Massachusetts Institute of Technology

Climate Change Reporting: Wall Street Perception, Firm Behavior, Risks, and Momentum for Change

Final Report for Nike

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# Table of Contents

Summary and Recommendations ................................................................. 5
Growing Momentum for Climate Reporting in the U.S. but challenges lie ahead .......... 9
   Climate Related Reporting Standards ....................................................... 9
   Climate Initiatives Announced on Wall Street ......................................... 9
   Climate Risk Disclosure in the United States ......................................... 10
      Securities Exchange Commission ......................................................... 10
      California Senate Bill 1550 ................................................................... 11
      Backlash against Climate Risk Disclosure ............................................ 11
   Climate Risk Disclosure in Europe ............................................................ 13
      Institutional Investors Group on Climate Change (IIGCC) ..................... 13
      United Kingdom .................................................................................. 13
      France .................................................................................................. 13
Nike’s Risk of Carbon Exposure ....................................................................... 15
Wall Street Perception .................................................................................... 17
   Climate Reporting in Analysts Reports ...................................................... 18
      Analyst Interviews ................................................................................ 19
      Analyst Report Event Study .................................................................. 19
Social Investment Firms .................................................................................. 21
   Nike’s Top Institutional Holders ............................................................... 21
   ESG Investment ....................................................................................... 22
   State Street Global Advisors (SSgA) ......................................................... 23
   Calvert ..................................................................................................... 24
Findings ......................................................................................................... 25
Summary and Recommendations

It is clear that the momentum for climate-related activities and reporting by business is growing. What is less apparent is how Wall Street is incorporating climate-related reporting – and the risks associated with climate change – into their analysis and forecasting models. While Wall Street firms have announced numerous climate-related initiatives\(^1\), there is less evidence that suggests climate-related information is being used by Wall Street analysts thus far.

The disconnect between climate-related reporting and Wall Street analysts is partly due to the lack of federal regulations on carbon emissions, but also attributable to shareholder apathy. On the other hand, California Senate Bill 1550, International Standards Organization standards on emissions reporting (ISO 14064), and the many voluntary initiatives underway are a strong indication that climate disclosure is gaining traction in the U.S. and, looking at Europe’s progress on carbon disclosure, we feel strongly that the momentum in the U.S. will continue to grow. Furthermore, there is substantial historical evidence that firms that disclosed environmental information before regulation increased their stock value relative to competitors once the regulations were in place. For these reasons, we believe that climate risk will ultimately be an integral part of a company’s overall risk assessment and is worth paying attention to now.

Nike is in a unique position in the midst of all this. First, it has a powerful brand that elicits strong emotional responses from millions of consumers everywhere. Second, Nike’s large supply chain in developing countries presents both climate risks and opportunities. Nike has already pursued environmental sustainability in its supply chain and products and should continue these efforts. The key challenge for the company now is how to engage its stakeholders in climate reporting and sustainability more generally. To address this challenge, we recommend that Nike consider the following actions:

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\(^1\) See Appendix A: Wall Street Firm Climate Initiatives
1) Communicating the benefit of climate reporting to shareholders and Wall Street

Shareholders and Wall Street receive signals from multiple sources other than a company’s quarter-to-quarter earnings. Changes in consumer sentiment, shifts in government policy, and evidence that connects sustainability and financial performance all influence shareholders’ perceptions of a company’s value.

We propose the following recommendations to Nike for improving communications with shareholders around the value of climate initiatives:

- Include sustainability in the annual report – Currently Nike’s CSR report and annual report are two separate documents. We recommend that Nike include the parts of its CSR report that are most compelling in telling the story of sustainability in its annual report to shareholders. For example, revenue generated from new green products and/or savings generated from improving the supply chain. By linking sustainability to the bottom line, Nike can more effectively demonstrate value to shareholders by pursuing sustainability.
- Talk more often with shareholders about climate and sustainability – Nike needs to help its shareholders understand the importance of these issues, and how addressing the issues now will better prepare the company for the future.
- Continue to support and cooperate with initiatives that distill climate information into formats usable and understandable to investors like Ceres and the Carbon Disclosure Project.

2) Link sustainability efforts to the bottom line.

The most effective way to communicate the importance of sustainability is to show that it is good for business. Evidence indicates that companies that engage in sustainability initiatives perform better financially over the longer term and that market leaders are better prepared when new regulations are passed. In fact, environmental disclosure has led to a 5% increase in stock value

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in S&P companies historically\(^3\). Nike should continue focusing on sustainability efforts that are relevant to its core strategy, contribute to its competitive advantage, and improve the bottom line. As consumer sentiments evolve and government policies shift, investors and consumers will become savvier about sustainability and expect greater climate disclosure. Nike is in a position to take a long term market leadership position, particularly because it is in line with its more stable, blue chip nature in investment terms.

3) Engage internal stakeholders through motivation and incentives

Once Nike demonstrates that sustainability is good for business, it can align the organization around it. One way to achieve this is by making sustainability a part of every day conversation, along with topics like innovation and growth. Nike has been doing a great job of integrating sustainability into product design and we feel that there are opportunities to enhance the dialogue even further. Cadbury-Schweppes ran a particularly impressive internal campaign that went so far as to motivate employees to reduce their own carbon footprints at home; they educated their employees on climate change, showed them the tools used to measure carbon footprints, and then challenged them to reduce their own footprints. Initiatives like this raise awareness and can be a great motivator for employees, particularly for talent interested in these issues.

4) Engage consumers through awareness campaigns and product education

In the U.S., consumers are not yet as aware of climate issues as their European counterparts. We believe that consumer activism will ultimately drive the momentum toward a comprehensive regulation on carbon emissions and toward a more sustainable planet. Nike, with its powerful brand and extremely effective and creative marketing, is in a strong position to influence consumer perception and understanding on sustainability issues. Nike could do much more to leverage its capability in marketing to raise consumer awareness and ultimately brand itself as a strong market leader.

More specific suggestions are:

- Greatly increase publicity around climate-friendlier products, such as the Considered line
- Put carbon footprint labels on all products.

Wall Street analysts told us that the brand equity of a company like Nike is the most significant contributor to its value. While analysts have yet to price climate risk, we feel that Nike can enhance its brand image among consumers by pursuing sustainability, contributing to Nike’s stock price in the long term. Given the limited risks of sustainability programs, there is little for Nike to lose and a great deal of potential benefit in promoting its green products and furthering the green brand image.

Carbon footprint labeling for all products is a much more complex process, as it involves developing or adapting an accepted methodology for calculating emissions, extracting emissions-related information from complex supply chains, and building stakeholder understanding of what the labels mean. There is also the risk that the numbers will not be favorable, highlighting the carbon intensity of certain products. On the other hand, there is reason to believe that this kind of carbon accounting may be coming, so there are advantages to being a market leader; consumers repeatedly ask for more information, so are likely to be supportive overall. Furthermore, being forced to recognize products with high carbon intensities can be a strong motivator to squeeze inefficiencies out of the system, improving performance and minimizing risks over the longer term.\(^4\)

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\(^4\) British grocery chain Tesco is currently piloting carbon labels on 20 of its products.
Growing Momentum for Climate Reporting in the U.S. but challenges lie ahead

Momentum for climate reporting is building in the United States. This section illustrates the building momentum in risk disclosure, climate activity reporting standards, and carbon footprints.

**Climate Related Reporting Standards**

Climate activity and emission reporting is still in a relatively nascent stage, as a variety of standards exist with differing methodologies and purposes. Some of these are fairly well established, but they tend to have very specific scopes and purposes. Reporting systems can be divided into two primary categories: voluntary systems and government-mandated regulatory systems. Some of these voluntary measures – particularly the Carbon Disclosure Project – are being widely embraced across all sectors, and by the financial industry. Regulated government reporting is only emerging as an issue, and not yet in place in any American jurisdiction.

We found both qualitative and quantitative methods of reporting, and various degrees of comprehensiveness. However, we did not find best practices for environmental disclosure reporting methods in SEC 10Q forms. History would suggest that the US government will likely create its own standard of carbon reporting, as it did with SO₂ in the 1990’s, bringing clarity to the expectations. It is very likely that these standards will be based on ISO 14064. We have briefly summarized the existing reporting standards in *Appendix B*.

**Climate Initiatives Announced on Wall Street**

We looked at the climate activities of seven financial firms - Citi Group, Credit Suisse, Goldman Sachs, JP Morgan & Chase Co., Merrill Lynch, Morgan Stanley, and UBS - and found that the majority of the major financial firms recognize the importance of climate change. This recognition manifests in the incorporation of related products into their portfolios (e.g. certain socially responsible investment (SRI) products and carbon indexes), and in carbon reduction targets for their internal operations. All firms analyzed are also involved in carbon credit trading,
indicating that they see this as an important emerging market. A table outlining Wall Street Climate Initiatives is attached as Appendix A.

**Climate Risk Disclosure in the United States**

Interest in climate risk disclosure has been growing among government, advocacy organizations, and the private sector. While there are currently more than a half-dozen bills before the U.S. Congress that propose reducing carbon emissions, the bills typically focus on the energy and transportation sectors; it is anticipated that these face the most significant risks due to the intensity of their emissions, but problems or significant changes in either will have consequences for all industries.

In January 2007, Ceres and Calvert co-published a report on Climate Risk Disclosure by the S&P 500 firms. The report examined the breadth and quality of information disclosed by the S&P 500 to investors on climate risks and opportunities in the 2006 Carbon Disclosure Project survey. The overall finding is that the S&P 500 is still lagging behind counterparts in Europe in reporting climate risks and that the information was highly inadequate.

**Securities Exchange Commission**

The momentum for risk disclosure in security filings is building. Ceres has assisted several efforts to petition the US Securities and Exchange Commission (SEC) for climate risk disclosure since 2004. In 2006, ten US institutional investors asked Standard & Poor's (S&P) to adopt the global climate reporting guidelines. The guidelines include: Historical, current and projected green house gasses (GHG) emissions; strategic analysis of climate risk and management; assessment of physical risk of climate change; and, analysis of risk related to regulations of GHG emissions.

In September 2007, a coalition of shareholders petitioned the SEC “to require publicly-traded companies to assess and fully disclose their financial risks from climate change”. Following the petition, investors and legal experts testified at a Senate Subcommittee hearing in Washington, D.C. that the SEC should require disclosure by U.S. companies on financial risks they face from global climate change. The hearing was convened by subcommittee chairman U.S. Senator Jack

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6 Ceres, 2007
Reed (D-RI). Since then, climate risk disclosure has gained the support of Senator Christopher Dodd, Chairman of the US Senate Committee on Banking. In December 2007, Senator Dodd and Senator Reed wrote SEC Chairman Chris Cox urging the SEC to issue guidance on climate disclosure requirements.

**California Senate Bill 1550**

In February 2008, California State Senator Dean Florez introduced Senate Bill 1550: Corporate Governance: Climate Change Disclosure. This bill proposes that the California Secretary of State develop a climate change disclosure standard for companies doing business in the state. The bill would require the Secretary of State Controller to publish the standard on its website, beginning in December 2009. This bill is the first of its kind in the country.

The California State government has a strong history of leadership in creating policy when the federal government fails to act, though the federal government typically follows suit later. California established energy appliance standards that directly led to the creation of EPA’s Energy Star, for example. More recently, California Assembly Bill 1493, known as “Pavley standards,” was passed to improve vehicle emissions when the federal government was failing to do so. The bill had a major impact on the automobile industry and led to numerous lawsuits. It was upheld by the Supreme Court, forcing the EPA to take responsibility for regulating greenhouse gas emissions. The bill directly led to federal standards, and ultimately paved the way for the US Congress to increase automobile emission standards in 2007. There is reason to believe that the current climate disclosure bill could have a similar impact.

**Backlash against Climate Risk Disclosure**

Congress is currently considering more than six bills about reducing greenhouse gas emissions and promoting clean energy. Uncertainty over forthcoming U.S. regulation unnerves many companies. While some companies, including those that participate in the voluntary U.S. Climate Action Partnership, call for prompt government action, there are other investor...
organizations fighting it. The Free Enterprise Action Fund (FEAF) is a mutual fund with the goal of counterbalancing ethical investment funds.\textsuperscript{11} Using the same investor strategies as Ceres, FEAF targeted General Electric, DuPont, Lehman Brothers, and Goldman Sachs for basing business decisions on climate-change fears. In February 2008, the SEC blocked a bid by Lehman to squelch FEAF questions about global warming and business.\textsuperscript{12}


\textsuperscript{12} Johnson, Keith.
Climate Risk Disclosure in Europe

Institutional Investors Group on Climate Change (IIGCC)\textsuperscript{13}

The IIGCC is a UK-based organization that – similar to Ceres – is engaged in promoting a better understanding of climate change among its members and encouraging firms to disclose their climate risks and opportunities. The organization has over 45 members representing around 4 trillion Euros of assets. As of last year, 21 institutional investors representing almost 1.5 trillion Euros had signed their Investor Statement on Climate Change. The statement explicitly calls on asset managers and owners to encourage government action on climate change; develop their capacity to assess and respond to climate change; encourage others via cooperation; and integrate climate change into their decision-making and expectations of companies.

A survey of signatories indicates that these cutting-edge investors are already taking climate change into account. Over 40\% of asset owners are asking “specific questions about climate change activities when meeting with investment managers”; 100\% of asset managers and almost 70\% of owners are engaging with companies on climate change in at least one way, and typically on multiple fronts; and all are taking climate change into account when making investment decisions, all on the basis of risk, and many on other grounds, such as opportunities and physical impacts.\textsuperscript{14}

United Kingdom

In 2007, British Parliament narrowly defeated a bill proposing climate disclosure by corporations.

France

In 2002, France passed the \textit{Nouvelles Régulations Economiques}, or NRE\textsuperscript{15}. The economic regulations require corporate responsibility reporting, including climate risk disclosure. It was the first European law to mandate disclosure of companies' triple bottom line performance,

\textsuperscript{13} See \url{www.iigcc.org} for more information.
\textsuperscript{14} The statement and survey: \url{www.iigcc.org/docs/PDF/Public/FirstInvestorStatementonClimateChangeReport.pdf}
which considers not only financial but also social and environmental indicators.\textsuperscript{16} However, when the law was passed, environmental reporting standards were not issued. In 2002, Price Waterhouse Coopers tabulated responses from French companies and found them to be of varying length and quality.\textsuperscript{17} The legislation has been criticized for its unclear definitions and indicators\textsuperscript{18}.


\textsuperscript{17} Ibid.

\textsuperscript{18} Baue, William.
Nike’s Risk of Carbon Exposure

A recent trend in climate action is calculating the carbon footprints of products by identifying the emissions embedded in supply chains and products. Climatecooler.com is an online shopping venue that connects consumers with companies who calculate their embedded carbon\textsuperscript{19}. British grocery giant Tesco is also experimenting with the concept, piloting carbon footprint labels on 20 products\textsuperscript{20}. As forward thinking consumers and investors catch on to this trend and begin to investigate the risk of carbon embedded in supply chains, Nike may need to report the broader carbon footprints of products.

As \textit{Figure 1} indicates, Nike could be faced with larger footprints than hoped, as the majority of its suppliers are in countries with higher carbon intensities, so may be emitting more per unit of production\textsuperscript{21}. Beyond the brand impacts, higher carbon intensities mean more significant challenges and price jumps when carbon prices rise, either directly via carbon taxes or caps or indirectly via increasing energy prices. A related risk is that many of these countries from which Nike sources are developing economies, and thus are ill-equipped for climate change adaptation. Natural disasters and other climate-related events have the potential to significantly disrupt Nike’s supply chain.

\textsuperscript{19} Climatecounts.com
\textsuperscript{20} http://www.tesco.com/greenerliving/cutting_carbon_footprints/carbon_labelling.page?
\textsuperscript{21} It should be noted, however, that this is not an extremely accurate measure of the carbon intensity of Nike’s suppliers, as these are the aggregate numbers for the countries Nike is sourcing from, not the numbers for the specific factories. Nike suppliers may be highly efficient and thus well below the averages in their respective countries.
Figure 1 – Nike products may face larger carbon footprints due to the higher carbon intensities of the countries (and thus potentially factories) in which they are being produced.


Factories list from Nike 05-06 CR Report (http://nikeresponsibility.com/?#crreport/active_factories)
Wall Street Perception

In order to better understand Wall Street’s perception and evaluation of climate reporting by public companies, we approached the research from several directions. These included: Examining analyst reports; talking with analysts and related market actors; doing a simple event study to investigate the relationship between climate announcements from firms and changes in their stock value; and reviewing literature on the topic.

Historically, firms that improve both their environmental management system and environmental performance can increase their stock price by as much as five percent. ICF Kaiser International, an economic research firm, studied more than 300 U.S. Companies within the Standard & Poor’s and logically demonstrated how environmental programs lowered costs. The reduction in costs and environmental risk created a lower cost beta used in the Capital Assets Pricing Model (CAPM), thus leading to higher stock prices. Their results suggested that adopting environmentally proactive position had a significant impact on investor risk perception, cost of equity capital, and market value.

Several academic studies on accounting have found a positive correlation between environmental disclosure and economic performance. Specifically, a 2004 accounting study found “companies with higher levels of pre-event environmental disclosures in their 10-K reports tended to take less negative discretionary accruals.” The study’s results were consistent with the argument that environmental disclosure is an effective tool for reducing exposure to potential regulatory costs.

23 Ibid.
24 Ibid.
25 Freedman and Jaggi (1982), Shane and Spicer (1983), and Richardson and Welker (2001)
27 Ibid.
The outstanding question, however, was whether or not analysts take these trends into account when making decisions.

**Climate Reporting in Analysts Reports**

The objective of this research was to determine if analysts include climate risk in their stock forecast reports. We used a tool called Investext Plus that gave us the power to search a wide range of analyst reports coming from various sources. We started by selecting various companies - including more carbon intensive and thus higher-risk ones like Exxon Mobil and America Electric Power - that have made significant climate-related announcements. We then searched analyst reports for coverage of those activities. We evaluated approximately 40 analyst reports published between 2002-2008 by various investment and stock research firms including Credit Suisse, UBS, Deutsch Bank, Price Target Research, Jefferies & Co., IBIS World Company Risk Reports, Best Independent Research, Thomson Streetevents, Susquehanna Financial Group LLP, and J.J.B. Hilliard, W.L. Lyons, Inc. We also did more general searches of all reports in the database using search terms like ‘climate’ and ‘carbon’.

We were very disappointed with what we found. Surprisingly, we found no mention of carbon emissions or climate change-related analysis in any of the reports. We found that analyst reports evaluated the business risks associated with operation, competition, and economic growth but failed to include climate change or emissions regulations as major risks. It is notable that Ceres plans to investigate Wall Street research modules and analyst reports for climate related activities later this year.

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28 Investext Plus is a Gale product that collects reports from almost 1500 investment banks and other firms actively analyzing firms and markets.

29 Ceres Climate Conference, April 29-30, 2008. Several team members attended the CERES conference in Boston and spoke to investors, company representatives, and Ceres associations in order to learn about progress in climate reporting. Sessions included, “Engaging stakeholders to catalyze change” and “Developments in shareholder activism.”
**Analyst Interviews**

We conducted interviews with five Wall Street analysts (two from Goldman Sachs, two from Lehman Brothers, and one from Merrill Lynch). Two of the five analysts cover apparel, one covers utilities, another covers heavy industries, and the last covers consumer goods. We asked them the following questions:

1) How do you account for climate risk in your analysis?

2) What criteria do you use to measure a company’s climate risks?

3) If you currently do not consider climate risk in your analysis, do you see climate risk becoming an important factor in your analysis in the future?

None of these analysts currently consider climate risks as a factor when evaluating a company. The major determinant of stock price is quarter-to-quarter earnings. For a company like Nike, brand image is also a very important factor, so climate initiatives or the lack thereof can have an indirect impact if they change consumer perceptions of the firm. Some analysts commented on the fact that the lack of reporting standards makes climate risk difficult to measure. Furthermore, in the absence of carbon regulation, they don’t know what criteria to use even if they wanted to measure climate risk. Most are aware of internal initiatives their own firms are taking on climate, but do not yet see the connection to the analysis they conduct.

**Analyst Report Event Study**

For our event study, we used Google Finance and Yahoo! Finance to search for climate-related news from a variety of sources on various firms. Our objectives were to identify if this news is being reported, and see if we could identify any discernable effects on stock price. Google Finance offered us an effective way of connecting news on climate-related initiatives to stock value, as it uses a set of algorithms to identify financial news stories and reports deemed important and place them on a chart mapping the historical performance of stocks. We used this functionality as an important tool for our analysis.

News on climate-related initiatives is getting reported, as the examples in Appendix C illustrate, including in well-known national and international newspapers. However, we were only able to find two articles on IBM that loosely connected financial performance or stock price to climate-
related announcements. By and large, no connection was identifiable. For example, the New York Times’ recently ran a feature article on Target’s new eco-apparel line, but how this may affect Target’s financial performance was not mentioned in the article. Similarly, there were numerous articles on Wal-Mart’s efforts to “green” its supply chain and the amount of savings that Wal-Mart will generate as a result of these initiatives. However, no mention was made of the impact this will have on financial performance in any of these articles. The examples in Appendix C expand on this correlation – or lack thereof – for a set of selected firms.

One problem identified with this research methodology is that many of the firms we studied are ‘blue chip’, and thus their stock prices are less susceptible to discernable change – positive or negative – as a result of any single climate-related news event. If their climate-related behavior and risk exposure are considered at all, it would be in the context of longer-term evaluations. Their commitment to considering climate change and broader sustainability issues is often reflective of their general long-term perspectives and thus robustness. This does not belittle the need for these firms to take carbon-related initiatives seriously. To the contrary, the longer-term investors buying stock in these firms are more likely to be supportive of actions that minimize risk and prepare for market leadership in the future.

Furthermore, many of the firms we investigated are already considered market leaders, so the events we focused on are less likely to surprise analysts or investors, leading to changes in stock value. They are typically fairly consistent in their social responsibility – though not always directly on climate-related issues – so this behavior is already factored into their value. Cumulatively, however, these initiatives do lead to the top firms being identified as ‘best in class’, and thus attractive to specialized Socially Responsible Investment funds and other investors with ethical criteria, such as employee pension funds.\(^\text{30}\)

\(^{30}\) Nike is often rated among the ‘best in class’, but it is unknown what proportions of current investors are classified as socially responsible, or have ethical investment standards.
Social Investment Firms

More than 90% of the Nike’s shares are owned by institutional and mutual fund investors. This is common for apparel companies; for instance, more than 90% of Gap, Inc’s shares are owned by the institutional and mutual fund investors as well. Considering the large portion of shares they own, we believe that knowing how they think about social responsibility practices and what kind of criteria mutual funds are looking at should give us some insights on how investors respond to corporate responsibility reports. From Ceres conference held on April 29th and 30th and some research through public information, it is clear that more and more mutual funds are trying to incorporate environmental, social and governance (ESG) criteria into their investment decisions.

However, as is mentioned in the workshop of Ceres Conference, ESG investment is not yet a mainstream and is not yet established in all investment firms; some socially-aware funds and firms, such as State Street Corporation and Goldman Sachs, are working on it actively because they know that social factors actually affect the investment returns, but many other funds and firms see these as cosmetic issues and do not have deep assessment of ESG criteria. For example, Citibank and Bank of America announced $50 billion and $20 billion initiatives respectively to address climate change while the detail criteria and allocation still look vague at this point. Now is the time of transition from being aware about the importance of ESG investment to having solid tools to measure the opportunities and risks and executing it. It may take time for ESG investment to become a mainstream, but this trend looks probable to continue.

Nike’s Top Institutional Holders

Major shareholders of Nike

| % of Shares Held by All Insider and 5% Owners: | 0% |
| % of Shares Held by Institutional & Mutual Fund Owners: | 93% |
| % of Float Held by Institutional & Mutual Fund Owners: | 93% |
| Number of Institutions Holding Shares: | 735 |

Top Institutional Holders

31 Yahoo Finance, May 2, 2008
32 Yahoo Finance, May 2, 2008
<table>
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<tr>
<th>Holder</th>
<th>Shares</th>
<th>% Out</th>
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<tr>
<td>Cardinal Fund I, L.P.</td>
<td>25,536,262</td>
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<td>FMR LLC</td>
<td>21,372,636</td>
<td>4.34</td>
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<tr>
<td>MASSACHUSETTS FINANCIAL SERVICES CO - OTHER</td>
<td>17,958,973</td>
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<td>STATE STREET CORPORATION</td>
<td>12,489,298</td>
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<td>Barclays Global Investors UK Holdings Ltd</td>
<td>11,502,986</td>
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<tr>
<td>VANGUARD GROUP, INC. (THE)</td>
<td>11,133,112</td>
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<tr>
<td>Calamos Advisors LLC</td>
<td>10,910,409</td>
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<tr>
<td>JENNISON ASSOCIATES LLC</td>
<td>9,233,400</td>
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<td>JANUS CAPITAL MANAGEMENT, LLC</td>
<td>8,987,839</td>
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<tr>
<td>WELLINGTON MANAGEMENT COMPANY, LLP</td>
<td>8,662,168</td>
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Top Mutual Fund Holders\(^{33}\)

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<th>Holder</th>
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<td>VANGUARD 500 INDEX FUND</td>
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<td>DODGE &amp; COX STOCK FUND</td>
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<td>FIDELITY BLUE CHIP GROWTH FUND</td>
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**ESG Investment**

We looked at a couple of mutual funds, State Street Global Advisors and Calvert, who attended the Ceres Conference in terms of how they work on social responsibility investment, and specifically the ESG criteria they incorporate into their investments. Investors in general tend to focus on short-term return and thus ignore long-term sustainability of the business. For mutual funds and pension funds, however, long-term return and business sustainability are important to have stable and long-lasting performance for their clients. The first priority for institutional investors is nothing but maximizing the return to their customers. Therefore, the increasing interest in ESG investments show that more funds consider ESG investment a great opportunity.

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\(^{33}\) Yahoo Finance, May 2, 2008
and at the same time a huge risk if not incorporated, even though some firms are still not sure about the ESG investment\textsuperscript{34}.

**State Street Global Advisors (SSgA)**

SSgA is the investment management arm of State Street Corporation and has $2 trillion investment assets under management\textsuperscript{35}. SSgA is one of the leading financial firms in the US in terms of CSR reporting. SSgA has structured an ESG Investment team, led by dedicated, full-time investment professional who works with institutional customers in designing and managing ESG investment strategies.

Global Fundamental Strategies group manages strategies that focus on individual stock selection. In particular, energy, utilities, industrials and technology analysts factor in environmental sustainability as industry growth themes. Clean technology investment is growing as global environmental regulations expands. Also, clean air and climate legislation, targeting the utilities sector is taken into consideration by the analysts.

Global Active Investment team manages environmental Investment strategies that overweight companies with strong environmental sustainability while underweighting those with poor environmental practices. These products include a European Environmental Strategy and an International Environmental Strategy, both of which incorporate research from Innovest.

SSgA currently manages negative screen SRI portfolios using the following criteria: abortion/contraception; addictives; animal testing; diversity environment; firearms; genetically modified foods; Islamic screens; labor rights; MacBrid Principles; military; nuclear power; oppressive regimes; pornography. SSgA also manage assets implementing the following positive screens; community involvement; diversity; employee relations; and the environment.

SSgA has contracted with outside proxy agencies in order to vote in accordance with ESG principles. SSgA does not have a specific policy with regard to proxy voting on environmental issues, but votes in favor of environmental resolutions on strategies that implement ESG factors.

\textsuperscript{34} Page, Bill. “Climate change Poses Risks and Opportunities for Fiduciaries,” ESG Investing.

\textsuperscript{35} State Street CSR Report, 2006
Its policy and procedures are designed to ensure that its customers receive the best possible returns on the investments.

Although SSgA does not seek involvement in the day-to-day operations of an organization, it recognizes the need for conscientious oversight of and input into management decisions that may affect a company’s value. To that end, SSgA meets directly portfolio company representatives on a consistent basis in an effort to effectively monitor corporate management and ensure that shareholder value is being maximized.

**Calvert**

Calvert is a mutual fund which has $15 billion investment assets under management. Calvert offers investors the broad array of socially responsible mutual funds, believing that companies that proactively manage social and environmental issues will be bets positioned to outperform over the long term.

In evaluating prospective investments for the funds, Calvert employs two layers of analysis, which are financial and social criteria. As a first step, portfolio managers identify financially attractive opportunities and as a next step, Calvert’s social investment research analysts help identify companies with strong management and solid long-term, prospects by examining their social and environmental records.

The areas social investment research analysts examine are seven folds: governance and ethics; environment; workplace; product safety and impact; international operations and human rights; indigenous peoples’ rights; and community relations.
Findings

1. Historically, environmental disclosure leads to a 5% increase in stock price.

2. Companies’ climate initiatives are widely reported in the news, but are not yet tied to stock performance.

   Our event study indicates that news on companies’ climate initiatives, sustainability and conservation efforts gets published in a wide variety of media outlets including well-known, national and international newspapers. Climate news also makes the headlines. However we failed to find articles that connect a company’s financial performance or stock price to its climate initiatives.

3. There is no reporting on companies’ climate risks in analyst reports

   We did not find climate risk mentioned in analyst reports, including reports on firms like ExxonMobil and AEP that have the highest risk exposure to climate change and carbon regulations. Analyst reports evaluated the business risks associated with operation, competition, and economic growth but failed to include carbon regulation as one of the major risks.

4. Wall Street analysts currently do not consider climate risk in their evaluations of companies

   All of the analysts whom we interviewed do not currently consider climate risk as one of the risk factors when evaluating a company. The major determinant of stock price is quarter-to-quarter earnings. For brand name apparels, analysts consider brand equity as a value driver for the company. Some analysts commented on the fact that the lack of reporting standards makes climate risk difficult to measure. Furthermore, in the absence of carbon regulation, they don’t know what criteria to use even if they wanted to measure climate risk.

5. There is growing momentum toward better reporting of climate risks, but this momentum has yet to cause changes in stock price forecasting and evaluation

   There is no doubt that the momentum for standardized and mandatory carbon reporting is building. The news on carbon and the climate are making headline news, and every investment firm and company we looked at had a corporate responsibility effort on climate or at least the
An S-Lab (Spring 2008) Report for Nike

environment more generally. Many are also participating in voluntary efforts like the Carbon Disclosure Project. The discussions at the Ceres conference were very much about engaging shareholders’ and Boards of Directors in climate discussions, which is already well underway.
Sources


Citigroup, Inc. Available: citigroup.com


Feldman, Soyka and Amer, “Does Improving a Firm’s Environmental Management System and Environmental Performance Result in a Higher Stock Price?”


London Times Online. Available: http://www.timesonline.co.uk/tol/news/environment/article3740163.ece


UBS. Available: http://www.ubs.com/1/e/about/corporate_responsibility.html


Additional information on ISO 14064:

- http://www.sgs.com/iso_14064?serviceId=10045626&lobId=5554
## Appendix A: Wall Street Firm Climate Initiatives

<table>
<thead>
<tr>
<th>Bank Name</th>
<th>Policy</th>
<th>Sustainability Products</th>
<th>Internal Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Endorses the Global Roundtable on Climate Change Joint Statement on Climate Change</td>
<td>Sustainable Development Investments group (SDI)</td>
<td>Reduce carbon emission by 10% by 2011</td>
</tr>
<tr>
<td></td>
<td>Signed the Combat Climate Change Initiative</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Citi Group</strong></td>
<td>Has an Environmental and Social Risk Management Policy (ESRM) that guides environmental, social and governance analysis of business transactions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Follows the Equator Principle Guidelines</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Signatory of UN Environment Program and UN Global Compact</td>
<td>Energy contracting, Leu Prima Cat Bond, Energy Environment and Social Index (GSEES)</td>
<td>ISO14001-certified environmental management system (1st bank to obtain the certification)</td>
</tr>
<tr>
<td></td>
<td>Participates in the Carbon Disclosure Project</td>
<td></td>
<td>Became greenhouse gas neutral in 2006</td>
</tr>
<tr>
<td><strong>Credit Suisse</strong></td>
<td>Participates in the Carbon Disclosure Project</td>
<td>Energy Environment and Social Index (GSEES)</td>
<td>Center for Environmental Markets, the Global Investment Research Division, and GS Sustain all work to research, analyze, and evaluate risks associated with sustainability and climate change</td>
</tr>
<tr>
<td><strong>Goldman Sachs</strong></td>
<td>Follows the Equator Principle Guidelines</td>
<td></td>
<td>Reduce GHG by 7% by 2012</td>
</tr>
<tr>
<td></td>
<td>The Office of Corporate Citizenship publishes an annual Environmental Report</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**JP Morgan & Chase**

- Focuses on reducing GHG through working with clients and the government
- Founding partner of the Green Exchange
- Considering adding carbon disclosure to the client review process
- Liquidity provider to the Chicago Climate Exchange
- Investment research considers risks associated with carbon emissions
- 2004-2005 reduced carbon emissions per employee by 11%, goal is to be carbon neutral by 2009

**Merrill Lynch**

- Partner to the Carbon Disclosure Project
- Global Carbon Emission Index (MLCX)
- Environmental sustainability framework has five components: 1) Advocate for market-based solutions, 2) Confronting climate change, 3) Support the development of renewable energy, 4) Manage "own house"
- Carbon Leaders Europe Index, biofuel indices, energy indices, Climate Awareness Bond in the EU

**Morgan Stanley**

- Partner to the Carbon Principle
- Office of Environmental Affairs reports on environmental issues
- Participates in the London Accord
- Follows the Equator Principle Guidelines
- Participates in the Carbon Disclosure Project
- N/A
- Reduce GHG by 7-10% by 2012

**UBS**

- Participates in the Carbon Disclosure Project, the UN Global Compact, the Global Reporting Initiative, and the Who Cares Wins financial sector initiative
- Best-in-class fund, Global Innovator fund, Europe Carbon Optimized Index
- ISO 14001 certified, Socially Responsible Investment (SRI) group conducts research and produce reports internally to UBS
- Reduce CO2 emission by 40% by 2012
Appendix B: Climate Reporting Standard Summaries

The Carbon Disclosure Project (CDP)

The Carbon Disclosure Project (CDP)\(^{36}\) is an independent not-for-profit organization aiming to create a lasting relationship between shareholders and corporations regarding the implications for shareholder value and commercial operations presented by climate change. CDP provides a coordinating secretariat for institutional investors with a combined $57 trillion of assets under management. On their behalf it seeks information on the business risks and opportunities presented by climate change and greenhouse gas emissions data from the world's largest companies: 3,000 in 2008. Over 8 years CDP has become the gold standard for carbon disclosure methodology and process. The CDP website is the largest repository of corporate greenhouse gas emissions data in the world. CDP’s information is helpful to investors, corporations and to regulators in making informed decisions which take into account corporate risk from future government legislation, possible future lawsuits and shifts in consumer’s perceptions towards heavy emitters.

Climate Leadership Index (CLI)

The CLI is an index comprised of the "best in class" responses to the CDP questionnaire. It reveals for investors which Fortune 500 companies have the most comprehensive climate-change disclosure practices in place, judging by each company's response to the CDP questionnaire. However, their information is self reported and CLI has an arbitrary selection process for firms.

The Climate Registry

The Climate Registry is a nonprofit partnership developing an accurate, complete, consistent and transparent greenhouse gas emissions measurement protocol that is capable of supporting voluntary and mandatory greenhouse gas emission reporting policies for its members and reporters from across North America. It provides a verified set of greenhouse gas emissions data from its reporters supported by a robust accounting and verification infrastructure. The Registry is a relatively new initiative (started in 2007) and has not yet launched its Climate Registry Information System (expected in July, 2008) through which reporters submit their data.

Climate Leaders

The US Environmental Protection Agency (EPA) has established Climate Leaders, a voluntary industry-government partnership that "provides guidance and recognition to companies developing long-term climate change strategies.” Climate Leaders has more than 100 members from various sectors. Apparel industry partners include Gap Inc., LL Bean, and Kohl's

\(^{36}\) http://www.cdproject.net/online
Department Stores. Additional members include IBM, Citigroup, Target Companies and General Electric.

Through membership, partners gain sector specific guidance for how to report and reduce GHG levels. In return, Climate Leaders offers a "credible GHG reporting mechanism." The reporting requirements include an inventory management plan, annual reporting form, time line and expectations. Climate Leaders have developed a reporting form in Excel.

ISO 14064 (Greenhouse Gas Accounting and Verification)

The International Standards Organization has established a set of specifications regarding greenhouse gas emissions reporting. The standards are established in three complementary standards:

- ISO 14064-1:2006 - Specifies principles and requirements at the organization level for quantification and reporting of greenhouse gas (GHG) emissions and removals. It includes requirements for the design, development, management, reporting and verification of an organization's GHG inventory.
- ISO 14064-2:2006 – Specifies principles and requirements and provides guidance at the project level for quantification, monitoring and reporting of activities intended to cause greenhouse gas (GHG) emission reductions or removal enhancements. It includes requirements for planning a GHG project, identifying and selecting GHG sources, sinks and reservoirs relevant to the project and baseline scenario, monitoring, quantifying, documenting and reporting GHG project performance and managing data quality.
- ISO 14064-3:2006 – Specifies principles and requirements and provides guidance for those conducting or managing the validation and/or verification of greenhouse gas (GHG) assertions. It can be applied to organizational or GHG project quantification, including GHG quantification, monitoring and reporting carried out in accordance with ISO 14064-1 or ISO 14064-2.” It also “specifies requirements for selecting GHG validators/verifiers, establishing the level of assurance, objectives, criteria and scope, determining the validation/verification approach, assessing GHG data, information, information systems and controls, evaluating GHG assertions and preparing validation/verification statements.

European Union Emission Trading System (EU ETS)

The EU ETS (based on Directive 2003/87/EC) commenced operation in 2005 and is the largest international, multi-sector Greenhouse Gas emission trading scheme in the world. The ETS is based on the concept of ‘cap and trade’ in which allocations are made to countries, then industries within countries, then individual emitters, and each is encouraged to cut its own emissions when efficient, and either sell its surplus credits (if it generates less emissions that it is allocated) or buy credits (i.e. the right to emit) from the market if it is emitting more than it allocated. Allowances are tracked and traded in national registries in each member state, which ultimately report to the Community Independent Transaction Log.
Appendix C: Event Study: Firm Information

Wal-Mart

On September 24th, 2007, Wal-Mart announced a partnership with the Carbon Disclosure Project to measure the energy used to create the products it sells. A Reuters Key Development item on this news is included in Google’s news database, but it is not classified as a top Wal-Mart-related news item, nor is it connected to any changes in stock value. Figure 1 illustrates the lack of connection to stock price and financial news coverage. Furthermore, as can be discerned from Figure 2, Wal-Mart’s value does not seem to be varying appreciably over time from some of its top competitors as a result of its aggressive climate-related initiatives.

Figure 1

38 According to Google’s website, stories are classified as ‘top news’ and linked to the stock price history chart based on algorithms applied.
Herman Miller

Office furniture manufacturer Herman Miller is generally considered a corporate leader in sustainability. It joins Nike in Progressive Investors’ SB20: The World's Top Sustainable Business Stocks\(^\text{39}\) and has set the extremely ambitious goal of essentially eliminating its ecological footprint – including its carbon emissions – by 2020.\(^\text{40}\) Herman Miller is also one of the few companies that report its entire greenhouse gas emissions, including those in ‘scope three’ (employee commuting and product shipping).

Herman Miller has received a great deal of press due to its status as a corporate leader. While it is difficult to separate the impacts of its environmental policies from other factors, it is interesting to examine how Herman Miller’s stock price has changed compared to its competitors since it released its Environmental Policy Statement in January, 1999. Looking at Figure 3 Herman Miller has slightly outperformed many of its competitors; what is not obvious is whether or not there is any relationship between performance and green measures, including those relating to carbon emissions. It is more likely that Herman Miller’s aggressive environmental stance is indicative of a forward-thinking corporate culture that is also producing good long-term economic results for the business.

\(^{39}\) http://www.sustainablebusiness.com/index.cfm/go/progressiveinvestor.sb20p1
IBM was the only firm we researched for which climate-related news events were associated with stock value by Google Finance’s algorithms. Figure 4 illustrates the first incidence, a Reuters Key Event from May 9th, 2007, titled “IBM Corporation to Start Services Business Focused on Cutting Energy Usage-WSJ”. Figure 5 illustrates the second incidence, an eWeek article from May 1st, 2008, titled “IBM Launches Green Energy Tools for Data Centers”.

The probable reason why these announcements affected stock value while others did not is that they directly involve new business opportunities, rather than simply increasing savings and/or reducing risk exposure via reduced emissions. According to the associated eWeek article, “IBM's green data center initiative has already begun to pay off a year after it was launched. It generated nearly $200 million of technology-services contract signings in the first quarter and about $300 million in the fourth, Chief Financial Officer Mark Loughridge said in recent earnings presentations”. It appears that climate-related initiatives are noticed when they are directly generating substantial returns.

41 May 1st, 2008, eWeek article (http://www.eweek.com/c/a/Infrastructure/IBM-Launches-Green-Energy-Tools-for-Data-Centers/)
Tesla

As of April 29th, 2008, Tesco started piloting carbon footprint labels on twenty of its products, ranging from potatoes to light bulbs. This initiative received extensive attention from both the
mainstream and industry press\textsuperscript{42}, but none we could find in the (non-green business) financial news. As can be seen in Figure 6, news of this initiative was absent from financial reporting on Tesco on and around April 29\textsuperscript{th}. In fact, despite Tesco’s historical leadership role, we found scant mention of any climate-related projects or initiatives the company has taken on. The only related story found in Google Finance from the last two years is that they gained approval to construct two wind turbines at a store in York, UK\textsuperscript{43}.

It is virtually impossible to find any correlation between climate-related news and changes in Tesco’s stock price. Aside from the ‘noise’ from other unrelated factors, it is not clear that Tesco’s attempts to portray itself as climate-friendly always work as planned and thus have a positive influence on the firm’s value. For example, Tesco’s ‘green fuel’ (biodiesel) received negative press after a Greenpeace investigation found that a significant proportion in one sample was from palm oil, a net carbon emitter according to a University of Minnesota study.\textsuperscript{44} Furthermore, like Wal-Mart and other big box retailers, no matter how much Tesco greens its supply chain and reduces carbon emissions from operations, the entire business model may prove to be unsustainble – and thus undesirable to those concerned with overall firm-related emissions - when ‘third-order’ CO2 emissions from consumers driving to their car-centric stores are factored in.

\textsuperscript{42} Including coverage from SkyNews; the BBC; Reuters; the Daily Mail; SustainableBusiness.com; GreenBiz.com; IGD Food & Grocery Information, Insight & Best Practice; Farmers Weekly; and Planet Ark.
\textsuperscript{43} The York Press (http://www.yorkpress.co.uk/news/yorknews/display.var.2133500.0.tesco_wind_turbines_set_for_go_ahead.php)
\textsuperscript{44} Times Online (http://www.timesonline.co.uk/tol/news/environment/article3740163.ece)
Cadbury Schweppes

Cadbury Schweppes is also considered a market leader on climate-related issues. For example, in September of 2007, Cadbury Schweppes was recognized as ‘global best in class’ for the fourth year in a row by the Carbon Disclosure Project; it was chosen as one of “68 companies that showed distinction based on their reporting of greenhouse gas emissions and an independent assessment of their climate change strategies”.\(^{45}\)

On July 2\(^{nd}\), 2007, Cadbury Schweppes announced the aggressive ‘Purple Goes Green’ initiative, making it the first UK food manufacturer to make an “absolute commitment to climate action”.\(^{46}\) The initiative entails a 50% reduction in net absolute carbon emissions by 2020 - not merely relative carbon intensity - via ”saving, switching and, as a last resort, off-setting”. This involves reducing packaging, using better (e.g. biodegradable) packaging and water reduction programs, among other things. As can be seen in Figure 7, despite its magnitude, news of this announcement did not register in Google Finance’s system, nor was an appreciable change in the stock’s value recorded for that or the subsequent days.

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\(^{45}\)http://www.cadburyschweppes.com/EN/MediaCentre/PressReleases/CADBURY+SCHWEPPES+RECOGNISED+AS+GLOBAL+BEST+IN+CLASS+FOR+FOURTH+YEAR+RUNNING.htm

\(^{46}\)Cadbury Schweppes Press Release (http://www.cadburyschweppes.com/EN/MediaCentre/PressReleases/PURPLE+GOES+GREEN+CADBURY+SCHWEPPES+FIRST+UK+FOOD+MANUFACTURER+TO+LAUNCH+ABSOLUTE+COMMITMENT+TO+CLIM.htm)
On October 9th, 2007, Cadbury Schweppes announced that it would publish data on greenhouse gas emissions from its entire global supply chain as part of plans to reduce its carbon footprint by 50 per cent, as promised in its ‘Purple Goes Green’ commitment. Carbon Disclosure Project CEO Paul Dickinson is quoted as saying that “this partnership between CDP and Cadbury Schweppes is a very significant milestone in corporate action to mitigate climate change. He goes on to say that "by engaging its supply chain in the CDP process, Cadbury Schweppes will encourage its suppliers to measure and manage their greenhouse gas emissions, and ultimately reduce the total carbon footprint of Cadbury Schweppes' indirect emissions". Once again, as can be seen in Figure 7, this announcement did not register in Google Finance’s news system, nor have an effect on the stock’s value.

Figure 7

Nike

As mentioned previously, Nike is itself an industry leader on climate-related initiatives. Reflecting this, Nike joined Canon and Unilever at the top of the first Climate Counts Company

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Scorecard, released on June 19th, 2007. The Scorecard was widely covered in the press - including in the New York Times and Harvard Business Review – but, as can be seen in Figure 8, did not register in Google Finance’s news system, nor have an effect on the stock’s value. As can be seen in Figure 9, there is also no noticeable change in the value of Nike’s stock around the time of this announcement relative to the value of it’s competitors.

Figure 8

Figure 9

KSWS = K-Swiss Inc; BOOT = LaCrosse Footwear Inc; DECK = Deckers Outdoor Corporation; COLM = Columbia Sportswear Company

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Appendix D: Research findings of Best Practice Companies

We looked at the climate activities of four companies: Cadbury-Schweppes, IBM, Tesco, and Wal-Mart. All four companies are considered to be among the ‘best-in-class’ in their respective industries in terms of corporate social responsibility, and all have undertaken actions toward improving the environment through climate reporting, CO₂ reduction, and energy conservation.

These firms take on a range of climate activities and publish their activities in either annual or bi-annual corporate responsibility reports. All of them have an energy conservation initiative with goals set to reduce energy use, reduce waste, and to use more renewable energy. Wal-Mart is the most aggressive in this regard, aiming to achieve 100% renewable energy use. IBM and Wal-Mart are also actively investing in new technologies and integrating them into their business operations.

In terms of reporting, Cadbury-Schweppes and Tesco submit to the EU Emissions Trading Directive. All companies report to the Carbon Disclosure Project. Wal-Mart seems to be most proactive in making its carbon footprint known to the public, as it publishes an interactive carbon footprint website on its homepage.

**Cadbury-Schweppes**

Cadbury-Schweppes focuses on five issues of corporate and social responsibility: Marketing, food and consumer issues; Ethical sourcing and procurement; Environmental health and safety; Human rights and employee standards; and Community investment. The company’s environmental efforts are mainly around energy conservation and reduction of CO₂ emissions.

**Goals and Objectives**

*Purple Goes Green Commitment*

- Shrink environmental footprint by cutting energy use, reducing excess packaging and managing water use.
  - 50% reduction in net carbon emissions
  - 10% reduction in standard and 25% for seasonal and gift packaging, 60% biodegradable packaging.
  - 100% water scarce sites with reduction programs.
- Campaign for change and demonstrate the company’s commitment by working with shops, suppliers, other food companies and governments to make a difference.

*Climate Change – CO₂ and Energy*
• Control the company’s own use of energy.
• Switching to cleaner fuels like natural gas and bio-fuels.
• Adopt new technologies that help reduce carbon foot-print: energy efficient steam boilers, energy efficient lighting, variable frequency inverter speed controllers, and better thermal insulation.
• Plants in EU must meet the requirements of the EU Emissions Trading Directive.

Reporting

Cadbury-Schweppes CSR activities are reported and rated by the following indices:

• Dow Jones Sustainability World Index – 73% in 2005
• FTSE4Good
• Placed in the Global 100 Most Sustainable Corporations in 2006
• Business in the Community Corporate Responsibility Index – 92.5% in 2005
• Carbon Disclosure Project – Top 60 companies in Fortune 500

Global Reporting Initiative (GRI)

Cadbury-Schweppes participates in the Global Reporting Initiative, which is a multi-stakeholder group that has developed “Sustainability Reporting Guidelines”, including a set of indicators for reporting on economic, environmental, and social performance. GRI is voluntary and intended for use by organizations across many different sectors. Cadbury-Schweppes also hired Deloitte & Touche LLP to develop an assurance statement on the company’s CSR activities.

IBM

IBM's first corporate environmental policy was established in 1971 and has been expanded to cover a wide range of issues ranging from pollution prevention, chemical and waste management, energy conservation, supplier quality, worker safety and environmental reporting.

IBM’s environmental management system supervises its environmental policy and focuses on two key aspects in regard to protecting the environment: IBM’s business operations and their environmental impact; and Innovation that helps to improve the environment.

IBM has been reporting on its environmental responsibility annually since 1990. In terms of climate change, IBM has reduced CO2 emissions through energy conservation. From 1990-2006, they conserved 4.5 billion kWh, avoiding 3 million tons of CO2 emissions, and saved $290 million. IBM has been participating in the Department of Energy's (DOE) Voluntary Greenhouse Gases Emissions Reporting program since 1995 and has reported under the carbon Disclosure Project since it began.
Goals and Objectives

In 2006, IBM updated its corporate-wide energy conservation goal, decoupling the measurements for energy conservation from renewable energy sourcing. The new goal is to reduce CO2 emissions associated with its energy use by 12 percent between 2006 and 2012 through:

- Energy conservation;
- Use of renewable energy; and/or
- Offsetting remaining emissions via the procurement of Renewable Energy Certificates (RECs) or comparable instruments.

In 2007, IBM aims to purchase an additional 19,865 MWH of renewable energy, bringing total anticipated direct renewable energy purchased to 357,000 MWH.

Reporting

IBM discloses its GHG emissions in three ways:

- Under WWF Climate savers, this is independently reviewed by the Center for Energy & Climate Solutions.
- With US EPA Climate Leaders program, that is reviewed by the EPA.
- Under the Chicago Climate Exchange, that is independently reviewed by the National Association of Securities Dealers.

IBM has formed partnerships with many socially conscious investment and environmental organizations and has joined a number of voluntary performance initiatives with governmental and nongovernmental organizations. Some examples are: Green Power Market Development Group, the World Wildlife Fund’s Climate Savers program, and the Pew Center on Global Climate Change.

Tesco

Tesco’s Corporate Responsibility Committee, which consists of 17 cross-functional members, takes the leadership of the Corporate Governance. They meet at least 4 times a year and hold two away-days each year. The also invite external speakers to bring in different perspectives and new information.

Corporate Responsibility is conducted through the Community Plan. Their Steering Wheel package specifies a series of indexes to be satisfied, and the Plan sets out specific projects for the business to deliver in the following 12 months.
Tesco’s general approach to climate change is: Help customers make green choices; set an example by measuring and making big cuts in Tesco’s greenhouse gas emissions around the world; and work with others to develop and implement new low-carbon technologies throughout the supply chain.

**Goals and Objectives**

Tesco developed nine major categories of Key Performance Indicators (KPI) to measure its corporate responsibility performance, the nine KPIs are: (1) Being a good employer, (2) Climate change, (3) Sustainable consumption, (4) Waste, packaging and recycling, (5) Farmers and local sourcing, (6) Retail and the High Street, (7) Health, nutrition and well-being, (8) ethical trade and developing countries, and (9) Charities and community.

Each KPI is rated as below target, on target, or above target every year and reviewed each year to ensure that they are meeting the needs of Tesco’s stakeholders.

The KPI on environment includes:

- Reduce energy use per square foot by 50% between 2000 and 2010
- Increase the amount of cases it deliver per kg of CO₂ produced by 30% between 2006/07 and 2008/09
- Reduce water consumption by 15% between 2006/07 and 2008/09
- Register all growers to Nature’s Choice by the end of 2006/07
- To ensure 100% of suppliers comply with Nature’s Choice standards by 2006/07
- To ensure all pesticide used by growers are reviewed by the end of 2006/07
- Divert 80% from landfill between 2006/07 and 2008/09

**Reporting**

In addition to internal reports on the corporate responsibility review and the annual report on social, environmental and ethical policies, Tesco reports to the Carbon Disclosure Project. Tesco also measures its carbon footprint in accordance with the guidelines set by the World Business Council for Sustainable Development (WBCSD).

Tesco’s recently announced carbon footprint labeling pilot project is also notable.\(^{50}\) Labels are being printed on 20 products to test both the internal process of calculating embedded carbon, and external customer and other stakeholder reaction. They are one of the first major firms to engage in this practice.

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Wal-Mart

Wal-Mart’s long-term sustainability goals are to have 100% renewable energy and zero waste in all of its business activities. The company has committed to investing $500 million per year to reach these goals.

Goals and Objectives

Wal-Mart’s long-term goal is to acquire all of the energy it consumes from renewable sources. The company has set several benchmarks along the way to improve the energy efficiency of its stores and trucking fleet. These benchmarks are:

- Existing stores 20 percent more efficient in seven years
- New stores 30 percent more efficient in four years
- Truck fleet 25 percent more efficient in three years, double in 10 years

The company has established a Climate Change Network to meet the above objectives, and has committed to the following:

- Investing ~$500 million annually in sustainable technologies and innovations.
- Sharing knowledge and learning with stakeholders and competitors, so that more organizations embrace and utilize the technology.
- Pursuing regulatory and policy changes that will create incentives for utilities to invest in energy efficiency, use low or no greenhouse gas sources of electricity, and reduce barriers to integrating these sources into the power grid.
- Assisting in the design and support of a Green Company program in China, where Wal-Mart will show preference to those suppliers and their factories involved in such a program.
- Initiating a program in the U.S. with the help of the Carbon Disclosure Project to bring awareness to and eventually show preference to suppliers who set goals and aggressively reduce their own emissions.

Reporting

Wal-Mart reports its carbon reduction activities on its interactive website. The company also reports to the Carbon Disclosure Project.