PCA PENSION CONSULTING ALLIANCE

ESG/Sustainability: Institutional Investor Market Developments

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Executive Summary

Just 10 to 15 years ago, environmental, social and governance ("ESG") risks were generally fringe issues for institutional investors. Only a miniscule amount of assets were managed using any form of non-traditional capital markets analysis as part of their overall investment decision-making. Today, many global institutional investors, especially in Europe, look at ESG issues as part of their decision-making to one extent or another. In PCA's opinion, domestic U.S. pension plans will be grappling with integrating sustainability issues in the not too distant future, if they aren't already.

This report provides a broad overview of institutional investor ESG developments and how they are evolving in equity investing. The review is not intended to offer analysis on specific investment issues such as decisions to engage, divest, or shift exposure around CO_2 emissions. Today, ESG often encompasses an approach to the entire pension plan portfolio. ESG is frequently referred to as sustainability, though investor attention can be specific to E, S, or G concerns. For this report, we use ESG and sustainability interchangeably.

Globally, particularly in Europe, pension funds are incorporating sustainability. While far from common in the U.S., globally more regulators and pension fund investors now consider the materiality of ESG risks and hold that ESG investing can be consistent with fiduciary duty, depending on how it is implemented. A traditional view posits that ESG investing inherently restricts the investable universe based on non-financial investment criteria. Impact investing evolved to target investments for a specific social or environmental outcome. Impact investing can offer a range of at market, above or below market return expectations. For pension funds, impact investing means seeking a competitive rate of return and a social return around the social impact that is sought. Most recently, an increasing number of institutional investors approach sustainability as a set of potentially material risks. More large institutional investors now demand comprehensive attention to ESG risks.

ESG industry seems poised to enter the mainstream. With the general market expansion in ESG, and greater attention from institutions seeking competitive market returns and comprehensive portfolio attention to sustainability, the ESG data and analysis necessary to make investment decisions is growing. Seventy-five percent of the S&P500 issue sustainability reports, up from under 20% in 2011. ESG accounting frameworks are rapidly evolving. That said, corporate sustainability data is still far from readily available in a standard framework from most corporations. Approaches to identifying key sustainability material risks seem to be converging. Providers are developing ESG analytic tools to integrate ESG factors into investment, including ESG company databases, ratings, screening and benchmarks, and manager rankings. Traditional financial analyst organizations, such as the Chartered Financial Analysts ("CFA"), now offer classes and educational credits in sustainability.

Equity ESG demand is sparking new thinking, new market entrants, new products and new hype. Heavily debated, some new equity research finds material ESG risks are not fully priced into the market. ESG equity investing continues to expand beyond 'negative' exclusionary screening to impact investing and to positive inclusion of ESG analysis in security selection by traditional managers. The ESG manager universe increasingly includes large global investment managers. More quantitative managers are applying their capabilities to ESG. Active manager engagement beyond proxy voting is rising. Some traditional managers are relabeling existing products to ESG.

Conclusions

Growing levels of interest in responsible investment and ESG factors from institutional and retail investors have sparked development of a new investment information industry and growth of the ESG investment management industry. In our opinion, U.S. pension funds will likely, over time, need to consider how they might best incorporate sustainability into their investment beliefs, policies and practices, if they are not already doing so.

- Since ESG investors span foundations, endowments, and individuals that may not have the same market return requirements as pension funds, we expect ESG investment manager offerings to encompass everything from simple exclusionary screening, to impact investing (which may or may not seek an above market return), to positive screening by managers integrating sustainability factors more comprehensively into their analysis to generate alpha. With the wide dispersion of goals among ESG investment managers, pension plans should be extremely diligent when assessing whether a given product fits its needs.

- ESG material risk factors are not new to institutional investors or to investment managers that manage portfolios with traditional financial information, even though specific risks, notably climate change, are more recent. What is new is the push for disclosure, standardization, quantification and systematic risk analysis to integrate sustainability into risk/return analysis across the market, rather than prolonging integration until individual issues arise for a particular security or sector. Some issues, particularly environment-related risks are becoming prominent. For example, a decade ago, a typical institutional investor interested in the energy sector would not necessarily consider a firm's track record on environmental issues. Today, regulatory changes facing the energy sector make such non-financial issues potentially material.

- In PCA's opinion, it is increasingly likely that some sustainability framework will become standard in the United States over time. Similar to the evolution of financial standards, U.S. standards may well differ in their details from other countries. Today, in our view, one likely emerging U.S. sustainability accounting standard comes from the Sustainability Accounting Standards Board ("SASB"). The SASB framework is being developed based on the U.S. Supreme Court's definition of materiality. SASB is modeled after the Financial Accounting Standards Board ("FASB"). The shift to common reporting standards is nascent. Just a modest number of publicly held companies today reference SASB in some form.

- If ESG becomes mainstream, market impacts may resemble the evolution of broad market availability and analysis of corporate financial data. If corporate ESG material risk data becomes standardized and widely disclosed, it may offer all investors enhanced information with which to analyze companies and portfolios, similar to the earlier evolution to standard disclosure of material financial data. PCA believes that institutional investors and investment managers will differ in their analyses and conclusions of particular ESG factors, just as they reach different conclusions on financial data and proxy voting issues.

- Active equity ESG managers that seek to generate above market returns face all the associated risks of any active manager. Asset owners should expect the performance among active equity ESG managers to range around standard benchmarks. Broadly available market knowledge of specific factors may result in potential decay of particular active equity ESG alpha and/or shift to new ESG factors over time, just as for any other type of information.

Globally, more pension funds are incorporating sustainability

Different forms of ESG investing have taken place for decades. During the last decade, and accelerating in the last five years, sustainability issues in general gained prominence, and climate change escalated to an everyday matter of concern. These developments impact institutional investors understandings of how sustainability fits, or not, with pension plans' investment strategies.

Regulatory Background on ESG

Bolstered by regulatory developments, considering ESG has become more common abroad. Today, a number of countries (such as the U.K., France and Australia) require disclosure of sustainability factors by pension funds. Germany and South Africa now require integration of ESG considerations into pension fund investment decision-making.

In the U.S., integrating ESG factors into investment decision-making is not mainstream among pension funds. In 2005, the United Nations Environment Programme Finance Initiative landmark report covered many countries and, for the U.S., concluded that, "there appears to be a consensus that, so long as ESG considerations are assessed within the context of a prudent investment plan, ESG considerations can (and, where they affect estimates of value, risk and return, should) form part of the investment decision-making process."

However, the most recent (2008) Department of Labor ("DOL") ERISA interpretive bulletin is widely interpreted as strongly discouraging economically targeted investments (ETIs), and investments that take into account environmental and social criteria. The bulletin states:

> *ERISA's fiduciary standards expressed in sections 403 and 404 do not permit fiduciaries to select investments based on factors outside the economic interests of the plan until they have concluded, based on economic factors, that alternative investments are equal. A less rigid rule would allow fiduciaries to act on the basis of factors outside the economic interest of the plan in situations where reliance on those factors might compromise or subordinate the interests of plan participants and their beneficiaries. The Department rejects a construction of ERISA that would render the Act's tight limits on the use of plan assets illusory, and that would permit plan fiduciaries to expend ERISA trust assets to promote myriad public policy preferences.*

Since 2008, pressure on the DOL increased to clarify the 'tone' of the 2008 bulletin to indicate that, within fiduciary standards, other factors may be taken into account. Recent court cases and regulatory guidance may further influence ESG implementation. Examples include:

- In 2010, the U.S. Securities and Exchange Commission issued guidance on the disclosure of climate risk information by publicly-listed companies.
- In May 2015, the U.S. Supreme Court ruled unanimously in Tibble v. Edison that trustees of the defined contribution plan have a fiduciary duty, in addition to their duty to exercise prudence in the initial selection of investments, to timely and continually monitor fund investments and to remove imprudent ones. As legal observer Youngdahl comments: "*…the effects of climate change on investments and on society was not an issue when many holdings were purchased. Today however, it is. Thus, trustees must consider what effect climate change has on their investments today...*" He notes more broadly that…"*if responsible investment is not a 'special' argument, of much greater magnitude than the*

fads of smart beta, risk parity and the like, it probably does not need to be considered by trustees in periodic investment reviews."

As far as we are aware, no lawsuit has been filed against a defined benefit pension fund seeking for the plan to address sustainability risks in its investing.

<u>More pension plans seek comprehensive attention to ESG risks</u>

Some large U.S. pension funds, often those not directly subject to ERISA, are shifting their focus to a comprehensive integration of sustainability across plans. Some U.S. pension plans now recognize ESG factors in Investment Beliefs and/or Investment Policy Statements. For example, the investment policy and proxy voting guidelines of several state pension funds, including the California Public Employees' Retirement System ("CalPERS"), California State Teachers Employees' Retirement System ("CalSTRS"), the New York State Common Retirement Fund ("NYSCRF"), and the Connecticut Retirement Plans and Trust Fund (CRPTF), explicitly recognize the need to consider ESG risk factors in investment activities.

CalSTRS articulated eight guiding principles whose purpose "is to shape our organization's environmental, social and governance actions and interactions with our stakeholders". CalPERS adopted 10 Investment Beliefs in 2013 based on what is required for CalPERS' funds to be sustainable over the CalPERS 70-year liability horizon, including:

> Investment Belief 4: Long-term value creation requires effective management of three forms of capital: financial, physical and human.
>
> Investment Belief 9: Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error.

Plans that recognize ESG factors or investments that incorporate social criteria, premise their approach on the priority of economic justifications. For example, the Maryland State Employees' Retirement and Pension System's Investment Policy states that: "Economic justification for investment proposals will override social and/or local justifications. Social and/or local investments will only be considered when they provide reasonable and competitive rate of return expectations in comparison to other comparable investments."

Five years ago, questions on ESG exposure were an anomaly in standard Requests for Proposals ("RFPs") and investment manager monitoring. Today such questions are becoming a regular part of RFPs from large institutional investors and their consultants. ESG questions and requests for manager reporting are beginning to be integrated into monitoring of investment managers.

In June 2015, CalPERS launched a pilot program to formalize, over time, requirements regarding ESG principles for all CalPERS managers. "One of the most important things we're doing in this process is setting up an investment demand for better sustainability data and better modeling, and fundamentally, the integration of these factors into financial reporting," CalPERS' Anne Simpson stated. "The prize here would be that, through this process, you get investment managers behind the notion that sustainability issues need to be properly defined, properly tracked and ultimately connected into the risk/return framework that investment is all about," she said.

Institutional investor organizations designed to foster collaboration and pooling of scarce resources are also evolving to address sustainability. The sheer growth among institutional investor organizations in which U.S. pension plans participate escalated in recent years. The organizations noted below represent just a few established national or international organizations that are involved in sustainability as it affects institutional investors in which U.S. pension plans actively participate. Founded in:

- 2006, PRI (Principals for Responsible Investing), grew to $59 trillion Assets under Management ("AUM") representing 1,383 global signatories by July 2015. PRI includes a number of large U.S. pension funds as shown in Appendix I.

- 2003, INCR (Investor Network on Climate Risk), organized by Ceres, today is a network of more than 110 institutional investors representing more than $13 trillion in assets committed to addressing the risks and seizing the opportunities resulting from climate change and other sustainability challenges.

- 1990, CERES (Coalition for Environmentally Responsible Economies), seeks to promote a sustainable business model and has gained traction among large institutional investors.

- 1985, CII (Council of Institutional Investors), pools member resources to strengthen governance standards at public companies and shareholder rights. Today, CII provides regular collaborative forums for corporate governance efforts. Members use their proxy votes, shareowner resolutions, pressure on regulators, discussions with companies and litigation where necessary to effect change. CII's voting membership has grown to more than 125 U.S. public, union and corporate employee benefit plans, endowments and foundations with combined assets that exceed $3 trillion.

ESG investment industry seems poised for the mainstream

Assets managed under some form of ESG mandate are growing in the U.S. and abroad. The US SIF's (The Forum for Sustainable and Responsible Investment) 2014 report shows that U.S. assets engaged in sustainable, responsible and impact ("SRI") investing practices jumped 76% from $3.74 trillion in 2012 to $6.57 trillion in 2014 (18% of the estimated $36.8 trillion in total AUM). US SIF numbers include ESG exclusion strategies, ESG integration into traditional financial analysis, positive/best-in-class selection based on ESG performance, impact investing and sustainability themed investments.

A similar trend was reported by the Global Sustainable Investment Alliance, which showed that sustainable-investment assets jumped 61 percent globally in two years to $21.4 trillion at the start of 2014. Because the US SIF data and much of the global data are self-reported, the magnitude of the increase may be significantly overstated. However, the upward trend seems in line with other indicators of demand.

Alongside this trend, financial organizations, including traditional ones such as the CFA, and new organizations designed to explicitly address non-financial issues, such as SASB, now offer educational courses and credits on sustainability.

With the general market expansion in ESG, and attention from institutions seeking competitive market returns and comprehensive portfolio attention to sustainability, investment ESG tools are proliferating. These include corporate sustainability reporting and a wide array of investment information tools and products, including new sustainability accounting standards, identification of material ESG risks, third party sustainability corporate databases and research, company rankings and benchmarks, and investment manager ratings.

Corporate sustainability reporting began prior to any established accounting standard or required reporting in most countries. Large pension funds are both requesting sustainability reports, and reporting on sustainability for their own organizations. For example, CalSTRS inaugurated its guideline-based sustainability reporting with the release of its 2013-14 sustainability report. Today, 93% of the largest 250 global listed companies produce annual sustainability or corporate responsibility reports. The number of S&P500 companies that issue sustainability reports grew from just under 20% in 2011 to 75% in 2014.

A number of sustainability accounting frameworks exist or are under development, often with different particular objectives. There is no single commonly accepted standard in the United States at this time. Two reporting organizations gaining prominence in the U.S. are:

GRI (Global Reporting Initiative), founded in 1997, is headquartered in Amsterdam. GRI is used globally and has taken hold most prominently in Europe. Many European entities report through GRI, which offers different levels of verification (C –self verification, B- needs external auditor, and A – most data and verification). In 2014, the Council of the European Union ("EU") established legal sustainability reporting requirements for more than 6,000 corporations with greater than 500 employees in the EU. This Directive on ESG transparency gives EU member states two years to develop their national legal framework with the first company reports due by 2017-2018. Each of these 6,000 corporations will be encouraged to apply industry-recognized "best-in-class" ESG frameworks, of which GRI's Sustainability Reporting Guidelines is one of the noted frameworks.

SASB (Sustainable Accounting Standards Board), launched in 2011 is a U.S. non-profit, with Michael Bloomberg as Chairman of the Board, that develops and disseminates sustainability accounting standards modeled on the Financial Accounting Standards Board ("FASB") and grounded in the U.S. Supreme Court's definition of materiality. As articulated by SASB: "While the FASB has for the past forty years developed the accounting principles currently used in financial reporting in the United States, other social and environmental measures are now understood to be of relevance". The SASB aims to integrate its standards into the Form 10-K, which must be filed by public companies with the U.S. Securities and Exchange Commission".

In the near term, we do not anticipate any accounting framework to become a commonly accepted standard in the United States. For example, in real estate alone, in addition to GRI and upcoming SASB standards for Real Estate, platforms such as the Global Real Estate Sustainability Benchmark (GRESB); the Commercial Building Energy Consumption Survey (CBECS) of the U.S. Energy Information Administration; the Carbon Disclosure Project (CDP); the Investor Confidence Project (ICP) of the Environmental Defense Fund (EDF); and the Urban Land Institute (ULI)/Greenprint Center for Building Performance are, at varying levels, designed to encourage transparency and promote standards for real estate companies to take action to protect their investors from risks associated with energy and environmental externalities. Other industries are convening to identify specific standards for their industry. Globally, financial reporting standards vary and we expect the same will be true for sustainability accounting standards. Today, in our opinion, the SASB standard appears to be likely to emerge over time as a common reporting framework across all industry segments in the U.S.

ESG risk reporting and analysis

Comprehensive market identification of significant sustainability issues remains at an early stage. As the demand for sustainability risk analysis grows, approaches to identifying risk seem to be converging among market participants. Common themes are:

1) ESG risks/opportunities are considered long term risks that are not expected to determine short term price movements.

   ESG risks may drive value over the long term and/or result in tail risk (e.g., a company getting faced with a big lawsuit due to an ESG risk). Typically, an ESG risk may encompass various long term potential risk parameters. For example, climate change might be identified as carrying physical risk of impacts of climate change, reputational and competitive risk, regulatory risk, litigation risk, and potentially stranded assets risk.

   In stock markets, ESG is typically considered more relevant to longer term holding strategies and more difficult to apply to investment strategies executed through heavy active trading of securities. Similarly, in bond markets, some managers view ESG risks as more relevant to longer term bonds (e.g., 30-year bonds), compared to shorter term bonds).

2) ESG reporting should focus on material risk, rather than generic ESG risk reporting.

   Focusing on the materiality of risk has gained considerable traction. For example, in 2013, GRI updated their guidelines to their 4.0 version to introduce materiality. SASB generates a materiality map that outlines material ESG risks.

3) Materiality of specific ESG risks/opportunities differ across industries, sectors within industries, and across companies within a given industrial sector.

   Industry associations, investment firms and institutional investors have begun to develop industry-specific methods to determine materiality as it relates to ESG issues. SASB is outlining material ESG risks for 10 industries and 88 sectors within those industries (see Appendix II). Morgan Stanley's ESG Materiality Map is similarly premised on industry and company specific materiality. The intent is that the bank's equity analysts incorporate ESG 'Key Performance Indicators' into company valuations. Mercer's 2015 assessment of the impact of climate change on different assets classes, revised its initial 2011 report to develop more industry-specific analysis in response to comments of institutional investors. Generally, investment management approaches, such as macro driven or multi-strategy hedge funds and absolute return strategies, currently find ESG less directly applicable to their investment approaches.

ESG company databases, analytics, ratings, and benchmarks and manager ESG rankings

The work on sustainability accounting frameworks illustrate the breadth of potential material risks that might be considered, quantified, analyzed and integrated into investment decision-making. SASB's list below includes 30 different general issues.

SASB Sustainability Risk Issues				
Environment	**Social Capital**	**Human Capital**	**Business Model and Innovation**	**Leadership and Governance**
GHC emissions	Human rights and community relations	Labor relations	Lifecycle impacts of products and services	Systemic risk management
Air Quality	Access and affordability	Fair labor practices	Environmental, social impacts on assets and operations	Accident and safety management
Energy Management	Customer welfare	Employee health, safety and well-being	Product packaging	Business ethics and transparency of payments
Fuel Management	Data security and customer privacy	Diversity and inclusion	Product quality and safety	Competitive behavior
Water and Waste Water Management	Fair disclosure and labeling	Compensation and benefits		Regulatory capture and political influence
Waste and hazardous materials management	Fair marketing and advertising	Recruitment, development and retention		Materials sourcing
Biodiversity impacts				Supply chain management

Source: SASB

A vibrant sustainability investment information services industry is springing up from established information providers, newer firms specializing in ESG, existing financial data analytics firms, and large global investment services corporations. Many companies are swiftly broadening their product suites to meet burgeoning sustainability opportunities.

For example, companies including Trucost, South Pole Group and MSCI ESG provide carbon footprint data analysis of companies and of investment portfolios. Trucost (incorporated in 2000) focuses on all 'natural capital' dependency analysis for investors. The firm produced its first investment portfolio carbon footprint analysis in 2006 and overtime deepened its database, suite and breadth of research offerings. South Pole Group (founded in 2006) originally targeted efficient and sustainable emission reduction projects. In 2015 the company rebranded to move beyond emissions reduction to provide expertise that covers key natural capital sustainability-related areas of climate change, forests and land use, water, sustainable cities and buildings, and renewable energy and energy efficiency. MSCI actively pursued the ESG market with its acquisition of RIskmetrics in 2010. MSCI ESG first provided corporate research and ratings, benchmarks and proxy voting services. By 2015 MSCI ESG launched its Carbon Portfolio Analytics service that includes portfolio carbon footprint analysis.

Similarly, sustainability company ratings are offered by large index providers and firms whose resources are dedicated to ESG. For example, independent ESG research firm, Sustainalytics (founded in 2008), provides ESG ratings, rankings and analysis that cover all major global indices. Corporate Knights Capital's (CK Capital) best-known rankings include the Global 100 Most Sustainable Corporations. MSCI-ESG provides ratings on 5,700 global equity and 9,000 fixed income issuers. Thomson Reuters Corporate Responsibility ratings rank the ESG performance of over 4,600 companies worldwide in 52 industries and nine different regions. FTSE ESG ratings cover over 2,400 securities in the FTSE All-World Developed Index.

Most large index providers offer some type of ESG indices, including S&P Dow Jones, MSCI, FTSE Russell. Long-time dedicated ESG providers such as Calvert, Impax, or PaxWorld that had their roots primarily in the retail, endowment and foundation markets offer index products. ESG indexes range from custom indexes designed for an individual institutional investor, to issue-specific indexes, to broad sustainability indexes. Within each issue area, benchmark offerings vary. For example, within carbon concerns, benchmark options include carbon free, coal free, low carbon, and renewable/clean energy Indexes.

ESG benchmarks are not confined to equity markets. For example, in 2013, Barclays and MSCI launched a global family of fixed income ESG indices. In 2015, Cambridge Associates and the Global Impact Investing Network ("GIIN") collaborated to launch the Impact Investing Benchmark to provide comprehensive analysis of the financial performance of market rate private equity and venture capital impact investing funds.

Online financial information services offer ESG data and analysis. For example, Bloomberg's corporate news and information services on ESG now include a growing spectrum of third party ESG data services. Bloomberg, using Southpole's data analytics, now provides a free online service to find the carbon footprint of a company by simply typing in the corporate ticker symbol. Bloomberg recently added Sustainalytic's corporate ratings online, among other services.

ESG rankings of managers may soon become more widely distributed and less expensive. Mercer first provided ESG ratings at the manager level in 2006 and at the strategy level in 2008. Today, Mercer rates 5,000 strategies across asset classes. In August 2015, investment research and leading fund rating house, Morningstar announced with Sustainalytics that they will jointly develop ESG ratings for global mutual funds and exchange traded funds. Morningstar expects to launch the fund-level ESG scores in the fourth quarter of 2015, and make them available through its datafeeds and its major software platforms in 2016. Morningstar tracks the holdings of more than 200,000 global managed products. Sustainalytics provides ESG ratings on more than 4,500 companies. Users will also be able to "drill down" to see scores for each of the three ESG pillars.

In 2015, Mercer released its new ESG-passive (ESG-p) rating scale for passively managed equity strategies. Because passive managers are long-term shareholders of stocks that cannot 'walk away from companies that underperform', the key focus of Mercer's ESG-p rating scale is on exercising ownership rights though proxy voting and engagement activities, among other factors, to generate value through good ESG practices. Mercer notes that, unlike its ESG ratings in active management, the passive management assessments have been undertaken at the firm-wide level with the central corporate governance teams due to a lack of product-specific data.

In our opinion, the growing competition in these markets is spurring improvements and refinements that should benefit investors.

Equity ESG sparks new thinking, market players, products and hype

Taking into account environmental, social and governance risks is not new to equity investment managers. Many ESG individual risks have long been assessed by equity investors in security selection. Driven by client demand, investment managers are reviewing and reconsidering their approach to ESG based on a more structured, comprehensive approach to ESG. Along with the heightened attention to ESG, new research and product development is becoming available.

Equity research

Historically, in keeping with the type of ESG investing that often occurred, and often in the context of divestment campaigns, much of the ESG investment research analyzed the results of negative or exclusionary screens. Theoretical models suggest that a portfolio that is restricted for non-financial reasons would be expected to reduce the risk-adjusted return of the portfolio.

PCA's 2014 review of divestment empirical research found mixed results, in large part due to differences in the breadth of the market that was excluded, market price dynamics for the stocks excluded during the time period studied, and portfolio characteristics of the 'replacement' portfolio compared to the benchmark portfolio. Portfolio characteristic biases such as sector, small cap/large cap, growth/value, and country exerted positive or negative effects on risk-adjusted performance, depending on the study. Other biases depended on the time period and magnitude of the difference between the replacement portfolio and the benchmark.

Current benchmark developments show that in many cases, adjusting the exposure to different companies based on a particular ESG screen, rather than divesting from the largest stocks that do not pass a screen, provide another look at this same issue. For example, the S&P Dow Jones Indices (S&PDJI) offers the "Carbon Efficient Index", which tracks the broad market and simultaneously rewards more carbon efficient companies at the expense of less carbon efficient ones. Historically, their S&P500 results show the reduction of annual carbon footprint (GHG emissions/Annual Revenue) of one third to half of that of the S&P500, with performance correlation of 99.9% for the years 2004-2013.

More broadly, there is widening recognition that particular environmental, social and governance issues not captured by traditional quantitative investment analysis can prove material to investment performance. Studies identify issues, such as energy efficiency, carbon emissions, toxic waste treatment, workplace safety, employee relations and corporate governance, as materially affecting traditional financial indicators such as price/earnings ratio and reputation with investors.

The growing demand for integrating sustainability data into traditional portfolio analysis has stimulated additional new research. Still heavily debated, some new equity research finds that material ESG risks are not fully priced into the market and argues that ESG investing has not generated good returns in many cases because investors didn't focus on materiality. For example, a 2015 Harvard Business School study argues that prior academic literature did not distinguish between material and immaterial sustainability issues. A primary finding is that "firms with good performance on material sustainability issues significantly outperform firms with poor performance on these issues, suggesting that investments in sustainability issues are shareholder-value enhancing."

We anticipate that research results will continue to generate mixed results depending on the focus and time period of a particular study. The newer research dedicated to material risk factors represents an informative development in the literature. Because the materiality of given risk factors may change over time, for any given industry, company, or country we expect varied results to emerge based on the universe, time period and definitions of materiality studied.

Approaches to ESG equity investing

The range of ESG approaches to investment management encompasses traditional socially responsible investing (which often rests on 'negative' screening out of particular social outcomes) to impact investing, which seeks to achieve a social impact and can seek both market or below or above market performance. While all investors typically prefer a competitive return, not all are legally bound to do seek such returns. For example, individuals may decide they prefer investing in stocks that meet their social criteria, even with the expectation that their portfolio may generate below market investment returns. For pension funds, Impact Investing aims to achieve a market return and a social return, or a double bottom line return. Most recently, active managers began more systematically incorporating ESG risk factors alongside traditional financial factors seeking to improve active management returns.

ESG Investment Management

Investment Approach to ESG Factors	Description	Social Outcome	Competitive Performance Outcome
Negative Screening	Exclude companies based on non-financial concerns such as tobacco, firearms, more recently, CO_2.	REQUIRED	NOT REQUIRED
Impact Investing	Incorporate social outcome and seek to make a market return	REQUIRED	VARIED
Positive Screening	Integrate ESG material risks into traditional financial analysis, independent of seeking any specific social/environmental outcome to improve portfolio performance.	NOT EXPLICITLY REQUIRED	REQUIRED

The growth in ESG investment demand is fueling an expansion of the ESG investment manager universe. Historically ESG was primarily the purview of specialized ESG managers, and some managers that offered both traditional investment products and ESG products. Today, large global investment firms are developing ESG products, both through acquisition and increased hiring and reorganization. In some cases, a new ESG profile means emphasizing what a manager believes they have always done regarding these risks, by, for example, ESG rebranding.

The eVestment Alliance list of U.S. ESG managers below illustrates that a current list of managers encompasses long-time dedicated ESG managers (Walden and Calvert), managers who for some time have provided both traditional and socially driven products (Neuberger Berman and DFA), and managers that are rebranding (PIMCO, now lists its flagship Total Return Fund under eVestment's general fixed income and US-ESG universe).

eVestment Alliance Universe of U.S. ESG Managers (Listed Alphabetically) August 2015			
#-C	**D-H**	**H-Q**	**R-Z**
1919	Dana Investment Advisors	IPM	RDC GAM
Alger	Deutsche Investment Advisors	Kennedy Capital Management	Riverbridge
Atlanta Capital	DFA	Light Green Advisors	Saturna Caital
Boston Common Asset	Domini	Miller/Howard	SKBA Capital Management
Breckenridge	Estabrook	Neuberger Berman	SSgA
Brown Advisory	Fiera Capital	New Amsterdam	Sustainable Insight
Calvert	GAMCO	PaxWorld	TIAA-CREF
Capstone	Great Lakes Advisors	PIMCO (Total Return Fund)	Trillium
Clearbridge	Green Century Capital	Ponder Investment Co.	Vanguard
Contravisory	Goldman Sachs AM	Praxis Mutual Funds	Walden
CsMcKee	Horizon Investments	Quotient Investors	

Source: eVestment Alliance.

Due to heightened interest in ESG, we expect ESG manager lists to change in the near term. For example, in 2015, BlackRock announced its launch of an ESG presence, while others may begin listing under ESG existing products, such as UBS, GMO, Aperio Group and others.

Historically, active ESG equity managers primarily were fundamental stock selection managers. Today, more quantitative managers are adapting their data mining approaches to develop ESG products. With the profusion of investment funds that span all of types of sustainability investing, it is critical that any plan conducting a manager search clearly assesses and understands the investment goals and processes of any fund that markets itself as an ESG, Impact, or Sustainability fund, particularly because some may be designed for investors that may not require a market return.

The heightened profile of sustainability is also impacting active shareholder approaches by managers. Active ESG managers typically exercise active shareowner governance rights. Some managers of traditional investment products are now increasing their engagement beyond proxy voting. For separate account funds, investors may stipulate that a manager vote according to its voting guidelines. Commingled vehicle managers often have formal proxy voting guidelines designed to vote in the interest of all shareholders. In situations where the manager believes taking a certain position on an issue would represent the interests of all shareholders, it is becoming more common for managers to engage with a given company beyond voting proxies.

Conclusions

Growing levels of interest in responsible investment and ESG factors from institutional and retail investors have sparked development of a new investment information industry and growth of the ESG investment management industry. In our opinion, U.S. pension funds will likely, over time, need to consider how they might best incorporate sustainability into their investment beliefs, policies and practices, if they are not already doing so.

- Since ESG investors span foundations, endowments, and individuals that may not have the same market return requirements as pension funds, we expect ESG investment manager offerings to encompass everything from simple exclusionary screening, to impact investing (which may or may not seek an above market return), to positive screening by managers integrating sustainability factors more comprehensively into their analysis to generate alpha. With the wide dispersion of goals among ESG investment managers, pension plans should be extremely diligent when assessing whether a given product fits its needs.

- ESG material risk factors are not new to institutional investors or to investment managers that manage portfolios with traditional financial information, even though specific risks, notably climate change, are more recent. What is new is the push for disclosure, standardization, quantification and systematic risk analysis to integrate sustainability into risk/return analysis across the market, rather than prolonging integration until individual issues arise for a particular security or sector. Some issues, particularly environment-related risks are becoming prominent. For example, a decade ago, a typical institutional investor interested in the energy sector would not necessarily consider a firm's track record on environmental issues. Today, regulatory changes facing the energy sector make such non-financial issues potentially material.

- In PCA's opinion, it is increasingly likely that some sustainability framework will become standard in the United States over time. Similar to the evolution of financial standards, U.S. standards may well differ in their details from other countries. Today, in our view, one likely emerging U.S. sustainability accounting standard comes from the Sustainability Accounting Standards Board ("SASB"). The SASB framework is being developed based on the U.S. Supreme Court's definition of materiality. SASB is modeled after the Financial Accounting Standards Board ("FASB"). The shift to common reporting standards is nascent. Just a modest number of publicly held companies today reference SASB in some form.

- If ESG becomes mainstream, market impacts may resemble the evolution of broad market availability and analysis of corporate financial data. If corporate ESG material risk data becomes standardized and widely disclosed, it may offer all investors enhanced information with which to analyze companies and portfolios, similar to the earlier evolution to standard disclosure of material financial data. PCA believes that institutional investors and investment managers will differ in their analyses and conclusions of particular ESG factors, just as they reach different conclusions on financial data and proxy voting issues.

- Active equity ESG managers that seek to generate above market returns face all the associated risks of any active manager. Asset owners should expect the performance among active equity ESG managers to range around standard benchmarks. Broadly available market knowledge of specific factors may result in potential decay of particular active equity ESG alpha and/or shift to new ESG factors over time, just as for any other type of information.

APPENDIX I: PRI U.S. Asset Owner Signatories

PRI U.S. Asset Owner Signatories	Type of Organization
Nathan Cummings Foundation	Foundation
United Church Funds	Foundation
Wespath Investment Management (General Board of Pension and Health Benefits of the United Methodist Church)	Foundation
Treehouse Investments LLC	Investment Co.
International Finance Corporation (IFC)	Public Intl Finance
CalPERS	Public Pension
CalSTRS	Public Pension
Connecticut Retirement Plans and Trust Funds (CRPTF)	Public Pension
Los Angeles County Employees Retirement Association (LACERA)	Public Pension
Maryland State Retirement and Pension System	Public Pension
New York City Employees Retirement System	Public Pension
New York State Local Retirement System	Public Pension
State Universities Retirement System of Illinois	Public Pension
United Nations Joint Staff Pension Fund	Public Pension
University of California	Public Pension
AFL-CIO Reserve Fund	Taft-Hartley Pension
Middletown Works Hourly and Salaried Union Retirees Health Care Fund	Taft-Hartley Pension
Multi-Employer Property Trust	Taft-Hartley Pension
SEIU Pension Plans Master Trust	Taft-Hartley Pension
UAW Retiree Medical Benefits Trust	Taft-Hartley Pension
UFCW International Union Pension Plan for Employees	Taft-Hartley Pension
Harvard University Endowment	University Endowment

Source: PRI August 2015.

APPENDIX II: SASB Materiality Map

SASB's Materiality Map for First Seven Sectors

ISSUES	Health Care	Financials	Technology and Communications	Non-Renewable Resources	Transportation	Services	Resource Transformation
Environment							
GHG emissions							
Air Quality							
Energy Management							
Fuel management							
Water and wastewater management							
Waste and hazardous materials management							
Biodiversity impacts							
Social Capital							
Human rights and community relations							
Access and affordability							
Customer welfare							
Data security and customer privacy							
Fair disclosure and labeling							
Fair marketing and advertising							
Human Capital							
Labor relations							
Fair labor practices							
Employee health, safety and wellbeing							
Diversity and inclusion							
Compensation and benefits							
Recruitment, development and retention							
Business Model and Innovation							
Lifecycle impacts of products and services							
Environmental, social impacts on assets and operations							
Product packaging							
Product quality and safety							
Leadership and Governance							
Systemic risk management							
Accident and safety management							
Business ethics and transparency of payments							
Competitive behavior							
Regulatory capture and political influence							
Materials sourcing							
Supply chain management							
Sector Level Map		Not likely to be material for any of the industries in the sector					
		Likely to be material for less than 50% of the industries in the sector					
		Likely to be material for more than 50% of the industries in the sector					

Source: www.SASB.org

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