SUSTAINABILITY GATEKEEPERS: ESG RATINGS AND DATA PROVIDERS

Marco Dell'Erba* & Michele Doronzo**

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** Head of Investment Modelling, Swiss Re Asset Management, Zurich.

^{*} Professor of Law, University of Zurich, Research Fellow; Institute for Corporate Governance & Finance, New York University School of Law; Global Fellow, Science and Technology Innovation Program, The Woodrow Wilson Center.

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Sustainability and Environmental, Social, and Governance (ESG) indicators have become a prominent topic for policymakers, corporations, and financial institutions, and led to the emergence of a new paradigm, sustainable finance. However, sustainable finance still lacks effective gatekeepers-whom this Article labels "Sustainability Gatekeepers"contributing to investor protection and systemic risk mitigation. Among Sustainability Gatekeepers, this Article focuses on ESG ratings and data providers, as they are increasingly influential in the economic and financial landscape although they present unsolved issues. The lack of standardization at the level of ESG indicators and the multiple methodologies that the different ESG ratings and data providers have elaborated raise doubts and concerns. Furthermore, their business activities could be a source of significant conflicts of interest. These problems share relevant similarities with some of the issues that emerged in the credit rating industry. After providing a brief background analysis of traditional gatekeepers, in particular credit ratings and credit rating agencies and their regulation, this Article considers Sustainability Gatekeepers and identifies some key features of ESG ratings, in comparison to credit ratings. Furthermore, this Article provides a review of the most popular ESG data providers and related investable indices, with an analysis of their key performance statistics. In light of these results, this Article advances some policy options to improve transparency, standardization, and alignment with climate change policies to ensure a full implementation of sustainable practices within the financial industry.

INTRODUCTION

In recent years, the problem of sustainability has increasingly permeated the political debate, corporate governance, financial markets, and central banks, and has become a transformative force that promises to reshape financial capitalism. Sustainability led to the emergence of new paradigms, such as the green economy, sustainable economy, and sustainable finance. Sustainable finance is broadly oriented towards a longterm investment horizon, and it refers to "investment decisions in the financial sector, leading to more long-term investments into sustainable economic activities and projects," on the basis of the ESG dimensions.¹ Consistent with the traditional paradigms, sustainable finance needs to rely on a strong network of gatekeepers that can assess (measuring and estimating) the quality of investments to effectively pursue the shift towards sustainability, incorporating the transition costs as well as detecting dangerous practices of "greenwashing." Gatekeepers would contribute to avoid systemic risks, including the most catastrophic forms of the "tragedy of the commons,"² and to protect investors from unscrupulous market actors. This Article offers an analysis of sustainability gatekeepers, with a focus on ESG ratings and data products providers, and contributes to advancing the debate on one of the most fundamental tools for making sustainable practices verifiable and ultimately real.

The need to "assess," "measure," and "estimate" is essential for the economy and finance. Many examples concretely clarify this need. Gross Domestic Product (GDP) is a measure for assessing the overall economic health of an individual country as well as the role of a geographic area in the world economy. GDP is a tool for governments to implement specific changes in their strategic decisions, with a view to increase productivity and growth, and in relation to other indicators, such as inflation, which measures the change in purchasing power of a currency over a certain time horizon. In finance, credit ratings reflect the likelihood that specific securities may default and represents an essential tool for investors and market actors. Investors can more rationally make their investment choices as a function of their risk aversion. At the same time, the rating of a company is equally essential for credit institutions and their internal risk management practices to adequately calibrate their exposure to financial risks. This has become especially important for credit institutions after the enactment of more stringent rules via the gradual implementation of the Basel Agreements.

^{1.} Overview of Sustainable Finance: What is Sustainable Finance, EUR. COMM'N, https: //finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en [https://perma.c c/YL4Q-8JXW] (last visited Jan. 20, 2023).

^{2.} See generally Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243 (1968). See also Garrett Hardin, *The Competitive Exclusion Principle*, 131 SCI. 1292, 1292 (1960) ("[I]f two non-interbreeding populations 'do the same thing'—that is occupy precisely the same niche in Elton's sense—and . . . if they are 'sympatric'—that is, if they occupy the same geographic territory—and . . . if population A multiplies even the least bit faster than population B, then ultimately A will completely displace B, which will become extinct."); Alain Marciano, Brett M. Frischmann & Giovanni Battista Ramello, *Tragedy of the Commons After 50 Years*, 33 J. ECON. PERSP. 211 (2019) (elaborating on the forms of the tragedy of the commons).

Sustainability requires appropriate measures to protect investors and monitor the financial and economic risks, while at the same time favoring the establishment of radically new paradigms. In this context, Environmental, Social, and Governance (ESG) indicators became of great relevance in the last two decades as an attempt to objectively assess the ability of corporations to pursue sustainable business and investments. In corporate governance, sustainability and stakeholderism are new delineations of an old concept: the interest, and the purpose of the corporation.³ They relate to the problem of social value as an alternative to shareholder value, which emerged as the main parameter also because it is measurable and precise.⁴

The ESG dimensions encompass highly heterogeneous topics including, but not limited to, climate change, human capital management, supply chain management, human rights, cybersecurity, diversity and inclusion, and many more.⁵ These multifaceted dimensions make a proper assessment especially difficult. A proper assessment of ESG indicators reconnects to the need to measure, or to "grade" investments, adopting the lexicon common to the credit rating industry. In an ideal world, the activity

^{3.} See Edward B. Rock, For Whom is the Corporation Managed in 2020? The Debate over Corporate Purpose, 76 BUS. LAW. 363 (2021) (describing corporate governance, stakeholderism, and sustainability issues); see also Jill E. Fisch & Steven Davidoff Solomon, Should Corporations Have a Purpose?, 99 TEX. L. REV. 1309, 1311 (2021) (summarizing the debate around whether corporations should have a purpose).

^{4.} See COLIN MAYER, FIRM COMMITMENT 173 (2013) (discussing the possibility of considering broader interests beyond the ones of shareholders, including taking into account a stakeholder-oriented approach); Martin Gelter, Taming or Protecting the Modern Corporation? Shareholder-Stakeholder Debates in a Comparative Light, 7 N.Y.U. J.L. & BUS. 641 (2011) (providing a historical analysis and a comparison between United States and Europe); see also Lucian A. Bebchuk & Roberto Tallarita, A Fundamental Reshaping of Finance, 106 CORNELL L. REV. 91, 95 (2021) (providing an overview of the current debate); Matteo Gatti & Chrystin D. Ondersma, Stakeholder Syndrome: Does Stakeholderism Derail Effective Protections for Weaker Constituencies?, 100 N.C. L. REV. 167, 173 (2021) (describing the importance of stakeholderism); Fisch & Solomon, supra note 3, at 1312 (arguing that "both the mutability of the corporate charter and the flexibility of the business judgment rule give corporate managers ample discretion to consider stakeholder and societal interests"); Giuliano G. Castellano & Andrea Tosato, Commercial Law Intersections, 72 HASTINGS L. J. 101, 146 (2021) (examining the issue from the standpoint of the overlap of different legal and regulatory branches of commercial law).

^{5.} See Amanda M. Rose, A Response to Calls for SEC-Mandated ESG Disclosure, 98 WASH. U. L. REV. 1821, 1822 (2021) (discussing what ESG encompasses); see also Stavros Gadinis & Amelia Miazad, Corporate Law & Social Risk, 73 VAND. L. REV. 1401, 1414–15 (2020) (elaborating on the definition of ESG). See generally Elizabeth Pollman, The Making and Meaning of ESG (U. Pa. Inst. for L. & Econ., Research Paper No. 22-23, 2022), https://ssrn.com/abstract=4219857 [https://perma.cc/PT6Z-VXF4] (providing an overview of the history and usage of the term "ESG").

of assessing, measuring, and ultimately grading sustainable activities would contribute to strengthen the reliability of ESG investments. However, such activity presents some risks as well as incongruences,⁶ and this might be a threat to the shift towards a widespread adoption of real sustainable practices in the financial system.

The financial crisis has shown that traditional ratings, such as credit ratings, may significantly misrepresent credit risks to the point of generating systemic concerns, and traditional data providers, such as credit rating agencies (CRAs), may experience problems caused by a substantial lack of transparency and conflicts of interest. Credit ratings and ESG ratings are substantially different because they operate in distinct contexts and have non-identical functions. However, the potential overlap in the medium/long term between these two dimensions underlies some analogies in terms of risks and policy implications. These analogies could also be relevant for understanding the risks at the level of CRAs and ESG data providers.

More generally, the financial crisis of 2008, as well as other previous corporate scandals, in particular Enron, Worldcom, and Parmalat (happening from the end of 1990s to early 2000s),⁷ and the more recent Wirecard scandal in Germany (2020), have proven the weakness of "gatekeepers" in corporate governance and financial markets. In these scandals, a poor technical background was coupled with significant conflicts of interests. Adopting a broad definition, the term "gatekeeper" identifies a heterogeneous category of market actors who protect investors in their capacity as certification or verification service providers.⁸ Investment bankers acting as underwriters, as well as credit rating agencies and auditors, lawyers, and financial analysts are all examples of gatekeepers.9 Gatekeepers are relevant from both a macro- and a micro-perspective, and contribute to the safeguarding of the whole financial and economic system and to investor protection, detecting potential anomalies that could lead to the emergence of systemic risks, as well as the scandals, frauds, and mispricing in financial markets that are detrimental to investors. The role of gatekeepers is complementary to

^{6.} See Ingo Walter, Sense and Nonsense in ESG Scoring, 5 J.L., FIN. & ACCT. 307, 332 (2020) (discussing the mechanics of ESG scoring).

^{7.} For an analysis of these scandals, refer to Section I.A.

^{8.} See Jennifer Payne, The Role of Gatekeepers, in THE OXFORD HANDBOOK OF FINANCIAL REGULATION 254, 256 (Niamh Moloney et al. eds., 2015) (defining the role of gatekeepers); see also JOHN C. COFFEE, JR., GATEKEEPERS: THE PROFESSIONS AND CORPORATE GOVERNANCE 1–3 (2006) (defining "gatekeepers"); Rainer Kraakman, Corporate Liability Strategies and the Costs of Legal Controls, 93 YALE L.J. 857, 868 (1984) (referring to gatekeepers as private actors that "remedy enforcement insufficiencies by conscripting deputies within the enterprise").

^{9.} Kraakman, supra note 8, at 868.

mandatory disclosure in financial markets, a not-so-successful technique that imposes specific disclosure obligations on specific categories of market actors to ensure complete information in financial markets and mitigate information asymmetry.¹⁰

In the context of sustainability, there is a clear need for appropriate gatekeepers to measure and verify the effectiveness of ESG practices in the market. Consistent with the general function performed by gatekeepers in the market, ESG gatekeepers are relevant from the abovementioned macroand micro-perspectives. Therefore, they have to protect the whole financial system from speculative bubbles and other systemic concerns, as well as contribute to the detection of frauds and scams against investors. However, ESG gatekeepers have an additional, nuanced duty, probably more difficult and important than traditional gatekeepers. ESG gatekeepers must contribute to make the transition towards sustainability more effective, which concretely implies ensuring that both public and private institutions cover the costs of the transition towards more sustainable practices.

The process towards the establishment of reliable gatekeepers is especially clear when looking at ESG measurement scores, an area in which different market leaders emerged. However, the way these companies measure ESG scores is often not clear, and discrepancies cast doubts on their consistency. A number of initiatives have attempted to implement some clarity in this context. A network of international investors united under the auspices of the United Nations formalized the Principles for Responsible Investments, "a voluntary and aspirational"¹¹ set of investment principles that "offer a menu of possible actions for incorporating ESG issues into investment practice."¹² The European Commission has launched an action plan, *Financing Sustainable Growth*, ¹³ followed by a proposal¹⁴ and the

^{10.} Academics have cast doubts on the effectiveness of mandatory disclosure. *See* Luca Enriques & Sergio Gilotta, *Disclosure and Financial Market Regulation, in* THE OXFORD HANDBOOK OF FINANCIAL REGULATION, *supra* note 8, at 511, 526–33 (showing issues with mandatory disclosure).

^{11.} What are the Principles for Responsible Investment?, PRINCIPLES FOR RESPONSIBLE INV., https://www.unpri.org/pri/what-are-the-principles-for-responsible-investment [https://p erma.cc/D5BF-NHAQ] (last visited Jan. 20, 2023).

^{12.} *Id*.

^{13.} Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, at 2, COM (2018) 97 final (Mar. 3, 2018), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097 [https://perma.cc/LGV5-SNHX].

^{14.} Commission Legislative Proposals on Sustainable Finance, EUR. COMM'N: FIN. (May 24, 2018), https://ec.europa.eu/info/publications/180524-proposal-sustainable-finance_en [ht tps://perma.cc/9QR3-UMCF].

publication of the Technical Expert Group on Sustainable Finance's *Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures*.¹⁵ More recently, the European Securities Market Authority (ESMA) identified the lack of agreement across ESG ratings and the need to create a standard to manage the risks of capital misallocation, greenwashing, and products misselling.¹⁶ Furthermore, Blackrock prepared a study for the European Commission where it considered this issue from the perspective of lending activities implemented by commercial banks.¹⁷ Although this topic is different from regulation covering capital markets, there is considerable overlap regarding tools and techniques utilized to measure and manage ESG risks.

In the United States, the debate on ESG ratings is lagging behind. In December 2019, Securities and Exchange Commission (SEC) commissioner Helen Pierce highlighted the lack of standardization in ESG factors as a key difference from financial reporting and called for increased oversight,¹⁸ emphasizing the importance for the SEC of scrutinizing the way ESG funds implement their sustainable investment choices.¹⁹ More recently, former SEC Chairman Jay Clayton expressed his concerns in relation to ESG and explained: "I have not seen circumstances where combining an analysis of E, S and G together, across a broad range of companies, for example with a 'rating' or 'score', particularly a single rating or score, would facilitate

^{15.} EU TECH. EXPERT GRP. ON SUSTAINABLE FIN., TEG FINAL REPORT ON EU CLIMATE BENCHMARKS AND BENCHMARK ESG DISCLOSURES (2019), https://commission.europa.eu/sys tem/files/2019-09/190930-sustainable-finance-teg-final-report-climate-benchmarks-and-disc losures_en.pdf [https://perma.cc/L5WX-7UTJ].

^{16.} See ESMA Calls for Legislative Action on ESG Ratings and Assessment Tools, EUR. SEC. & MKTS. AUTH. (Jan. 29, 2021), https://www.esma.europa.eu/press-news/esma-news/esma-calls-legislative-action-esg-ratings-and-assessment-tools [https://perma.cc/X7GJ-RZZ3] (describing the lack of agreement around ESG ratings).

^{17.} See FIN. STABILITY, FIN. SERVS. & CAP. MKTS. UNION, EUR. COMM'N, DEVELOPMENT OF TOOLS AND MECHANISMS FOR THE INTEGRATION OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS INTO THE EU BANKING PRUDENTIAL FRAMEWORK AND INTO BANKS' BUSINESS STRATEGIES AND INVESTMENT POLICIES, INTERIM STUDY (2020), https://co mmission.europa.eu/system/files/2020-12/201214-interim-study-esg-factors-banking_en.pdf [https://perma.cc/DF4H-26UH] (considering the need to crate standards form the perspective of the lending activities of commercial banks).

^{18.} See Pippa Stevens, 'Fooling Ourselves' to Focus On 'Amorphous' Social Investing Factors, Says SEC Commissioner Peirce, CNBC (Dec. 17, 2019, 3:49 PM), https://www.cnbc.com/2019/12/17/sec-commissioner-hester-peirce-calls-for-oversight-of-esg-funds.html [https://perma.cc/XNC3-TWUP] (calling for increased oversight in ESG).

^{19.} See Juliet Chung & Dave Michaels, ESG Funds Draw SEC Scrutiny, WALL ST. J. (Dec. 16, 2019, 7:05 AM), https://www.wsj.com/articles/esg-funds-draw-sec-scrutiny-11576 492201 [https://perma.cc/VD57-FQFD] (discussing the importance of scrutinizing ESG funds).

meaningful investment analysis that was not significantly over-inclusive and imprecise".²⁰ In December 2020, the SEC Asset Management Advisory Committee considered the possibility of issuing ad-hoc recommendations, in particular, "[s]hould particular ESG ratings providers or benchmarks be used as part of the requirements for including 'ESG' in the corresponding product name?"²¹ The following SEC Asset Management Advisory Committee convened in July 2021 did not further consider the topic, substantially mentioning the same question.²²

In the international arena, the International Organization of Securities Commissions (IOSCO) recently issued a Consultation Report titled *Environmental, Social and Governance (ESG) Ratings and Data Products Providers*,²³ showing the intention to lead in the development of international standards in the field.

This Article provides an analysis of the existing approaches to measure ESG quality, investigates the relationship between risk and return characteristics, and proposes potential policy implications. In doing so, this Article is structured as follows. Part I provides a brief background of the role of gatekeepers in financial markets, and then focuses on credit rating and CRAs, providing some clarity on what they are, their brief history, and the shift in the regulatory landscape. Part II considers a brief analysis on current trends of sustainability in financial markets, focusing on ESG ratings and highlighting the fundamental differences between credit ratings and ESG ratings. It then provides an empirical analysis of the ESG methodologies developed by major ESG data providers, with recommendations for investors looking to incorporate sustainability into their investment processes. Part III assesses the policy implications consequential to the results of the analysis at the level of mandates for regulators, conflicts of interest in the context of ESG data providers, the importance of a data-driven

^{20.} See Bhakti Mirchandani, What to Make of the SEC's Warnings and Recommendations for ESG Investing, FORBES (May 29, 2020, 11:06 AM), https://www.forbes.com/sites/bhaktimirchandani/2020/05/29/what-to-make-of-the-secs-warnings-on-esg-ratings-and-recommendations-for-esg-disclosures/ [https://perma.cc/6PAR-74BW] (quoting Jay Clayton on his concerns regarding ESG).

^{21.} ASSET MGMT. ADVISORY COMM., SEC, POTENTIAL RECOMMENDATIONS OF ESG SUBCOMMITTEE, DISCUSSION DRAFT 3 (2020), https://www.sec.gov/files/potential-recomme ndations-of-the-esg-subcommittee-12012020.pdf [https://perma.cc/58XK-QLB6].

^{22.} See ASSET MGMT. ADVISORY COMM., SEC, RECOMMENDATIONS FOR ESG, DISCUSSION DRAFT (2021), https://www.sec.gov/files/amac-recommendations-esg-subcom mittee-070721.pdf [https://perma.cc/4Y74-WJFF] (showing no further discussion of the ESG benchmarks).

^{23.} INT'L ORG. OF SEC. COMM'NS, ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) RATINGS AND DATA PRODUCTS PROVIDERS, CONSULTATION REPORT (2021), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD681.pdf [https://perma.cc/FD75-2CRN].

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approach, and the issue of negative externalities.

I. CREDIT RATING AND CREDIT RATING AGENCIES

A. Understanding the Role of Gatekeepers

Financial markets characterize for asymmetric information and other market failures, including systemic risks. Imposing informational obligations to issuers and other market actors with mandatory disclosure in primary and secondary markets is a tool for mitigating such market failures. In addition to this approach, a group of intermediaries—so-called "gatekeepers"—contribute further to mitigate the problems emerging in financial markets by operating between the investor and the issuer.²⁴ From a traditional principal-agent perspective, gatekeepers (auditors, lawyers, securities analysts, and credit rating agencies) serve as watchdogs for the public,²⁵ and help mitigate information asymmetries that might negatively affect investors and the financial system.

Gatekeepers are in a position that allows them to acquire "more information than the investing public has about an issuer's prospects and that provides them an opportunity to warn the public when that information is different than the impression given by management in the issuer's disclosures."²⁶ For example, not even normal shareholders are in a position to verify that the corporate documents, such as the annual balance sheets, provide a "true and fair view" of the company.²⁷ Therefore, hiring an auditing company is the easiest way to supervise the management of the corporation and solve organizational problems that would otherwise be insurmountable if not delegated to external entities.

The term "gatekeeper" has been employed in different ways. In the past it exclusively identified "a group of independent professionals who may be able to prevent issuer wrongdoing by withholding necessary cooperation or

^{24.} Payne, supra note 8, at 256.

^{25.} See COFFEE, supra note 8, at 267.

^{26.} Merritt B. Fox, *Gatekeeper Failures: Why Important, What to Do*, 106 MICH. L. REV. 1089, 1089 (2008).

^{27.} A true and fair view of the state of the company is a rather dynamic concept. *See* LORD LEONARD HOFFMANN & MARY HARDEN, LEGAL OPINION OBTAINED BY ACCOUNTING STANDARDS COMMITTEE OF TRUE AND FAIR VIEW, WITH PARTICULAR REFERENCE TO THE ROLE OF ACCOUNTING STANDARDS (1983), https://www.frc.org.uk/getattachment/afba0aa1-04fa-49 2a-beab-35918af6d97e/T-F-Opinon-13-September-1983.pdf [https://perma.cc/5C7H-R35N] (providing legal opinions by the Accounting Standards Committee, a now-defunct independent regulator).

consent, thereby controlling access to the capital markets."²⁸ The current view is that "gatekeeper" identifies a broader category of intermediaries who protect investors in their capacity as certification or verification service providers.²⁹ As mentioned above, investment bankers (when acting as underwriters), credit rating agencies and auditors, lawyers, and financial perform tasks as gatekeepers.³⁰ This more recent analysts all conceptualization of the role of gatekeepers suggests that gatekeepers are intermediaries with significant reputational capital, which is functional to their verification and certification information.³¹ Notably, gatekeepers' reputation should put them in a position of independence from the companies and financial institutions with which they have financial relationships. Such financial relationships can vary in nature, depending on the role that the gatekeeper has with respect to the relationship. Underwriters subscribe to the securities of a company; auditors and CRAs gain fees from the companies they assess, based on an "issuer pays" scheme,³² for the analysis of their balance sheets or the overall financial situation; and, in a similar way, lawyers are paid for the legal services they provide to the companies. Lawyers have a similar relationship, and by acting in their role as legal experts are gatekeepers assessing the legitimacy of certain operations, including both daily business operations and major deals and transactions.

By acting as intermediaries performing different functions, gatekeepers are essential for contributing to good corporate governance and protecting the financial system from systemic risks. Corporate scandals and financial crises exemplify this dual dimension of gatekeepers' roles. A line of corporate scandals from the late 1990s to the early 2000s (Enron, WorldCom, and Parmalat)³³ demonstrated that poor gatekeeping is a threat to corporate governance that ultimately leads to "social-wealth-destroying

32. See discussion infra Section II.D.

^{28.} Payne, supra note 8, at 256.

^{29.} Id.

^{30.} Id. at 255.

^{31.} Id. at 269.

^{33.} For an analysis of these scandals, see William Bratton, *Enron and the Dark Side of Shareholder Value*, 76 TUL. L. REV. 1275 (2002); John C. Coffee, Jr., *Understanding Enron:* "It's About the Gatekeepers, Stupid," 57 BUS. LAW. 1403 (2002); John C. Coffee, Jr., *Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms*, 84 B.U. L. REV. 301 (2004); Jonathan R. Macey, *Efficient Capital Markets, Corporate Disclosure, and Enron*, 89 CORNELL L. REV. 394, 405–10 (2004); Guido Ferrarini & Paolo Giudici, *Financial Scandals and the Role of Private Enforcement: The Parmalat Case* (Eur. Corp. Governance Inst., Working Paper No. 40/2005, 2005), https://ssrn.com/abstract=730403 [https://perma.cc /9FD9-TLQ7]; Frank Partnoy, *Barbarians at the Gatekeepers? A proposal for a Modified Strict Liability Regime*, 79 WASH. U. L.Q. 491 (2001).

suboptimal corporate decision making."³⁴ In Enron, Worldcom, and Parmalat, gatekeepers, both auditors and CRAs, had substantially conflicting interests. In particular, for auditors, these conflicts of interests depended on the relationship between the auditors and the corporate executives, who granted high remuneration fees in exchange for the adoption of more lenient standards when auditing the corporate accounts; in the case of Enron, the conflicts also related to consulting services provided by another branch of the company. Professor John C. Coffee suggested that the watchdogs had become the pets of those who feed them.³⁵ In these situations, gatekeepers contributed to social wealth destruction by delaying the discovery of the fraud by securities agencies and prosecutors, increasing the size—and the danger—of the scandals.

The financial crisis of 2008 highlighted the systemic relevance of gatekeepers as fundamental tools for protecting the financial system from systemic challenges. The wrong credit rating assessment on specific low-quality securities issued by financial institutions suddenly became a threat to the whole financial system. As explained below,³⁶ the inadequacy of the CRAs in assessing complex financial products, such as asset-backed securities (ABSs) and collateralized debt obligations (CDOs) related to so-called "subprime" loans, contributed to spreading low-quality securities in an extremely interconnected financial system. This situation depended on the existence of significant conflicts of interests and a lack of appropriate human and technical resources. Individual investors and the whole financial system were negatively impacted by such highly illiquid securities, which contributed to the implosion of credit institutions (Fannie Mae, Freddie Mac, and Lehmann Brothers) and significant losses suffered by investors.

B. What Are Credit Ratings?

In the context of gatekeepers, CRAs and credit ratings play a leading role. In the financial industry, the word "rating" is generally associated with "credit rating" and the operations of CRAs. Credit ratings have traditionally played a crucial role in finance because they provide investors (especially institutional investors) an indication of the quality of specific securities issued by heterogeneous institutions.

CRAs target individual securities issued by sovereign states (providing sovereign ratings), securities issued by corporations (providing corporate

^{34.} Fox, supra note 26, at 1090.

^{35.} COFFEE, supra note 8, at 335.

^{36.} See discussion infra Section I.D.

ratings), and structured finance products.³⁷ The resulting credit rating reflects the probability of default. By targeting each financial instrument, securities issued by the same entity may receive different ratings, depending on specific factors. For example, the different seniority levels in the capital structure as well as the quality of collateral contribute to the rating evaluation. Credit ratings are particularly relevant for regulated financial institutions, such as banks, pension funds, insurance, and reinsurance companies. They provide a simple way for regulators to measure the credit risk in the balance sheets of regulated entities. Assuming that credit ratings are accurate and reliable, they are a simple tool to avoid excessive risk-taking and control systemic risk, ensuring financial stability. The financial crisis of 2008 cast doubts on the accuracy of credit ratings as a measure of risk and resulted in regulatory scrutiny and actions. In addition to self-regulatory initiatives, both the EU and the United States strengthened the oversight of rating agencies.³⁸

C. History

The history of CRAs dates to the 19th century when, after the financial crisis of 1837, mercantile agencies started to provide their reporting services to the business community.³⁹ With the publication of the first security ratings for stocks and bonds by Moody's in 1909, a new era started, and new CRAs emerged, including Poor's Publishing Company, the Standard Statistics Company (which subsequently merged with Poor's), and Fitch Publishing Company.⁴⁰ After a decline between the 1930s and the 1960s, CRAs became key institutions in the changing landscape of financial markets during the late 1960s and early 1970s, when increased complexity driven by the development of financial engineering coupled with more systematic internationalization made specialized advisors necessary.⁴¹ During this time, the adoption of the "issuer pays" scheme, in which the issuer is in charge of paying the fees to the CRAs, drastically changed the way CRAs were remunerated.⁴²

^{37.} See ALINE DARBELLAY, REGULATING CREDIT RATING AGENCIES 31 (2013) (introducing and analyzing the credit rating industry).

^{38.} Id. at 68, 72.

^{39.} *Id.* at 13.

^{40.} *Id.* at 17.

^{41.} *Id.* at 26.

^{42.} Lawrence J. White, *The Credit Rating Agencies and Their Role in the Financial System, in* OXFORD HANDBOOK ON INSTITUTIONS, INTERNATIONAL ECONOMIC GOVERNANCE, AND MARKET REGULATION 9 (Eric Brousseau, Jean-Michel Glachant & Jérôme Sgarded eds., 2018).

Although the three major CRAs operate across the entire world, they are all U.S. firms. They are headquartered in the United States because of the presence of an established bond market that traditionally requires the involvement of third-party advisors.⁴³ The significant corporate scandals, and, to an even greater extent, the financial crisis of 2008, and the mistakes that CRAs made in evaluating the ABSs and CDOs, highlighted the fallacies of CRAs and their activity. According to critics, CRAs benefitted from a substantial lack of competition and transparency, as well as by acting despite their conflicts of interest.⁴⁴ Furthermore, specific rating-dependent regulations favored a dominant role for CRAs.⁴⁵

D. Regulation

Before the financial crisis, the levels of regulation of CRAs were generally low both in the United States and Europe. At the international level, the reference was the self-regulatory text published in 2004 by the International Organization of Securities Commissions (IOSCO), the *CRA Code of Conduct*, based on a "comply or explain" model.⁴⁶ Notwithstanding the substantial lack of relevant regulatory initiatives, specific differences in the activity of securities regulators in the United States and EU preluding the regulatory initiatives in the post-crisis period emerged.

While Europe remained substantially inactive until the deflagration of the financial crisis, specific events prompted U.S. regulators to take some sort of action. For this reason, the process leading to the establishment of a completely new regulatory framework in the aftermath of the financial crisis was more gradual. After the Enron and WorldCom scandals, a significant debate also involved the role of CRAs.⁴⁷ The SEC attributed to the major CRAs the status of National Recognized Statistical Rating Organization (NRSRO) after its decision to insert credit ratings and CRAs into the prudential regulation to determine the capital requirements for broker-dealers.⁴⁸ The corporate scandals, coupled with different views in opposition to the SEC, pushed Congress to enact the Credit Rating Agency Reform Act

^{43.} Id. at 5.

^{44.} John P. Hunt, Credit Rating Agencies and the "Worldwide Credit Crisis": The Limits of Reputation, the Insufficiency of Reform, and a Proposal for Improvement, 1 COLUM. BUS. L. REV. 109, 129–44 (2009).

^{45.} See DARBELLAY, supra note 37, at 21.

^{46.} Amadou N.R. Sy, *The Systemic Regulation of Credit Rating Agencies and Rated Markets* 24 (Int'l Monetary Fund, Working Paper No. 09/129, 2009), http://dx.doi.org/10.21 39/ssrn.1422699.

^{47.} See id. at 29.

^{48.} See White, supra note 42, at 11–12.

in 2006.

The Credit Rating Reform Act pursued two major objectives. First, it increased transparency, with major changes related to obtaining the status of an NRSRO, the requirement to publish an annual report coupled with an annual evaluation of its activities by the SEC.⁴⁹ Second, and consequently, it also intended to increase the level of competition among NRSROs, and the number of NRSROs indeed doubled, although this did not affect the characteristic of this network as being a substantial oligopoly.⁵⁰

In 2007, the SEC conducted an examination of the major CRAs, identifying major problems at different levels, revealing structural and knowhow deficiencies. Among them, the examination revealed relevant difficulties with rating complex structured products since 2002 and a lack of "specific, comprehensive, written procedures" for such products, a lack of disclosure in the rating process, and inappropriately managed conflicts of interest.⁵¹

The financial crisis exacerbated all of these problems. The resulting material mistakes in providing ratings for many of the most criticized financial instruments involved with the financial crisis led regulators to strengthen the existing regulatory measures. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 reduced the dependence of prudential regulation on rating-based rules, initiating the process of removing any reference to credit ratings from such regulations, and increased the supervision of the SEC over NRSROs.⁵² Furthermore, consistent with the activity initiated with the abovementioned 2006 Credit Rating Reform Act, the Dodd-Frank Act introduced new rules, requiring stronger internal control structures and governance, transparency, and disclosures obligations. This was functional to pursue market integrity and mitigate conflicts of interest, while increasing rating quality and rating agencies' accountability.⁵³

The Dodd-Frank Act created an ad-hoc entity, the Office of Credit Ratings (OCR), in charge of supervising NRSROs. The OCR examines each NRSRO on a yearly basis⁵⁴ and issues a report.⁵⁵ Such analyses include the consistency of NRSROs conduct of business in relation to their policies, as well as procedures and rating methodologies and ethics policies, corporate

^{49.} See id. at 12.

^{50.} See Sy, supra note 46, at 26.

^{51.} See id. at 21.

^{52.} See White, supra note 42, at 12.

^{53.} *See* Jessica Kane, The SEC's Office of Credit Ratings and NRSRO Regulation: Past, Present, and Future, SEC (Feb. 24, 2020), https://www.sec.gov/news/speech/speech-jessica-kane-2020-02-24 [https://perma.cc/3X2C-J2PS].

^{54.} Dodd-Frank Act § 932(a)(3), 15 U.S.C. § 780-7(p).

^{55. 15} U.S.C. § 780-7(q)(3).

governance, management of conflicts of interest, and internal supervisory controls. $^{\rm 56}$

NRSROs have a duty to publicly disclose information on the initial credit ratings provided for each type of obligor, security, and money market instrument, and any subsequent change to such credit ratings.⁵⁷ The purpose is to allow users of credit ratings to "evaluate the accuracy of ratings and compare the performance of ratings by different [NRSROs]."⁵⁸ Each NRSRO also has to state that "no part of the rating was influenced by any other business activities, that the rating was based solely on the merits of the instruments being rated, and that such rating was an independent evaluation of the risks and merits of the instrument."⁵⁹

NRSROs must adopt procedures and methodologies, including qualitative and quantitative models, approved by the board of the NRSROs, (and, in case of material changes to such methodologies, ensure that they are applied consistently to all credit ratings), and properly notify users of credit ratings of the version of a procedure or methodology, including the qualitative methodology or quantitative inputs, used with respect to a particular credit rating, and any change occurring to them.⁶⁰

Further requirements enhance the transparency of methodologies, therefore disclosing "the assumptions underlying the credit rating procedures and methodologies . . . [,] the data that was relied on to determine the credit rating," and the information to be used by investors and other users of credit ratings to better understand the credit ratings in each class of credit rating issued by the NRSRO.⁶¹

Equally important are the corporate governance requirements, with an emphasis on the management of conflicts of interests with the provision of proper policies in place by the NRSROs, and the separation from sales and marketing and a look-back requirement.⁶² At the level of board composition, boards must contain independent directors (at least a half of them), and fulfill obligations that include overseeing policies and procedures for determining credit ratings, policies and procedures for managing and disclosing conflicts of interest, and the effectiveness of its internal control system for determining credit ratings.⁶³

- 59. Id.
- 60. Id. § 780-7(r).
- 61. *Id.* § 780-7(s).
- 62. *Id.* § 780-7(h).
- 63. Id. § 780-7(t)(3)(A).

^{56.} Id. § 780-7(p)(3)(B).

^{57.} *Id.* § 780-7(q)(3).

^{58.} *Id*.

In Europe, the financial crisis pushed regulators to provide a new Credit Rating Agency Regulation in 2009, which was amended in 2011. Under the CRA Regulation, ESMA has a mandate to supervise CRAs.⁶⁴ The CRA Regulation substantially overlaps with the rules provided by the Dodd-Frank Act, emphasizing the importance of limiting conflicts of interest,⁶⁵ while strengthening the levels of transparency—in particular, disclosure.⁶⁶ Notwithstanding efforts to reduce the reliance on rating-based regulation,⁶⁷ this remains a characteristic trait differentiating the EU and U.S. CRA regulatory reforms.⁶⁸

An important point in common between the new regimes adopted in both systems is the creation of a liability regime, which excludes any preferential treatment for CRAs' operations, as had happened in the past, especially in the United States in the pre-crisis era.

II. THE PROBLEM OF ASSESSING ESG

A. The Increasing Role of Sustainability and the Emergence of Sustainable Finance

The concept of value is extremely important in economics and of great relevance in relation to sustainability. ESG stands for environmental,⁶⁹ social,⁷⁰ and governance⁷¹ factors in investment decision-making. ESG

68. See White, supra note 42, at 17.

^{64.} See White, supra note 42, at 15. See generally DARBELLAY, supra note 37, at 72–73.

^{65.} Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on Credit Rating Agencies, 2009 O.J. (L301) 1, 12; *see also* Regulation (EU) 462/2013 of the European Parliament and of the Council of 21 May 2013 Amending Regulation (EC) 1060/2009 on Credit Rating Agencies, 2019 O.J. (L 146) 1, 14–15 (modifying article 6 of the 2009 CRA regulation).

^{66.} Regulation (EC) No 1060/2009, supra note 65, at 14.

^{67.} See DARBELLAY, supra note 37, at 73.

^{69.} Swiss Sustainable Finance includes "the environmental footprint of a company or country (e.g. energy consumption, water consumption), environmental governance (e.g. environmental management system based on ISO 14 001) and environmental product stewardship (e.g. cars with low fuel consumption)" in its definition of environmental factors. *Glossary*, SWISS SUSTAINABLE FIN., https://www.sustainablefinance.ch/en/glossary_content---1--3077.html [https://perma.cc/9BA6-D6CR] (defining "Environmental Factors (E of ESG)").

^{70.} Social factors refer to any issue pertaining to "worker rights, safety, diversity, education, labour relations, supply chain standards, community relations, and human rights." *Id.* (defining "Social Factors (S of ESG)").

^{71.} Governance factors identify the framework of policies and practices in place in a company. Traditional corporate-governance issues, such as transparency, board composition

factors are the basis for sustainable investment, and the development of the new paradigm of sustainable finance. Sustainable finance identifies any form of financial service integrating ESG factors "into the business or investment decisions for the lasting benefit of both investors and society at large."⁷² It includes, among others, sustainable funds, green bonds, impact investing, and microfinance.⁷³ Sustainable financial centers are financial marketplaces contributing to sustainable development and, at the same time, creating value in economic, environmental, and social terms.⁷⁴

Sustainable investment solutions have been available for a long time. For example, Pax World Funds launched the first socially responsible mutual fund in 1971.⁷⁵ Parnassus Investments, another company specializing in sustainable investment, was founded in 1984 and has always incorporated ESG into its decision-making process.⁷⁶ However, sustainability strategies were largely a niche play until larger asset managers, such as BlackRock Inc. and Vanguard Group, recently started adding sustainability products to their offerings.

Sustainability and ESG indicators have become extremely relevant for financial markets. ESG assets under management have witnessed tremendous growth in the last decade. This development has made sustainable investing by far the fastest growing "smart beta strategy,"⁷⁷ with annual growth in excess of seventy percent.⁷⁸ At the time of writing, global sustainable investments have reached USD 30.7 trillion. Europe is still the area with the largest asset base in sustainable strategies, at about USD 14 trillion, closely followed by the United States. In recent years, Japan has

and remuneration, and shareholder rights, fall within the governance factors. *See id.* (defining "Governance / Corporate Governance Factors (G of ESG)").

^{72.} *What is Sustainable Finance*, SWISS SUSTAINABLE FIN., https://www.sustainablefin ance.ch/en/what-is-sustainable-finance-_content---1--1055.html [https://perma.cc/BT96-8X MM].

^{73.} Id.

^{74.} Id.

^{75.} See History, IMPAX ASSET MGMT., https://impaxam.com/about-us/history/ [https:// perma.cc/AC37-K3MA] (last visited Oct. 30, 2022) (describe the history of Impax Asset Management, which acquired Paw World Management in 2018).

^{76.} *History*, PARNASSUS INVS., https://www.parnassus.com/about-us#history [https://per ma.cc/M7M2-MJS3] (last visited Oct. 30, 2022).

^{77.} A smart beta strategy is an investment strategy aiming to capture specific investment factors or market inefficiencies in a rule-based manner. *See What Is Smart Beta*?, ISHARES, ht tps://www.ishares.com/us/education/smart-beta [https://perma.cc/KA8J-65YK] (last visited Mar. 29, 2021) (explaining that "[s]mart beta strategies typically capture factor exposures using systematic, rules-based approaches").

^{78.} BANK OF AM., MSCI ESG RESEARCH 13 (2019).

witnessed spectacular growth, with assets reaching USD 2.2 trillion.⁷⁹ The regional split of assets with sustainable investing criteria (see Figure 1) does not mirror the market capitalization of either equity or fixed income markets, in which the United States continues to dominate the picture.

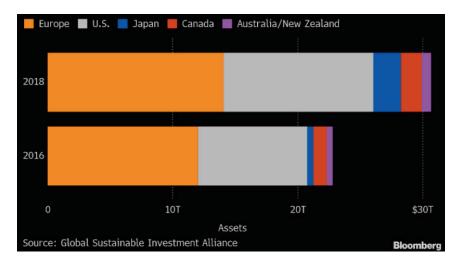


Figure 1. Regional Split of Assets with Sustainable Investing Criteria

Beyond the private asset management industry, sustainability has taken a prominent role for sovereign wealth funds. In particular, the Government Pension Fund of Norway has invested more than USD 1 trillion according to a responsible investment strategy,⁸⁰ owning more than one percent of all the shares in the world.⁸¹ However, the assessment is not only retrospective; several recent surveys suggest that millennials have a high interest in adding ESG assets to their portfolios. Based on upcoming demographic shifts, this means that sustainable investing may continue to attract large asset inflows.⁸²

Notwithstanding its growth, sustainable finance still lacks a system of

^{79.} Emily Chasan, *Global Sustainable Investments Rise 34 Percent to \$30.7 Trillion*, BLOOMBERG (Apr. 1, 2019, 8:00 AM), https://www.bloomberg.com/news/articles/2019-04-01/global-sustainable-investments-rise-34-percent-to-30-7-trillion [https://perma.cc/9YJC-8 MEA].

^{80.} *Responsible Long-Term Growth*, NORGES BANK INV. MGMT., https://www.nbim.no/ en/the-fund/responsible-investment/ [https://perma.cc/6FGY-AFMD] (last visited Mar. 29, 2021).

^{81.} Norway's Sovereign-Wealth Fund Passes the \$1trn Mark, THE ECONOMIST (Sept. 23, 2017), https://www.economist.com/finance-and-economics/2017/09/23/norways-sovereign-wealth-fund-passes-the-1trn-mark [https://perma.cc/XQ2B-JJ6X].

^{82.} BANK OF AM., supra note 78, at 6.

appropriate mandatory disclosure and, for the specific purposes of this Article, a complementary network of gatekeepers. Consistent with the mechanisms existing in traditional finance, the two techniques are both extremely important for sustainable investment. To improve the quality of ESG disclosure, regulators have passed or are passing a series of laws. In the United States, the House of Representative passed the ESG Disclosure Simplification Act in June 2021 as part of the Corporate Governance Improvement and Investor Protection Act, requiring public companies to annually disclose and report the way ESG metrics impact on their business strategy.⁸³ In Europe, the European Union adopted the ambitious Sustainable Finance Package in April 2021⁸⁴, which included the revision of the Non-Financial Reporting Directive (NFRD)⁸⁵ and the Proposal for a Corporate Sustainability Reporting Directive (CSRD),⁸⁶ adopted by the European Parliament on November 10, 2022.⁸⁷ The European Financial Reporting Advisory Group (EFRAG), a private association created in 2021 to provide a European view on financial reporting and support the activity of the European Commission, is also actively involved in developing new standards for sustainability. EFRAG launched a public consultation on the

85. Council Directive 2014/95, 2014 O.J. (L330) 1 (EU). Under the NFRD, large publicinterest companies with more than 500 employees shall comply, and this includes, among others, listed companies, banks and insurance companies. Non-financial reporting includes information on environmental matters, social matters and treatment of employees, human rights, anti-corruption and bribery, diversity on company boards.

86. On April21, 2021, the European Commission adopted the proposal for the CSRD, which would extend the scope of the NFRD to all large companies and all companies listed on regulated markets (except listed micro-enterprises), introduce new requirements in terms of the audit (assurance) of reported information, and provide more detailed reporting requirements, including a requirement to report according to mandatory EU sustainability reporting standards. *Proposal for a Directive of the European Parliament and of the Council Amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as Regards Corporate Sustainability Reporting, COM (2021) 189 final (Apr. 21, 2021), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52 021PC0189 [https://perma.cc/MM72-Q7LH].*

87. Sustainable Economy: Parliament Adopts New Reporting Rules for Multinationals, EUR. PARLIAMENT: NEWS (Oct. 11, 2022), https://www.europarl.europa.eu/news/en/press-roo m/20221107IPR49611/sustainable-economy-parliament-adopts-new-reporting-rules-for-mul tinationals [https://perma.cc/7UD6-37AP].

^{83.} Corporate Governance Improvement and Investor Protection Act, H.R. 1187, 117th Cong. (2021).

^{84.} Commission Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, EU Taxonomy, Corporate Sustainability Reporting, Sustainability Preferences and Fiduciary Duties: Directing Finance Towards the European Green Deal, COM (2021) 188 final (Apr. 21, 2021) [hereinafter EU Taxonomy], https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0188 [https://perma.cc/92FA-B25N].

EU Sustainability Reporting Standard-Setting in June 2021 (closed in September 2021).⁸⁸

With regard to "Sustainability Gatekeepers," consistent with gatekeepers operating in traditional finance, the term should identify intermediaries who are in charge of providing verification services in the area of sustainable investments, namely ESG factors. ESG gatekeepers should protect investors—thereby mitigating the risk of financial scandals— and the financial system—in particular, avoiding the emergence of financial bubbles that could have systemic relevance and pursuing the widespread adoption of sustainable practices. IOSCO recently emphasized the importance of reliable gatekeepers in sustainable finance and recommended that "[r]egulators . . . consider focusing more attention on the use of ESG ratings and data products and ESG ratings and data providers in their jurisdiction."⁸⁹

Sustainable ESG scores represent an attempt to measure the impact of a business activity on the environment and society and to assess the strength of the governance framework, emphasizing the importance of non-financial metrics. ESG has become a prominent topic over the last few years in the financial industry. ESG has several nuances, and the terms "sustainable investing," "responsible investing," and, to some extent, "impact investing" are often interchangeably used.

The difficulties in identifying a precise classification of ESG factors from a financial perspective is consistent with the uncertainties related to the definition of "sustainability" itself from a legal perspective. In Europe, only in March 2019 did the Securities and Markets Stakeholder Group highlight the "lack of agreed definitions and labels" as a main concern for implementing a "harmonized approach to sustainable finance."⁹⁰ Since then,

90. SEC. & MKTS. STAKEHOLDER GRP., EUR. SEC. & MKTS. AUTH., ADVICE TO ESMA: ESMA CONSULTATION PAPERS ON INTEGRATING SUSTAINABILITY RISKS AND FACTORS IN

^{88.} See EUR. FIN. REPORTING ADVISORY GRP., EFRAG'S PUBLIC CONSULTATION PAPER, DUE PROCESS PROCEDURES FOR EU SUSTAINABILITY REPORTING STANDARD-SETTING (2021), https://www.efrag.org/Activities/2106151549247651/Due-Process-Procedures-for-Sustainab ility-Reporting-Standard-Setting [https://perma.cc/F8CS-RUSK] (outlining Due Process procedures for EU sustainability reporting standard-setting). EFRAG published the results of the consultation in November 2021. See EUR. FIN. REPORTING ADVISORY GRP., SUMMARY OF THE COMMENTS RECEIVED IN RESPONSE TO EFRAG'S PUBLIC CONSULTATION ON ITS DUE PROCESS PROCEDURES FOR EU SUSTAINABILITY REPORTING STANDARD-SETTING (2021), https ://www.efrag.org/Activities/2106151549247651/Due-Process-Procedures-for-Sustainability-Reporting-Standard-Setting [https://perma.cc/FD3Q-D6CU] (summarizing comments received in response to EFRAG's public consultation on its due process procedures for EU sustainability reporting standard-setting).

^{89.} INT'L ORG. OF SEC. COMM'NS, supra note 23, at 40.

new definitions such as "sustainable investments," "sustainable risks," and "sustainable factors" were adopted in the final text of the Regulation on Sustainability-Related Disclosures in the Financial Services Sector, which entered into force in December 2019 (see Section III.A). The way that interpreters consider and apply such new definitions will be important to assess whether they achieved the purpose of reaching a higher level of consistency in the field.

B. ESG Ratings and Data Providers

The history of ESG data providers is much more recent when compared to CRAs, and dates back to the 1970s, when some studies on the relationship between ESG factors and corporate financial performances started to appear in financial markets.⁹¹ Non-governmental organizations (NGOs) played a key role in initiating this process because of their mission to provide more complete information to investors regarding the way companies were involved in highly controversial matters, spanning development programs for nuclear weapons to Apartheid in South Africa, as in the case of the EIRIS Foundation.⁹² Nowadays, there are more than 150 organizations (in 2018 there were more than 100)⁹³ active in the business of issuing ESG ratings and data products,⁹⁴ both for-profit and non-profit companies. The IOSCO identified two main factors underlying this rapid growth. One main reason is the regulatory debate on market participants' consideration of the ESG

MIFID, THE UCITS DIRECTIVE AND AIFMD 1 (2019), https://www.esma.europa.eu/sites/ default/files/library/smsg_sustainability_advice_paper.pdf [https://perma.cc/5AAZ-CN95].

^{91.} See Gunnar Fried, Timo Busch & Alexander Bassen, ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies, 5 J. SUSTAINABLE FIN. & INV. 210, 210 (2015) ("The search for a relation between environmental, social, and governance (ESG) criteria and corporate financial performance (CFP) can be traced back to the beginning of the 1970s.").

^{92.} See Robert G. Eccles & Judith Stroehle, Exploring Social Origins in the Construction of ESG Measures 3–4 (Aug. 1, 2018) (unpublished working paper), http://dx.doi.org/10. 2139/ssrn.3212685 (explaining the role of NGOs in driving the consideration of sustainability issues in capital markets).

^{93.} See id. at 3 ("[O]ver 100 organizations are collecting data, analysing, and rating or ranking company ESG performance today.").

^{94.} KMPG, SUSTAINABLE INVESTING: FAST-FORWARDING ITS EVOLUTION (2020), https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/02/sustainable-investing.pdf [https://per ma.cc/BM7W-74RJ]. For further analysis see generally CHRISTINA WONG & ERIKA PETROY, SUSTAINABILITY, RATE THE RATERS 2020: INVESTOR SURVEY AND INTERVIEW RESULTS (2020), https://www.sustainability.com/globalassets/sustainability.com/thinking/pdfs/sustain ability-ratetheraters2020-report.pdf [https://perma.cc/Q29H-Q45T]. This research estimated that there were 600 ESG ratings and rankings globally in 2018.

characteristics of potential investments.⁹⁵ In addition, investors' demand for products pursuing green economy and mitigating climate change have also dramatically grown.⁹⁶ As a consequence, ESG ratings and data providers will likely become key players in the near future, leading to potentially double the global revenues by 2025.⁹⁷

In the global market for ESG ratings and data products, there are a restricted number of players operating on a global scale, with a larger number of smaller providers operating in specific regions and focusing on offering more specialized services.⁹⁸ Consistent with other services in the financial industry, established market participants—including credit rating agencies, exchanges, and data and index providers—have acquired smaller, specialized ESG data providers.⁹⁹ The IOSCO, however, highlights that in situations where consolidations have taken place, the acquired companies were not fully integrated into the acquiring company, whereas the vast majority of acquired companies maintained "their legal status by becoming a subsidiary of the acquiring entity."¹⁰⁰ It also notes that:

Smaller companies operate in the ESG ratings and data products market alongside those large, international providers . . . [and] tend to have a specific regional presence and/or specialisation in specific data sets (e.g., climate, controversies), coverage (e.g., small and medium enterprises, sovereign issuers) or services (e.g., certification, second party opinions, and consulting services).¹⁰¹

Startups and fintech companies are also entering the market of ESG ratings and data products, attempting to complete the offer of new products, leveraging on a more systematic implementation of big data and artificial intelligence in their product offerings.¹⁰²

ESG ratings and data products providers sell ratings and data products to investors, who are interested in assessing the ESG quality of their

^{95.} INT'L ORG. OF SEC. COMM'NS, supra note 23, at 11.

^{96.} Id.

^{97.} See Future Reimagined: Will ESG Data and Services Demand Accelerate Post-COVID & Who Will Win?, UBS (June 18, 2020), https://www.ubs.com/global/en/investmentbank/in-focus/covid-19/2020/esg-data-and-services.html [https://perma.cc/6P6V-2SBS] (projecting a "blue-sky scenario" where the ESG data and services market reaches \$5.1 billion by 2025, more than double the 2020 estimate of \$2.2 billion).

^{98.} INT'L ORG. OF SEC. COMM'NS, *supra* note 23, at 12.

^{99.} Id.

^{100.} Id.

^{101.} Id. at 12–13.

^{102.} Id. at 13.

investments, on the basis of an "investor-pays" scheme.¹⁰³ The term "ESG ratings" is extremely broad and includes ESG scorings and ESG rankings.¹⁰⁴ All of them assess an entity, an instrument, or an issuer's exposure to ESG risks and/or opportunities, while differing in terms of resources and methodologies deployed. ESG scores usually result from quantitative analysis only, whereas ESG ratings rely on both quantitative and qualitative sources.¹⁰⁵ ESG data products providers offer a broad range of products and services with the purpose of meeting investors' growing demand for ESG-related information.¹⁰⁶ ESG data products encompass three main categories, namely, raw data, screening tools, and controversies alerts.¹⁰⁷ An increasing number of ESG ratings and data products providers offer further ESG products and services, such as ESG indices, consulting services on portfolio analyses, and services to companies for ESG strategy development, regulatory reporting assistance for sustainability purposes, and strategic advisory services to companies on ESG ratings improvement techniques.¹⁰⁸

At the time of writing, four main companies (the "Big Four" ESG data providers) are the market leaders. Among them, MSCI is considered the most prominent, as it has leveraged the existing strength of its franchise in the indexing business. MSCI has been well-known for producing the indices MSCI World and ACWI, and launched ESG versions in October 2007 and June 2013—MSCI World ESG Leaders¹⁰⁹ and MSCI ACWI ESG Leaders, ¹¹⁰ respectively. MSCI is a spin-off of Morgan Stanley and has been in business since 1986.¹¹¹ Sustainalytics is a European-based research and rating firm founded in 1992,¹¹² and is exclusively focused on the sustainability rating business. A major stake of Sustainalytics is held by Morningstar, which acquired 40% of the company in 2016. Refinitiv is a London-based spin-off of Reuters, formerly the financial and risk business of Thomson Reuters. It is currently owned by Blackstone, the controlling

^{103.} As explained further in this Article, this is an essential difference in comparison to the traditional credit rating agency industry.

^{104.} INT'L ORG. OF SEC. COMM'NS, supra note 23, at 15.

^{105.} Id.

^{106.} Id.

^{107.} Id. at 15-16.

^{108.} Id. at 16.

^{109.} MSCI, MSCI WORLD ESG LEADERS INDEX (2022), https://www.msci.com/docume nts/10199/db88cb95-3bf3-424c-b776-bfdcca67d460 [https://perma.cc/R2HF-CK8T].

^{110.} MSCI, MSCI ACWI ESG LEADERS INDEX (2022), https://www.msci.com/docume nts/10199/9a760a3b-4dc0-4059-b33e-fe67eae92460 [https://perma.cc/F76W-KYFZ].

^{111.} Will Kenton, *MSCI*, INVESTOPEDIA (June 17, 2022), https://www.investopedia.com/terms/m/msci.asp [https://perma.cc/G24D-T6XE].

^{112.} *About Us*, SUSTAINALYTICS, https://www.sustainalytics.com/about-us/# [https://perm a.cc/8QLF-3KHW] (last visited Nov. 12, 2022).

shareholder with 55% of the shares, and Thomson Reuters, which still owns the residual 45%.¹¹³ However, Refinitiv's shareholders agreed to an acquisition by the London Stock Exchange Group (LSEG) in an all-shares transaction equal to USD 27 billion, with the purpose of creating a leading market infrastructure for the future.¹¹⁴ Its focus is on "financial markets data and infrastructure, with a host of technology platforms, software, data and insights."¹¹⁵ RobecoSAM is a Swiss asset management company, founded in 1995, devoted only to sustainable investments; S&P Global recently agreed to acquire RobecoSAM's ESG rating business.¹¹⁶ Although these companies all have different core businesses, they target the same customer base of institutional investors.

C. Market Leaders' ESG Methodologies

In their 2020 methodology document, MSCI highlights four specific questions that lay the foundation of its ESG ratings.¹¹⁷ Combining a quantitative model based on thirty-five "ESG Key Issues"¹¹⁸ and analysts' opinions, MSCI rates a company "relative to the standards and performance of their industry peers."¹¹⁹ MSCI's rating scale ranges from CCC to AAA.

Refinitiv's company database includes more than 630 different ESG

117. MSCI's four questions are:

[1] What are the most significant ESG risks and opportunities facing a company and its industry? [2] How exposed is the company to those key risks and/or opportunities? [3] How well is the company managing key risks and/or opportunities? [4] What is the overall picture for the company and how does it compare to its global industry peers?

MSCI, MSCI ESG RATINGS METHODOLOGY, EXECUTIVE SUMMARY 3 (2020), https://www.msci.com/documents/1296102/0/MSCI+ESG+Ratings+Methodology+-+Exec+Summary+D ec+2020.pdf [https://perma.cc/TSR7-3UZU].

118. Id. at 4.

119. Id. at 2.

^{113.} John Foley, *Breakingviews – Thomson Reuters Beats Blackstone in Refinitiv Deal*, REUTERS (Aug. 1, 2019, 11:03 AM), https://www.reuters.com/article/us-refinitiv-m-a-brea kingviews/breakingviews-thomson-reuters-beats-blackstone-in-refinitiv-deal-idUSKCN1UR 501 [https://perma.cc/LVR2-GPJ5].

^{114.} Philip Blenkinsop & Huw Jones, *London Stock Exchange Gets EU Nod for \$27 Billion Takeover of Refinitiv*, REUTERS (Jan. 13, 2021, 8:49 AM), https://www.reuters.com/article/uk-refinitiv-m-a-lse-eu-idUSKBN29I1S3 [https://perma.cc/T3K6-KXGT].

^{115.} David Craig, *Meet Refinitiv*, REFINITIV: PERSPECTIVES (Oct. 1, 2018), https://www.refinitiv.com/perspectives/ai-digitalization/meet-refinitiv/ [https://perma.cc/JQB7-36HR].

^{116.} Billy Nauman, *S&P Acquires ESG Ratings Arm of RobecoSAM*, FIN. TIMES (Nov. 21, 2019), https://www.ft.com/content/098258d6-0bc6-11ea-bb52-34c8d9dc6d84 [https://perm a.cc/W38B-XFD6].

metrics.¹²⁰ However only 186 are relevant for calculating ESG scores.¹²¹ Refinitiv's rating goes from D- to A+.¹²² Refinitiv explicitly states that "transparency is a key component of our customers' trust and confidence in the data we provide to them."¹²³ Although the document is detailed and very transparent about the methodology, the volume of data involved makes replication rather complex and time-consuming. Refinitiv's ESG score combines company-reported ESG metrics with ESG controversies that are publicly available through the media.¹²⁴ Similar to all other ratings providers, their ESG score is calculated relative to each company's peer group.¹²⁵

RobecoSAM's ESG score methodology is centered on a questionnaire covering economic, environmental, and social dimensions and a media stakeholder analysis. This questionnaire is a specific feature of the RobecoSAM approach, different from that its competitors, who calculate ESG scores based on a set of indicators. When answering the questionnaire, companies need to provide evidence to support their assertions.¹²⁶ As such, the methodology is highly proprietary, impossible to replicate, and limited in its transparency. Consistent with its competitors, RobecoSAM "compare[s] companies against their own peers in order to identify sustainability leaders."¹²⁷

This may explain why a company that is in principle involved in controversial business activities (e.g., tobacco or alcohol) may nevertheless achieve a high sustainability rating, as it is only an assessment relative to its industry peers.

Sustainalytics provides an absolute assessment of ESG risks, allowing a comparison between companies operating in different sectors, e.g., a bank and an oil company.¹²⁸ Sustainalytics implements a specific research process based on three pillars.¹²⁹ First, a top-down assessment of the sub-industry is performed, with the purpose of identifying material ESG issues. Second, a company analysis is performed that focuses on its specific "exposures and

129. Id. at 14.

^{120.} REFINITIV, ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) SCORES FROM REFINITIV 3 (2022), https://www.refinitiv.com/content/dam/marketing/en_us/documents/met hodology/refinitiv-esg-scores-methodology.pdf [https://perma.cc/8ES3-BSUK].

^{121.} Id. at 6.

^{122.} Id. at 7.

^{123.} Id. at 8.

^{124.} Id. at 7.

^{125.} Id.

^{126.} ROBECOSAM, MEASURING INTANGIBLES: ROBECOSAM'S CORPORATE SUSTAINABILITY ASSESSMENT METHODOLOGY 8 (2019), https://www.spglobal.com/esg/csa/stat ic/docs/measuring intangibles csa-methodology.pdf [https://perma.cc/Z6KU-7N6K].

^{127.} Id. at 5.

^{128.} SUSTAINALYTICS, THE ESG RISK RATINGS 4 (Nov. 2019) (on file with the authors).

management assessments."¹³⁰ These first phases are reviewed on an annual basis. The last phase completes the analysis with a complementary assessment of the media news on a daily basis. The draft report is then shared with the company to validate the accuracy of the results.¹³¹

Both RobecoSAM and Sustainalytics identify the universe of relevant ESG factors by making a financial materiality assessment. In other words, they only consider ESG factors that they believe have significant impact on future financial performance.¹³²

D. Differences Between ESG Ratings and Credit Ratings

1. General Features

A significant heterogeneity of ESG ratings and data products can be observed in the market, a reaction to investor needs and demand. ESG ratings and data product offerings are in a process of continuous evolution, responding to new emerging topics of interest, as in the case of share of green initiatives or contribution to the UN Sustainable Development Goals, or entire broader areas, such as environmental changes, diversity and inclusion, and biodiversity.¹³³

ESG ratings target entire companies because they assess overall business activities. Hence, all securities issued by the same entity—both equity and debt instruments—are treated in the same way from an ESG point of view because of their dependence on the same evaluation of the sustainability of the overall business of the company. As the ESG quality measurement is a much more multifaceted and complex task compared to the estimation of credit risk, it represents a challenge for both market actors to develop a reliable and accurate methodology and regulators to provide an adequate legal framework that is aligned with their mandate. This might explain the prevalence in the ratings coverage of publicly listed companies over private companies,¹³⁴ due to the higher levels of public disclosure and information that might serve as a better guidance for issuing ESG ratings. ESG ratings are also essential for developing ESG data products, as the findings related to ESG ratings products are replicated for ESG data

^{130.} Id.

^{131.} Id.

^{132.} *Id.* at 4; *see also* ROBECOSAM, *supra* note 126, at 3 (providing an overview of ESG risk ratings output and benefits of tracking ESG considerations).

^{133.} INT'L ORG. OF SEC. COMM'NS, supra note 23, at 13.

^{134.} Id. at 16.

products.135

Although there are differences between ESG and credit ratings, the two measures exhibit some similarities. First, both ESG and sustainability ratings may present substantial overlap in the long term.¹³⁶ A company that does not implement sustainable business models may be exposed to higher risks of failure. From a policy perspective, this would suggest that ESG elements will become a critical part of the credit assessment; therefore, the regulatory framework applicable to credit rating agencies could be extended beyond traditional metrics (such as leverage, cash flows, volatility of the underlying business, and financial statements) to capture ESG data. An alternative possibility would be to directly regulate ESG data providers to increase transparency and create a standard. Another way to think about the link between ESG and credit ratings is to refer to the possibility that companies with a stronger financial position might be better positioned to invest resources to develop a solid sustainability strategy. Conversely, small caps may not have enough available financial resources to properly consider the option of sustainability.

At the business model level, credit ratings and ESG ratings strongly differ. While CRAs operate on an "issuer pays" basis, charging issuers for rating their securities, ESG ratings and data providers generate their revenues by selling their research to the investor community and charge additional fees for investment products based on their ESG index methodologies. However, there are some cases of "issuer pays" schemes from certain providers, mostly focused on ESG ratings.¹³⁷ In both cases, investors cover the costs of the credit and the ESG research. However, with ESGs, such costs are made transparent to investors, as expense ratios of ESG-related investment products can be compared to those of traditional products.

2. Correlation Among Different Providers

In a recent study by Berg, Kölbel, and Rigobon, Aggregate Confusion:

^{135.} Id. at 17.

^{136.} See BARCLAYS, ESG INVESTING IN CREDIT: A BROADER AND DEEPER LOOK 25 (Oct. 2018) (showing the effect of ESG on high-yield bond portfolios).

^{137.} INT'L ORG. OF SEC. COMM'NS, supra note 23, at 23. IOSCO also notes that:

Where figures in terms of ratio of revenues from "subscriber pays" versus "issuer pays" were provided, these put the split at between 85% and 100% of revenues being derived from "subscriber pays". This mix has been described as being relatively stable over a number of years and no respondents to the fact-finding questionnaire noted a shift in recent years.

The Divergence of ESG Ratings, the authors investigate the divergence among ESG ratings. Different from credit ratings, for which a correlation of 99% is found between Moody's and S&P, in the ESG space, the study finds an average correlation of only 71%.¹³⁸

One prominent example of disagreements among ESG data providers is the evaluation of EasyJet plc. The company received a score of ten out of ten by MSCI,¹³⁹ which corresponds to a AAA rating, whereas RobecoSam assigned it score of seventeen out of one hundred.¹⁴⁰ A few other controversial cases are displayed in

Table 1 and Table 2, providing ratings from MSCI, RobecoSam, and Sustainalytics.

 Table 1. Examples of Companies with High MSCI ESG Rating and
 Materially Lower ESG Scores by the Other Providers

Company Name	MSCI ESG Rating	MSCI Score RobecoSAM S	Sustainability Rank Sustainalytics Ran	۱k
FLUTTER ENTERTAINMENT PLC	AA	8.1	25	
UMICORE	AAA	9.8	24	63
OLD MUTUAL LTD	AAA	9.4	25	48
EASYJET PLC	AAA	10	17	36
BAIC MOTOR CORP LTD-H	A	7.1	13	2

 Table 2. Examples of Companies with Low MSCI ESG Rating and High
 ESG Scores by the Other Providers

Company Name	MSCI ESG Rating	MSCI Score Robed	coSAM Sustainability Rank	Sustainalytics Rank
GENERAL MOTORS COMPANY	CCC	0.3	90	61
REPUBLIC SERVICES, INC.	В	2.7	88	42
HYUNDAI MOBIS CO., LTD	CCC	0.4	84	76
ANGLOGOLD ASHANTI LTD	В	2.6	90	59
DENTSU GROUP INC.	В	2.5	82	66
HYUNDAI GLOVIS Co., LTD.	В	1.8	94	89
HYUNDAI STEEL COMPANY	CCC	0.5	100	73
HYUNDAI ENGINEERING & CONSTRUCTION CO., LTD	В	2.6	97	51
SAMSUNG ENGINEERING CO., LTD	В	1.5	84	68

This simple finding highlights the lack of consensus when assessing the ESG quality of a company and its business and the need to pursue a higher degree of harmonization.

An additional implication is that portfolios based on different ESG scores will deliver different performances and risk characteristics. Section II.E provides concrete examples.

Credit ratings attempt to provide a reliable estimate of credit default

^{138.} Florian Berg, Julian F. Kölbel & Roberto Rigobon, *Aggregate Confusion: The Divergence of ESG Ratings*, 26 REV. FIN. 1315, 1321 (2022), https://doi.org/10.1093/rof/rfac033.

^{139.} MSCI, MSCI ESG MANAGER DATABASE (accessed Jan. 2020).

^{140.} BLOOMBERG PROFESSIONAL DATABASE (accessed Jan. 2020).

risks. However, in the sustainability space there is not such a strong link between a score and any of the underlying metrics. A possible solution could be linking the score to the probability of the business being viable over the long-term horizon, e.g., the next fifty years. This highlights an intrinsic difference between the time horizon underlying credit rating risks and sustainability risks. According to standard practice, credit ratings are associated with annual default rates.¹⁴¹ Conversely, sustainability risks are more likely to affect the business over a longer time.

This might explain why long-term investors, such as pension funds and insurance companies, have expressed strong interest in sustainable/responsible investments. For example, the Government Pension Fund of Norway has made "[r]esponsible investment . . . an integral part of the fund's investment strategy," the aim of which is "to identify long-term [attractive] investment opportunities and reduce the fund's exposure to unacceptable risks."¹⁴²

On the other hand, another interpretation more focused on governance might link sustainability with headline/operational risks, e.g., the probability that a given company experiences reputational damage due to fraud or operational risks. One example is the "Dieselgate" scandal, in which Volkswagen misrepresented toxic nitrogen-oxide emissions in violation of the Clean Air Act in force in the United States.¹⁴³

E. ESG Ratings as a Source of ESG Litigation

ESG litigation matters are an extremely broad category, and ESG ratings is an emerging niche in this space.¹⁴⁴ The disagreement on the

^{141.} See S&P GLOBAL, 2018 ANNUAL GLOBAL CORPORATE DEFAULT AND RATING TRANSITION STUDY 7–8 tbl.3 (2019), https://www.spglobal.com/en/research-insights/articles/2018-annual-global-corporate-default-and-rating-transition-study [https://perma.cc/Q7LV-28U5].

^{142.} *Sustainable Investments*, NORGES BANK INV. MGMT., https://www.nbim.no/en/the-fund/responsible-investment/risk-management/ [https://perma.cc/5GYB-Z644] (last visited Mar. 29, 2021).

^{143.} William Boston, *VW's Emissions Scandal: How It Unfolded*, WALL ST. J. (Jan. 11, 2017, 2:45 PM), https://www.wsj.com/articles/vws-emissions-scandal-how-it-unfolded-1484 163951 [https://perma.cc/XLW2-29PA].

^{144.} See LATHAM & WATKINS LLP, ESG LITIGATION ROADMAP 6 (2020), https://www. lw.com/admin/upload/SiteAttachments/ESG-Litigation-Roadmap.pdf [https:// perma.cc/58N H-DUBR] (identifying five key categories of ESG-related litigation cases, including: (1) "ESG-related litigation that is directed at national governments or governmental organizations and has indirect effects on companies (Government ESG Litigation);" (2) "ESG-related litigation that is directed at significant infrastructure projects," which "might involve

evaluation of companies' ESG quality as well as the lack of transparency in ESG methodologies could become a major source of ESG litigation.

The first case on ESG ratings litigation focusing on the ESG assessment methodology was discussed in Germany, at the Regional Court of Munich, in March 2020. Isra Vision ("Isra"), a German image processing company, sued the North American proxy advisory firm Institutional Shareholder Services (ISS). Isra requested an injunction to block the publication of a poor ESG rating of the company released by ISS. Isra did not respond to a request from ISS to take part in a sustainability review. However, ISS produced an ESG assessment of Isra based on publicly available materials, and the result was the worst possible rating (D-).¹⁴⁵ According to a report provided by Latham & Watkins LLP, the court granted an injunction, highlighting that "a mere lack of information could not justify a poor ESG rating of a company," and holding that "ISS's analysis criteria should be closely aligned with the specific business operations of Isra Vision."¹⁴⁶

This case is important for three connected reasons. First, it raises a general problem of the arbitrariness of ESG ratings and data products providers' methodologies, opening up the possibility of successfully challenging an ESG assessment if not deemed fair under objective circumstances. Second, judges could challenge the validity of a methodology that predominantly relies on publicly available information about the assessed entity. As previous sections have highlighted, some of the major ESG ratings and data products providers rely on publicly available information to grade a company. A fundamental problem is not only the treatment of available information and how ESG data providers appropriately weight it, but also the further issue of weighing a lack of response by the company that is to be graded. Not responding does not necessary imply a lack of sustainable practices in place in that company. Third, in connection to the first point, the case raises a more general problem of the relationship between disclosure and ratings in the context of sustainability. As mentioned above, disclosure and ratings, as general gatekeepers, are two different strategies, with some degrees of complementarity to mitigate information asymmetry. It would be appropriate

145. Id. at 13.

146. *Id*.

companies, national governments / governmental organizations, or both (Infrastructure ESG Litigation);" (3) "ESG-related litigation that concerns companies themselves;" (4) "ESG-related litigation against board directors concerning alleged breach of duty of care or duty of loyalty under state laws in the US (Fiduciary Duty ESG Litigation);" and (5) "ESG matters that are addressed through 'soft law' and/or informal dispute resolution mechanisms, which typically target sectors, individual companies, or groups of companies (Informal ESG Disputes)").

for a gatekeeper to refer to publicly available information if such information is the result of standardized disclosure requirements. Notwithstanding the costs and limits related to mandatory disclosure,¹⁴⁷ the trend towards strengthened standardization of information could have some positive consequences. It would create a sort of perimeter for ESG ratings and data products providers to verify the truthfulness of companies' disclosures, supporting the role of securities authorities and strengthening the market for sustainability. Furthermore, it would make the use of available public information a more legitimate methodology and would make ESG ratings relying on public information more verifiable and credible, therefore less arbitrary. This would ultimately contribute to making ESG ratings and data products providers more accountable for their assessments. Finally, increasing ESG ratings' credibility and accountability would decrease litigation risks. This would be beneficial for both the ESG ratings and data products providers as well as the assessed companies.

F. Limitations and Risks of Sustainable Investing

As discussed in Section II.D.2 above, there is generally no agreement with respect to the evaluation of companies' ESG quality. This has profound implications for market participants investing in a sustainability strategy. ESG data providers have developed several flagship indices based on their own ESG scores. This Article analyzed the ones designed by MSCI, Refinitiv, Sustainalytics, and RobecoSam, with a focus on global equity markets. Table 3 provides an overview of the indices with their key performance and risk statistics. All of these indices are obtained as refinements of non-ESG indices presented in Table 4. Both tables report the annualized returns of each index, the annualized volatility as the most common measure for financial investment risk, and the Sharpe ratio, which represents risk-adjusted returns. According to all metrics reported, there is a substantially higher dispersion for the sustainability indices than the conventional ones. This implies that the choice of a specific ESG data provider has material implications for an investor in terms of risks and returns.

Table 3. Performance Statistics for the Period fromApril 2011 to December 2019

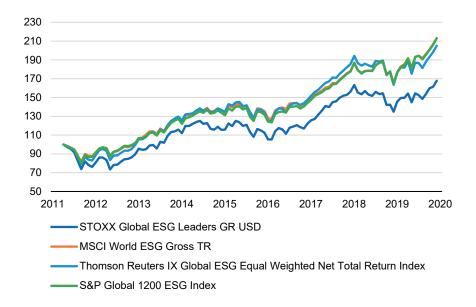
^{147.} See discussion supra Section I.A.

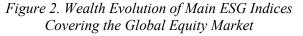
	Sustainalytics	MSCI	Refinitiv	Robeco SAM
	STOXX Global ESG Leaders	MSCI World ESG Leaders	Thomson Reuters Global ESG Equal Weighted Index	S&P Global 1200 ESG
Annualized return	6.15%	9.11%	8.64%	9.13%
Annualized volatility	14.64%	11.87%	13.13%	12.10%
Sharpe ratio	0.38	0.72	0.61	0.70

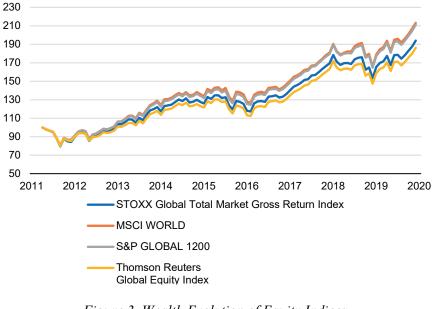
Table 4. Performance Statistics for the Period fromApril 2011 to December 2019

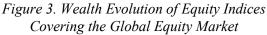
	STOXX Global Total Market	M SCI WORLD	Thomson Reuters Global Equity Index	S&P GLOBAL 1200
Annualized return	7.94%	9.13%	7.44%	9.02%
Volatility	12.33%	12.13%	11.96%	12.10%
Sharpe ratio	0.59	0.70	0.57	0.69

Figure 2 illustrates the wealth evolution of \$100 invested in different sustainability indices, while Figure 3 reports it for the conventional parent indices. Consistent with the performance statistics of Table 3, the paths of the MSCI, Refinitiv/Thomson Reuters, and S&P/RobecoSam indices are very close to each other, while Sustainalytics materially underperforms over this sample. In the authors' view, this finding confirms the relevance of the ESG methodology choice with respect to investment returns, as Sustainalytics adopts a fundamentally different approach than its competitors. Section II.B provided an overview of different ESG scoring methodologies, and Sustainalytics is the only data provider that adopts absolute ratings instead of ratings relative to the respective companies' peer group. Figure 3 reports the wealth evolution of the conventional global equity indices, with all providers sharing very similar paths.









Although the index methodologies of the conventional indices exhibit some fundamental differences, their risk-return profiles are very similar, especially when compared to the MSCI World and the S&P Global 1200 indices, with virtually identical Sharpe ratios over the samples in this Article. For example, the MSCI World exclusively includes stocks across developed markets,¹⁴⁸ while the S&P Global 1200 also includes exposure to the Latin American and Asian markets.¹⁴⁹ The number of constituents is also different and spans from twelve thousand for the S&P Global 1200 to eighteen thousand for the STOXX Global 1800 Index.

With respect to different ESG versions, the first difference lies in the ESG scores as illustrated in Section II.C. In addition, weighting schemes and inclusion rules vary substantially.

The MSCI World ESG Leaders index has been designed to target a low tracking error to its parent index. This is achieved by closely matching the sector and region weight of the parent index. The index utilizes a so-called "best-in-class" approach, targeting the top 50% of the market capitalization by ESG quality. Index members need to maintain a minimum ESG rating of BB and a MSCI ESG Controversies Score greater or equal to three. In addition, companies showing involvement in alcohol, gambling, tobacco, nuclear power, or weapons are excluded from the indices. The weighting scheme follows the industry standard float-adjusted market capitalization.¹⁵⁰

The S&P Global 1200 ESG Index follows similar principles to the MSCI World, as it targets similar overall industry group weights of its parent index and is a market capitalization weighted index.¹⁵¹ However, it is less restrictive in terms of ESG inclusion, targeting 75% of the float-adjusted market capitalization of the parent index, effectively excluding only the worst 25% of the market capitalization in terms of ESG quality. The choice of a higher threshold might provide some advantages in terms of diversification benefits and concentration in top index positions, especially for regulated institutional investors, which may be subject to additional investment constraints. Such benefits come with a lower focus on the ESG

^{148.} MSCI, MSCI WORLD INDEX (USD) 1 (2023), https://www.msci.com/documents/101 99/178e6643-6ae6-47b9-82be-e1fc565ededb [https://perma.cc/A2D8-ADWN].

^{149.} S&P GLOBAL 1200 METHODOLOGY 3 (2023), https://www.spglobal.com/ spdji/en/documents/methodologies/methodology-sp-global-1200.pdf [https://perma.cc/W5R S-HHQF].

^{150.} MSCI, MSCI WORLD ESG LEADERS INDEX (USD) 3 (2023), https://www.msci.com/ documents/10199/db88cb95-3bf3-424c-b776-bfdcca67d460 [https://perma.cc/WF9H-FLH 6].

^{151.} S&P GLOB., S&P ESG INDEX SERIES METHODOLOGY 3 (2022), https://www.spglobal. com/spdji/en/documents/methodologies/methodology-sp-esg-index-series.pdf [https://perma .cc/FMD5-AW6Y].

quality.

The STOXX Global ESG Leaders index does not explicitly target any market capitalization level. Instead, its main criterion for inclusion is quartile based, targeting the top quartile in at least one criterion ("E," "S," or "G") and the top 50% in the remaining two dimensions.¹⁵² As such, the authors find it the most ambitious in terms of ESG quality target.

The main difference in the methodology of the Refinitiv/Thomson Reuters index resides in the weighting scheme, as it targets equal weights for each constituent.¹⁵³ In terms of ESG filtering, a threshold of 50% is applied, considering three ESG factors that may vary based on region and sector.

Another controversial topic in sustainable investing is the exposure to business activities involving tobacco. For example, the Dow Jones Sustainability Indices include major tobacco companies, such as British American Tobacco plc and Japan Tobacco Inc.¹⁵⁴ At the same time, certain institutional investors with a strong focus on sustainability have decided to exclude the tobacco sector from their investment portfolios. A prominent example is the Government Pension Fund of Norway, which has opted to exclude these tobacco corporations.¹⁵⁵ In spite of recent challenges for the tobacco industry, tobacco stocks have been a lucrative long-term investment. Although smoking rates are dropping in the developed world, the industry is trying to reinvent itself with alternative products to traditional cigarettes. These efforts might help it to stay in business and provide attractive investment returns for a foreseeable future. This represents a problem for an asset-management industry, as the exclusion of tobacco stocks might result in a violation of fund managers' fiduciary duties to maximize investment returns.

On the other hand, there is a consensus in the sustainable investment community to exclude coal. This has proven to be an uncontroversial decision, as this sector has substantially underperformed the rest of the equity market over the last decade. Coal mines may likely become "stranded assets" due to the emissions associated with coal power generation.

^{152.} See STOXX, STOXX® ESG INDEX METHODOLOGY GUIDE: CREATING AN INVESTMENT INTELLIGENCE ADVANTAGE 7–13 (2023), https://www.stoxx.com/document/In dices/Common/Indexguide/stoxx_esg_guide.pdf [https://perma.cc/HB22-H59X] (describing the index methodology).

^{153.} REFINITIV, REFINITIV IX GLOBAL ESG EQUAL WEIGHT INDEX: INDEX METHODOLOGY 6 (2020), https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/global-esg-equal-weighted-index-methodology.pdf [https://perma.cc/2X6A-L73V].

^{154.} BLOOMBERG PROFESSIONAL DATABASE (accessed Jan. 2020).

^{155.} Observation and Exclusion of Companies, NORGES BANK INV. MGMT., https://www.nbim.no/en/the-fund/responsible-investment/exclusion-of-companies/ [https://perma.cc/PT7 D-F6DB] (last visited Mar. 29, 2021).

As highlighted in Part II, the assets under management in sustainability strategies have witnessed large inflows and are expected to continue growing. As sustainability becomes a mainstream and consensus trade, the authors see this development potentially linked to two main sources of risk. The first source of risk relates to financial bubbles. At the time of writing, most common valuation metrics in equity (Figure 4) and fixed income do not raise any red flags.¹⁵⁶ However, regulators should keep monitoring these activities as sources of risk.



Figure 4. Relative Forward P/E of S&P 500 Companies in Top vs. Bottom Quintile by MSCI ESG Score (January 2007 to August 2019)

The second source of risk is "greenwashing." In order to capitalize on an increasing demand for sustainable investments, some unscrupulous fund managers may simply rebrand some of their existing products without effectively switching the focus of their businesses toward sustainable investing. The SEC has already identified this risk and is starting to seek information from investment management firms to review how sustainability considerations are integrated into their investment processes.¹⁵⁷

^{156.} See Jennifer Signori, ESG in Private Markets: Investing for the Long Term, NEUBERGER BERMAN PRIV. EQUITY PARTNERS (July 7, 2020), https://www.nbprivateequity partners.com/en/insights/esg-in-private-markets-investing-for-the-long-term [https://perma.c c/SRZ9-WHKG] (describing rising forward price-to-earnings (P/E) ratios for companies with high ESG scores, as shown in Figure 4).

^{157.} See Chung & Michaels, supra note 19 (discussing SEC scrutiny of ESG funds).

G. Recommendations for Investors Looking to Incorporate ESG in Their Investment Processes

The inflows into sustainable investment solutions are an expression of responsible investing increasing in popularity. However, recent analysis casts doubt on the effectiveness of ESG investment strategies versus traditional indices.¹⁵⁸ In this section, the authors would like to share their recommendations in order to extra alpha out of the ESG data.

According to Kaissar, the U.S. equity market has proven to be particularly challenging for the most popular ESG strategies.¹⁵⁹ In particular, the MSCI ESG Leaders Methodology has materially underperformed its parent index, as shown in Table 5. The authors aim to provide their contribution to sustainable investing research by identifying the best strategy to implement ESG investing while generating outperformance.

Table 5. Outperformance of MSCI US ESG Equity Indices Relative to the MSCI USA Index

Year	ESG Leaders outperformance	ESG Focus outperformance
2014	-0.53%	1.39%
2015	-2.64%	-0.77%
2016	0.13%	0.20%
2017	-1.34%	-0.27%
2018	1.39%	0.35%
2019	0.02%	0.91%
2020	-2.53%	1.32%
Average outperformance	-0.83%	0.29%
Tracking error	1.78%	0.70%
Information ratio	-0.46	0.41

^{158.} See Nir Kaissar, BlackRock Wagers on ESG. Now It Needs the Bet to Pay Off, BLOOMBERG (Feb. 18, 2021, 6:00 AM) https://www.bloomberg.com/opinion/articles/2021-02-18/personal-finance-blackrock-wagers-on-esg-now-it-needs-it-to-pay-off [https://perma.c c/SKE2-CPLQ] (explaining how, without greater cooperation among corporations, ESG investment will become more difficult and less effective).

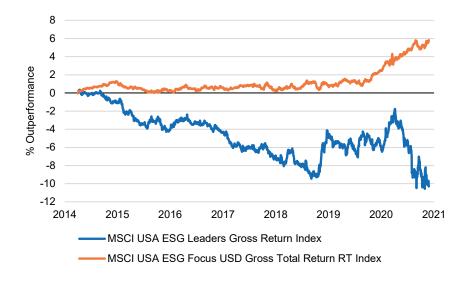


Figure 5. Outperformance vs. MSCI USA Index

A performance attribution highlighting the main driver for the underperformance has been the exclusion of the "FAANG" stocks, i.e., a group of technology companies having very high market capitalization weight in the U.S. equity market.¹⁶⁰ In the MSCI ESG Leaders indices, deviations from the parent index are taken mainly based on an ESG rating threshold; certain stocks are excluded, although they are only slightly below the threshold (e.g., FAANG stocks, see Table 6), while creating a substantial tracking error. The MSCI ESG Leaders methodology does not maximize value creation from the ESG signal, creating in some cases substantial tracking errors on the back of a weak ESG signal. On the other hand, the less popular ESG Focus index family maximizes the ESG score given a certain tracking error limit. In this way, deviations from the parent index are taken to maximize the value of the ESG signal. This approach results in a more controlled tracking error relative to the parent index and a smooth outperformance profile.

^{160.} The acronym "FAANG" stands for Facebook, Apple, Amazon, Netflix, and Google.

MSCI USA ESG Leaders		
Name	Weight	
Microsoft Corp	10.10	
Alphabet Inc	3.02	
Alphabet Inc	2.98	
Johnson & Johnson	2.62	
Procter & Gamble Co/The	2.36	
Visa Inc	2.30	
Tesla Inc	2.16	
NVIDIA Corp	2.09	
Mastercard Inc	2.03	
Home Depot Inc/The	2.01	
Verizon Communications Inc	1.70	
Adobe Inc	1.58	
Walt Disney Co/The	1.57	
salesforce.com Inc	1.52	
Intel Corp	1.45	
Merck & Co Inc	1.44	
Coca-Cola Co/The	1.39	
PepsiCo Inc	1.26	
Cisco Systems Inc	1.14	
McDonald's Corp	1.10	
AbbVie Inc	1.07	
Accenture PLC	1.02	
Amgen Inc	0.98	
NIKE Inc	0.97	
Union Pacific Corp	0.92	

MSCI USA		
Name	Weight	
Apple Inc	6.57	
Microsoft Corp	5.07	
Amazon.com Inc	4.50	
Facebook Inc	2.08	
Alphabet Inc	1.50	
Alphabet Inc	1.49	
Johnson & Johnson	1.29	
Procter & Gamble Co/The	1.16	
Visa Inc	1.15	
Tesla Inc	1.07	
NVIDIA Corp	1.05	
Mastercard Inc	1.02	
Berkshire Hathaway Inc	1.01	
Home Depot Inc/The	1.00	
JPMorgan Chase & Co	0.97	
UnitedHealth Group Inc	0.95	
Verizon Communications Inc	0.84	
Adobe Inc	0.80	
Walt Disney Co/The	0.78	
salesforce.com Inc	0.76	
Netflix Inc	0.73	
Intel Corp	0.72	
Comcast Corp	0.71	
PayPal Holdings Inc	0.71	
Merck & Co Inc	0.71	

MSCI USA ESG focus		
Name	Weight	
Apple Inc	6.46	
Microsoft Corp	5.27	
Amazon.com Inc	4.43	
Facebook Inc	2.05	
Alphabet Inc	1.62	
Alphabet Inc	1.47	
Johnson & Johnson	1.32	
Procter & Gamble Co/The	1.24	
Home Depot Inc/The	1.14	
Visa Inc	1.14	
NVIDIA Corp	1.11	
Mastercard Inc	1.04	
Tesla Inc	1.01	
salesforce.com Inc	0.97	
Adobe Inc	0.91	
Berkshire Hathaway Inc	0.89	
JPMorgan Chase & Co	0.88	
UnitedHealth Group Inc	0.88	
Verizon Communications Inc	0.85	
PepsiCo Inc	0.84	
Walt Disney Co/The	0.82	
Coca-Cola Co/The	0.81	
Merck & Co Inc	0.75	
Intel Corp	0.75	
PayPal Holdings Inc	0.74	

Table 6. Top Constituents of MSCI USA Indices

The authors have performed a review of all the existing methodologies available for ESG indices and have identified the MSCI ESG Focus index family as an improved alternative to the MSCI ESG Leaders index family. Although in existence since 2018, the MSCI ACWI ESG Focus index has not been widely advertised and is still not available through Bloomberg. On the other hand, the ESG Focus versions of the USA and EM indices have been available since 2016.

In emerging markets, there is a different pattern compared to developed markets: both ESG strategies have been very successful in emerging markets, with the ESG Leaders index substantially outperforming the ESG Focus index. As shown in Table 7, the ESG Leaders index has outperformed almost every year, with the exception of 2018, with a particularly strong outperformance in 2020. It does, however, exhibit a much larger tracking error (2.56% versus 1.34% for the ESG Focus index). The large outperformance in emerging markets can be explained by less efficient markets and the presence of several state-owned enterprises.

Year	ESG Leaders outperformance	ESG Focus outperformance
2014	7.02%	0.33%
2015	2.61%	2.46%
2016	2.23%	2.08%
2017	3.14%	2.09%
2018	-0.42%	0.09%
2019	1.31%	1.03%
2020	1.77%	1.65%
Average outperformance	2.52%	1.39%
Tracking error	2.56%	2.19%
Information ratio	0.99	0.63

Table 7. Outperformance of MSCI EM ESG Equity Indices Relative to the MSCI EM Index



Figure 6. Outperformance vs. MSCI EM Index

In this case, the authors' recommendation depends on the specific risk tolerance. Investors willing to accept a high tracking error might still opt for an ESG Leaders strategy, while an ESG focus strategy would be preferred by investors with a tighter tracking error constraint.

III. POLICY IMPLICATIONS

A. What is the Mandate of the Regulator?

Consistent with any other ratings, ESG ratings respond to the need to provide an accurate measure of an increasingly important dimension in the financial industry. This need to measure, coupled with the lack of standardization, underlies the risk of making significant misallocations of financial resources and creates an opportunity for unscrupulous bad-faith market actors to defraud investors.

These two problems relate to different regulatory dimensions and competences, and, ultimately, to different regulatory mandates. From a macro-prudential perspective, significant misallocations may be a threat to financial stability, with the possibility of generating financial bubbles, as briefly mentioned in the previous section. This emphasizes the similarity in the risks between ESG and credit ratings, which may also be reflected at the regulatory mandate level. Credit rating migrations may increase procyclicality during periods of economic expansions, favoring the creation of asset bubbles, while exacerbating downward price movements in times of crisis.¹⁶¹ This leads to predictable patterns and inefficiencies in financial markets, which sophisticated investors, such as hedge funds, attempt to exploit. An example of this form of inefficiency is the "fallen angel" phenomenon in corporate credit.¹⁶² A downgrade below the investmentgrade threshold usually generates large selling pressure, as the majority of regulated institutional investors have constraints on high-yield corporate bonds. Such downgrade events are more likely to happen during economic recessions and periods of elevated market volatility. Another factor contributing to the selling pressure is the passive funds tracking corporate investment-grade indices. These market forces push the price of the downgraded securities below their intrinsic values, generating an opportunity for investors capable and willing to take such positions on their books. The reasons for such dislocation originate from the imbalance between constrained and opportunistic unconstrained investors, as constrained investors are more numerous and, most of all, manage a larger pool of assets.

Another reason for concern arising from credit ratings is the possibility that they can increase systemic risk. If the pool of opportunistic investors is not able to absorb the volume of downgraded securities, it generates a downward spiral in the prices of the affected securities and subsequently on credit availability, potentially leading to systemic risks.

If credit ratings respond to the need to reduce pro-cyclicality and systemic risk, this may also be the case for ESG ratings in the long term. In the current regulatory framework, institutional investors do not yet face

^{161.} See Sy, supra note 46, at 28.

^{162.} See Arik Ben Dor & Zhe Xu, *Fallen Angels: Characteristics, Performance, and Implications for Investors*, 20 J. FIXED INCOME, Spring 2011, at 33 (describing the effect of corporate bonds that are placed below investment-grade status on investors).

substantial restrictions driven by ESG considerations. However, with an increasing focus on climate change and sustainability, the authors expect these restrictions to become relevant for a large group of institutional investors. This might inevitably lead to issues similar to those previously explained regarding credit rating migrations. Adopting this perspective, it may be necessary for those regulators who were engaged with regulating credit risk ratings to also regulate ESG ratings.

In addition to macro-prudential concerns, CRAs trigger problems related to competition, consumer protection, and information asymmetry. These concerns focus on the mission of protecting investors.

The risk of defrauding investors relates to the typical missions of securities regulators. For example, the SEC's three-part mission comprises investor protection; maintenance of fair, orderly, and efficient markets; and preservation of capital formation.¹⁶³ ESMA provides a similar formulation, mentioning investor protection and the promotion of a stable and orderly financial market.¹⁶⁴ The possibility of misrepresenting the sustainability features of a financial product clearly falls within the mission of protecting investors. However, the two sub-missions are also relevant. Pursuing market integrity is essential for maintaining adequate levels of efficiency with the markets as well as to preserve capital formation, especially in the context of a relatively new market with the ambition of pursuing the creation of a new economic paradigm. Comparing the mission statements of the SEC and ESMA, ESMA may have a larger mandate with respect to sustainability, which comprises financial stability issues.

However, financial regulators' and central bankers' mandates do not explicitly mention sustainability, climate change, or human rights concerns, which are all very important elements of ESG ratings. The recent action of the SEC in ruling against Exxon shareholders' proposal to align Exxon's business with the Paris Agreement confirms this observation.¹⁶⁵ One possible solution is to explicitly list sustainability among the institutional missions of securities regulators and central bankers. This would be particularly relevant

^{163.} *About the SEC*, SEC, https://www.sec.gov/about.shtml [https://perma.cc/K3XW-LC JU] (last modified Nov. 22, 2016).

^{164.} *ESMA in Brief*, EUR. SEC. & MKTS. AUTH. https://www.esma.europa.eu/about-esma/esma-in-brief [https://perma.cc/S56E-28U5] (last visited Jan. 20, 2023).

^{165.} Jane E. Montgomery & Caitlin M. Ajax, SEC Says No to Shareholder Proposal, But Climate Disclosure Disputes Are Here to Stay, NAT'L L. REV. (Apr. 24, 2019), https://www.natlawreview.com/article/sec-says-no-to-shareholder-proposal-climate-disclosure-disputes-a re-here-to-stay [https://perma.cc/44AL-5JN3]; see also Michele Siri & Shanshan Zhu, Will the EU Commission Successfully Integrate Sustainability Risks and Factors in the Investor Protection Regime? A Research Agenda Sustainability, 11 SUSTAINABILITY, no. 22, 2019, 11–13 (discussing explicit incorporation of sustainability considerations).

for those countries that are part of the Paris Agreement and similar protocols.

Although sustainability was not explicitly mentioned as one of the missions of regulators, the EU has implemented specific initiatives aimed at recognizing the relevance of sustainability. The EU's Action Plan on Sustainable Finance has led to specific developments, attempting to pursue two objectives. The first objective is the achievement of some sort of standardization in the indicators related to sustainability. An important effort is the EU Sustainability Taxonomy, with an emphasis on environmental sustainability, rather than ESG factors broadly considered. A further potential initiative, currently on hold, is the proposal by the Technical Expert Group on Sustainable Finance for a Green Bond Standard, mostly based on best market practices. The second objective is an attempt to increase investor protection in relation to sustainability by explicitly referring to sustainability in key regulatory texts. A key initiative is the Regulation on Sustainability-Related Disclosures in the Financial Services Sector, which entered into force on December 29, 2019. It has led to an explicit reference to sustainability in twelve key regulatory texts, including the Markets in Financial Instruments Directive II (MiFid II). In the last two years, the issue of sustainability in MiFid II was heavily discussed by regulators and stakeholders.166

The United States did not follow the same approach. The abovementioned initiative by SEC Commissioner Hester Pierce to call for increased oversight of the level of ESG investment funds demonstrates once more the differences in regulatory styles between the United States and the EU. While the EU followed a rigorous rule-based approach, the SEC follows a different approach, focusing on enforcement as a regulatory tool, consistent with what it has previously done when regulating technology, in particular, initial coin offerings.¹⁶⁷ This difference in regulatory styles may favor the creation of a fragmented regulatory framework at an international level, instead of pursuing full harmonization, as it happened in particular with regard to the "E" factor.¹⁶⁸ In this context, European institutions were

^{166.} Laura Hurst, *Exxon, Chevron Targeted by Climate-Activist Investor Group*, BLOOMBERG (Dec. 16, 2019, 3:49 AM), https://www.bloomberg.com/news/articles/2019-12-16/exxon-and-chevron-targeted-by-climate-activist-shareholder-group [https://perma.cc/7V9 F-42LN].

^{167.} See generally Marco Dell'Erba, From Inactivity to Full Enforcement. The Implementation of the 'Do No Harm' Approach in Initial Coin Offerings, 26 MICH. TECH. L. REV. 176 (2020).

^{168.} See Gillian Tett, Investors should watch the transatlantic split on ESG closely, FIN. TIMES (Oct. 15, 2020), https://www.ft.com/content/3ea99abb-d709-4d1f-ab23-56aed7f34c90 [https://perma.cc/9A2K-MF9C] (showing that European regulators have begun to embrace international ESG-friendly standards for the "E"—environment).

extremely active. The European Central Bank moved towards setting standards for green bonds. The Task Force on Climate-Related Financial Disclosures (TCFD) positively affected regulatory decisions in Europe,¹⁶⁹ and the European Commission adopted the EU Sustainability Taxonomy.¹⁷⁰ Harmonization would be extremely beneficial for the processes of standardization and the marginalization of regulatory arbitrage trends. However, regulatory arbitrage on the managers' side, e.g., opting for jurisdictions where the regulatory standards are less stringent or more uncertain, may not increase their companies' attractiveness among investors as typically happens in other more speculative types of investments. An example is the reinsurance industry, in which many companies based in Bermuda operate in a similar manner to hedge funds due to a more relaxed regulatory environment (in particular, solvency requirements) compared to Switzerland. However, these choices may be detrimental in the context of sustainable investments and may lead to a consequence of not attracting investors that are interested in a long-term sustainable perspective.

B. Understanding ESG Ratings Heterogeneity: Pros and Cons

ESG factors refer to heterogeneous dimensions. In light of the complexity of ESG assessments' reliance on the interpretation of multidimensional aspects, heterogeneity in the ESG ratings and scores may not be surprising, and on the contrary, may be expected. Furthermore, not even the development of highly proprietary methodologies should be surprising, because the assessment of such complexity might rely on different interpretations of non-standardized indicators. As a leading scholar Edmans highlights, "ESG performance is simply difficult to measure, and reasonable people can disagree–just as some equity research analysts will rank a company as Buy and another as Sell."¹⁷¹

Heterogeneity in ESG ratings and scores does not necessarily have negative implications, and could be a strength in financial markets, rather than a weakness. First, heterogeneity in the ratings arising from reliance on

^{169.} See Task Force on Climate-Related Financial Disclosures, U.N. ENV'T PROG. FIN. INITIATIVE, https://www.unepfi.org/climate-change/tcfd/ [https://perma.cc/NP34-9TML] (last visited Jan. 20, 2023) (stating that the mission of the TCFD, an initiative created in 2015 by the Financial Stability Board (FSB), is to "develop consistent climate-related financial risk disclosures for use by companies, banks, and investors in providing information to stakeholders").

^{170.} EU Taxonomy, supra note 84.

^{171.} Alex Edmans, *The Inconsistency of ESG Ratings: Implications for Investors*, ALEX EDMANS: BLOG (Apr. 10, 2020), https://alexedmans.com/blog/responsible-business/the-incon sistency-of-esg-ratings-implications-for-investors/ [https://perma.cc/2B6A-VLV2].

different indicators, scopes, and weights¹⁷² avoids the risks of multiplying mistakes, depending on the extent to which gatekeepers are aligned. In a situation where all ESG rating scores were structured such that they relied on the same indicators, scope, and weights, it would be more difficult to detect mistakes by one gatekeeper. Therefore, this heterogeneity could, in principle, strengthen the role of ESG ratings and data providers as effective sustainability gatekeepers.

Second, in a situation of heterogeneity, human decisions are fundamental drivers for adding value that otherwise would not be exploited in a situation where ESG ratings were perfectly aligned.¹⁷³ For example, a perfect understanding of a company, by means of direct talks to the management and a full account of the strategic context, can still make a difference.¹⁷⁴ Furthermore, perfectly homogeneous ESG ratings would be incorporated in a market price, and there would be less opportunities for profits from trading.¹⁷⁵ As Edmans emphasizes, there are multiple sources of ESG information (from intangible factors) that the market does not take into account because they are difficult to value.¹⁷⁶ Therefore, he suggests, this implies that all investors should consider ESG factors "seriously," because "[w]hile they're sometimes dismissed as 'non-financial' factors, evidence shows that they often become financially material in the long-run."¹⁷⁷

However, heterogeneity in ESG ratings and scores could be the manifestation of specific weaknesses of the financial system and of regulatory approaches, which would undermine the role of ESG ratings and data products providers as effective ESG gatekeepers and could negatively affect financial markets. First, heterogeneity in the ratings and scores could be the result of arbitrariness in the way methodologies are designed, as well as in the selection of the sources that are the basis for elaborating such methodologies. Because ESG methodologies are highly proprietary and difficult to replicate, an assessment on the accuracy and the correctness of their analyses may not be possible. Therefore, heterogeneity in the ESG ratings further complicates the credibility of ESG investing and slows down the establishment of gatekeepers.

Second, heterogeneity in ESG ratings and scores helps to highlight the

- 176. *Id.*
- 177. Id.

^{172.} See Berg, Kölbel & Rigobon, supra note 138, at 9 (indicating that ESG ratings can be specified in terms of scope and weight).

^{173.} See Edmans, supra note 171 (indicating that human investors can add significant value in a big data world).

^{174.} *Id*.

^{175.} *Id*.

relationship between ESG ratings and disclosure. Heterogeneity is likely affected by the lack of standardization in ESG disclosures. Although disclosure and gatekeepers are two different tools for solving information asymmetries, they also present some degree of complementarity, especially in the context of ESG. Here, improving the ESG disclosure and standardizing the information that issuers, corporations, and financial institutions must provide to the market may be beneficial to the quality of ESG ratings. In particular, more standardized ESG information could reduce heterogeneity and increase correlation among ESG ratings. Regulators should promote the adoption of ESG disclosure rules in the shortest time to strengthen the transparency of market practices in the sustainable financing of companies and financial institutions, and contribute to the establishment of reliable ESG gatekeepers.

Third, opening to the possibility that a regulatory system could opt for maintaining high levels of heterogeneity among different ESG ratings and data products providers, and such opening would require the highest levels of transparency on the side of ESG ratings and data products providers in their methodologies, and avoid any conflict of interests, with appropriate corporate governance mechanisms coupled with adequate mechanisms for disclosure. These topics will be developed in the following paragraph.

Fourth, heterogeneity opens to the debate of splitting the "E," "S," and "G" factors. Can ESG ratings and data products providers be in the position of adequately assessing all the three factors at the same time, or should the market move towards even more specialized companies focused on one of the three factors?¹⁷⁸

C. Conflicts of Interest

In the context of ESG data providers, conflicts of interest may emerge because of three circumstances. A "traditional" conflict of interest concern in the credit rating industry relates to the remuneration of CRAs. The second source of concern relates to the ownership of data providers in relation to the inherent characteristics of ESG ratings, particularly their characteristic of being more discretional than credit ratings. The third major problem might be the "Arthur Andersen"-like problem. Beyond the traditional issues of investor protection and, under specific contexts, a crucial risk of ESG gatekeepers' conflicts of interest is the possibility of favoring greenwashing

^{178.} See Linda-Eling Lee, Guido Giese & Zoltán Nagy, Combining E, S, and G Scores: An Exploration of Alternative Weighting Schemes, 1 J. IMPACT & ESG INVESTING, Fall 2020, at 94 (describing ESG weighting schemes), https://doi.org/10.3905/jesg.2020.1.1.094.

practices, instead of contributing to the shift towards sustainability. More generally, ESG gatekeepers in a conflict of interest do not contribute to a fundamental mission of internalizing the transition costs of both public and private institutions.

Starting with the remuneration schemes, there is no consensus on whether "issuer pays" schemes present a material conflict of interest risks. In principle, one of CRAs' main assets is their reputation and integrity. Therefore, in spite of being paid by the issuer, the CRA should be incentivized to produce accurate and unbiased credit ratings in order to preserve its franchise value. However, if the short-term profits are large enough, the integrity and the quality of credit ratings might be jeopardized. A prominent example is the ratings related to CRAs in the buildup to the 2008 financial crisis.¹⁷⁹ The same problem could emerge in the context of ESG ratings, where ESG ratings and data providers might be subject and exposed to similar pressures. The IOSCO emphasized that "[u]sers of ESG ratings and sectors, possibly putting pressure on the provider to deliver this coverage even where availability and robustness of underlying data are not sufficient or lead to declining overall quality of analysis."

Although the "investor-pays" model adopted by ESG data providers does not present such risk, there may be some other concerns for regulators. With regard to the investor-pays schemes in the context of credit ratings, Fazeli shows that even this compensation structure can favor biased ratings, and conflicts of interests not with the issuer but with regulator.¹⁸⁰

Indeed, the investors are confronted with several different ESG rating measures and methodologies and are required to have a certain level of expertise and financial resources to be in the position of effectively reviewing and selecting the most suitable option for their needs. Smaller investors have more limited financial resources, and therefore cannot

^{179.} *See* White, *supra* note 42, at 12 (showing that CRAs' optimistic view of the RMBS began sharply decreased with rising mortgage defaults in 2008 financial crisis).

^{180.} See Nima Fazeli, Conflict of Interest in Investor-Paid Credit Ratings 2 (July 27, 2020), http://dx.doi.org/10.2139/ssrn.3951376 ("[The] compensation structure of an investorpaid CRA can create incentives for biased rating as well. Such incentives arise due to ratingcontingent capital requirement regulations of major institutional investors. . . . [I]nvestors have a demand for relief from the regulatory constraints. Therefore, an investor-paid rating agency might be susceptible to provide regulatory relief to its clients via credit ratings that ease those constraints. Thus, an investor-paid CRA exhibits conflicts of interests, not with investors or issuers, but with the regulator. Two channels through which investors' demand for inflated ratings emerges are the followings: (i) Rating-contingent capital requirements that create a demand for regulatory relief through inflated ratings. (ii) Propensity of investors to reach for yield which create a demand for inflation of ratings for higher yield securities.").

subscribe to multiple product packages. However, even if they had access to multiple product packages, they would not necessarily find any benefit. Indeed, it is unlikely that they would be able to understand the underlying data inputs and methodological approach and would not be in the position to make informed investment decisions.¹⁸¹

In the coming years there may be a shift towards a greater use of an "issuer-pays" model in the space, depending on multiple factors, including stronger regulatory pressure (as a tool for enhancing standardization within the market) and evolving market practices.¹⁸² This would be consistent with the transformations characterizing the credit rating industry.

Another potential source of conflicts of interest is related to ownership issues. Prominent financial institutions operating in heterogeneous fields own significant stakes in ESG data providers. This was the case with MSCI, which was formerly owned by Morgan Stanley, before it opted for a spin-off and a gradual divestment completed in 2009. However, this is still the case for other data providers. Morningstar owns Sustainalytics, and Refinitiv—formerly under the control of prominent private equity fund Blackstone and Thomson Reuters—was acquired by the LSEG in 2021. This is part of broader consolidation moves emerging in the market. As mentioned earlier, established market actors, including credit rating agencies, exchanges, and data and index providers, started to acquire smaller and more specialized ESG providers and/or have invested significant resources in the development of their own ESG expertise and capacities.¹⁸³

Indeed, the analysis of ESG data providers' methodologies in Section II.C reveals a shared characteristic of being highly proprietary, in other words, difficult to verify and replicate. Credit ratings may be, in principle, more easily replicable and therefore less proprietary. In the credit space, for publicly traded securities, the option-adjusted spread and credit default swap spread provide a timely estimate of credit risk. A correspondence between credit ratings and spreads can be easily established. Should the credit rating of a specific security deviate from the risk expressed by credit spreads, it could be easily spotted, and it generally leads to a convergence of the two. As such, there is a link between credit ratings and market measures, which makes them inherently more objective than sustainability ratings, for which there are not yet any market measures that are directly related. This situation, coupled with the situation of prominent controlling (or at least major) shareholders owning ESG data providers, may be a cause for concern. An

^{181.} See INT'L ORG. OF SEC. COMM'NS, supra note 23, at 23 (suggesting that an investor may not be able to understand data inputs and methodologies regarding ESG ratings).

^{182.} *Id*.

^{183.} Id. at 12.

investor acquiring a controlling stake in one of the ESG data providers might have the ability to influence the rating methodology and outcome, and hence direct fund flows linked to sustainable investments into specific companies and business activities.

There may be two solutions to this problem. The first solution would be to require a government-related institution to produce ESG ratings. A more reasonable solution would be to increase transparency in the ESG rating process by linking scores to objectively observable variables. This would reduce any discretionally, mitigating such conflict-of-interest risks. The methodology developed by Trucost (see Section III.F) to link companies' earnings to the Paris Agreement targets is a step toward building a methodology based on more reliable parameters and objectives.

The third issue, the "Arthur Andersen" problem, relates to the risks emerging from the offer of multiple services by ESG ratings and data products providers to private and public companies. The IOSCO consulted on whether:

[P]otential conflicts of interest that may occur with ESG ratings and data product offerings and other business relationships with the covered entities such as provision of second party opinions for green finance products and ESG consulting services, and whether the corporate governance organisational and operational structures of the provider are sufficient to identify, manage and mitigate any conflicts of interest?¹⁸⁴

One of the main factors that enabled the Enron scandal was the peculiar situation of gatekeepers, in particular, at the level of the auditing operations. During the time preceding Enron scandal, one of the former "Big-Four" auditors, Arthur Andersen, provided auditing and consulting services to Enron and its top management. The Enron scandal was the result of both accounting and securities fraud.¹⁸⁵ Enron executives put in place an articulated financial structure based on special purpose entities (SPEs) and engaged in a series of swaps amongst itself and the SPEs to artificially create economic value that, in reality, did not exist.¹⁸⁶ This ultimately led to a gigantic accounting fraud,¹⁸⁷ which was not detected by Arthur Andersen in its capacity as auditor. A major cause of failure was Arthur Andersen Enron's substantial conflict of interests. Not only was Arthur Andersen Enron's

^{184.} Id. at 40.

^{185.} See William Bratton & Adam J. Levitin, *A Transactional Genealogy of Scandal: From Michael Milken to Enron to Goldman Sachs*, 86 S. CAL. L. REV. 783, 786 (2013) (illustrating that Enron's scandal was about accounting and securities fraud).

^{186.} Id. at 832.

^{187.} Id. at 821.

auditor, therefore having a duty to assess the correctness of Enron's balance sheet, it was also providing consulting services to the executive management through its consulting branch. The resulting fees that Enron paid to the Arthur Andersen were more than \$17 million. The expensive fees paid by Enron for the consulting services weakened Arthur Andersen's independence.

As mentioned above, ESG ratings and data products providers offer a broad range of services in addition to ratings and data products, in particular, strategic consulting services for portfolio analysis and ESG strategy development, and advisory services to companies on ESG ratings improvement techniques.¹⁸⁸ The trend towards the multiplication of services beyond the elaboration of ESG ratings and data products for investors could gradually erode the independence of the companies operating in this sector, and could replicate the risks that undermined the role of auditors, and to some extents CRAs, operating as gatekeepers in the context of these massive corporate scandals.

Reducing the perimeter of the activities that ESG ratings and data products providers can perform could be a tool for avoiding conflicts of interest. The possibility of conflicts of interest will likely increase in the near future, especially because ESG ratings and data products providers will become increasingly relevant in the financial system. Investors looking for investment opportunities will look at ESG ratings, scores and indices more systematically. At the same time, both private and public companies will be more eager to improve their ESG quality and scores in order to be more attractive in the market. Therefore, they may hire ESG ratings and data providers offering additional services, such as ESG strategy development, regulatory reporting assistance for sustainability purposes, and strategic advisory services for ESG ratings improvement techniques. This situation would be a substantial replication of the Enron/Arthur Andersen scenario, and could lead to more lenient verification standards when assessing the ESG quality of such companies.

Consistent with the reforms introduced in the aftermath of the financial crisis (the Dodd-Frank Act and the European CRA Regulation), ensuring appropriate internal corporate governance arrangements and mechanisms of ESG ratings and data products providers is essential for mitigating any conflicts of interest. In the future, regulators might consider extending the scope of CRA regulations to ESG ratings and data products providers, or design ad hoc rules based on such regulations.

From this perspective, the activity of the IOSCO is extremely relevant.

The IOSCO proposed three key recommendations explicitly referring to conflicts of interest and their mitigation. Recommendation three is broad and general, and suggests that ESG ratings and data products providers could "consider ensuring their decisions are . . . independent and free from political or economic pressures and from conflicts of interest arising due to the ESG ratings and data products providers' organizational structure, business or financial activities, or the financial interests of the ESG ratings and ESG data products providers' employee."189 Recommendation four more precisely focuses on "activities, procedures or relationships that may compromise or appear to compromise the independence and objectivity of the ESG rating and ESG data products provider's operations or identifying, managing and mitigating the activities that may lead to those compromises."¹⁹⁰ The IOSCO recommends ESG ratings and data products providers avoid all these sources of conflicts of interest. Finally, recommendation five proposes to consider higher levels of public disclosure and transparency as an objective in their ESG ratings and data products, including their methodologies and processes.

A full implementation of these recommendations requires the adoption of appropriate internal procedures and mechanisms that could be helpful to identifying and eliminating, reducing, managing, and disclosing any potential conflict of interest that could emerge in the course of the business.¹⁹¹ Other essential measures should include ensuring that staff members of ESG ratings and data products providers are not engaged in trading activities in a position of substantial conflicts of interest related to their ESG ratings and data products.¹⁹² Disclosure mechanisms should also be in place in relation to compensation arrangements, as well as any other business or financial relationships existing with the company under the scrutiny of the ESG ratings and data products provider.¹⁹³

Enhancing the corporate governance of gatekeepers remains a key pillar for mitigating certain risks (as they emerged with traditional gatekeepers) and increasing the quality of ESG ratings.

D. Link Access to Capital Markets to a Minimum Sustainability Standard

When assessing the role of ESG ratings and data products providers, a key issue is the relationship between ESG gatekeepers and reporting

^{189.} INT'L ORG. OF SEC. COMM'NS, supra note 23, at 42.

^{190.} Id.

^{191.} Id. at 43.

^{192.} Id. at 42.

^{193.} Id. at 43.

standards, as both these pillars play a role in moving towards a much-needed standardization. As mentioned in Section III.B, ESG ratings would greatly benefit from increased reporting standards.

The role of capital markets in providing funding for profitable business can be summarized with the words of former Goldman Sachs CEO Lloyd Blankfein: "We help companies to grow by helping them to raise capital. Companies that grow create wealth."¹⁹⁴ In this spirit, only sustainable businesses provide long-term value creation, and hence this observation raises the question of whether capital market access should be conditioned on certain standards of sustainability.¹⁹⁵ The UN Sustainable Stock Exchanges Initiative (SSE0, created in 2009, and the World Federation of Exchanges (WFE) Sustainability Working Group, created in 2014, were aimed at developing sustainable practices at the level of exchanges for their own operations.¹⁹⁶ In addition, a large number of major stock exchanges have published documentation to provide ESG reporting guidance for companies with listed securities.¹⁹⁷

All these documents and guidelines are encouraging, as they indicate that exchanges are engaged in increasing their sustainability focus. However, the proposed guidelines appear fragmented, as every exchange suggests its own approach. A comprehensive review of all existing guidelines is a reasonable next step, with the aim of harmonizing the landscape and providing a single set of guidelines. In Europe, specific regulations have strengthened the reporting of non-financial information, such as Directive 2003/51/CE and EU Non-Financial Reporting Directive 95/14. However, at the exchange level, there is currently no mechanism enforcing minimum sustainability standards to access capital markets. In May 2019, the Hong Kong Stock Exchange proposed forcing listed companies to disclose ESG-related risks and faced strong opposition due to concerns related to increased

^{194.} Blankfein Says He's Just Doing 'God's Work,' N.Y. TIMES: DEALBOOK (Nov. 9, 2009, 5:27 AM), https://dealbook.nytimes.com/2009/11/09/goldman-chief-says-he-is-just-do ing-gods-work/ [https://perma.cc/8QM9-3XHB].

^{195.} See generally RICCARDO BOFFO & ROBERTO PATALANO, OECD, ESG INVESTING: PRACTICES, PROGRESS AND CHALLENGES 8 (2020), https://www.oecd.org/finance/ESG-Invest ing-Practices-Progress-Challenges.pdf [https://perma.cc/B4NF-KTQ4] (explaining how ESG factors can affect long-term performance and thus deserves appropriate consideration in investment decisions).

^{196.} See U.N. SUSTAINABLE STOCK EXCHS. & WORLD FED'N OF EXCHS., HOW EXCHANGES CAN EMBED SUSTAINABILITY WITHIN THEIR OPERATIONS: A BLUEPRINT TO ADVANCE ACTION 3 (2019), https://sseinitiative.org/wp-content/uploads/2019/09/SSE-WFE-Embedding-Sustaina bility-Report.pdf [https://perma.cc/Q9EY-UEQE] (summarizing the missions and purposes of the SSE and WFE).

^{197.} NASDAQ, ESG REPORTING GUIDELINES 2.0: A SUPPORT RESOURCE FOR COMPANIES (May 2019), https://www.nasdaq.com/docs/2019/11/26/2019-ESG-Reporting-Guide.pdf.

compliance.¹⁹⁸ At the time of writing, the documents providing stock exchange guidance on ESG reporting suggest that ESG disclosure presents an opportunity for corporations to secure lower costs of equity or debt, rather than a prerequisite to access capital markets.¹⁹⁹

The role of stock exchange regulations in achieving increased sustainability and higher levels of standardization is crucial. Stock exchanges would be in a position to enforce specific requirements from the very beginning of the listing process, with specific listing requirements, and throughout the entire time the corporation is listed on capital markets, with ongoing disclosure requirements. This would be a complementary action to those of public regulators and would potentially be a tool to achieve increased international convergence on the topic. Stock exchanges are historically among the most prominent self-regulatory organizations, capable of imposing stringent requirements on their members because of their fundamental role in capital markets. An effective agreement among the different stock exchanges operating in many different jurisdictions to make such requirements mandatory and homogeneous at a cross-border level would probably contribute to accelerating the construction of an efficient regulatory environment.

This cooperation at the level of stock exchanges would help reduce the difficulties related to international cooperation between different states. Frictions at the international level, the most prominent example being the decision by former U.S. President Donald J. Trump to withdraw from the Paris Agreement, demonstrate the difficulties and slow pace of reaching a consensus and eventually enforcing the measures resulting from it. These difficulties depend on many factors, including different political views and approaches toward sustainability, as well as the political stability of each negotiator involved in the process. International capital markets seem to be more adequately proactive and potentially aligned in driving the change. Not only could these organizations design and implement a common strategy much easier and faster, but the resulting self-regulatory approach would also contribute to fostering a more consistent and less fragmented regulatory environment.

The "private" solution involving stock exchanges is somewhat aligned with Martin Lipton's proposal, *Corporate Governance: The New Paradigm*,

^{198.} Patrick Temple-West, *Companies Resist Hong Kong ESG Disclosure Proposal*, FIN. TIMES (Jul. 30, 2019), https://www.ft.com/content/026ee8f2-b2de-11e9-8cb2-799a3a8cf37b [https://perma.cc/YCR9-ZFRV].

^{199.} LONDON STOCK EXCH. GRP., YOUR GUIDE TO ESG REPORTING (2018), https://www. lseg.com/sites/default/files/content/images/Green_Finance/ESG/2018/February/LSEG_ESG _report_January_2018.pdf [https://perma.cc/E69H-DMRR].

in which the famous corporate lawyer proposed a "private-sector solution" for corporate governance oriented toward a long-term horizon that is capable of preempting any nationalist and populist trends in politics as well as establishing new accepted rules.²⁰⁰

E. Identification of Material ESG Factors

Despite increasing research, the relationship between sustainability and investment returns is still controversial. Some studies, such as that of Di Giuli and Kostovetsky, find that sustainable investments are valuedestroying for shareholders.²⁰¹ Conversely, a comprehensive meta-study conducted by Friede, Busch, and Bassen suggests that the vast majority of empirical research concludes that there is a non-negative relationship between ESG and financial performance.²⁰² The lack of consensus on this topic raises an important question for financial advisors: whether the inclusion of ESG in their portfolio constructions is aligned with their fiduciary duties. This Article has taken the approach of reviewing flagship ESG indices constructed by the leading ESG data providers. With respect to the sample considered in this Article, the ESG indices generally exhibit a modest outperformance on a risk-adjusted basis compared to their parent benchmarks. The only exception is the STOXX Global ESG Leaders index, which trails the STOXX Global Total Market index on a total return as well as risk-adjusted basis. As highlighted in Part II, this index relies on a substantially different methodology than its competitors in terms of both ESG scoring and index weighting. Such substantial differences might explain the large underperformance relative to its parent index as well as toward other competitor indices. For the MSCI and S&P indices, the performance difference between the ESG and conventional index versions is, respectively, only -2 basis points (bps) and +11 bps per annum. The authors consider such differences immaterial from an economic point of view, making the ESG indices effectively equivalent to their parent versions.

In the academic research space, the authors have come across other relevant studies. Khan, Serafeim, and Yoon propose an approach to identify

^{200.} Martin Lipton, *Corporate Governance: The New Paradigm*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Jan. 11, 2017), https://corpgov.law.harvard.edu/2017/01/11/corporate-governance-the-new-paradigm/ [https://perma.cc/N54S-QXXP].

^{201.} See Alberta Di Giuli & Leonard Kostovetsky, Are Red or Blue Companies More Likely to Go Green? Politics and Corporate Social Responsibility, 111 J. OF FIN. ECON. 158, 158 (2014) (finding that increases in corporate social responsibility ratings are associated with decreases in firm value).

^{202.} See Friede, Busch & Bassen, supra note 91.

material sustainability issues for each sector and construct stock portfolios based on this metric.²⁰³ They find that alpha for the top portfolios is statistically significant, ranging from 3% to 8% per annum. As for the MSCI World ESG Leaders, the study utilizes MSCI as the source for the sustainability data. However, the performance results are substantially different. Following Sustainability Accounting Standards Board guidance, material ESG factors have now been identified by a large group of experts.

With the increased availability of ESG data, statistical machinelearning techniques can be utilized to identify the most relevant ESG factors that predict strong financial performance, as an alternative to an expertdriven approach. Although the use of artificial intelligence and machine learning techniques are now available, the technology is still at a very early stage.²⁰⁴ According to a respondent to the IOSCO consultation, the role of machine learning and natural language processing capability serves to balance the "increased volume and scope of publicly available data," and these technologies "assist research process, but not substitute it."²⁰⁵ Although such a technological approach has the potential to identify even stronger relationships between some ESG factors and portfolio returns, it presents other limitations, in particular, a risk of overfitting. Such techniques might identify patterns that are not necessarily driven by fundamental relationships and hence might be related to a specific data sample. Extrapolation of such patterns into the future might well lead to disappointing investment performance. Ideally, the factors identified by data-driven models will present a large overlap with the ones selected by expert groups, reinforcing the conclusion of Khan, Serafeim, and Yoon.

F. Market-Based vs. Rule-Based Approaches

Another consequence of dispersion with respect to ESG ratings of the same company is the challenge to unregulated market-based solutions. In equilibrium, market participants are expected to identify the most efficient

^{203.} Mozaffar Khan, George Serafeim & Aaron Yoon, Corporate Sustainability: First Evidence on Materiality, 91 ACCT. REV. 1697 (2015).

^{204.} The IOSCO noted that:

While artificial intelligence and machine learning have a role in simplifying the data compilation process, other uses have also been observed. These include using AI and ML techniques for the purpose of assessing sentiment and behavior of the market towards key ESG issues, or to provide estimates of historical carbon emissions.

INT'L ORG. OF SEC. COMM'NS, *supra* note 23, at 27. 205. *Id.*

and reliable ESG data providers, eventually driving the others out of business. Up until now, this has not materialized, as some ESG data providers have been in business for several decades. The results shown in this Article and in other recent studies²⁰⁶ highlight how there is still no convergence among different ratings.

This situation, coupled with the increasing flows into sustainable investments and disparity of return outcomes, may be a reason for regulators to provide new rules in this field. Regulators may conclude that the only way to correct the distortions that have emerged over the years in the context of a market-based solution is the identification of a standard to pursue effective harmonization. The data-driven approach briefly described in Section III.D—being transparent and rule-based—has the potential to become the foundation of such a standard, especially if there is substantial overlap with an expert-driven approach.

However, even the regulatory option of identifying a standard may present some risks. First, it may increase valuations and, as a consequence, the risk of bubbles in specific sectors. Second, as some businesses are not able to access capital markets because of sustainability reasons, they look for funding on the private markets, which are subject to less regulation and scrutiny.

Companies with relatively poor ESG scores that are still capable of accessing capital markets experience higher costs of capital on average.²⁰⁷ This is confirmed by several studies.²⁰⁸

As one of the key prerequisites to achieving acceptable ESG scores is disclosure, the link between cost of capital and ESG ratings represents a strong financial incentive for companies to increase their disclosures as a way to improve their ESG ratings, and, hence, reduce their funding costs. As identified in the MSCI rating guidelines, there are mainly two ways for gathering relevant information to determine ESG ratings: direct company disclosures, and data disseminated from third parties, including media,

^{206.} See Berg, Kölbel & Rigobon, supra note 138, at 3.

^{207.} Ashish Lodh, *ESG and the Cost of Capital*, MSCI (Feb. 25, 2020), https://www.msci. com/www/blog-posts/esg-and-the-cost-of-capital/01726513589 [https://perma.cc/VP39-PE GP].

^{208.} For a literature review, see Gianfranco Gianfrate, Dirk Schoenmaker & Saara Wasama, *Cost of Capital and Sustainability: A Literature Review* 1 (Rotterdam Sch. of Mgmt., Erasmus U., Working Paper No. 3), https://www.rsm.nl/fileadmin/Images_NEW/Er asmus_Platform_for_Sustainable_Value_Creation/11_04_Cost_of_Capital.pdf [https:// perm a.cc/2HZG-ZRCS] ("The surveyed papers mostly support the existence of a negative relationship between environmental performance and cost of capital").

academia, NGOs, and government and regulatory agencies.²⁰⁹

In spite of the enthusiasm regarding ESG investments, some financial institutions are already highlighting risks of bubbles. For example, Carole Millet at Banque SYZ has expressed concerns that a bubble may be developing around companies with high ESG scores.²¹⁰ While such risks should be constantly monitored, current valuations do not raise any immediate red flags concerning the risk of a financial bubble.²¹¹

G. Charge the Externalities

In the current regulatory framework, certain business activities may not be charged the costs of the negative externalities they produce. As such, they may initially appear profitable, although this would not be the case if such externalities led to an appropriate charge. In Europe, an emissions trading scheme has been developed to reduce overall emissions and create marketbased instruments that minimize the overall cost of a given environmental target by equalizing marginal abatement costs across sources.²¹² This has been one of the first attempts to charge externalities. However, the price of the emission certificates is not driven by the cost of the externalities but by the overall supply of the abovementioned marginal abatement costs.

Trucost, a subsidiary of S&P, has developed a methodology called Carbon Earnings at Risk to "stress-test a company's current ability to absorb future carbon prices and to help understand the potential earnings at risk from carbon pricing at a portfolio level."²¹³ While accurately estimating the value of all negative externalities generated by given business activities is an

^{209.} ESG Ratings: Measuring a Company's Resilience to Long-Term, Financially Relevant ESG Risks, MSCI, https://www.msci.com/our-solutions/esg-investing/esg-ratings [https://perma.cc/ST3H-ULGR] (last visited Nov. 12, 2022).

^{210.} Carole Millet, *ESG Ratings Can Be Dangerous*, FINEWS (Dec. 13, 2019, 3:56 PM), https://www.finews.com/news/english-news/39221-finews-first-bank-banque-syz-carole-mil let-esg-sustainable-investing [https://perma.cc/4NGD-7PFF].

^{211.} BANK OF AM., supra note 78.

^{212.} See Jonathan D. Rubin, A Model of Intertemporal Emission Trading, Banking, and Borrowing, 31 J. ENV'T ECON. & MGMT. 269, 269 (1996) ("Marketable emission permits are an economic instrument used to attain a predetermined level of environmental quality."). See generally Susanne M. Schennach, The Economics of Pollution Permit Banking in the Context of Title IV of the 1990 Clean Air Act Amendments, 40 J. ENV'T ECON. & MGMT. 189, 203 (2000) (analyzing the economics of allowance banking in the context of Title IV of the 1990 Clean Air Act Amendments).

^{213.} Award for Innovation (Research) – Trucost's Carbon Earnings at Risk, ENV'T FIN. (Aug. 6, 2019), https://www.environmental-finance.com/content/awards/sustainable-inves tment-awards-2019/winners/award-for-innovation-(research)-trucosts-carbon-earnings-at-ris k.html [https://perma.cc/TBQ7-AKAZ].

ambitious and challenging task, the efforts made by Trucost and the marketbased solutions of different emission trading schemes provide the investor community with an understanding of the risks related to the migration into a low-carbon economy. In particular, the Carbon Earnings at Risk products provide forward-looking estimates of financial risks that are in line with recommendations from the TCFD.²¹⁴ Such measures are different from ESG scores and provide yet another perspective more directly related to financial risks. This is a more objective measure and is linked to tangible results.

Accurately measuring and eventually charging negative externalities to their respective business would already address many of the objectives of sustainable investors. Under this paradigm, only truly sustainable business activities would be profitable, which would simplify the task of investors allocating capital to sustainable companies. In such a scenario, ESG data providers could leverage their expertise to contribute to the measurement of negative externalities rather than producing ESG ratings.

CONCLUSION

ESG data providers emerged as important players in the context of sustainability, and their role is likely to become much more prominent in the future given the increasing relevance of sustainable investments for capital markets and corporate governance. The lack of standardization in the context of ESG metrics, scores, and ratings may be detrimental for the development of sustainable practices and may lead to risks for the financial system and investors in a manner that is similar to the risks posed by credit rating agencies, although credit ratings and ESG ratings differ in a number of aspects.

The review of major ESG data providers and investable indices highlights that ESG ratings can materially impact financial performance, making this problem also relevant from a fiduciary duty perspective. This Paper also highlights the absence of market measures directly related to ESG ratings, which represents a structural obstacle toward increasing transparency and standardization. However, there is continuous innovation in the landscape of available ESG analytics, with some methodologies moving toward more objective and less discretionary measures. An example of such innovation is Trucost's Carbon Earnings at Risk methodology, which directly links companies' earnings with the Paris Agreement's guidelines.

To achieve the goal of standardization and the identification of reliable material indicators, one possibility is to implement a data-driven model, although this presents the risk of overfitting. Increased standardization would also contribute to mitigating risks related to conflicts of interest emerging from the way that ESG data providers are remunerated and their ownership structure, which is often characterized by the presence of prominent financial institutions operating in different fields.

Furthermore, standardization requires efforts not only at the level of public regulation but also in capital markets in order to be fully effective. In this sense, the role of market infrastructures, with an emphasis on stock exchanges, is extremely important. Shifting from voluntary to mandatory requirements in relation to ESG indicators for all the phases related to the trading of public companies is an essential milestone. This includes both listing requirements for new companies intending to be listed on stock exchanges and ongoing disclosure requirements. From the perspective of preferring a market-based solution to a rule-based approach, the two options present different risks, and a machine-learning solution would be beneficial for both regulatory strategies.

Finally, the Article investigates the relationship between negative externalities and sustainability, highlighting the benefits of charging negative externalities to their respective companies.