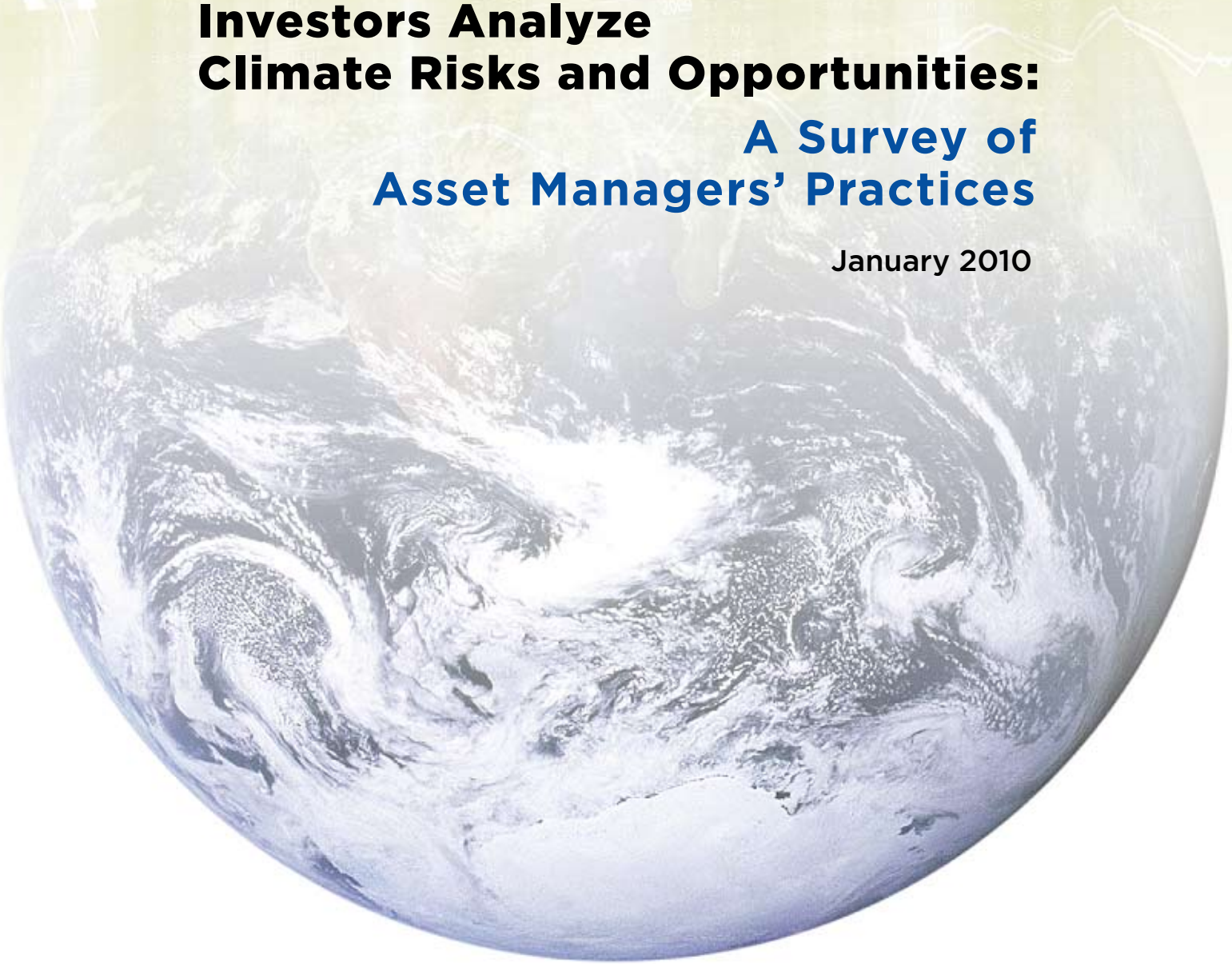
Investors Analyze Climate Risks and Opportunities:

A Survey of Asset Managers' Practices

January 2010



A publication of

Investor Network on CLIMATE RISK

Commissioned by

Ceres

Authored by

Kirsten Snow Spalding

Ceres commissioned this report. The opinions expressed in this report are those of the author and do not necessarily reflect the views of the sponsors.

Ceres is a national coalition of investors, environmental groups and other public interest organizations working with companies to address sustainability challenges such as global climate change. Ceres directs the Investor Network on Climate Risk, a group of more than 80 institutional investors from the US and Europe managing approximately $8 trillion in assets.

Report author, Kirsten Snow Spalding is the California Director of Ceres and an independent policy consultant. She works with members of the Investor Network on Climate Risk on their initiatives and represents Ceres on the West Coast for all Ceres' programs. Prior to joining Ceres, she served as Chief Deputy Treasurer under California Treasurer Phil Angelides and Executive Director of the Treasurer's environmental financing authorities. Ms. Spalding worked in the labor movement as Chief of Staff for the California Labor Federation, AFL-CIO and chaired the Center for Labor Research and Education at University of California, Berkeley. She taught at Boalt Hall School of Law and practiced labor law representing unions and their Taft-Hartley benefit plans in federal courts in California and Washington DC. She holds a BA from Yale College and a JD from Hastings College of Law.

Acknowledgements

The author thanks California State Controller John Chiang and Cal PERS and Cal STRS for leading the INCR Asset Manager Survey Working Group that undertook this project and provided assistance in developing this survey and valuable feedback on drafts of this report. Members of the INCR Asset Manager Survey Working Group are: CalPERS, CalSTRS, California State Controller's Office, Connecticut State Treasurer's Office, Florida State Board of Administration, New York State Comptrollers' Office and Pennsylvania State Treasurer's Office.

The author also thanks Peyton Fleming, Chris Fox, Sharlene Leurig, Mindy Lubber, Andrea Moffat, Matthew Moscardi, Veena Ramani and Ariane van Buren of Ceres and Julie Gorte, Ceres Board Member and Senior Vice President of Pax World, for their valuable feedback on drafts of this report.

Cave Dog Studio designed and produced the final report.

Ceres, Inc.
99 Chauncy Street
Boston, MA 02111

www.ceres.org

Investors Analyze Climate Risks and Opportunities:
A Survey of Asset Managers' Practices

Table of Contents

EXECUTIVE SUMMARY

There is a strong scientific consensus that global climate change is underway, with rising greenhouse gas (GHG) emissions caused by human activity being a major contributor. Rising global temperatures are having significant impacts on ecosystems worldwide, causing increased ocean temperatures, glacial and sea ice melting, rising sea levels and more frequent and prolonged extreme weather events. Efforts to reverse this trend are triggering new regulations in the U.S. and other countries to reduce GHG emissions – efforts that will include explicit carbon emission limits that will encourage low-carbon technologies and discourage higher-polluting technologies. All of these trends will have far-reaching ripples on numerous business sectors and the financial institutions that invest in them. The bottom line is clear: Companies, investors and the rest of the capital markets will all need to respond to the ever-increasing business risks and investment opportunities from this fast-emerging 'carbon-constrained' global economy.

Ceres conducted a survey in early 2009 of the world's 500 largest assets managers, according to the 2008 *Pensions and Investments Survey*, to learn how they are responding to these trends and how they are considering climate risks in short- and long-term decisions.[1] Ceres considers climate risks a key example of environmental, social and governance (ESG) risks and while this survey was focused specifically on climate risks, many of the findings and recommendations are also be applicable to other ESG risks.

The report highlights specific best practices that asset managers are using to incorporate climate risks into their due diligence, corporate governance and portfolio valuation. It also outlines questions that institutional investors can be asking asset managers – in requests for proposals (RFPs) and in annual performance reviews – to better ensure that managers are giving climate change risks and opportunities the attention they deserve.

In summary, the survey found only a few asset managers – MFS Investment Management and F&C Asset Management plc, among those – that are including climate risks and opportunities throughout their investment analysis – in their asset allocation, portfolio valuation, and corporate governance due diligence. Like companies that are rethinking and retooling their business strategies in response to climate change, these asset manager leaders are positioning themselves to capture the opportunities and understand and manage the risks of climate change across their portfolios.

The vast majority of respondents – 84 asset managers managing $8.6 trillion completed the survey, including 66 in the *P&I 500* and 18 others – are in the preliminary stages of including climate risk in their due diligence. Most consider

1. *Asset Manager Survey on Climate Risk Practices* (Boston: Ceres, December 2008), appendix A.

these issues in a subset of their portfolios or take a very narrow view of climate risks, considering only litigation risk or regulatory risk when deciding whether to invest in a company. An even smaller percentage of the respondents factor climate regulations, litigation, competitiveness or physical risks when conducting security valuations.

Nearly half of the asset manager respondents – 44 percent – said that they do not consider climate risks at all because they do not believe that climate change is material to their investment decision making. This stance, that climate risks are not material, stands in stark contrast from the increasing number of corporations who are identifying climate issues as material risks in their required financial reporting.

This Ceres report is not intended to point fingers at asset managers that are just beginning climate risk analysis but rather recognizes that more action is required from both asset managers and institutional investors. Climate-related business trends are happening rapidly, with companies, financial market players and policymakers all just beginning to analyze and respond to these changes.

Companies are still developing protocols for reporting on their carbon emissions and the risks and opportunities that they face. These disclosures, while more and more prevalent,[2] are still voluntary and are by no means consistent or universal. The SEC is currently giving serious consideration to repeated investor requests for interpretive guidance on material climate risks companies should be disclosing and action from the SEC is anticipated. On a closely related front, the SEC issued new staff guidance in October 2009 that will make it easier for investors filing shareholder resolutions to seek explicit information from companies on bottom-line risks they face from climate change and other environmental and social issues.[3]

A key problem identified in the report is that asset owners, such as pension funds, governments, and other private institutional investors, are only just beginning to ask their asset managers to include climate risk and opportunity analysis in their investment due diligence. This is hugely important because nearly half – 49 percent – of the survey respondents said they did not analyze climate risks because their investor clients did not ask them to. Another shortcoming identified in the report: Incentive structures and benchmarks that asset owners use for evaluating asset managers are heavily weighted toward short-term performance focusing primarily on quarterly returns where climate risks are far less likely to show up.

2. The Carbon Disclosure Project, which sends a climate change questionnaire to corporations annually (on behalf of 475 investors with $55 trillion in assets), has seen the number of companies responding rise from 235 in 2003 to 2,500 in 2009. Participation by companies in the Standard and Poor's 500 increased from 263 in 2006 to 332 responses in 2009, representing 66% of the S&P 500. (Source: www.cdproject.net)

3. SEC staff bulletin, (http://sec.gov/interps/legal/cfslb14e.htm)

A key purpose of this report is to catalyze a closer dialogue between asset managers and other players in the investment community – the companies they own, their institutional investor clients, the SEC and others – to develop best practices for corporate disclosure, Wall Street analysts, rating agencies and other key market drivers.

The report suggests next steps and key recommendations for assets managers and asset owners, many of which are members of the Investor Network on Climate Risk (INCR), a network of 80-plus institutional investors with collective assets totaling about $8 trillion.

Asset Managers and others in the investment community can work together on best practices for analysts' due diligence, corporate disclosure, rating agencies and other key market drivers.

The recommended actions for asset managers include:

1. Conduct climate risk assessment as part of the due diligence process for all investments. Incorporate climate risks into risk parameters. Engage with companies, and incorporate company-level data about climate risks into the investment analysis. Train investment staff to analyze these risks.
2. Include a statement about climate risks and opportunities in the manager's investment policy or other analyst guidelines.
3. Incorporate climate risk in the evaluation of a company's corporate governance.
4. Adopt a proxy voting policy on climate change and other environmental, social and governance resolutions.
5. Engage with the SEC and other policy makers to encourage full disclosure of climate and other sustainability risks.

The recommended actions for institutional investors include:

1. Analyze climate risks in the investment portfolio in partnership with consultants, asset managers, the companies they own and credit rating agencies. This process could include surveys of external asset managers or dialogues with asset managers as part of the request for proposals or other hiring process or as part of managers' performance reviews.
2. Train staff and managers around climate risk due diligence and in reviews of corporate governance practices. Trained and engaged internal investment management staff will be positioned to further identify best practices in this arena in collaboration with companies and external consultants and managers.
3. Adopt sustainability policies to guide all of the institutional investor's advisors and asset managers including a statement of investment principles, a climate change governance framework and proxy voting guidelines on climate change and other environmental, social and governance resolutions.
4. Engage with the SEC and policy makers to encourage full disclosure of climate and other sustainability risks.

INTRODUCTION

The central underpinning of this Ceres report is the scientific and investment case on why and how climate change poses material risks to companies across numerous business sectors. There is now an overwhelming scientific consensus that human activity is contributing to the earth's warming. In 2007, the Intergovernmental Panel on Climate Change (IPCC), a scientific body established by the World Meteorological Organization and the United Nations Environment Programme, found that evidence of warming is unequivocal and that most of the observed increase in temperatures since the mid-20th century is "very likely" due to an increase in greenhouse gas concentrations caused by human activity.[4]

The IPCC report describes substantial changes in the physical environment that will likely occur over the next few decades as a result of unmitigated climate change. Temperatures can be expected to increase by two to five degrees Celsius. Some studies show a 20% chance that temperatures will increase by more than five degrees between 2030 and 2060 unless corrective action is taken. Indeed, the IPCC study shows that sea ice loss, sea level rise, and significant impacts on human health and ecosystems can occur more rapidly than previously believed.[5] Precipitation patterns will change substantially, increasing the likelihood of droughts and floods as well as the intensity (and possibly the number and location) of hurricanes. Climate change will increase the "risk of abrupt and large-scale changes in the climate system," including significant sea level rise.[6]

Not only will these aspects of climate change create real physical risks for companies and their insurers, but also policies enacted to slow the impact of climate change will require pollution reductions for industries that are major emitters of GHGs, such as the electric power, coal, oil and gas, and transportation sectors.

Policymakers have responded to the scientific evidence by adopting measures designed to mitigate climate change. At an international level, the *Kyoto Protocol* requires the 37 developed countries that have ratified the treaty to reduce their emissions of six GHG pollutants by various amounts from 1990 levels, to result in a 5.2% aggregate reduction by 2012.[7] Negotiations commenced in Copenhagen in December 2009 for a successor agreement.

At a national level, countries around the world have implemented measures to meet emission-reduction targets. In 2005, the European Union Greenhouse Gas Emissions Trading program created a trading market for GHG emissions applicable to over 10,000 facilities in six industry sectors in 25 EU member countries. Emitters are allocated emission allowances; those whose emissions exceed their limits must buy allowances to make up the difference, while those

4. http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg1_report_the_physical_science_basis.htm
5. Ibid.
6. http://www.globalchange.gov/component/content/article/67-themes/151-abrutp-climate-change
7. http://unfccc.int/kyoto_protocol/items/2830.php

whose emissions are below their limits may sell their excess allowances.[8]

In the United States, significant climate policy developments have occurred at the federal, regional and state levels. President Obama has announced a goal of reducing carbon dioxide emissions to 14% below 2005 levels by 2020 and to approximately 83% below 2005 levels by 2050.[9] As of October 2009, the House of Representatives had passed the *American Clean Energy and Security Act of 2009*, a comprehensive energy and climate bill, and the Senate was considering a similar version of the bill.[10] Already, the federal Environmental Protection Agency (EPA) has finalized a national system for reporting GHG emissions, which many view as the first step in regulating emissions under existing law.[11] In April 2009, the EPA issued a proposed finding that GHGs endanger public health and welfare, potentially setting the stage for litigation around emissions.[12]

Ten Northeastern and Mid-Atlantic states have implemented a regional compact to reduce emissions from the power sector by 10% by 2018 using a cap-and-trade approach.[13] This binding cap took effect in January 2009. Seven U.S. governors and four Canadian provincial premiers in the West have undertaken to create a Western Climate Initiative, whose objective is "to identify, evaluate, and implement collective and cooperative ways to reduce greenhouse gases in the region, focusing on a market-based cap-and-trade system."[14] Nine Midwestern governors and two Canadian premiers agreed to participate in or observe the Midwestern Greenhouse Gas Reduction Accord, which aims, among other goals, to set GHG reduction goals and develop a cap-and-trade emission-reduction program.[15]

Finally, more than half of the states have implemented measures aimed at mitigating climate change. These initiatives include renewable energy portfolio standards for electric power generators, GHG emission-reduction targets, and statewide cap-and-trade systems.[16]

Climate change and measures adopted to address it can affect companies in myriad ways, depending on the nature and location of their businesses, their near-term capital expenditure needs, the regulatory environments in which they operate, and their strategic plans. But clearly companies with exposed assets or business operations will experience severe physical impacts. In particular, the increasing incidence of extreme weather under a warming climate is already placing major strains on the insurance industry.[17] A wide variety of other ongoing and expected consequences of climate change – coastal damage due to sea level rise and

8. http://ec.europa.eu/environment/climat/emission/index_en.htm
9. http://www.whitehouse.gov/omb/assets/fy2010_new_era/A_New_Era_of_Responsibility2.pdf
10. http://energycommerce.house.gov/index.php?option=com_content&task=view&id=1560&Itemid=1
11. http://www.epa.gov/climatechange/emissions/ghgrulemaking.html
12. http://www.epa.gov/climatechange/endangerment.html
13. http://www.rggi.org/about
14. http://www.westernclimateinitiative.org/
15. http://www.midwesternaccord.org/midwesterngreenhousegasreductionaccord.pdf
16. http://www.pewclimate.org/states-regions
17. http://www.ceres.org/Document.Doc?id=417

more frequent hurricanes, water shortages, increased number and intensity of heat waves, and changes in precipitation – may pose risks for specific industries and firms.[18]

In high-emission sectors, companies that develop low-carbon products, clean energy technologies, and efficient manufacturing and shipping processes will see favorable impacts from policy changes, while companies that are slow to innovate may lose "market share.

As an example of the ripple effects of climate risks, five of the world's largest financial institutions have adopted the Carbon Principles, a roadmap for banks and utilities to evaluate and mitigate climate risks in lending to electricity generation projects.[19] These financing entities acted out of concern about the long-term viability of high-emission electricity generation. The Carbon Principles initiative could increase the cost of financing high-emission enterprises if lenders demand more favorable terms to compensate them for potential liability, or if they simply avoid financing high-emitting projects. In contrast, utilities that are investing in energy efficiency and cleaner renewable energy may face fewer material risks related to climate change regulation. These utilities may benefit from lower financing costs and higher market share, as emission regulations and renewable portfolio standards take effect.

Companies and investors may also be affected by regulatory risks, such as new regulations that lead to increased demand for energy-efficient products and manufacturing processes. For example, stronger fuel-economy regulations will lead automakers to provide more fuel-efficient vehicles.[20] Other government actions and programs can indirectly affect companies. The "cash for clunkers" program, for example, did not apply to automakers but created a demand for them to produce more efficient cars. Companies may also be exposed to indirect risks through their procurement decisions, according to the findings of a recent report[21] that surveyed corporate efforts to identify and mitigate indirect risks stemming from GHG emissions and energy use in their supply chains.

In addition, companies may be at risk from litigation related to climate change. The number of climate-related lawsuits filed in the United States has grown steadily in recent years, with a total of about 100 filed through 2007.[22] Many lawsuits have focused on corporations that are major emitters of global warming pollution; some seek to make such companies pay damages for their contributions to climate change, creating clear risks to performance.[23]

18. http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_Ch10.pdf
19. http://www.carbonprinciples.org
20. https://www.citigroupgeo.com/pdf/SNA41155.pdf
21. http://www.redprairie.com/upload/documents/industry_reports/CDP_Report_SupplyChain_09D.pdf
22. Nathanial Gronewold, "Lawyers See 'Growing Legal Storm' over Emissions Trading," Climate Wire, Aug. 12, 2008.
23. Michael B. Gerrard, ed., *Global Climate Change and U.S. Law* (Chicago: American Bar Association, 2007).

ASSET MANAGER SURVEY

The prudent investor rule that governs both asset managers and most institutional investors[24] requires that fiduciaries responsible for investing on behalf of others evaluate and manage risks that are material to their operations and performance. The very core of fiduciary duty is that the fiduciary primarily consider the tradeoff between risk and return. Climate change is, for many companies, a clear material risk. As companies begin to acknowledge and proactively manage these risks, investors and their asset managers must seriously consider climate risks as part of their due diligence review of their investments.

The very core of fiduciary duty is that the fiduciary primarily consider the tradeoff between risk and return. Climate change is, for many companies, a material risk.

Ceres conducted the survey of asset managers in late 2008 and early 2009 asking them how they incorporate climate risks and opportunities into their investment decision-making. The survey was designed to capture both quantitative responses (percentages of respondents who are engaged in specific due diligence practices) and qualitative responses about how respondents are thinking about climate risks and incorporating them into their investment analysis.

A key purpose of this report is to catalyze a closer dialogue between asset managers and other players in the investment community – the companies they own, their institutional investor clients, the SEC and others – to develop best practices for corporate disclosure, Wall Street analysts, rating agencies and other key market drivers.[25]

The survey was sent to the 500 largest investors identified in the 2008 *Pensions and Investments* money manager survey. Members of the Investor Network on Climate Risk also sent the survey to their managers, asking them to respond. The public INCR website posted the survey as well, encouraging asset managers to participate. The survey was conducted between November 2008 and January 2009.

In total, 84 asset managers responded to the survey. This 17% response rate is high and indicative of strong interest in the subject by asset managers. The sample, while certainly not comprehensive of all the variations in asset manager practices, is large enough to provide a snapshot of a range of practices that may be considered representative of current asset managers. Of those who responded, 66 (79%) were from the *Pensions and Investments* top 500 list. The remaining 18 (21%) were either directed to the survey by investors or were self-motivated to respond after hearing about the survey from INCR staff, newsletters, web pages, or other asset managers.

24. The prudent investor rule has been articulated in the Uniform Prudent Investor Act and adopted with minor variations by most states as part of the trust laws that apply to asset managers and other fiduciaries charged with investment decisions. The rule has also been adopted as the investor standard in the federal Employee Retirement Income Security Act. Uniform Prudent Investor Act (Chicago: National Conference of Commissioners on Uniform State Laws, 1994).

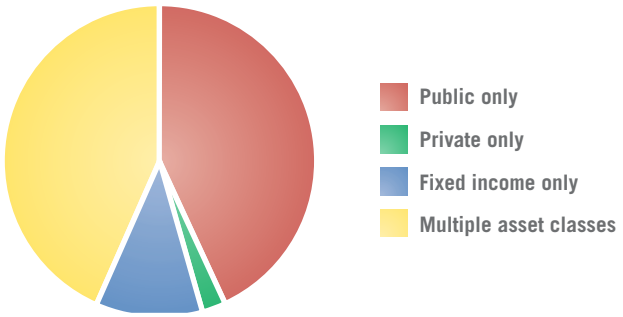
25. Ceres considers climate risk a key example of Environmental, Social and Governance (ESG) risks and while this survey was focused specifically on climate risks, many of the findings may also be applicable to other ESG risks.

For the categories of respondents, see table 1 and figure 1.

Table 1: Respondents by Type of Assets Under Management

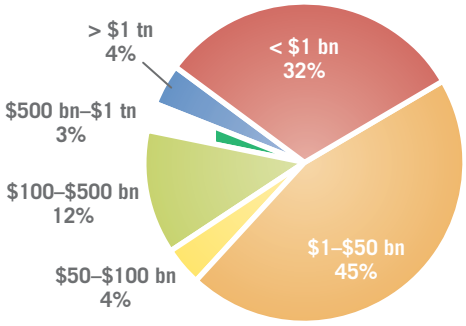
Type of Assets Managed	Percentage of Respondents
Public equity assets	85% (43% solely in public equities)
Private equity assets	19% (3% solely in private equities)
Fixed-income assets	49% (11% solely in fixed-income assets)
Multiple asset classes	43%

Figure 1: Respondents by Sole Asset Type and Mixed Assets



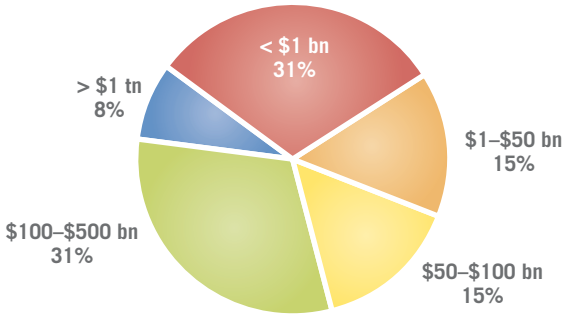
The managers who responded ranged in the size of assets under their management from $100 million to more than $1 trillion. See figure 2.

Figure 2: Respondents by Amount of Assets under Management



Respondents were asked whether they manage any "green" investment funds, defined as a fund with a strategic priority related to climate change – for example, funds that focus on investments in climate change opportunities or funds that screen out investments facing climate risks. Only 14 (19%) responded that they manage a green fund by this definition. These "green" fund managers had the same range in size of assets as other respondents but different percentages of each size level. See figure 3.

Figure 3: Green Fund Managers by Amount of Assets under Management



The Ceres staff analyzed the survey, and members of the INCR working group who had designed the survey reviewed the analysis. While staff had access to the identities of individual respondents, confidentiality of individual responses was maintained with investors and other asset managers throughout the report-drafting process. Where individual respondents are mentioned in the report by name, they have given their consent to being identified in the report. The survey questionnaire is included as appendix A. The complete list of respondents is included in appendix B.

The key findings from the Ceres survey demonstrate that asset managers, like companies, asset owners, banks and other market players, are just beginning to include climate risks in their decision-making. Some are making significant changes to their analytical processes and others are considering these as an afterthought. Below are some of the key findings:

Key Findings

1. Nearly three-quarters of asset managers do not expressly consider climate risks in their due diligence process.
2. Firms that offer "green" investment products are more likely than traditional asset managers likely to analyze climate risks for all their investments. However, not all asset managers offering green investment products conduct analysis of climate risks for all investments.
3. Asset managers respond primarily to investor requests in considering climate risks.
4. Half of all asset managers believe that some sectors have significant exposure to climate risks. Yet nearly half of those do not conduct climate risk analysis in their due diligence process.
5. Asset managers are more likely to consider climate litigation and climate regulation risks than other types of climate risks when they make investment decisions and when they assess company valuation for portfolio construction.

6. One-third of the asset managers have specialized expertise in analyzing climate risks. More than one-quarter of respondents use third-party research instead of, or in addition to, staff expertise.
7. When asset managers look at corporate-level climate risks data, more than four-fifths look at financial filings, and almost three-quarters rely on sustainability reports.
8. Less than one-third of asset managers incorporate climate risk into their corporate governance analysis. Even in sectors where asset managers believe that climate risks may be important, three-quarters have not changed their analysis of governance to include those risks.
9. Fewer than one-third of asset managers have proxy voting policies for shareholder resolutions on climate change (which are typically grouped with other environmental resolutions).

These findings suggest next steps and best practices for asset managers and for institutional investors. Recommendations and Best Practices follow the Survey Analysis in the sections: "Actions for Institutional Investors" and "Actions for Asset Managers." Best practices from the narrative responses to the survey are given as examples of how asset managers are implementing these recommendations. Appendix C provides institutional investors with a list of questions to ask of their prospective and current asset managers as a way to begin a dialogue about how best to incorporate climate risks into investment and corporate governance analysis. The Recommendations and Best Practices section in combination with the questions in appendix C can be used as a toolkit for institutional investors and asset managers or as a training guide for institutional investors' staff and managers who are talking with asset managers about these issues.

SURVEY ANALYSIS

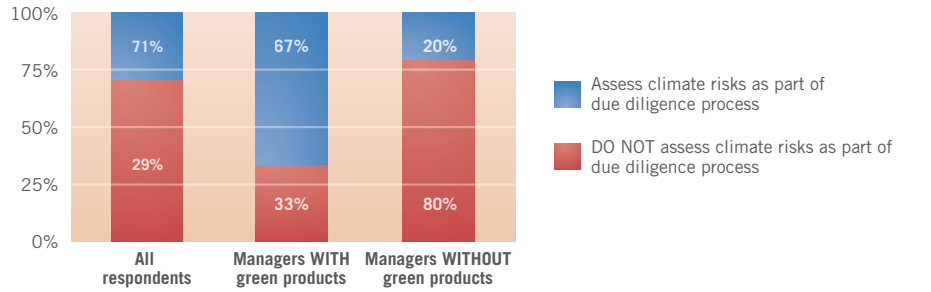
KEY FINDING 1: Nearly three-quarters of asset managers do not expressly consider climate risks in their due diligence process.

Climate risks include physical risks to companies and their supply chains due to climate change; risks of changing local, national, and international regulations related to climate change; litigation risks; reputational risks; emissions disclosure risks; and competitiveness risks. Given this broad definition of climate risks, respondents were asked, "For investments that are not specifically in 'green' investment funds, does your firm conduct climate risk assessment as part of the due diligence process for a company, project, or fixed-income asset in which you are making an investment?" Of all survey respondents, 71% said that they do not conduct climate risk assessment when they are not marketing a "green fund." Respondents in this category manage an aggregate of $4.5 trillion, more than half of the total assets that respondents manage. Those who do consider climate risk varied by size of assets managed from $64 million to $1.26 trillion.

KEY FINDING 2: **Firms that offer green investment products are more likely than traditional asset managers to analyze climate risks for all investments. However not all asset managers offering green investment products conduct analysis of climate risks for all investments.**

Managers who offer a green investment product are more likely to assess climate risks even in their "non-green" or traditional products (66.7% did) but do not necessarily assess those risks as part of their due diligence for non-green investments (33.3% did not). Only 20% of respondent managers who did not offer green investments assessed climate risks, while 80% did not. See figure 4.

Figure 4: Percentage of Managers Who Assess Climate Risks



KEY FINDING 3: **Asset managers respond primarily to investor requests in considering climate risks.**

More than half of the managers (60%) responded that they do not look at corporate-level data on climate change as they make investment decisions. Respondents gave multiple reasons: 49% said that investors do not ask for it, and 44% said that climate risk doesn't have material impacts on the companies they analyzed. A few other responses came from firms that do only quantitative analysis that does not include fundamental company research.

The narrative responses about asset managers' due diligence processes reflect their fundamental beliefs about when or whether climate risks will affect the value of their holdings. The range of responses included some from managers who do not believe that climate risks matter.

One manager who does not consider climate change reflected, "We do not attempt to forecast beyond a few years when choosing stocks, so long-term climate change expected over decades is not factored into expectations about business results outside of legislative or regulatory activities."

But some managers take these risks very seriously. One respondent noted: "Our operating premise is that climate change, along with the governmental response to it, will fundamentally reshape valuation for a broad selection of the global economy."

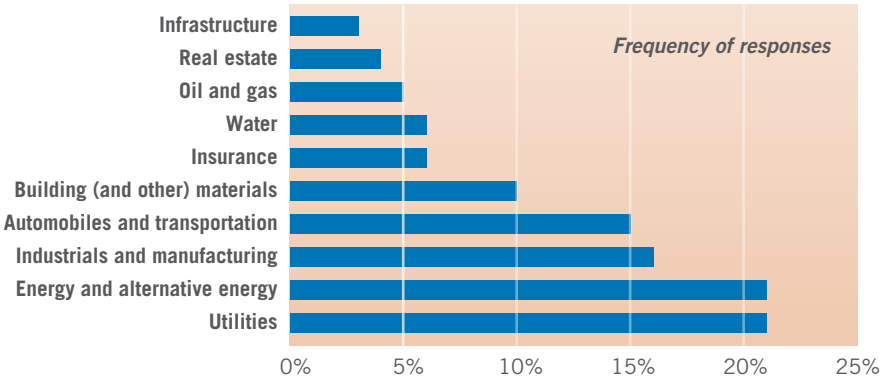
> Some managers consider climate risks only at the request of their investors: "The due diligence process depends on account-specific guidelines. Some clients have provided [us] with directives on environmental-based positions, and [other] restrictions.… These directives typically include a list of prohibited investments provided by the client."

Another noted: "We will restrict along green guidelines per client request, but this is not an active component of our investment process."

KEY FINDING 4: Half of all asset managers believe that some sectors have significant exposure to climate risks. Yet nearly half of those do not conduct climate risk analysis in their due diligence process.

Managers identified a combination of high-risk and high-opportunity sectors: utilities, energy and alternative energy, industrials and manufacturing, automobiles and transportation, building (and other) materials, insurance, water, oil and gas, real estate, and infrastructure. See figure 5.

Figure 5: Sectors for Climate Risk Analysis Identified by Respondents



Of the respondents who considered the consequences of climate change particularly significant within certain sectors, nearly half (47%) nonetheless indicated that they did not conduct any analysis of climate risks or opportunities in their due diligence process.

While some climate risks apply to all investments (regulatory risk, litigation risk, physical risk, or costs of carbon), survey respondents identified some specific climate risks for specific sectors. The risks for each sector and each company within the sector were too specific to be identified in the survey, but a sample of particular risks illustrates the need for analysts to focus on specific sectors with an understanding of the impacts of climate change on that sector. Risks identified in the survey included "the economics of high energy prices, and the feasibility of current and future energy sources, …the economic feasibility of Canadian oil sands, Liquefied Natural Gas

'LNG,' and alternative energy sources,… [and] factors involving catastrophe and environmental change, such as hurricane risk, pollution, drought, and ice-free Arctic shipping lanes."

One manager specifically highlighted "required capital expenditures to reduce emissions and the potential cost of buying credits to offset excessive emissions." Another framed the risk this way: "Such impacts might be in the form of additional capital expenditure for pollution abatement, for example, or perhaps an increased opportunity to sell pollution-abatement equipment."

Henderson Global Investors described specific risks in the health sector: "Within our health theme [we are] looking at how climate change will shift patterns of disease." In industries driven by consumer demand, Henderson noted, "At a consumer level, the response will also be seen in a number of areas, such as food (e.g., as demands for bio-fuels conflict with drought-induced cereal price rises), and housing standards (e.g., whether levels of subsidy will induce adoption of solar panels or chip boilers, or whether energy saving through insulation and product switching can be incentivized). Longer term, provision of potable water remains a widespread issue which may be made more difficult by climate change effects."

Many managers noted sectors in which obvious opportunities relate to the mitigation of climate change impacts, such as alternative energy sectors and energy-efficiency technologies.

KEY FINDING 5: Asset managers are more likely to consider climate litigation and climate regulation than other types of climate risks when they make investment decisions and when they assess company valuation for portfolio construction.

Following the *Global Framework for Climate Risk Disclosure*,[26] the survey defined "climate risks" as including:

- physical risks to companies due to climate change,
- climate litigation and/or environmental litigation,
- greenhouse gas emissions and/or emission-management policies, and
- competitiveness for products/services due to climate change.

26. In October 2006, a group of leading institutional investors from around the world released the *Global Framework for Climate Risk Disclosure* – a statement on disclosure that investors expect from companies. Investors require this information in order to analyze a company's business risks and opportunities resulting from climate change, as well as the company's efforts to address those risks and opportunities. The Framework encourages standardized climate risk disclosure, to make it easy for companies to provide the information and for investors to analyze it and compare companies. A copy of the Framework is available from Ceres or on the Ceres website at http://216.235.201.250//Document.Doc?id=73. It is also included in this report as appendix E.

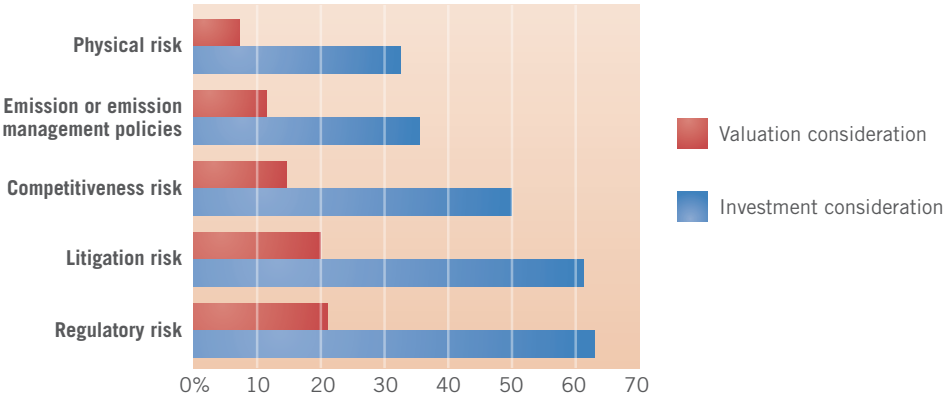
Ceres asked managers whether they consider these risks at two points in their investment analysis: (1) when making their initial investment decisions, and (2) when conducting their security valuation analysis.

Managers responded that they are more likely to consider regulation and litigation than the other types of climate risks and that they give these factors more weight in the decision to invest than in the valuation calculations.

Almost two-thirds (63%) of the respondents indicated that they consider climate and/or environmental regulations in their decision to invest in a company. Nearly as many (62%) consider climate or environmental litigation in their decision to invest in a company. Half (50%) of the respondents indicated that they consider a company's competitiveness for products/services related to climate change when they make an investment decision, but only a third consider the physical risks to companies from climate change (33%) or the GHG emissions or emission-management policies (36%) of companies they are analyzing.

When determining fair valuation of an investment, managers indicated they largely do not factor climate risk into value metrics: 21.5% considered regulations, 20% considered litigation, 15% considered competitiveness risks, 12% considered emissions, and only 7.5% considered physical risks.

Figure 6: Which risks get included in investing decisions and valuations?



***KEY FINDING 6:* One-third of asset managers have specialized expertise in analyzing climate risk. More than one-quarter of respondents use third-party research instead of, or in addition to, staff expertise.**

Ceres asked managers what percentage of their investment management staff have specialized expertise in analyzing climate risk. Overall, 22.5% of the respondents indicated that they had specialized expertise on staff. Of the managers who conduct

climate risk analysis as part of their due diligence, 52% indicated they had full-time staff with climate related expertise. Interestingly, 23% of "green" fund managers indicated no staff expertise in climate risk; those firms all used third-party vendors to compensate for their lack of staff expertise.

Of the managers who indicated some specialized in-house expertise, 13% indicated that less than 10% of their staff had specialized expertise. Only 4% indicated that everyone on their investment staff had some specialized climate-risk expertise.

When asked to describe their expertise, managers offered narrative responses that fell into three categories: (1) sectoral expertise (clean technology, energy and alternative energy, chemicals and resources, and water and water treatment); (2) climate risk and climate opportunity work experience (socially responsible investment [SRI] asset managers are generally focused on sustainability issues or on doing environmental, social, and governance [ESG] analysis); and (3) higher degrees and certifications (environmental engineering and science advanced degrees and Leadership in Energy and Environmental Design [LEED] certification).

From the narrative responses, it appears that some asset managers dedicate their analysts with special expertise to certain sectors, but others share their expertise across the firm by producing internal research reports on the impacts of climate in a given sector. F&C Asset Management plc gave examples of how it does sectoral research and shares the findings with analysts throughout the firm: "We have produced a number of research reports which describe our analysis process. These include *F&C Guide to Carbon Offsetting* (June 2007); *In the Front Line: The Insurance Industry's Response to Climate Change* (September 2007); 'Accounting for Climate Change: A Window on the Future,' *Harvard Business Review* (October 2007); *Biofuels and Sustainability: An Investor Perspective* (February 2008)."

For the 28% of asset managers who used outside vendors to quantify investment risks or provide climate risk expertise, the most common vendors were Innovest (40%), RiskMetrics (25%) and KLD (35%) (these three are now combined), Carbon Disclosure Project (25%), and Trucost (10%).[27] These advisers provide a range of services, from quantifying climate risks, to ranking companies based on sustainable corporate governance, to providing tools for assessing energy efficiency and green building. More than two-thirds (70%) of the managers who used outside vendors relied on multiple vendors.

27. Note that the Carbon Disclosure Project is a nonprofit organization that publishes data about reporting but is not a traditional investment advisory firm. Other named providers were Acclimatise, ASSET4, Blackstone Consulting, Ceres, Chelsea Group, Chevreaux, Citigroup, Deutsche, Eiris, Energy Star, Governance Metrics International, Greater Philadelphia Commercial Recycling Council, Institutional Shareholder Services, Interfaith Center on Corporate Responsibility, Land America, Real WinWin, Sustainable Holdings, UGL, and Unnico.

KEY FINDING 7: When asset managers look at corporate-level climate risk data, more than four-fifths look at financial filings, and almost three-quarters rely on sustainability reports.

Most managers who consider corporate disclosures around climate risk use data from SEC filings (83%) and look at sustainability reports (72%). Beyond those disclosures, 52% of the managers surveyed also use Carbon Disclosure Project Survey responses, and 31% use Ceres benchmarking or industry reports. Most (72%) use multiple sources for their analyses.

Several managers discussed the need for the companies that they are analyzing to provide more disclosures about specific climate risks.

Several managers discussed the need for the companies that they are analyzing to provide more disclosures about specific climate risks. MFS Investment Management said: "[We] encourage companies to adopt the Global Reporting Initiative sustainability reporting guidelines to allow apples for apples comparisons between businesses in different sectors and countries." Some require companies to answer specific questions: "We have a questionnaire with various questions addressing the company's exposure to climate change. The questions involve subjects such as a company's greenhouse gas emissions/policies and other environmental factors related to water usage and biodiversity. We also review a company's reporting on climate change, management responsible for climate change issues, related media, and stakeholder events, including litigation and climate change regulation that may affect the company. In addition, the company's products, services, and markets are reviewed to see how they will be affected by climate change. The questionnaire and various reviews are completed for companies that we consider for investment."

Several managers also noted that, if their analysis raised issues of significant climate risks, they would bring these concerns to corporate management before they made investment decisions: "Our research is conducted for commercial rather than intellectual purposes, so we try and evaluate these issues in the context of whether or not they will have a meaningful impact on shareholder value creation at a company level, and do not seek to separate these issues from any 'mainstream' financial research work – we do not believe that they are separable. [We conduct] a programme of supplementary engagement with companies where these issues need further discussion."

Many of the asset managers surveyed indicated that, in sectors where they believe climate risk is a material risk factor during their expected investment time horizon, they assess the quantity and quality of a company's disclosures on climate relative to its peers.

As one manager put it, "It is abundantly clear that major companies must address the climate change lobby, governments, and other parties interested in their approach to carbon management and environmental impact. We wish to invest

in great companies that make sustainable products or offer services in the same manner, and which shall not fall foul of legislation, impair its business, or attract adverse media scrutiny. Thus we incorporate companies' responses to these issues along with all other material factors."

KEY FINDING 8: **Less than one-third of asset managers incorporate climate risk into their corporate governance analysis. Even in sectors where asset managers believe that climate risk may be important, three-quarters have not changed their analysis of governance to include that risk.**

Of the managers surveyed, 29% responded that they incorporate climate risk into their analysis of an individual company's governance practices. In narrative responses, these managers explained that they look for board attention to climate risks (including the creation of board committees). Some look carefully at proxy information; others focus on the quality and quantity of disclosures about climate risks.

Managers indicated deference to a company's analysis and strategy on how to handle climate risks and opportunities, but they also looked for evidence that the company was taking these issues seriously. As F&C Asset Management plc put it, "Companies should determine how key environmental drivers fit into their core business strategy and open up opportunities to add value – or avoid costs – for shareholders. As part of this process companies should identify, assess, and manage their environmental impacts. We look for evidence that companies are taking these risks and opportunities seriously. This may include ensuring that the issues are a subject for discussion at board level, and in some cases the creation of board committees specifically responsible for the management of environmental risks."

How asset managers overlay corporate governance analysis with climate risk analysis appears to fall into five categories:

1. Create corporate governance databases that include climate risk information for use by portfolio managers.
2. Give a corporate governance "score" to a company or consult with the corporate governance team within the firm on an ad hoc basis when making the investment decision.
3. Operate within specific corporate governance guidelines that include climate risk factors set by their investors (see box below).
4. Conduct environmental, social, and governance (ESG) analysis as part of routine due diligence (see box below).
5. Consider corporate governance issues around climate a marker for poor governance in other areas (see box below).

For example, the Florida State Board of Administration issued a set of Investment Protection Principles that all managers must comply with. One survey respondent referred to these principles and indicated that it complies with the guidelines in every new or updated research undertaking on companies by "comment[ing] on the company's corporate governance policies and practices, [and] stat[ing] whether the company's sustainability report has been reviewed or that such information was not available." In each research report this respondent also "comment[s] on any environmental policies or issues that are notable or of concern." See appendix D, *Investment Protection Principles*, Florida State Board of Administration.

Managers who follow investor guidelines note that a company with poor governance practices will be unable to deal with the impact of climate change and therefore not likely to hold its value in the long run: "Corporate governance considerations such as executives' incentive structures and a board's ability to oversee the business are factors that are important in all industries. We believe consideration of these types of long-term risks is fundamental to developing a true understanding of any company."

"Primarily, this risk is reputational. A firm that has a poor reputation as a polluter etc. typically will trade at a lower stock price and incur a higher cost of capital. Through research and management interviews we challenge companies when potential reputational or headline risk becomes apparent to us. More often than not, we decide not to invest in such a company, as these risks also indicate poor governance and poor stewardship of firm and shareholder capital."

The survey asked managers if they analyzed companies in sectors that they had identified as facing "particularly significant climate risks or opportunities" differently from companies in other sectors based on their corporate governance approaches to climate change. 75% of the respondents said no. In spite of the fact that CalPERS and CalSTRS have incorporated the *Climate Change Governance Framework* developed by Ceres and RiskMetrics[28] into their governance policies, most asset managers are not focused on the five governance factors identified in the *Framework* – board oversight, management execution, public disclosure, emissions accounting, and strategic planning – in their corporate governance analyses, even within key sectors.

Some managers do, however, conduct in-depth research into a company's disclosures around climate risks and then overlay governance metrics to determine whether the company is a sound investment: "Internally, each analyst reviews the company's sustainability report each year and identifies and comments on any significant issues. Externally we use the services of Governance Metrics Inc. for all corporate governance issues. Within these reports we are provided with a rating from Innovest ranking the company's ability to deal with climate change issues."

28. *The Climate Change Governance Framework* was published by Ceres as part of the report *Corporate Governance and Climate Change: The Banking Sector* (Boston: Ceres, 2008). It is available from Ceres or downloadable from http://www.ceres.org//Document.Doc?id=269. It is also included in this report as appendix F.

Some managers, with a "green" focus incorporate these factors into all their governance analysis, including executive pay. Henderson Global Investors notes: "In our engagement work with companies, particularly those from high-impact sectors with strong sustainability profiles, we seek to encourage the incorporation of ESG targets (including specifically climate change) into executive incentive schemes and targets. For more information see our report 'Getting what you pay for: Linking executive remuneration to responsible long-term corporate success' available at: http://www.henderson.com/sites/henderson/sri/documentlibrary.aspx?phid=TabbedPHolder4."

KEY FINDING 9: Fewer than one-third of asset managers have proxy voting policies for shareholder resolutions on climate change (which are typically grouped with other environmental resolutions).

In general, respondents indicated that when they review shareholder proposals they look at the merits of each proposal and vote their proxies accordingly, but some managers indicated that when they see environmental, social, and governance (ESG) proposals, they ask the company questions about the resolutions and how the concerns raised by the proposal are being addressed or ask their proxy voting services for analysis of the issues raised by the proposal. Only 29% of respondents indicated that they have a proxy voting policy for environmental resolutions. One of these managers, Henderson Global Investors, indicated that they also consider whether executive remuneration schemes include ESG metrics.

Following the *Global Framework for Climate Risk Disclosure*, more and more companies are voluntarily disclosing risk information to their shareholders and the public. It is a two-way street – investors must ask companies for information, and companies must improve their disclosures to investors at annual meetings, in their sustainability reports, and in their financial filings.

Best Practices & Recommendations: ACTIONS FOR ASSET MANAGERS

1. Conduct climate risk assessment as part of the due diligence process for all investments. Incorporate climate risks into risk parameters. Engage with companies, and incorporate company-level data about climate risks into the investment analysis. Train investment staff to analyze these risks.

Best Practice Examples

MFS Investment Management: "As long-term investors we are aware that climate-related issues can impact businesses' sustainable returns, their cost of capital, and the valuation of their shares. [Our] analysts integrate non-financial factors, including climate-related factors, into their investment analysis to the extent we believe they are material to shareholder value. In particular, we find that ethically oriented, well-managed companies often achieve higher returns with less volatility over the years than other businesses. As a result they tend to have a lower long-term cost of capital and higher valuations versus peers. These characteristics are not always fully reflected in share prices, and our portfolios tend to overweigh quality companies, including those that do well in rankings based on ESG factors. Our investment team will raise ESG-related issues, among others, during meetings with company managements if we believe the discussion can enhance our understanding of the company's practices and goals to enhance shareholder value. Some of the issues we typically evaluate include corporate governance, including the level of independence of the board, shareholder-friendly orientation of managers, executive compensation, environmental stewardship, safety controls, risk management, and compliance with all relevant laws, regulations, and accounting principles. We support full disclosure on all issues by the companies in which we invest, including disclosures about ESG issues. [We] encourage companies to adopt the Global Reporting Initiative sustainability reporting guidelines to allow apples for apples comparisons between businesses in different sectors and countries."

Included in this report as appendix H are two case studies of due diligence processes that consider climate risks and opportunities as a core feature of their analysis. While these two examples could not serve as models for all asset managers, they suggest that institutional investors should make a commitment to educate their staffs about how managers conduct their due diligence, to begin a meaningful dialogue about how to incorporate climate considerations into the analysts' process.

To ensure robust analysis of climate risks, asset management firms should incorporate the following climate risks into the manager's "risk parameters":

- Climate regulation and/or environmental regulations
- Physical risks to companies due to climate change
- Climate litigation and/or environmental litigation
- Greenhouse gas emissions and/or emission-management policies
- Competitiveness for products/services due to climate change

These risks are all discussed in the *Global Framework for Climate Risk Disclosure* (see appendix E). As Ceres and INCR members encourage companies to disclose risks, asset managers and independent Wall Street analysts must be prepared to consider these disclosures in their analyses. INCR members clearly need to educate their staffs about the *Global Framework for Climate Risk Disclosure* and train staff and asset managers to use the disclosures in investment analyses.

INCR members clearly need to educate their staffs about the Global Framework for Climate Risk Disclosure and train staff and asset managers to use the disclosures in investment analyses.

Asset managers who take climate risks seriously incorporate all the risks listed above into their analysis. Asset managers with specialized staffs also must include analysis of risks that are specific to sectors significantly affected by climate change. Those without internal staff capacity must use outside vendors to help identify risks and rank companies within sectors.

F&C Asset Management plc discussed a robust system for sharing climate risk expertise throughout the firm: "Through presentations, individual stock analysis, and regular communications between teams, we are building the firm's analytical understanding of the implications of climate change for its investment decisions. We present an integrated assessment of F&C's opinions, including its views on climate change risks, to investee companies through joint attendance of governance and sustainable investment specialists and fund managers at company meetings."

In narrative responses, asset managers with a commitment to climate risk analysis indicate that they are not only looking at financial filings for litigation and regulatory risks but also demanding dedicated sustainability reports and pursuing issues with company management if they have questions about disclosures.

Those with robust review processes also refer to multiple outside reports, including the Carbon Disclosure Project Survey (https://www.cdproject.net/en-US/Results/Pages/responses.aspx), Ceres' reports, and RiskMetrics Group's and Governance Metrics' reports. For example, F&C and two other respondents all use multiple sources for company-level data on climate risks.

One manager indicated that it asks companies to use the Global Reporting Initiative format for their reports; other managers indicate that, if they have questions about disclosures, they engage in dialogues with the company about the areas of concern.

Two managers indicated that they comply with the Florida State Board of Administration guidelines when they comment on a company's corporate governance policies and practices and when they state whether the company's sustainability report has been reviewed or whether such information was not available. In each research report, these respondents also comment on any environmental policies or issues that are notable or of concern. (See appendix D for the Florida State Board of Administration's *Investment Protection Principles*.)

2. Include a statement about ESG risks and opportunities in the manager's investment policy or other analyst guidelines.

Best Practice Examples

"Our operating premise is that climate change, along with the governmental response to it, will fundamentally reshape valuation for a broad selection of the global economy."

Some managers' analysis includes research by a sustainability research team that specifically asks questions related to climate change: "The fundamental value of a company is rated through the financial analysis of our sector-based analysts. Our portfolio managers have access to all research carried out on a stock, and where a company has demonstrated poor environmental practice this will be reflected in the sustainability ratings and research of our Sustainability Research team. This would include consideration of risks of changing local, national, and international regulation related to climate change, litigation risk, reputational risk, emissions disclosure, and competitiveness risks. Where these issues, such as climate change, are material to the investment thesis driving a stock, the analysis of our Sustainability Research team is reflected within the fundamental votes assigned to companies by our sector analysts."

3. Incorporate climate risk in the manager's evaluation of a company's corporate governance.

Best Practice Examples

The Climate Change Governance Framework developed by Ceres and RiskMetrics outlines five areas for review of corporate governance around climate risk: board oversight, management execution, public disclosure, emissions accounting, and strategic planning. (See the *Framework* in appendix F.) Some of the survey

respondents indicated that they review these categories as part of their due diligence process. Those with robust corporate governance programs often integrate the five factors into investment decision making through dialogues with company management about areas of concern.

MFS Investment Management explained its process: "We proactively assess the positive impact on sustainable returns of managers who effectively allocate capital; encourage strong employee and social relations; engage in open, long-term discussions with shareholders; and adopt appropriate levels of transparency and corporate governance. On the other hand, we also assess the business risks that poor governance practices can have on valuations. Material risks include those associated with climate change among others (reputational and financial effects from shareholder conflicts, weak employee relations, executive remuneration, environmental fines, etc.). Often these issues are of particular importance for consumer businesses and those with government oversight or external regulators."

One asset manager explained its corporate dialogues: "Upon conducting our due diligence, we thoroughly question management teams with regard to the actions they are taking to benefit from or to mitigate the consequences that arise due to climate change. Upon hearing their responses, we appropriately model the particular risks/rewards that may be on the horizon for the specific company in question."

4. Adopt a proxy voting policy on environmental, social and governance resolutions.

Best Practice Examples

A sample proxy voting policy is given in appendix G.

One firm described its process for voting its proxies: "Where shareholder proposals concern social and environmental issues, these are referred to the [firm name] Sustainability Research team by the proxy voting officer, for review on a case-by-case basis. Consideration will be given to the circumstances of a particular social or environmental issue and whether this may have economic consequences, either directly or indirectly, for the company. In these cases, the economic effects are considered in determining our vote. Our dedicated SR team enforces coherent and informative opinions on best practice for all industries globally, guided by national and international law and voluntary codes of good practice developed by authoritative bodies. In instances where companies do not fully disclose their policies and approach toward the management of material social and environmental issues, the SR team will engage with company management."

5. Engage with the SEC and Policy Makers to Encourage Full Disclosure of Sustainability Risks.

Asset managers can join investors in pressuring the SEC and other policy makers to encourage full disclosure of climate risks and opportunities. When market regulators give clear guidance about uniform disclosure of climate risks, then asset managers, investors, and companies will be better able to develop uniform practices for incorporating these risks into decision making.

Best Practices & Recommendations: ACTIONS FOR INSTITUTIONAL INVESTORS

The Key Findings above make clear that, as companies begin to recognize, analyze, and address risks and opportunities from climate change, both asset managers and institutional investors must do more to incorporate these factors into their decision making. For institutional investors the next steps fall into four categories.

1. Analyze climate risks in the investment portfolio.

As an overarching approach, institutional investors must partner with their consultants, their asset managers, the companies they own and the credit rating agencies to analyze the climate risks and opportunities in their portfolios. To do so, they may survey their asset managers about how the managers incorporate climate change into the due diligence process, by asking for details as part of the request for proposal or other hiring process or as part of managers' performance reviews. A set of best practice survey questions to begin this dialogue between institutional investors and managers is included as appendix C.

2. Train staff and managers around climate risk due diligence.

Institutional investors must undertake to train both their internal staff and their external managers about how climate risks and opportunities can be appropriately incorporated into investment decision making at the due diligence phase and in reviews of corporate governance practices. Instittutional investors should also understand sector-specific risks and opportunities and be able to use the sectoral research that is currently available. Trained and engaged internal investment management staff will be positioned to further identify best practices in this arena in collaboration with companies and external consultants and managers.

3. Adopt sustainability policies.

Institutional investors can adopt the following policies (among others) to guide investment decision making:

- **Statement of Investment Principles that includes climate change.** Adopting these principles will engage all fiduciaries in a shared understanding of how climate risks and opportunities fit into the investment decision-making process.
- ***Global Framework for Climate Risk Disclosure.*** With this in place, both asset managers who work for multiple institutional investors and companies seeking investment capital will share a disclosure framework, thereby ensuring that investors, managers, and companies are achieving maximum transparency and consistency in their disclosures and analysis. (See the *Framework* in appendix E.)
- ***Climate Change Governance Framework*** **developed by Ceres and RiskMetrics** (See appendix F.)
- **Proxy voting guidelines.** Adopting guidelines and either actively voting the proxies or requiring managers to follow investor guidelines for voting will begin to engage both institutional investors and asset managers with companies to enhance the long-term value of their holdings. (See a sample proxy voting policy in appendix G.)

4. Engage with the SEC and policy makers to encourage full disclosure.

Institutional investors can pressure the SEC and other policy makers to encourage full disclosure of climate risks and opportunities. When market regulators give clear guidance about uniform disclosure of climate risks, asset managers, investors, and companies will be better able to develop uniform practices for incorporating these risks into decision making.

CONCLUSIONS

The Key Findings in this report indicate that asset manager practices around climate risk analysis vary widely. Many of the managers surveyed are changing their practices rapidly to incorporate these risks into their core analysis. But firms still need greater staff expertise, more dedicated climate risk analysis tools and vendors, and a general shift in attitudes about the need to take these issues into account in the due diligence process. Institutional investors need to engage in an in-depth conversation with their existing (and prospective) managers about what the practices are and how they are to be incorporated into the core due diligence process.

The Actions for Asset Managers and Actions for Institutional Investors sections above suggest some next steps for improving the analysis of climate risks and incorporating these risks into investment decision making. The case studies of due diligence review in appendix H also provide guidance to investors and managers seeking to improve their practices to ensure that the long-term risks of climate change and the key opportunities for investments in climate mitigation will be incorporated throughout investment decision making and portfolio valuation.

APPENDIX A *Asset Manager Survey on Climate Risk Practices*

Asset Manager Survey on Climate Risk Practices

The Investor Network on Climate Risk (INCR) is a $7 trillion network of institutional investors who are committed to understanding the financial risks and opportunities posed by climate change. INCR is staffed by Ceres, Inc.

The following survey is designed to help investors understand what investment managers are currently doing to incorporate climate risk and opportunity into their financial analysis and company and portfolio valuation. Ceres will analyze the survey results to develop a set of "best practices" with respect to financial analysis and company and portfolio valuation. The results will be aggregated, so that survey respondents will not be ranked or scored in relation to one another. Individual survey responses will not be attributed to individuals or firms by name. Particular best practices identified in survey responses may be cited in the final report, but only with the written permission of the survey respondents. Survey respondents will be given an opportunity to comment on the final report prior to publication.

The YES/NO survey questions are designed to allow quantitative analysis of particular practices and qualitative questions allow asset managers to provide detailed information about their activities. For example, this survey would allow Ceres to say in its final report: "X% of responding managers have 'specialized expertise' in evaluating climate risk. Examples of the types of specialized expertise include: X, Y, and Z. Investment Manager ABC reported that of their 60 analysts, 14 had taken seminars on evaluating climate risk and one had prior experience as an engineer for a civil and environmental engineering firm." The example of Investment Manager ABC would be included only with the permission of Investment Manager ABC. Investment managers are encouraged to attach examples, or include full descriptions of practices where appropriate so that they may be evaluated for inclusion as best practices in the final report. You will be prompted at the end of the survey to email any attachments to spalding@ceres.org.

Page 1

Asset Manager Survey on Climate Risk Practices

User Information

* **Please Provide the Name of Your Company.**
* **Please Provide Your First and Last Name.**
* **Please Provide Your Job Title.**
* **Please Provide Your Email Address.**

Page 2

Asset Manager Survey on Climate Risk Practices

1. Preliminary Identification of Types of Investment Managers

Survey results will be grouped to reflect the asset class and to differentiate environmentally screened funds from other investment products.

* **1.1 Please identify the asset class or classes that you invest in.**

	YES	NO
Public Equities	◯	◯
Private Equities	◯	◯
Fixed Income Securities	◯	◯

Other (please specify)

* **1.2 Please give us the names of the largest investment funds you manage. (For example, the name of your mutual funds or venture fund.)**

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Page 3

Asset Manager Survey on Climate Risk Practices

1. Preliminary Identification of Types of Investment Managers (Cont.)

* **1.3 What is the total of your worldwide institutional assets under mangement?**
* **1.4. Does your firm manage any "green" investment funds with a strategic priority related to climate change, for example funds that focus on investments in climate change opportunities or funds that screen out investments facing climate risks?**

◯ YES
◯ NO

Page 4

Asset Manager Survey on Climate Risk Practices

1. Preliminary Identification of Types of Investment Managers (Cont.)

* **1.5 Please give us the names of the "green" investment funds and the focus of the funds' investment screen or targeted investment strategy.**

List the "Green" Investment Fund Name AND List the Focus Next to it on the Same Line.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Page 5

Asset Manager Survey on Climate Risk Practices

2. Incorporating Climate Risk into Due Diligence

Climate risks include physical risks to companies and their supply chains due to climate change, risks of changing local, national and international regulation related to climate change, litigation risk, reputational risks, emissions disclosures and competitiveness risks. (For a brief explanation of these risks and how investors seek to evaluate them see: the Guide to Using the Global Framework for Climate Risk Disclosure: click here to access). For this question and all that follow, we will include all of these risks in the broad term "climate risks."

* **2.1 For investments that are not specifically in "green" investment funds, does your firm conduct climate risk assessment as part of the due diligence process for a company, project or fixed income asset in which you are making an investment?**

◯ YES
◯ NO

2.2 Please describe your due diligence process for assessing climate risk. If you would like to send an attachment of your due diligence guidelines, you may do so when prompted at the end of the survey.

Page 6

Asset Manager Survey on Climate Risk Practices

3. Climate Risk Expertise and Resources

* **3.1 What percentage of your investment management staff (FTE) have specialized expertise in analyzing climate risk?**

Please provide a positive number 0-100 (%).

3.2 What is their specialized expertise? If none, leave blank and proceed to question 3.3.

* **3.3 Do you use any outside vendors to quantify climate risks or provide climate risk expertise?**

◯ YES
◯ NO

3.4 Which outside vendors do you use? If none, leave blank and proceed to question 3.5.

1.
2.
3.
4.
5.

Page 7

Asset Manager Survey on Climate Risk Practices

3. Climate Risk Expertise and Resources (Cont.)

* **3.5 Does your firm utilize climate risk information on individual companies from corporate disclosures or other reports?**

◯ YES
◯ NO

Page 8

Asset Manager Survey on Climate Risk Practices

3. Climate Risk Expertise and Resources (Cont.)

3.6 If "yes", which of the following specific climate risk disclosure reports have you consulted? (check all that apply)

- ☐ Corporate Sustainability Reports by Individual Companies (including sustainability reports that include a Global Reporting Initiative index (See www.globalreporting.org)
- ☐ SEC Filings
- ☐ Carbon Disclosure Project Responses (See www.cdproject.net)
- ☐ Ceres reports such as: Climate Risk Disclosure by the S&P 500 (See http://www.ceres.org//Document.Doc?id=146)
- ☐ Other (please specify)

Page 9

Asset Manager Survey on Climate Risk Practices

3. Climate Risk Expertise and Resources (Cont.)

3.7 If "no", why has the firm not done so? (check all that apply)

- ☐ Investors have not required it.
- ☐ Climate risk doesn't have material impacts on the companies analyzed
- ☐ Other (please specify)

Page 10

Asset Manager Survey on Climate Risk Practices

4. Breaking Down the Different Types of Climate Risk

For each of the following types of climate risks 1) does your firm consider it a "risk parameter" in making investment decisions and 2) does your firm consider it in the valuation of your portfolio?

*** 4.1 Does your firm consider the following types of climate risk to be "risk parameters" in making investment decisions? Do you consider this risk in the valuation of your portfolio?**

	YES	NO	Mark if this risk is considered in your portfolio valuation
Climate Regulation and/or Environmental Regulations	☐	☐	☐
Physical Risks to Companies due to Climate Change	☐	☐	☐
Climate Litigation and/or Environmental Litigation	☐	☐	☐
Greenhouse Gas Emissions and/or Emission Management Policies	☐	☐	☐
Competitiveness for Products/Services due to Climate Change	☐	☐	☐

*** 4.2 Of the different climate risks listed above, how do you rank them in relation to other risk parameters?**

	Most Important	Higher Than Most Other Risk Parameters	Equal to Most Other Risk Parameters	Lower Than Most Other Risk Parameters	Lowest Importance	N/A
Climate Regulation and/or Environmental Regulations	◯	◯	◯	◯	◯	◯
Physical Risks to Companies due to Climate Change	◯	◯	◯	◯	◯	◯
Climate Litigation and/or Environmental Litigation	◯	◯	◯	◯	◯	◯
Greenhouse Gas Emissions and/or Emission Management Policies	◯	◯	◯	◯	◯	◯
Competitiveness for Products/Services due to Climate Change	◯	◯	◯	◯	◯	◯

Page 11

Asset Manager Survey on Climate Risk Practices

5. Incorporating Climate Risk Into Your Investment Analysis

5.1 Referring to your answers to question 4 on the previous page, describe how you incorporate these factors into your investment analysis. (Please give a detailed narrative of the process as appropriate. If you would like to send an attachment of your investment policies or guidelines, you may do so when prompted at the end of the survey.)

Page 12

Asset Manager Survey on Climate Risk Practices

5. Incorporating Climate Risk Into Your Investment Analysis (Cont.)

* **5.2 Are there sectors in which you consider the consequences of climate change particularly significant for your investment analysis?**

◯ YES
◯ NO

If "yes", list the sectors:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Page 13

Asset Manager Survey on Climate Risk Practices

6. Incorporating Climate Risk Into Your Corporate Governance Analysis

* **6.1 Do you incorporate climate risk in your evaluation of an individual company's corporate governance? If "yes", answer the next two questions on this page. Otherwise, proceed to the next page.**

◯ YES
◯ NO

6.2 If "yes", how do you evaluate an individual company's corporate governance related to climate change? (Please give a detailed narrative of the process as appropriate. If you would like to send an attachment of your guidelines, you may do so when prompted at the end of the survey.)

6.3 If "yes", how do you incorporate this evaluation of corporate governance into your investment decision making? (Please give a detailed narrative of the process as appropriate. If you would like to send an attachment of your guidelines, you may do so when prompted at the end of the survey.)

Page 14

Asset Manager Survey on Climate Risk Practices

6. Incorporating Climate Risk Into Your Corporate Governance Analysis (Cont...

* **6.4 Do you use Ceres/Risk Metrics' Climate Change Governance Framework when evaluating an individual company's corporate governance? (See Corporate Governance and Climate Change: The Banking Sector) click here to access**

◯ YES
◯ NO

* **6.5 Do you assess companies differently within the key sector(s) you identified in question 5.2, based on the company's corporate governance approaches to climate change?**

◯ YES
◯ NO

Page 15

Asset Manager Survey on Climate Risk Practices

7. Proxy Voting

* **7.1 Does your firm have a policy regarding proxy voting on environmental resolutions?**

◯ YES
◯ NO

7.2 Describe your policy. (Please give a detailed narrative of the process as appropriate. If you would like to send an attachment of your guidelines, you may do so when prompted at the end of the survey.)

Page 16

Asset Manager Survey on Climate Risk Practices

7. Proxy Voting (Cont.)

* **7.3 Do you make your proxy voting record available to your investors?**

◯ YES

◯ NO

If "yes", identify the website address or other method for investors to obtain this data.

7.4 How do you resolve conflicts between your proxy voting policies and the proxy voting policies of multiple investors? (Please give a detailed narrative of the process as appropriate. If you would like to send an attachment of your guidelines, you may do so when prompted at the end of the survey.)

Page 17

Asset Manager Survey on Climate Risk Practices

8. Investment Time Horizons

8.1 Please describe how your time horizon in evaluating future risks to companies relates to your investment time horizon? (Please attach guidelines or give a detailed narrative of the process as appropriate.)

Thank you for completing our survey. Please email all attachments related to the survey questions listed below to Kirsten Spalding

2.2 Please describe your due diligence process for assessing climate risk.

5.1 Referring to your answers to question 4 on the previous page, describe how you incorporate these factors into your investment analysis.

6.2 How do you evaluate an individual company's corporate governance related to climate change?

6.3 How do you incorporate this evaluation of corporate governance into your investment decision making?

7.2 Describe your firm's policy regarding proxy voting on environmental resolutions.

7.4 How do you resolve conflicts between your proxy voting policies and the proxy voting policies of multiple investors?

Page 18

APPENDIX B

Respondents to Ceres Survey

Aberdeen Asset Management
Acadian Asset Management LLC
Advanced Investment Partners LLC
AH Lisanti Capital Growth, LLC
AIG Investments
American Realty Advisors
Apex Capital Management for Capital Prospects
Aronson+Johnson+Ortiz
Artisan Partners Limited Partnership
Attalus Capital
Barclays Global Investors, N.A.
Bernzott Capital Advisors *on behalf of accounts managed for Capital Prospects LLC*
BlackRock
BPG Properties Ltd.
Capital Guardian Trust Company
Cardinal Capital Management
Channing Capital Management LLC *on behalf of accounts managed for Capital Prospects LLC*
Chicago Equity Partners, LLC
City of London Investment Management Company Limited
Clay Finlay LLC
Declaration Management & Research
Denali Advisors, LLC
Dimensional Fund Advisors
Eagle Asset Management
Edgar Lomax Company
Epoch Investment Partners, Inc.
F&C Asset Management plc
Fisher Investments
General Re-New England Asset Management, Inc.
Genesis Asset Managers, LLP.
Geneva Capital Management
Global Forest Partners LP
GR NEAM
Hartford Investment Management
Heitman
Henderson Global Investors
InView Investment Management, LLC
Jensen Investment Management
Longfellow Investment Management Co.
Magee Thomson Investment Partners
MFS Investment Management
MindShare Capital Management, LLC
Montrose Asset Management LLC
Morgan Stanley Investment Management UK
Morris Capital Advisors, LLC
NCM Capital
Neuberger Investment Management, LLP
New Amsterdam Partners
Nomura Asset Management U.S.A. Inc.
OakBrook Investments, LLC
Paradigm Asset Management, LLC
Piedmont Investment Advisors, LLC
Pier Capital, LLC
Post Advisory Group, LLC
Principal Global Investors, LLC
Profit Investment Management *on behalf of accounts managed for Capital Prospects LLC*
RCM
Robeco Investment Management
Rockwood Capital Advisors, LLC
Runnymede Capital Management, Inc.
Sarofim Realty Advisors
Sasco Capital, Inc.
Schroder Investment Management
Seizert Capital Partners, LLC *on behalf of Capital Prospects, LLC*
Smith Asset Mangement Group, LP
Smith Breeden Associates, Inc.
Sprucegrove Investment Managment Ltd.
State Street Global Advisors
Stephens Investment Management Group
Sterling Capital Management LLC
Sustainable Asset Management (SAM), Zürich, Switzerland
T. Rowe Price Associates, Inc.
Taplin Canida & Habacht
Templeton Investment Counsel, LLC
Utendahl Capital Management, L. P.
Victory Capital Management
Walden Asset Management
Walter Scott & Partners Limited
Water Asset Management LLC
Western Asset Management Company
William Blair & Company

APPENDIX C

Key Best Practice Questions for Institutional Investors to Include in Requests for Proposals or Asset Manager Assessments

1. For investments that are not specifically in "green" investment funds, does your firm conduct climate risk assessment as part of the due diligence process for a company, project, or fixed-income asset in which you are making an investment?
2. Does your firm's investment policy or guidelines for analysts specifically include a statement about climate change risks and opportunities, sustainability concerns, or environmental, social, and governance factors? What is that statement? How would you characterize your firm's understanding about how climate risks should be incorporated into investment decision making and portfolio valuation? Do you include climate risks in your risk parameters?
3. Does your firm manage any "green" investment funds with a strategic priority related to climate change, for example, funds that focus on investments in climate change opportunities or funds that screen out investments facing climate risks? What are the strategic priorities of these funds? Do the investment guidelines on these "green" funds differ from your guidelines for your other investments?
4. What percentage of your investment management staff members (full-time equivalent) have specialized expertise in analyzing climate risk? What is their specialized expertise? Do you use any outside vendors to quantify climate risks or provide climate risk expertise? Which outside vendors do you use? How do you incorporate your climate risk expertise (internal and external) into your analysis?
5. Does your firm use climate risk information on individual companies from corporate disclosures or other reports? If you use third-party research reports for company-level data, which ones do you rely upon? Do you routinely comment on these disclosures in your research reports?
6. Does your firm incorporate climate risk into your evaluation of a company's corporate governance? How do you do this evaluation, and how do you incorporate this analysis into your investment decision making?
7. Does your firm have a policy regarding proxy voting on environmental resolutions? Do you vote your proxies, or do you subcontract to a proxy advisory firm? Do you make publicly available how your proxies were voted or provide that information at investor request?

APPENDIX D

Investment Protection Principles, Florida State Board of Administration

Effective September 10, 2002, the SBA will give significant consideration in retaining and evaluating active equity managers as to whether such managers conform to the following:

. . .

5. In making investment decisions, money management firms must consider the quality and integrity of the subject company's accounting and financial data, including its 10-K, 10-Q, and other public filings and statements, as well as whether the company's outside auditors also provide consulting or other services to the company.
6. In deciding whether to invest SBA assets in a company, money management firms must consider the corporate governance policies and practices of the subject company.

The principles set forth in paragraphs 5 and 6 are designed to assure that in making investment decisions, the money management firms give specific consideration to the subject information and are not intended to preclude or require investment in any particular company. It will be considered consistent with the requirements of principles numbers 5 and 6 to evaluate these issues as a component of the risk profile of an investment in the subject company.

SBA FLORIDA
INVESTING FOR FLORIDA'S FUTURE

STATE BOARD OF ADMINISTRATION
Investment Protection Principles
2009 Compliance Certification
Investment Management Organizations

Acknowledgement

❒ We hereby acknowledge receipt of the December 22, 2009 e-memorandum from the Inspector General of the SBA regarding Investment Protection Principles (IPPs) compliance procedures and reporting requirements.

Designation of Contact Person

❒ We will provide the SBA with changes in the assignment of the IPPs contact person within 15 days of occurrence.

Client Relationships

❒ We certify that in all instances where we have client relationships where SBA assets can be invested in the securities of those other clients, SBA assets are managed in the best interests of the SBA and investment decisions are not made in a manner to advantage other clients to the detriment of the SBA.

Compensation Structure (Please check only one of the following)

❒ We certify that our firm's compensation package for portfolio managers and research analysts is structured in a manner that adequately guards against conflicts of interest and assures analysts' independence.

❒ Not applicable as we do not employ distinct research analysts nor publish research recommendations.

Anti-Influence Safeguard Plan or Policy (Please check only one of the following)

❒ We have adopted safeguards to ensure that client relationships with our affiliated companies do not influence the investment decisions of our firm made on behalf of the SBA.

❒ Not applicable as we have no affiliates.

Consideration of Accounting and Financial Data, Auditor Choice, and Corporate Governance
(Please check only one of the following)

❒ We have used our best reasonable efforts, as applicable to our investment style/strategy, to implement policies and procedures to comply with the spirit and intent of Principles 5 and 6 of the IPPs, as they relate to investment decisions and consideration of the quality and integrity of an issuer's accounting and financial data, auditor choice, and corporate governance policies and practices.

❒ We do not currently have a formal policy and procedures to consider accounting and financial data, auditor choice, and corporate governance policies and practices in the investment decision-making process, but we otherwise have adequate measures in place to comply with the spirit and intent of Principles 5 and 6 of the IPPs. Explanation attached.

❒ We have unique circumstances or peculiarities (e.g., an investment strategy which is model driven or involves a technical or quantitative approach, or an investment mandate in non-domestic markets where custom and practice does not lend itself to these considerations or the necessary information is limited or unavailable) that render Principles 5 and 6 inapplicable or of limited application to our firm. Explanation attached.

❒ None of the above. Explanation attached.

STATE BOARD OF ADMINISTRATION
Investment Protection Principles Compliance Certification (2009)
Investment Management Organizations

Prudent Country Restrictions: Investment in Companies with Operations in Countries Listed as State Sponsors of Terror (Please check only one of the following)

- ❒ We are conscious of the risks (e.g., unstable long-term value; potential fines, penalties or sanctions levied by federal and international authorities; reputational damage; etc.) inherent in investing in companies with operations in or ties to countries that have been designated state-sponsors of terror by the U.S. State Department and have included such factors in our investment decision making processes – which could involve limiting or eliminating SBA asset exposure to such issuers.
- ❒ We utilize an investment strategy, known to the SBA, which is model driven or involves a technical or quantitative approach which includes consideration of risk factors associated with terrorism accordingly.
- ❒ We utilize an investment strategy, known to the SBA, which is model driven or involves a technical or quantitative approach which does not include consideration of risk factors associated with terrorism. An explanation regarding why this does not impose risk to SBA assets is attached.
- ❒ None of the above. Explanation attached.

Climate Change Related Investment Risks and Opportunities
(Please check only one of the following)

- ❒ We are conscious of the investment related risks and opportunities associated with climate change (e.g., regulatory changes limiting carbon emissions, extreme weather events, and growing demand for development of new technologies, etc.). Consideration of an issuer's stance and practices related to climate change is assessed, evaluated and factored into our investment decision making processes.
- ❒ We utilize an investment strategy, known to the SBA, which is model driven or involves a technical or quantitative approach which includes consideration of risk and opportunity factors associated with climate change.
- ❒ We utilize an investment strategy, known to the SBA, which is model driven or involves a technical or quantitative approach which does not include consideration of risk and opportunity factors associated with climate change. Explanation attached.
- ❒ Risks and/or opportunities associated with climate change are NOT factored into our investment decision making processes. Explanation attached.

Ad Hoc Information Requests

- ❒ We agree, upon request from the SBA Inspector General, to provide the SBA with non-confidential information to support our certification related to any of the preceding principles or topics.

Signature

- ❒ We certify that the statements and indications above are true and accurate, and this compliance certification is signed by our firm's chief executive officer or other appropriate senior officer or partner (i.e., a person with authority specifically and directly delegated to him or her by the CEO for this purpose).

Signature	Title
Print Name	Name of the Firm
Date	

APPENDIX E

Global Framework for Climate Risk Disclosure

For the complete *Global Framework for Climate Risk Disclosure* see Ceres website: http://216.235.201.250//Document.Doc?id=73

For a *Guide to Using the Global Framework for Climate Risk Disclosure* see Ceres website: http://216.235.201.250//Document.Doc?id=74

While each sector and company may differ in its approach to disclosure, the most successful corporate climate risk disclosure will be transparent and make clear the key assumptions and methods used to develop it. Companies should directly engage investors and securities analysts in disclosing climate risk through both written documents and discussions.

Investors expect climate risk disclosure to allow them to analyze a company's risks and opportunities and strongly encourage that the disclosure include the following elements:

1 Emissions—As an important first step in addressing climate risk, companies should disclose their total greenhouse gas emissions. Investors can use this emissions data to help approximate the risk companies may face from future climate change regulations.

Specifically, investors strongly encourage companies to disclose:

- Actual historical direct and indirect emissions since 1990;
- Current direct and indirect emissions; and
- Estimated future direct and indirect emissions of greenhouse gases from their operations, purchased electricity, and products/services.*

Investors strongly encourage companies to report absolute emissions using the most widely agreed upon international accounting standard—Corporate Accounting and Reporting Standard (revised edition) of the Greenhouse Gas Protocol, developed by the World Business Council for Sustainable Development and the World Resources Institute.** If companies use a different accounting standard, they should specify the standard and the rationale for using it.

* These emissions disclosures correspond with the three "scopes" identified in the *Greenhouse Gas Protocol Corporate Accounting and Reporting Standard* (revised edition) developed by the World Business Council for Sustainable Development and the World Resources Institute. Scope 1 includes a company's direct greenhouse gas emissions; Scope 2 includes emissions associated with the generation of electricity, heating/cooling, or steam purchased for a company's own consumption; and Scope 3 includes indirect emissions not covered by Scope 2. More information is available at http://www.ghgprotocol.org.

** Available at http://www.ghgprotocol.org.

2 Strategic Analysis of Climate Risk and Emissions Management—**Investors are looking for analysis that identifies companies' future challenges and opportunities associated with climate change. Investors therefore seek management's strategic analysis of climate risk, including a clear and straightforward statement about implications for competitiveness. Where relevant, the following issues should also be addressed: access to resources, the timeframe that applies to the risk, and the firm's plan for meeting any strategic challenges posed by climate risk.**

Specifically, investors urge companies to disclose a strategic analysis that includes:

- **Climate Change Statement**—A statement of the company's current position on climate change, its responsibility to address climate change, and its engagement with governments and advocacy organizations to affect climate change policy.
- **Emissions Management**—Explanation of all significant actions the company is taking to minimize its climate risk and to identify opportunities. Specifically, this should include the actions the company is taking to reduce, offset, or limit greenhouse gas emissions. Actions could include establishment of emissions reduction targets, participation in emissions trading schemes, investment in clean energy technologies, and development and design of new products. Descriptions of greenhouse gas reduction activities and mitigation projects should include estimated emission reductions and timelines.
- **Corporate Governance of Climate Change**—A description of the company's corporate governance actions, including whether the Board has been engaged on climate change and the executives in charge of addressing climate risk. In addition, companies should disclose whether executive compensation is tied to meeting corporate climate objectives, and if so, a description of how they are linked.

3 Assessment of Physical Risks of Climate Change—**Climate change is beginning to cause an array of physical effects, many of which can have significant implications for companies and their investors. To help investors analyze these risks, investors encourage companies to analyze and disclose material, physical effects that climate change may have on the company's business and its operations, including their supply chain.**

Specifically, investors urge companies to begin by disclosing how climate and weather generally affect their business and its operations, including their supply chain. These effects may include the impact of changed weather patterns, such as increased number and intensity of storms; sea-level rise; water availability and other hydrological effects; changes in temperature; and impacts of health effects, such as heat-related illness or disease, on their workforce. After identifying these risk exposures, companies should describe how they could adapt to the physical risks of climate change and estimate the potential costs of adaptation.

4 Analysis of Regulatory Risks—As governments begin to address climate change by adopting new regulations that limit greenhouse gas emissions, companies with direct or indirect emissions may face regulatory risks that could have significant implications. Investors seek to understand these risks and to assess the potential financial impacts of climate change regulations on the company.

Specifically, investors strongly urge companies to disclose:

- Any known trends, events, demands, commitments, and uncertainties stemming from climate change that are reasonably likely to have a material effect on financial condition or operating performance. This analysis should include consideration of secondary effects of regulation such as increased energy and transportation costs. The analysis should incorporate the possibility that consumer demand may shift sharply due to changes in domestic and international energy markets.
- A list of all greenhouse gas regulations that have been imposed in the countries in which the company operates and an assessment of the potential financial impact of those rules.
- The company's expectations concerning the future cost of carbon resulting from emissions reductions of five, ten, and twenty percent below 2000 levels by 2015. Alternatively, companies could analyze and quantify the effect on the firm and shareowner value of a limited number of plausible greenhouse gas regulatory scenarios. These scenarios should include plausible greenhouse gas regulations that are under discussion by governments in countries where they operate. Companies should use the approach that provides the most meaningful disclosure, while also applying, where possible, a common analytic framework in order to facilitate comparative analyses across companies. Companies should clearly state the methods and assumptions used in their analyses for either alternative.

APPENDIX F

Climate Change Governance Framework developed by Ceres and RiskMetrics

Board Oversight

1. Board is actively engaged in climate change policy and has assigned oversight responsibility to board member, board committee, or full board.

Management Execution

2. Chairman/CEO assumes leadership role in articulating and executing climate change policy.
3. Top executives and/or executive committees are assigned to manage climate change response strategies.
4. Climate change initiatives are integrated into risk management and mainstream business activities.
5. Executive officers' compensation is linked to attainment of environmental goals and GHG targets.

Public Disclosure

6. Securities filings disclose material risks and opportunities posed by climate change.
7. Public communications offer comprehensive, transparent presentation of response measures.

Emissions Accounting

8. Company calculates and registers GHG emission savings and offsets from operations.
9. Company conducts annual inventory of GHG emissions and publicly reports results.
10. Company has an emissions baseline by which to gauge future GHG emissions trends.
11. Company has third-party verification process for GHG emissions data.

Strategic Planning

12. Company sets absolute GHG emission-reduction targets for facilities, energy use, business travel, and other operations (including indirect emissions).
13. Company participates in GHG emission trading programs.
14. Company pursues business strategies to reduce GHG emissions, minimize exposure to regulatory and physical risks, and maximize opportunities from changing market forces and emerging controls.

APPENDIX G

Sample Asset Manager Proxy Voting Policy

(Excerpted from F&C's Corporate Governance Guidelines http://www.fandc.com/new/Institutional/Default.aspx?ID=80958)

Corporate Governance Operational Guidelines: United States

Social and environmental factors can present serious risks to corporations and impact the bottom line. A well-run company should have formal systems to identify, assess and manage all significant risks including those associated with social and environmental factors. Companies should provide appropriate public disclosure of such factors, and give shareholders a proper accounting of their record in managing these areas, as well as evidence of strategies and targets to achieve good practice.

The US has an open filing process that results in a wide variety of advisory shareholder proposals, particularly on social and environmental issues. The quality and nature of such proposals varies substantially. In general, F&C evaluates proposals based on the relevance of the issue in general and the desirability of the specific action requested in the "resolved" clause. F&C recognizes that some proposals may identify important company risks even if the proposal is poorly constructed. In such cases, F&C votes to encourage companies to identify, mitigate and report on its risk management approach effectively.

Sustainability reporting

F&C believes disclosure of significant social and environmental risk factors should be included in the Annual Report. F&C also favors appropriately detailed sustainability reporting that enables analysis against comparable companies. It recommends disclosure in line with internationally accepted standards of best practice, such as the Global Reporting Initiative (GRI). F&C generally supports shareholder proposals asking companies to report on implementation of social and environmental policies where there is reason for concern.

Audit of social and environmental management systems

F&C appreciates that auditing and assurance practices for social and environmental systems require further development, but it considers third-party auditing of sustainability reports to be best practice. It encourages companies to move towards third-party verification of such practices, and will generally support resolutions calling for it where there is reason for concern.

Labor standards

Companies may incur extraordinary risks as a result of the employment practices (e.g. health and safety, anti-harassment, etc.) of their own operations and those of their suppliers and subcontractors. Codes of conduct that address such risks,

and include detailed and effective procedures for their supply chain, are usually in companies' best interests. Where there is cause for concern, F&C favors codes based on internationally recognized standards (e.g. core conventions of the International Labor Organization), independent monitoring or auditing of implementation of these codes, and reporting of aggregate audit results. F&C looks for regular, public reporting on code implementation.

Human rights

Companies may incur extraordinary risks to their operations, staff or reputation as a result of operating in conflict zones or in locations at risk of human rights abuses. Where there is cause for concern, F&C supports resolutions asking companies to develop and implement policies and management systems addressing human rights and security management. These policies should reflect internationally recognized standards (e.g. United Nations Universal Declaration of Human Rights) and should apply to suppliers and sub-contractors.

HIV and AIDS

The current HIV/AIDS pandemic in Sub-Saharan Africa has begun to damage local productivity and sales due to employee absenteeism and turnover, and may affect companies' reputations and strain community relations. For companies operating in this region, as well as those with operations or expansion plans in areas with rapidly rising infection rates (e.g. parts of Eastern Europe, Russia and Asia), F&C may support resolutions asking for reports on the impact of HIV/AIDS on business prospects and on how management is responding.

Diversity and equal employment opportunity

Recruiting and hiring from the widest possible talent pool is in the best interests of companies, as is maintaining a diverse workforce. F&C generally supports efforts to strengthen nondiscrimination policies, achieve diversity objectives and address "glass ceilings" at executive and board levels. Where there is cause for concern, F&C may support resolutions calling for the introduction of practices to this effect. But F&C is not in favor of rigid quota systems to achieve diversity objectives. F&C does not support proposals that seek to roll back non-discrimination standards, including domestic partner benefits.

Charitable and political donations

Charitable and political donations should take account of the risks that companies relating to their social and environmental performance (see "Reporting" on page 9). F&C does not support proposals that seek to stop charitable giving. F&C believes that companies that undertake charitable giving should have transparent policies in this area and undertake charitable giving programs with due regard for the interests of shareholders.

Environment

Companies should determine how key environmental drivers fit into their core business strategy and open up opportunities to add value – or avoid costs – for shareholders. As part of this process companies should identify, assess and manage their environmental impacts. This may include minimizing their key environmental impacts, reporting on environmental management systems and performance, and discussing related financial impacts. It may also include participating in internationally-recognized initiatives (e.g. EnergyStar, ClimateWise, etc). Where there are matters of concern, F&C may vote in favor of resolutions seeking improvements in reporting and/or management of environmental practices.

Climate change

Some companies may be exposed to business risks stemming from the effects of climate change either directly on their business operations, or indirectly through taxation, regulation or changing patterns of customer demand. Where relevant, companies should describe how their business strategy addresses the question of

climate change. They should report on their emissions of greenhouse gases, and detail their targets and goals to optimize these emissions in light of regulatory and voluntary initiatives to reduce global levels of atmospheric CO2. Where there are matters of concern, F&C may support resolutions calling on companies to improve their public disclosure of climate change-related policies and practices. F&C also encourages companies to support policy initiatives aimed at accelerating the shift to a low-carbon economy, and does not support proposals from climate skeptics seeking additional corporate justification for robust climate change programs.

Products

F&C will vote on all other matters pertaining to the social, environmental, ethical and brand implications of a company's products, production processes and activities, in accordance with its understanding of shareholders' long-term interests. A company's policies and processes are important in evaluating the risk, and F&C strongly encourages companies to provide detailed disclosure of their systems in the management section of the proxy statement and in annual reports. F&C looks for evidence that companies are well prepared for changes in regulation and customer demand that could have profound implications for their business.

Supply chains

As part of standard social and environmental management policies and systems, companies should clarify the extent to which their operational standards and performance expectations apply, or do not apply, to their suppliers. This may include anti-corruption, environmental, health and safety, human rights, animal welfare and climate change policies, among others.

Voting on corporate social, environmental and ethical matters

In recognition of the fact that some shareholder resolutions may raise important concerns but make inappropriate demands, F&C will vote in favor, abstain or vote against according to particular circumstances, and inform the company of its concerns and expectations. F&C will apply particular scrutiny to proposals that request by-law changes related to social and environmental issues.

Where there are matters of concern, F&C may support resolutions asking companies to:

- Prepare a sustainability report in line with internationally accepted guidelines
- Carry out social and environmental audits
- Adopt codes and policies for company operations and suppliers. F&C generally favors:
  - Codes based on internationally recognized standards
  - Independent monitoring of these codes
  - Regular, public reporting on code implementation
- Report on the business and operational impacts of significant current or emerging risks (e.g. HIV/AIDS epidemic) and management's response
- Introduce policies, procedures or disclosure standards aimed at improving equal employment opportunity and diversity of the workforce. This may include:
  - Publication of Equal Employment Opportunity (EEO) data
  - Reporting on efforts to address glass ceilings
  - Expanding existing non-discrimination statements to prohibit discrimination based on sexual orientation
- Demonstrate best practice standards in managing environment-related risks to their business by:
  - Improving disclosure of relevant environmental management systems, performance and strategy
  - Minimizing key environmental impacts
  - Reporting on climate change strategy
  - Measuring and disclosing greenhouse gas emissions and reduction targets.

F&C generally opposes shareholder proposals to weaken nondiscrimination standards and equal opportunity practices, or to justify or impede climate change programs. It also opposes proposals to stop charitable giving, but supports transparency regarding companies' charitable donations policy (see "Reporting" on page 9 for more information on political donations and charitable giving).

APPENDIX H

Two Case Studies: Best Practices around Due Diligence Processes

Best Practice 1: The Bottom-Up Research Approach

Management Firm X characterizes its due diligence around assessing climate risk as "bottom up research," in which analysts work with portfolio managers to research individual companies.

1. Integrate climate risk into overall due diligence.
2. Assess potential materiality of climate risk for a particular company.
3. Dedicate environmental, social, and governance (ESG) risk assessment resources.
4. Cross-analyze the risk using both risk-specific and company-specific perspectives, and use a team approach to incorporate the risk into the manager's decision making.

Firm X describes assesses climate risk as part of its overall due diligence for other risks that may affect an investment. "It is the responsibility of each investment professional to determine the materiality of any risk factors." Climate or other ESG factors may be determined to be material for the research and/or the ultimate investment decision in any given case. Dedicated ESG research specialists provide resources to the investment group. The analysts and managers also consult with the firm's Governance and Proxy team and mine Firm X's research database for relevant external research. The management firm's water and environment "cluster" of analysts and managers meets fortnightly to share new information and insights. Governance developments and research are also shared through proxy voting committees – "the dialogue on the EM committee is particularly active, given the importance of governance issues to EM investing."

Best Practice 2: The Approach of Quantifying the Risks

Management Firm Y describes its process as a front-end quantitative process with a fundamental back-end overlay.

1. Screen the universe of companies. Choose those with adequate data for analysis and sufficient liquidity to purchase. Anticipate returns, and look across all economic sectors.
2. Consider trends in analysts' opinions.
3. Research corporate disclosures, and identify all risks, using multiple sources of external research.
4. Incorporate ESG factors, and determine if the company meets the firm's "sustainability strategy" or qualifies only for the fundamental list.

Management Firm Y begins by filtering companies to create an "investment universe." Its analysts filter to select a group of stocks with an adequate amount of data from which

to generate Firm Y's own forecasts, as well as sufficient trading liquidity to allow purchase or sale of a position without significantly affecting the stock price. Using a proprietary "expected return model," the firm takes into account the relationship between forecast growth and profitability as measured by return on equity, on the one hand, and price-to-earnings and price-to-book ratios, on the other. This quantitative research adjusts consensus numbers to take into account Wall Street analysts' overestimation bias and anomalous accounting items such as the frequency and magnitude of one-time charges and unusual tax rates. The selected universe includes the 100 stocks with the highest expected returns – with representation from each major economic sector.

In total, the firm follows approximately 150 stocks: the top 100 list, current holdings, and securities that have appeared on the top 100 list in the past and remain on a potential investment list.

Within the universe of potential companies, the managers follow analyst opinions and trends in opinion. They look at forecast versus actual earnings, whether estimates are being raised or lowered, the magnitude of changes, and the amount of agreement within the analyst community following the particular stock.

The analyst opinion trends are incorporated into an internal research report based on careful research into the company's corporate disclosures. This research covers Firm Y's "Fundamental Checklist," including revenue recognition policy, debt load and maturity schedules, death spiral covenants, option accounting, pension liabilities, litigation concerns, effective tax rates, inventory bulges, off-balance-sheet financing, and corporate governance.

The research asks: Does this company make sense in the current economic environment? What is the likely future of the industry in which it operates? What is management's growth strategy? Does management have the capability to execute this strategy? Is management committed to building shareholder value? In this context, the analysts consider ESG factors for every company. In addition to regulatory filings, the firm looks at databases, including the KLD Database, Carbon Disclosure Project Survey, Global Reporting Initiatives Register, and RiskMetrics. These ESG factors may be considered as part of the company's growth strategy or as part of its risk profile. Some companies qualify for the firm's "sustainability strategy" list; others incorporate these factors but remain on the fundamental list.

Firm Y focuses on the counterarguments to its internal position. Every analyst must answer:

1. Are the financials clean?
2. Has the predicted valuation been validated?
3. What are the key risks that could have a negative impact?
4. What, if any, are other company-specific concerns?

About Ceres

Ceres is a national coalition of investors, environmental groups and other public interest organizations working with companies to address sustainability challenges such as global climate change. Ceres directs the Investor Network on Climate Risk, a group of more than 80 institutional investors from the US and Europe managing approximately $8 trillion in assets.

For more information, contact:
Kirsten Snow Spalding
California Director
spalding@ceres.org

Ceres, Inc.
99 Chauncy Street
Boston, MA 02111
www.ceres.org

Ceres
99 Chauncy Street
Boston, MA 02111
T: 617-247-0700 • F: 617-267-5400
www.ceres.org