

Seeing the Forest from the Trees: A Closer Look at SRI Investing

December 2020

Key Takeaways


- Socially responsible investing (SRI) is not a new concept, with some believing it dates back millennia. Modern SRI investing options began as early as the 1970s in the United States. Domestic SRI assets have grown nearly 18-fold from \$639b in 1995 to \$12t in 2018, according to US SIF.
- The popularity of Environmental, Social, and Governance (ESG) factor thematic funds has risen notably in recent years, seeing a near 300% increase of inflows into passively- and actively-managed products from 2018 to 2019 alone, according to data from Morningstar. Passive management is taking the spotlight, however, accounting for over two-thirds of those same inflows.
- ESG risk ratings providers have divergent standards. According to MIT Sloan, providers disagree on what factors should be observed, how they are graded, and measurement weights. This complicates both corporate and investor assessments regarding the true extent of ESG risk performance.
- As a result of incongruent ratings across providers, investable universes and performance metrics differ meaningfully across providers. Correlations can also vary significantly depending on the provider, region, and specific ESG component. Widely differing results further point to measurement standardization issues in the ESG space.
- SRI isn't only a domestic phenomenon, but a worldwide affair. Europe, Japan, Australia, and New Zealand have all seen a significant rise in sustainable assets over the last half-decade. Demand isn't the only reason for the build-up, but also a growing body of ESG-centered regulations that have emerged over the past several years in multiple regions.
- So-called "dirty industries" will have an increasingly difficult time raising capital as ESG regulations become commonplace. Companies in these sectors will increasingly need appropriate sustainability disclosures, evidence of plans for reduced greenhouse gas (GHG) emissions, and membership in forward-thinking trade groups to maintain access to capital markets.

The Roots of ESG

A Brief History of SRI Investing

Modern initiatives of socially responsible investing (SRI) began in the early 1970s. Social movements in the latter half of the 20th century initially led small classes of investors, usually religious groups, to invest their capital with a core set of moral principals in mind. Investors' motivations now include the philosophy of "stakeholder capitalism" where a corporation is expected manage to a broad array of stakeholders in the decision-making process. A definitive example of this is BlackRock's Larry Fink's 2018 Letter to CEOs, "Companies must benefit all of their stakeholders, including shareholders, employees, customers, and the communities in which they operate." Mr. Fink called on companies to avoid externalities from a purely short-term profit-driven mentality that eventually impinge negatively on the bottom line, in one form or another. This letter was followed by the Business Roundtable's 2019 updated statement on the purpose of a corporation that, "moves away from shareholder primacy, includes commitment to all stakeholders." MetLife is a signatory to this statement.

In modern history, it is believed that first socially-minded mutual fund was formed by Pax World Management in 1971, named Pax World Balanced Fund, in an effort to provide investment solutions to a growing class of religious capitalists who were concerned that their investment dollars were being put to work in industries that clashed with their beliefs. A year later in 1972, Dreyfus launched their Third Century Fund, which contained language in its prospectus stating that the fund would invest in firms "[showing] evidence in the conduct of their business, relative to other companies in the same industry or industries, of contributing to the enhancement of quality of life in America." Dreyfus' product may have been first significant entry into the SRI space by a well-known financial institution with sizeable assets under management (AUM). The Third Century Fund would become the precursor to what is now known as the "best in class" group of environmental, social, and governance (ESG) investments.



Asset owners have become less tolerant of reputation risk from investment controversies ... and there was a rising belief in the alignment of financial and social goals in investments.

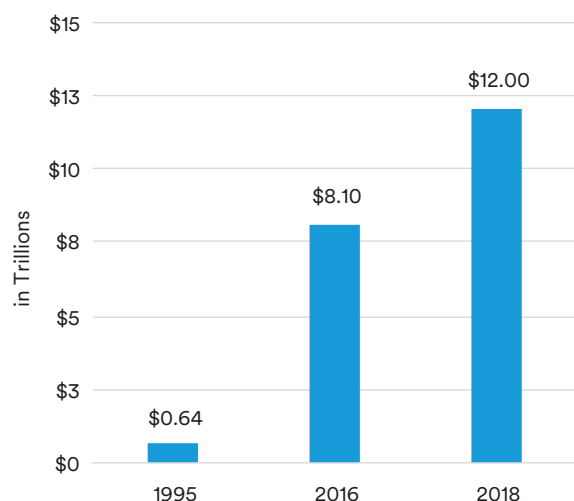
As the decades passed, interest in adding additional risk measures based on ESG criteria to the security selection process grew in popularity. Asset owners have become less tolerant of reputation risk from investment controversies, SRI activism became more commonplace, and there was a rising belief in the alignment of financial and social goals in investments. Traditional negative screens (i.e., staying away from investments in nuclear energy, alcohol, tobacco, weapons, gambling, and lewd media) and a "best in class" selection process, which focuses on companies that have a strong ESG reputation among peers and recognize that they serve multiple stakeholders, enjoyed a widening footprint heading into the new millennium and in the aftermath of the Great Financial Crisis (GFC).

SRI Assets Soar

The United States Sustainable Investment Forum (US SIF), a domestic association whose members include many large financial institutions, noted in a 2019 report that domestic SRI assets had grown over 18-fold since the mid-1990s, surging from \$639b in 1995 to \$12t in 2018 (see Figure 1).

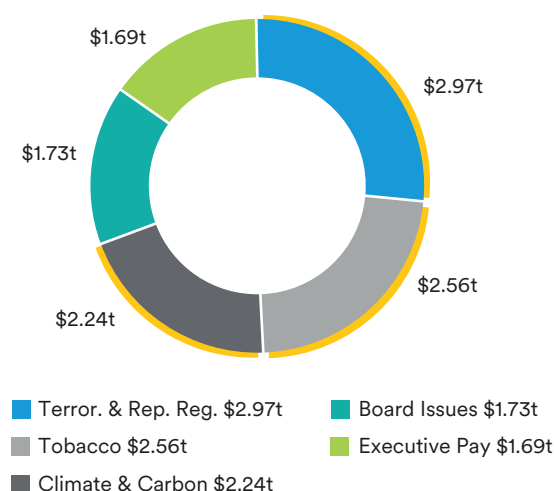
This is a substantially higher growth rate than the total market capitalization of domestically listed companies, which has risen a comparatively lower 4.5-fold over the same timeframe, according to the World Bank. US SIF has also revealed the leading ESG criteria that SRI-practicing institutional investors, of which 37% are insurance companies, select in the capital allocation process. Negative screens that filter against terrorism & repressive regimes, tobacco, and businesses that work toward climate protection & reducing carbon emissions represent the lion's share of institutional investor SRI allocation (see Figure 2). Additionally, there has been strong interest in governance topics, such as executive pay and board issues.

Figure 1: Significant Growth in U.S. SRI Assets



Sources: U.S. SIF, MetLife Investment Management (MIM)

Figure 2: Top Criteria for Institutional ESG Investing (2018)



Sources: U.S. SIF, MIM

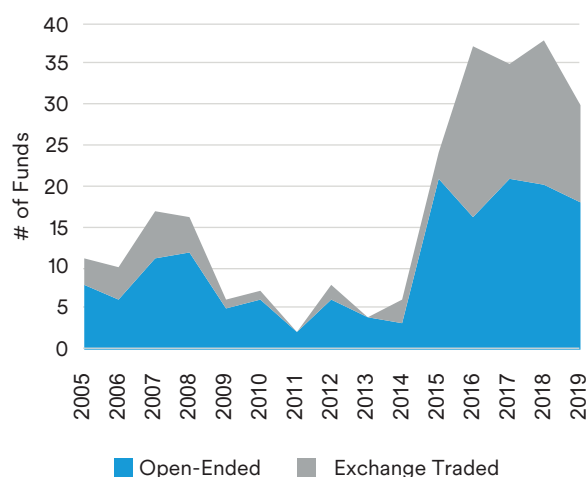
Passive Investing Takes the Spotlight

Although we believe growth in SRI assets is certainly due to rising demand for morally-conscious investment solutions, much can also be said about the supply-side of the market. As stated earlier, there have been numerous firms since the early 1970s that have provided a widening array of SRI-tailored investment vehicles in order to take advantage of an increasingly ESG-centered landscape. Leaders in the SRI fund space include Parnassus, Calvert, Nuveen, Blackrock, and Vanguard, who together managed about \$80b in sustainable assets in 2019, almost 3.5-times the total sustainable AUM of the next five firms combined, according to data from Morningstar. Morningstar, a leading investment fund data provider, noted in a recent report that between 1995 and 2019 a total of 251 exchange-traded and open-ended funds were launched with a sustainability-focused investment mandate (see Figure 3). Of that universe, about one-third were passively managed.

Not surprisingly, passive fund management has seen increasing interest in the ESG space with Morningstar reporting record passive ESG-thematic product flows in 2019 (see Figure 4). Passive management in SRI has been something of a controversial topic given that the investment strategy inherently requires a higher degree of attention, usually at the detriment of cost. For instance, the Pacific Research Institute noted that as of last year, the average expense ratio among ESG ETFs came in at 0.69% with socially-oriented products registering an even higher 0.89%, over 8-times the expense ratio found in broader market exchange-traded funds. Although not a significant

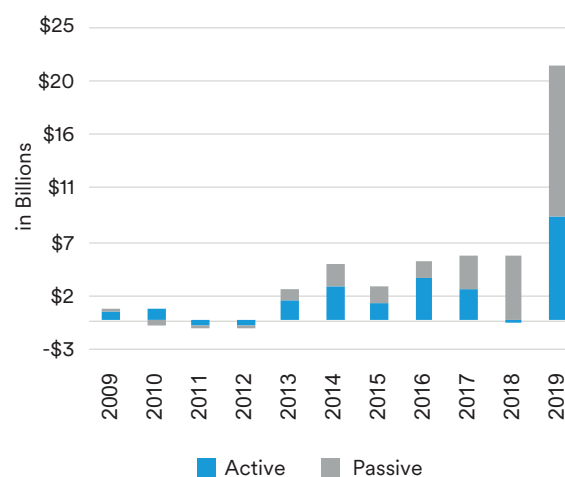
difference in the short-run, over time these costs can balloon with a 10-year time horizon cutting into returns by approximately 6%. That said, not all ESG ETFs come with elevated expense ratios as some of the major fund providers have managed to keep their non-niche SRI products within 5 basis points of the broad market product. Costs aside, questions remain regarding the ability of these ETF providers to truly evaluate the efficacy of their ESG mandates.

Figure 3: ESG Funds Launches Surge



Sources: Morningstar, MIM

Figure 4: Passive Bias Emerging in ESG Fund Flows



Sources: Morningstar, MIM

ESG Niches Emerge, But at a Cost

As interest in managed ESG-thematic products blossoms, so do the niches within the market. Specialty funds have emerged, focusing on more specific ESG issues like gender equity, diversity & inclusion, human capital, and United Nations Sustainable Development Goals (SDG). Many of these funds come from the same ESG risk metrics used by leading investment firms with the only difference being that a positive screen is used to filter out businesses directly associated with these more nuanced categories. However, as discussed earlier, these niche strategies normally come along with substantially higher fees, negatively impacting net returns and dampening demand. As a result, there have been increasing fund closures of niche ESG funds. Regarding the four specialty categories outlined earlier, Bloomberg Intelligence has noted a combined \$270m outflow in 2019. This stands in stark contrast to the more than \$2.9b inflow among governance-only funds last year alone.

Stepping back from initiative-specific fund mandates, the ESG space is also characterized by differing investment selection methodologies. A publication by State Street Global Advisors (SSGA) recognizes five different SRI investment approaches: negative screening, positive screening, ESG integration, impact investing, and active ownership. Table 1 provides SSGA's definition for each unique methodology. These mostly independent strategies seek to provide meaningful exposure to the ESG factors, but with unique selection processes and differing capital management philosophies. While some boast a more active or hands-on approach, others provide exposure to the broad investment universe with an added layer of ESG scrutiny. By selecting from these various investment processes, SRI investors are better able to dictate where their capital goes and the desired level of investment manager involvement. These various strategies, such as negative screening, can also assist in the process of risk management for investors looking to diversify a

portfolio away from an existing risk exposure. One example is Norway’s sovereign wealth fund, which has been moving capital away from fossil fuel investments toward renewable energy in a bid to lower overall risk for a country already heavily dependent on oil-based streams of revenue.

Table 1: ESG Investing Methodologies

Methodology	Description
Negative Screening	Excludes from the investment universe, companies, sectors or countries involved in activities that do not align with the moral values of investors or with global standards around human rights, labor practices, the environment, and corruption.
Positive Screening	Securities selection is based predominantly on ESG scores and ratings. Common strategies include “best in class,” “ESG momentum,” and “thematic investing.”
ESG Integration	Incorporates ESG data, alongside traditional analysis, into the securities selection process.
Impact Investing	Targets a measurable positive social and/or environmental impact. Investments are generally project specific.
Active Ownership	Entails engaging with companies and voting company shares on a variety of ESG issues to initiate changes in behavior or in company policies and practices.

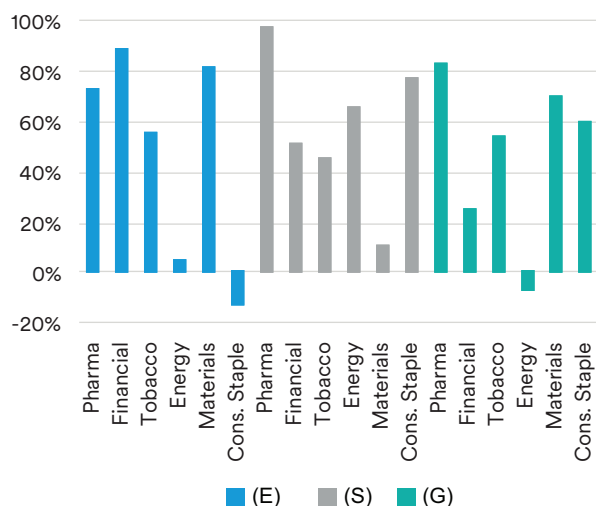
Sources: State Street Global Advisors (SSGA), MIM

Assessing ESG Scoring and Performance

Similarities Between Overall and Component ESG Scores

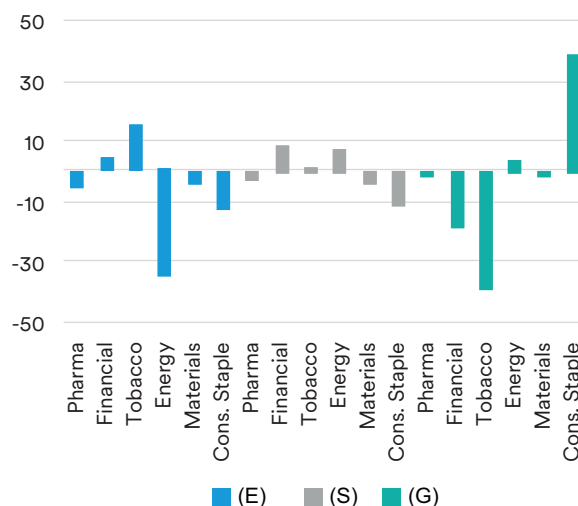
Although it is not uncommon for product providers to offer funds dedicated to each of the major ESG categories, there are theoretical issues that come into play when trying to separate the three larger components (e.g., environmental, social, and governance). Progressive corporate policies of forward-thinking firms normally reflect a dedication to all major categories, and often at the same time. In other words, if a firm has advanced initiatives with an environmental, social, or governance focus, it is also likely that the firm is pushing forward on the other two categories. As such, separating securities by ESG component can be a tall order and may simply add unnecessary and increasingly costly steps, as evidenced by the higher fees cited earlier. As shown below in Figure 5, 3-year monthly correlations between overall sustainability scores and the individual ESG components, as provided by Sustainalytics, come in rather high with two-thirds registering at or above 50%. It isn’t just score progression that is similar but also the index levels themselves with 60% of the components landing within ten points of the overall sustainability score, on a 3-year average basis (see Figure 6).



Figure 5: E/S/G Scores Highly Correlated w/ Overall Score

Sources: Bloomberg, Sustainalytics, MIM

Note: Each industry represents a large anonymized firm highly representative of that sector.

Figure 6: Small Differences Between Levels (E/S/G vs. Overall)

Sources: Bloomberg, Sustainalytics, MIM

All Ratings Aren't Alike

It isn't just the relationship between components and overall scores that requires closer attention but also the general lack of agreement on key factors between ratings providers. ESG remains an evolving concept and non-financial reporting standards have yet to be fully fleshed out, muddying the water for investors integrating ESG-factors through these risk ratings. Bloomberg, MSCI, VigeoEIRIS, Sustainalytics, Thomson Reuters, and ISS are among the major ESG data providers used by investment management firms. Although they are all well-known data providers, their grading processes can differ substantially with vital details on the factors used in score calculation often remaining inaccessible to the public. In a report published by the MIT Sloan School of Business' (MIT Sloan) Sustainability Initiative, titled *Aggregate Confusion: The Divergence of ESG Ratings*, researchers found that correlations between five different ESG score providers ranged between 42% and 73%. This is a significant deviation from the 99% correlation between Moody's and S&P credit ratings. Credit ratings have the advantage of measuring whether a bond will pay to its terms.

Analyzing ESG scores against various sustainability factors, MIT Sloan also found that divergences were mostly due to measurement nonuniformity (53%), differing scopes (44%), and unique factor weightings (3%). In other words, ratings providers couldn't agree on what factors should be used, how those criteria are measured, or what weight to put on each variable. There was also the presence of a "rater effect" in the data. This occurs when a small percentage of factors foretell the level of other factors. Borrowing directly from the publication, researchers stated that "raters disagree both on the extent of the definition of ESG, as much as they disagree on how the various aspects of ESG are measured" and that the "presence of [a] rater effect implies that...judgments [on ESG factors] are correlated with each other." The way the rater effect ultimately works is if a company receives a good score in 10% of categories, they are likely to receive favorable scores in the remaining 90% of factors. Table 2 shows the R-squared for each rater's composite ESG score when regressed against only 10% of factors.

Table 2: High R-squareds from a Smaller Portion of Analyzed ESG Factors

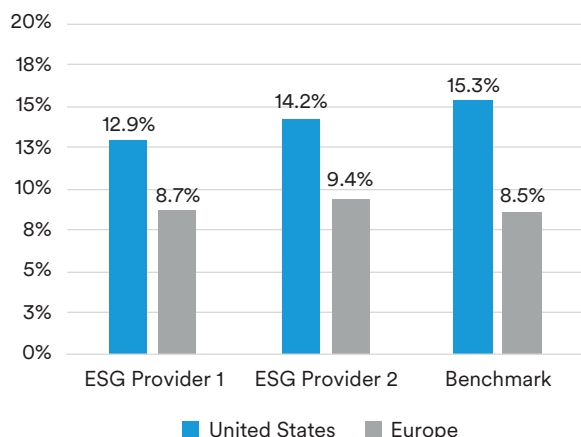
ESG Factors	Rater 1	Rater 2	Rater 3	Rater 4	Rater 5
1	0.31	0.13	0.09	0.11	0.15
2	0.42	0.28	0.28	0.23	0.21
3	0.48	0.77	0.37	0.28	0.28
4	0.65	0.77	0.42	0.30	0.37
5	0.68	0.77	0.55	0.30	0.43
6	0.71	0.84	0.57	0.34	0.53
7	0.76	0.84	0.57	0.34	0.56
8	0.83	0.88	0.58	0.36	0.60
9	0.91	0.96	0.59	0.39	0.63
10	0.93	0.96	0.61	0.44	0.64
15	0.96	0.97	0.81	0.68	0.81
20	0.96	0.98	0.84	0.86	0.83

Sources: MIT, MIM

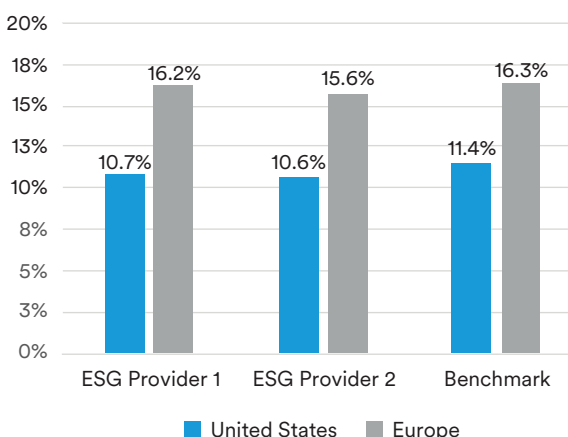
As a result of these findings, it remains unclear how companies should use scores from the various ESG ratings providers when building out their own sustainability practices. This lack of standardization among scorers hampers the accurate assessment of which actionable policies should be undertaken by investors to ESG risks and long-term returns. One suggestion given by MIT Sloan is for investors and companies to create their own proprietary sustainability ratings process, selecting factors most important to them and developing a set of fundamental criteria to grade each category. At MIM, we agree investors need to evaluate ESG factors independently and have embedded the analysis of ESG factors into our bottoms-up credit analysis carried out by sector experts.

ESG Performance Differs by Region and Rater

With such lack of clarity regarding ESG risk scoring, the question remains if these various methods, even if differing, ultimately have a positive impact on investor returns. Research Affiliates (RAFI), an investment firm well-known for their quantitative methodology, sought out an answer. The firm constructed three portfolios using identical processes. First, RAFI ranked all publicly-traded companies by market capitalization and cut off the bottom 14%. Each company was then re-ranked according to ESG scores given by two different providers, named Provider 1 and Provider 2. The top 50% of each provider's list was extracted, placed in a market capitalization weighted portfolio, and rebalanced annually at the beginning of the year from July 2010 to June 2018. The results for return and volatility are provided in Figures 7 and 8 below for each of the portfolios constructed. As can be seen, the U.S. benchmark outperformed both Provider 1 and Provider 2's portfolios on return but endured higher volatility. In Europe, there was very little difference between Provider 1 and the benchmark with Provider 2 outperforming on both return and volatility. It would seem that ESG ratings made a difference in the European market but the return passthrough to the investor ultimately depends on the level of additional cost associated with the end product.

Figure 7: Simulated Portfolio Returns

Sources: RAFI, MIM

Figure 8: Simulated Portfolio Volatility

Sources: RAFI, MIM

Finally, RAFI researched correlations between provider component portfolios and similarities in the universes of companies. As shown in Table 3 below, out of approximately 2,000 companies found in either the U.S. or European portfolios, the construction process yielded only about 700 companies in common. In other words, when ranking ESG scores from best to worst, only about one-third of the companies were similar across the two portfolios. There were also relatively high correlations among environmental and social portfolios in either the U.S. or Europe, registering between 60% and 70%. However, governance fell at the lower-end of correlations, ranging between 38% and 55% for the Provider 1 and Provider 2 portfolios in the U.S. and Europe, respectively.

Table 3: Differing Provider Universes and Mixed Component Correlations

Region	Number of Companies			Correlation of ESG Rating		
	Provider 1	Provider 2	Common	Environmental	Social	Governance
United States	1863	2103	708	0.69	0.65	0.38
Europe	1876	2111	721	0.71	0.64	0.55

Sources: RAFI, MIM

Analyzing the Components: E vs. S vs. G

In addition, RAFI analyzed portfolios by major component using the same methodology. As shown in Table 4 below, Sharpe ratios for U.S. ESG portfolios do differ both across components and by region with governance outperforming environmental and social lagging behind. However, only Provider 2's governance portfolio was able to surpass its cap-weighted benchmark's Sharpe ratio. In Europe, two-thirds of the ESG component portfolios produced higher Sharpe ratios than their cap-weighted benchmark portfolio.

RAFI also noted that correlations were often low across the various portfolios, both when compared across different ESG categories and between ratings providers. For instance, although overall U.S. ESG portfolios boasted an 80% correlation between providers, Europe's Provider 1 and Provider 2 portfolios came in at only a 35% correlation. The most extreme of the readings, the European governance portfolios only managed a correlation of 3%, much lower than the 50%

seen between U.S. governance portfolios. The European governance portfolios also experienced the highest provider-relative tracking errors observed, further solidifying the fact that provider governance rating frameworks produced notably different corporate grades and investment performance results. These differing results further emphasize the need for an investor-specific security selection process, such as MIM's use of sector professionals to independently detail which factors are most important in credit analysis.

Table 4: Component-Specific Performance Metrics

Region	Strategy	Annualized Return	Annualized Volatility	Sharpe Ratio	ESG Provider Performance Difference	Tracking Error w.r.t. Other Provider	Tracking Error w.r.t. Cap-Weighted
United States	Environmental Provider 1	14.3%	11.0%	1.28	-0.8%	1.4%	2.1%
	Environmental Provider 2	15.1%	11.1%	1.34	0.8%	1.4%	1.8%
	Social Provider 1	13.9%	10.7%	1.28	0.8%	2.0%	2.3%
	Social Provider 2	13.1%	11.3%	1.13	-0.8%	2.0%	1.8%
	Governance Provider 1	13.2%	10.8%	1.21	-2.2%	2.1%	2.0%
	Governance Provider 2	15.4%	10.6%	1.44	2.2%	2.1%	2.2%
	Cap-Weighted Portfolio	15.3%	11.4%	1.32	–	–	–
Europe	Environmental Provider 1	9.7%	15.9%	0.59	0.8%	1.5%	1.8%
	Environmental Provider 2	8.9%	15.9%	0.54	-0.8%	1.5%	2.1%
	Social Provider 1	8.3%	17.2%	0.47	-0.7%	2.4%	2.1%
	Social Provider 2	9.0%	16.2%	0.54	0.7%	2.4%	1.8%
	Governance Provider 1	8.4%	16.2%	0.50	-1.1%	2.7%	2.0%
	Governance Provider 2	9.5%	15.0%	0.62	1.1%	2.7%	2.3%
	Cap-Weighted Portfolio	8.5%	16.3%	0.50	–	–	–

Sources: RAFI, MIM

ESG Ratings: One Size Doesn't Fit All

Although RAFI has produced extensive research concerning ESG-factor investment performance, so has Bloomberg Intelligence and ETF.com, both coming to similar conclusions. Bloomberg Intelligence noted in a recent publication that in the fixed income space, not only did ESG portfolios foster greater downside protection and reduced volatility, but it was specifically the governance component that provided a noticeable albeit small contribution to downside protection specifically during the COVID-19 crisis. This contribution was greater than what was seen for either the

environmental or social components individually. ETF.com came to a similar conclusion, noting that ESG ETFs that added an explicit governance screen also enjoyed higher returns. However, the ETF aggregator did note, as discussed earlier, that totally carving out governance from an ESG portfolio is difficult considering the inherently intertwined nature of the components.

All in all, it seems that ESG ratings aren't a "one size fits all" affair and that there are significant differences among ratings providers. These differences lie not only with overall ESG ratings but also component by component, with some ratings metrics differing quite substantially between providers. This is not to say that ESG ratings are not a valuable input into the security selection process. Not only is there increasing evidence that ESG portfolios, both for fixed income and equity, can provide competitive returns and help dampen volatility but they may also limit the magnitude of drawdowns. That said, beneficial effects are ultimately a function of the rating provider's scorecard and how well they are able to differentiate their metrics from the pack when it comes to investment results. And, as discussed earlier, even if there were no material differences between ESG and non-ESG portfolios, it does not mean that an ESG-centric capital allocation process isn't a worthwhile venture. Some investors are willing to take lower returns with lower ESG factor risks such as physical changes and transition risk associated with climate change. Research suggesting that at least some ratings providers can help add alpha to the investing process and this relationship could improve with broader and higher quality reporting of non-financial data related to ESG-factors.

Toward a Sustainable, Responsible, and Impactful Future

SRI is a Worldwide Affair

The growth of SRI assets isn't only a domestic story but also has a strong international footprint. Over the four years ending in 2018, both Canada and Australia have seen a double-digit compounded annual growth rate (CAGR) in SRI with Japan far outpacing the West at a 308% CAGR during the same timeframe (see Table 5). The growth in Europe has been slower than others since 2014 but the starting asset base is noticeably higher, signaling that the continent has been strongly involved in sustainable investing for some time. Indeed, although SRI in Europe only took off after similar domestic initiatives, the continent experienced dramatic increases after the start of the new millennium, seeing a 55% increase from approximately €6,377b to €9,885b between 2012 and 2014 alone and becoming a global leader in the space. Our view is that this global sustainability trend will continue with increased participation across the United States, British Commonwealth, and Asia. Europe's growth rate is likely to remain subdued relative to the rest of the world given its already substantial SRI exposure.

Table 5: SRI Assets See Significant International Growth

Region/Country	2014 (in billions)	2018 (in billions)	CAGR
Europe	€9,885	€12,306	6%
United States	\$6,572	\$11,995	16%
Canada (CAD)	\$729	\$2,132	21%
Australia/NZ (AUD)	\$203	\$1,033	50%
Japan	¥840	¥231,952	308%

Sources: Bloomberg Intelligence, MIM

Green Regulations Incoming

Although growth in the SRI space has largely come from investors looking to address risk factors not adequately emphasized in previous capital allocation processes, there is reason to believe that the future may not be wholly investor-driven. Around the world, there has been increasing regulatory scrutiny against companies involved in ESG-related incidents and those who lack appropriate sustainability policies. Governments have also turned to investment managers to make sure they have the proper systems in place to foster global sustainability through capital allocation. Understandably, regulators have been measured in their response to SRI but growing public attention on ESG issues, as well as significant increases in SRI assets, have opened the proverbial door to greater government involvement. Officials from the United States, Europe, Canada, and Japan have all released either full-fledged or preliminary regulatory guidelines for sustainable business practices and investing (see Table 6).

Table 6: Growing Body of Government SRI Initiatives and Regulations

Region	Government SRI Initiative	Date Established	Purpose
Europe	Action Plan on Sustainable Finance	3/8/2018	“to reorient capital flows towards sustainable investment, in order to achieve sustainable and inclusive growth, manage financial risks stemming from climate change, environmental degradation and social issues, foster transparency and long-termism in financial and economic activity.”
China	Code of Corporate Governance for Listed Companies	9/30/2018	“a listed company should...[develop] diversified communication channels with employees...actively participate in the construction of ecological civilization...[maintain] the company’s sustainable development... [and] are encouraged to provide fair assistance for poverty-stricken counties or villages.”
United States	SEC Sustainability Reporting Guidelines	4/15/2019	“sets forth the information that publicly-listed companies will have to disclose in relation to their non-financial performance across the economic, environmental and social aspects of their organizations.”
Canada	Expert Panel on Sustainable Finance	6/14/2019	“a package of recommendations aimed at ‘connecting the dots’ between Canada’s climate objectives, economic ambitions and investment imperatives.”
Japan	Stewardship Code (Second Revision)	3/24/2020	“by improving and fostering the investee companies’ corporate value and sustainable growth...and consideration of sustainability (medium- to long-term sustainability including ESG factors) consistent with their investment management strategies.”

Sources: European Commission, China Securities Regulatory Commission, U.S. SEC, Government of Canada, Financial Services Agency, MIM

As regulations continue to march forward, companies will continue to position themselves in order to try and get ahead of expected government legislation. As a result, firms that have been reluctant to blend practices that take into account the interest of all stakeholders into their business model will be forced to evolve. As such, one of the expected changes in the SRI space is the sheer volume of participation, which is expected to continue growing noticeably as governments become involved. Harvard Law School notes that this will mean a greater number of firms with ESG policies, diverse executive boards, climate-friendly practices, and growing broader employee representation in the decision-making process. This will also mean more disclosures to investors, and public stakeholders, concerning what additional steps companies are taking to strengthen their ESG practices and policies.

This forced evolution is also likely to occur on the asset management side of the financial economy with investment firms being required to show how they incorporate ESG risk factors into their investment processes. An increasing ESG focus isn't solely about a higher allocation to sustainable businesses but also involves investment managers playing a more active role in invested businesses, voting proxies and addressing sustainability issues directly with management. An investment manager that controls a stake in a company with a nondiverse board will be expected, depending on the size of the investment and specific regulations, to bring this to the invested company's attention in order to help push the ESG mandate. This will likely hold true of all sustainability issues, including climate, executive pay, community support, and ecology. There may also be heightened attention for any potential "greenwashing," in which a company or investor tries to portray a product or investment as being sustainable when it is only being given the label so that it superficially passes regulatory standards.

Now About Those "Dirty Industries"

ESG's growth due to both free market forces and government involvement is likely to also have a noticeable impact on so-called "dirty industries." Investors in these assets will be expected to move away from companies and industries not committed to the furthering of their ESG practices. This is not to say that oil & gas or basic materials producers will likely be unable to acquire much-needed capital. Instead, companies in these industries may have to increase non-financial disclosures, form trade groups that help in promoting sustainable initiatives, and actively work to reduce their negative footprint. For instance, oil & gas producers may find it harder to fund projects if they lack the appropriate sustainability disclosures, aren't actively working toward net zero greenhouse gas emissions, or have declined to join forward-thinking trade groups. As such, this gives an opportunity to both large and small businesses in "dirty industries" to step-up to the plate and take constructive action for the long-term benefit of their sector, society, and the planet. It is therefore expected that progressive businesses in these less-than-favored industries may be able to tap into much larger wells of funding simply because they are able to see the forest from the trees. Their firm's ability to continue operating profitably is tied to broader societal social and environmental goals.

Summary

Although socially responsible investing has been around for some time, only recently have investors broadly reached a high conviction on the need to incorporate ESG factors broadly in investment processes. Since the Great Financial Crisis, interest in SRI investing has continued to gain ground, especially during the latter part of the 2010s, as climate change and social issues have become increasingly prioritized by stakeholders. We believe a larger focus on passive management, significant interest from institutional investors, and increasing regulatory scrutiny on both corporations and investment managers will continue to shape capital allocation processes. However, because SRI is still in its infancy, there are many dislocations still apparent in the market. From incongruent ESG ratings to concerns around "greenwashing," investors must be careful to establish their own goals and investment processes in the space. We expect rising global interest and, until the market matures further, we see the incorporation of financially material ESG-factors broadly in investment processes rather than reliance on often conflicting third-party ratings as critical. Asset owner specific goals tied to core values, regulatory frameworks, and other risk exposures will also shape the application of ESG-factors in investment selection and in the full portfolio in our view.

Sustainable Investment Strategies



MATTHEW SHEEDY

Director, Head of Sustainable Investment Strategies

Matthew Sheedy leads Sustainable Investment Strategies (SIS) at MetLife Investment Management (MIM). SIS is responsible for the development, implementation and oversight of MIM's sustainable investment strategy which is primarily concerned with integrating environmental, social, and governance factors in investment decisions. SIS manages MetLife's multi-asset class impact investment program. Prior to joining MetLife in 2006, Sheedy originated and managed investments for a bank, an insurance company, and a Low Income Housing Tax Credit equity fund manager. He graduated from Binghamton University with a Bachelor of Arts and the Robert F. Wagner Graduate School of Public Service at New York University with a Master of Public Administration.

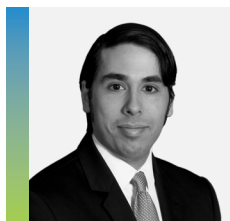
Global Economic & Market Strategy



JUN JIANG

Associate Director, Market Strategy and Research

Jun Jiang is a Market Strategist in Global Economic & Market Strategy team, where he helps to develop and communicate the firm's global macro-economic outlook and market views as well as assisting in the overall asset allocation and portfolio management process. Previously, Mr. Jiang was in the Global Portfolio Strategy unit, where he worked on portfolio strategy and portfolio analytics. Mr. Jiang joined MetLife in 2011. Prior to joining MetLife Investment Management, Mr. Jiang was a Credit & Portfolio Risk Management Analyst at Citigroup. Mr. Jiang earned a Ph.D. degree in Polymer Physics from SUNY-Stony Brook in 2007 and an MBA degree from Cornell University in 2009. Mr. Jiang is a Chartered Market Technician (CMT) and Chartered Financial Analyst (CFA) charterholder.



ALEXANDER VILLACAMPA

Associate, Market Strategy and Research

Alexander Villacampa is an Associate with the Global Economic & Market Strategy team, helping the asset allocation process by furthering the firm's views on the global macroeconomic landscape and achieving this through a combination of rigorous data analysis and narrative construction. Previously, he worked as a wealth manager at Bank of America Merrill Lynch and as an investment specialist at Euro Pacific Capital. He earned his MBA in Economics from The University of Chicago Booth School of Business in 2018 and received his BA in Economics from The University of Florida in 2009. Alexander has passed the CFA Level II exam and is now studying for Level III.

About MetLife Investment Management

MetLife Investment Management (MIM),¹ MetLife, Inc.'s (MetLife's) institutional investment management business, serves institutional investors by combining a client-centric approach with deep and long-established asset class expertise. Focused on managing Public Fixed Income, Private Capital and Real Estate assets, we aim to deliver strong, risk-adjusted returns by building tailored portfolio solutions. We listen first, strategize second, and collaborate constantly as we strive to meet clients' long-term investment objectives. Leveraging the broader resources and 150-year history of the MetLife enterprise helps provide us with deep expertise in navigating ever changing markets. We are institutional, but far from typical.

For more information, visit: investments.metlife.com

Disclosure

For Institutional Investor, Qualified Investor and Professional Investor use only. Not for use with Retail public.

This document has been prepared by MetLife Investment Management ("MIM")¹ solely for informational purposes and does not constitute a recommendation regarding any investments or the provision of any investment advice, or constitute or form part of any advertisement of, offer for sale or subscription of, solicitation or invitation of any offer or recommendation to purchase or subscribe for any securities or investment advisory services. The views expressed herein are solely those of MIM and do not necessarily reflect, nor are they necessarily consistent with, the views held by, or the forecasts utilized by, the entities within the MetLife enterprise that provide insurance products, annuities and employee benefit programs. The information and opinions presented or contained in this document are provided as the date it was written. It should be understood that subsequent developments may materially affect the information contained in this document, which none of MIM, its affiliates, advisors or representatives are under an obligation to update, revise or affirm. It is not MIM's intention to provide, and you may not rely on this document as providing, a recommendation with respect to any particular investment strategy or investment. The information provided herein is neither tax nor legal advice. Investors should speak to their tax professional for specific information regarding their tax situation. Investment involves risk including possible loss of principal. Affiliates of MIM may perform services for, solicit business from, hold long or short positions in, or otherwise be interested in the investments (including derivatives) of any company mentioned herein. This document may contain forward-looking statements, as well as predictions, projections and forecasts of the economy or economic trends of the markets, which are not necessarily indicative of the future. Any or all forward-looking statements, as well as those included in any other material discussed at the presentation, may turn out to be wrong.

¹ MetLife Investment Management ("MIM") is MetLife, Inc.'s institutional management business and the marketing name for the following affiliates that provide investment management services to MetLife's general account, separate accounts and/or unaffiliated/third party investors: Metropolitan Life Insurance Company, MetLife Investment Management, LLC, MetLife Investment Management Limited, MetLife Investments Limited, MetLife Investments Asia Limited, MetLife Latin America Asesorias e Inversiones Limitada, MetLife Asset Management Corp. (Japan), and MIM I LLC.

L1220009745[exp1222][All States], L1220009744[exp1222][All States], L1220009740[exp1222][All States],
L1220009728[exp1222][All States]

