costly internal or external research. It is also inherently challenging for fund providers and managers to carry out due diligence on a range of investee companies that may themselves face due diligence challenges [Schilling-Vacaflor and Lenschow (2021)], such as in relation to auditing human rights impacts in their supply chains [Smit et al. (2021), Ventura (2021)] or conflict minerals [Silva and Schaltegger (2019)].

The mandatory qualitative corporate disclosures that have been introduced so far for E.U. listed companies [the E.U.'s non-financial reporting Directive 2014, see Stewart (2020), Mähönen (2020), Ohnsorge and Rogge (2021), and Ahern (2016)] are unlikely to meet the enhanced data and disclosure needs in sustainable finance reforms. Nevertheless, issuers' reporting obligations are in development under the proposed Corporate Sustainability Reporting Directive. Spurred on by the sustainable finance reforms, supporting policy and market developments are accelerated, such as standardized accounting measures for ESG and sustainability risks. This

[9] https://bit.ly/3Cem036, including scope 1, 2, and 3 greenhouse gas emissions, energy performance, other environmental indicators referenced by policies of underlying investee companies (such as with regard to biodiversity preservation, waste management, water risk, deforestation etc.), and social indicators referenced by underlying investee companies' adherence to international standards such as for labor, human rights due diligence, as well as policies in relation to gender diversity in the workplace, pay disparity, etc.

landscape has already seen much innovation, such as the Global Reporting Initiative (GRI),[10] Integrated Reporting,[11] TaskForce for Climate-related Financial Disclosures (TCFD),[12] and Sustainability Accounting Standards Board (SASB)[13] standards, and towards their consolidation and rationalization [Betti et al. (2018), Giner and Luque-Vilchez (2022)]. The International Sustainability Standards Board (ISSB)[14] is poised to lead a set of consolidated standards for global capital markets. But the European Financial Reporting Advisory Group (EFRAG)[15] would generate a set of European non-financial disclosure standards adhering to double materiality, through closely studying the Global Reporting Initiative (GRI), TCFD, and other current initiatives. Standardized corporate disclosures relating to economic assets and activities are imminently in development.

The default classification of all investment funds into Article 6 products (unless Article 8 or 9 also applies, see below) is an important first step to incorporating externality costs into investment design and disclosure. This financial lever operates throughout the investment chain. Institutional investors dealing with asset managers consider the due diligence disclosures for PAIs, and in turn are subject to their beneficiaries in explaining their choice of asset managers and investment strategies (European Shareholders' Rights Directive (2017),[16] Birkmose (2023)). Retail investors are able to obtain investment advice in relation to their concerns for externalities, by expressing "sustainability preferences", defined as including the consideration of PAIs. Investors' preferences must be implemented by investment advisers as a matter of their investment objectives [Mezzanote (2021)], or else the adviser may be in breach of its advisory duty. Investment advisers face a compliance hazard as they can only rely on disclosed PAI due diligence policies that do not form conclusions for PAI measurements as such. However, retail investors may be under the impression that advisers have a clear view of sustainability costs and can make product recommendations accordingly. The limits of PAI due diligence policies should be clarified for now, while policymakers continue to develop policies towards standardized accounting for sustainability matters (EFRAG, ISSB).

2.3 Norm-setting 2: reframing Article 8 products and implications for further policy development

Next, as the investment landscape is already replete with self-regulatory SRI, ESG, or ethical products, the E.U.'s reforms need to address how these would be treated. The E.U. does not outlaw these products in the market-based investment economy but they are classified as "Article 8" products, subject to regulatory standards. What is required is that product claims be explained according to regulatory standards designed for investor accountability and protection, in order to address the greenwashing fears that have been articulated [van Dijk-de Groot & Nijhof (2015)]. In this manner, the U.S. and U.K. reforms are similar in nature.

The standards for claim explanation are relatively demanding. This also implicates further development for supporting policies. With many supporting policies not yet in place, policymakers subtly incentivize product providers and managers to consider switching to Article 9 products. As explained below, these are subject to regulatory definitions and standards of sustainability achievements perceived to be more consistent and clearly understood [Becker et al. (2022)].[17]

Article 8 products are those that promote some form of environmental or social characteristics, good governance practices, or a mixture of them. These would correspond to the current universe of SRI, ESG, or other similarly labelled products. Product providers and managers need to disclose at product level how the claimed characteristics are achieved, and if the fund adheres to a passive strategy, how a selected reference benchmark is consistent with promoting the claimed characteristics by the fund. Further European Guidelines are in progress to require a minimum 80% allocation of assets by funds to meet the claimed characteristics.[18]

---

[10] Global Reporting Initiative, https://www.globalreporting.org/.
[11] Integrated Reporting Framework, https://www.integratedreporting.org/resource/international-ir-framework/.
[12] TaskForce for Climate-related Financial Disclosures, developed by the Financial Stability Board, https://bit.ly/3InKZoJ.
[13] Sustainability Accounting Standards Board, which has now merged into the International Financial Reporting Standards (IFRS) Foundation.
[14] International Sustainability Standards Board, part of the IFRS Foundation.
[15] https://bit.ly/3VDSSsP
[16] https://bit.ly/2uu7X6q
[17] Early evidence of supply-side "switching" into Article 9 products is observed, https://on.ft.com/3i6qdiu
[18] https://bit.ly/3jN3mZG

Fund providers and managers need to justify that claimed characteristics are met by reference to specific indicators on the part of investee companies.[19] Funds make these justifications by way of transparency of their due diligence policies and methodologies, acknowledging clearly where data gaps remain. In this manner, active fund providers and managers would have to disclose in-house research methodologies and data gaps to be subject to regulatory and market scrutiny, and whether they rely on third-party ESG ratings or other research providers.

It is well-known that rating and research providers do not use common methodologies. Their assumptions, weightings, and aggregations vary [Sipiczki (2022), Eccles and Stroehle (2019), Esty and Cort (2017), Eccles et al. (2015)]. One implication from this reform is that the fund industry could add to pressures for ESG research and rating providers to be subject to regulatory standards and oversight, in order to reduce the fund industry's legal risks for reliance. The possibility for such policy development is high in the E.U. [Chiu (2022)], given that credit rating agencies and benchmark providers have become subject to regulation.[20] Verifiers for European green bonds would also be subject to regulatory standards under the proposed Green Bonds Regulation. Commentators are, however, concerned that regulation may dampen the useful competition amongst ESG rating and research providers who innovate on different methodologies and meet different investment demand needs [Nedopil et al. (2021)]. That said, the E.U.'s credit rating agency regulation has paved the way for smaller competitors to "break into" the oligopolistic market dominated by Standard & Poor's, Moody's, and Fitch. Hence, the effects of regulation and competition need to be studied, but adverse effects to the latter should not be assumed.

For passively-managed products, fund providers and managers cannot blithely rely on an index/benchmark provided in the market but must be able to explain the choice of the index/benchmark and its consistency with claimed ESG characteristics.[21] This policy could compel index/benchmark providers to "up their game" in order to meet their buyers' needs. In particular, buyers of index/benchmark products for investment funds may put pressure on index/benchmark providers to make their methodologies less opaque, although there are competitive pressures that disincentivize such transparency [Arribas et al. (2019), Coeslier et al. (2016)]. Further, as many indices/benchmarks are carbon intensive [Cosemans and Schoenmaker (2022)], the E.U. reforms may play a role in compelling index/benchmark designs to be revisited. There is information asymmetry between index/benchmark providers and their buyers in a highly lucrative market [Harris (2020)], hence, policymakers should consider whether they wish to leave it to market discipline to influence index/benchmark designs and their accountability, or introduce regulatory standards for such indices/benchmarks. Existing E.U. benchmark regulation currently provides a relatively light regulatory regime for securities index/benchmark providers, being initially designed to regulate interest-rate benchmark providers after the LIBOR and EURIBOR scandals. This policy needs revisiting.

Where securities indices/benchmarks are "not significant", i.e., being used to reference investments under €50 bln, the regulatory regime is fairly "meta-level" and process-based. Benchmark providers need to make annual disclosure of their key methodologies, and processes, and are subject to regulatory standards regarding reliability and robustness of their methodologies. But these can be fairly general in nature, and non-significant benchmark providers are unlikely to be subject to regular supervision. The latter may become largely self-regulating in relation to their governance processes and product quality. Significant benchmarks are in theory subject to more regulatory supervision, but their supervised status may help them dominate market share, as buyers perceive lower legal risk relying on these benchmarks. Existing regulation is arguably insufficient to cater for the new sustainable finance needs in passive investing. There is also a need to visit the competition effects of benchmark regulation that distinguishes between significant and non-significant benchmarks.

Nevertheless, E.U. policy provides for Paris-aligned or Climate Transition benchmarks meeting certain minimum standards in asset allocation.[22] Underlying assets' emissions profiles have to be consistent with maintaining the 1.5°C degree goal or to achieve a level of transition decarbonization as prescribed. Investment funds could seek to be benchmarked against one of these indices/benchmarks instead of self-regulatory ones in the market. Mandatory disclosures for benchmark providers claiming to offer such benchmarks are also more

---

[19] Such as the use of proceeds in relation to debt securities, e.g., the environmental ratings of real estate assets or infrastructure.

[20] The U.K. intends to extend regulatory oversight to ESG data and rating providers, building upon a voluntary Code the industry will first develop, https://bit.ly/3VFNS72

[21] ESG-aligned benchmarked passive products do not necessarily outperform, although they may be more cost effective [Schmutz et al. (2020)].

[22] https://bit.ly/3IiBIOt

intense in nature,[23] consequently reducing legal risks for buyers/adopters of such indices/benchmarks. The introduction of Paris-aligned or Climate Transition benchmark standards does not, however, relieve the need for benchmark regulation in general to be revisited. Article 8 products can be benchmarked against social development goals or other sustainable objectives, and the market remains in need of innovations that provide robust benchmarks for passive investing.

At present, policies for ESG infomediaries and indices/benchmarks are lacking to support Article 8 product disclosures. This lacuna could play strategically in steering the investment market towards Article 9 products, preferred by policymakers. Article 9 products are tied to defined sustainability goals, instead of industry's choice of such goals in Article 8 products. However, it is not yet clear if the onus for Article 8 products to explain themselves is too high. If investors do not select against these products, and the risks of regulatory or private enforcement are low, the compliance environment may be no less conducive.

2.4 Norm-setting 3: Article 9 products and new "sustainable investment" and "taxonomy" norms

E.U. sustainable finance reforms offer an optional gold standard for investment fund products. The term "sustainable" becomes a legal term of art connoting the meeting of those standards by investment funds. This authoritative governance is intended to be voluntary but market-attractive, mobilizing markets to prefer this gold standard to self-labelled products (Article 8). Where investment products are labelled as having a "sustainable investment" objective, they are required to demonstrate that: "investment[s] [are made] in … economic activit[ies] that contribute to an environmental objective, as measured, for example, by key resource efficiency indicators on the use of energy, renewable energy, raw materials, water and land, on the production of waste, and greenhouse gas emissions, or on its impact on biodiversity and the circular economy, or … investment in ... economic activit[ies] that contribute to a social objective, in particular an investment that contributes to tackling inequality or that fosters social cohesion, social integration and labour relations, or an investment in human capital or economically or socially disadvantaged communities, provided that such investments do not significantly harm any of those objectives and that the investee companies follow good governance practices, in particular with respect to sound management structures, employee relations, remuneration of staff and tax compliance."

Article 9 investment products are meant to (a) track sustainable performance of a non-financial objective selected by the respective fund, and in so doing also (b) ensure investee companies' abide by good governance practices and (c) overall "do not significantly harm" other sustainable objectives.[24] The holistic nature of sustainable investment is meant to counter criticisms that ESG-labelled investment products can be selective in nature, claiming alignment with one or more ESG characteristics, such as "E", while undermining other aspects such as "S" [Stichele (2020), Wood (2015)].

In relation to environmental sustainability, Article 9 products would "substantially contribute" to one or more of the six environmentally sustainable objectives defined in the Taxonomy Regulation 2020. These objectives are scientifically agreed to contribute to environmental sustainability, such as objectives for climate change mitigation and adaptation, preservation of biodiversity, water and marine conservation, anti-pollution, and transition to a circular economy. The Taxonomy establishes the six-fold classification of environmentally sustainable objectives under each of which further technical screening criteria would apply to determine if particular economic activities "substantially contribute" to any of the six objectives. A cross-sectoral platform on sustainable finance including public, private, and expert actors has been constituted to advise on the appropriate technical screening criteria (including quantitative or qualitative indicators, certifications etc.) of economic activities for Taxonomy qualification.

Supporting regulation also provides incentives for fund providers and managers to offer Article 9 products. Under E.U.'s proposed Green Bonds (GB) Regulation, the "E.U. GB" is a product that must dedicate all proceeds to Taxonomy-compliant economic activities pertaining to one or more of the six objectives. Such green bonds are envisaged to be of higher quality than market-based standards at present [Berensmann et al. (2018), Park (2018)]. The E.U. GB regulation is further supported by standards for issuers in terms of management and accountability for use of proceeds and subsequent performance, investor monitoring, and gatekeepers' roles such as third-party verifiers for the credibility of E.U. green bonds. In this manner, E.U. GB issuers are supported by a regulatory gold standard to appeal to markets and may enjoy a greenium in raising funds. Investment funds invested in such E.U. GBs can also be labelled "sustainable".

[23] https://bit.ly/3IhawzG

[24] More on the meaning of this shortly.

Next, the Taxonomy Regulation requires listed companies in the E.U. to make mandatory disclosure in relation to the proportions of their turnover, operating and capital expenditures that are Taxonomy-compliant.[25] Ahead of general corporate reporting reforms, taxonomy-based reporting by listed issuers would shed light on their transition and adoption of sustainability-oriented business opportunities, so that competition for capital is based on such terms [Nipper et al. (2022)]. These disclosures support the curation of Article 9 funds. Further, investment demand for Article 9 products may increase due to reforms made to investment advice regulation. Investment advisers have to ask investors for "sustainability preferences", which are defined in relation to Taxonomy-compliant or "sustainable investment"-compliant products, or where PAIs matter. Investors are nudged towards perceiving Article 9 products as "sustainable" while Article 8 products would not meet this threshold and are not included in advisory diligence.

The E.U.'s definition of "sustainable investment" is an ambitious and authoritative form of governance that ultimately links investment funds' claims to identifiable sustainable activities, requiring accountability for such links.[26] Such accountability goes beyond combatting greenwashing or mis-selling, and intends to establish credibility for markets that claim to be funding sustainability [Pacces (2022)]. The authoritative definitions re-orient market perceptions and pricing, as commentators observe that taxonomy definitions influence other financial transactions, such as loan pricing for listed companies (Beerbaum (2022), Chrzan and Pott (2021), Sautner et al. (2022)]. In this manner, the out-competitiveness of the Article 9 product is supported by mandatory disclosures put in place ahead of those needed more generally for PAIs and Article 8 products. Indeed, Zetzsche and Bodellini (2022) argue that supporting regulatory frameworks for Article 8 products lag behind product classification, and this mis-timing of reforms can jeopardize the viability of Article 8 products.

There are moreover some pitfalls that could result in a lack of market adoption for Article 9 products. First, the E.U.'s inclusion of gas and nuclear energy in its technical screening criteria for environmentally sustainable activities likely attracts criticism regarding the credibility of the taxonomy.[27] Further, competing taxonomies in the international arena for fund-raising may already confuse investors and pose hazards to credibility [OECD (2020)]. How activities are included in a taxonomy can be subject to immense debate. Where too many activities are included, the credibility of the taxonomy is jeopardized. The E.U. taxonomy is already criticized for including too many transitioning and enabling activities [Schütz and Stede (2020)]. Insufficient inclusion can, however, lead to difficulties for curating Article 9 funds or funds may become insufficiently diversified, which affects financial performance. Further, taxonomies must be regularly updated with admissible activities and able to keep up with innovations for sustainability.

Since the Taxonomy has only dealt with the definitions for environmental sustainability, there is a universe of social objectives that can be accepted as sustainable under the SFDR without further detail. There is no social taxonomy in sight, as social objectives are entangled with difficult socio-political choices. The definition of social performance as well as pertinent data and research capabilities are all in their emergence [EBA (2022)]. Compliance "leakage" could take place in relation to Article 9 products purported to be socially sustainable. Current market offerings such as corporate social bonds [Lenzi (2021)] or impact bonds [Agnew (2016), Mendell and Barbosa (2013)] are already defining what social performance they intend to achieve for investors. Sustainability-linked bonds take a similar approach of defining a precise performance target, failing which would result in increased coupon being paid.[28] Policy clarification for these products in relation to Article 9, and the prevention of leakage of standards, would be important for attracting more mainstream investors.[29]

Finally, there may be disincentives for product providers and managers to offer Article 9 products if the compliance costs are too high, or significantly in excess of Article 8 products. Product providers and managers are faced not only with ascertaining taxonomy-compliance, but also adherence to the "do no significant harm" (DNSH) principle, and consistency with good governance practices. This is where Article 9 product claims may be costly for product providers and managers. It may not be difficult to ascertain companies' adherence to codes of corporate governance, but ascertaining that DNSH is substantively met seems more hazardous. The DNSH principle involves incorporating PAI disclosures, but corporate sustainability reporting is not yet in place, hence

[25] Article 8.
[26] In terms of explaining asset allocation in funds, the identified sustainability objective and proportion of investments meeting the objective, as well as the explanation of monitoring sustainable performance by use of methodologies, data, and indicators, while providing insight as to the estimates or limits of this, see proposed Commission delegated regulation 2022, https://bit.ly/3WKVExV
[27] https://bit.ly/3Z8OTHE
[28] ICMA's sustainability-linked bonds principles, https://bit.ly/3VNRfsY
[29] Pension funds have been risk averse towards impact investing [Brandsetter and Lehner (2015)].

product providers and managers may not have the necessary data for determining DNSH. Further, DNSH includes checking, as "minimum safeguards", for adherence to the U.N. Guiding Principles for Human Rights, the ILO convention for labour rights, and the International Bill of Rights.[30] Policy articulations by investee companies do not necessarily mean satisfactory compliance with these standards, and it is uncertain how far investment research must go. The DNSH principle is not limited to the two matters above, and its open-ended nature can create legal risk for product providers and managers in terms of what other negative impacts ought to be looked into, and how far down a supply chain of an investee company one must look. The disincentives relating to DNSH may move the industry to focus on Article 8 compliance in order to capture the ESG market, rather than race to the top. If the ideal thresholds for product definitions are impracticable to meet, the E.U.'s authoritative governance risks being disengaged from market mobilization and adoption.

We turn to the U.S. and U.K.'s approaches for reforming product labelling that relies more heavily on market-based governance. These approaches are real contenders in regulatory competition.

3. Market-based governance for sustainable finance in U.S. and U.K.

The U.S.[31] and U.K.[32] have both issued consultations on disclosure and labelling for ESG or sustainable investment funds in May and October 2022 respectively. There are significant similarities between the two proposals, but overall, both jurisdictions take a stronger market-reliant approach where (a) market choice is promoted within regulatory governance for investor protection, but I argue that (b) there is no authoritative steer in relation to product design and meeting certain sustainability outcomes.

As a baseline, both the U.S. and U.K. would like to introduce certain general disclosures for investment advisers and fund managers in terms of how they consider ESG risk factors in investment policies. The UK regime requires all regulated investment funds and firms to prepare a TCFD-compliant report,[33] which discusses how climate risks are being identified, measured, and managed, and the strategic and governance policies on the part of fund managers and investment firms. The TCFD-compliant report is intended to be upgraded to encompass more ESG factors in due course, to become a "sustainability report". In this manner, the U.K. approach edges closer to the SFDR in making material climate risks a mandatory part of fiduciary investment management, and in due course, material sustainability risks more broadly. The U.S. regime provides for voluntary disclosure, as only investment advisers who consider themselves as integrating ESG considerations need to make relevant disclosure of their strategic investment policies and conflict of interest management policies.

The U.S. and U.K. would also introduce product labelling and minimum standards for investment funds, but arguably, these reforms do not go as far as the E.U.'s in re-orienting market classifications of fund products. Fundamentally, this is because the E.U. pursues double materiality [Chiu (2022)] while the U.S. and U.K. seem content with single materiality and limited notions of double materiality. "Double materiality" refers to the concurrent attainment of both investment performance and performance in sustainability or ESG objectives that the investment product is concerned with. In the E.U., the lack of connection to doubly material outcomes is itself disingenuous. However, in the U.S. and U.K., product labelling regulation chiefly facilitates market choice and investors' doubly material preferences, if any, would be a matter for market discipline. Product labels would be optional for the U.K. and U.S. markets, and the industry determines whether to adopt them. Further, neither the U.K. nor U.S. are providing definitions for the underlying economic activities/investible assets that would qualify as ESG or sustainable, hence relying on the market to select and define these activities, subject to explanation and transparency to investors.

The SEC proposes to tackle greenwashing and disingenuity in self-regulatory ESG investment labels. It recommends three ESG-oriented product labels with minimum standards in order to steer investors by the "right" signals. The "Integration Fund" is an investment product that considers ESG factors or risks alongside non-ESG factors in investment strategies and performance. The "ESG-focused Fund" adopts a more precise strategy that selects investments or conducts engagement based on ESG factors. The "ESG Impact Fund" seeks overtly to achieve one or more ESG impacts or performance. Different disclosure requirements apply to each of the three labels, and the industry can decide whether to choose to apply such labels. The incentive for choosing a label governed by SEC standards is to appeal to investors that funds' disclosures are subject to potential discipline if in breach of those standards. Ultimately, there is no compulsion to adopt such labelling.

[30] Art 18, and https://bit.ly/3WMtpiA
[31] https://bit.ly/3WHA0uz
[32] https://bit.ly/3VHfatZ
[33] https://bit.ly/3Vzh1ko

The "Integration Fund" covers a broad scope of investment strategies. It is envisaged that many funds would consider some manner of material ESG risks, making them eligible for the 'Integration Fund' label. The burdens for taking on such labelling are not onerous, as the SEC envisages only general disclosure of how certain ESG factors are taken into account for investment management. However, where the fund considers climate risks in particular, it must disclose the levels of scope 1, 2, and 3 greenhouse gas emissions in its portfolio. Integration Funds seem to be free to select what ESG risks it considers, and whether or not these are for materiality purposes. Disclosures by Integration Funds do not necessarily make it convenient for investors to compare their ESG-relevance or what the fund may achieve with its ESG strategy. In this manner, it is uncertain how the Integration Fund label improves the market for investors in terms of choice and credibility.

Where the U.K. is concerned, there is also express freedom for funds not to opt into one of its three voluntary labels: "sustainable focus", "sustainable improver", or "sustainable impact". The "sustainable focus" product is designed to select allocations based on certain ESG factors, and resemble the U.S.' "ESG-focused" fund. The "sustainable improver" fund does not meet the requirements of the "sustainable focus" label but is intended to deploy allocation and facilitate engagement so as to achieve improvement in portfolio companies' ESG performance. The "sustainable impact" fund, similar to the U.S. counterpart, would be dedicated to achieving particular ESG impact(s). Funds would choose whether to meet the minimum standards of the Financial Conduct Authority (FCA's) labels, which can be perceived to appeal to investors. The FCA also intends to introduce a baseline against greenwashing, and that is to ban the use of terms "sustainable", "ESG", "climate", "impact", and other specified terms that a fund may adopt for self-labelling, where a fund does not meet any of the three labels governed by the FCA's standards. This prevents the industry from undermining the FCA's labels with creative language. The U.S. has a similar "names rule", which compels funds to maintain 80% of assets consistent with its label, with proposed extensive application to a range of names beyond ESG.[34]

The U.S.' "ESG focused" fund and the U.K.'s "sustainable focus" fund are those that incorporate current investment strategies in terms of exclusion, positive and negative screening, best-in-class stock-picking, and passive benchmarked strategies to ESG indices. In the U.S., the label "ESG-focused" pertains to investment strategies, not ESG/sustainability outcomes as such. There is no indication as to whether the ESG or sustainability-focused strategies have anything to do with single or double materiality. In this manner, the ESG-focused label is governed in terms of disclosure of strategy and processes, and it is up to the investors to discern what outcomes follow from these strategies and processes.

The FCA's "sustainable focus" fund, however, resembles the Article 8 product discussed above. Fund providers and managers need to identify what ESG characteristics they adopt for the fund's focus, the evaluative criteria and metrics for those characteristics, and their methodologies for ensuring that the ESG or sustainability objective(s) are met. Where third-party information, ratings, or analysis is used, fund managers' own due diligence should still be evidenced. Although disclosure-based, funds are required to demonstrate post-sale achievements beyond strategic and procedural disclosures. However, it is queried to what extent the supporting frameworks required for Article 8 products would also be needed in the U.K. The U.K. would need to develop corporate reporting of ESG and sustainability impacts and achievements, audit requirements for such reports, and regulatory standards for informediaries such as analysis and ratings providers and index providers. These are important for fund managers who would incur legal risk in labelling a "sustainable focus fund".

The FCA also proposes that "sustainable focus" funds should have at least 70% of their allocation in assets that meet an environmental or social sustainability standard but it is uncertain what certification standards would be acceptable. Further, would these certification standards suffice for fund managers' demonstration of their evaluation that claimed ESG/sustainability characteristics are met? There are varying degrees of credibility in relation to industry-based or quasi-regulatory certifications for various economic activities [Partiti (2022), Moser and Leipold (2021)]. The "sustainable focus" fund, like the Article 8 product, is potentially an unattractive label in view of the needs for robust compliance. However, fund managers may not be significantly affected by legal risk if the market cannot precisely discern the degree of accuracy of fund managers' claims. The market for the sustainable focus fund or Article 8 product would in part depend on future developments in investor litigation for mis-selling.[35]

The FCA's "sustainable improver" and "sustainable impact" funds, as well as the SEC's "ESG Impact" funds, are underpinned by more prescribed disclosures. There is a need to account for what the improver fund has

[34] https://bit.ly/3WXcycr

[35] At worst, investors can opportunistically sue a fund manager for mis-selling when the financial performance is also disappointing, making Article 8 disclosures hazardous for opportunistic litigation.

achieved in terms of ESG improvement, as well as what the respective impact funds have achieved in terms of the relevant sustainable/ESG outcomes.

The FCA's sustainable improver fund leaves some ambiguity in terms of whether precise improvement must be shown, or whether funds can disclose "procedural", not substantive, achievements in terms of their engagement and activist efforts for such changes.

The U.S. and U.K. impact fund products require clear identification of the impact sought to be achieved and the key performance indicators applied to ascertain achievement. These labels serve doubly material investment expectations. They also consolidate and recognize market developments in impact investing [Fox (2011), Brandstetter and Lehner (2016)]. By introducing the impact fund labels, the SEC and FCA support and work with market developments, and could mobilize the investment fund industry to develop such products for mainstream investors. Although the nature and type of impact is self-determined, there is a benefit to allowing investors to fund various impact outcomes, instead of being confined to a taxonomy. Self-regulatory definitions of impact, however, risk being self-serving or disingenuous.

Under the U.S. and U.K. proposals, the fund industry remains in control of what ESG/sustainable matters they incorporate, to what extent, and for what purposes. This approach recognizes the achievements of market developments, such as in impact investing or ESG-improvement engagement. Regulation facilitates and mobilizes investor discipline for the veracity of claims. The reforms are, however, incomplete without addressing how investor discipline would be supported. We need to address the discipline of institutional investors by their beneficiaries, and improving investor litigation for mis-selling, including clarifying the standing to sue in the investment chain.

4. Conclusion

Whether policymakers adopt market-based governance for sustainable finance or the E.U.'s authoritative governance, they share a common baseline of needing to work with investment markets. The market-based governance of sustainable finance ultimately leaves the industry to define ESG or sustainable goals even if they have to justify what they define/claim. But the E.U. disagrees with merely leaving to markets to define sustainability/ESG goals as well as evaluating if they are achieved. Narrowly focusing on "investor protection" may sit comfortably within the SEC's and FCA's mandates but an opportunity is missed for interrogating the relationship between financial regulation and broader sustainability objectives. The E.U.'s authoritative governance builds upon market-based governance by introducing a greater extent of the visible hand to connect sustainable finance to defined sustainability goals (Article 9 products) and to assist investors in judging if those connections are made. In this manner, the market is incentivized to consider the appeal of authoritative governance as an extension of investor protection, and such governance is not authoritarian in nature. However, with regulatory competition from the U.S. and U.K., the fund industry may converge upon Article 8 products which the ESG-focused or "sustainable focus" fund resembles. These could be preferred over the Article 9 product as they may be globally offered with one set of regulatory costs. Regulatory competition may set the stage for the potential winning out by market-based governance, as the E.U.'s authoritative standards are ultimately subject to market choice.

References

Adamowicz, M., 2022, "Green deal, green growth and green economy as a means of support for attaining the sustainable development goals," 14 Sustainability 5901
Agnew, L., 2016, "Regional impact investing for institutional investors," in Lehner, O. M. (ed.), Routledge Handbook of Social and Sustainable Finance, Routledge
Ahern, D., "Turning up the heat: EU sustainability goals and the role of the reporting under the non-financial reporting directive," 13 ECFR 599
Ahlström, H., 2019, "Policy hotspots for sustainability: changes in the EU regulation of sustainable business and finance," 11 Sustainability 499
Alexander, K., and P. G. Fisher, 2020, "Central banking and climate change," in Fisher, P. G. (ed.), Making the financial system sustainable, Cambridge University Press
Apostolakis, G., G. Van Dijk, R. J. Blomme, F. Kraanen, and A. P. Papadopoulos, 2018, "Predicting pension beneficiaries' behaviour when offered a socially responsible and impact investment portfolio," 8 Journal of Sustainable Finance & Investment 213
Arber, P., and S. Waygood, 2020, "Capitalism meets multilateralism," in Fisher, P. G. (ed.), Making the financial system sustainable, Cambridge University Press
Arribas, I., M. D. Espinós-Vañó, F. García, and P. B. Morales-Bañuelos, 2019, "The inclusion of socially irresponsible companies in sustainable stock indices," 11 Sustainability 2047

Bassan, H., K. Gupta, and R. P. McIver, 2018, “Environmental sustainability and inter and intra-industry variation in stock returns: international evidence,” in Boubaker, S., D. Cumming, and D. K. Nguyen (eds.), Research handbook of investing in the triple bottom line, Edward Elgar
Becker, M. G., F. Martin, and A. Walter, 2022, “The power of ESG transparency: the effect of the new SFDR: sustainability labels on mutual funds and individual investors,” 47 Finance Research Letters 102708
Beerbaum, D., 2022, “Development of a sustainability taxonomy for investor decision usefulness – reflection of SEC and ISSB climate-related disclosures,” SSRN, https://bit.ly/3WKX0J1
Berensmann, K., F. Dafe, and N. Lindenberg, 2018, “Demystifying green bonds,” in Boubaker, S., D. Cumming, and D. K. Nguyen (eds.), Research handbook of investing in the triple bottom line, Edward Elgar
Betti, G., C. Consolandi, and R. G. Eccles, 2018, “The relationship between investor materiality and the sustainable development goals,” SSRN, https://bit.ly/3jIJDdJ
Bianchi, R. J., and M. E. Drew, 2012, “Sustainable stock indices and long-term portfolio decisions,” 2 Journal of Sustainable Finance & Investment 303
Brandstetter, L., and O. M. Lehner, 2016, “Opening the market for impact investments,” Lehner, O. M. (ed.), Routledge handbook of social and sustainable finance, Routledge
Bruno, M., and V. Lagasio, 2021, “An overview of the European policies on ESG in the banking sector,” Sustainability 13:22, 1-10
Chiu, I. H-Y., 2008, Regulatory convergence in EU securities regulation, Kluwer Law International
Chiu, I. H-Y., 2022, “The EU sustainable finance agenda - developing governance for double materiality in sustainability metrics, 23 European Business Organisation Law Review 87
Chrzan, S., and C. Pott, 2021, “Does the EU taxonomy for green investments affect investor judgment? An experimental study of private and professional German investors,” SSRN, https://bit.ly/3GBAgpq
Coeslier, M., C. Louche, and J-F. Hétet, 2016, “On the relevance of low-carbon stock indices to tackle climate change,” 6 Journal of Sustainable Finance & Investment 247
Cosemans, M., and D. Schoenmaker, 2022, “Carbon bias in index investing,” SSRN, https://bit.ly/3CjaDa4
Delsen, L., and A. Lehr, 2019, “Value matters or values matter? An analysis of heterogeneity in preferences for sustainable investments,” 9 Journal of Sustainable Finance & Investment 240
Dupré, S., 2020, “Individual impact investors,” in Fisher, P. G. (ed.), Making the financial system sustainable, Cambridge University Press
EBA, 2022, “Final draft implementing technical standards on prudential disclosures on ESG risks in accordance with Article 449a CRR,” European Banking Authority, https://bit.ly/3VHhqBt
Eccles, R. G., J. Herron, and G. Serafeim, 2015, “Reliable sustainability ratings,” in Hebb, T., J. P. Hawley, A. G. F. Hoepner, A. L. Neher, and D. Wood (eds.), The Routledge handbook of responsible investment, Routledge
Eccles, R. G. and J. C. Stroehle, 2019, “Exploring social origins in the construction of ESG measures,” SSRN, https://bit.ly/3X2vKVY
Esposito, L., G. Mastromatteo, and A. Molocchi, 2021, “Extending ‘environment-risk weighted assets’: EU taxonomy and banking supervision,” 11 Journal of Sustainable Finance and Investment 214
Esty, D., and T. Cort, 2017, “The data challenges that remain,” in Kronsinsky, C., and S. Purdom (eds.), Sustainable investing: revolutions in theory and practice, Routledge Earthscan
European Commission, 2015, “Building a Capital Markets Union,” Green Paper, https://bit.ly/3Ge7Sb9
European Commission, 2020, “A European Green Deal: striving to be the first climate-neutral continent,” https://bit.ly/3GBwso8
Faroohar, R., 2022, “The new rules for business in a post-neoliberal world,” Financial Times, October 9
Fox, C., 2011, “Early lessons from the social impact bond at HMP Peterborough,” 58 The Journal of Community and Criminal Justice 407
Giner, B., and M., Luque-Vílchez, 2022, “A commentary on the “new” institutional actors in sustainability reporting standard-setting: a European perspective,” Sustainability Accounting, Management and Policy Journal, https://bit.ly/3jNXhfx
Grewal, J., G. Serafeim, and A. Yoon, 2016, “Shareholder activism on sustainability issues,” Harvard Business School Working Paper, No. 17-003, July
Harris, D. E, 2020, “Passive-aggressive or just engaged?” in Fisher, P. G. (ed.), Making the financial system sustainable, Cambridge University Press
HLEG, 2018, “Financing a sustainable European economy,” High-Level Expert Group (HLEG), https://bit.ly/3ImKISL
Ielasi, F., M. Rossolini, and S. Limberti, 2018, “Sustainability-themed mutual funds: an empirical examination of risk and performance,” 19 The Journal of Risk Finance 247
Jansson, M., and A. Biel, 2014, “Investment institutions’ beliefs about and attitudes toward socially responsible investment (SRI): a comparison between SRI and non-SRI management,” 22 Sustainable Development 33
Kuhn, B. M., 2022, “Sustainable finance in Germany: mapping discourses, stakeholders, and policy initiatives,” 12 Journal of Sustainable Finance & Investment 497

LaTorre, M., S. Sabelfeld, M. Blomkvist, and J. Dumay, 2020, “Rebuilding trust: sustainability and non-financial reporting and the European Union Regulation,” 28 Meditari Accountancy Research 701
Lenzi, D., 2021, “Corporate social bonds: a legal analysis,” European Company and Financial Law Review 291, https://bit.ly/3VGPmyb
Levi-Faur, D., 2005, “The global diffusion of regulatory capitalism,” 598 The Annals of the American Academy of Political and Social Science 12
MacNeil, I. G., and I-R. Esser, 2022, “From a financial to entity model of ESG,” 23 European Business Organisations Law Review 9
Mähönen, J., 2020, “Comprehensive approach to relevant and reliable reporting in Europe: a dream impossible?” 12 Sustainability 5277
Mendell, M., and E. Barbosa, 2013, “Impact investing: a preliminary analysis of emergent primary and secondary exchange platforms,” 3 Journal of Sustainable Finance & Investment 111
Mezzanotte, F. E., 2021, “Accountability in EU sustainable finance: linking the client’s sustainability preferences and the MiFID II suitability obligation,” 16 Capital Markets Law Journal 482
Michelon, G., and M. Rodrigue, 2015, “Demand for CSR: insights from shareholder proposals,” 35 Social and Environmental Accountability Journal 157
Micilotta, F., 2020, “Transparency and accountability standards for sustainable and responsible investments,” in Paul G Fisher, P. G. (ed.), Making the financial system sustainable, Cambridge University Press
Moser, C., and S. Leipold, 2021, “Toward “hardened” accountability? Analyzing the European Union’s hybrid transnational governance in timber and biofuel supply chains,” 15 Regulation and Governance 115
Nedopil, C., T. Dordi, and O. Weber, 2021, “The nature of global green finance standards—evolution, differences, and three models,” 13 Sustainability 3723
Nipper, M., A. Ostermaier, and J. Theis, 2022, “Mandatory disclosure of standardized sustainability metrics: the case of the EU taxonomy regulation,” SSRN, https://bit.ly/3VGWY3E
Nitsche, C., and M. Schröder, 2018, “Are SRI funds conventional funds in disguise or do they live up to their name?’ in Boubaker, S., D. Cumming, and D. K. Nguyen (eds.), Research handbook of investing in the triple bottom line, Edward Elgar
OECD, 2020, “Developing sustainable finance and taxonomies,” https://bit.ly/3Gxlj7E
Ohnsorge, L., and E. Rogge, 2021, “Europe’s green policy: towards a climate neutral economy by way of investors’ choice,” 18 European Company Law 36
Pacces, A. M., 2022, “Will the EU taxonomy regulation foster a sustainable corporate governance?” Sustainability, forthcoming
Park, S. K., 2018, “Investors as regulators: green bonds and the governance challenges of the sustainable finance revolution,” 54 Stanford Journal of International Law 1
Partiti, E., 2022, “The place of voluntary standards in managing social and environmental risks in global value chains,” 13 European Journal of Risk Regulation 114
Paulet, E., 2018, “Bank liquidity regulation: impact on their business model and on entrepreneurial finance in Europe,” 27 Strategic Change 339-350
Paulet, E., M. Parnaudeau, and T. Abdessemed, 2014, “The SME struggle for financing: a clampdown in European banks post-crisis,” 35 Journal of Business Strategy 36-45
Pilaj, H., 2017, “The choice architecture of sustainable and responsible investment: nudging investors toward ethical decision-making,” 140 Journal of Business Ethics 743
Pistor, K., 2013, “A legal theory of finance,” 41 Journal of Comparative Economics 315
Puashunder, J., 2016, “On the emergence, current state, and future perspectives of socially responsible investment (SRI),” 16 Consilience 38
Sakhel, A., 2017, “Corporate climate risk management: are European companies prepared?” 165 Journal of Cleaner Production 103
Schilling-Vacaflor, A., and A. Lenschow, 2021, “Hardening foreign corporate accountability through mandatory due diligence in the European Union? New trends and persisting challenges,” Regulation and Governance, https://bit.ly/3vRIpjn
Schütze, F., and J. Stede, 2020, “EU sustainable finance taxonomy – what is its role on the road towards climate neutrality?” SSRN, https://bit.ly/3WE8wWw
Schwarz, S., 2008, “Systemic risk,” 97 Georgetown Law Journal 193
Schoenmaker, D., 2017, “From risk to opportunity: a framework for sustainable finance,” SSRN, https://bit.ly/3WFUpAd
Silva, S., and S. Schaltegger, 2019, “Social assessment and management of conflict minerals: a systematic literature review,” 10 Sustainability Accounting, Management and Policy Journal 157
Sipiczki, A., 2022, “A critical look at the ESG market,” CEPS working paper, SSRN, https://bit.ly/3YYlwI6
Smit, L., G. Holly, R. McCorquodale, and S. Neely, 2021, “Human rights due diligence in global supply chains: evidence of corporate practices to inform a legal standard,” 25 The International Journal of Human Rights 945

Smits, R., 2021, “Elaborating a climate change-friendly legal perspective for the ECB,” SSRN, https://bit.ly/3YZQS1b
Smoleńska, A., and J. van 't Klooster, 2022, “A risky bet: climate change and the EU’s microprudential framework for banks,” Journal of Financial Regulation 8:1, Pages 51-74
Stewart, B. D., 2020, “Shining some light on mandatory corporate climate-related disclosure,” 17 McGill Journal of Sustainable Development Law 36
Stichele, M. V., 2020, “Strengthening green finance by better integrating the social dimensions in the European Union’s sustainable finance laws,” in Fisher, P. G. (ed.), Making the financial system sustainable, Cambridge University Press
UNEPFI and the Generation Foundation, 2021, “A legal framework for impact,” https://bit.ly/3CjojSJ
van Dijk-de Groot, M., and A. H. J. Nijhof, 2015, “Socially responsible investment funds: a review of research priorities and strategic options,” 5 Journal of Sustainable Finance & Investment 178
Ventura, L., 2021, “Supply chain management and sustainability: the new boundaries of the firm,” 26 Uniform Law Review 599
Wagemans, F. A. J., C. S. A. van Koppen, and A. P. J. Mol, 2018, “Engagement on ESG issues by Dutch pension funds: is it reaching its full potential?” 8 Journal of Sustainable Finance & Investment 301
Wood, D., 2015, “What do we mean by the S in ESG?’ in Hebb, T., J. P. Hawley, A. G. F. Hoepner, A. L. Neher, and D. Wood (eds.), The Routledge handbook of responsible investment, Routledge
Zetzsche, D. A., and M. Bodellini, 2022, “A sustainability crisis makes bad laws - towards sandbox-thinking in EU sustainable finance regulation,” SSRN, https://bit.ly/3i9tm12