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18. Understanding ESG ratings and ESG indexes

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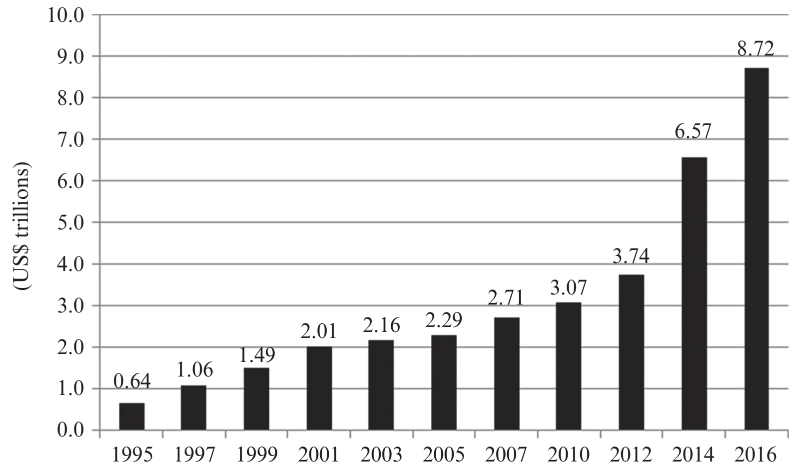
1 INTRODUCTION

Every investment needs a benchmark. In a competitive market economy, all economic actors are constantly calibrating their performance in relative and absolute terms against their peers. The old business saw holds true: what gets measured gets managed. ESG ratings and indexes are a crucial component of the way business is done in the twenty-first century because they ensure key business issues are reflected in company assessments and tracked by relevant corporate benchmarks and investment indexes, and ultimately become actionable to investors and other end users.

Investor activity in ESG has increased. The market for sustainable investment continues to grow, driving changes in the way business-as-usual is done.[1] Global assets under management (AUM) using environmental, social and governance (ESG) strategies grew from US$4 trillion in 2006 to around US$60 trillion in June 2016 at an annualized rate of 35 percent, according to the Principles for Responsible Investment (PRIs),[2] an investor network collaborating on ESG. As Figure 18.1 shows, US-domiciled AUM of investors considering ESG factors increased to US$8.72 trillion in 2016, a 33 percent increase since 2014 at US$6.57 trillion. From the first industry survey in 1995 to 2016, the universe of



Source: The US SIF Foundation, biennial Report on US Sustainable, Responsible and Impact Investing Trends, http://www.ussif.org/.

Figure 18.1 Time trends in assets in socially screened investment portfolios in the United States

ESG investment has increased nearly 14 times, a compound annual growth rate of 13.25 percent.

In simplified terms, investment strategies integrating ESG proactively consider all material factors influencing firm valuation, adding to basic financial performance risk–return factors all relevant ESG factors such as corporate governance, gender equality, water scarcity, product safety, climate change or affordable housing. As the market for ESG-integrated investment has grown in recent decades, so has the demand by investors to better evaluate their portfolio companies' ESG performance. Other stakeholders such as consumers, employees, regulators, legislators, and the general public are also increasingly incorporating the sustainability performance of corporations into their decisions on what to buy, where to work, how to set policies, what needs legislating and how companies meet their obligations to society. Last but not least, a growing number of companies are seeking external ESG metrics to measure and validate their ESG efforts, with some even linking executive pay to these metrics.[3] Consequently, ESG ratings and ESG indexes have expanded in quantity, quality, complexity, and variety. With low design costs and modest operating costs, the number of ESG indexes can be infinite.

The total size of the market for ESG ratings and ESG indexes in 2016 is difficult to precisely measure. A 2010 study by SustainAbility, a sustainability think tank, tracked 108 ESG ratings systems (of which two-thirds were ESG ratings, rankings or indices), compared to only 21 inventoried in 2000. A 2013 report by Corporate Citizenship identified over 250 global and local ESG schemes. The Global Initiative for Sustainability Ratings (GISR), a not-for-profit initiative launched to deal with the plethora of ratings and to offer some simplifying frames,[4] provides a searchable database for corporate ESG ratings, rankings and indices that tabulates 121 ESG indexes and 39 ESG ratings products across the globe. For example, one of the major ESG rating and index firms, MSCI, operates over 700 ESG equity and fixed income indexes (Phadke, Mascotto and Esterly, 2016). Another major ESG ratings and index provider, S&P Dow Jones, specializes in and calculates over 50 headline daily indices with more than $5 billion in AUM based on these indices.[5]

As noted earlier, investments need benchmarks. In view of the continued proliferation of ESG ratings and ESG indexes and their important role in the expansion of ESG investing, this chapter provides the general reader with a basic understanding of the current state of ESG ratings and ESG indexes and their role in the investment and business value chains. Therefore, this chapter contributes to the academic literature by presenting a broad overview of two important elements in investment and business practice in the twenty-first century and to which researchers have so far paid scarce attention.

We first provide definitions for ESG ratings and ESG indexes and a brief description of the recent evolutions in the ESG ratings and index marketplace. We then profile four leading ESG ratings providers (MSCI, S&P Dow Jones, FTSE Russell, and Thomson Reuters) and profile a sample of their significant ESG index products (e.g., MSCI ACWI ESG Index, Dow Jones Sustainability World Index, FTSE4Good Global Index, and the Thomson Reuters ESG Indexes for US Large Cap stocks and Developed Markets). We discuss the various ways of constructing these indexes, thereby identifying commonalities (i.e., best practices) as well as limitations of the present ESG ratings and ESG indexes practices.

While significant improvements in terms of the coverage, rigor and reliability have taken place in the ESG ratings and ESG indexes space, serious challenges still remain. We highlight three main challenges: (1) due to the dynamic nature of ESG, ratings and indexes have been constantly changing and expanding, creating problems of comparability for long-term users; (2) there is no settled agreement in academia and in practice as to what the precise definitions of ESG are, and how best ESG should be measured; and (3) a clear, positive link between portfolio valuation and ESG has yet to be unambiguously established. We explore the underlying opportunities that each challenge presents. Last, we assess the impact of ESG ratings and indexes on investors, corporations, and their managers. We examine different approaches investors have taken to incorporate ESG in their investment decisions, including shareholder activism, thematic investing, impact investing, and ESG integration in valuation and portfolio analysis. We review empirical and anecdotal evidence that shows that corporate managers are under increasing pressure to incorporate ESG into their decision making and are having greater interaction with ESG activist investors, regulators, consumers, and employees. As a result, corporate managers have altered their attitude towards ESG and started to actively seek ways to achieve the 'win-win' outcomes for their shareholders and the other stakeholders.

The chapter is organized as follows: Section 2 provides definitions for ESG ratings and indexes. Section 3 describes the recent development in the ESG ratings and index market, including some cases of consolidation that have given rise to the current landscape of the market. Section 4 profiles the four major players in the ESG ratings and index market. Section 5 selects and describes one representative index from one widely recognized index family offered by each of the four major ESG index providers, laying the foundation for the discussion of the best practices in ESG ratings and the pros and cons of ESG ratings methodologies. Section 6 expands on three main challenges and opportunities in ESG ratings and indexes. Section 7 examines the impact of ESG ratings and indexes on investors, corporations, and corporate managers, while Section 8 offers our conclusions.

2 ESG RATINGS AND INDEXING

The term 'index' has many applications and may be used to describe a list, a rating, or a ranking (Sinclair, 2011). For investors, who must track their performance for clients, regulators, and other stakeholders, indexes are a key infrastructure for doing business. For example, just one of the major index vendors, S&P Dow Jones Indices LLC, claims to manage 'over 1,000,000 indices covering a wide range of asset classes across the globe.' The terms 'ranking' or 'index' are used interchangeably. Index implies an investable strategy, but this is not necessarily the case. For example, the Business in the Community (BITC) Corporate Responsibility Index is considered a ranking.[6]

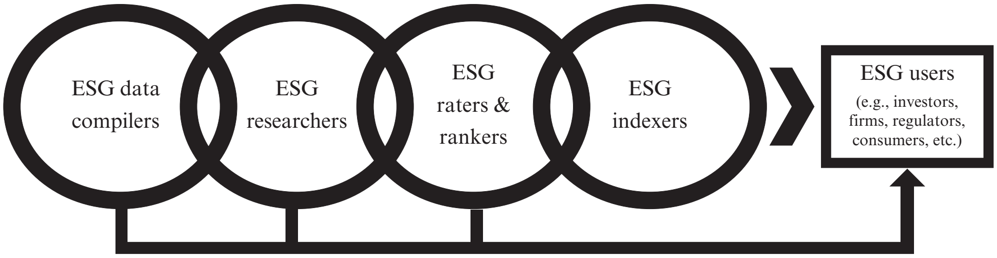
In this chapter, we use the term 'ESG ratings' to describe a scoring framework through which a publicly listed or privately held company, sector, or country's performance on ESG factors are evaluated and measured in a systematic way to yield a combined ESG score for that company, sector, or country. ESG ratings may apply to many types and sizes of organizations or institutions, from assets like public equity to real estate, from infrastructure to sovereign debt. We use the term 'ESG index' to describe an investable index, usually a market capitalization-weighted index value calculated by aggregating the individual company scores assessed for the ESG performance of each constituent in the cohort of companies to form the index. The investment market requires benchmarks to measure the impact of ESG strategies on portfolio construction, quantify the financial impact of ESG strategies, define the ESG characteristics of portfolios, and/or to identify ESG risk exposure (Kuh, 2012). Depending upon the investor preference, other methods of weighting the individual company constituents of an index may be used, including a so-called 'tilt' where ESG attributes (for example, carbon intensity) may be used as a factor for proportionally increasing an individual company's weighting in an index.

An ESG ratings firm may calculate and license its own indexes, or partner with index vendors to market, calculate, or sell the ESG index. For example, Sustainalytics' value proposition describes that it 'works with its index partners to create and maintain sustainability indices by developing index methodologies, providing data and research and helping connect clients with index providers.' An ESG index has wide applications for investors, including establishing performance benchmarks; serving as a basis for passive investment strategies that use derivative instruments tracking a particular index; and providing investment universes for active managers to trade in whole or in part. Indexes also have other users, ranging from the companies themselves as they benchmark their performance to peers, to the general media in framing the merits of a company versus its peers. The relative importance of an index to different stakeholders may be complex and counterintuitive: for example, while the influential Dow Jones Sustainability Index (DJSI) has a large influence on the behavior of companies, the actual size of investment tracking DJSI is modest, dwarfed by other investment strategies and the market capitalization of the 3400 listed companies in its research universe.

The ESG index designer has great latitude in designing the architecture of an ESG index. Fundamentally, an index of companies may be generated by looking at an ESG issue or a set of ESG issues and scoring companies on that issue to generate an issue-weighted index, or may be designed by taking some existing group of companies, and re-ranking or re-weighting the index based on the addition of a rating of ESG factors into the calculation of how the companies compare one to another. Companies may need to meet eligibility requirements to be included in an ESG index, which may be that they are part of a universe of companies, or that they do not operate in a particular geography (for example, political sanctions screening firms in North Korea). For an ESG index, the eligibility requirements are typically based on ESG research that produces ESG ratings. Figure 18.2 depicts the ESG investing value chain to illustrate the relation between ESG research, ESG ratings, and ESG indexes.

3 THE AGGREGATION AND MATURATION OF THE ESG RATINGS MARKET

The ESG ratings market has undergone significant changes over the past two decades. ESG ratings began as something of a cottage industry of small non-governmental organizations (NGOs), economic development agencies, for-profit specialist firms, human rights activists and environmental consultants. New ESG ratings firms have entered the market but the major shift has been in industry aggregation, leading to industry majors with more research staff, better distribution platforms, deeper research capabilities, broader diversity of client types and revenue streams, and research coverage of a broader universe



Note: Value increases through the value chain.

Source: This figure is adapted based on Figure 3, 'Ratings value chain' in a 2011 SustainAbility report, Rate the Raters Project Phase Four: The Necessary Future of Ratings, July 2011, accessed 25 November 2017 at http://sustainability.com/our-work/reports/rate-the-raters-phase-four/.

Figure 18.2 ESG-investing value chain

of companies and organizations. A significant driver was the acquisition in 2010 by MSCI of the RiskMetrics Group, a US-based financial risk management firm founded in 1994. RiskMetrics in turn had acquired the two largest US-based ESG ratings firms Innovest Strategic Value Advisors in February 2009 (founded in 1995) and Kinder, Lydenberg, and Domini Research & Analytics (KLD) in November 2009 (founded in 1988). MSCI also added to its ESG capability the governance ratings firm GovernanceMetrics International (GMI), a US-based company that itself had grown through acquisition in 2010 by merging three companies: the Corporate Library, GovernanceMetrics International, and Audit Integrity.

In response to the continued demand for larger ESG research capabilities and cost pressures, Sustainalytics bulked up from a series of acquisitions of SiRi Group (Netherlands), Scoris (Germany), and Analistas Internacionales en Sostenibilidad (Spain), and then merged with Jantzi Research from Canada (formed in 1992) in 2009. In 2015, two established European-based global ESG ratings agencies – EIRIS (a UK not-for-profit) and Vigeo (the dominant French ESG ratings firm) – merged to form Vigeo Eiris. Ethical Investment Research Services (EIRIS) was a UK charity set up in 1983 with the help of a group of churches and charities as a research organization to help them integrate their ethical principles into their investment decisions. EIRIS partnered with FTSE in launching the FTSE4Good series in 2001 and provided ESG research for the series until September 2013. Vigeo was founded in 2002 after acquiring the activities of Arèse – the first French SRI analytical agency set up in 1997. Vigeo purchased Stock at Stake, Belgium's leading SRI analysis agency in 2005 and Avanzi SRI Research, Italy's leading extra-financial rating agency in 2006. The merger and acquisition activities have continued. Institutional Shareholder Services Inc. (ISS), a wholly owned subsidiary comprising MSCI's Governance segment, was sold off in 2014 for US$364 million,[7] and ISS went on to acquire Ethix of Sweden in 2015 and IW Financial based in Maine, USA in January 2017. On 1 October 2016, S&P Dow Jones acquired Trucost, a leading carbon and environmental data provider formed in 2000.

The consolidation in the ESG ratings market has been driven by supply-push and demand-pull factors: (1) the need for scale and profitability; (2) the diverse and evolving demand of ESG stakeholders; (3) changing technology leading to increased data availability; and (4) globalization of demand for ESG data coverage and more globalized portfolio companies with business operations requiring ESG ratings. These factors will likely drive further consolidation in the future. Currently, major ESG ratings and/or indexes firms (grouped by country of origin and/or significant market penetration) include:

- Germany: Oekom (since 1993);
- the Netherlands: Sustainalytics (since 1992);
- Switzerland: Inrate (since 1990) and RepRisk (since 1998);
- UK: FTSE, Trucost (since 2000);
- USA: MSCI ESG, S&P Dow Jones, and Thomson Reuters.

Besides the industry consolidation drivers outlined above, the 'Rate the Raters' 2010 study by SustainAbility, a consultancy, identified several other key trends in the ESG ratings market over the preceding decade including: (1) a significant proliferation and diversification of ratings as ESG issues themselves become more nuanced and complex and more organizations seek to raise the profile of specific ESG issues by rating firms on these ESG issues; and (2) ratings going more mainstream and global as global interest in competing for the best firms continues, investors learn about insights ESG ratings provide into corporate behaviors and predictability of success, and companies learn about competitive advantages ESG ratings provide for enlarging the global footprint of business operations. Seven years later, these trends continue.

4 ESG INDEX PROVIDERS

ESG indexes are value-added products developed by ESG ratings firms. ESG indexes have been needed for as long as investors have wanted to track portfolios relative to specific ESG factors. The Domini 400 Social Index launched in 1990 is the world's first and longest-running index, tracking companies ranked according to ESG factors. KLD Research & Analytics Inc. (acquired by what is now MSCI) created the index as an alternative to the S&P 500 index and was designed to benchmark a cohort of US-listed companies with better ESG characteristics drawn in part from S&P 500 and in part from a larger universe. Since then, the popularity of sustainable investing has driven significant growth of ESG indexes. Competition amongst ESG index providers and/or ESG ratings firms today means a variety of firms provide ESG indexes individually or in partnership with specialist firms for use as benchmarks, as investable universes, or to license as investment portfolio trackers, including financial services firms (e.g., MSCI and FTSE), sustainable investment firms (e.g., Calvert), ESG research firms (e.g., Sustainalytics), and stock exchanges (e.g., Nasdaq, Johannesburg Stock Exchange, and BM&F Bovespa).

Below we review four ESG indexes providers (also see Table 18.1). They are recognized for the large number of their research staff and index product offerings, their global ratings coverage and product distribution, and the important role that they have been playing in the ESG ratings market as the de facto ESG norms setters. This proto-regulatory role is strategically significant for the investment ecosystem and the firms' business models: being the dominant reference points for investors implies that these ESG ratings and ESG indexes are influential in terms of which ESG issues are covered and in what ways, and that they drive companies to seek to report their ESG performance in line with the metrics these ESG index providers establish.

4.1 MSCI

Headquartered in New York City, MSCI Inc. is a provider of research-based indexes and analytics and trades on the NYSE (NYSE: MSCI).[8] MSCI was formed in 1986 when Morgan Stanley licensed the marketing rights to Capital International's data from a unit of the Los Angeles–based investment management firm Capital Group.[9] In the late 1960s, Capital International created the first family of global equity indexes. As of June 2015, an estimated US$10 trillion in assets was benchmarked to MSCI indexes and 97 of the top 100 global investment managers were MSCI clients.

MSCI is the world's largest provider of ESG indexes measured by the self-reported number of indexes and by assets tracking the indexes.[10] MSCI offers over 700 equity and fixed income ESG indexes that are designed to represent the performance of some of the most prevalent ESG strategies and can be used to help institutional investors more effectively benchmark ESG investment performance, issue index-based passive investment products, as well as manage, measure and report on ESG mandates. In the period of January–September 2015, inflows to exchange-traded funds (ETFs) linked to ESG equity indexes were around US$194 million in Europe, and MSCI accounted for 48 percent of the inflows (Revesz, 2015).

According to self-reported information, MSCI is the only major index provider with in-house ESG research expertise.[11] MSCI ESG Research Inc. is the world's largest provider of ESG research by client coverage.[12] MSCI ESG Research is the result of the absorption of several ESG research providers (described above).

4.2 S&P Dow Jones (Index Provider) and RobecoSAM (ESG Rating Provider)

In September 1998, SAM and Dow Jones Indices agreed to launch the Dow Jones Sustainability Index (DJSI), as the first 'global' sustainability benchmark in 1999.[13] The joint marketing venture was a strategic attempt by the nascent sustainability theme to partner with a major global index provider to expand reach and access to institutional investors. SAM delivered the ESG ratings and rankings, DJ brought the index mechanics and distribution. According to self-reported information, SAM was founded in 1995 as the world's first asset management company focusing exclusively on sustainability investing. RobecoSAM was rebranded when Robeco, a Dutch investment management firm founded in 1929, became majority shareholder in 2013. According to its website, as of June 2016, RobecoSAM had assets under management, advice and/or license in listed and private equity of approximately US$10.8 billion.[14]

In July 2012, index industry merger & acquisition activities led two competitors to merge: S&P Indices and Dow Jones Indices joined forces to become the world's largest provider of financial market indices. S&P Indices and Dow Jones Indices are best known in the USA for the Dow Jones Industrial Average (launched in 1896) of 30 US-based company stocks and the S&P 500 index (launched in 1957), as a benchmark of US-listed company activity.

In April 2016, S&P Dow Jones Indices partnered with RobecoSAM to launch a new index family (S&P ESG Index Series) – designed to measure the performance of companies in its respective underlying index with a weighting scheme based on an ESG Factor Score, derived from RobecoSAM's annual Corporate Sustainability Assessment (CSA). According to a press release by S&P Dow Jones Indices, the S&P ESG Index Series is the first index family to treat ESG as a standalone performance factor and the first global ESG index series that serves the growing market of 'smart beta' indices. The S&P ESG Index Series consists of the S&P Global 1200 ESG Index, the S&P 500 ESG Index, the S&P Europe 350 ESG Index, and the S&P/TOPIX 150 ESG Index.

4.3 FTSE Russell

FTSE Russell is wholly owned by London Stock Exchange Group (LSEG). Headquartered in London, LSEG describes itself as a diversified international market infrastructure and capital markets business operating a range of international equity, bond and derivatives markets, including one of the world's oldest stock exchanges – the London Stock Exchange founded in 1895. In 2011, LSEG acquired the remaining 50 percent of FTSE International Ltd (FTSE) it did not already own, giving LSEG 100 percent ownership and control. In 2014, LSEG purchased Russell Investments, the owner of Russell 1000, 2000, and 3000 Indexes, in order to compete more effectively with MSCI and S&P Dow Jones Indices. At the time of the deal, Russell had about US$5.2 trillion of assets linked to its indices, while FTSE had around US$4 trillion of equities benchmarked to it (Stafford, 2014). LSEG launched the FTSE Russell brand in May 2015. According to their own product guide, FTSE Russell calculates over 700 000 benchmarks daily, covering 98 percent of the investable market globally.

In 2000, the UK government required that pension funds must state in their investment policies the extent to which they took account of ethical, social, and environmental issues in investment decisions. In 2001, FTSE launched the FTSE4Good indices to meet the growing demand by investors who wanted access to a list of recognized companies involved in socially responsible investment.[15] According to research analysts Lipper, the average UK ethical fund had grown by 20.7 percent in the five years leading up to the launch of the FTSE4Good index.[16] Together with DJSI, the FTSE4Good indices have helped propel sustainable investing from being a marginal activity to a mainstream investment theme.

4.4 Thomson Reuters

Headquartered in New York, Thomson Reuters is a provider of news and information for businesses and professionals. According to its website accessed in July 2016, Thomson Reuters employs approximately 50 000 professionals in over 100 countries. In 2009, Thomson Reuters acquired ASSET4, in Switzerland. ASSET4 is being used for the Thomson Reuters Corporate Responsibility Indices (TRCRI). ASSET4 was founded in 2003 with the goal to integrate financial with non-financial information that is difficult to quantify. The ASSET4 universe consists of approximately 10 000 securities. The manager

Table 18.1 Overview of key ESG index providers

ESG Index Provider	Indexes (Launch)	ESG Experience	ESG Coverage	ESG Professionals
MSCI	MSCI Global Sustainability Indexes (2007) MSCI Global SRI Indexes, including MSCI KLD 400 Social Index (1990) MSCI Global ex Controversial Weapons Indexes MSCI Global Environmental Indexes Barclays MSCI ESG Fixed Income Indexes MSCI ACWI Sustainable Impact Index Custom MSCI ESG Indexes	ESG research since 1972 ESG indexes since 1990	~6000 firms globally (11 000 total issuers including subsidiaries) > 350 000 equity and fixed income securities	Over 250 staff, including 150+ analysts (as of Feb. 2016)
S&P Dow Jones and RobecoSAM	Dow Jones Sustainability Index Family (1999) S&P ESG Sovereign Bond Index Family (2015) S&P Fossil Fuel Free & Carbon Efficient Index Family (2015) S&P ESG Index Family (2016)	ESG indexes since 1999	3800+ listed firms covered by RobecoSAM's CSA	~130 professionals work for RobecoSAM (as of Apr. 2016)
FTSE Russell	FTSE4Good Index Series (2001) FTSE All-World ex Fossil Fuels Index Series FTSE Divest-Invest Developed 200 Index FTSE Environmental Markets Index Series FTSE Green Revenues Index Series Russell Australia ESG High Dividend Index	ESG indexes since 2001	NA	100+ professionals including those specializing in ESG research (as of Apr. 2016)
Thomson Reuters/ ASSET4	Thomson Reuters Corporate Responsibility Indices	ESG indexes since 2004	> 4600 firms globally	120 analysts (as of Mar. 2015)

Note: Table 18.1 summarizes the four major ESG index providers profiled in this chapter – MSCI, S&P Dow Jones and RobecoSAM, FTSE Russell, and Thomson Reuters – in terms of the EGS indexes they provide, their ESG experience, ESG research coverage, and ESG staff. Data in the table come from various publications of the respective index provider.

of the TRCRI is S-Network Global Indexes, a New York–based specialist index design firm. Founded in 1997, S-Network Global Indexes publishes and develops over 200 proprietary indexes, as well as custom indexes providing the foundation for ETFs and other financial products with over US$4 billion in assets under management. S-Network Global Indexes, in collaboration with Thomson Reuters, produces proprietary ESG ratings on nearly 8000 public companies worldwide.

5 ESG INDEXES

To meet the diversity of demand from investors for index products and/or benchmarks in different asset classes, regions or company sizes, index providers use different methodologies to construct indexes. The same rationale applies in the theme of sustainable investing. Investors want ESG benchmarks to track their ESG portfolio performance against, in addition to, or in substitution of, common investment benchmark indexes. In this section, we select an individual index from one widely recognized family of indexes offered by each of the four major ESG index providers profiled in Section 4. This section introduces the common approaches and best practices in ESG indexes. It also highlights the advantages and disadvantages of the ratings methods underlying the index. These methods integrate some forms of ESG ratings into the qualitative and quantitative index methodology to narrow the firms to include (or exclude) from the index, and/or what weighting to apply to their inclusion in the overall index. To be consistent in our process of selecting examples and providing comparable assessments, we choose the index (we use the term 'focus index' for ease of reference) offered by the four major ESG index providers that provides the broadest coverage universe either in terms of the number of firms (quantity) and/ or the number of countries (geography).

We first provide a brief overview of the index family and then discuss the aspects of the construction process of the focus index. Frequently, the construction methodology of the focus index is the same as that of the index family in general, differing only in the ESG factors' integration and methodology. We conclude the section by comparing the ESG indexes and highlighting the advantages and drawbacks of the ESG ratings methods.

5.1 MSCI Global Sustainability Indexes

Launched in 2007, the MSCI Global Sustainability Indexes[17] are a family of free-float–adjusted market capitalization weighted indexes that are designed to provide investment exposure to companies that have high ESG performance. These indexes apply a best-in-class ESG ratings approach to select companies with the highest ESG ratings, target sector weights that reflect the relative sector weights of the underlying indexes, and target coverage of 50 percent of the underlying MSCI parent index. This index family includes the MSCI All Country World Indexes (ACWI) ESG, MSCI World ESG Index, MSCI Emerging Market (EM) ESG Index, and MSCI USA Investable Market Indexes (IMI) ESG.

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5.1.1 MSCI ESG Research

MSCI ESG Research is the engine driving the selection and/or weighting of constituents for the MSCI ESG Indexes. Launched in 2010, MSCI ESG Research has grown from 90 staff covering 2000 companies to employing more than 250 staff and covering 6000 companies in February 2016. MSCI ESG Research products include MSCI ESG Ratings, MSCI ESG Controversies, and MSCI Business Involvement Screening Research. MSCI ESG Ratings analyze data from company documents (e.g., 10-K, sustainability reports, and proxy statements), over 100 specialized datasets (government, NGO, and proprietary models), and more than 1600 global and local media publications monitored daily. MSCI ESG Ratings incorporate 37 industry-specific issues weighted based on the industry's impact and the time horizon of the risks and opportunities. They ultimately combine these key issue scores and weights into an overall company ESG rating on a seven-point scale from 'AAA' to 'CCC.' The MSCI ESG Controversies product (formerly known as MSCI Impact Monitor) provides assessments of controversies concerning the negative ESG impact of company operations, products, and services. It uses an evaluation framework that is designed to be consistent with international norms represented by the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. MSCI ESG Controversies Score falls on a 0–10 scale, with '0' being the most severe controversy. MSCI ESG Business Involvement Screening Research is a screening service that enables institutional investors to screen for global publicly traded firms that are involved in controversial activities, are not in compliance with international conventions, or violate religious screening mandates such as Catholic or Islamic values.

5.1.2 Focus index: The MSCI All Country World Index ESG Index

The MSCI All Country World Index (ACWI) ESG Index is a market capitalization weighted index designed to provide exposure to companies in the MSCI ACWI that have high ESG performance relative to their sector peers. The MSCI ACWI is composed of 2481 large- and mid-capitalization companies across 23 developed market and 23 emerging market countries, covering approximately 85 percent of the global investable equity opportunity set. The index is formed using a methodology[18] in a three-step process where MSCI's ESG ratings, ESG controversies scores, and ESG screening methods are combined to provide a comprehensive set of firms with best practice ESG:

1. In terms of MSCI ESG Ratings, existing constituents of the MSCI Global Sustainability Indexes are required to have an MSCI ESG rating above CCC to remain in the index, while companies that are currently not constituents of the MSCI Global Sustainability Indexes are required to have an MSCI ESG rating above B to be considered eligible for addition.
2. In terms of MSCI ESG Controversies, existing constituents of the MSCI Global Sustainability Indexes are required to have an MSCI ESG Controversies Score above 0 to remain in the index, while companies that are currently not a constituent are required to have an MSCI ESG Controversies Score above 2 to be considered eligible for addition.
3. In terms of MSCI ESG Business Involvement Screening Research, existing constituents of the MSCI Global Sustainability Indexes cannot be involved in controversial activities related to alcohol, tobacco, gambling, nuclear power, and weapons.

5.2 Dow Jones Sustainability Indices (DJSI)

Launched in 1999, DJSI in 2017 covers a family of indexes that evaluate the sustainability performance of the largest 2500 companies listed on the Dow Jones Global Total Stock Market Index. The DJSI family uses a best-in-class approach to select companies from across all industries for index membership. No industries are excluded from the selection process. Only the companies in industries that meet certain minimum sustainability requirements assessed by RobecoSAM are selected for index membership. The DJSI family covers 46 countries and 59 RobecoSAM industries derived from the Global Industry Classification Standard (GICS) system. Not all 59 industries are necessarily represented in every DJSI index due to the minimum eligibility thresholds. S&P Dow Jones Indices and RobecoSAM maintain the Dow Jones Sustainability Indices collaboratively. According to its website accessed in July 2016, the family includes 14 broad market indices, ten global and regional blue-chip indices, seven specialty/screened indices, and 16 diversified indices.

5.2.1 RobecoSAM's Corporate Sustainability Assessment (CSA) methodology

RobecoSAM's CSA methodology[19] is the engine driving the selection of constituents for the DJSI. Each year, RobecoSAM invites firms to participate in the annual CSA – the world's largest 2500 publicly traded companies by float-adjusted market capitalization in the S&P Global Broad Market Index, plus any existing index constituents whose free-float market capitalization as of the prior year-end is above a predefined threshold (US$500 million for DJSI World). The CSA is designed to capture both general and industry-specific criteria covering the economic, environmental, and social dimensions. Each of the three dimensions consists of, on average, six to ten criteria, and each criterion can contain between two to ten questions, totaling approximately 80–120 questions, depending on the industry. Each criterion is worth up to 100 points, and is assigned a weight (percentage) of the total questionnaire. The criteria within each dimension roll up to the dimension weight. For each company, a Total Sustainability Score (TSS) of up to 100 points is calculated based on the predefined weights established for each question and criterion. Companies receive a Total Sustainability Score between 0 and 100 and are ranked against other companies in their industry. The top performers, relative to their industry peers as measured by TSS, are selected for inclusion in the DJSI. For example, the top 10 percent of companies by TSS within each industry in the underlying index are selected for inclusion in the Dow Jones Sustainability World Index. The top 30 percent of companies by TSS within each industry in the underlying index are selected for inclusion in the Dow Jones Sustainability Index. ESG equity indices are based on RobecoSAM's proprietary ESG database, covering over 600 ESG indicators for over 4000 global companies.

RobecoSAM uses a hybrid sourcing approach to combine company self-reporting with publicly available information. To ensure the accuracy of companies' self-reporting, RobecoSAM takes a number of measures, including cross-checking companies' answers with publicly available information and using a third-party audit of the process conducted by Deloitte. In addition to the questionnaires sent to 3400 listed companies around the world[20] with 80–120 industry-specific questions, CSA also includes a large number of companies whose sustainability performance is evaluated by RobecoSAM based purely on publicly available information to ensure that the CSA coverage is representative of the broader, global market for mid- and large-cap companies, both in terms of commitment to sustainability, and in terms of size, industry, and country exposure. For example, in September 2013, RobecoSAM publicly announced that 818 companies had filled out the questionnaire. By February 2014, RobecoSAM assessed additional 2013 companies based on public information only.[21] RobecoSAM monitors ESG inputs for the universe of the companies on a daily basis using media stories pre-screened and curated by RepRisk,[22] a Swiss ESG research firm, in 16 languages from over 80000 media, stakeholder, and third-party sources.[23]

5.2.2 Focus index: The Dow Jones Sustainability World Index

The Dow Jones Sustainability World Index was created in 1999 by SAM and Dow Jones as the first global sustainability benchmark. In 2017, the index methodology[24] uses a transparent, rules-based constituent selection process based on the companies' TSS, calculated under RobecoSAM's annual CSA and industry classifications resulting from the annual RobecoSAM CSA. DJSI World covers publicly listed companies scoring in the top 10 percent of the TSS within each industry in the universe of the largest 2500 companies within the S&P Global Broad Market Index (BMI). The S&P BMI covers all publicly listed equities available to institutional investors with float-adjusted market values of at least US$100 million. As of June 2016, the DJSI World is composed of 11 722 companies from 25 developed and 23 emerging markets.[25]

5.3 FTSE4Good Series

Launched in 2001, the FTSE4Good Index Series[26] in 2017 is designed to objectively measure the performance of companies that meet globally recognized ESG standards and to facilitate investment in those companies. FTSE4Good Index Series uses a methodology[27] applying an absolute threshold approach to select companies for index membership. The starting universe of the FTSE All-World Index is supplemented by companies on domestic indexes that cover smaller capitalization companies in smaller markets. As of April 2016, the family includes the following 14 indexes covering different regions: Global, Global 100, UK, UK 50, Europe, Europe 50, US, US 100, Japan, Australia 30, IBEX (Spain), the Environmental Leaders Europe 40, Bursa Malaysia, and ASEAN 5 (Singapore, Indonesia, Malaysia, Philippines and Thailand).

5.3.1 The FTSE Russell's ESG Ratings methodology

The FTSE Russell's ESG Ratings methodology is the engine driving the selection of constituents for the FTSE4Good Index Series. It covers companies in the FTSE All-World Developed Index and FTSE All-Share indices. The ESG Rating breaks down into three underlying pillars (environment, social, and governance), which are further divided into 14 Thematic Scores spanning approximately 350 indicators.[28] Each company is typically evaluated based on 10–35 indicators per theme, averaging about 125 indicators per company. Companies in the research universe are given a FTSE ESG Rating ranging from 0 to 5, with 5 being the highest rating. From January 2016, companies with a FTSE ESG Rating of 3.2 and above will be added to the series, subject to certain requirements and exceptions. For example, companies that manufacture tobacco and weapons are excluded from the series. As another example, for the FTSE4Good Bursa Malaysia

Index[29] launched in December 2014 for the Malaysian market, companies with a rating of 2 and above will be added to the index. FTSE intends to upgrade the inclusion threshold to 3 over time. Constituents of the FTSE4Good Index Series with an ESG Rating below 2.5 are at risk of deletion from the series. Companies suspended from the series are not eligible for re-inclusion for a minimum of two years. In line with index best practice, FTSE4Good publishes a semi-annual review of the index.[30]

This absolute threshold approach is designed 'to set standards that are challenging but achievable.'[31] In contrast to MSCI Global Sustainability Indexes and DJSI, the FTSE4Good Index Series does not assess a company's ESG performance relative to its peers; this is not a 'best practice' or 'best-in-class' model. The FTSE ESG model also does not allow high scores in one area to offset those elsewhere. The absolute threshold approach supports the transparency and objectivity goal of the FTSE4Good Index Series as the inclusion criteria for each company is clear and rule based. Also, as part of this effort, FTSE Russell only uses publicly available data in assessing ESG performance and does not accept data or information privately provided by companies.

The FTSE ESG Ratings model uses negative screening[32] to exclude companies from the FTSE4Good Index Series. Companies that manufacture tobacco, weapons systems, or components for controversial weapons such as depleted uranium and nuclear weapons, or coal are excluded from the series.

5.3.2 Focus index: FTSE4Good Global Index

The FTSE4Good Global Index is designed to measure the ESG performance of firms in the FTSE Developed Index Series, a market capitalization weighted index of approximately 2000 large and mid-cap companies in developed markets.

5.4 Thomson Reuters Corporate Responsibility Indices (TRCRI)

Launched in 2013, the TRCRI is a family of benchmarks that are designed to measure the performance of companies with superior ESG performance applying an index methodology[33] and ESG rating[34] that aims to be objective, transparent, and rules based. TRCRI uses a 'best-in-class' approach to select the top 50 percent of the companies scored by Thomson Reuters Corporate Responsibility Scores (TRCRS) from each of the ten Thomson Reuters Business Classification sectors. As of June 2016, the TRCRI covers a universe of over 4600 companies worldwide. The TRCRI tracks the performance of major global benchmarks via companies that have substantially higher ESG ratings than the weighted average for indices such as the S&P 500 or MSCI EAFE (Europe, Australasia, and Far East).

The TRCRI family includes the Thomson Reuters Corporate Responsibility US Large Cap ESG Index (TRESGUS), the Thomson Reuters Corporate Responsibility Developed Markets (ex-US) ESG Index (TRESGDX), and the Thomson Reuters Corporate Responsibility Europe ESG Index (TRESGEU), each one with its respective environmental, governance, and social indices. For example, TRESGDX includes Thomson Reuters CRI Developed Markets (ex-US) Environmental Index (TRENVDX), Thomson Reuters CRI Developed Markets (ex-US) Governance Index (TRCGVDX), and Thomson Reuters CRI Developed Markets (ex-US) Social Index (TRSCDX). Each index is derived from an underlying index published by S-Network Global Indexes.

5.4.1 The Thomson Reuters Corporate Responsibility Ratings (TRCRR) methodology

The Thomson Reuters Corporate Responsibility Ratings (TRCRR) methodology is the workhorse behind the TRCRI. The ratings are calculated based on ASSET4. The TRCRR is comprised of an overall ESG rating that breaks down into three underlying pillars (environment, social, and governance), which are further divided into 15 categories spanning over 250 key performance indicators (KPIs). Each KPI is scored within each industrial, regional, or universal model between zero and one. The scores are aggregated to one number between 0 and 100 for each company on an approximated normal distribution that characterizes performance on each dimension. Therefore, the ratings are comparable across pillars and yield a consistent and objective score for each company's environmental, social, governance and combined ESG practices.[35] The TRCRR do not use negative screening. No sector or company is excluded based on business lines, which should therefore result in a more diversified benchmark.

5.4.2 Focus index: Thomson Reuters US Large Cap ESG Index (TRESGUS) and Thomson Reuters Developed Markets (ex-US) ESG Indices (TRESGDX)

As Thomson Reuters does not offer a global index, we feature two Thomson Reuters ESG indexes – Thomson Reuters Corporate Responsibility US Large Cap ESG Index (TRESGUS) and Thomson Reuters Corporate Responsibility Developed Markets (ex-US) ESG Indices (TRESGDX).

Launched in 2013, the TRESGUS is derived from S-Network US Large Cap Index (SNUSL). SNUSL identifies the 500 largest capitalization companies in the USA, representing 70–80 percent of US market capitalization. Half of the companies in each of the ten TRBC sectors in SNUSL that have the highest TRCRR are selected for inclusion in the TRESGUS. According to the latest available report by Thomson Reuters, TRESGUS has a correlation of 0.994 with the S-Network 500 Total Return Index (SN500T).[36]

Launched in 2013, the TRESGDX is derived from S-Network Developed Markets (ex-US) Index (SNDMI). SNDMI includes stocks whose domiciles and primary exchange listings are in countries identified by the World Bank as high-income countries excluding the USA. It captures 70 percent of total float market capitalization of each country. Half of the companies in each of the ten TRBC sectors in SNDMI with the highest TRCRR are selected for inclusion in the TRESGDX. According to the latest available report by Thomson Reuters, TRESGDX has a correlation of 0.995 with MSCI EAFE since inception.[37]

In Table 18.2, we provide a brief overview for the above-mentioned focus indexes in terms of the underlying universe, coverage, methodology, and data sources. As can be seen from this table, there is considerable variation in terms of the universe of firms considered and the methods employed. Most indexes are based on public data but some providers also rely on proprietary, private data from surveys and other sources.

5.5 A Comparison of the Key Characteristics of ESG Indexes

In Sections 5.1–5.4, we sampled a representative index family/index across the four major ESG ratings and/or ESG index providers. This examination reveals several commonalities, which resemble the best practices analyzed in a comprehensive review of ESG ratings (SustainAbility, 2011). Ultimately, the ESG methodology is a trade secret for firms selling

Table 18.2 Overview of key ESG indexes

ESG Index Provider	Focus Index (Launch)	Underlying Universe	Coverage	Methodology	Data Sources
MSCI	MSCI ACWI ESG Index (2013)	MSCI All Country World Index (ACWI; 2481 firms as of June 2016)	1221 large and mid-cap firms across 23 developed and 23 emerging markets countries (as of June 2016)	Use MSCI ESG Ratings to select the top 50% of the free-float–adjusted market capitalization in each GICS sector of MSCI ACWI, subject to eligibility criteria (MSCI ESG rating > B; MSCI ESG Controversies Score > 2; not involved in controversial businesses)	Publicly available information[a] Third-party datasets
S&P Dow Jones and RobecoSAM	DJSI World Index (1999)	S&P Global Broad Market Index (11 722 firms as of June 2016)	316 firms across 48 countries and 57 RobecoSAM industries (as of June 2016)	Use the RobecoSAM's Corporate Sustainability Assessment (CSA) methodology to select the top 10% firms by Total Sustainability Score of the largest 2500 firms in the S&P Global BMI across the 59 RobecoSAM industries for inclusion in the index	An online questionnaire of ~100 questions Publicly available information[a] Reputation analysis from RepRisk
FTSE Russell	FTSE4Good Global Index (2001)	FTSE Developed Index (2097 firms as of June 2016)	824 firms, across 25 countries (as of June 2016)	FTSE ESG Ratings methodology, which use an absolute threshold approach	Publicly available information[a]

Thomson Reuters/ ASSET4	Thomson Reuters Corporate Responsibility US Large Cap Index (2013)	S-Network US Large Cap Index (SNUSL) –500 largest US firms by market capitalization (70–80% US market capitalization)	245 firms (as of Mar. 2015)	Use the Thomson Reuters Corporate Responsibility Ratings (TRCRR) methodology to evaluate the ESG performance of ~4600 firms worldwide. Top 50% firms by TRCRR in each of the ten Thomson Reuters Business Classification sectors are selected	Publicly available information[a]
	Thomson Reuters Corporate Responsibility Developed Markets (ex-US) ESG Index (2013)	S-Network Developed Markets (ex-US) Index (SNDMI) – 70% of total float market capitalization of each country identified by the World Bank as high-income countries	246 firms (as of Mar. 2015)		

Notes:
This table provides a brief overview for the focus indexes profiled for each four major index providers.
a. Publicly available information refers to publicly available company documents (e.g., financial statements, sustainability reports, and corporate website) and third-party data (e.g., regulatory filings, media coverage, and NGO publications).

this service at two levels: the ESG research is proprietary, and the ESG index methodology is proprietary. Notable differences in ESG ratings and indexing will therefore exist by design or by default. In this section, we summarize the key common practices that we observe based on the review in the preceding sections, discuss the different practices and pros and cons associated with each method, and identify the limitations of the current state of ESG ratings and indexes. In Table 18.3, we highlight some of the similarities and differences among the ESG indexes reviewed in Sections 5.1–5.4.

5.5.1 Best practices in ESG ratings and indexes

It is not surprising that we notice many commonalities across the four ESG raters and those reviewed in Section 4. Applying the ESG ratings in ESG indexes as outlined in Section 5, these four index providers compete for clients in a competitive marketplace and the attributes of their ESG index offerings will therefore be similar in some ways as a reflection of the normal business practices demanded of ESG index providers. The commonalities noted below are attributes that promote objectivity, transparency, and quality. Balancing the competitive advantages and uniqueness of ESG ratings and indexes with the need for transparency can build user confidence in the quality of the ESG ratings and/or ESG index. In the end, the use of relevant and reliable attributes should lead to the competitive success of a ratings agency or index provider, as well as deflect any unwanted negative attention from commentators, analysts or even regulators:

- *Rule-based methodology*. All the ESG ratings models reviewed above and the ESG indexes built on these models are constructed based on rules. All the four raters place a greater emphasis on quantitative and quantifiable metrics than on qualitative information (e.g., corporate policies), although both quantitative and qualitative factors determine the final complex decision.
- *Context specific*. While all companies should report all business factors, including ESG factors, as the recent promotion by the World Federation of Exchanges of disclosure by publicly listed companies of 33 ESG KPIs attests,[38] all ESG rating agencies strive to build indexes that are relevant to the specific environment in which the company operates. ESG rating is therefore context specific. For example, a mining company should not be assessed in the same way as a bank in terms of CO_2 emissions. A company from a water-rich country should not be scored in the same way as its peer from a water-poor country in terms of water risk. All the four major ESG rating firms deliberately incorporate factors specific to the company's region, country, and industry into their ESG ratings models and assign different weights to these factors based on its relative impact on ESG performance.
- *Transparency*. To promote trust in their products and their processes, all four ESG rating agencies provide disclosure to the public of their ratings methodology, index constituents, information sources, conflict management, and so on, while retaining some 'black box' attributes as sellers of proprietary products. This includes the semi-annual and annual reviews of components, deletions, and additions.
- *Data credibility*. Credible data are data that come with the opportunity to verify or has been provided to regulators, both of which provide the assumption that a discloser is truthful to avoid negative consequences. Most ESG rating agencies only use publicly available information because it typically must meet some standards for

external publication and is readily available at little cost to the ratings firms. FTSE explicitly notes that in assessing ESG performance, FTSE does not accept data or information provided by companies, because this practice improves the credibility of data and enhances transparency across the market.[39] S&P Dow Jones is the only rater reviewed that uses information privately provided by firms. RobecoSAM, the ESG methodology provider for S&P Dow Jones ESG indexes, makes the following arguments for the benefits of using private information: (1) publicly available information is often more limited than information that can be obtained directly from companies; (2) publicly available information may lack comparability because it can be made available in different measurements, for different time periods, and so on. RobecoSAM also takes a number of steps to assure the validity of self-reported data by companies. As a side benefit, cross-checking company information contributes to the quality and quantity of corporate ESG disclosure. The added analysis increases the costs of the ESG process, so much so that in 2016, Bloomberg, which aggregates ESG data from listed companies, reversed an approach of asking companies for ESG information directly, returning to only using ESG data in the public domain.

- *Continuous revisions*. Due to the complex and dynamic nature of ESG, all the four major ESG ratings firms are constantly revising their ESG ratings models to stay accurate, relevant, and add value for their users. This generates problems for longitudinal comparability, but benefits users by being continually up to date and therefore contextually relevant.
- *ESG ratings methods, from negative screening to best-in-class*. Best-in-class and negative screening (also known as exclusionary screening) represent two distinct ESG approaches on opposite ends of the spectrum: from having no exposure, to finding the better options in a suboptimal universe. Historically, investing using ESG factors came from a tradition of excluding companies for ethical reasons, for example, excluding polluting companies measured on some metric of pollution (Burr, 2016). Applying negative screening is a technique whereby companies or industries that are not aligned with the investors' values or religious or ethical principles are excluded from the investable universe by applying a screen that filters them out. Negative screens have frequently been applied to exclude sectors, industries, and companies in the business of pornography, alcohol, gambling, nuclear power, tobacco, and war. The methods and diligence of the screening varies, as does the degree of tolerance for businesses with multi-line operations or supply chains that overlap. Classic portfolio theory argues for the maximum opportunity set to diversify systematic risk. A drawback of negative screening is the investable universe is reduced from the hypothetical maximum, resulting in a potentially less-diversified portfolio. Another drawback is that 'voting with one's feet' as an investor means the investor cannot positively change and influence companies he or she does not own.

  The best-in-class investment approach does not exclude using a screen of the universe, but rather uses a scoring or rating applied to sectors, industries, or companies to increase exposure or overweight the portfolio toward those that have superior ESG performance. In the past decade, investment integrating ESG factors has continued to include exclusionary screens, but more techniques and approaches have evolved to allow institutional investors the widest universe while finding ways to include and weight ESG factors, for example, low carbon or gender lens investing

Table 18.3 Comparison of key ESG indexes

ESG Index Family	Rule-based Methodology	Context Specific	Best-in-class Approach	Use Negative Screen	Including Confidential Information[a]
MSCI Global Sustainability Indexes	•	•	•	•	◦
DJSI[b]	•	•	•	◦	•
FTSE4Good series	•	•	◦	•	◦
TRCRI	•	•	•	◦	◦

Notes:
This table highlights some of the similarities and differences among the four major ESG index providers. Solid dots indicate that the ESG index family includes the practice, while circles indicate the absence of the practice.

a. Information privately provided by companies.
b. While CSA, the engine that drives DJSI, does not use negative screening, DJSI family has screened indices (e.g., Dow Jones Sustainability World Index ex Alcohol, Tobacco, Gambling, Armaments & Firearms, and Dow Jones Sustainability World Index ex Alcohol, Tobacco, Gambling, Armaments & Firearms and Adult Entertainment).

(investing for financial return while considering the benefits to women). The best-in-class model represents a new iteration of ESG investing and has gained traction fast because it overcomes the disadvantages of negative screening, appealing to investment managers by allowing a larger opportunity set, and to the performance trackers from the outset by not suggesting a benchmarking mismatch. By sampling from a broader universe and not excluding any sector, the best-in-class approach helps deliver potentially superior risk–return characteristics, thereby contributing to the current trend of ESG investment becoming mainstream.[40] As RobecoSAM argues, DJSI's best-in-class approach results in companies having to continually intensify their sustainability processes and initiatives in order to be included or remain in the index. Consequently, 'the DJSI have evolved into an effective engagement platform by creating vibrant competition among companies for index membership.'[41]

FTSE is the only rater in this section that does not explicitly employ the best-in-class approach. Instead, it uses an absolute-threshold approach. Companies are included in its indexes only after they have met the minimum threshold. FTSE argues that by setting the threshold at a challenging but achievable level, this approach delivers transparency as the inclusion criteria for each company are clear.[42] FTSE also develops new criteria on a regular basis. Companies that are in the index but do not meet the new criteria are given a specific period of time to demonstrate that they meet the new criteria. Therefore, this absolute-threshold approach also enables FTSE to continuously engage companies to improve their ESG practices. Indeed, FTSE has an engagement program, which has been found to significantly impact the behavior of affected companies. Specifically, Slager (2012) finds that many companies adjust their ESG policies, management systems, and reporting to meet the inclusion criteria and on average, 63 percent of the companies in engagement proceed to meet the criteria. To the extent that FTSE sets the threshold after having considered country and industry specific factors, its absolute-threshold approach is similar to the best-in-class approach.

While obvious methodological differences exist among the indexes, the major ESG ratings shops provide a wide range of research, ratings, rankings and index products to meet the diverse demand of investors. Therefore, the actual differences across the major ratings providers may be smaller than at first glance.

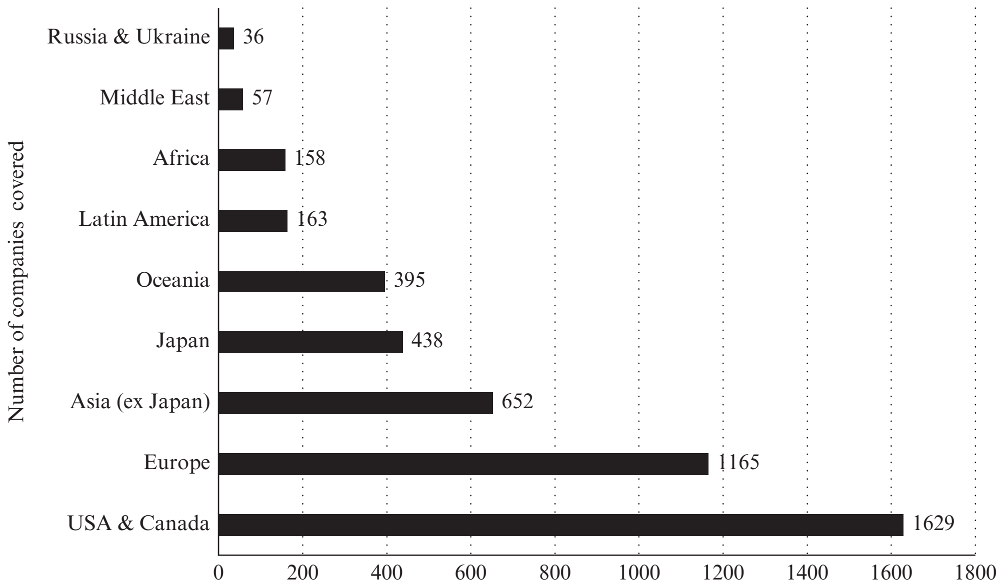
5.5.2 Limitations

The limitations of the current state of ESG ratings and indexes listed below reflect the complex nature of ESG. In addition, some of the limitations are not unique to ESG ratings. For example, many critics have described credit agencies' ratings as backward looking:[43]

- *One-size-fits-all approach*. Whereas the major raters all strive to build context-specific models, they are also keenly aware that it is valuable to have a standardized ratings system that offers comparable ESG ratings across companies from different sectors, countries, or regions. Additionally, it is difficult to develop a granular ratings system that considers the multiplicity of factors associated with context-specific models (e.g., cultural norms and environmental impact). For example, Thomson Reuters tried to build region-specific models within each industry-specific environmental model, but had to abandon the initiative because the results were too unstable for meaningful comparison from year to year.[44] As a result, the current ratings and indexes inevitably use a uniform scoring framework that does not adequately account for many critical nuances inherent to ESG performance and risks.
- *Backward looking; not predictive of future ESG performance and risks*. ESG analysis relies on reported data to construct benchmarks and indexes. These data are typically reporting company performance, which has already happened. Additionally, publicly available information is the main data source for ESG ratings and ESG indexes. Public information by definition is based on information currently available and hence is not forward looking. Like other indexes, this limitation results in ESG indexes reacting to corporate events, not predicting them (within a range of possibility). A company may therefore be removed from an ESG index after a significant ESG risk event, but not before it. For example, BP was removed from DJSI and the FTSE4Good series only after the Deepwater Horizon oil disaster in the Gulf of Mexico – the worst environmental disaster in US history – had occurred in 2010, although BP was removed from MSCI ESG indexes in 2008–09.[45] ESG ratings may also not be able to prospectively spot fraud: the Volkswagen emissions cheating scandal divulged in 2015 led to Volkswagen AG being excluded from the DJSI[46] but only after its market capitalization fell on the first news.[47]

  Analysis primarily based on public information may ignore important soft information – information not available in the public domain through standard reports, but acquired by personal observation. ESG analysts may not collect information – as routinely as sell-side equities analysts working for investment banks – through channels such as private bilateral meetings with corporate executives, making site visits, or participating in earnings calls. The practice will vary from one ESG ratings house to another. Using a rating method with reported information only as inputs will limit the fullness and completeness of the ratings an ESG analyst is able to deliver.

- *Geographical/economic bias*. Demand for and supply of ESG products and services are a function of marketplace demand for investment products, which will be influenced by the state of development of a region's economy: investors need investable securities to act on their investment ideas in far-off geographies. Countries and regions with higher living standards should have a greater capacity for supporting higher ESG standards based on the intuition that famished people care less about the environmental impact of growing food. Researchers have found that the environmental policies and practices of a community are associated with its income and education levels (Delmas and Toffel, 2012). In common with investment coverage for all themes of investment and investment research, there is a bias in the current ESG ratings and indexes toward certain geographies, economies, and publicly listed companies because that is where the most readily available research is, and the most demand from investors for company research coverage. In Figure 18.3, we illustrate this geographical/economic bias using the company coverage of Thomson Reuters/ASSET4 as an example.
- *Firm size bias*. As the main data source for ESG research is publicly available data, the data coverage naturally favors large firms because those firms have the necessary resources in talent, cash flow, and corporate structure to implement ESG processes and initiatives. If not for the constraints of owner philosophy or because of some



Note: This graph illustrates the number of companies covered by geographical regions in Thomson Reuters/ASSET4. Data used in the graph come from Thomson Reuters Corporate Responsibility Ratings (TRCRS), August 2013.

Figure 18.3 Thomson Reuters/ASSET4 universe by geography large government ownership stake, larger firms will be publicly listed to tap capital markets for their funding needs. The positive association between brand value and capital raising may also imply large firms are more likely to consider the return on effort to make their ESG information and success stories available in the public domain is worth the cost, from the resulting positive brand impact with consumers, employees, regulators, legislators and civil society. These stakeholders may also expect more from larger companies in terms of ESG efforts. The ESG ratings coverage therefore exhibits a bias towards larger, listed companies rather than for medium or small capitalization firms.

6 CHALLENGES AND OPPORTUNITIES FOR ESG RATINGS AND INDEXES

The rising popularity of sustainable investing has contributed to the growth of ESG ratings and indexes. Although significant improvements in the range, rigor, and reliability have taken place, serious challenges still remain. In this section, we briefly discuss three main challenges and the opportunities that they present:

- *ESG ratings and indexes are constantly changing and expanding, creating confusion and fatigue*. The tremendous growth in ESG ratings and indexes is a testament to the popularity of ESG investing. However, the plethora of ESG-related indexes and products have also created a crowded marketplace and confusion. For example, in a 2013 survey, GlobeScan and SustainAbility polled over 700 qualified sustainability practitioners. The majority were unfamiliar with most of the ESG ratings and indexes tracked by SustainAbility for the survey. This is unsettling. If sustainability practitioners themselves are unfamiliar with ESG ratings and indexes or find them confusing, how will other users (e.g., consumers and retail investors) fare? To make matters worse, different ratings and indexes come with their own questionnaires, forms, or surveys, thus creating 'survey fatigue' amongst the companies or securities being researched. For example, a 2014 SustainAbility article reports that on a recent Social Investment Research Analyst Network conference call, the Coca-Cola Sustainability team stated that they received over 300 questionnaires to fill out, each question being unique and overwhelming, and this occurrence is not uncommon (Coppola, 2014). Ratings themselves are appraised for their usefulness. In 2012 and 2013, GlobeScan and SustainAbility conducted surveys polling ESG practitioners about key ESG ratings and ESG indexes. In both surveys, FTSE and DJSI were ranked as two of the top four most credible ESG ratings/indexes. MSCI was ranked 11th and 8th in the 2012 and 2013 surveys, respectively, while ASSET4 was ranked 13th and 14th in the 2012 and 2013 surveys, respectively. In his seminal speech at Lloyds in September 2015, Bank of England Governor Mark Carney described the multiplicity of ESG rating or tracking efforts focused on climate counting nearly 400 initiatives varying in their status (from laws to voluntary guidance); scope (from greenhouse gas emissions to broader environmental risks); and ambition (from simple disclosure to full explanations of mitigation and divestment strategies). Carney described '[i]n aggregate over 90 percent of FTSE 100 firms and 80 percent of Fortune Global 500 firms participate in these various initiatives' and claimed that the surfeit of approaches risked investors and companies getting 'lost in the right direction' (Carney, 2015).

- *Ambiguity as to what exactly ESG means and how it should be measured*. The plethora of ESG ratings and indexes reflects the complex and all-encompassing nature of ESG. Like music or fine art, there exists no one simple definition or taxonomy for ESG. There is neither a universally accepted definition for ESG nor a standard for measuring it. As a result, debates and questions concerning ESG frequently arise.[48] Therefore, opportunities lie in helping various ESG stakeholders to sharpen or simplify ESG and to tailor ESG strategies specific to their individual environment and needs. No one technique for investment or no one model for business exists. Unsurprisingly, sustainability with its inclusive and all-encompassing framework tends to tilt toward complexity, not simplicity. A joint effort by stock exchanges to require better disclosures will make ESG data more consistent. A lack of disclosure and uniformity in ESG reporting is a barrier to broader investment adoption according to the global head of corporate governance and responsible investment at BlackRock, the world's largest investment firm by assets under management (Edkins, 2015).
- *Link between valuation and ESG*. Historically, much of the debate about integrating ESG into portfolio management or securities valuation decisions has been the lack of a strong link between ESG and firm value. The perceived underperformance among investors came from the early days of SRI investing. As we discussed in Section 5.5.1, earlier SRI investment strategies typically used negative screening, resulting in less diversified, more volatile, and potentially under-performing portfolios (but investment cycles vary; examples of outperformance also exist, for example, portfolios that avoided the financial sector around the 2008 crash or excluded fossil fuels since 2009 as oil prices crashed[49]).

The United Nations Global Compact (UNGC), a voluntary association of companies committed to a ten-point ESG framework, conducts triennial surveys of corporate management on ESG issues. In 2013, 1000 CEOs from 103 countries participated in the UNGC survey. According to the survey, 37 percent of the CEOs said that the failure to establish the link between ESG and business value deterred them from taking further action in 2013, rising from 30 percent in 2010 and 18 percent in 2007. Some CEOs revealed that they had recently 'deprioritized' some of their sustainability ambitions because there were more pressing things to worry about such as 'paying the bills' (Hill, 2013).

An important trend in ESG is steadily improving data quality and with it, higher-quality ESG products for investors, users, or stakeholders. For example, the recent innovation of treating ESG as a 'smart beta' factor aims to deliver a better risk and/or return trade-off than conventional indexes by neutralizing the effects of biases such as firm size and industry sector, as well as investment factors such as growth and momentum.[50] The CFA Institute (2015) describes this latter approach as an example of an 'integrated' approach that combines ESG insights with traditional investment analysis.

Negative perceptions have a long shelf life: more recent studies have found the performance effect to be negligible or indeed found outperformance of portfolios with proactive ESG integration. For example, in a new extensive empirical study, Deutsche Asset Management and the University of Hamburg investigated whether integrating ESG into the investment process has had a positive effect on corporate financial performance. While the search for a relation between ESG criteria and corporate financial performance (CFP) dates from the post–Milton Friedman comments of the early 1970s, a review of academia and investment communities tracks more than 2000 empirical studies as well as review studies. The Deutsche/Hamburg meta-study's result indicates that the business case for ESG investing is encouraging: approximately 90 percent of studies tracked in the 1970–2014 period find a non-negative ESG–CFP relation (Friede, Busch and Bassen, 2015).

7 THE IMPACT OF ESG RATINGS AND INDEXES ON INVESTORS AND CORPORATIONS

The rising popularity of ESG investing and the availability of a growing number of ESG ratings and indexes have increased the complexity facing investors. Managers who have financed their organizations with publicly traded equity, fixed income securities, real estate investment trusts, and even private equity also face this heightened degree of ESG complexity. This proliferation of ESG ratings and indexes have created both challenges and opportunities for investors and managers. Investors may, in theory, benefit from the use of these ESG ratings (and indexes) if they can analyze and understand how corporate managers are implementing and modifying their ESG policies. As the 2015 CFA Institute guide on ESG issues indicates, a growing number of investors are using ESG ratings and index data to pursue one or more of the following approaches: activist investing, thematic investments, impact investing, and 'integrated' ESG into valuation analysis and portfolio management.

7.1 Activist Role for Investment Managers

An activist role by institutional investors may take several forms, from quiet diplomacy to making public pronouncements and requesting board representation. Following the lead of earlier activist investors, today's activist investors are able to urge (and obtain) changes in corporate policies that improve various dimensions of ESG within the targeted firms. In addition, sustainability advocacy groups are partnering with large institutional investors to push for global standards in measuring sustainability. For example, Ceres and BlackRock are asking stock exchanges globally to adopt the 33 KPIs of the common metrics for sustainability presented by the World Federation of Exchanges in November 2015 in order to help investors and managers compare a firm's sustainability efforts with its peers. The largest retirement fund in the United States, CalPERS with US$282 billion assets under management, is pressing for globally standardized ESG reporting from stock exchanges in 20 years.[51] As Dimson, Karakaş and Li (2015) demonstrate, an activist approach to ESG issues can have positive benefits on a firm's operations and stock returns. Thus, activist investing within the ESG theme continues to grow in importance.

7.2 Thematic Investing Based on ESG Factors

Due to the increased availability of ESG data, investors are able to develop investment 'themes' around various dimensions of ESG, for example, gender diversity or labor rights in supply chains. The launch of the EU's new non-financial regulations[52] will provide 'shareholders and other stakeholders with a meaningful, comprehensive view of the position and performance of companies'. The new EU regulation requires all large public-interest entities (listed companies, banks, insurance undertakings and other companies) with more than 500 employees to disclose in their management report relevant and useful information on their policies, main risks, and outcomes. In addition, there is a growing appetite among investors for ESG-related themes, especially those centered on environmental issues such as carbon intensity or water use. There has been tremendous growth in funds that focus on themes such as 'green technology,' alternative energy, clean air/water, forestry, or 'sustainable healthy living'[53] and so on. As ESG data become more widely available and 'granular' (i.e., focused on specific subsets of ESG factors), the growth in thematic investing should continue to be robust.

7.3 Impact Investing

Impact investing is an investment theme emerging since 2009 that is designed to earn a financial return as well as benefit society via the investment's positive impact on social and/or environmental issues. For example, a real estate investment that aims to renew a blighted urban community with affordable housing can yield substantial benefits for the entire community while also providing a competitive return for investors. The difference between this approach and traditional investing is that the primary focus for selecting potential investments is on ESG issues. This approach might also allow for a below-market return on the investment, with the difference between the actual investment return and the market-determined return representing the amount of return the investors are willing to sacrifice (or 'pay') to have a positive social or environmental impact. Clearly, more extensive and accurate ESG data can help these impact investors identify potential investments and measure the effectiveness of their activities in the future. The great variety of impact investment approaches, the diversity of portfolio companies and geographies, and the costs of metrics mean that ESG ratings for impact investment, and an ESG index for impact investing, are ambitious goals today.

7.4 Integration of ESG Analysis Within Investment Analysis

According to the 2015 CFA Institute guide, ESG integration is the most prevalent way in which investors report using ESG ratings and ESG indexes. As with any other metric of company performance used in valuation and investment analysis, ESG ratings and analysis are best used in conjunction with other metrics to offer a complex interpretation of firm value. The exact nature of the ESG 'alpha' or outperformance may differ according to the investment philosophy of the investor or the ESG philosophy of the ESG ratings firm conducting the analysis in their proprietary way. An example is the theoretical and empirical study by Albuquerque, Durnev and Koskinen (2017) that shows how corporate social responsibility (CSR) can build customer loyalty, which, in turn, may result in lower systematic risk and greater market valuations for firms that score higher on CSR metrics. This analysis develops a theoretical asset pricing model that explicitly incorporates the effects of CSR activity (or, more generally, ESG factors). A 2003–11 empirical analysis using MSCI's ESG data that is based on the Albuquerque et al. (2017) model supports the paper's main predictions that ESG high-scoring firms exhibit lower risk and greater market-to-book values, particularly for firms that operate in industries with greater product differentiation. These findings suggest that integrating ESG analysis with conventional valuation techniques may provide additional useful information for institutional investors.

Further, as Baron (2016) noted, a joint study by Calvert Investments and George Serafeim of Harvard Business School showed that investment analysis that factors in 'material' ESG issues related to topics such as environmental litigation can lead to profitable investment results. However, other studies such as Auer and Schuhmacher (2016) find that active selection of high-rated ESG stocks does not yield attractive risk-adjusted returns in the USA and the Asia-Pacific region (i.e., they do not earn a positive 'alpha' in investment parlance) and actually produce worse risk-adjusted returns in Europe (i.e., a negative alpha). Given that there are divergent methods to compute ESG ratings that are still rapidly evolving, the divergent ESG investment results are not surprising.[54] One argument is that more research into refining ESG ratings and indexes is required before portfolio performance can fully benefit from the integration of ESG analysis into the investment process. The investment trade group PRI, with over 1500 signatories representing over US$60 trillion in AUM, has released a compendium of best practice on ESG integration[55] across asset classes.

7.5 The Effects of ESG Ratings and Indexes on Corporations and Their Managers

As noted earlier, Slager (2012) documented that corporate managers do pay attention to ESG ratings and adjust firm policies based on these ratings. Also, as shown in Albuquerque et al. (2017), one possible path where ESG-related actions by senior management can be beneficial to both society and the firm's shareholders is by increasing brand loyalty to the firm's products and services. Further, a recent analysis of CSR engagements by US public companies from 1999–2009 showed that successful engagements can result in positive risk-adjusted, or 'abnormal' returns, as well as improved accounting performance and greater institutional ownership. This analysis by Dimson et al. (2015) also found that these engagements are more likely to occur when the firm faced reputation concerns.

In addition, Clark, Feiner and Viehs (2015) show in a meta-analysis (i.e., a 'study of many studies') that the vast majority of studies (88 percent) find that high-scoring ESG firms exhibit better operational performance and 80 percent of these articles also report a positive influence on investment performance. This meta-analysis suggests that managers are taking ESG issues seriously and ESG-related corporate actions are being given greater scrutiny by institutional investors, regulators, and consumers. Clark et al. (2015) conclude that sustainability and profitability are: 'not incompatible, but in fact wholly complementary. When investors and asset owners replace the question "how much return?" with "how much sustainable return?," then they have evolved from a stockholder to a stakeholder.'

Historically, corporations have typically interacted with a small fraction of ESG stakeholders (e.g., environmental or social activist NGOs, faith-based investors, environmental agencies, securities regulators). As the proactive use of ESG factors becomes more widespread, the feedback loop between corporations and investors is expected to shorten and become more impactful. Kim, Wan, Wang and Yang (2016) find in a broad sample of US firms that managers listen to investors in setting their environmental policies. Taken together, recent evidence seems to suggest that an increasing number of corporate managers and investors are focusing on ESG issues to achieve that elusive 'win-win' scenario where doing good for society can also do well for shareholders.

While setting aside the debate on the merits of the pursuit of 'shareholder value,' ESG is an investment issue. The trend of increased institutional investor ownership of listed companies and the continued trend toward passive index tracking investments like exchange-traded funds (ETFs) (including sustainability ETFs; Hale, 2016) imply that the major investors in listed companies will be the largest index funds. As these index investors increasingly look to ESG factors for investment advantage,[56] more ESG ratings and ESG index influence will act through the ownership of the world's largest companies by the world's largest investors (Weinberg, 2016).

8 CONCLUSION

This chapter has described the growing influence of ESG ratings and ESG indexes, how they are constructed, as well as the recent trend towards consolidation in this part of the securities research and investment industries. We also highlighted the four leading ESG ratings providers (MSCI, S&P Dow Jones, FTSE Russell, and Thomson Reuters) and a sample of significant ESG indexes (e.g., MSCI ACWI ESG Index, Dow Jones Sustainability World Index, FTSE4Good Global Index, and the Thomson Reuters ESG Indexes for US Large Cap stocks and Developed Markets (ex-US)). After discussing the various ways of constructing these indexes based on context, transparency, public vs private data sources, and best-in-class vs negative screening, we identified some of the limitations of ESG indexes. Limits include the bias that, like other investment research or indexes of publicly listed companies, they are likely to track larger firms in developed countries, and that ESG indexes design decisions can lead to a 'one-size-fits-all' approach, which may obscure the nuances of the underlying company's behavior. In response to these limitations, ESG index providers are constantly changing and expanding their indexes. Methods of ESG ratings production that rely not just on publicly available information may risk investor confusion and/or 'survey fatigue' by companies facing a proliferation of demands for ESG information, or demands for more frequently updated ESG information.

What portfolio of securities of companies will make for an 'excellent' investment? Which firms are 'best'? Answering these questions requires a blend of quantitative and qualitative factors, as well as the judgment of an arbiter for the specific audience: investment analyst, company manager, graduate student, NGO, consumer activist, and/or regulator. ESG factors expand the opportunity set for understanding companies' behavior, systems, culture, and strategies. Integrating ESG reduces or removes the opportunity for a company to push externalities (costs) onto society at large. The new EU directive on non-financial reporting demonstrates how ESG issues are becoming embedded in twenty-first-century regulations. ESG indexes themselves become a kind of quasi-regulatory framework for targeting ESG issues for an audience in a region, sector or asset class, acting as de facto reporting standards. Analyzing ESG factors also offers an alternative lens on company culture, processes, and performance. No single definition will encompass all aspects of ESG.

Despite these limitations and challenges, the interest among investors in ESG issues continues to grow, with over $60 trillion in AUM worldwide as of August 2016. Increased investor demand for ESG ratings and ESG indexes has helped fund the professionalization of the industry, and opened up opportunities for investors to apply ESG concepts in numerous ways, including activist investing, thematic investments, impact investing, and integrating ESG analysis within existing valuation techniques. Due in part to investors' interest in ESG issues, managers of large, medium, and smaller companies have also taken notice and are adjusting corporate policies, processes, and performance based on ESG ratings and ESG indexes, and reporting in their quarterly, annual and online channels. ESG indexes have a growing role to play as investors switch to passive investment strategies that track benchmarks and indexes. ESG ratings and ESG indexes are crucial to the twenty-first-century corporate investment because they help their stakeholders and users to tell the whole story of the value of doing business.

Beyond these effects on investment and corporate practice, there are several policy implications for governments. Due to the quasi-regulatory impact of ESG indexes on corporate disclosure and managerial behavior, governments should ensure that their own policies are consistent with these ESG factors. Also, when there is a divergence between governmental policy and ESG criteria/rankings, the policymakers need to consider whether their policies need adjustment or if 'lobbying' the ESG analysts/providers is warranted. These divergences can also highlight areas where governmental policies can be initiated to enhance ESG data collection and corporate reporting requirements. Ideally, government agencies should engage in continuous dialogue with the 'ESG industry' to inform and potentially improve a nation's environmental, social, and governance policies and regulations. This 'two-way' street in terms of information sharing between government and ESG analysts can be an effective way for both parties to have a positive impact on ESG-related issues.

NOTES

1. In this chapter, for simplicity, we use terms such as 'sustainable investment,' 'environmental, social, and governance (ESG),' 'corporate social responsibility (CSR),' and 'sustainable, responsible, and impact investment (SRI),' interchangeably. In practice, they represent different concepts to different users. We touch upon one of such distinctions in Section 5.5.1.
2. PRI is an international network of investors with the goal to understand the investment implication of ESG issues and support signatories in integrating these issues into their investment and ownership decisions (see https://www.unpri.org/about, accessed 26 November 2017). Founded in April 2006, PRI has since attracted over 1500 signatories managing more than US$60 trillion (PRI *Annual Report 2016*, accessed 26 November 2016 at https://www.unpri.org/download_report/21598, p. 4).
3. Investors have explored the returns to executive remuneration for years. It remains a high-profile issue for investors, companies, and society, and is one of the most active themes for shareholder proxy voting activity. The Bloomberg Pay Index tracks 200 of the highest-paid publicly listed company executives in the United States, allowing users to drill down into the specifics of their compensation.
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39. See note 27.
40. There is an increasing amount of research showing that ESG investment provides lower cost of capital (see, e.g., El Ghoul et al., 2011; Chava, 2014), less volatility (see, e.g., Kim, Li, and Li, 2014), and small but positive returns (see, e.g., Margolis, Elfenbein, and Walsh, 2007).
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50. 'Smart' beta refers to an investment strategy that adjusts a portfolio to tilt towards a factor (such as ESG) so that its return can be greater than an index portfolio based solely on its relative market risk (i.e., this relative risk measure is called 'beta' in investing parlance).
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52. Reporting is required relating to (at least) environmental matters, social and employee aspects, respect for human rights, anti-corruption and bribery issues, and diversity company boards (Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, accessed 3 December 2017 at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095). EU rules on non-financial reporting only apply to large public-interest companies with more than 500 employees. This covers approximately 6000 large companies and groups across the EU. In June 2017, the European Commission published its guidelines to help companies disclose environmental and social information (accessed 3 December 2017 at https://ec.europa.eu/info/publications/170626-non-financial-reporting-guidelines_en).
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