CARBON DISCLOSURE PROJECT

Carbon Disclosure Project 2005

On behalf of 155 investors with assets of $21 trillion.

Report written by

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CDP Signatories 2005

This report is based on the submissions from corporations in response to the third information request sent by the Carbon Disclosure Project (CDP3) on 1st February 2005.

This summary report, the full report and all responses from corporations are available without charge from www.cdproject.net

The contents of this report may be used by anyone providing acknowledgement is given. 155 investors were signatories to the CDP3 information request dated 1st February 2005 including:

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The 155 Signatories to the Carbon Disclosure Project's third information request (CDP3) represent over $21 trillion in assets, a doubling from CDP2 (95 investors with $10 trillion in 2004) and quadruple that of CDP1 (35 investors with $4.5 trillion in 2003). This increased interest from the investment community, coupled with a record-high 71% disclosure rate to the CDP information request sent to the Financial Times Global 500 companies on 1st February 2005, points to a continued elevation of climate change as a critical shareholder value issue in the minds of investors and corporations alike. This report outlines the key issues that make climate change an investment-relevant issue and draws upon company responses from the FT500 to highlight important trends, quantify the risks and direct attention to new investment opportunities.

The responses from corporations are available to download at www.cdproject.net

Executive Summary

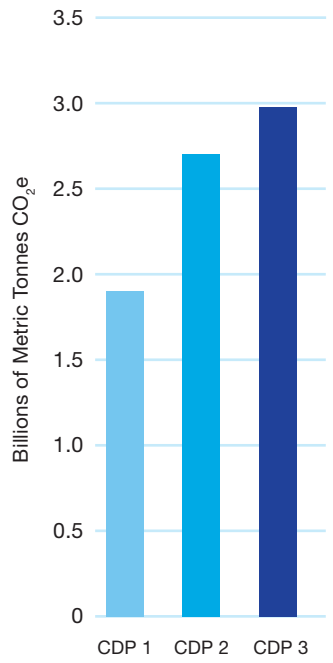
71% of Corporations Disclosed to CDP3

The 155 Signatories to the Carbon Disclosure Project's third information request (CDP3) represent over $21 trillion in assets, a doubling from CDP2 (95 investors with $10 trillion in 2004) and quadruple that of CDP1 (35 investors with $4.5 trillion in 2003). This increased interest from the investment community, coupled with a record high 71% disclosure rate to the CDP information request sent to the Financial Times Global 500 companies on 1st February 2005, points to a continued elevation of climate change as a critical shareholder value issue in the minds of investors and corporations alike. This report outlines the key issues that make climate change an investment relevant issue and draws upon company responses from the FT500 to highlight important trends, quantify the risks and direct attention to new investment opportunities.

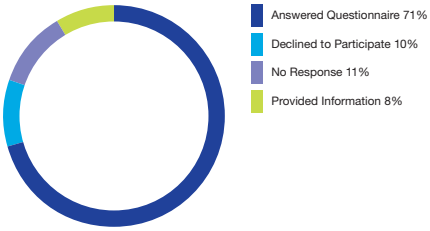
Key Climate Change Developments Affecting Investors Since CDP2

- **The Kyoto Protocol has been ratified and the EU Emissions Trading Scheme (EU ETS) is now in effect.** Many companies have wasted no time positioning themselves to be winners under the new carbon regulations. There is now a defined market price for a tonne of carbon through the EU ETS. Investors now have new, identifiable regulatory risks embedded in their investment portfolios. These developments also stand to affect the magnitude and direction of the capital commitments on the part of industry.
- **Parallel regulations and policies are emerging** in multiple non-Kyoto countries, portending a shift towards a carbon-constrained global economy. The Asia-Pacific Partnership for Clean Development and Climate (Asia Pacific Pact), signed in July 2005 by the world's four largest coal consuming states (the United States, China, India and Australia) plus Japan and South Korea, calls on member countries to set individual targets for reductions in GHG emissions and has set the stage for increased collaboration in clean technology projects at the international level.
- **Investment in "clean technology" continues to rise** as investors seek to hedge their exposure to anticipated increases in carbon costs. According to Cleantech Venture Network, global clean tech investment in 2004 totaled $1.209 billion, up 3.4% from the $1.169 billion recorded in 2003 and up 11.4% from the 2002 total of $1.085 billion.
- **A sea-change in corporate positioning on climate change is discernible** over the past 18-months. Perceptions are changing most noticeably among U.S. based companies, many of which have publicly asked for greater regulatory certainty on greenhouse gas emissions (GHGs). Companies such as **Duke Energy, GE** and **JP Morgan Chase** have made notable strategic leaps.
- **35% of the FT500 now report taking early action in emissions trading.** Trading at just under €22 per tonne at the time of writing, CO_2e prices have soared over 300% since January 2005. "Carbon funds" that invest in emission reduction credits have grown substantially: over $1.5 billion is currently committed in 15 carbon funds worldwide. Further, several FT500

Total Emissions Reported Through CDP



CDP3 Response Rates



As the chart indicates, the disclosure rate now stands at 71%, up from CDP2, and 47% in CDP1

financial services companies report offering innovative new climate-linked financial and insurance products to corporate clients. "Carbon commerce" continues to gain mainstream momentum, as a number of U.S. hedge funds have entered the carbon market. In Europe, IPOs were recently launched for emission trading firms AgCert and Trading Emissions Plc., both of which gained robust valuations.

- **Climate change litigation continues to loom as a threat to big emitters.** The threat of lawsuits similar to that of asbestos and tobacco litigation has not receded. The U.S., Europe, Australia and even Africa have witnessed important litigation developments over the past 12 months.
- **Clarity on the science of climate change has never been stronger,** and the overwhelming majority of evidence indicates that human influences will increasingly alter the Earth's climate through the 21st century and beyond. According to the Association of British Insurers, the costs from hurricanes, typhoons and windstorms will rise from $16 billion today to an average of $27 billion per year by 2080.
- **Accounting organizations move to codify carbon accounting and disclosure rules.** With Kyoto in place and the EU Emissions Trading Scheme, accounting bodies are beginning to provide guidance regarding the proper accounting for emissions allowances in financial statements and the disclosure of climate risk in the Management Discussion and Analysis.
- **Investors collaborate to request more transparency on climate exposures.** Through the CDP, investors are collaborating to push for greater disclosure on climate risks and the extent of company preparedness. The London based Institutional Investors Group on Climate Change (IIGCC) now has 28 members with significant assets. The last UN-hosted Investor Network on Climate Risk (INCR) meeting in May 2005 featured 9 U.S. State Treasurers and a veritable who's who of Wall Street. Shareholder resolutions on climate change have also gained popularity as a means for shareholders to voice their concerns over a lack of management response to climate risks. A total of 30 climate change resolutions were filed in 2005, an increase of 36% from the 22 resolutions filed in 2004.

Analysis of CDP3 Responses

- **71% of companies completed the information request,** a jump from 59% in CDP2 and 47% in CDP1. 89% of the FT500 companies responded to the CDP3 information request, an increase from 86% in CDP2 and 78% in CDP1. The rise is likely attributable to a combination of the increase in investor assets supporting the CDP and the mounting awareness of climate change risks from the FT500 companies themselves.
- **The cost of carbon may erode annual net income by as much as 45%,** depending on carbon prices, compliance periods and individual company circumstances. Conversely, carbon costs will have a net positive effect on firms with a surplus of allowances. This report models the potential impact of carbon costs across a range of prices on a sector-by-sector basis.
- **Awareness of climate change and opportunities rises, but gaps in action remain.** Over 90% of responding companies flagged climate change as posing commercial risks and/or opportunities to their business. However, only 51% have implemented emission reduction programs; only 45% have established emission reduction targets; and only 35% report having taken early action in emissions trading.
- **Most companies in the FT500 are not reducing their emissions.** While only the performance of companies that provided emissions data is known, in the period between CDP2 and CDP3, only 13% of these firms reported a reduction,

while 17% reported an increase. For comparison purposes, in the period between CDP1 and CDP2, only 11% of the FT500 reported that they had reduced their absolute emissions, while about the same number reported an increase.

- **Differences of opinion remain among same-sector companies** on the relevance of climate change as a material risk issue. Examples were found where companies with very similar business models had radically different perspectives on what climate change could mean for their shareholders. Not surprisingly, these differences of opinion were also reflected in the level of sophistication of their climate change strategies.
- **Company "Carbon Beta©" varies widely but not all companies are equally prepared.** In analyzing the company responses it was clear that each sector contains a vanguard of leading firms. Also, most sectors have companies that appear to have no strategic direction on climate. Our analysis of carbon beta – the carbon risk of a particular company relative to its sector – shows that large carbon risk differentials exist, both between and within sectors.
- **Some companies simply did not respond to the CDP questionnaire, despite CDP signatories holding more than 20% of their outstanding shares.** In an era when the capital markets increasingly value disclosure and climate change is quickly rising up the agendas of major pension funds, asset managers, bankers, insurers and analysts, the lack of responsiveness to the CDP information request does not reflect well on these firms and may indicate that these companies are unprepared.
- **Only 54% of FT500 companies disclosed emissions data in CDP3,** despite being asked specifically to do so. Disclosure fluctuates significantly both among companies and among sectors. Some high-impact sectors including Aerospace & Defense, Oil & Gas Exploration and Production, Industrial Conglomerates and Surface Transport have conspicuously poor disclosure rates of less than 50 percent.
- **Total emissions reported to CDP equaled 2,994,834,887 metric tonnes of CO_2e** (up from 2,791,725,485 in CDP2). This sum represents roughly 13% of total anthropogenic GHG emissions worldwide.

"European cars are far more fuel efficient than American cars, because fuel in Europe is around four or five times the price of fuel in the US. Market price mechanisms work. This is far more radical than Kyoto, and people notice."

Alan Brown, the then CIO of State Street Global Advisers speaking at the CDP2 report launch in New York 21 May 2004.

Summary of Sector Risks	
Automobiles	Among top auto manufacturers, there is a 25% difference in average fuel efficiency for the line of passenger cars sold in 2004.
Banks	Certain banks have upwards of 50% of their commercial loan portfolio directed towards "high risk" sectors with exposure to both the regulatory and weather risks of climate change.
Chemicals	Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed company in the Chemicals sector could face annual compliance costs of nearly 4% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 1.5%.
Electric Utilities – International	Assuming a price of €40 ($50) per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed company in the Electric Utilities – International sector could face annual compliance costs of nearly 8% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 1%. Some large emitters could see financial windfalls from carbon pricing scenarios.
Electric Utilities – North America	Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed company in the Electric Utilities – North America sector could face annual compliance costs of over 20% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 1%.
Metals & Mining	Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed Metals & Mining company could face annual compliance costs of nearly 22% of net income. Conversely, given the same assumptions, the least exposed firm faces approximately 2%.
Oil & Gas	Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed Oil & Gas company could face annual compliance costs in excess of 2% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 0.5%.

Contents

1 The Carbon Disclosure Project (CDP) is a coordinating secretariat for institutional investor collaboration regarding climate change. Its aim is twofold: to inform investors regarding the significant risks and opportunities presented by climate change; and to inform company management regarding the serious concerns of shareholders regarding the impact of these issues on company value.

"We suggest that it is consistent with fiduciary responsibility to address climate change risk." Mercer Investment Consulting

Background to the CDP

Having launched at No 10 Downing Street in 2000, the Carbon Disclosure Project has now issued three information requests to the FT500 companies focused upon the potential shareholder value implications represented by climate change. The questions underlying the original request were developed with the support of 45 experts from varying constituencies. These questions have been improved each year based on the responses and comments received. The basic format of the project has remained unchanged. The first request was supported by 35 institutional investors representing $4.5 trillion in managed assets. The response rate was a credible 47% and Sir Derek Higgs spoke at the report launch in London, while Madeline Albright did so in New York. UK Prime Minister Tony Blair commented on the launch of the first CDP report as follows:

"Congratulations on the success of the Carbon Disclosure Project. It has some important messages for all of us. Crucially, it illustrates how the answer to reducing greenhouse gas emissions lies as much with companies and investors as it does with governments, international agencies and the public.

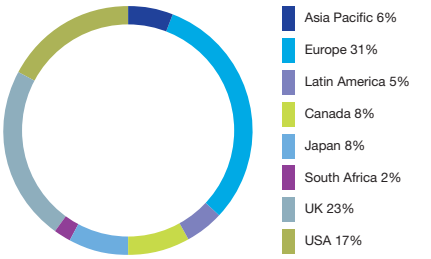
No industry can afford to ignore the issue. And indeed the project demonstrates that many investors have a very comprehensive view of their fiduciary responsibilities to invest prudently... I hope the Project goes from strength to strength."

Last year's second Carbon Disclosure Project (CDP2) gathered the support of 95 institutional investors representing some $10 trillion in managed assets.

The response rate moved up to 59%, reflecting the increasing macro-economic importance surrounding the issue and the increase in investor support. Innovest again authored the report and the London launch featured a keynote address by Sir John Bond, Chairman of HSBC Group while Alan Brown (then) CIO of State Street Global Advisors delivered the keynote in New York. In addition other high profile launch events were held in Hong Kong, Toronto, Melbourne and Milan. CDP are particularly indebted to the Development Bank of Japan who not only hosted an excellent launch event in Tokyo, but also for the second time translated the entire CDP report into Japanese. We extend to them the kind thanks of the CDP Secretariat and the signatory investors.

In 2005 (CDP3), the globalization of the initiative has taken another giant leap forward. The CDP letter now bears the names of 155 signatory investors with total assets of more than $21 trillion, an amount close to double the US Gross Domestic Product. The response rate is a record 71%. Significantly, the participating institutional investors now represent all major financial centres in the world. This year's report will be officially launched in New York on 14th September, with presentations from Margaret Beckett, UK Secretary of State; Jim Rogers, CEO, President and Chairman of Cinergy (CEO designate of Duke Energy); New York State Comptroller Alan Hevesi and Richard Sandor, CEO of the Chicago Climate Exchange. The reasons for CDPs success are many. No longer can fiduciaries claim to be unaware of what is at stake. Taking climate risks into account is now becoming part of smart financial

CDP3 Signatories by Geography



management. Failure to do so may well be tantamount to an abdication of fiduciary responsibility and indication of poor management. The leading investment consultants, Mercer stated in their recent report: "A trustee's perspective: addressing climate change as a fiduciary issue": "The materiality of climate change as outlined in this document clearly shows that climate change risk could have the potential to impact a Fund's investments over the long term.
In addition, we suspect climate change risk is neither fully known nor understood and that it is not yet properly managed by the various groups involved in the ongoing management of pension scheme assets. In line with these definitions of fiduciary responsibility, we suggest that it is consistent with fiduciary responsibility to address climate change risk."
The full report is available from www.thecarbontrust.co.uk.

CDP is able to accept responses from non-FT500 companies at any time. These responses will be made available from the CDP website.

Future plans

CDP is now an annual process and the CDP4 information request will be sent on 1 February 2006.

CDP will focus on improving the quality and quantity of responses from corporations and helping to establish sector metrics for emissions.

The proven effectiveness of the CDP process has led to requests for expansion of the sample beyond FT500 companies. With a range of partner organizations CDP is negotiating for expansion of the sample to include:

– the 300 largest electric utilities in the world.

– the largest companies in Canada, Brasil, France, Australia, Asia and other countries.

CDP would be delighted to explore future participation with all interested institutions and invite such organizations to contact us at info@cdproject.net.

The CDP Secretariat extend sincere thanks to the signatory investors and responding corporations, for participation in CDP3.

"US states discharge a heavy responsibility to invest on behalf of millions of public employees. We believe it is inevitable that at some point the US will join the other G8 countries and introduce limitations on the emissions of greenhouse gasses. That is why we are leading investor collaboration to gather the data on corporate greenhouse gas emissions required to undertake prudent investment management. And that is why CalPERS, CalSTRS and the California Treasury are participants in the Carbon Disclosure Project. We encourage fund managers interested in our business to follow suit."

Steve Westly Controller California and Trustee to CalPERS and CalSTRS

Comments regarding CDP

The Government Accountability Office of the US Congress has issued a report entitled: "Environmental Disclosure, SEC Should Explore Ways to Improve Tracking and Transparency of Information." It states: "One-third of the experts that participated in our survey (10 of 30) had suggestions for improving environmental disclosure by non regulatory means... they cited... the Carbon Disclosure Project... an organization of institutional investors".

Joachim Faber, Allianz AG board member responsible for asset management, comments: "As an investor, we are concerned to know whether the companies we are investing in are adequately taking account of climate related risks. However, the data is often not available, sometimes not comparable or of poor quality. As a part of the Carbon Disclosure Project, we hope to collect more reliable data, so eventually, a common emissions measurement methodology can be developed."

Jeff Immelt CEO of General Electric commenting on the impact of CDP stated: "...we are moving ahead with data collection and analysis to enable us to plan for the future."

UK Environment Minister Elliot Morley "The Carbon Disclosure Project is doing very important work in pushing the agenda in the boardrooms of the world. As a whole, the Carbon Disclosure Project is helping to create the circumstances in which taking carbon emissions seriously is viewed as the norm by companies and investors worldwide."

Madeleine Albright, former Secretary of State speaking at the CDP1 launch said: "Our business is to help investors vote with their money."

The Wall Street Journal

Moving the Market: Investors Urge Large Companies To Disclose Data on Emissions. 2 February 2005
In the latest sign of investor activism on global-warming issues, a letter signed by 143 institutional investors asks the world's largest companies to disclose information n their industrial emissions. The investors, with assets totaling $20 trillion... Alex Popplewell, head of socially responsible investment research at Merrill Lynch Investment Managers, said his firm isn't making a political or economic judgment. "We're not prejudging whether emissions will affect clients' economic value, but unless it's disclosed we can't make that decision."

Financial Times

Japan puts Climate Change on the Agenda. 2 June 2004
Four out of five Japanese companies contacted by the Carbon Disclosure Project (CDP), which represents institutional investors on environmental issues, responded to a questionnaire on emissions and environmental policy, nearly double the US response rate.

The Economist

'Blue-chip' firms warm to climate change challenge. 17 June 2004
Tackling climate change is a growing part of the CSR strategies of blue-chip companies, according to a recent report by a consortium of investors, consultancies and funding institutions. The London-based Carbon Disclosure Project (CDP) 2004, which questioned the FT500 companies on emissions and climate-change strategies, also reveals more comprehensive data than previously available through other corporate or governmental sources.

New York Times

Survey Finds More Corporate Attention to Climate Change. 19 May 2004
Many of the world's largest companies appear to be paying greater attention to the business risks and opportunities posed by global warming and climate change, according a group of institutional investors who will release their second annual survey on the subject today.

2 As with last year's CDP, every response in every industrial sector has been assessed and categorized. Based entirely on the responses received by the Carbon Disclosure Project, we have constructed a Climate Leadership Index (CLI), comprising the 60 "best in class" responses.

Climate Leadership
Index 2005

Fifteen high-impact sectors were selected, based on their relative carbon intensity and financial sensitivity to climate-related impacts. In addition to the twelve sectors from last year's CLI, we have expanded this year's index to include the Industrial Conglomerates, Pharmaceuticals and Telecommunications sectors. Moreover, given the growth in the disclosure rate (up from 59% in CDP2 to 71% in CDP3), we expanded the CLI to 60 firms (up from 50 in CDP2).

From the fifteen high-impact sectors, companies deemed to have above average responses were chosen as potential candidates for inclusion in the CLI. From this pool of above-average candidates, a shortlist of companies that provided the best responses was chosen. The companies in the CLI were selected on the basis of:

- Breadth of climate-change issues addressed (see the 6-factors below)
- Depth, completeness, and sophistication of the responses
- Innovest's assessment of the companies' climate-change strategies, demonstrated risk-management capability, and strategic positioning vis à-vis "next-generation" opportunities.

How have the responses been evaluated?

The 6 factors used to evaluate company CDP responses are based on the CDP questionnaire submitted to the FT500 on behalf of the signatories.[1] These are:

1. Strategic Awareness: the extent to which a firm considers climate risks and opportunities to be relevant to its business.
2. Management Accountability/Responsibility: whether and how a company has allocated responsibility for the management of climate-related issues.
3. Emissions Management and Reporting: the progress a company has made in quantifying and disclosing/reporting its emissions profile, including the use of third-party verification.
4. Emissions Trading: the extent to which a firm has considered emissions trading in its risk management response.
5. Programs in Place: quality and nature of any emissions reduction programs, including energy efficiency, which a firm has implemented.
6. Establishment of Targets: have formal GHG emissions/reduction targets been set with a timeline?

1 The full 9-point questionnaire sent to the FT500 companies can be found in the back of this report in Appendix B.

To determine the number of CLI companies included in each sector, the responses were analyzed to establish a best-in-class level of response quality for each sector based on the criteria articulated in the report. Those that equaled the best-in-class quality were included in the index, while those that fell below were excluded. Some industry sectors have more "best in class" respondents than others. Several caveats are, inevitably, in order:

1. The analysis is based on self-reported, non-verified responses.
2. The analysis is focused more heavily on carbon management structures and capabilities than on either company specific levels of risk exposure, marginal abatement costs or actual emissions reductions.
3. The choice of 60 as the cut-off point for inclusion in the Climate Leadership Index was an arbitrary one. As with any effort made to "draw the line" at a particular point, a number of well qualified firms have been excluded.

The 60 companies selected comprise the 2005 Climate Leadership Index (CLI). New entrants to this year's CLI are highlighted in light blue. Relative to their FT500 sector peers, the companies listed are comparatively well-positioned to respond to the financial implications of global climate change.

Below are some comments from the Climate Leaders responses to CDP3

Air Products

Air Products is involved in gas-to-liquids (GTL) and liquefied natural gas (LNG) technologies that enable economic recovery and use of natural gas reserves located in remote areas not accessible to pipelines. This is an expected growth area because natural gas is being viewed as a "bridge" fuel, playing a significant role in the 21st century transition to a post-fossil fuel economy.

BASF

BASF produces a range of products that allow CO_2 emissions to be reduced. Examples are our heat insulation materials, our fuel additives, and our plastics for automotive engineering. Our plastic EPS alone reduced CO_2 emissions by 138 million tons in 2003 through improved heat insulation. Our fuel additives reduced CO_2 emissions by 22 million tons in 2003. Between 1990 and 2002 we reduced GHG emissions by 38 percent in absolute terms. Between 2002 and 2004 we reduced emissions per metric ton of sales product by 1.4 percent. In June we inaugurated our second combined heat and power plant at our Ludwigshafen site in Germany. We invested €240 million in the construction of this plant. It will reduce CO_2 emissions by more than 500,000 metric tons annually.

Bristol-Myers Squibb

..accept our responsibility to reduce emissions of greenhouse gases and have established long-range goals for the company in this regard... Our strategies and actions taken include managing and reducing energy demand/consumption, working with our energy suppliers to evaluate green energy options, increasing equipment efficiencies, site operations to conserve natural resources, and applying new/emerging and more energy efficient technologies throughout our operations.

Cadbury Schweppes

In the event of severe climate change, it is possible that water will become an increasingly scarce resource in many parts of the World. As water is an essential ingredient for beverages and is also required for cleaning/hygiene purposes for all food manufacturing processes, this could well turn out to be the biggest potential impact for us. We have therefore implemented programmes to reduce our consumption and use of water so that we can minimise any such future potential impact on our business.

Climate Leadership Index 2005

Sector	Companies
Automobiles	BMW Daimler Chrysler Ford Honda Toyota
Banks	ABN AMRO Barclays Dexia HBOS HSBC HVB RBC UBS Westpac
Chemicals	Air Products & Chemicals BASF Bayer Dow Chemical DuPont
Diversified Financials	Citigroup Fortis ING
Electric Power – International	Endesa Enel Iberdrola Kansai Electric Power Scottish Power
Electric Power – N. America	American Electric Power Duke Energy Entergy Exelon FPL Group
Food Products, Beverages & Tobacco, Food & Drug Retailing	Cadbury Schweppes Tesco Unilever
Industrial Conglomerates	General Electric Siemens
Insurance & Reinsurance	Allianz Munich Re Swiss Re
Integrated Oil & Gas	BP ChevronTexaco Norsk Hydro RD/Shell Suncor
Metals & Mining	Alcan Alcoa Anglo American BHP Billiton Rio Tinto
Paper and Forest Products	International Paper Stora Enso
Pharmaceuticals	Bristol-Myers Squibb GlaxoSmithKline Novo Nordisk
Telecommunications	BT Group Deutsche Telekom Telstra
Transportation	Mitsui UPS

Deutsche Telekom

Views climate protection as one of the greatest challenges facing society in the 21st century. We are convinced that the global consumption of resources will continue to escalate in the future, and the resultant emissions will lead to an exacerbation of environmental problems. With this in mind, for many years we have been firmly committed to reducing CO_2 emissions, and continue to play an active and formative pioneering role in this field.

Dow Chemical

In 1995, Dow set an energy-intensity goal to reduce energy use per pound of production by 20% by 2005. In 2004 we achieved that goal a year early, having reduced our energy intensity by 21% since 1994. Just in 2004 alone, energy intensity was down 5%. Cumulatively through that period, Dow saved approximately $3 billion in energy costs.

Duke Energy

Duke Energy now supports the enactment of U.S. federal legislation that will result in a gradual transition to a lower-carbon intensive economy – preferably in the form of a federal-level carbon tax that would apply to all sectors of the economy. Duke Energy believes that this kind of federal policy response is preferable to a patchwork of different state requirements, and it would be less costly to society and more effective in managing greenhouse gas emissions. An economy-wide approach would also be easier to integrate into a comprehensive global response.

Ford

Ford is the only automaker actively engaged in the development of four promising future alternatives to today's gasoline engines including, clean diesels, gasoline-electric hybrids, hydrogen internal combustion engines (H2ICE) and hydrogen fuel cell vehicles (FCV). Ford, along with 11 other companies and the City of Chicago, founded the Chicago Climate Exchange.

In April 2002, Ford Motor Company Ltd completed its first CO_2 transaction.

General Electric

GE does believe that its lower emitting and more energy efficient products and services provide solutions to our customers in a carbon-constrained world. The ecomagination products... and more to come will certainly provide a net benefit to society. In fact, through the use of just two of GE's products, compact fluorescent light bulbs and wind turbines, more GHG emissions were reduced than were produced by all of GE's operations.

Toyota

Toyota has developed a medium-/long term CO_2 emissions reduction scenario on a global basis and is steadily implementing action. Specifically, by aiming to achieve the highest production-environment efficiency in each country/region in the production area, Toyota plans by 2010 to have reduced its global production-related CO_2 emissions per unit of sales by 20% compared to the 2001 level.

UPS

Managing fuel consumption and greenhouse gas emissions is a business opportunity – one that can improve the bottom line, reduce our impact and our customers' impact on the environment and increase the long-term viability of our company. Reducing emissions is a constant priority and challenge.

Westpac

Within Australia, there is no doubt that continuing uncertainty over future emissions policy is hindering investment in necessary energy infrastructure. Climate change policy in Australia must address the challenge of maintaining energy supplies at globally competitive costs once additional costs are placed on greenhouse gas emissions. The difficulties of this are exacerbated by Australia's high dependence on fossil fuels for energy and the fact that the vast majority of Australia's emissions come from the energy sector.

Kyoto Protocol Ratification Focuses

3 Since CDP2 a number of significant climate change-related developments have occurred in the regulatory, scientific, corporate, capital market, legal and accounting fields.

Kyoto Protocol enters into force

Critical Changes

Affecting Investors Since CDP2

	CDP1 (2003)	CDP2 (2004)	CDP3 (2005)
Kyoto Protocol	Kyoto Protocol exists but has not been ratified by its signatories.	Kyoto Protocol hotly debated and Russian ratification uncertain.	Russia ratifies the Kyoto Protocol. Kyoto Protocol enters into force.
Investor Collaboration	Carbon Disclosure Project gains support of 35 investors with $4.5 trillion in assets. IIGCC formed in 2001. Investor Network on Climate Risk (INCR) first UN summit.	Carbon Disclosure Project gains support of 95 investors with $10 trillion in assets. 22 shareholder resolutions filed regarding climate change.	Carbon Disclosure Project gains support of 155 investors with over $20 trillion in assets. INCR holds its second Investor Summit bringing together U.S. state treasurers, fiduciaries and financial executives. 30 shareholder resolutions filed regarding climate change.
Clean Technology	Aggregate global investment in clean technology totals $1.16 billion. Clean-energy markets (solar PV, wind-power installations and fuel cells) valued at $9.5 billion.	Aggregate global investment in clean technology totals $1.21 billion. Value of clean-energy markets grows to over $16 billion.	The Carbon Trust issues a report finding that UK investment in clean technology is growing at 30 per cent year on year. Global investment in clean technology surpasses $336 million in Q1, the second highest figure ever for a single quarter and the fourth straight quarterly increase.
Corporate Positioning	A relatively small vanguard of leading corporations highlight the risks of climate change.	More companies become vocal on risks of climate change.	Multinational companies sign a statement requesting a cap-and-trade emissions trading system to set limits on GHG emissions. Perceptions shift as several firms publicly recognize the business opportunities presented by climate change.
EU Emissions Trading Scheme	EU ETS proposal has gained political assent.	EU ETS now a part of European law.	6,000 companies begin trading carbon under the EU ETS. The price of CO_2e rises 300% from 7 Euros per tonne in January to over 21 Euros per tonne in August.
Carbon Markets	World Bank has already broken ground with its Prototype Carbon Fund.	World Bank expands its carbon fund products.	Private sector entrants launch carbon funds. Over $1.5 billion currently invested in 15 carbon funds worldwide.
Climate Science	IPCC Third Assessment Report is published, finding some climate changes are attributable to human activities.	World Meteorological Office highlights extremes in weather all over the world and links them to climate change. A Pentagon-commissioned study concludes that under a plausible scenario, climate change could result in a global catastrophe.	The national science academies of the G8 nations and Brazil, China and India sign a joint statement on the need for a global response to climate change. Major conference of scientists in Exeter, England, determines that irreversible system disruption is well within range for this century.
Carbon Accounting	Little to no guidance available regarding carbon accounting.	Some attention now given to accounting for climate change, particularly under new disclosure standards of Sarbanes-Oxley.	Major accounting organizations begin to issue specific guidance on accounting for carbon assets/liabilities and disclosure protocol in the MD&A.

World Attention

In February 2005 the Kyoto Protocol came into force, signaling the first concerted step towards a global carbon regulatory regime. Nearly half the world's economy, 47.98% of world GDP, is currently committed to emissions reductions under the Kyoto Protocol. Under the agreement, thirty industrialized countries are legally bound to reduce emissions by an average of 5.2% from their 1990 levels by 2012. Some of the new realities that the ratification of Kyoto has created include the following:

- A degree of regulatory certainty that allows business to make informed decisions regarding strategic business planning and future capital expenditures
- Greater investor and shareholder expectations that companies disclose their climate change risks and develop adequate strategies to manage that risk
- A new, tangible regulatory risk is now embedded in any investment portfolio with holdings in companies that operate in a Kyoto-bound regime
- A legal underpinning for the international emissions trading markets
- A market price for emissions through the EU ETS
- Greater opportunities for companies to profit through the development and commercialization of low-carbon products and services.

Many non-participants in the Kyoto Protocol have also articulated policy responses to climate change at both the national and regional levels. The Asia Pacific Pact, signed in July 2005 by the United States, China, India, Australia, Japan and South Korea, is perhaps the most significant regime to have emerged in this space since it includes the world's four largest coal consuming countries and features the U.S. in a leadership role. While the agreement does not impose mandatory limits on GHG emissions, member states are required to set emission reduction targets. Encouragingly, it also focuses on the development and transfer of clean technology.

Given its status as a high-profile international policy, the Kyoto Protocol has been the subject of extensive analysis from numerous corners including academia, policy think-tanks, economists, industry groups, equity research houses and the media. Rather than duplicate these various analyses here, we recommend that interested readers use the following resources to find out more about the Kyoto Protocol and other climate-related policies.

International

- Intergovernmental Panel on Climate Change **www.ipcc.ch**
- International Energy Agency's "Energy Information Center" **www.iea.org**
- OECD, Climate Change www.oecd.org
- United Nations Framework Convention on Climate Change **http://unfccc.int**
- MIT Institute of Technology, Joint Program on the Science and Policy of Global Change **http://web.mit.edu/globalchange**

North America

- Pew Center on Global Climate Change at **www.pewclimate.org**
- Pembina Institute www.pembina.org
- US Regional Greenhouse Gas Initiative **www.rggi.org**
- US Mayors Climate Protection Agreement **www.ci.seattle.wa.us/mayor/climate**

Europe

- European Commission, Climate Change **http://europa.eu.int**
- BBC News "In Depth" series on Climate Change **http://news.bbc.co.uk**

Key Policy Developments

Canada

Kyoto Protocol Targets and Progress

- Canada is required to reduce its emissions by 6 percent (based on 1990 levels) by 2012. In 2002, Canada emitted 731 Mt of GHGs, or 160 Mt above its Kyoto target. In 2004 Canada reported that this gap had grown to approximately 270 Mt.

Overview of Emission Reduction Strategy

- In April 2004 Canada released a Kyoto implementation plan that merges regulatory and incentive-based approaches. The plan foresees mandatory emission caps for major GHG producing sectors, but also envisions strong government support in the form of emissions credit purchases through Kyoto's CDM mechanism. The government also intends to develop a national fund to finance clean coal and CO_2 capture and storage investments.

Key Challenges Moving Forward

- Canada is one of the largest per capita emitters of GHGs in the world (Canada ranks third according to OECD Key Environmental Indicators 2004). Vast travel distances, an energy-intensive industrial-based economy, cold temperatures, relatively low energy prices and a high standard of living drive the country's high energy consumption.

United States

Kyoto Protocol Targets and Progress

- The US has not ratified Kyoto and is therefore not required to reduce its emissions.

Overview of Emission Reduction Strategy

- The US federal government has stated that its funding of long-term emission reductions research coupled with industry's voluntary efforts are sufficient to counter climate change. In June 2005, the US Senate passed a national energy policy that would provide over $18 billion in tax breaks to encourage the use and development of clean energy resources such as bio-fuels. The much-discussed McCain-Lieberman Act, which would have established a US carbon emissions trading system and set mandatory emission caps for key industrial sectors, did not make it into the final version of the bill. In absence of federal leadership, state and regional actors are forging ahead in national climate change strategies (see Carbon Markets section).

Key Challenges Moving Forward

- Given its anti-Kyoto stance, the US is increasingly at odds with most of the industrialized world over climate change policy. Internally, the conventional stance that carbon regulation necessarily leads to economic decline is facing growing scrutiny in many policy circles. The Energy Information Administration, an independent arm of the US Department of Energy, recently concluded that a proposal from the National Commission on Energy Policy that calls for mandatory GHG caps across certain industry sectors would not meaningfully affect economic growth rates across the country through 2025. Moreover, a growing number of US utilities, including Duke Energy, are in favor of a domestic emissions cap and trade system (see Analysis of CDP Responses section for details).

Brasil

Kyoto Protocol Targets and Progress

- Brasil has ratified Kyoto, but has no current reduction obligations due to its status as a developing country.

Overview of Emission Reduction Strategy

- Among Brasil's key environmental priorities for 2005 is the drafting of a bill to require industries to report environmental assets and liabilities in their financial balance sheets. If passed by Congress, the bill would improve carbon awareness at the regulatory level. Unlike most other countries in the region, Brasil relies heavily on water

power and biomass energy (about half the country's energy is generated through these means). The country has measures in place to incentivize the production and use of ethanol and sugar-cane bagasse.

Key Challenges Moving Forward

- Brasil's GHG reduction strategy is challenged by the fact that approximately 70% of the country's GHG emissions stem from deforestation and, despite some momentum to the contrary, there has been limited progress in addressing this problem over the past decade.

EU

Kyoto Protocol Targets and Progress

- The EU-15 are required to reduce their collective emissions by 8 percent (based on 1990 levels) by 2012. According to the European Environment Agency's latest projections, the EU-15 are on track to cut their emissions to 7.7 percent below 1990 levels by 2010. The agency also anticipates a further 1.1 percent reduction through CDM credits by 2010, bringing the total to 8.8 percent.

Overview of Emission Reduction Strategy

- Europe has taken the most aggressive stance of any global actor in GHG reduction strategies. The European Climate Change Programme (ECCP), published in 2001, sets out a multi-tiered strategy. In terms of emissions trading, the EU ETS is expected to cover half of the EU's CO_2 emissions estimated for 2010 (see Carbon Markets section for details). In addition, the EU has struck a voluntary agreement with automobile manufacturers to reduce CO_2 of new passenger cars by 25 percent by 2008 (and possibly by an additional 10 percent by 2012). The EU has also set CO_2 emission limits for more than 5,000 energy and industrial plants and has adopted a directive to increase the share of electricity produced from renewable energy sources such as wind and solar; the EU aims to generate 50 percent of its energy needs from renewables by 2050.

Key Challenges Moving Forward

- The EU strategy hinges on the notion that emissions reductions can be achieved at minimal cost through a market-based mechanism compared to a more regulated approach. Widespread failure to meet emission reduction targets at the company level could dramatically increase the price of carbon credits in the EU ETS. Moreover, while the EU ETS creates incentives for exposed firms to invest in renewable energy technologies, it may impose high direct costs upon some companies, particularly those in resource-intensive sectors. For example, according to recent Innovest research, only one large-scale British electric utility is expected to have surplus GHG allowances in accordance with the UK's NAP.

South Africa

Kyoto Protocol Targets and Progress

- South Africa has ratified Kyoto, but has no current reduction obligations due to its status as a developing country.

Overview of Emission Reduction Strategy

- The government's White Paper on Renewable Energy, published in November 2004, calls for energy produced from biomass, solar, wind and small-scale hydro plants to account for 10 000 GWh – or a sixth – of South Africa's expected energy-consumption growth by 2013. The paper anticipates overseas investment through CDM projects. At the state level, South Africa's Western Cape Province is considering introducing what would be the country's first carbon tax.

Key Challenges

- South Africa has one of the world's highest per capita rates of GHG emissions, largely because of its high reliance on coal –a cheap but dirty fuel source—to provide affordable energy for

a growing population (the country currently sources about 90% of its power from coal). South Africa has considerable solar, wind, biomass, and natural gas potential, but has thus far failed to attract large-scale investment in these resources.

China

Kyoto Protocol Targets and Progress

- China has ratified Kyoto, but has no current reduction obligations due to its status as a developing country.

Overview of Emission Reduction Strategy

- Despite its non-obligatory Kyoto status, China is moving ahead with an emissions reduction strategy. China's "Law on Renewable Energy," which was passed in February 2005 and will take effect in January 2006, sets an ambitious target of having 10 percent total power consumption come from renewable sources by 2020 (the proportion was approximately three percent in 2003). China also adopted its first-ever fuel efficiency standards in September 2004, which set a maximum level of fuel consumption for every vehicle within a given weight class.

Key Challenges Moving Forward

- China's soaring demand for energy could result in unanticipated emissions increases. According to a recent report by the Pew Center for Climate Change, China was responsible for 14.8% of global GHG emissions in 2000, second only to the US in terms of global proportions. The report indicates that China will likely overtake the US as the world's largest individual carbon polluter by 2025. However, China's carbon intensity (emissions normalized to units of economic output) dropped by 47 percent between 1990 and 2000, despite 162 percent growth in GDP.

Japan

Kyoto Protocol Targets and Progress

- Japan is required to reduce its emissions by 6 percent (based on 1990 levels) by 2012. In 2003, Japan's total GHG emissions rose by just over 2 percent. In December 2004 the country's Ministry of Environment forecast that, under a business-as-usual scenario, Japan's GHG emissions in 2010 would be 6.4 percent above 1990 levels. Japan will likely need to purchase emission credits in order to meet its Kyoto target.

Overview of Emission Reduction Strategy

- In April 2005 Japan approved a new implementation policy that set emissions-reduction targets for the industry, transport and home, office and business sectors. Japan's Ministry of Environment had considered proposing a 1.5 yen (1.4 cent) gasoline tax to fund renewable energy research, but reneged based on opposition from business.

Key Challenges Moving Forward

- Given the high-tech nature of Japanese industry and the country's relatively tight emissions standards, most Japanese firms face limited opportunities to improve their emission efficiency. Consequently, Japanese companies will likely have to purchase emission credits on the market in order to meet the country's aggregate 6 percent reduction target. The development of emission trading rules in Japan and access to affordable credits are therefore critical.

Australia

Kyoto Protocol Targets and Progress

- Australia has not ratified Kyoto and is therefore not required to reduce its emissions. The country is nevertheless committed to meeting its would-be Kyoto target (2012 emissions capped at 8 percent above 1990 emissions).

Overview of Emission Reduction Strategy

- Since 2001, A$900 million (US$648m) has been invested in the Australian renewables market, with a further A$1 billion planned or committed. In absence of federal support, state and territory governments decided in March 2005 to create a domestic market-based emissions scheme that will set a cap on the total volume of GHGs that industry can emit as well as a market to trade emission permits.

Key Challenges Moving Forward

- Australia could face increased scrutiny from the international community given the country's status as one of only two industrialized states not to have ratified Kyoto. Internally, the growth of Australia's domestic emissions market could be constrained if it is not linked to markets in Kyoto participant countries (e.g. the EU ETS).

Overview of Regional Climate Policy Developments: Moving Ahead Without Kyoto

While the Kyoto Protocol provides countries that have ratified the treaty with a compliance-based incentive to reduce their aggregate GHG emissions, many States that are not bound by the agreement are also moving ahead with emission reduction programs (see map below for details). FT500 firms with operations in non-Kyoto states are also advancing carbon management strategies. Brazilian oil major **Petrobras**, for example, notes that "while operating essentially in countries not included in the Annex B of Kyoto Protocol, (we) understand as necessary the establishment of a strategy for the management of carbon risk and opportunities." **Posco** observes that "since (we) operate mainly in Korea, a country of Non-Annex 1 Parties, (we) may be not liable to the GHG reduction obligations at the end of the 1st phase (2008- 2012) of the Kyoto Protocol…but we acknowledge that there is common, but differentiated, liability to mitigate global warming as an international leading steel maker." And as **Occidental Petroleum** remarks, "although Occidental's operations are located primarily in countries that are not implementing the Kyoto Protocol, opportunities and risks may develop as (these) countries begin to enact and implement regulations aimed at reducing emissions of GHGs."

In terms of emission trading schemes, since firms situated in non-Kyoto states are precluded from accessing markets that have been set up under the auspices of the treaty, the political resolve to remain outside the Kyoto regime could lead to long-term competitive disadvantage at the company level. Indeed, many FT500 firms are anticipating long-term benefits from participation in emission trading markets set up under Kyoto (see Emission Trading Markets section).

Sea-Change Noticeable in Corporate Positioning on Climate Change

A number of major corporations took high-profile positions on the climate change debate over the past year. These positions are being taken up in a period when momentum behind the climate change issue is strong and opportunities exist to influence the rules of the game, particularly in the United States where regulations have yet to be defined. In particular several powerful firms have become increasingly outspoken about where they believe both domestic and international policy should be headed. The following examples illustrate some of the headlining corporate announcements of the past year:

- An influential group of multinational businesses signed a statement in June 2005 intended to influence the G8's position on climate change. In sum, the statement requested a cap-and-trade emissions trading system to set limits on GHG emissions, in order to better define GHG emission rights. The companies that signed the statement were **Alcan, BP, British Airways, BT, Cinergy, Cisco, Deloitte, Deutsche Bank, E.ON, EADS, EDF, Eskom, Ford, Hewlett-Packard, HSBC, Petrobras, UES, Rio Tinto, Siemens, Swiss Re, Toyota, Vattenfall** and **Volkswagen**.[2] (June 2005)
- Paul Anderson, CEO of **Duke Energy**, stated that the US federal government should levy a carbon tax on CO_2 emissions in order to address global warming.[3] (April 2005)
- Michael Morris, CEO of **American Electric Power**, voiced an opinion that an international standard to control greenhouse gas emissions is needed, particularly one that includes developing countries like China and India.[4] (June 2004)

"We accept that provisional or not, the science on global warming is for the present overwhelming. We believe that there should be mandatory carbon constraints. We believe that the U.S. can do something without waiting for China. We support small, increasing ratcheting limits."

John Rowe, Chairman and CEO, Exelon Corporation

2 Financial Times, "Big Business Urges G8 Global Warming Action", June 9, 2005.

3 BNA, "Chairman of Duke Energy Backs Carbon Tax To Reduce U.S. Reliance on Fossil Fuels", April 8, 2005.

4 The Associated Press, "AEP Leader Says World Needs Plan to Control Greenhouse Gases", June 22, 2004.

- John Rowe, CEO of **Exelon Corporation**, declared that the science on global warming is overwhelming and the US should develop mandatory constraints.[5] (June 2004)
- **Cinergy** released a report on its climate risk, which stated that a well-constructed policy to reduce greenhouse gas emissions could be managed "without undue disruption to the company or the economy". Moreover, CEO Jim Rogers has said that the company will eventually operate in a "carbon-constrained world".[6] (December 2004)
- John Bryson, Chairman of **Edison International**, has made the following statement: "A deliberate and coordinated effort is needed to reduce greenhouse gas emissions across the entire energy sector. Neither greenhouse emissions nor electricity stop at state borders. We believe the broader view can lead to a new national policy on global warming."[7] (December 2004)
- **Entergy**, in its CDP3 response, reports that it is in favor of a US cap and trade system.
- Several companies indicated in their CDP3 responses that they could benefit financially from country-level responses to the Kyoto Protocol. These include **Iberdrola, Societe Generale, Scotiabank, HVB, BBVA, Taiwan Semiconductor and Glaxosmithkline.**
- **JP Morgan** released a new policy in 2005 that was widely covered in the media. It stated that carbon disclosure and mitigation would become a part of its client review process by year-end 2005. Specifically, the bank stated "In project transactions in the power sector, we will quantify the financial cost of greenhouse gas emissions and integrate them into financial analysis of the transaction."[8] (April 2005)
- As with JP Morgan, **Citigroup** stated in its 2004 Citizenship Report that the company will "begin reporting the aggregate carbon dioxide emissions from power projects that we finance in our project finance portfolio."[9] (April 2005)
- Jeff Immelt, CEO of **GE**, announced the company's "Ecomagination" initiative to commercialize new technologies that help customers meet environmental challenges. A core part of this initiative centers on technologies that reduce emissions. By 2010, the company expects to be investing $1.5 billion annually in clean technologies and reaping $20 billion in revenue from these products and services.[10] (May 2005)
- Bill Ford, CEO of **Ford Motor Co.**, announced that the company will release a report by year-end 2005 assessing how different business strategies adopted by Ford will affect greenhouse gas emissions.[11] (March 2005)

This list of examples is neither exhaustive nor is it likely to be the end of the story. In fact it is likely that these examples are just the first in what will be a much larger group of corporations that begin to formally integrate climate change considerations into their strategic analyses of their respective industries and the wider economy. For those that have been following the carbon markets for some time the story told by the list above is clear: American companies are for the most part following the path tread

5 Speech by John Rowe at the "US Climate Policy: Toward a Sensible Center" conference, Washington D.C., June 24, 2004.

6 Cinergy, "Air Issues: Report to Stakeholders", December, 2004.

7 Edison International press release, "Edison International Asks Regulators to Address Global Warming on a National Level", December 7, 2004.

8 Energy Week Washington, "Conservative Think Tanks Tangle with JP Morgan Over GHG Lobbying", May 11, 2005.

9 The 2004 Citizenship Report is available at www.citigroup.com

10 The announcement is available at www.ge.com

11 BNA, "Ford to Examine How Its Policies Affect Greenhouse Gas Emissions", April 1, 2005.

earlier by European companies in search of greater regulatory certainty, new profit opportunities, and reduced exposure to climate risks.

The Carbon Markets Advance

In the past year, the long-predicted upswing in financial sector interest in the carbon markets has, to a certain degree, come to pass. Spurred by the ratification of the Kyoto Protocol and the successful launch of the EU Emissions Trading Scheme the carbon markets have begun to advance in several major ways.

First, emissions trading schemes have finally moved from the sidelines to center stage. The EU Emission Trading Scheme is now a reality for 6,000 companies operating in Europe and parallel trading systems are gradually developing in other national markets.

Second, so-called "carbon funds" which pool investor resources to invest in emission reduction credits are growing. Over $1.5 billion is currently invested in 15 carbon pools worldwide and at least four new carbon funds have been announced during the first half of 2005 (for a full analysis of existing carbon funds, see Appendix C).

Finally, beyond carbon funds, innovative new varieties of carbon finance products have emerged that link the financial expertise of Wall Street with the market-based mechanisms of the Kyoto Protocol.

A New Financial Market Begins: Emission Trading Schemes

The year 2005 saw a rapid increase in the volume of carbon traded internationally. The World Bank reported 107 million of project-generated tonnes of carbon dioxide equivalent (CO_2e) traded in 2004, which constituted a 38% increase relative to 2003.[12] This rise in trading activity is partially due to the European Union Greenhouse Gas Emission Trading Scheme (EU ETS), which went "live" in January 2005. From this date, consultancy Point Carbon reports a three-fold increase of carbon prices and identical growth in the volume of emissions reduction credits changing hands.[13]

Although the EU ETS has been given the bulk of attention to date, similar systems have been developing in each of Australia, Japan, Canada, the US and, to a lesser extent, Russia. While the growth - and eventual integration - of these regional markets is hoped for by many market watchers, there remains uncertainty about the pace and timing of these developments. Nevertheless, the clear trend observed over the past year suggests that emissions trading regimes will become increasingly popular as the foundation of the carbon markets.

The European Union: On January 1, 2005 the EU ETS was formally launched, marking the conception of the world's largest single carbon market. Point Carbon forecasts that the value of the EU ETS will reach €16 billion by 2010 on volume of about 1.7 billion tonnes of traded carbon dioxide. The scheme represents the first multi-country, multi-sector GHG emission trading scheme in the world. By effectively setting a market price for CO_2, the scheme provides an incentive for companies to reduce emissions at the lowest possible cost. European officials estimate that the scheme will allow the EU to achieve its Kyoto reduction target at a cost of between €2.9 and €3.7 billion annually, rather than the estimated cost of €6.8 billion in the absence of the scheme.[14]

For investors, the advent of the EU ETS has created a new set of risks and opportunities that will undoubtedly have far-reaching implications for the financial results of many companies. In particular, companies covered under the EU ETS will need to adjust to the following:

– A price for CO_2 emissions determined by market supply and demand

"Our analysis shows that the total turnover of the emissions market in the EU will be at least Euro 45 billion (aggregated) in the period 2005 – 2012."

ABN AMRO CDP3 Response

12 Environmental Finance, "Carbon Volumes Jump, but Uncertainties Persist", June, 2005.

13 Point Carbon, Historic Prices, EUETS (January 2005 – June 2005), **www.pointcarbon.com**

14 European Commission, "EU Emissions Trading", January, 2005.

- Financial penalties for exceeding allotted emission allowances (€40 per tonne in the first phase from 2005-2007; €100 per tonne in the second phase from 2008-2012)
- The need for new corporate risk management practices and hedging techniques
- Greater pressure from investors for formal disclosure of material climate liabilities
- New accounting conventions to bring carbon assets and liabilities into full view on the corporate balance sheet
- Competition to secure low-cost carbon credits (particularly through the Clean Development Mechanism)
- In certain industries, new competitive pressures to be first-to-market with new low-carbon technologies

In Phase 1 of the ETS, over 6 billion tonnes of European Union Allowances (EUAs) have been allocated, equivalent to a value of some €120 billion. Trading at just under €22 per tonne at the time of writing, CO_2e prices have soared over 300% since January 2005.

- **Australia:** Despite the Australian federal government's rejection of the Kyoto Protocol, in March 2005 several Australian states and territories began collaboration on the development of a national emission trading scheme. A final decision on the plan is expected at the end of 2005.

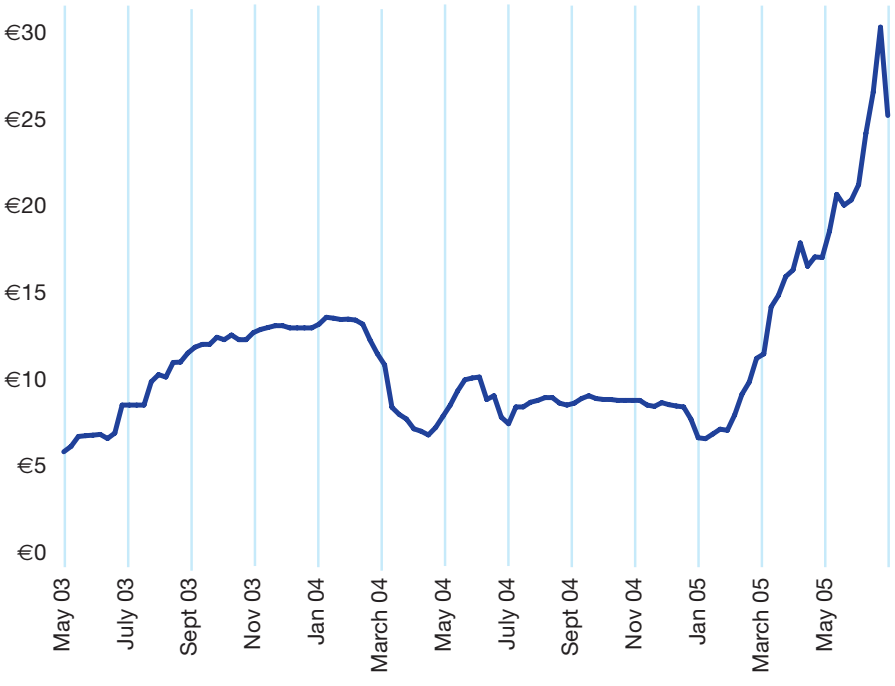
  Outside of discussions on a *national* emissions trading scheme, the state of New South Wales has had a *regional* emission trading scheme in effect since January 2003. This scheme covers all New South Wales utilities and electricity-intensive manufacturers.

- **Japan:** Japan's Voluntary Emissions Trading System (J-VETS) will be the first inter-company carbon dioxide emissions trading scheme in Japan. On May 17, 2005 the Ministry of the Environment of Japan announced the names of 34 facilities that will participate in this scheme. Participants will set their own emission reduction targets and use subsidies from the Ministry (of about JPY 2.6 billion) to implement energy conservation measures. Companies reducing CO_2 emissions beyond their targets can trade credits to those failing

"I don't think we're likely to see the sudden emergence of a single global trading system – that would be comparable to the emergence of a single global currency – but I do think there would be value in the development of the existing European emissions trading scheme as a "strong" currency – with its strength reflecting the rigour with which it is applied. A strong currency of that sort would enable all of the many different fragmented activities and efforts to reduce emissions which are underway across the globe to be valued on a common basis."

John Browne, CEO BP

Weekly closing prices for EU Allowances (EUA) for delivery December 2005



Source: Point Carbon

to reach their reduction targets. In total, the projected reduction for 2006 is approximately 276,000 tonnes-CO_2, a 21% reduction from the 2002-2004 base years. The amount of annual CO_2 emissions emitted by the 34 facilities in the base years was 1,311,241 tonnes-CO_2, which covered about 0.1% of Japan's total CO_2 emissions in that period. The participants in the scheme are **Asahi Glass, Fuji Photo Film, Hitachi, Itochu Corp., Matsushita Electric Works, Mitsubishi Gas Chemical, Nissan Motor, Sumitomo Mitsui Financial Group, Teijin, Tostem Inax Holding, Toyo Seikan** and **Yamazaki Baking**, among others. Major electric utility companies, oil companies and steel companies will not participate.

- **Canada:** Canada's federal government began designing a nation-wide Domestic Emissions Trading System (DETS) in 2002. It is likely that DETS will become operational only in 2008. The price of carbon credits in the Canadian ETS is capped at CA$15/t$CO_2$e, with the cap applying to credit imports from CDM and JI as well.
- **United States:** The first initial efforts to introduce an emission trading system to the US were launched in 2003, when the *McCain-Lieberman Climate Stewardship Act* proposed a national ETS. This proposal was defeated by a 43 to 55 vote in the U.S. Senate. While the bill is likely to be reintroduced in the national legislature, most commentators do not expect it will become law in the near future.

  Despite federal inaction on emissions trading, a number of states are moving forward on the development of regional GHG emissions trading systems.

  The Northeast: Nine Northeast and Mid-Atlantic states – under the banner of the "Regional Greenhouse Gas Initiative (RGGI)" – have joined together to discuss the design of a regional cap-and-trade program. The program proposes to regulate CO_2 emissions from power plants operating in these states. The framework for this system is currently being finalized, to be followed by rule-making at the individual state level.

  The West: California has developed a range of pre-ETS programs – such as its regional GHG inventory – but has not gone as far as creating a regional ETS. In the US North-West, Oregon created a project-based emissions offset purchasing mechanism in the form of the *Oregon Climate Trust* (OCT). In 2004 California, Oregon and Washington agreed to coordinate their GHG emissions reduction initiatives to create a regional policy platform, although none of their proposals offer a clear-cut ETS structure.
- **Russia:** In 2003, Russia began initial work on a national emissions trading scheme with logistical help from European environmental agencies. Progress has been very limited to date and most credible carbon market commentators believe that the earliest a system could be implemented would be 2008.[15] Nevertheless, the EU is likely to continue to provide capacity-building support since Russia could become an important trading partner as carbon markets expand globally.

Established carbon funds set the stage as new entrants arrive

The world's first carbon funds were developed by multilateral institutions like the World Bank who have an institutional interest in promoting market-based mechanisms that help achieve desired policy goals. All told, the value of the suite of carbon funds run by the World Bank Carbon Finance Practice as of early 2005 was about $865 million; that figure is expected to top $1 billion by year-end 2005.[16] The chief investors in these funds are national governments and private companies that have pooled their financial resources in exchange for the carbon credits generated by the funds.

15 Pew Center on Global Climate Change, "The European Emissions Trading Scheme: Insights and Opportunities", February, 2005.

16 Chandra Sinha, "Carbon Finance at the World Bank", Presentation at the Delhi GHG Forum, February, 2005.

While the established funds of the World Bank have proven the feasibility of the carbon markets and reinforced the notion that corporate demand exists, new players are now entering the carbon market based on speculative interest and a pure profit motive. Natsource's €100 million "Greenhouse Gas Credit Aggregation Pool (GG-CAP)" product burst onto the scene in early 2005, only to be followed two months later by Equity Partnership Investment Company's $258 million "Trading Emissions Plc" investment vehicle. Both of these new fund entrants followed on the heels of the pioneering €100 million "European Carbon Fund" launched in 2004 by Fortis Bank and Caisse des Dépôts et Consignations (CDC).

Two key strategies have emerged among these new private sector entrants: i) buyer pools where credits are purchased for corporate compliance accounts and ii) return-hunting funds that speculate on the future price of carbon and the manager's skill in buying low and selling high.

A full breakdown of the main carbon funds that exist today can be found in Appendix C.

New carbon-related financial products emerge

Outside the realm of pure carbon funds, other innovative financial products linked to climate change are making headway. Most of these products have their roots in traditional financial products but have been reinvented with a "carbon" twist.

- South African-based financial services firm Sterling Waterford Securities announced in May 2004 that it was launching the world's first carbon-linked derivative. The so-called "Carbon Credit Note" (CCN) is essentially a futures contract in which the underlying commodity being traded is a registered certified emission reduction (CER). Like any futures contract, the CCN agreement sets a future date for delivery of a specified quantity of the commodity at a specified price. The company describes the product as a fully underwritten obligation (in the form of a note or bond) to deliver carbon credits at a future date. It planned the first $10 million issue as a "test-run" with the intention of following with a second note issue of $50 million.
- Dresdner Kleinwort Wasserstein announced in January 2005 that it had completed the first ever cash-settled forward trade on EU emission allowances with Sampo Bank.
- ABN AMRO reported in June 2005 that it had brokered the first bank-intermediated carbon credit transaction between two private corporations.[17]
- Centrica is reportedly developing a derivatives strategy to hedge the wind exposure of its portfolio of UK wind farms.[18]
- Reports suggest some hedge funds are turning their attention to profit opportunities associated with the carbon markets. UK-based boutique investment bank Climate Change Capital reports that it has received financial commitments of over $100 million from several hedge funds interested in exploring the European carbon market. Similarly, the European Carbon Fund reports that multiple hedge funds have expressed an interest in that carbon credit pool.[19]
- Swiss Re/TCW recently announced their European Clean Energy Fund, a €250 million mezzanine fund for clean energy projects, with 40% allocation to Central and Eastern Europe. The fund expects to boost returns through carbon finance.
- The Australian Sustainable Investments Fund, a target $AU300 million fund set up by the James Fielding Group, is investing in the carbon sequestration potential of Australian forests in an effort

17 Point Carbon, "ABN AMRO makes CDM debut", June 6, 2005.

18 Power Finance & Risk, "Centrica Targets Wind Derivatives Hedges", July 4, 2005.

19 FT.com, "High Prices Attract Funds to Carbon Trade Scheme", May 25, 2005.

to generate revenue from CO_2 emissions offsets. Similarly, London-based Sustainable Forestry Management announced plans for a target $300 million forestry-based fund that will attempt to boost returns from traditional forest products by also generating carbon credits.

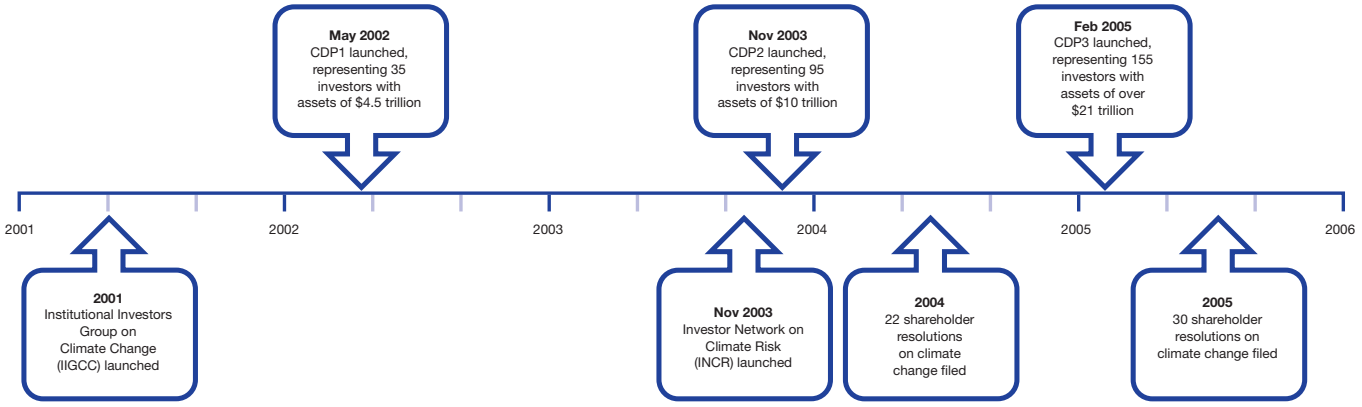
Investor Collaboration on the Rise

A groundswell of institutional investor interest in the climate change issue is helping change the way the capital markets look at carbon risks and opportunities. This attention from powerful mainstream investment interests has escalated the pressure on corporations and strengthened the perception that due diligence on climate change is now a required element of proper fiduciary duty.

- **Carbon Disclosure Project (CDP):** The CDP itself is well-documented as one of the largest and most visible examples of investor collaboration on climate change. Since its inception in 2002 the number of institutional investors supporting the project has increased from 35 to 155; the aggregate assets under management represented by these signatories has grown from $4.5 trillion to over $21 trillion. Perhaps more than any other initiative on climate change, the CDP has increased corporate disclosure on carbon risks and opportunities for the benefit of investors.
  Website: **www.cdproject.net**

- **Investor Network on Climate Risk (INCR):** In November 2003, INCR was formed by a group of major US pension funds and other institutional investors to "promote better understanding of the risks and opportunities among institutional investors and to coordinate implementation of the 10-point action plan" which was agreed to at the network's inaugural meeting.[20] By mid-2005 INCR reported that its membership had quadrupled to 43 and the collective assets managed by INCR members had grown from an initial $600 billion to $2.7 trillion. Despite operating in a vacuum of US federal policy, INCR has been largely successful in joining together powerful US investors to push for action on climate change. The cornerstones of activity for the network have been raising awareness of climate risk as a fiduciary issue, encouraging investors to examine climate risks in their portfolios, and using shareholder pressure to improve corporate governance on climate risk.
  Website: **www.incr.com**

- **Institutional Investor Group on Climate Change (IIGCC):** This group is the UK-based counterpart of the INCR. Established in 2001, its main goals parallel that of INCR – namely, to both



20 "Investor Progress on Climate Risk", David Gardiner & Associates LLC., May 10, 2005.

promote better understanding of and equip its members and others within the investment community to deal with the implications of climate change. It also seeks to influence corporate behavior to address the risks and opportunities presented by climate change. The group is comprised of 28 pension funds and other institutional investors with collective assets under management of over £1.5 trillion.

The IIGCC and the Carbon Trust recently commissioned Mercer Investment Consulting to draft a report entitled "A Climate for Change: A Trustee's Guide to Understanding and Addressing Climate Risk". The key conclusion drawn in the report is that it is consistent with fiduciary responsibility to address climate change risk. The publication includes a "toolkit" for pension fund trustees in addressing this issue, and will be publicly available from August 2005 on each of the three organizations' websites.
Website: **www.iigcc.org**

- **Mainstream Brokerage Reports Touch on Climate Risk:** Several of the household names in the brokerage business have issued research briefs covering the potential investment risks posed by climate change. Much of the research focuses on the impact of the EU ETS on European Electric Utilities; however the concept of climate change as a risk is also covered in reports on Oil & Gas, Pharmaceuticals, Aviation and others. To be sure, many of these reports were produced voluntarily at the request of the UN Environment Program Finance Initiative but nevertheless, the number of reports released by brokerage houses at their own discretion seems to be on the rise.

- **Shareholder Resolutions Reach New Levels:** This year saw an increase in not only the number of climate change shareholder resolutions filed but also a major increase in the financial weight behind many of these resolutions. In the past, climate change resolutions had been solely the domain of religious-based investor groups. Now, however, a new group of far more powerful players has joined the fray, namely pension funds. The New York City Employees Retirement System, the New York State Common Retirement Fund, the State of Connecticut Retirement Plans and Trust, and the State of Maine Trust Fund all filed such resolutions. In addition, the $180 billion pension heavyweight CalPERS announced in February 2005

Research Provider	Title of Report	Date
Allianz	Climate Change & The Financial Sector	Jun-05
Merrill Lynch	Energy Security & Climate Change - Investing in the Clean Car Revolution	Jun-05
Credit Suisse First Boston	Energy 2005 – The Big Melt	Jan-05
Goldman Sachs	Global Energy – Introducing the Goldman Sachs Energy Environmental and Social Index	Feb-04
HSBC	Aviation & Climate – Prepare to Trade	Dec-03
Dresdner Kleinwort Wasserstein	Aviation Emissions – Another Cost to Bear	Nov-03
ABN Amro	Research Process: Climate Change and Analysis	Nov-03
Dresdner Kleinwort Wasserstein	Emissions Trading – Carbon Derby Part II	Oct-03
Citigroup Smith Barney	Utilities – The Impact of Carbon Trading on the European Sector	Oct-03
Credit Suisse First Boston	EU Carbon Trading – Utilities Get a Carbon-boost	Oct-03
UBS	EU Emissions Trading Scheme – Bonanza or Bust?	Sep-03
HSBC	European Utilities – Pathfinder II	Sep-03
HSBC	How Much For a Tonne of CO_2?	Sep-03
WestLB	Carbonomics – Value at Risk Through Climate Change	Jul-03
Dresdner Kleinwort Wasserstein	Emissions Trading – Carbon Derby Part I	Mar-03
ING	Sustainable Impacts – Pan-European Oils Sustainability Issues	Mar-03

that it would support climate change resolutions at GM and Ford.

Behind this increase in pension fund activity are - in large part - the legal changes to both corporate disclosure requirements and pension fund regulations. These changes have created an increasingly broad interpretation of fiduciary duty which, in turn, increases the saliency of climate change issues for long-term investors like pension funds.

In simple quantitative terms, the numbers are up: a total of 30 climate change resolutions were filed in 2005, an increase of 36% from the 22 resolutions filed in 2004. What's more, the percentage of voting shareholders supporting such resolutions has trended upwards. Record support levels are seemingly broken with each consecutive voting season, the highest to date being the 37.1 percent of voting Apache shareholders who supported a climate change risk resolution in the 2003-2004 season.

Sector	Number of Companies Targeted 2005
Automotive	2
Banking	3
Electric Power	4
Manufacturing	7
Oil & Gas	8
Property Management	6
Total	30

For a full breakout of climate change resolutions and their voting outcomes, please refer to Appendix B.

The Current State of Climate Science

The following summary of climate change science findings was produced by the U.S. National Center for Atmospheric Research (NCAR). This summary is based on peer-reviewed scientific literature, including papers published by NCAR scientists, papers published by scientists in the broader academic community, and the scientific assessment reports of the Intergovernmental Panel on Climate Change (IPCC).

It is a well-established scientific fact that certain trace gases in the atmosphere (including water vapor, carbon dioxide (CO_2), methane, nitrous oxide, chlorofluorcarbons, and tropospheric ozone) increase the capacity of the atmosphere to retain heat.

- This "greenhouse effect" causes the surface of the Earth to be much warmer than it would be without the atmosphere.
- Long term measurements of the Earth's atmosphere and temperatures show that CO_2 levels and temperatures are closely correlated. The Earth is warmer when CO_2 levels are high and cooler when CO_2 levels are low. The post-glacial period increases in the Earth's temperatures are not caused by carbon cycle changes, instead, the carbon cycle amplifies the natural warming at the ends of ice ages.

It is also well established scientifically that human activities, including fossil fuel burning, deforestation, and industrial processes, are rapidly increasing the levels of CO_2 and other greenhouse gases in the atmosphere.

- Atmospheric concentrations of CO_2 have increased by more than 30% since 1750. The level of CO_2 in the atmosphere is now higher than it has been in at least 750,000 years, and is approaching levels that have probably not occurred in the last 20 million years.
- Atmospheric concentrations of tropospheric ozone have increased by about 35% and methane by about 150% since 1750.

An increasing body of observations and modeling results shows that the human-induced changes in atmospheric composition are changing the global climate, and that climate changes are in turn beginning to affect terrestrial and marine ecosystems.

- The global-average surface temperature increased by about 0.6° C over the 20th century. Global sea level increased by about 15-20 cm during this period.

"Climate change is the most severe problem that we are facing today – more serious even than the threat of terrorism."

Sir David King, UK Government Chief Scientific Advisor

- Long-term temperature records derived from ice sheets, glaciers, lake sediments, corals, tree rings, and historical documents show that 1995-2004 was the warmest decade worldwide in the last 1-2,000 years. 9 of the 10 warmest years on record have occurred in the last decade.
- Global precipitation over land increased about 2% over the last century with considerable variability by region (Northern Hemisphere precipitation increased by about 5-10% during this time while West Africa and other areas experienced decreases).
- Mountain glaciers are melting worldwide, the Greenland ice sheet is melting, the extent and thickness of Arctic sea-ice is declining, and lakes and rivers freeze later in the fall and melt earlier in the spring. The growing season has lengthened by about 1-4 days per decade in the last 40 years in Northern hemisphere, especially at high latitudes.
- Climate model simulations show that the observed temperature increase over the last century cannot be explained by natural forcing (i.e., volcanic eruptions and changes in solar output) alone; the effect of human activities must be included for model output to match the observational record.
- The ranges of migrating birds and some fish and insect species are changing. Tropical regions are losing animal species, especially amphibians, to warming and drying.

Human influences will continue to change Earth's climate throughout the 21st century. Analyses using NCAR's Community Climate System Model-3 (CCSM-3) show that changes in atmospheric composition are likely to result in further increases in global average temperature and sea level and continued decline in snow cover, land ice and sea ice extent. We are likely to experience a faster rate of climate change in the 21st century than seen in the last 10,000 years.

- If atmospheric concentration of CO_2 were stabilized at today's concentrations of about 380 ppm (i.e., if CO_2 emissions were substantially reduced today) global average temperatures would increase by another 0.4 to 0.6^{O} C by 2100.
- If atmospheric concentration of CO_2 increase to about 550 ppm (a low emissions growth scenario), global average surface temperature would increase about 1.3^{O} C by 2100.
- If atmospheric concentration of CO_2 increase to about 800 ppm (a high emissions growth scenario), global average surface temperature would increase about 3.5^{O} C by 2100.
- Thermal expansion of ocean water would increase global mean sea level 10 cm (for 380 ppm of CO_2) to 30 cm (for 800 ppm of CO_2) by 2100. Ice sheet and glacier melting could double these totals.
- Global average rainfall, variability of rainfall, and heavy rainfall events are projected to increase.
- Heat waves in Europe, North America and other regions are likely to become more intense, more frequent, and longer lasting.

Climate change in the 21st century will result in significant societal and environmental impacts.

- Higher temperatures, more frequent heavy rainfall events, and changes in seasonal and spatial patterns of precipitation are likely to result in increases in both flooding and droughts, making water management more difficult.
- Heat stress and expansion of disease ranges will stress human populations, especially in the developing world where adaptive capability is limited.
- Flooding of coastal areas could produce environmental refugees in some areas. Inundation of coastal groundwater by saline ocean water is likely to cause agricultural problems in some regions.
- Enhanced forest growth early in the 21st century is likely to be followed by decline

"This report suggests that, because of the potentially dire consequences, the risk of abrupt climate change, although uncertain and quite possibly small, should be elevated beyond a scientific debate to a U.S. national security concern."

Peter Schwartz and Doug Randall,
'An Abrupt Climate Change Scenario and its Implications for United States National Security', October 2003.
A report commissioned by the US Defense Department

later in the century as temperatures and stresses from wildfires and insects increase.

- Some plants and animals may be unable to adapt or migrate in response to changing climate. Rare ecosystems, like mangrove forests and alpine meadows, could disappear in some areas.

Climate change is likely to continue well past the 21st century. The thermal inertia of the climate system means that the climate system will continue to change long after atmospheric concentrations of greenhouse gases are stabilized. Analyses using NCAR's MAGICC model show that global average temperatures and sea level would continue rising until at least 2400 even if CO_2 concentrations could be stabilized today. If emissions of CO_2 continue to increase at today's rates (leading to steady increase in atmospheric concentrations) MAGICC projects that global average temperatures will another 2 to 6^{O} C by 2400, with sea level rise of 25 cm per century. Avoiding these changes requires, eventually, a reduction in emissions to substantially below present levels.

About NCAR: NCAR, which is an academic research laboratory founded in 1960, conducts a wide range of atmospheric and climate change research activities. Highlights include hosting and supporting the Community Climate System Model (CCSM), which is among the world's most advanced fully coupled global climate models, and the Model for the Assessment of Greenhouse-gas Induced Climate Change (MAGICC), a simple climate model which allows users to investigate future climate change and its uncertainties at both the global-mean and regional levels. All CCSM and MAGICC results and code are freely available to any interested party. NCAR's primary sponsor is the U.S. National Science Foundation, but it is also supported by and performs work for other US government agencies, other national governments, and various private sector entities. For more information about NCAR programs or results, contact Peter Backlund, Director, Research Relations, NCAR (backlund@ucar.edu). For more information on climate change science, please see the following websites:

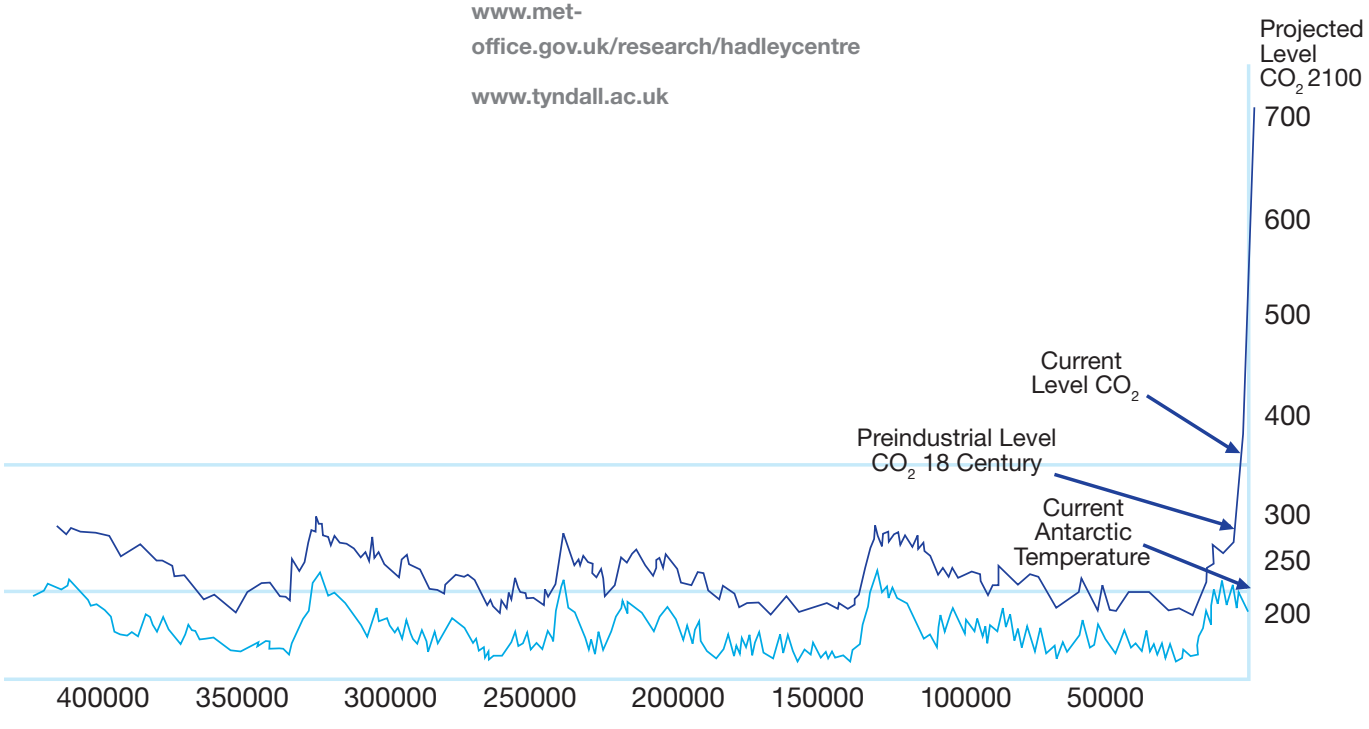
www.ncar.ucar.edu

www.ipcc.ch

www.realclimate.org

www.met-office.gov.uk/research/hadleycentre

www.tyndall.ac.uk



In December 2004, the American Association for the Advancement of Science published an essay which considered the level of scientific consensus on climate change. The authors analyzed 928 abstracts concerning climate change, published in refereed scientific journals between 1993 and 2003, to understand where consensus currently stands. The quote on the right shows their conclusions:

Accounting Organizations Move to Codify Carbon Accounting & Disclosure Rules

In last year's report we chronicled the efforts of accounting and financial market authorities to come to grips with how corporate financial statements were to disclose environmental risks, including climate change. This year we note a "focusing" of effort to specifically address accounting and disclosure rules around *climate change* and *emission allowances*. In other words, the accounting world has now progressed beyond guidance on general environmental issues to more specific guidance on the issue of climate change.

International:

- In December 2004, the International Financial Reporting Interpretations Committee[21] (IFRIC) released interpretive guidance regarding how to account for emission rights. The so-called IFRIC 3 interpretation specifies the accounting for companies participating in government schemes aimed at reducing GHG emissions, such as the EU ETS. According to IFRIC, the guidance "requires companies to account for the emission allowances they receive from governments as intangible assets, recorded initially at fair value. It also requires companies, as they produce emissions, to recognize a liability for the obligation to deliver allowances to cover those emissions."
  www.iasb.org
- In many cases, international financial reporting standards are not clear-cut enough to integrate carbon assets and liabilities into the balance sheet. In light of this, a perception has emerged that more guidance is needed on how Management Discussion and Analysis (MD&A) treatments can include relevant disclosure on climate risk. Although not yet formally launched, discussions are reportedly underway to develop an international MD&A guidance on climate change risk disclosure. As discussed below, Canada has already produced draft MD&A guidance.

Europe:

- In January 2005, the representative organization for the accounting profession in Europe – the European Federation of Accountants (FEE) – released an alert on emissions trading. It exclusively considered how GHG emissions trading needs to be treated in company financial statements. Topics covered in the alert include: accounting for allowances; accounting for government grants; accounting for liability to surrender; accounting for penalties; the determination of fair value and; various auditing questions.
  www.fee.be/publications/main.htm

Canada:

- Of all the major accounting organizations, the Canadian Institute of Chartered Accountants (CICA) has arguably done the most advanced work on providing guidance regarding MD&A disclosure on the financial impact of climate change. It produced an interpretive release in March 2005 which was designed "to assist preparers in assessing the nature and extent of disclosure about climate change and other environmental issues to be consistent with recommendations in the CICA's *Management's Discussion & Analysis: Guidance on Preparation and Disclosure* and called for by existing securities regulators' continuous

"The 928 papers were divided into six categories: explicit endorsement of the consensus position [that the Earth's climate is being affected by human activities], evaluation of impacts, mitigation proposals, methods, paleoclimate analysis, and rejection of the consensus position. Off all the papers, 75% fell into the first three categories, either explicitly or implicitly accepting the consensus view; 25% dealt with methods or paleoclimate, taking no position on current anthropogenic climate change. Remarkably, none of the papers disagreed with the consensus position…

This analysis shows that scientists publishing in the peer-reviewed literature agree with IPCC, the National Academy of Sciences, and the public statements of their professional societies. Politicians, economists, journalists, and others may have the impression of confusion, disagreement, or discord among climate scientists, but that impression is incorrect."

Oreskes, Naomi. "The Scientific Consensus on Climate Change," Science Magazine, Volume 306 (December 3, 2004), p. 1686.

21 The IFRIC is the interpretative arm of the International Accounting Standards Board (IASB)

disclosure requirements in National Instrument 51-102."

- The release includes a "disclosure framework" to assist preparers in communicating disclosures about climate change risk in the MD&A. **http://www.cica.ca/multimedia/Download_Library/Research_Guidance/MDandA_Business_Reporting/English/IR_2_draft.pdf**
- In addition to its work on MD&A guidance, CICA has begun research on how emission credits and liabilities should be captured in the financial statements. The work focuses on "…the accounting treatment for any related credits and allowances and the disclosures that should be included in published financial reports." The work has been temporarily deferred as CICA awaits greater certainty to emerge about the rules governing the proposed Canadian GHG credit and trading system. **www.cica.ca/index.cfm/ci_id/21507/la_id/1.htm**

United States:

In July 2004, the US Government Accountability Office (GAO) released a report on how the Securities and Exchange Commission (SEC) could improve the tracking and transparency of environmental disclosure in company filings. This report is more general than those described above, but it does specifically note that while disclosure of risks related to GHG emissions is not necessarily required under SEC rules, there "may be circumstances in which a company can identify a material impact and must disclose it in the filing." What's more, experts surveyed by the GAO specifically cited CDP as a voluntary disclosure initiative that companies might participate in to demonstrate their commitment toward good governance on environmental issues. **www.gao.gov/new.items/d04808.pdf**

These developments in the accounting field suggest three main trends:

1. There is an increasing awareness that the specific financial implications of climate change need to be accounted for in a company's public filings in order for investors to be considered "well-informed".
2. More accounting authorities are codifying the accounting rules for emission assets and liabilities in the *financial statements* when a company operates under an emissions trading scheme.
3. More accounting authorities are codifying disclosure standards to create some structured guidance for disclosure of carbon risks in the *Management Discussion & Analysis (MD&A)* when such risks are difficult to quantify, yet remain potentially material to investors.

Climate Change Litigation Continues its Slow March

Although still a moderately distant risk for most corporations, climate change litigation based on tobacco-style lawsuits should be on the radar screen of any institution with investments in high-impact industries like Oil and Gas, Electric Utilities, Automobiles and Finance. Investors should not overlook its future potential as a legitimate threat to shareholder value. Since the launch of CDP1 climate change litigation has been gaining momentum, albeit slowly, and a number of important legal actions have occurred over the past year.

- **Climate lawsuits in the US power sector:** In a precedent-setting lawsuit announced in July 2004, eight US states and New York City joined together to sue what they described as "the five largest global warming polluters in the US": American Electric Power (AEP), Southern Company (SO), Tennessee Valley Authority, Xcel Energy (XEL), and Cinergy. The suit was filed by attorneys general from California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont, Wisconsin and New York City.

"Now that carbon emissions carry a real price in, for instance, Europe, environmental costs are beginning to figure on companies' bottom line."

FT Editorial, May 11, 2005

According to statements from New York Attorney General Eliot Spitzer's office, the goal of the lawsuit was to compel the companies to reduce their GHG emissions. No monetary damages are being sought. The legal foundation for the case rests in the federal common law of public nuisance which, according to the AG's office "provides a right of action to curb air and water pollution emanating from sources in other states" and is widely employed in modern environmental law.

This case marks the first attempt to sue companies for climate change, and prompted Jacques Dubois, CEO of Swiss Re American Holding Corp., to say that climate liability was "evolving too fast for comfort".[22]

- **Legal wrangling between US regulators and the Auto industry:** In July 2002, California Assembly Bill 1493 instructed the California Air Resources Board (CARB) to adopt regulations that reduce carbon dioxide and other greenhouse gas emissions from passenger vehicles. In September 2004, CARB issued new regulations requiring these restrictions. Under these regulations new emissions standards will be phased in during the 2009 through 2016 model years. When phased in, the near term (2009-2012) standards will result in about a 22% reduction in greenhouse gas emissions as compared to the 2002 fleet, and the mid-term (2013-2016) standards will result in about a 30% reduction.

  In response, coalitions of automakers (including the Alliance of Automobile Manufacturers and the Association of International Automobile Manufacturers) and the Federal government filed suit in California claiming that CARB overstepped its authority in adopting the new emission standards.

- **Developments in Europe:** In the wake of the 2003 European summer heat-wave, scientists at the UK's Hadley Center and Oxford University stated that they were 90% confident that human influence had doubled the risk of the heat-wave occurring. The statement has legal significance in that US courts have held that a doubling of the relative risk can be sufficient to establish liability.

  Also in Europe, the German government was sued in the summer of 2004 by non-governmental organizations for refusing to disclose information regarding export credit it had provided to overseas fossil fuel projects.

- **Historic court judgment in Australia:** In the first case of its kind to come to judgment, an Australian judge has held that greenhouse gas emissions from brown coal are a relevant consideration when a public authority is deciding whether to allow the mining of coal to supply a power station[23]. A similar point is being argued by Friends of the Earth, Greenpeace, US cities and individuals in their case against the US export credit bodies under the National Environmental Policy Act. The case is ongoing and details can be found at www.climatelawsuit.org

- **Other lawsuits crop up from the Arctic to Africa:** In December 2004, the Inuit Circumpolar Conference announced its intention to petition the Inter-American Commission on Human Rights, arguing that US policy and (in)action on climate emissions amounted to a violation of a number of their human rights[24]. The Arctic Climate Impact Assessment, conducted by an international team of 300 scientists, recently pointed out several threats to Inuit livelihoods stemming from climate change, including the pressure on seal populations hunted by the Inuit due to

"Global warming threatens our health, our economy, our natural resources and our children's future. There is no dispute that global warming is upon us and that these defendants' carbon dioxide pollution is a major contributor. Others are taking action to reduce emissions and these companies could also do so by building cleaner energy sources. Under accepted and unambiguous law, a court can order them to reduce their emissions. We believe a court should do so and will do so."

New York Attorney General Eliot Spitzer, July 21, 2004

"Potential public interest plaintiffs, such as NGOs, state governments, or municipalities, may pursue climate change litigation in an attempt to deter greenhouse gas emissions. Potential private plaintiffs would do the same, but also may seek a lucrative payoff for alleged damages to property and health, especially because such actions are likely to be brought as large class actions."

Vincent S. Oleszkiewicz & Douglas B. Sanders

22 Solid Waste Report, "European insurers urged to consider greenhouse gas risks with contracts", March 18, 2005.

23 See Australian Conservation Foundation v Minister for Planning, VCAT 2029 (29 October 2004). Judgment available at: www.austlii.edu.au/au/cases/vic/VCAT/2004/2029.html

24 See **www.ciel.org/Climate/Lawsuit_Inuit_15Dec04.htm**

25 See **www.climatelaw.org/media/gas.flaring.suit**

reductions in sea ice cover. This was followed in June 2005 with an action by communities in Nigeria to stop gas flaring by companies such as Shell and Exxon Mobil[25]. According to the World Bank, gas flares in Nigeria have contributed more greenhouse gases than all other sub-Saharan sources combined, and the communities are arguing that their human rights to life, dignity, health and a clean environment are being violated.

4 In CDP3, FT500 companies were asked nine questions regarding climate change related risks, opportunities, technologies, emissions, reductions and costs or savings.

Carbon Risk exposures vary significantly among both companies and industries

Analysis of Responses

In CDP3, FT500 companies were asked 9 questions that focused on the following:

1. Climate change as a financially-relevant risk/opportunity
2. Allocation of management responsibility for climate change
3. Relevant technologies
4. Emissions trading
5. Total annual emissions in tonnes of CO_2 equivalent (CO_2e)
6. Emissions from products and services
7. Internal reduction programs and targets
8. Emissions intensity
9. Energy costs

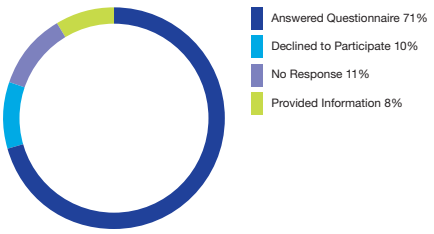
This section pulls out the key themes that emerged from the responses to these nine questions. We believe the most important of these themes are the following:

- Awareness of climate change as both a risk and an opportunity has increased, but actions to actually manage those risks and opportunities still lag
- The number of companies that responded to the CDP information request increased once again
- Carbon risk exposures vary significantly among both companies and industries
- The carbon risks of a particular company relative to its sector – its Carbon Beta© – can be modelled. Equally important, some leading companies have distinguished themselves by rolling out sophisticated strategies to manage their unique risk exposures
- The cost of carbon may erode annual net income by as much as 45%, depending on carbon prices and individual company circumstances
- Differences of opinion remain among same-sector companies regarding the relevance of climate change as a material risk issue
- Far from 100% of the FT500 provided quantitative emissions data, despite being asked specifically to do so
- Of the companies that did not respond to the CDP questionnaire, up to 20% of their outstanding shares are held by the CDP signatories
- The FT500 Index is comprised of the 500 largest companies in the world – measured by Market Capitalization

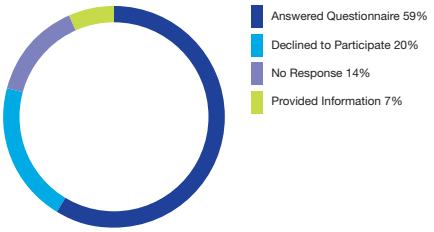
Response Rates Rise Again, From 59% in CDP2 to 71% in CDP3

The number of companies responding to this year's CDP information request increased once again. This consistent increase is likely attributable to a combination of factors, the most important of which are the significant increase in the financial backing of the Carbon Disclosure Project (from $10 trillion in CDP2 to over $21 trillion in CDP3) and the increased appreciation among the FT500 companies of the strategic importance of rudently managing climate change risks and opportunities. The full 9-point CDP questionnaire sent to the FT500 companies can be found in Appendix E of this report.

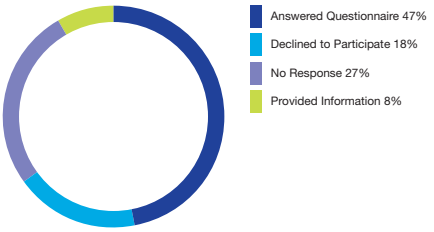
CDP3 Response Rates



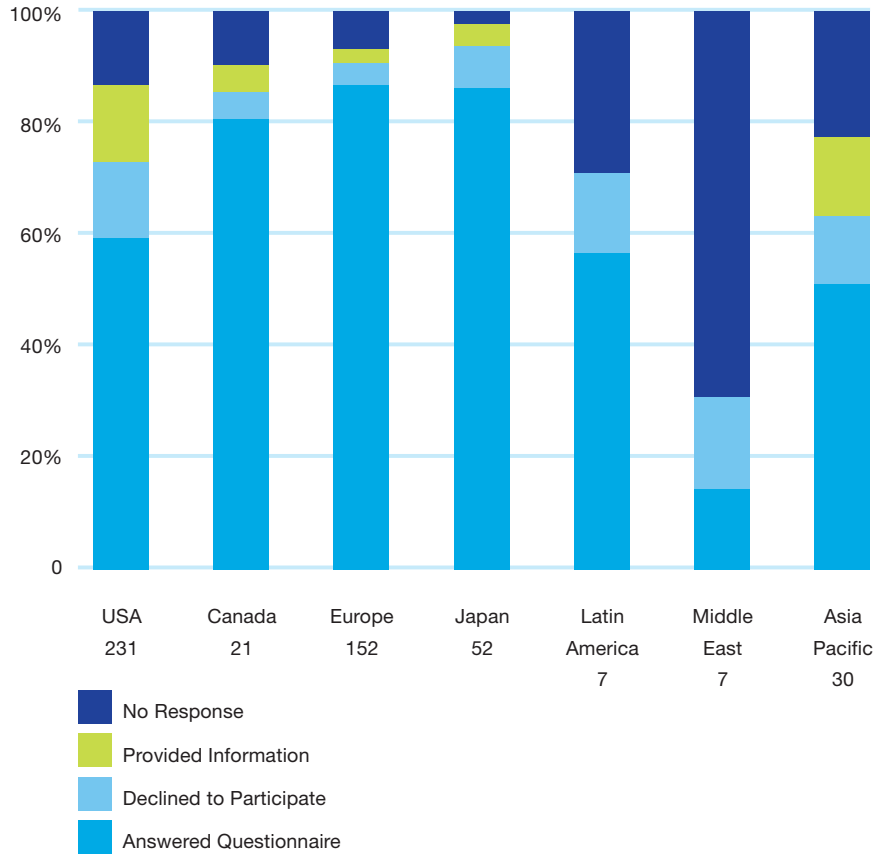
CDP2 Response Rates



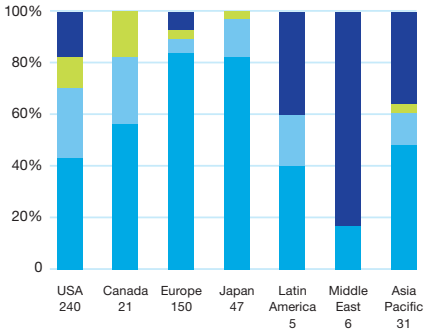
CDP1 Response Rates



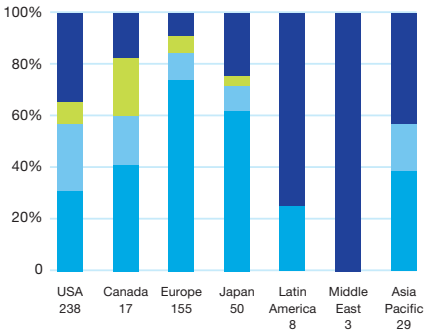
CDP3 Response by Geography



CDP2 Response by Geography



CDP1 Response by Geography



Awareness Rises… But Actions Lag

As previously indicated, 89% of the FT500 companies responded to the CDP3 information request, while 71% provided answers to the CDP3 questionnaire, up from 59% in CDP2 and 47% in CDP1.

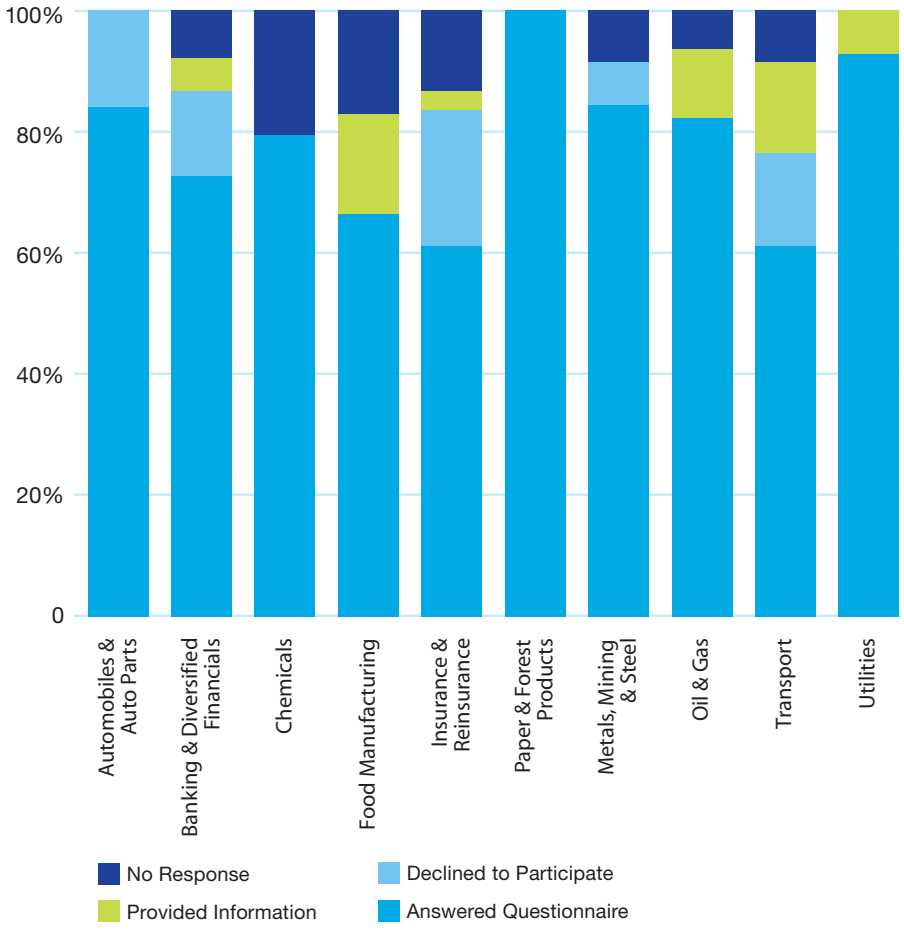
In parallel with the increase in the number of responses received, there has also been an increase in the number of firms that acknowledged the risks and opportunities originating from climate change. In CDP3, a remarkable 92% of responding companies indicated that climate change posed commercial risks and/or opportunities to their business (up from 85% in CDP2). Less heartening, however, is the apparent mismatch between the number of companies that are aware of these risks and opportunities and the number that report having taken concrete steps to address them. The key statistics that demonstrate this disconnect are exhibited on the next page.

92% of Responding Companies Consider Climate Change to Represent Commercial Risks and/or Opportunities. But fewer have also…	CDP3
Allocated Management Responsibility for Climate Change-Related Issues	86%
Disclosed Emissions Data	80%
Implemented Emission Reduction Programs	51%
Established Emissions Targets and Timeline	45%
Taken Early Action in Emission Trading	35%

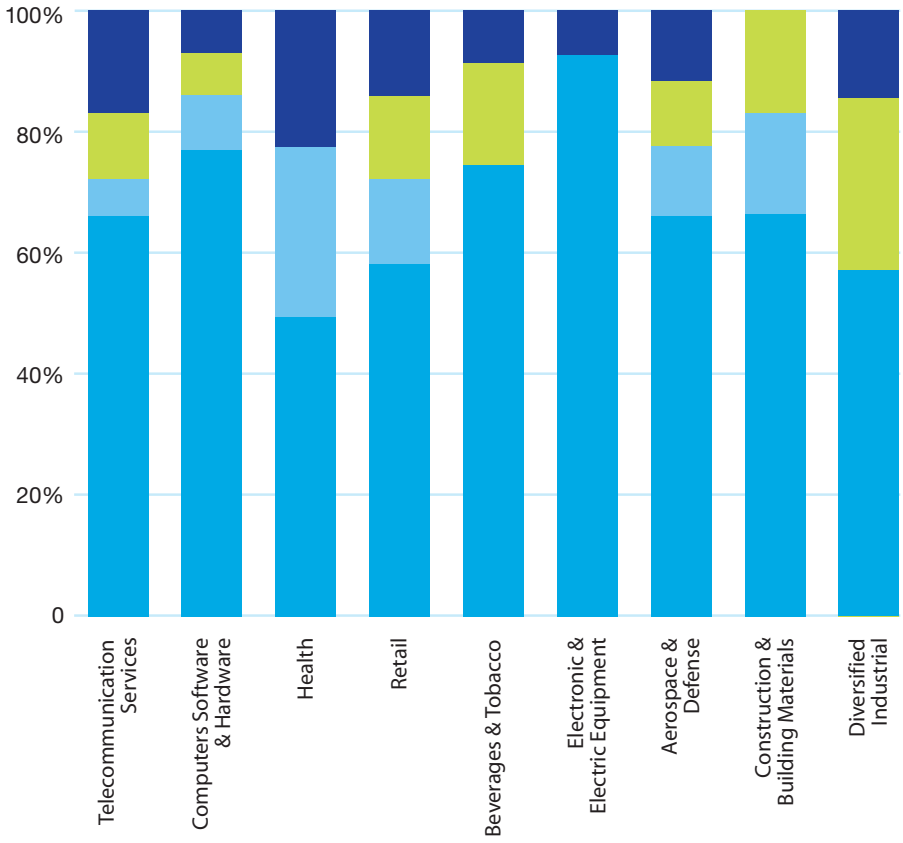
These numbers reveal that a large majority of companies recognizing climate-related risks and opportunities have both allocated management responsibility for climate change-related issues and disclosed their emissions data, but that far fewer have implemented emission reduction programs or set targets.

The fact that just over one-third of risk-aware companies in CDP3 have participated in emissions trading systems is likely explained by the fact that major trading regimes such as the EU ETS remain geographically restricted and not relevant for all companies.

High Impact Sectors: Breakdown of Responses (CDP3)



Medium Impact Sectors: Breakdown of Responses (CDP3)



"Carbon Beta©" Varies Widely But Only Some Companies Are Ahead of the Curve

To continue the theme of previous CDP reports, this year we maintained our focus on corporate "carbon beta" – the carbon risks of a particular company relative to its sector – as a critical factor for investors. A second important factor is the quality of management strategies to adapt to the challenges created by a company's unique carbon beta.

The sector-level results of this analysis are presented in Appendix A of this report. In general, the results suggest that not only do significant beta differentials exist but also that some companies are well ahead of the competition in terms of strategic positioning on the climate issue.

Carbon: $5 or $100? How the Cost of Carbon Plays Out Under Different Scenarios

When considering the climate risks facing the FT500, rigorous financial analysis should take into account the newly established cost of carbon. This is not to say that carbon costs are the only point of interest for investors; in fact a whole host of factors including marginal abatement costs, geographic exposure to carbon regulations, product substitution pressures, ability to pass on costs to customers, product mix and greenhouse gas intensity should be built into a climate risk analysis methodology. In addition to these risk factors, an even more important element is the ability of management to adequately manage this complex and ever-changing group of risks.

Despite the inherent complexity of measuring and quantifying corporate exposures to climate change risk, factoring in the cost of carbon remains central to any proper analysis. Below we present two of the report's key findings: carbon costs vary widely both among and within sectors.

Carbon Costs Vary Considerably Among Sectors

As a steady base upon which further analysis can be built, the following analysis illustrates the differentials in carbon costs across sectors under various plausible carbon constraint/carbon cost scenarios.

To carry out the analysis we took the following steps:

1. Noted current greenhouse gas emissions as reported to CDP3 and applied two hypothetical emissions constraints (5 percent and 20 percent).
2. Factored in different assumptions about carbon price.
3. Factored in different assumptions about the time period over which compliance with the carbon constraint was required. For this exercise we consistently assumed a 7 year compliance period to 2012 for each scenario.

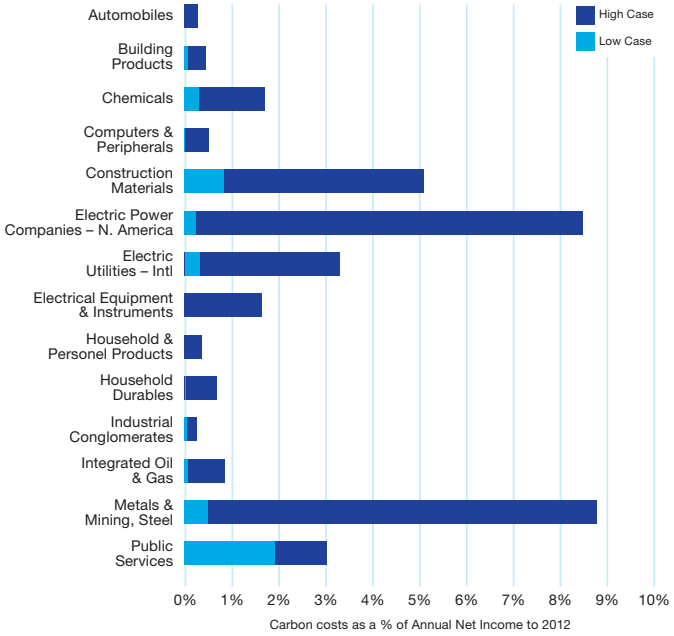
On the following pages we present four of these scenarios.

Each graph illustrates the “high case” (meaning the most exposed company in the sector) versus the “low case” (meaning the least exposed company in the sector) in each sector in terms of potential carbon costs as a percentage of annual net income.

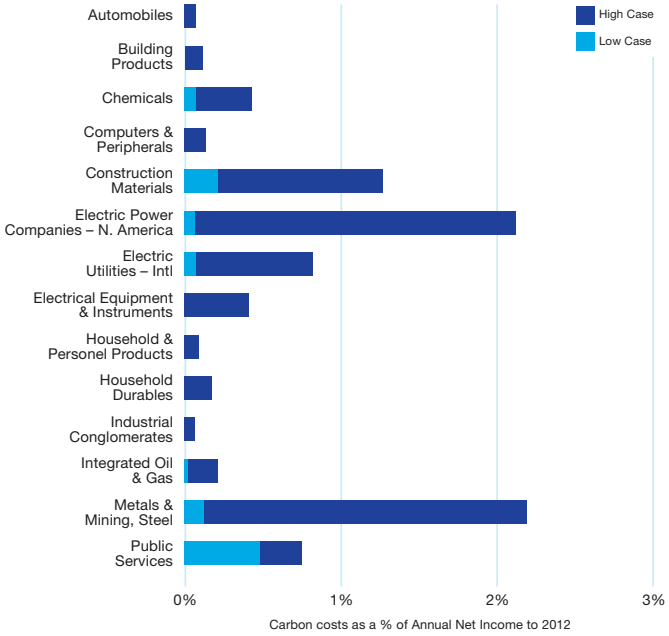
Each bar represents carbon costs as a percentage of net income each year until 2012.

We encourage all investors to build their own scenarios based on expected emissions constraints, anticipated costs of carbon and other critical factors that will play a part in determining individual equity risk exposures.

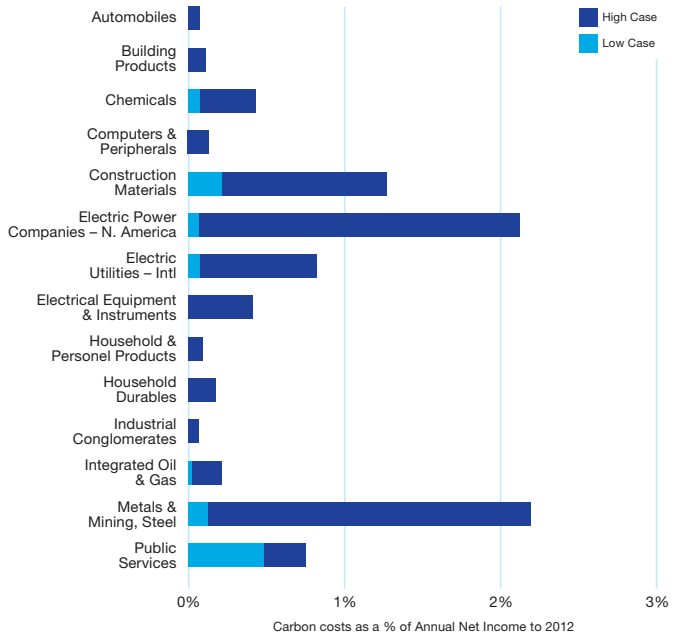
SCENARIO 1
Carbon Cost: $20 – Emissions Constraint: 20% – Compliance Period: 7 years. Intra-Sector Risk Exposure in the FT500 – High Case vs. Low Case By Sector



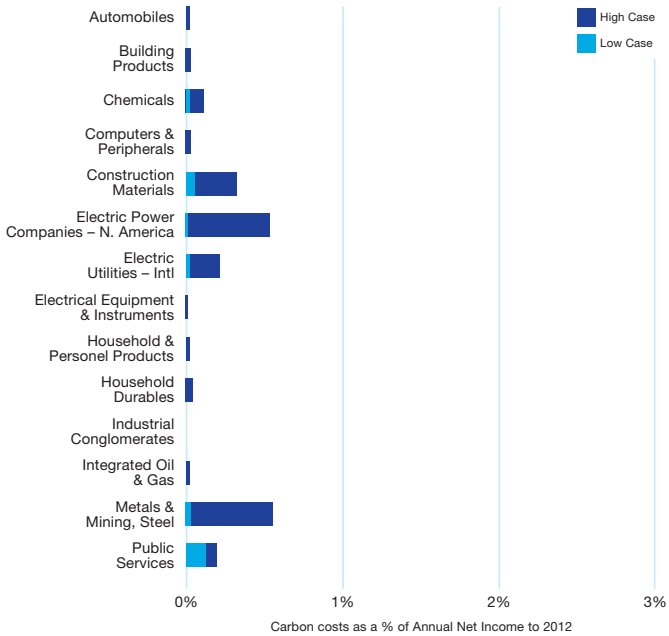
SCENARIO 2
Carbon Cost: $5 – Emissions Constraint: 20% – Compliance Period: 7 years. Intra-Sector Risk Exposure in the FT500 – High Case vs. Low Case By Sector



SCENARIO 3
Carbon Cost: $20 – Emissions Constraint: 5% – Compliance Period: 7 years. Intra-Sector Risk Exposure in the FT500 – High Case vs. Low Case By Sector



SCENARIO 4
Carbon Cost: $5 – Emissions Constraint: 5% – Compliance Period: 7 years. Intra-Sector Risk Exposure in the FT500 – High Case vs. Low Case By Sector



Based on the results of the analysis it is apparent that the potential liability from the cost of carbon varies significantly both among and within the FT500 sectors. For example, the Scenario 1 analysis tells us that the annual liability *within* in the Metals, Mining & Steel sector ranges from a low of about 0.5% of net income to almost 9%. Similarly, the contrast *among* sectors is also telling; the potential range of liability in the Construction Materials sector appears to be much higher than that of the Industrial Conglomerates sector.

When interpreting the results above we emphasize that the chart refers only to risks from "direct" emissions, specifically the cost of reducing in-house emissions by a certain amount at a certain price. In many sectors, such as ***Integrated Oil & Gas*** *and* ***Automobiles****, the most pivotal financial risks lie primarily in each company's "indirect" risk; for example the risk of declines in demand for high-carbon fuels like coal and oil or new restrictions on GHG emissions from automobiles. The results presented below should not lead investors to disregard risks in certain sectors. Rather, the results should be viewed as one perspective on the complex issue of how climate change will affect financial performance.*

Carbon Costs Vary Considerably Within Sectors

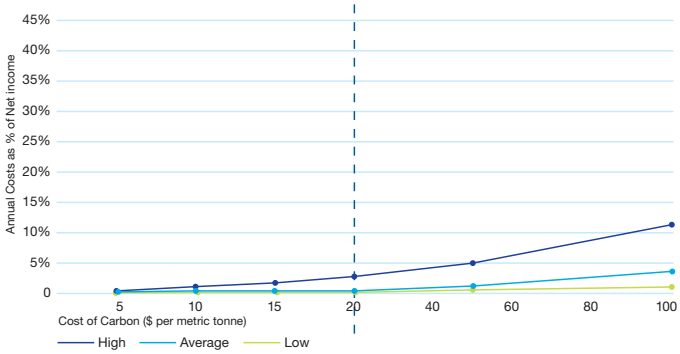
The charts presented below illustrate the company-level impact of various carbon prices on net income. By conducting this type of carbon price analysis, investors and corporate strategists alike can model the potential financial impact of carbon costs at the company level. By building company-specific circumstances (such as geographic exposure to regulations and anticipated costs of carbon in various regional markets) into such an analytical model, accurate valuations of direct carbon costs can be made.

For each sector, we have modeled company-level carbon cost curves based on CDP3 emissions data, financial data and a range of carbon prices from US$5 to US$100. Two graphs are provided for each sector; each is identical except for the assumed carbon constraint (a 5% constraint in the left graph and a 20% constraint in the right graph). Instead of providing the carbon cost curve for every company in every sector, we present here the "high case" (the company with the most exposure to carbon costs), the "low case" (the company with the least exposure) and the average exposure of every responding company in each sector.

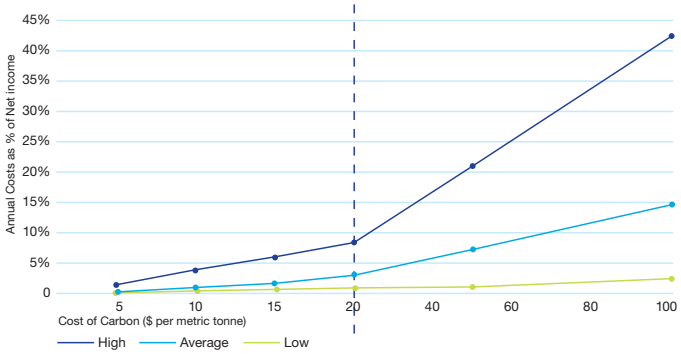
We have modeled all high-impact sectors under these scenarios. Below we present the results from Electric Power Companies – North America and Metals & Mining, Steel. Results from other sectors can be found in Appendix A of this report.

These graphs serve to illustrate the varying degrees to which the cost of carbon can affect the financial performance of individual companies. As we can see the differentials between companies can be large depending on the carbon price per tonne and the emissions constraints under which a company operates. Clearly, the higher the carbon cost and the tighter the constraint, the more costly the effect and the more widely spread the differentials become. For example, even under a 5% emissions constraint, carbon costs within the Electric Power Companies – North America sector range by nearly 10% of net income.

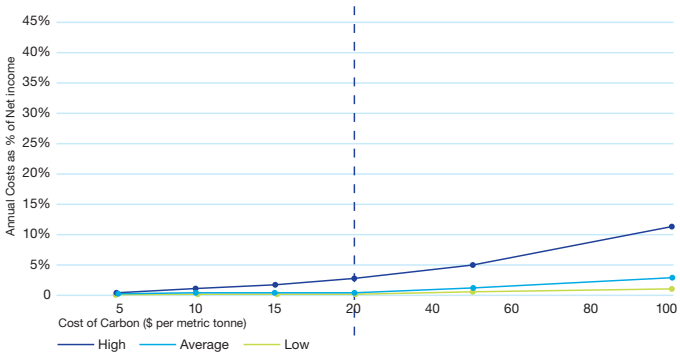
Electric Power Companies – N. America
7 year compliance period, 5% emissions contraint



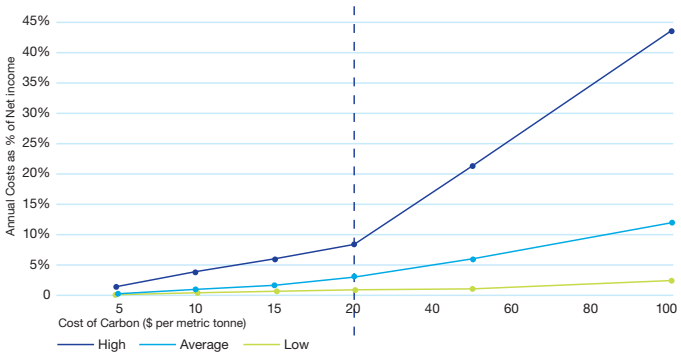
Electric Power Companies – N. America
7 year compliance period, 20% emissions contraint



Metals, Mining & Steel
7 year compliance period, 5% emissions contraint



Metals, Mining & Steel
7 year compliance period, 20% emissions contraint



Marked Differences Regarding How to Best Measure Emissions Intensity

Among the FT500 companies there is a great variety of approaches to measuring emissions intensity. Although the concept of emissions intensity is fairly simple – it reports the total amount of a company's emissions per some unit of economic output – its implementation in live business situations has given rise to much debate and controversy.

From an investor perspective, emissions intensity is essentially the equivalent of a financial ratio – a measure that helps benchmark corporate performance on a particular metric relative to peers. From a political perspective, emissions intensity has garnered support as an appropriate measurement tool from key nations such as the U.S., which adopted an 18 percent emissions intensity reduction target as the cornerstone of its domestic policy to 2012.

Opponents of emissions intensity as an appropriate yardstick contend that the metric misses the mark since in order to address climate change absolute emission levels must be reduced.

Below we present some of the methodologies FT500 companies are following to measure emissions intensity. While these figures do carry some analytical value, we strongly recommend that investors do not rely too heavily on these signals alone when assessing a company's positioning on climate change.

Instead investors should consider other, more critical factors that determine a company's exposure; in particular, the degree of sophistication with which management is addressing the risks and opportunities of climate change.

The responses to the CDP suggest there is still a great deal of progress to be made before companies reach consensus on the optimal emission measurement

methodology for their respective sectors. The flow chart below illustrates the approaches that have been adopted so far, and should provide some guidance to those companies still trying to find the metric that most accurately characterizes their progress in reducing emissions. However, a cautionary note should be sounded on behalf of investors: if industries fail to adopt comparable metrics, then emissions intensity ratios will be of negligible analytical value. A proliferation of too many emission intensity methodologies will lead to apples-to-oranges comparisons that will substantially diminish the usefulness of emission intensity ratios.

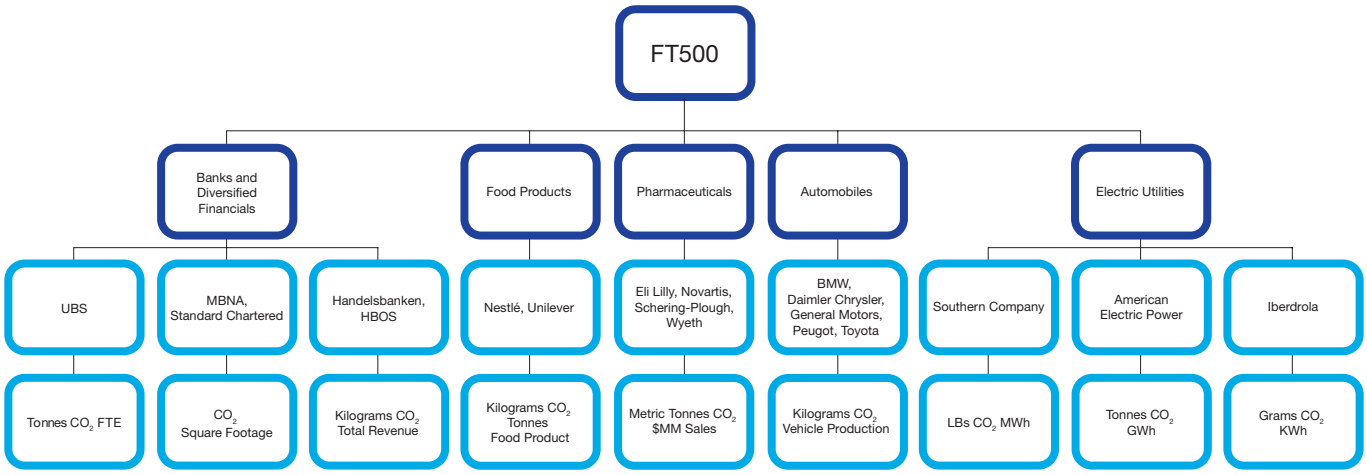
Differences of Opinion Persist on Business Relevance of Climate Change

As with last year's CDP report, an analysis of this year's responses reveals a dramatic gulf in strategic thinking regarding the financial implications of climate change. This reality is nowhere more apparent than in the financial services sector. In this sector, many companies disregard climate change because the "direct" risks of emission regulation and physical impacts are low. However, leading financial companies recognize that the magnitude of "indirect" risks from climate change (such as impaired market value of assets and climate-induced knock-on effects on loan portfolios) can be enormous and deserve detailed attention as a matter of responsible risk management.

On a more positive note, most companies in high-impact sectors such as Metals & Mining, Electric Power and Oil & Gas are now well aware of the financial risks and opportunities posed by global climate change. As such, the range of opinions regarding the relevance of climate change is too small to provide any meaningful contrast here.

A wide range of opinions, however, does persist among various low and medium impact sectors. The relatively low carbon intensity of these sectors has not, however, prevented leaders from forging ahead in carbon risk management. Since the degree of risk from climate change facing companies in all industry sectors is determined to a considerable extent by the quality of its strategic management, the examples below illustrate how sector laggards may already be at a competitive disadvantage in an increasingly carbon constrained global economy.

Select Emissions Intensity Methodologies



Fails to acknowledge the implications of Climate Change on their business		Acknowledges the implications of Climate Change on their business
Aerospace and Defense		
Boeing's spokesman replied by saying "although the company will not be participating in the project in 2005, I have forwarded the materials to the company's environmental staff for their review".	vs	EADS responded, "Group companies such as Airbus have already undertaken active initiatives to achieve emissions reductions with specific targets for improvement. This effort shall cover all the entire aircraft life cycle".
Banks, North America		
Washington Mutual commented that, "we have not experienced direct indicators suggesting that climate change will affect our current business model in the future."	vs	Bank of America, which sees climate change as a "major risk to the ultimate stability and sustainability of our way of life" and has taken steps to "assess climate change risk on our business and take necessary action to limit risk and invest in change where appropriate... beginning with an assessment and reporting on GHG emissions from the energy & utilities portfolio."
Golden West Financial, which, in response to every question in the CDP3 questionnaire, stated, "We only make mortgage loans. We operate in the U.S. only, and we emphasize recycling and energy efficiency in all our operations."	vs	CIBC, which "recognizes that the issue of climate change poses both risks and opportunities," and has created an environmental mortgage product that offers rebates to holders of designated energy-efficient homes.
M&T Bank replied that it was "not sure" whether climate change represented commercial risks and/or opportunities for their business.	vs	Royal Bank of Canada, which remarked that "climate change, policies to address climate change, and adaptation strategies all present both risks and opportunities to our company...it is for this reason that we have a multi-stage Carbon Risk Program underway."
Banks, Asia		
DBS Group, one of the largest financial services groups in Asia, indicated that, "climate change does not represent commercial risks or opportunities for the company because we are a financial institution."	vs	Australia & New Zealand Banking Group, a direct competitor of DBS Group in the Asian market, which acknowledged that "climate change poses a risk to the economy, the bank's customers and ultimately the bank's own operations."
BOC Hong Kong stated that, "as a financial institution, we do not have any holdings or activities for which we would measure emissions."	vs	Hang Seng Bank, which asserted that, "as a bank, one of the most direct impacts on climate change is the greenhouse gas emission resulting from our operations. Therefore, we have set a 5-year target of 5% reduction in greenhouse gas emission from Year 2003 – 2007."
Food and Drug Retailing		
CVS responded "No, because as a retailer our production of greenhouse gases is rather limited and we believe that we have the best policies in place where we do produce emissions."	vs	Seven-Eleven Japan responded "As we are a retailer (convenience store) focusing sales of food, we consider climate change... could affect the procurement and quality of raw materials. We believe that policies responding to climate change such as an environmental tax could increase the costs for distribution and sales."
Insurance		
Sun Life Financial, which concentrated their discussion on managing the physical implications of climate change in their office buildings.	vs	AXA, which, moving beyond its internal operations, focused on profit opportunities posed by climate change and outlined its climate coverage, which allows companies "not only to protect against the unfavorable consequences of extreme weather events such as cyclones, floods and storms but also to smooth their results or their turnover against "normal" variations of main climatic indications including temperature, rain, wind and snow in the usual logic of risks of market management.
Progressive, which declined to participate in the CDP because the firm has no manufacturing plants and no means of tracking CO_2 emissions.	vs	Munich Re, which, in addition to tracking its CO_2 emissions, noted that "climate change...affects our business in many ways" and has set up the Challenge Of Climate Change Project to determine, in its various fields of business, how Munich Re should "adapt verified forecasts of climate change into the company's business decisions."
Pharmaceuticals		
Schering, which observed, "being a pharmaceutical company, we currently and in the medium term do not consider the impacts of climate change as of highly significant relevance to our commercial opportunity/risk evaluation."	vs	Novo Nordisk, which believes "climate change constitutes a material risk that needs to be managed effectively" and reports its emissions in accordance with the Global Reporting Initiative sustainability reporting guidelines.
Broadcasting and Cable TV		
DirecTV, a U.S. pay-television service provider, commented that, "the CDP questions are, for the most part, irrelevant to our industry."	vs	British Sky Broadcasting, which acknowledged that, "climate change and the policy responses to climate change pose both commercial risks and opportunities to our business".

Apple vs Microsoft

Comparing the CDP3 responses of the two companies Apple and Microsoft illustrates the difference in thinking on climate leadership. Apple stated on 13 June that they declined to participate in CDP3. By contrast Microsoft are working to reduce their emissions and can see opportunities:

"Microsoft is a leader in the development of software, such as Live Meeting, that enables on-line collaboration, virtual meetings and team working, and has been a leader in this segment of software for many years. These products are designed to enhance business productivity and reduce the need for physical transfer of documents and business travel, both of which have a positive effect in reducing the climate change impacts of businesses. Microsoft continues to invest in improving these products to accelerate take-up of these new working practices."

Percentage of Non-respondent's Common Shares Owned by CDP3 Signatories

The following table shows the FT500 companies that did not respond to the CDP3 questionnaire and the percentage of their outstanding shares that are held by the CDP3 signatories. Since the CDP3 signatories collectively have over $21 trillion in assets, the percentages listed below also represent significant amounts of capital on an absolute dollar basis. The analysis presented here is intended to demonstrate the sometimes large gap between the carbon disclosure requested by investors and actual information provided by companies – or lack thereof. Given the percentage of their ownership base represented by CDP3 signatories, non-responding companies may well wish to reconsider their position in future.

Companies That Failed or Declined to Respond	% of Total Common Shares Held by Signatories* to CDP3
Boeing Company	20.0
Morgan Stanley	18.6
Cendant	17.7
Freddie Mac	17.2
Conagra	16.5
Fannie Mae	15.6
Omnicom Group	15.1
Paccar	15.0
Altria Group	14.2
SLM	13.9
Wellpoint	13.9
Countrywide Financial	13.7
Caremark RX	13.0
Clear Channel	12.9
Capital One Financial	12.8
Wm. Wrigley Jr	12.7
Banco Popular Espanol	12.5
Time Warner	12.3
Symantec	12.2
St.Jude Medical	12.2
Home Depot	12.1
Illinois Tool Works	11.9
Prudential Financial	11.9
International Game Tech	11.8
Linear Technology	11.8
General Dynamics	11.6
Guidant	11.4
Aflac	11.4
Kroger	11.1

Companies That Failed or Declined to Respond	% of Total Common Shares Held by Signatories* to CDP3
Yum! Brands	10.9
Metlife	10.7
Apollo Group	10.7
Chubb	10.6
First Data	10.5
Harley-Davidson	10.4
Electronic Arts	10.4
American Express	10.2
Analog Devices	10.0
Charles Schwab	9.9
Kohls	9.6
Forest Laboratories	9.6
Gannett	9.5
Biomet	9.3
Clorox	9.3
Paychex	9.3
Accenture	9.1
HCA	9.1
Wal Mart Stores	8.9
Apple Computers	8.7
Liberty Media	8.7
Fox Entertainment	8.4
Stryker	7.6
Franklin Resources	7.2
Bouygues	6.7
Canadian National Railway	6.6
Regions Financial	6.2
Carnival	6.2
Bridgestone	5.8

Companies That Failed or Declined to Respond	% of Total Common Shares Held by Signatories* to CDP3
DirecTV	5.6
Mediaset	5.4
Pinault Primptemps	5.2
Amazon	4.3
Iac/Interactivecorp	4.3
Genentech	4.0
Allied Irish Bank	3.9
Generali	3.5
SoftBank	3.5
Com. Bank of Australia	3.4
Teva Pharmaceutical	3.1
Richemont	2.8
BOC Hong Kong Holdings	2.8
Reliance Industries	2.6
China Mobile (Hong Kong)	2.2
Hon Hai Precision	2.2
News Corporation	2.2
UFJ Holdings	2.1
Vale do Rio Doce	2.0
AP Moller-Maersk	1.7
Berkshire Hathaway	1.7
Telmex	1.4
America Movil	1.3
Resona Holdings	1.1
Great West Lifeco	1.0
Oil and Natural Gas	0.9
Power Financial	0.8
Aeon	0.6
Lukoil	0.3

*Total common shares held by CDP3 signatories who are top 50 shareholders in these companies. It should be noted that, if anything, this table understates the case, since companies that provided perfunctory responses were not included in these calculations. If the perfunctory responses were considered essentially equivalent to non-responses, the percentages would rise significantly.

Only Modest Responsiveness to Investor Calls for Quantitative Disclosure

In order to provide investors with reliable and accurate research on the investment implications of climate change, financial analysts require consistent and comparable data on company-specific emissions. The quality of currently available emissions data, while steadily improving, still falls far short of the quality expected of traditional financial data.

The single biggest problem is lack of disclosure. **Among the FT500 constituents, only 46% disclosed emissions data in CDP2 and only 54% disclosed emissions data in CDP3.**

A second problem is data comparability. When reviewing the emissions data, multiple complications arose due to the widely varying scope of company reporting. Emissions reported ranged from simply how much energy was used at company headquarters to a full accounting of direct, indirect and business travel-related emissions. Although we are encouraged by the uptake of such standardized methodologies as the GHG Protocol, there still remains a dearth of companies that provide few details regarding the boundaries of their emissions reporting.

Finally, disclosure fluctuates significantly from one sector to the next as illustrated by the graph below. Another finding shown here suggests that while most high-impact sectors tend to have higher disclosure rates, there are some sectors including Aerospace & Defense, Oil & Gas Exploration and Production, Industrial Conglomerates and Surface Transport that have conspicuously poor disclosure rates of less than 50 percent.

For more detailed emissions data in high impact sectors, readers should refer to the sector-level analysis found in Appendix A of this report.

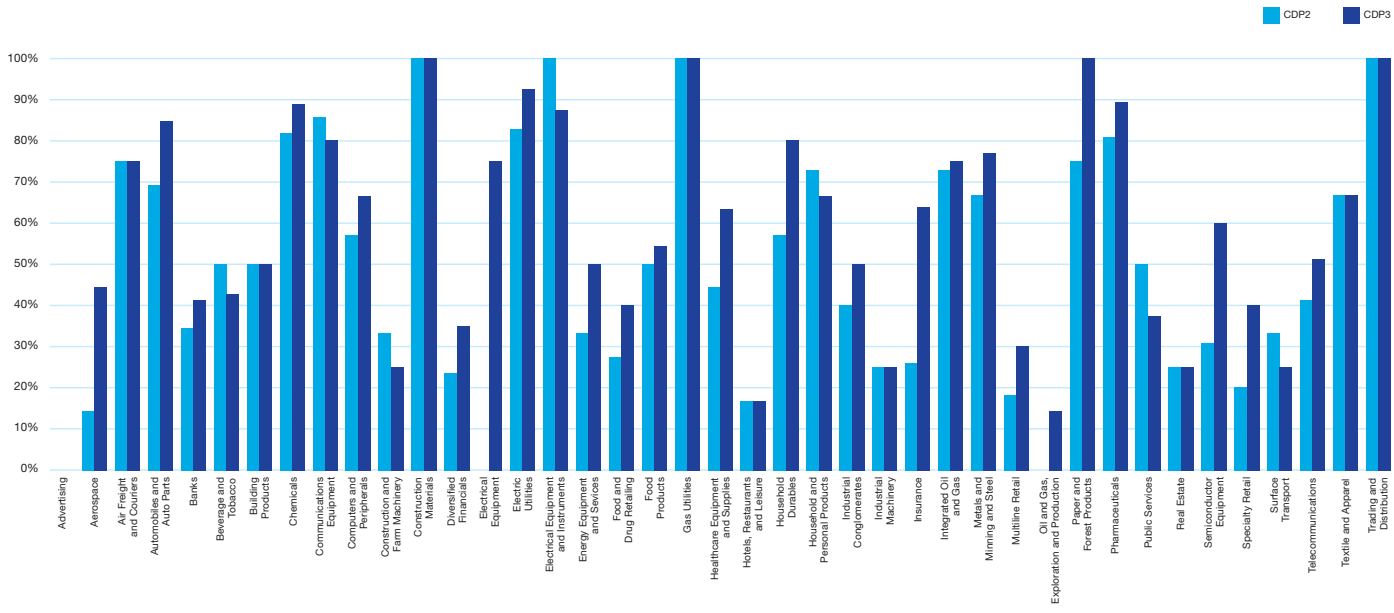
Given this modest responsiveness to calls for quantitative disclosure, it is only now becoming possible to begin consistently measuring year-to-year emissions trends.

As a first step towards measuring the emissions of the FT500, where possible we attempted to measure when companies reported either an increase or decrease in their GHG emissions between CDP1, CDP2 and CDP3. The results are as follows:

- **Despite the fact that 54% of the FT500 disclosed their emissions data, the performance of only 30% of the FT500 can be accurately benchmarked year-to-year because of inconsistent data quality**; the remaining 70% was incalculable due to comparability issues, data gaps or non-disclosure of data.
- In the period between CDP1 and CDP2, only 11% of the FT500 reported that they had reduced their absolute emissions. 12% reported an increase. Performance is unknown for the remainder.
- In the period between CDP2 and CDP3, only 13% of the FT500 reported a reduction. 17% reported an increase. Performance is unknown for the remainder.

While certainly not encouraging, these numbers should not be interpreted as the only way to look at emissions. Indeed, many companies – using a different baseline year to measure reductions – have achieved great success: **Alcoa** reports a 25% reduction from 1990 levels; **Dupont** reports a 72% reduction; and **Kansai Electric Power** reports a 14% reduction. Nevertheless, the numbers presented above do highlight the lack of

Percentages of FT500 Sector Disclosing Emissions Data



information available to investors looking to assess the performance of the FT500 over the past several years.

Strategies on Emissions Trading Evolve

Following the commencement of the EU Emissions Trading Scheme (EU ETS) in January 2005, the hot-button issue of the day for any company operating in Europe is the trading of GHG emission rights. This is not to say, however, that the EU ETS is the only game in town. Rather in several other major economies, including Japan, Canada and Australia, FT500 companies across a range of sectors are making preparations today in the expectation that emissions trading systems will soon be in place in their core markets as well.

One fairly universal comment found in the CDP3 responses was praise for emissions trading as a flexible and cost-effective alternative to government mandated GHG limits or a flat carbon tax, both of which were generally perceived as more costly options compared to emissions trading.

The CDP3 responses also tell us that corporations have begun to take concrete steps to use emissions trading systems to manage their carbon risk. The many examples of corporate activity in the carbon markets found in this year's responses to the CDP attest to the growing strategic importance of the carbon markets for companies and their shareholders.

In particular, the responses reveal several interesting trends for those companies that are either bound by a mandatory emissions trading scheme today or expect that they will be operating under such a scheme in the future.

Companies operating under the EU ETS count their allocation and plan for the future:

- In its response, **Centrica** declines to detail its strategy on the grounds that it is "commercially sensitive and so confidential". Even so, it does report that it has taken steps to secure a large volume of "allowances" which, unlike standard allowances, are not restricted to compliance periods and thus help mitigate risks over a longer time horizon.
- **BP,** a perennial leader on emissions trading, reports having created its Emissions Markets Group to manage all of its emissions trading activities. The Group is housed within the Integrated Supply and Trading business. 27 BP sites are included in the EU ETS which collectively emitted about 28% of BP's 2004 emissions.
- **Iberdrola** reports that it has received an allocation under the EU ETS that constitutes a yearly average of almost 14 million tonnes of emissions rights between 2005-2007. The company also states that this allocation is sufficient to cover its expansion plans for new power plants. Iberdrola provides a full accounting of its emission allocation rights on a facility-by-facility basis, a leading example of good disclosure through the CDP.

Investments in carbon funds seen as offering some relief from emissions liabilities:

- **Norsk Hydro** reports its early investment in the World Bank Prototype Carbon Fund (PCF), which makes use of the CDM and JI mechanisms of the Kyoto Protocol to acquire credits.
- **Suncor** points to its recent investment in the Natsource Greenhouse Gas Credits Aggregation Pool (GG-CAP), which is designed to provide buyers with high quality GHG emission reductions that can be applied against their GHG emissions liabilities.
- Similarly **Mitsui**, the Japanese diversified industrial company, reports having contributed US$6 million to the World Bank's Prototype Carbon Fund and €1 million to the Dexia-FondElec Energy Efficiency and Emissions Reduction Fund established by the European Bank for Reconstruction and Development (EBRD).

For those readers interested in an in-depth survey of existing carbon funds, please refer to the table provided in Appendix C.

Many companies report an interest in capturing Joint Implementation (JI) and Clean Development Mechanisms (CDM) opportunities directly:

- **Anglo-American**, which operates in many regions where CDM projects could be developed under Kyoto rules, reports having taken measures to ensure that emission reduction and CDM opportunities are identified and developed. At present the company is submitting an energy efficiency project at its Highveld facility in South Africa and a biological sequestration project in Brazil as CDM projects. The company also reports working on multiple CDM projects that involve fuel switching from charcoal to woodchips in the smelting of ferronickel.
- **Iberdrola** reports having taken advantage of its significant presence in Latin America by analyzing a number of potential CDM projects in the region, primarily through the development of hydraulic power stations and other types of renewable energies.
- Even in lower-impact sectors such as Electronic Equipment and Instruments, companies report an interest in CDM and JI. **Ricoh** reports that it is interested in a diversified strategy that includes emissions trading, JI and CDM in case it is unable to meet its emissions targets. **Hitachi** reports that it is studying the possibility of pursuing CDM opportunities overseas based on the company's energy saving technologies.

Carbon-Related Profit Opportunities: Tomorrow's Technologies Today

In this year's questionnaire, investors asked if companies were positioning themselves to profit from the commercialization of technologies that help reduce GHG emissions. The general trend since CDP1 appears to be a movement from general speculation on future low-carbon technologies to actual early-stage commercialization of viable technology.

In reviewing the responses it is clear that companies make such technology investments for one of two reasons, or in some cases a combination of both.

First, many companies make these investments to maneuver around anticipated future regulations that could pose serious threats to profitability in the years ahead. This case is clearly demonstrated in the Electric Utilities sector where companies see the strong likelihood of future regulations to limit GHG emissions from power plants. To counter this risk, many electric utilities are investing capital in carbon sequestration technology in the hope of finding an economical way to capture carbon from the smokestack and pump it into permanent storage in underground rock formations. **AEP** has invested over $20 million in three different types of sequestration projects: domestic forestry, international forestry and geological sequestration.

Second, many companies are investing in technology simply because they believe that, in a carbon-constrained world, demand for such technologies will increase. This investment driver is best shown in the Industrial Conglomerates sector, where **GE** recently announced a major initiative to produce a diversified line of products designed to help solve environmental issues, including those associated with climate change. The clear message coming from the company on this initiative is that it not only expects to help fix environmental problems but it also expects to profit from the effort.

Below we present a selection of various innovative products and services being put forward on a sector-by-sector basis. Interested readers are encouraged to read the company responses available at www.cdproject.net to find a greater level of detail than is presented here.

Automobiles:

- **Toyota,** a sector leader in hybrid technology since the company first introduced its Prius in December 1997, has sold approximately 318,000 hybrid vehicles worldwide. The company is also

"Regardless of which mitigation measures are made today, climate is expected to change in the next 50 years. This will require adaptation measures with subsequent business opportunities from infrastructure investments."

Siemens CDP3 Response

researching and developing low-emission vehicles that run on biogas.

- **Ford** recently introduced the Escape Hybrid, the world's first hybrid SUV, and has four additional hybrid vehicles in the pipeline (the Mercury Mariner, Mazda Tribute, Ford Fusion and Mercury Milan).

Banks:

- **ABN Amro** has developed a number of carbon finance services based on EU ETS allowances, including trading and clearing of EU Allowance Futures on the European Climate Exchange; trading EU Allowances OTC through the bank's commodity trading desk; and monetizing EU Allowances.

Chemicals:

- **Dupont** has created a range of products with embedded energy-efficiency potential. The company reports that its Tyvek Homewrap can reduce up to 25% of a house's thermal loss over the life of the dwelling. The company also produces laminated glass interlayers with reflective and UV barrier properties for high efficiency windows in commercial buildings.

Diversified Financials:

- Recognizing that the EU ETS "has created several billion Euros worth of new assets which have been assigned to companies in Europe," **Fortis** has developed a host of financial products in carbon trading, carbon finance, carbon trust and carbon fund services. Through its Global Markets Energy Desk, the company also offers a variety of weather hedge products.
- In 2004 **Citigroup**, in partnership with Fannie Mae, unveiled an energy efficient mortgage product that recognizes the value of energy savings through eco-efficiency measures as income for the purpose of a borrower's qualifying ratio.

Electric Utilities:

- Contending that the development of renewable resources provides a hedge against fuel price volatility, **Entergy** joined Shell Wind in a Joint Venture in 2004 to look for profitable opportunities to develop wind resources. The company currently owns 80 MW of wind power and has purchased over 500,000 emission reduction credits generated from landfill methane and coal mine methane recovery projects.

In 2004, **Iberdrola** installed photovoltaic solar panels in Navarra, Spain with generating capacity of 250 kWp. The total annual energy production estimate, free of emissions, is 425,571 kWh/year.

Industrial Conglomerates

- Grabbing headlines worldwide, **GE** announced in May 2005 the launch of its new "ecomagination" initiative. This dedicated eco-efficiency product line that focuses on renewable energy technologies, hybrid locomotives, low-emission aircraft engines and water purification equipment. The company anticipates sales of ecomagination products to increase from a current level of $10 billion to $20 billion by 2010.
- **Siemens** believes that "CO_2 prices and other regulatory forces increase the willingness of our customers to spend more money for highly efficient equipment and less money for the required fuel or power." Examples of such equipment that Siemens provides include renewable energy systems (wind, biomass, geothermal), "world record efficiency" gas-fired power plants, high-efficiency motors, energy storage systems for locomotives, and electronic control systems for its premium lighting products. Since 1995 Siemens reports that its Building Technology unit has realized energy conservation projects in the US, Canada and Europe in the order of €1.2 billion.

Integrated Oil & Gas:

- Long a leader in carbon capture and storage, **Norsk Hydro** explicitly notes this technology as offering future business opportunities. The company reports the development of CO_2 separation technologies for gas-fired

power production and participation with other major oil companies in the Carbon Capture Project (CCP), which seeks to refine conventional technology for CO_2 separation and storage.

- In partnership with Pearson College and Clean Current Power Systems, **EnCana** recently developed Canada's first free-stream tidal power project aimed at generating electric power from ocean currents and tidal energy.
- **Marathon** is developing proprietary technology for the production and shipping of stable slurries of natural gas hydrate crystals. Marathon expects this technology to have a significant impact on the handling of remote associated gas, offshore facilities minimization and gas treating and power plant capacity management applications.

Telecommunications:

- For **British Telecom,** climate change presents the opportunity to supply telecommunications services as an emission-savings substitute to travel, such as video conferencing. **Deutsche Telekom** has also positioned itself as a leading advocate of the positive role the telecom sector can play in enabling other industries to reduce their emissions, particularly those associated with business travel.

Cost Savings Associated with Energy Efficiency and GHG Reduction Efforts

Many companies reported substantial savings as a result of their energy efficiency and GHG reduction programs. A selection of some of these savings from a cross-section of sectors is presented in the table on the next page.

Company	Reported Energy Efficiency or GHG Reduction Effort	Cost Savings
Barclays	Company-wide energy reduction programme	Savings from 2001 to 2004 totalled £19.4m
Chevron	Chevron Energy Solution's re-engineering of three U.S. military bases to enhance living conditions	Projects guaranteed to save U.S. taxpayers at least $151 million and are expected to reduce greenhouse gas emissions by about 1.5 million tons
Denso	Emissions reduction projects	Annual saving of 1.8 billion yen as of June 2005, in addition to a reduction of 67,100 tons of CO_2
Deutsche Telecom	Energy saving projects	Savings amounted to 156 GWh leading to cost cuts of at least €26 million
Dow	Decreased energy intensity by 5% and lowered energy costs	Saved approximately $3 billion between 1994-2004
ExxonMobil	GEMS (Global Energy Management System)	Saving $500 million per year and avoiding associated GHG emission of about 7 million tons per year
HSBC	Asia-Pacific head office fit new chillers to produce chilled water for the central air-conditioning system	Savings of more than HK$1.1 million a year and a reduction of 1,050 tonnes of CO_2 emissions.
Johnson & Johnson	Energy efficiency in its buildings and processes	Since 2000 yielded annual cost savings of $30 million and CO_2 reductions of approximately 200,000 metric tons
Kao	Energy conservation projects	Saved 350 million yen since 1998 on 180 million yen investment
Matsushita	CO_2 reduction projects	Reduction in Japan during FY2005: 1.87 billion yen
Tesco	'Intellihood' systems which reduce the amount of energy consumed by the extractor fans at in-store bakeries and staff restaurants	Saved 15,777 MWh of electricity worth £710,000 last year
Unilever	Participation in the UK Climate Change Levy scheme	Saved £1.34 million and cut CO_2 emissions by 14,861 tonnes
United Health	National Energy Conservation program	Since 2001 the company has saved nearly $2 million and has reduced its GHG emissions by over 5,000 tons
Verizon	Energy conservation in administrative buildings	Saved approximately $20 million and reduced CO_2 emissions by 168,000 tons
Volkswagen	Reducing the ambient temperature in offices and production facilities	Annual savings of €1.3 million
Westpac	Incorporation of energy reduction targets and the introduction of Green Power into the overall energy mix	Reduction in annual energy bills by around AU$330,000

Most Improved Company Responses

Consistent with the growing awareness of climate change issues among the FT500, a large number of firms that either declined to participate or did not respond in CDP2 answered the questionnaire in CDP3. These companies include **Anadarko Petroleum, Bank of New York, Cardinal Health, Caterpillar, Comcast, Costco, Fifth Third Bancorp, Kingfisher, Kraft Foods, Marathon Oil, Marsh & McLennan, Maxim Integrated Products, MBNA, McDonalds, Taiwan Semiconductor and Target.** While some of these responses were decidedly superficial, as a whole they reflect CDP's continued global expansion and the deepening traction of carbon management among FT500 corporate strategies.

Equally encouraging are improvements in response quality. While many companies from CDP2's Climate Leadership Index, including **Munich Re, ABN Amro** and **Air Products and Chemicals**, once again submitted superior responses, other firms demonstrated significant improvement by providing more detailed information and generally more sophisticated responses.

Carrefour's CDP2 response was minimal in scope, but this year the company has provided information on their indirect emissions as well as supply chain strategies.

Coca Cola, which in both CDP1 and CDP2 provided a copy of its environmental report in lieu of answering the questionnaire, this year responded to the CDP3 information request and elaborated on its eco-efficiency initiatives and emissions tracking methodology.

Deutsche Telekom broadened its discussion of how various telecommunications products can be altered to reduce their environmental impact. The company also demonstrated increased awareness regarding the measurement of indirect emissions.

Encana, which did not answer the CDP2 questionnaire, this year provided a comprehensive response that included emissions data dating back to 2002.

Fortis demonstrated increased awareness of how climate change could affect its competitiveness in the financial services sector. The company also provided a sector-leading review of its carbon finance products platform.

Matsushita Electric significantly expanded its discussion of how climate change presents business opportunities for the firm. It also offered a more sophisticated response with respect to how it could benefit from emissions trading schemes.

Merck, which decided not to answer the CDP1 or CDP2 questionnaire, responded this year with a comprehensive overview of its climate change strategies.

Microsoft, which was singled out last year as providing an elementary response that did not address how the company was configuring its software to minimize energy consumption, this year came back with a significantly improved response that included emissions data and a deepened discussion of product innovation.

Peugeot provided more thorough information regarding how its business lines could be affected by advances in emission trading markets.

Schneider Electric, which last year provided a cursory response, this year offered details on new emission reduction initiatives and eco-efficiency product offerings.

Weyerhaeuser, which did not disclose emissions data in CDP2, this year provided emissions data and a sophisticated discussion of sequestration opportunities.

5 Appendices

Carbon Risk exposures vary significantly among both companies and industries

Analysis by sector

In continuation of the theme presented in the first two CDP reports, this year's sector analysis presents each responder's performance across each of the elements of the CDP questionnaire. To add to the analysis completed in the previous reports, the sector matrices are now marked in light blue to indicate where a company has made an improvement from its previous year's performance. New questions asked by CDP are also formatted in light blue.

New additions to this year's comparative company analysis are:

- The "GHG Emissions Trend Analysis" which presents each company's reported emissions through CDP1, CDP2 and CDP3.
- The "Additional Trend Analysis" which highlights what we see as the most financially-relevant strategic trends for each sector and provides additional quantitative analysis.

Automobile & Auto Parts

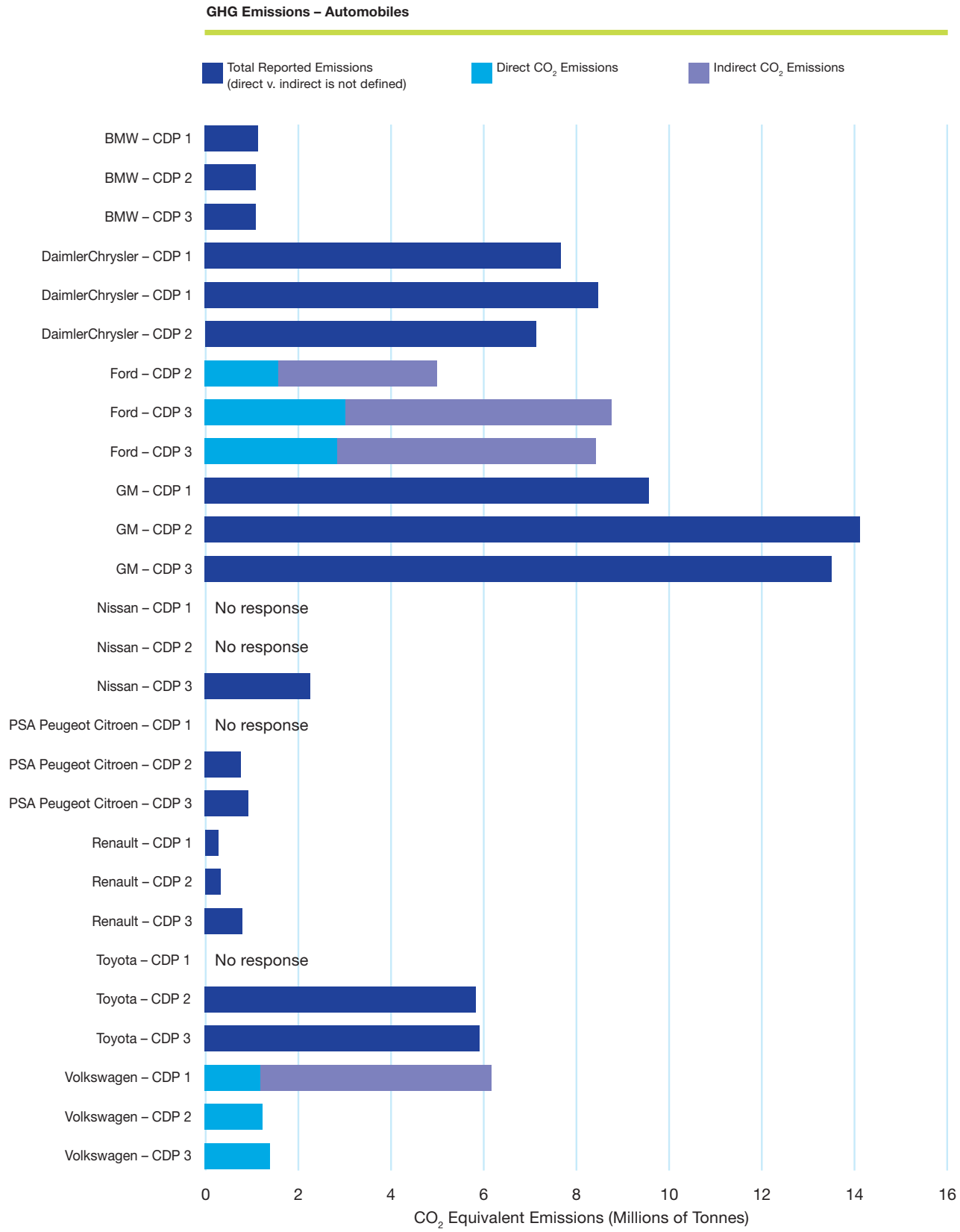
(a) Impacts of Climate Change

- Material increases in operating costs due to higher fossil fuel prices
- Indirect exposure to GHG emissions regulation
- Direct exposure to emission regulations on personal and commercial vehicles
- Competitive emphasis on low-emissions, high-efficiency engine technology
- More public policy support for hydrogen economy-related R&D
- Competition from sustainable public transport initiatives, particularly in cities
- Opportunities for next-generation, zero-emission vehicles, particularly in developing world markets

(b) Analysis of CDP Reponses

		Automobile & Auto Components												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Automobile	BMW	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
	Daimlerchrysler AG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Ford Motor Company	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	General Motors Corp.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Harley-Davidson	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Honda Motor Company Ltd	✓	✓		✓		✓			✓	✓	✓		
	Nissan Motor Company Ltd	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	
	Peugeot SA	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓
	Renault	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		
	Toyota Motor Corp.	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓
	Volkswagen AG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Auto Components	Bridgestone Corp.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Denso Corp.	✓	✓	✓			✓		✓	✓		✓	✓	✓

(c) GHG Emissions Trend Analysis



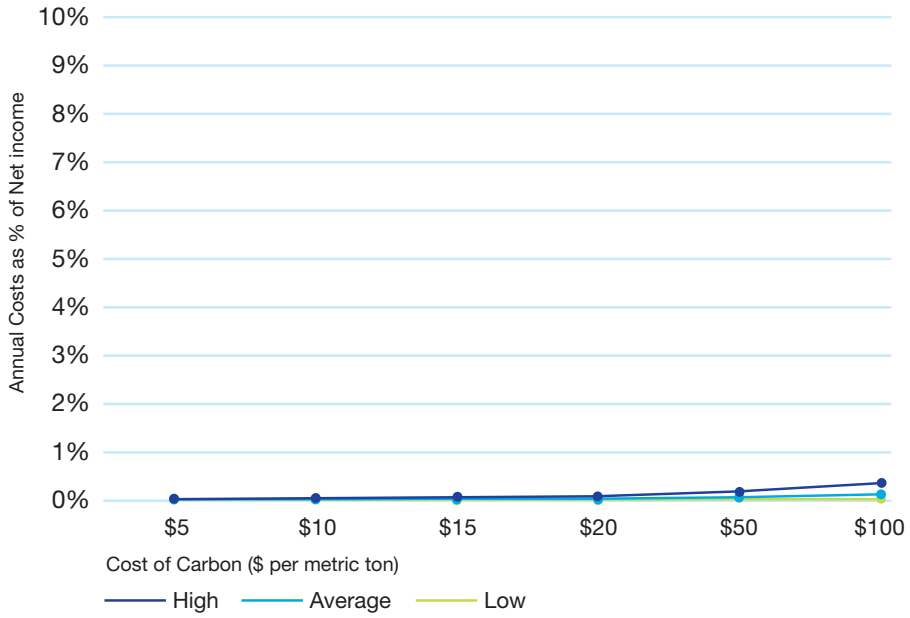
Automobiles & Auto Components companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Bridgestone Harley-Davidson Honda Nissan Peugeot Toyota	Bridgestone Harley-Davidson Nissan	Bridgestone Harley-Davidson

(d) Additional Trend Analysis

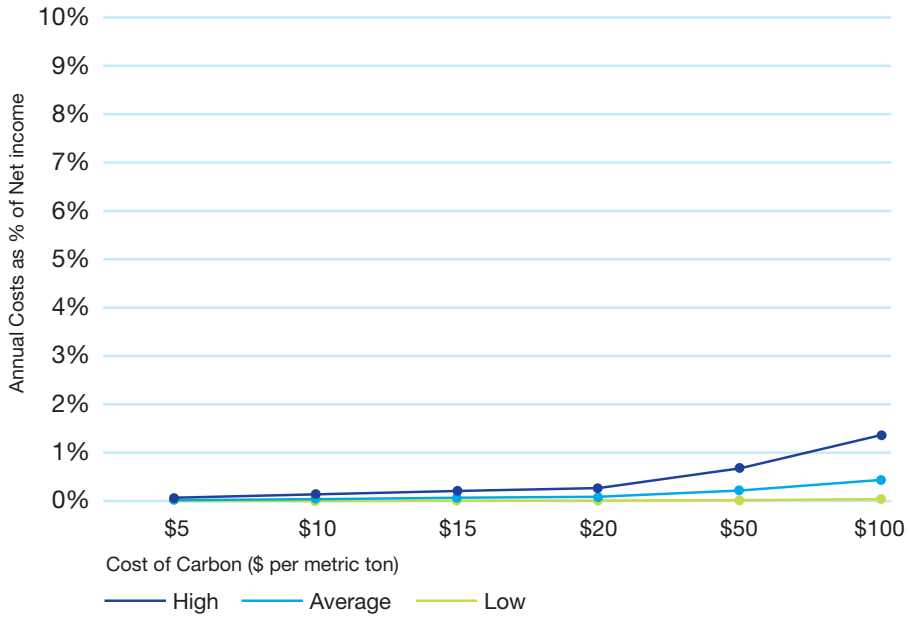
- Among top auto manufacturers, there is a 25% difference in average fuel efficiency on the line of passenger cars sold in 2004.
- **Corporate Strategies Converge Around Next-Generation Vehicle Opportunities:** Despite the lack of uniform international emission regulations, most FT500 auto manufacturers cited capacity in fuel cell, hydrogen and zero-emission technologies as critical elements of their long-term strategies. In the short-run, the strategic imperative remains continued advancement in internal combustion efficiency. **BMW** estimates that the cost of saving one ton of vehicle-life CO_2 emissions through improved emission technologies ranges from €100 to €1000.
- **Growing Use of Hybrid Drivetrains:** As the international regulatory environment concerning allowable CO_2 emissions continues to tighten, automobile companies are pursuing greater fuel efficiency in developing new vehicle platforms. **Ford** has developed the first hybrid SUV, which combines gasoline and electric engines for greater efficiency, and is planning four more hybrid vehicles. **Honda** has more hybrid vehicles commercialized than any other company, and rival **Toyota** has sold 318,000 hybrid vehicles and plans to vastly expand the number of hybrid models. The company also plans to meet Japanese requirements for a 22.8% fuel efficiency improvement on a 1995 baseline by FY 2005, five years ahead of schedule.
- **Continued Pursuit of Internal Energy Efficiency Gains:** In addition to improvements in vehicle fuel efficiency, automotive companies are leveraging GHG reduction opportunities across their internal operations in order to reduce operating costs. **Ford,** which currently supplies 5 percent of its energy needs in North America through alternative power, has saved over $50 million since 2000 from renewable energy and efficiency projects. **GM** obtains approximately 3% of its aggregate US energy requirements from renewable sources including thermal energy from landfill gas. In the Auto Parts sector, **Denso's** internal energy management procedures, which focus on co-generation investments, resulted in a net saving of over $16 million in 2004.

(e) Carbon Beta© Scenario Analysis

Automobiles 7 year compliance period, 5% emissions constraint



Automobiles 7 year compliance period, 20% emissions constraint



Banking and Finance

(a) Impacts of Climate Change

- Uneven and unpredictable impacts on global markets
- Hidden carbon liabilities change industry dynamics and impair market value of assets
- Impaired credit quality of GHG-intensive borrowers
- Compounding risk across entire portfolio of converging activities
- Physical damage, increased energy and insurance costs to real-estate portfolios
- Liability concerns over disregard for carbon risks
- Opportunities in financing infrastructure development (e.g. adaptation)
- Opportunities in GHG emissions trading markets
- Opportunities in clean technology markets

(b) Analysis of CDP Reponses

		Banks												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Banks – Asia	Al Rajhi Banking & Investment	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Australia And New Zealand Banking Group	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓
	BOC Hong Kong Holdings Limited	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Commonwealth Bank Of Australia	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	DBS Group Holdings													
	Hang Seng Bank Ltd	✓	✓	✓	✓		✓	✓		✓		✓		✓
	Mitsubishi Tokyo Financial Group	✓			✓	✓				✓				✓
	Mizuho Financial Group	✓			✓									
	National Australia Bank Ltd	✓	✓		✓	✓	✓	✓	✓	✓				
	Resona Holdings Inc	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Samba Financial Group	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Sumitomo Mitsui Financial Group	✓	✓	✓	✓		✓			✓				
	UFJ Holdings	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Westpac Banking Corp.	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓

		Banks												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Banks – Europe	ABN Amro Holding	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓
	Almanij	see KBC												
	Banca Intesa	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Banco Itau	✓	✓	✓	✓		✓			✓			✓	✓
	Banco Popular Espanol	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	BBVA	✓	✓	✓			✓	✓	✓	✓				✓
	BNP Paribas	✓	✓		✓		✓	✓	✓	✓				✓
	Credit Agricole	✓	✓		✓					✓				
	Credit Suisse	✓	✓	✓	✓		✓	✓	✓	✓		✓		
	Danske Bank	✓												
	Deutsche Bank	✓	✓	✓	✓		✓		✓	✓				
	Dexia	✓	✓	✓	✓	✓			✓					
	HypoVereinsbank	✓	✓		✓	✓	✓	✓		✓	✓			
	KBC Bancassurance	✓					✓			✓				✓
	Nordea Bank	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓
	San Paolo IMI	✓		✓	✓	✓	✓	✓		✓				✓
	Banco Santander Central Hispano	✓	✓		✓		✓		✓	✓				
	Societe Generale	✓			✓	✓	✓	✓		✓				✓
	Svenska Handelsbanken	✓	✓	✓			✓			✓			✓	✓
	UBS	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
	Unicredito Italiano	✓	✓	✓	✓		✓	✓		✓				

		Banks												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Banks – North America	Bank Of America Corp.	✓	✓		✓					✓	✓	✓		
	Bank Of Montreal	✓	✓	✓					✓				✓	
	Bank Of New York	✓		✓			✓	✓	✓	✓	✓			✓
	Bank of Nova Scotia	✓	✓		✓					✓				
	BB& T	✓												
	Canadian Imperial Bank Of Commerce	✓	✓	✓	✓		✓	✓	✓	✓				✓
	Fannie Mae	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Fifth Third Bank	✓												
	Freddie Mac	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Golden West Financial									✓				
	Keycorp	✓	✓	✓						✓				✓
	M&T Bank													✓
	Mellon Financial Corp.	✓		✓						✓				
	National City Corp.													
	PNC Financial Services Corp.	✓	✓	✓						✓				✓
	Regions Financial	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Royal Bank Of Canada	✓	✓	✓	✓	✓	✓	✓		✓				✓
	Southtrust Corp.	see Wachovia												
	Suntrust Banks Inc	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Toronto Dominion Bank	✓	✓	✓	✓					✓				
	US Bancorp	✓								✓				
	Wachovia Corp	✓	✓	✓						✓				
	Washington Mutual Inc									✓				
	Wells Fargo And Co	✓	✓	✓						✓				

		Banks												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Banks – UK & Ireland	Abbey National	(see Banco Santander Central Hispano)												
	Allied Irish Banks PLC	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Bank Of Ireland	✓	✓	✓			✓		✓					
	Barclays PLC	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓
	Hbos PLC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	HSBC Holdings PLC	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓
	Lloyds TSB Group PLC	✓	✓		✓		✓	✓		✓			✓	
	Royal Bank Of Scotland Group PLC	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	
	Standard Chartered PLC	✓	✓	✓	✓		✓	✓		✓				

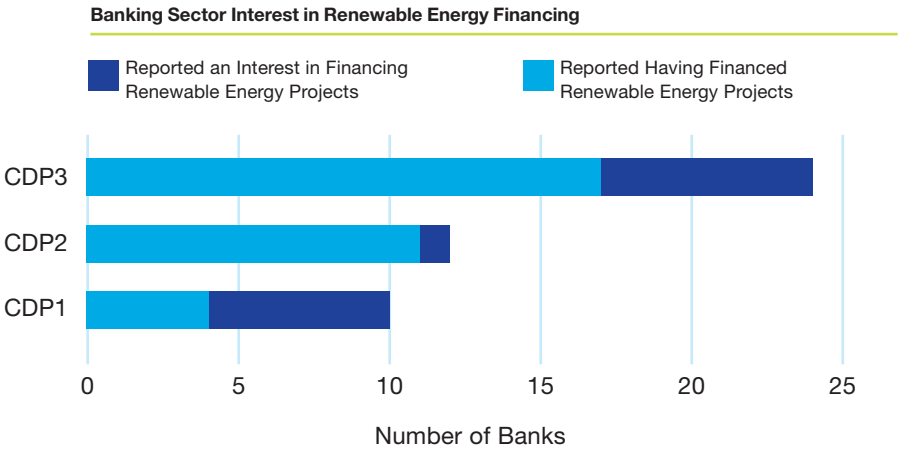
Diversified Financials													
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Aeon Credit	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
American Express Company	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Capital One Financial	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Citigroup Inc	✓	✓	✓	✓		✓	✓		✓			✓	
Countrywide Financial	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Fortis	✓	✓		✓	✓	✓	✓	✓	✓				
Franklin Resources	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Goldman Sachs Group Inc	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
ING Groep NV	✓	✓	✓	✓		✓	✓	✓	✓				✓
JP Morgan Chase	✓	✓	✓	✓					✓		✓		✓
Lehman Brothers	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
MBNA Corp.	✓	✓	✓			✓	✓	✓	✓				✓
Merrill Lynch & Company Inc	✓	✓	✓	✓		✓	✓		✓				✓
Morgan Stanley	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Nomura Company Ltd		✓		✓		✓				✓	✓		✓
Power Financial Corp.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Principal Financial Corp	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Schwab Charles Corp.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SLM Corp.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
State Street Corp.	✓	✓	✓	✓		✓	✓		✓				✓

(c) GHG Emissions Analysis

Emissions data for this sector is not provided here due to concerns about data comparability in this sector. The scope of reported emissions varies extremely widely from one firm to the next, making comparisons largely inappropriate at this time. In addition, direct emissions are not the primary risk for companies in this sector, particularly relative to indirect risks associated with lending and investing activity. It should be noted, however, that many companies did provide the requested data (see "Analysis of CDP Responses" above for information on which companies provided emissions data).

(d) Additional Trend Analysis

- **Major Exposures to Climate Risk Often Go Unmanaged:** Our analysis shows that some banks have upwards of **53%** of their commercial loan portfolio directed towards "high risk" sectors with exposure to both the regulatory and weather risks of climate change. Others have over **75%** of their loans and acceptances in countries bound by emission reductions under the Kyoto Protocol. For most banks, climate-related risks in the loan portfolio are not being systematically analyzed. However, ratification of Kyoto has created renewed incentive for many lending institutions to reassess their exposure to climate risk. As **Scotiabank** observes, "with the Kyoto protocol coming into force, (we) are aware that more and more, GHGs will measurably affect the financial results of the companies we lend to, especially those in heavy industry."
- **Early Leaders Emerge in Credit Risk Assessment:** A total of 10 banks reported early-stage efforts to account for climate change risk in their credit risk evaluation processes. Few details were provided on the rigor of such assessments. Companies in this group include **ABN AMRO**, **ANZ, Citigroup, JP Morgan Chase, RBC**, **RBS**, **UBS** and **Westpac**.
- **GHG Trading Schemes Spur the Creation of Environmental Market Desks:** A total of 16 banks explicitly stated that they are pursuing business opportunities related to newly established markets in carbon. New services include: climate consulting and risk management services; sourcing emission rights for clients; OTC transactions through dedicated emissions trading desks or existing commodity trading desks (e.g. trading and clearing of EU allowances, hedging via new climate derivatives such as CO_2 forwards); and pooled funds to acquire carbon credits. **ABN AMRO**, **Barclays**, **Fortis** and **HVB** appear to be the most active firms in this area, while preparations are reported from **ANZ, Banco Santander, BBVA, BNP Paribas, ING, JP Morgan Chase, Merrill Lynch, Mitsubishi Tokyo Financial, Nordea, RBC, San Paolo IMI** and **Westpac.**
- **Structured Finance for Renewable Energy Projects Continues to Gain Popularity:** Since CDP2, there has been a **43%** increase in the number of companies expressing an interest in financing renewable energy projects and a **17%** increase in the number that have actually financed such projects. **Dexia** reports its outstanding investment in renewable financing has surpassed the €350 million mark. **Fortis** provided €241 million in renewable financing in 2004, while **Société Générale** offered €552 million in what it terms "green" financing.



- **Emerging Consideration of Climate Risks in Supply Chain Management:** A growing number of financial service firms report screening their suppliers against a set of environmental criteria, including some climate-specific metrics. **ANZ,** for example, has committed to updating its strategic sourcing policies to include consideration of policy responses to climate change. One of the environmental screens that **Citigroup** uses in relevant RFPs asks suppliers to describe the energy efficiency policies and practices that they have instituted.
- **Widening Scope of Internal Emission Reduction Strategies:** In 2004 HSBC became the world's first major bank to commit to "carbon neutrality." The company expects to achieve this goal through a combination of emission reductions, green electricity purchases and offset activities. By embedding energy reduction targets in its contracts with local electricity suppliers, Westpac expects to save around AU$330,000 per year in energy expenses.

(e) Carbon Beta© Scenario Analysis

Due to the limited emissions associated with this sector a carbon beta analysis was not undertaken.

Chemicals

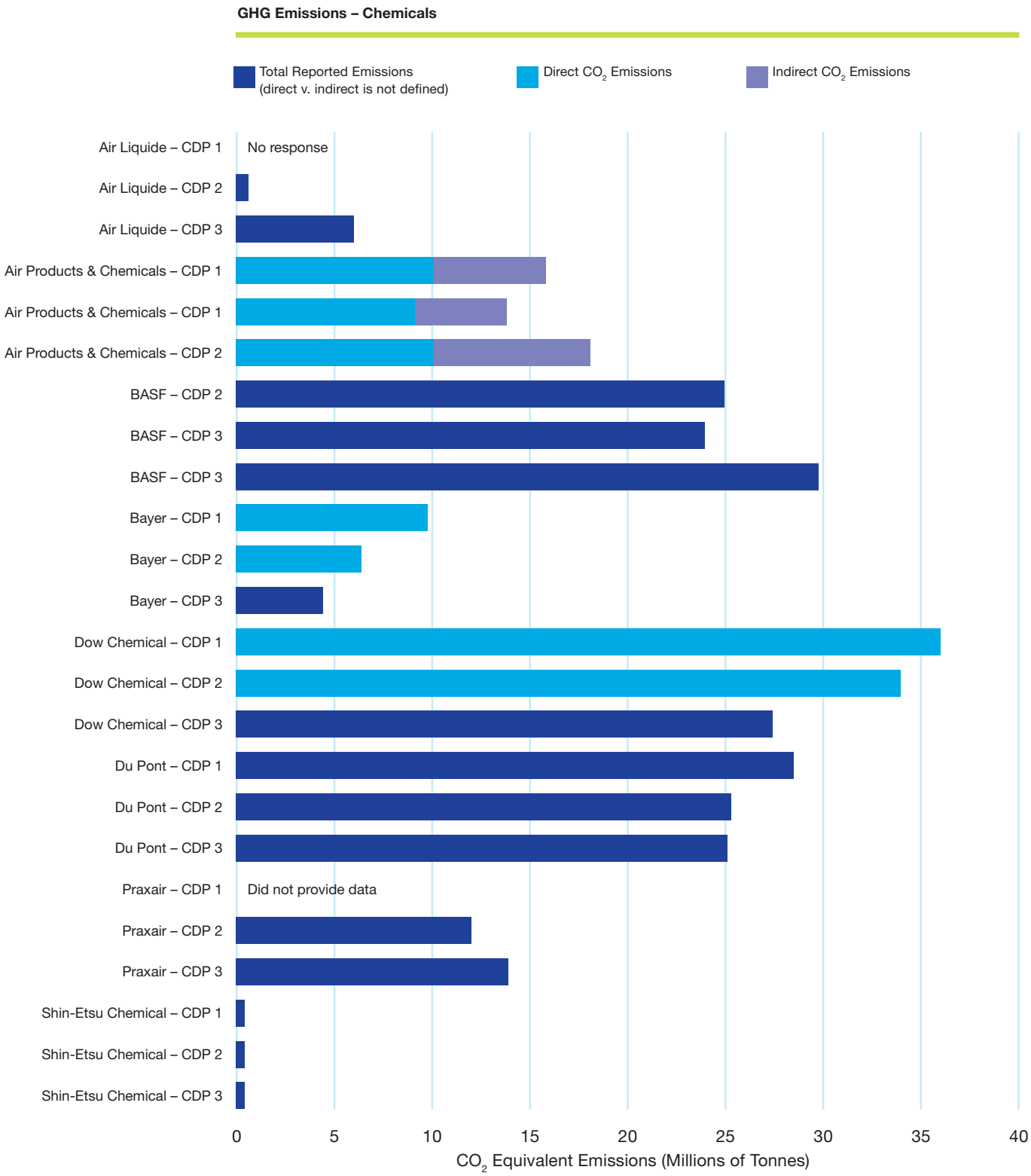
(a) Impacts of Climate Change

- Material increases in operating costs due to higher energy prices
- Exposure to national GHG emissions regulations
- Unplanned/premature capital outlays
- Altered market dynamics for agriculture products
- Higher transportation and distribution costs
- Heightened demand for clean technology-related specialty chemicals
- Increasing demand for technologies that reduce emissions for users/customers (ex. certain types of inhalers)

(b) Analysis of CDP Reponses

	Chemicals												
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Air Products & Chemicals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Air Liquide	✓	✓	✓	✓	✓	✓	✓		✓				✓
BASF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Bayer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dow	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
DuPont	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Praxair	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
Reliance Industries	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
ShinEtsu	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓

(c) GHG Emissions Trend Analysis



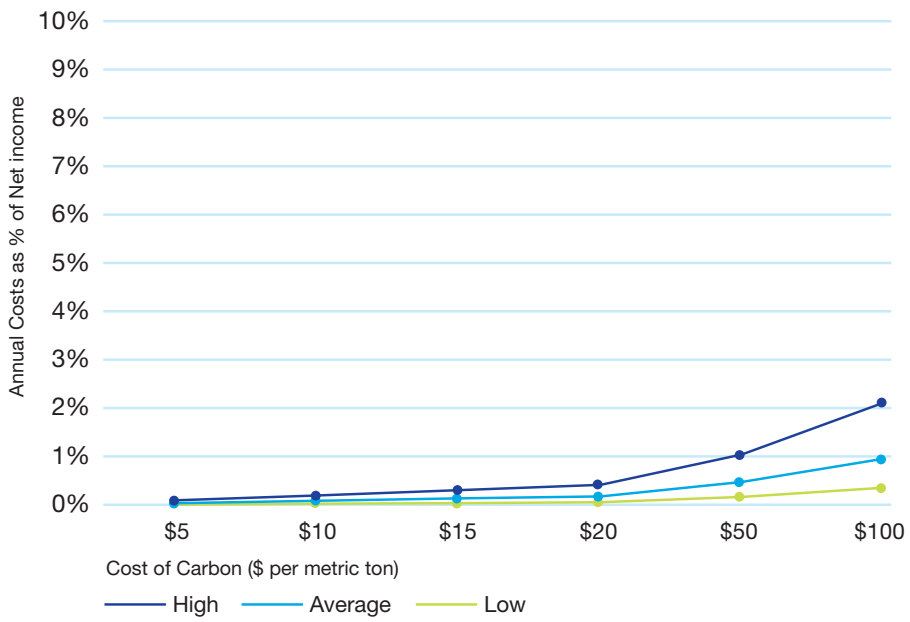
Chemicals companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Air Liquide Praxair	Reliance Industries	Reliance Industries

(d) Additional Trend Analysis

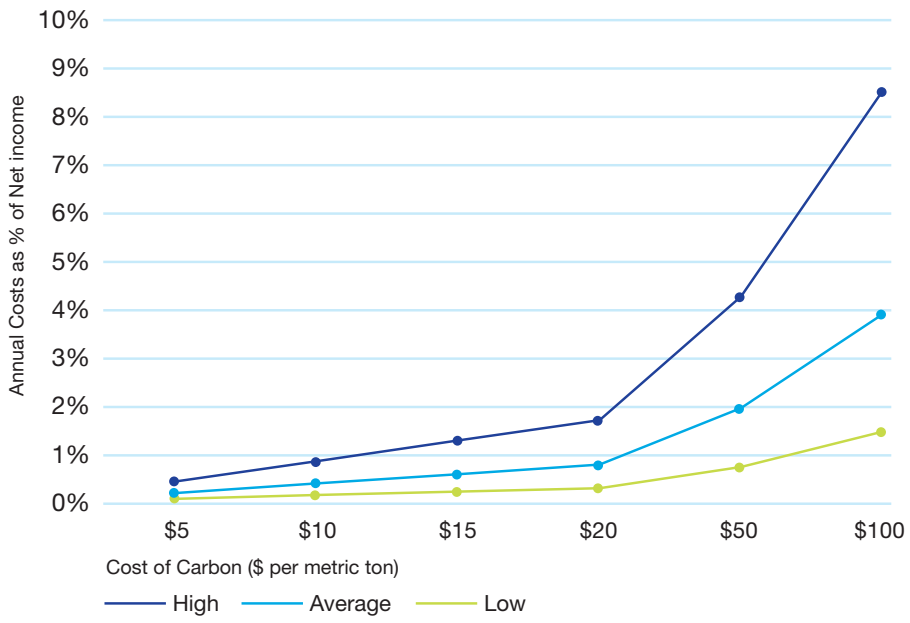
- **Potential Carbon Costs Liabilities:** Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed company in the Chemicals sector could face annual compliance costs of nearly 4% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 1.5%.
- **All Firms Name Rising Energy Costs as a Key Risk:** With energy costs ranging from 5% to 60% of production costs in this sector, energy price sensitivity has become a critical variable cost to manage. To reduce exposure virtually all firms pursue energy efficiency gains, particularly through increased use of cogeneration technology. **Dow** states that energy efficiency can be increased from 35% to nearly 80% by using cogeneration. It saved $3 billion from 1994-2004 through energy efficiency. **Air Liquide** states its cogeneration units prevented the emission of 647,000 tonnes of carbon dioxide into the atmosphere in 2004.
- **Despite Abundance of Climate Risks, Many Also See New Product Opportunities:** While most chemical firms perceive climate as an important risk, there is a growing consensus among respondents that products such as insulating materials, lightweight thermoplastics for autos and next-generation refrigerants also offer intriguing prospects. **Bayer** explains the situation as such, "(o)n the one hand, the political implementation of ideas on climate protection leads to a risk of overburdening energy-intensive production operations…while on the other hand, the implementation of climate protection measures provides opportunities for business growth and new markets."
- **Firms Responding to Advances in GHG Trading Markets:** As in other high-intensity sectors, chemical companies are capitalizing on advances in GHG trading markets as a means to reduce emission risks and generate new profit opportunities. **Air Products and Chemicals**, which has established a cross-functional emissions trading team, notes that "GHG regulations (in Europe) have already been a factor in our customers adopting certain technologies and services we provide." **Dow,** an active participant in the EU ETS, has created a GHG Offset Team charged with managing opportunities for value-added trading that utilize Dow technology.

(e) Carbon Beta© Scenario Analysis

Chemicals – 7 year compliance period, 5% emissions constraint



Chemicals – 7 year compliance period, 20% emissions constraint



Electric Utilities and Power

(a) Impacts of Climate Change

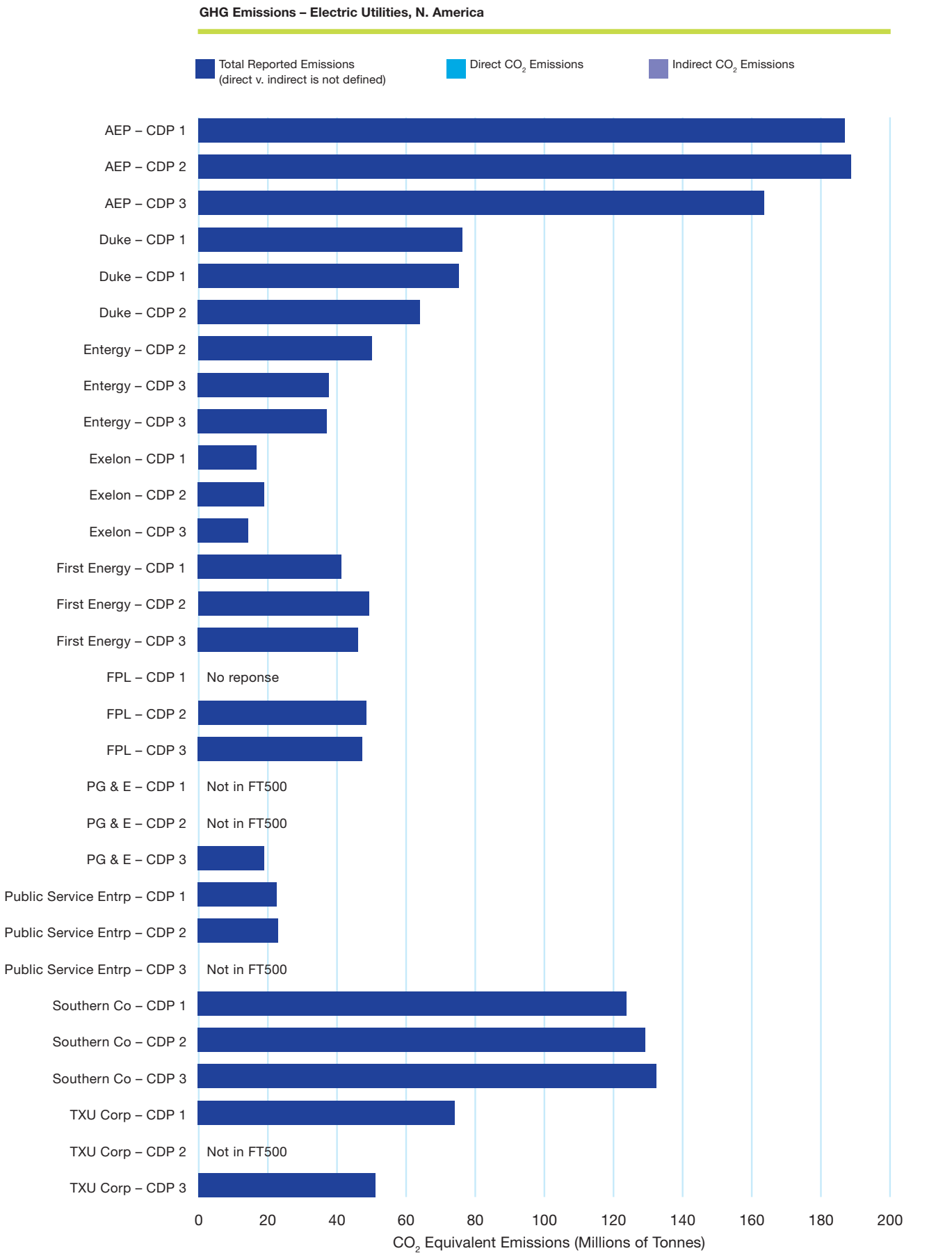
- High exposure to GHG emissions regulations
- Transmission efficiency may be affected by climate change
- Material increases in operating costs; coal to gas switching may be required
- Potential climate-change related damage to facilities; higher maintenance costs
- Premature retirement of physical stock not fully depreciated
- Changing seasonal electricity demand patterns
- Pressure to increase end-user rates
- More emphasis on renewable/clean power; Renewable Portfolio Standard requirements

(b) Analysis of CDP Reponses

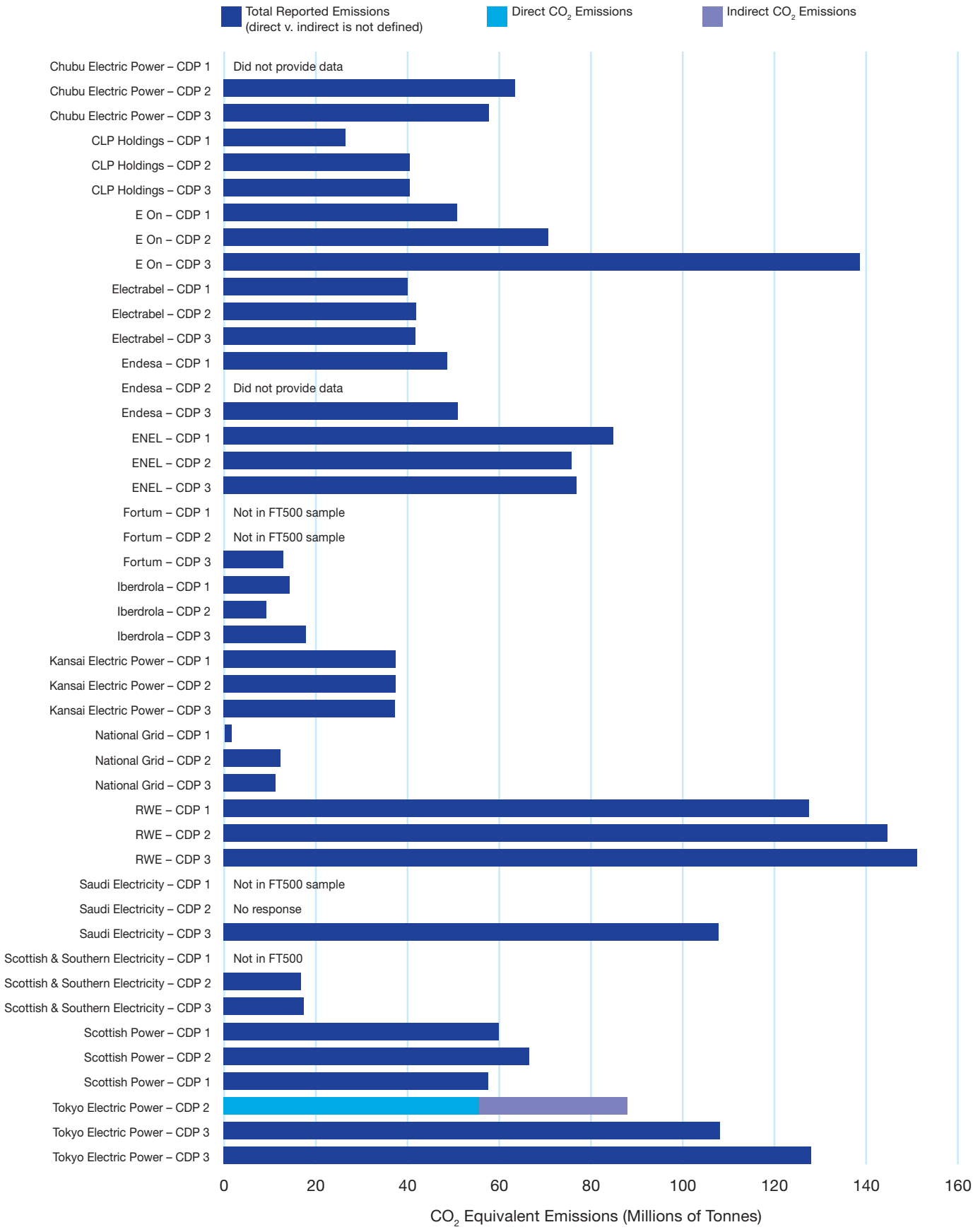
		Electric Utilities												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Electric Utilities – N. America	American Electric Power	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Dominion Resources	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Duke Energy	✓	✓	✓	✓		✓	✓		✓			✓	
	Entergy	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
	Exelon	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	FirstEnergy	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓
	FPL Group	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
	PG & E Corp	✓	✓	✓	✓		✓	✓		✓			✓	✓
	Southern Company	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
	TXU Corp	✓	✓	✓	✓		✓	✓	✓	✓	✓			

		Electric Utilities												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Electric Utilities - International	Chubu Electric Power Company	✓	✓	✓	✓		✓			✓	✓	✓	✓	
	CLP Holdings Ltd	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
	E On AG	✓	✓	✓	✓	✓	✓			✓	✓		✓	
	Electrabel	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
	Endesa	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓
	ENEL	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
	Fortum Corp	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Iberdrola	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
	Kansai Electric Power Company	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Korea Electric Power	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	National Grid	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
	RWE	✓	✓	✓	✓	✓	✓	✓	✓	✓				
	Saudi Electricity	✓		✓			✓			✓				
	Scottish & Southern Energy	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
	Scottish Power	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
	Tokyo Electric Power Company	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Unified Energy Systems	✓	✓	✓	✓	✓	✓		✓					

(c) GHG Emissions Trend Analysis



GHG Emissions – Electric Utilities, International



Electric Utilities International – companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Chubu Electric Korea Electric Power	Hong Kong Electric Korea Electric Power Saudi Electric	Korea Electric Power

Special note: **Unified Energy Systems** of Russia is not included in the above chart because its absolute emissions are so large that it skews the presentation of the data. Although Unified Energy Systems of Russia has by far the largest volume of carbon dioxide emissions in the electric utility sector (493 MT CO_2e, or more than three times the next highest volume of emissions in the sector), this is explained by the nature of the company's operations. Until 2005 UES was Russia's electricity monopoly. As of 2005, UES holds interests ranging from 14% to 100% in 73 regional utilities and in 32 federal electric power stations. It provides 74% of Russia's total electricity output. This corresponds to 156,000 MW of total generating capacity comprised of hydropower and thermal power plants. In contrast, AEP, the Electric Utility with the second largest volume of emissions, has 34,000 MW of total generating capacity.

It is important to note that UES has undertaken dramatic steps to reduce its carbon intensity. In 2004 over 90% of UES's generation growth was attributed to large-scale hydro. In the early 2000s the company created a pioneering Carbon Fund, which spearheaded the development of Russian Joint Implementation projects. The company was the first in the nation to create and audit its GHG emissions inventory, which, according to the US-based Environmental Defense, corresponded to the highest international standards of emissions recording and monitoring.

(d) Additional Trend Analysis

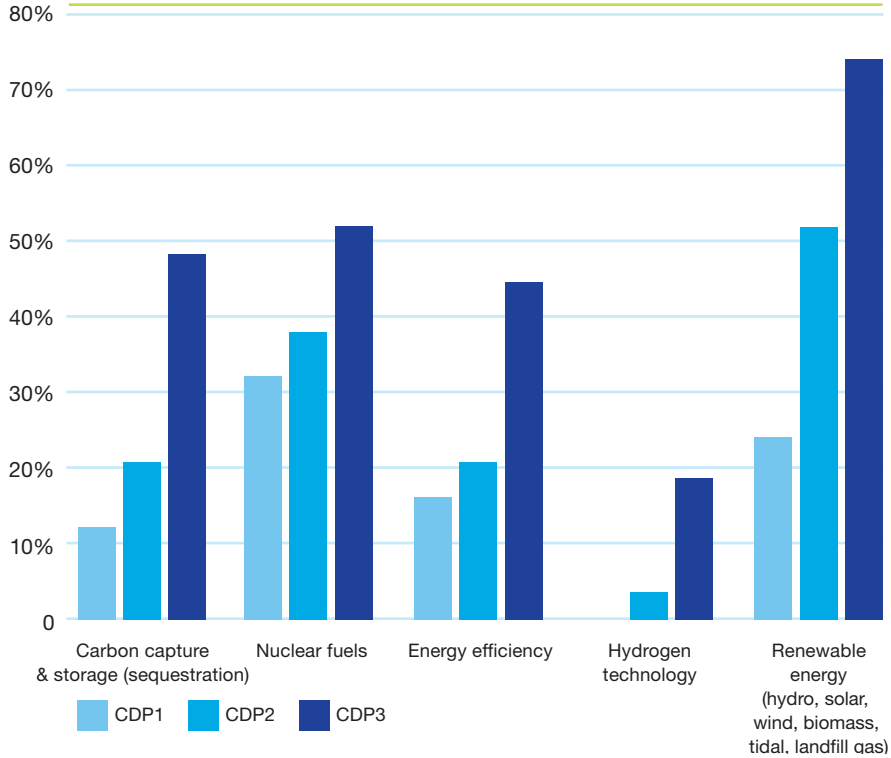
- **Regulatory Risks Top The Agenda:** The common refrain from US power producers is that greenhouse gas reduction policies are likely on their way – the unanswered questions are when and how much will it all cost. European utilities describe in their responses how they are grappling with the new economics of emissions trading. Asian utilities also report that they are awaiting greater regulatory clarity.
- **Potential Liability from Carbon Cost Internalization - International:** Just four electric utilities generated about half of the aggregate emissions of the 17 International Electric Utility companies of the FT500: **E On**, **ENEL**, **RWE** and **Tokyo Electric Power**. Assuming a price of €40 ($50) per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed company in the Electric Utilities – International sector could face annual compliance costs of nearly 8% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 1%.
- **Potential Liabilities from Carbon Cost Internalization – North America:** Just three electric utilities generated half of the combined emissions of the 10 North American Electric Power companies of the FT500: **AEP**, **Southern Company**, and **Xcel Energy**. Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed

Electric Utilities North America – companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Dominion Resources FPL Group Progress Energy Xcel Energy	Consolidated Edison Dominion Resources	Dominion Resources

company in the Electric Utilities - North America sector could face annual compliance costs of over 20% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 1%.

- **But Carbon Costs Are Not The Only Factor:** To be sure, the cost of carbon and marginal abatement costs are critical elements in the analysis of electric utility risk. However, the extent of this risk depends on myriad factors including the prevailing power market dynamics and the pace of carbon regulations where companies operate; the ability of companies to pass compliance costs to consumers; the flexibility to diversify the existing generation portfolio away from carbon intense fuels; and the strength of the corporate emissions management strategy.
- **Grandfathering of Allowances Under Cap and Trade Schemes** can lead to windfall profits for companies even if they are highly carbon intensive. Despite this, the regional power markets will determine the net effect on any particular company. In liberalized markets, wholesale power prices are expected to rise across the board only to offset the costs of compliance of marginal producers. This generally means that wholesale power prices will rise beyond the compliance costs of relatively less carbon intensive companies and thus, profits will rise
- **Next Generation Technology Opportunities Are Front and Center:** In their CDP responses companies mention investments in carbon capture and storage, clean coal technology, nuclear energy, energy efficiency and a range of alternative energy technologies (hydro, wind, biomass, tidal, solar, hydrogen, landfill gas). In the US, **FPL Energy** has an industry-leading position in wind energy with approximately 40% of the current US installed wind capacity of about 3,000 MW. Returns in recent wind deals are in the range of 7.75% to 9.50% IRR. **AEP** has invested over $20 million in three different types of sequestration projects. **Iberdrola** reports its goal to reach at least 5,500 MW of installed renewable power by 2008.

Percentage of FT500 Electric Utility Companies Reporting Investments in Low-Carbon Technologies



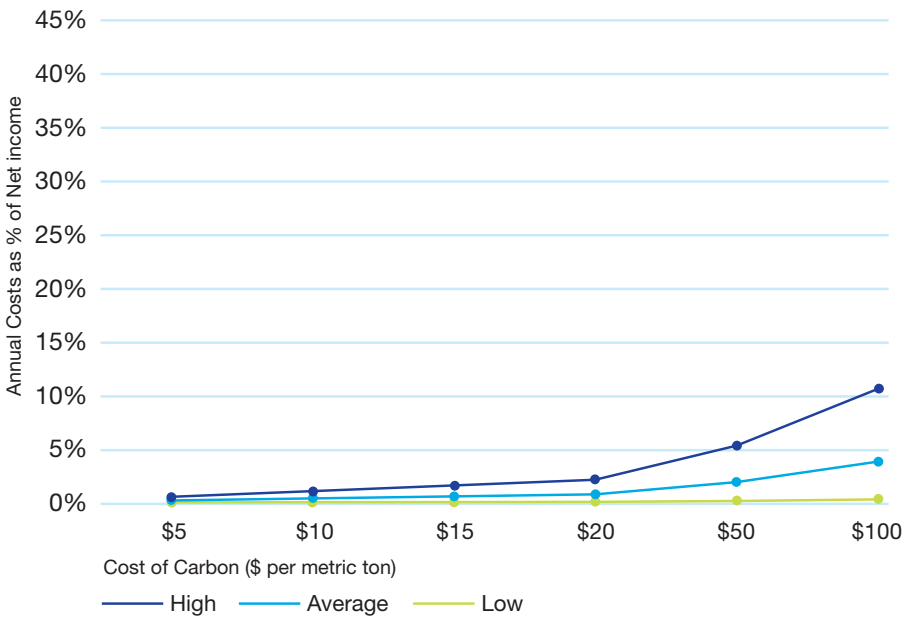
- **More Shareholder Pressure to Disclose Climate Risks:** Initiatives like the Carbon Disclosure Project and the 2005 Investor Summit on Climate Risk are testament to the greater investor attention being given to potential carbon-related liabilities. In addition, many companies in this sector were subject to shareholder resolutions demanding better disclosure on risks and the strategies utilities are employing to manage those risks. In their responses, several utilities pointed interested investors to longer, more detailed strategy documents that describe corporate risks and management's response in greater detail.
- **Corporate Action Increases:** Companies are voluntarily engaging in solutions and risk control mechanisms. The portfolio of mitigation options that companies typically pursue in this industry includes the use of fuel diversification, cogeneration, energy conservation/efficiency, waste to energy, renewable power, forestation as well as engagement in carbon capture and storage technologies. Advanced technologies being developed today, including carbon sequestration, hydrogen and fuel cells could dramatically alter energy investments patterns in the longer-term. The pace of deployment of these technologies will depend on fiscal and regulatory policies.
- **Leaders set targets and make progress in achieving them**: As shown in the table below, electric utilities have set a range of reduction targets and have had varying levels of success in meeting their goals.

	Reduction Target	Reduction Reported
AEP	Reduce greenhouse gas emissions 1% below baseline levels (average of 1998-2001) in 2003, a 2% reduction in 2004, 3% reduction in 2005 and 4% reduction in 2006.	From 1991-2002, AEP avoided the release of 23.2 million US tons.
Entergy	Stabilize CO_2 emissions from its U.S. power plants at year-2000 levels through 2005.	As of the end of 2004, emissions were 21% below the stabilization target.
Exelon	Reduce emissions by 8% from 2001 levels by the end of 2008.	From the mid-1990s to 2003, reports having avoided 58 million tons of CO_2 via investments in low-carbon generation (nuclear, hydro) and offset 31,000 tons through carbon sequestration projects.
FirstEnergy	Committed to a 5% annual reduction in SF6 gases.	Reduced emissions of CO_2 by an average of 8.4 million tons annually.
FPL Group	Has set an 18% emissions rate reduction goal over the 5-year period of 2003 to 2008.	Reports its 2003 emissions rate is 23.8% below the 2001 rate of carbon dioxide.
Southern Company	Part of a consortium that agreed to reduce greenhouse gas intensity of the electric utility industry by 3-5% by 2010 to 2012.	Reports its programs have reduced or avoided 93 million metric tons of CO_2 since 1991.
E On AG	Part of a consortium of German utilities that agreed to reduce GHG emissions up to an amount of 45 million tons CO_2 until 2010.	Reduced emissions of CO_2 by 22% per unit produced since 1990.
Endesa	A 35% reduction on 1990 levels is expected by 2007.	Reports having achieved a 27% reduction in CO_2 emissions during the period 1990-2004.
ENEL	Reduce CO_2 specific total net emissions by 20% relative to 1990 levels by 2006.	Not reported.
Kansai Electric	Reduce CO_2 emissions intensity by 20% from 1990 levels by 2010.	Reduced emissions intensity from 0.353 (kg–CO_2/kWh) in 1990 to 0.261 in 2003.

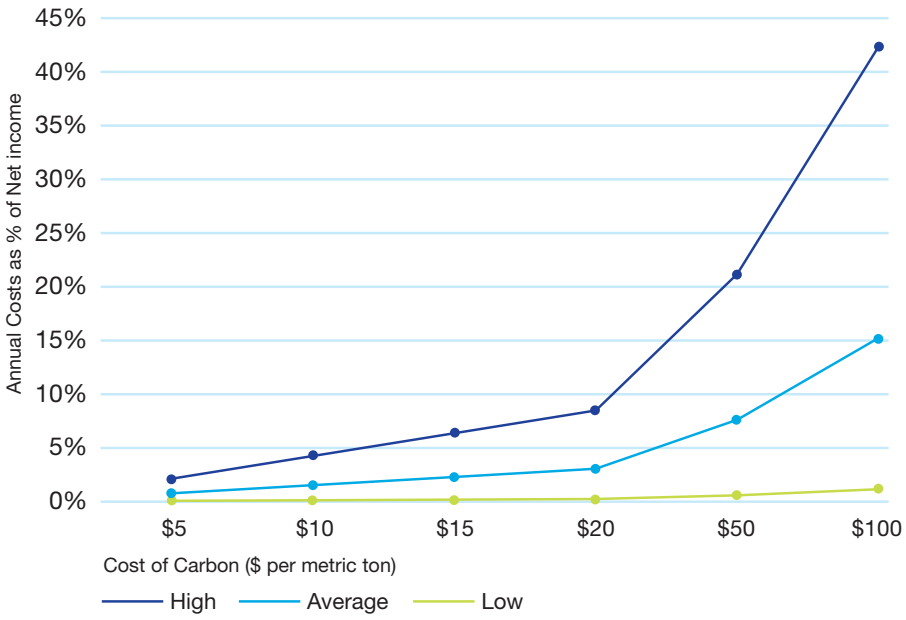
(e) Carbon Beta© Scenario Analysis

Electric Power Companies – N. America

Electric Power Companies, N. America – 7 year compliance period, 5% emissions constraint

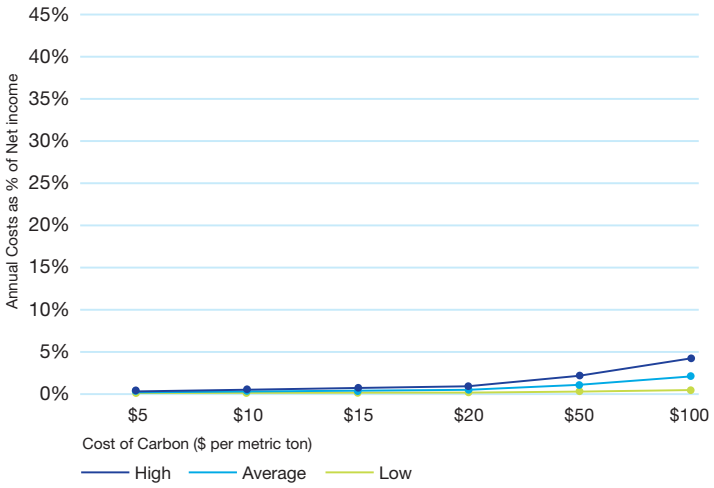


Electric Power Companies, N. America – 7 year compliance period, 20% emissions constraint

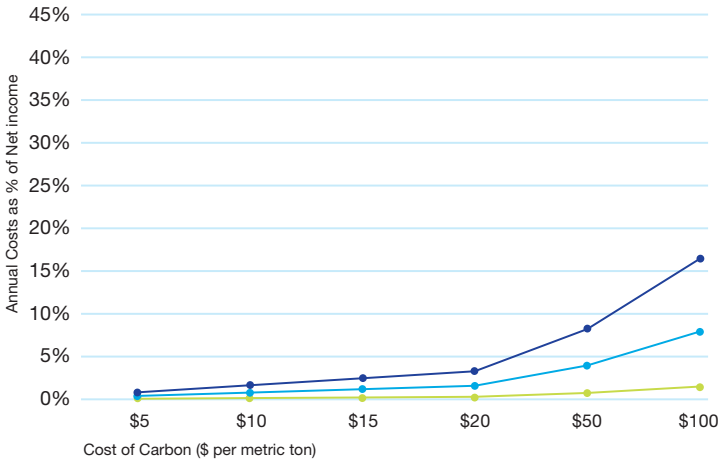


Electric Utilities - International

Electric Utilities, International – 7 year compliance period, 5% emissions constraint



Electric Utilities, International – 7 year compliance period, 20% emissions constraint



Food Products, Food & Drug Retailing, Beverages & Tobacco

(a) Impacts of Climate Change

- Risk of global food supply interruption
- Cost and losses to agricultural producers from drought
- Increased cost of new or supplemental water resource development; increased irrigation costs
- Greater risk from animal infection (ex: BSE, avian flu) insect infestation, plant disease, wildlife damage etc
- Extra costs and productivity losses to livestock producers
- Decline in food production/disrupted food supply/increased food prices
- Market opportunities for sequestration capacity in agricultural and tobacco growing sectors and in forestry for packaging materials
- Opportunities for technological advancements

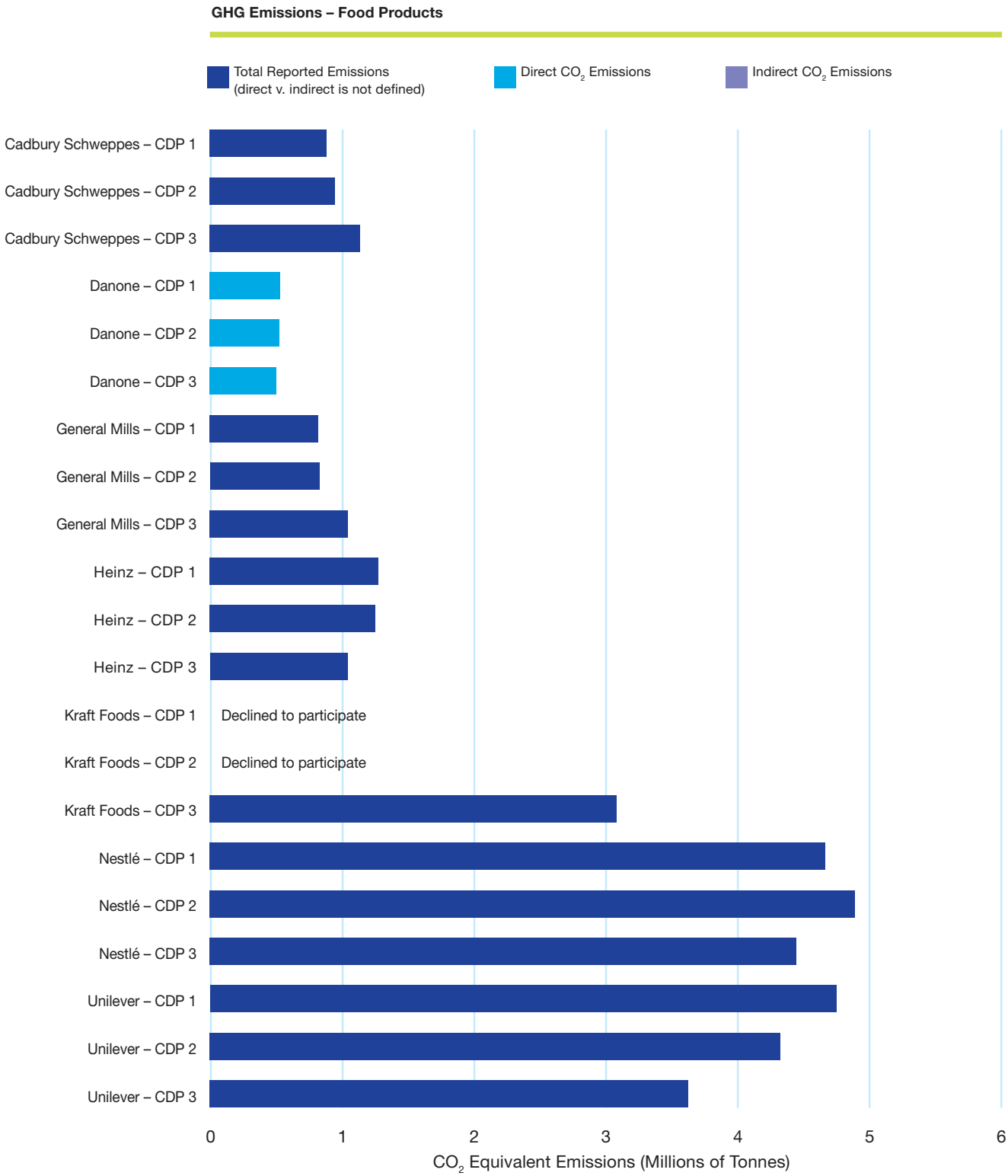
(b) Analysis of CDP Reponses

		Food Products, Food & Drug Retailing, Beverages & Tobacco												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Food Products	Cadbury Schweppes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Conagra	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Danone	✓	✓		✓		✓		✓	✓	✓	✓		
	General Mills	✓	✓	✓	✓		✓		✓	✓				
	Heinz HJ	✓	✓	✓	✓		✓			✓				
	Kellogg	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Kraft Foods Inc	✓	✓		✓		✓			✓			✓	✓
	Nestlé	✓	✓	✓	✓	✓	✓		✓	✓			✓	
	Sara Lee	✓	✓		✓				✓					
	Unilever PLC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Wrigley William Junior Company	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

		Food Products, Food & Drug Retailing, Beverages & Tobacco												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Food & Drug Retailing	Carrefour	✓	✓	✓	✓		✓		✓	✓				
	CVS Corp.			✓						✓				
	Ito Yokado	✓	✓	✓	✓		✓		✓	✓	✓		✓	
	Kroger	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Loblaw	✓		✓	✓					✓			✓	✓
	Metro	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Seven-Eleven Japan Company Limited	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓
	Sysco	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Tesco	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Walgreen	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN

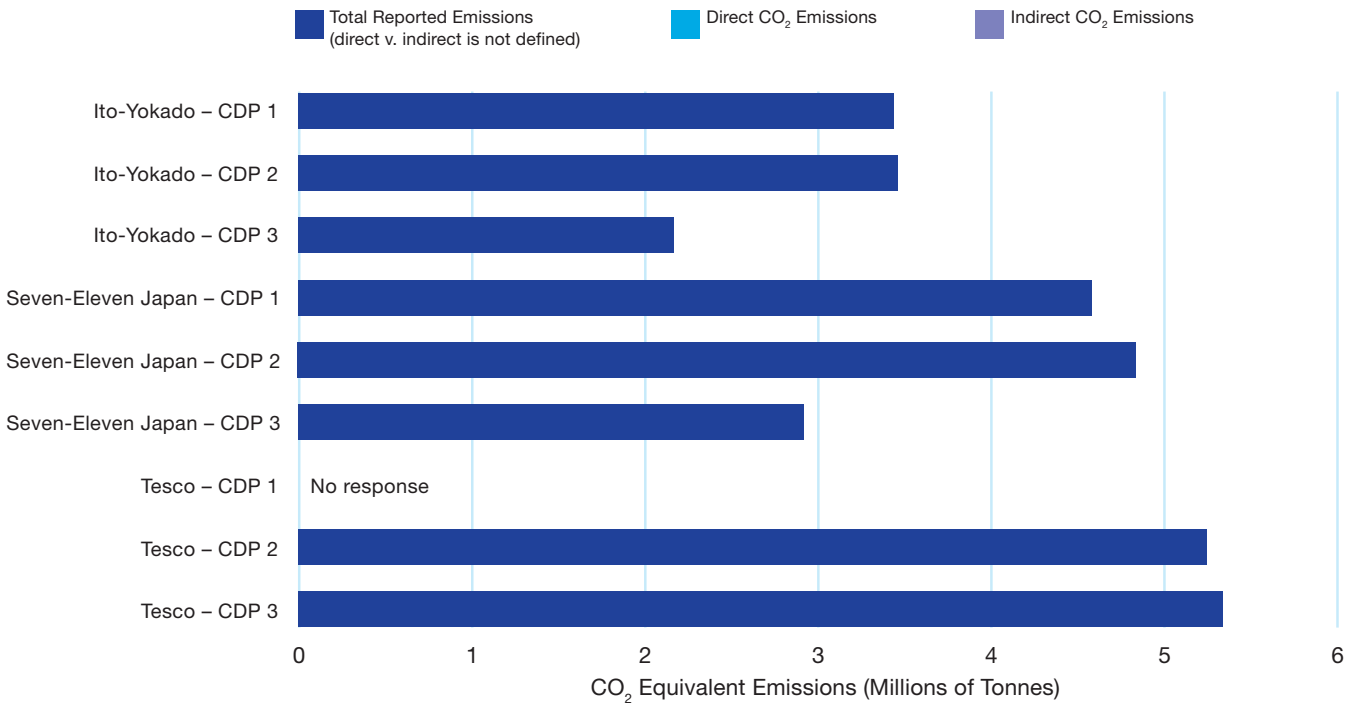
		Food Products, Food & Drug Retailing, Beverages & Tobacco												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Beverages & Tobacco	Altria	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	AmBev	✓		✓			✓			✓				✓
	Anheuser-Busch	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	British American Tobacco PLC	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	
	Coca Cola	✓	✓	✓	✓	✓	✓		✓	✓			✓	✓
	Diageo PLC	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	Heineken NV	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓
	Imperial Tobacco Group	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Inbev	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Japan Tobacco	✓			✓		✓			✓	✓	✓	✓	✓
	Pepsico	✓	✓	✓						✓	✓			
	SABMiller	✓	✓	✓	✓		✓			✓	✓	✓	✓	

(c) GHG Emissions Trend Analysis

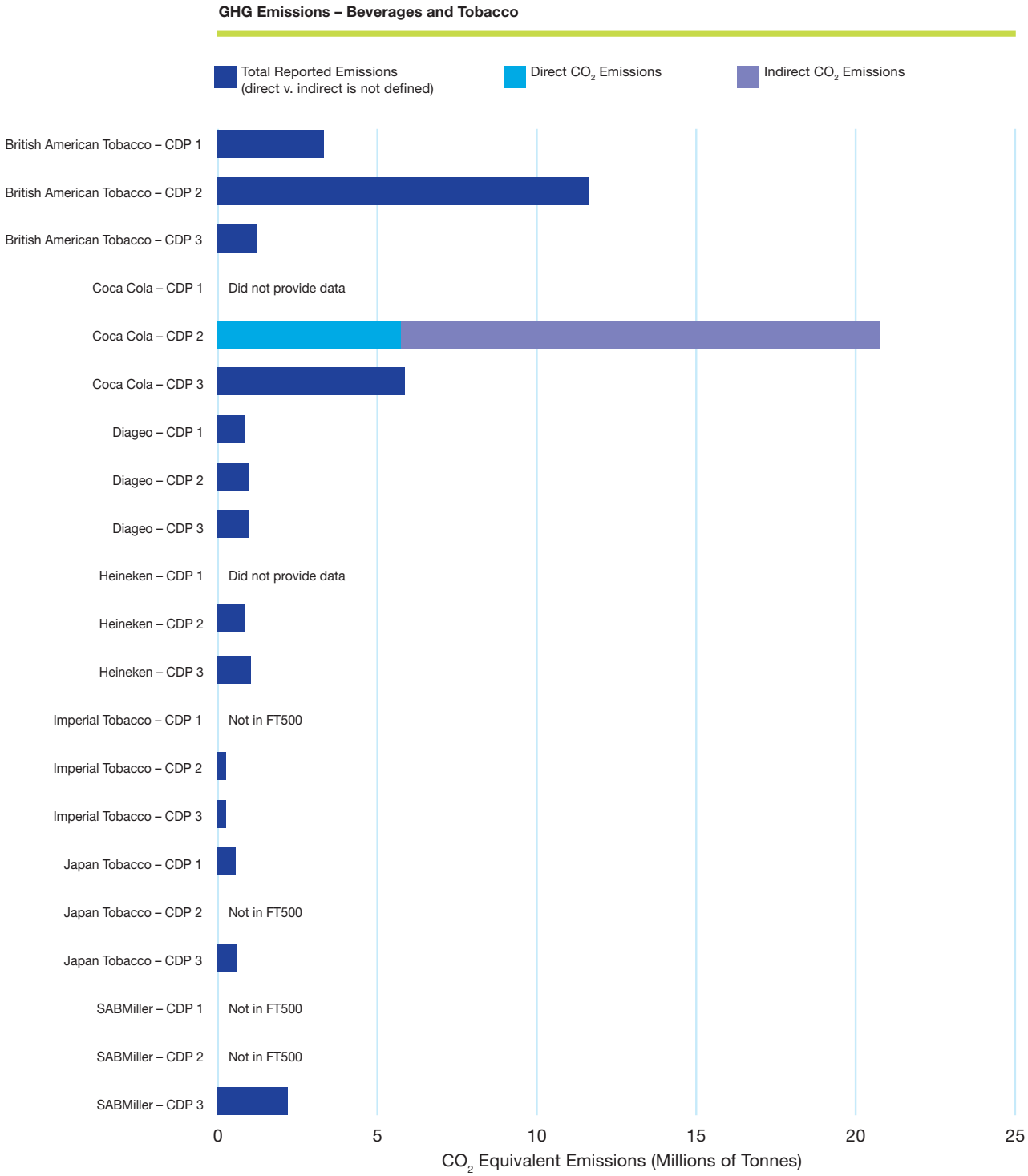


Food Products companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Campbell Soup	Campbell Soup	Conagra
Carrefour	Carrefour	Heinz
Conagra	Conagra	Kellogg
General Mills	Kellogg	Sara Lee
George Weston	Kraft	Wrigley
Heinz	Sara Lee	
Kellogg	Wrigley	
Kraft		
Sara Lee		
Wrigley		

GHG Emissions – Food and Drug Retailing



Food & Drug Retailing companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Ahold	CVS	CVS
Albertsons	George Weston	Kroger
CVS	Kroger	Loblaw
Kroger	Loblaw	Metro
Safeway Inc.	Safeway Inc.	Sysco
Sysco	Sysco	Walgreen
Tesco	Walgreen	
Walgreen		



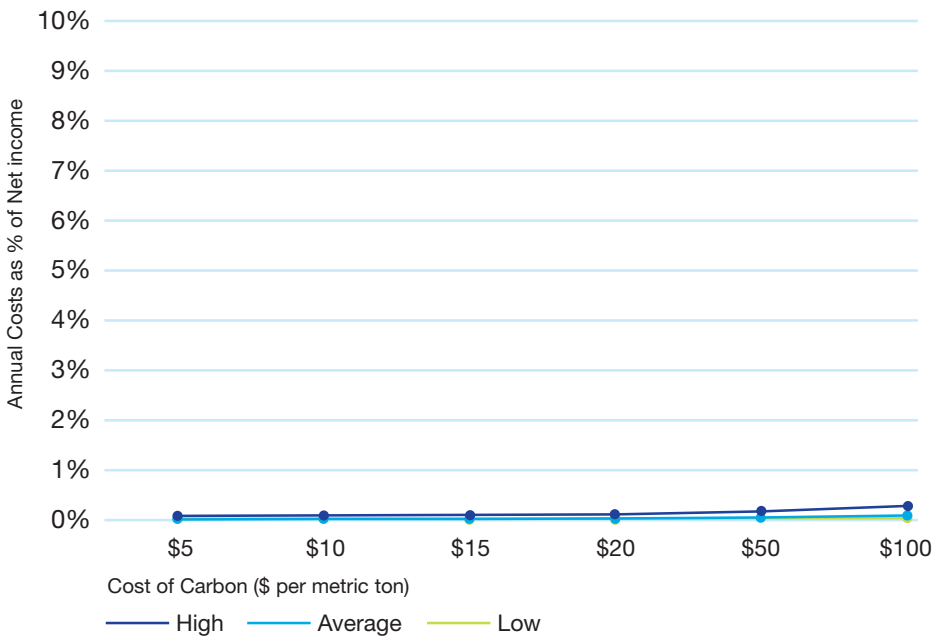
Beverages & Tobacco companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Anheuser-Busch	Altria	Altria
Coca-Cola	Anheuser-Busch	Anheuser-Busch
Heineken	Interbrew	Inbev
Interbrew	PepsiCo	PepsiCo
PepsiCo		
Philip Morris		

(d) Additional Trend Analysis

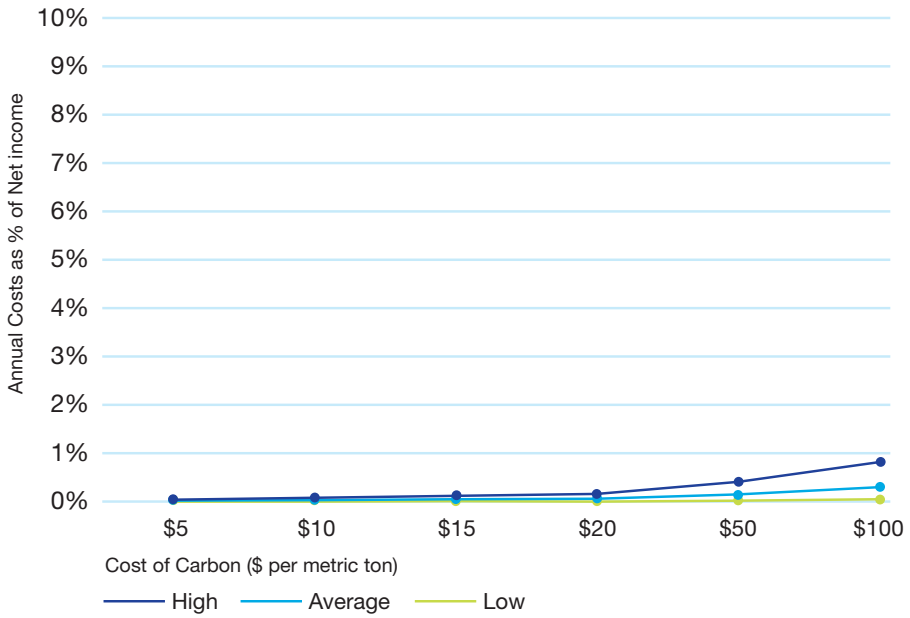
- **High Level of Strategic Awareness Pertaining to Climate Risks:** Most companies in the Food Products, Food & Drug Retailing and Beverages & Tobacco sectors are highly aware that the physical effects of climate change could lead to increased supply chain disruption and reduced product yields. Most firms are equally aware of the upward pressure on energy prices. Sector leaders have responded by reducing their CO_2 footprint through conservation and renewable energy strategies. **Tesco** has spent $22 million since 2000 on energy-efficiency schemes including solar panel installation and computerized "Intellihood" systems that have reduced by half the amount of energy needed by extractor fans at in-store bakeries. **Imperial Tobacco** has reduced its carbon footprint by an estimated 20% from a 2001 baseline through renewable energy contracts.
- **Emission Trading Markets Provide a New Set of Opportunities:** A growing number of food products firms are turning to emissions trading markets to bolster their carbon strategies. **Diageo** has developed a program for participation in the EU ETS, while **Tesco,** an active member in the UK ETS, reinvests money raised via the scheme into energy saving initiatives.
- **Limited Recognition of Climate-Related Product Opportunities:** Moving beyond the frontiers of their internal operations, some companies have begun exploring product-related responses to climate change. Recognizing that "climate change could become a relatively strong driver of new consumer needs," **Unilever** has experimented with energy-efficient product-delivery systems. The company has introduced HFC-free ice cream freezer cabinets, which, by using hydrocarbon as a refrigerant, use up to 9% less energy than older technologies. The company is also engaged in research on Thermoacoustic Refrigeration, which uses sound waves to create cooling. **Coca Cola** estimates that its use of HFC-free refrigerants and insulation blowing agents will reduce company emissions by 700,000 tons of CO_2e by 2010.

(e) Carbon Beta© Scenario Analysis

Food Products, Food & Drug Retailing, Beverages & Tobacco
7 year compliance, 5% emissions constraint



Food Products, Food & Drug Retailing, Beverages & Tobacco
7 year compliance, 20% emissions constraint



Insurance and Reinsurance

(a) Impacts of Climate Change

- Liquidity problems for P/C insurers, reinsurers arising from large weather-related losses
- New and existing markets become unviable as climate change increases regional exposure
- Business interruption risks becoming unpredictable and more financially relevant
- Increases in population and infrastructure densities multiply size of maximum potential losses from extreme weather events
- Opportunities exist in weather derivatives, catastrophe bonds, and GHG emissions trading
- Increased risks to human health (thermal stress, vector-borne disease, natural disasters)
- Insurance of GHG offset and clean energy projects and related financial services
- Professional indemnity for carbon credit guarantors and certifiers provides both risk (increased liability) and opportunity (growing insurance market)

(b) Analysis of CDP Reponses

		Insurance												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Insurance – Asia	Cathay Financial	✓	✓		✓					✓		✓		✓
	Millea Holdings	✓	✓	✓	✓		✓	✓		✓				✓
	Mitsui Sumitomo Insurance	✓	✓	✓	✓		✓			✓			✓	✓
Insurance – Europe	Aegon NV	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	AGF	✓	✓		✓		✓			✓				
	Allianz AG	✓	✓	✓	✓	✓	✓	✓		✓				
	AXA	✓	✓				✓	✓	✓	✓				
	Generali	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Munich Re	✓	✓	✓	✓	✓	✓	✓		✓				
	RAS RNC	✓	✓				✓	✓						
	Swiss Re	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
	Zurich Financial Services	✓	✓	✓	✓					✓	✓	✓		

		Insurance												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Insurance – North America	Ace Limited	✓	✓							✓				
	Aflac Incorporated	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Allstate Corporation	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	American International Group	✓	✓		✓					✓				
	Berkshire Hathaway	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Chubb Corp.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Great West Lifeco Inc	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Hartford Financial Services Group	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Manulife Financial	✓	✓	✓	✓	✓				✓	✓			✓
	Marsh & McLennan	✓												
	Metlife Inc	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Progressive Corp. Ohio	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Prudential Financial Inc	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Saint Paul Companies Inc	✓								✓				
	Sun Life Financial		✓	✓						✓				
Insurance – UK & Ireland	Aviva	✓	✓	✓	✓		✓	✓		✓				✓
	Legal & General Group PLC	✓	✓	✓			✓	✓	✓	✓				✓
	Prudential PLC	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓

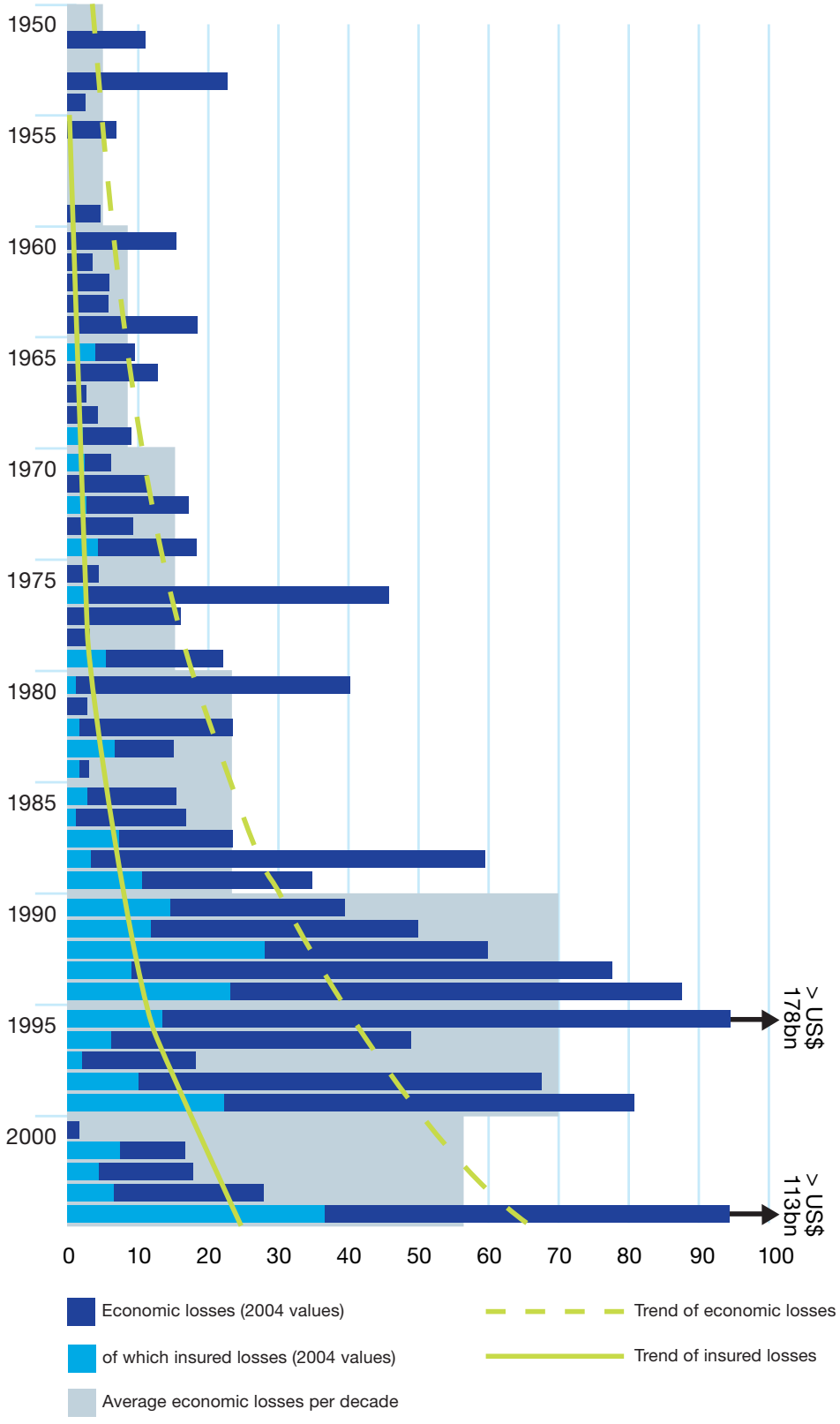
(c) GHG Emissions Trend Analysis

Emissions data for this sector is not provided here due to concerns about data comparability in this sector. The scope of reported emissions varies extremely widely from one firm to the next, making comparisons largely inappropriate at this time. In addition, direct emissions are not the primary risk for companies in this sector, particularly relative to indirect risks associated with insurance, lending and investing activity. It should be noted, however, that many companies did provide the requested data (see "Analysis of CDP Responses" above for information on which companies provided emissions data).

(d) Additional Trend Analysis

- The graph below, based on data provided in **Munich Re's** CDP3 response, is a compelling illustration of how the insurance and reinsurance sector is affected by climate change. According to the company, "the increasing weather extremes linked to impending climate change are already causing weather catastrophes of a new dimension." The **Association of British Insurers** released a report in June stating that the costs from hurricanes, typhoons and windstorms will rise from $16 billion today to an average of $27 billion per year by 2080.26 **AXA** reported in its previous CDP response that it believes climate risk in key industries (agriculture, tourism, energy and transport) is more important than interest rate risk or foreign exchange risk.

Economic losses and insured losses – absolute values and long-term trends.
This chart presents the economic losses and insured losses – adjusted to present values.
The trend curves verify the increase in catastrophe losses since 1950



- **More Insurers Offering Specialized Risk Transfer Products: Swiss Re's** Greenhouse Gas Risk Solutions unit offers services for the design and implementation of carbon mitigating financial and re/insurance solutions; it also plans to offer proprietary trading and structured risk transfer products for the GHG market. **AIG, Allianz, Millea, Mitsui Sumitomo** and **Swiss Re** all report involvement in weather derivatives as part of their product response to climate change.
- **US Insurers Remain in Lagging Position:** Few US-based insurance companies provided sophisticated responses. This is particularly striking when compared to European and Japanese insurers who are far more advanced. Of the US insurers that did respond, **AIG** is the clear thought-leader on the issue.
- **Developments in Energy Efficiency:** Despite the low-impact nature of the insurance industry in physical environmental terms, many companies in this sector are advancing energy efficiency. **Manulife** reports in its 2004 company-wide energy audit that the firm's expanding computerization, heat recovery and perimeter lighting controls resulted in a 5.6% reduction in aggregate energy usage from 2003.
- **Investments in Clean Technology Funds and Other Investment Vehicles:** Like their counterparts in the banks and diversified financial sectors, insurance companies with investment and asset management capabilities are taking advantage of opportunities in clean technology and other sustainable finance markets. **Swiss Re** has a sustainability investment portfolio worth over $46 million that provides venture capital for renewable energy start-up companies, while **AGF** has invested EUR 10 million in the European Carbon Fund.

(e) Carbon Beta© Scenario Analysis

Due to the limited emissions associated with this sector a carbon beta analysis was not undertaken.

Metals, Mining & Steel

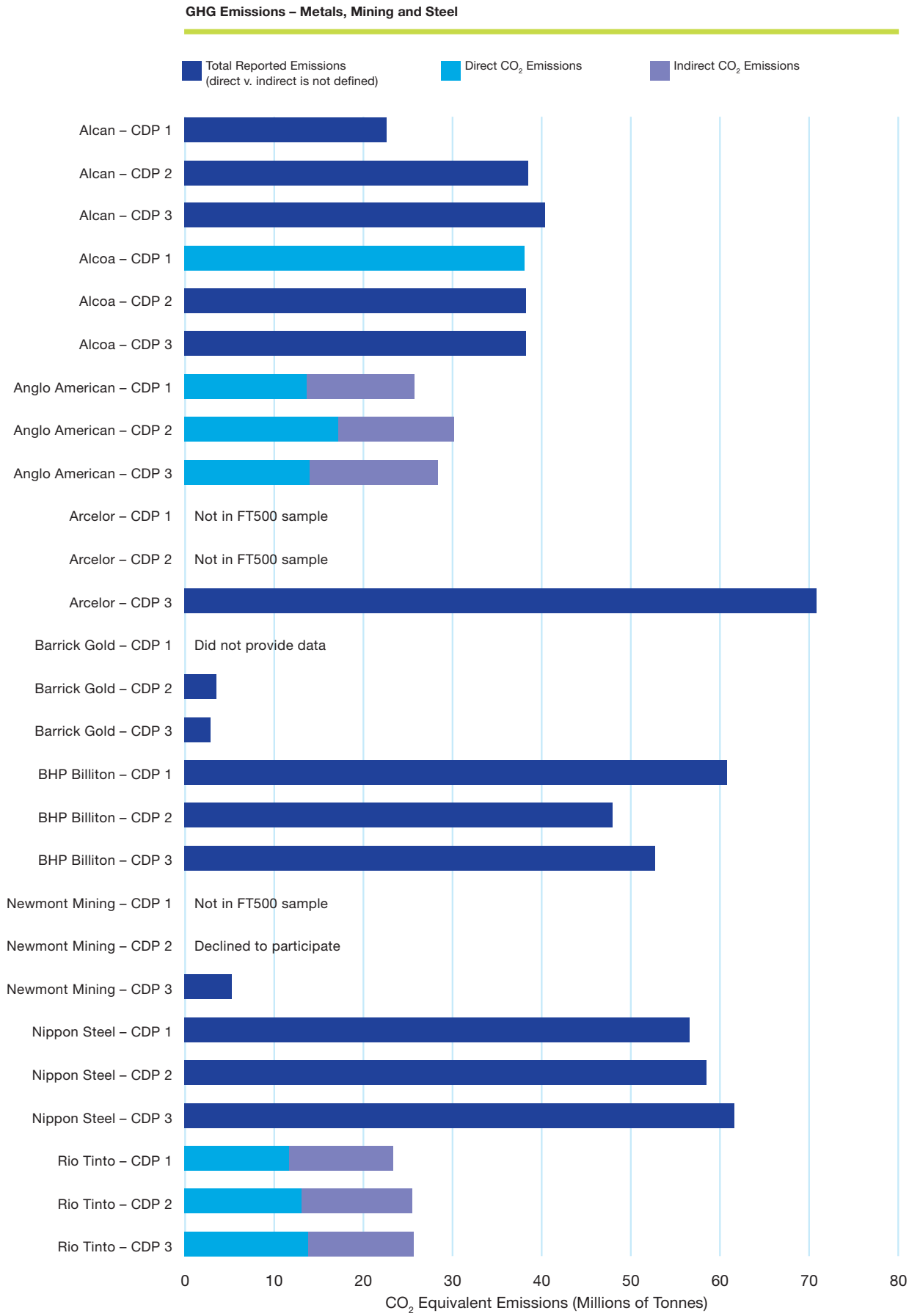
(a) Impacts of Climate Change

- Material increases in operating costs due to higher energy prices
- Exposure to national GHG emissions regulations
- Unplanned/Premature capital outlays on emissions controls
- Increased demand for commodities such as Platinum Group Metals (PGMs) and aluminum that facilitates transition to less emissions-intensive economy
- Sequestration opportunities relating to reforestation of marginal land

(b) Analysis of CDP Reponses

		Metals, Mining & Steel												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Metals & Mining	Alcan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Alcoa	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Anglo American	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Barrick	✓	✓	✓	✓		✓	✓		✓				✓
	BHP Billiton	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Newmont	✓	✓	✓			✓	✓		✓	✓	✓		✓
	Norilsk Nickel	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Rio Tinto	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Vale Rio Doce (CVRD)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Steel	Nippon Steel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Arcelor	✓	✓	✓	✓		✓		✓	✓				✓
	JFE Holdings	✓	✓	✓					✓			✓	✓	
	Posco	✓	✓	✓			✓	✓	✓	✓			✓	✓

(c) GHG Emissions Trend Analysis



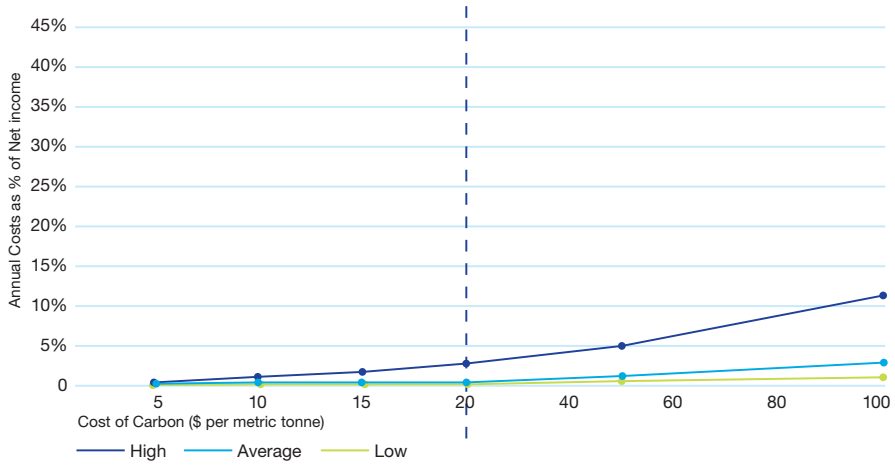
Metals, Mining & Steel companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Barrick Gold Vale Rio Doce	Alcan Newmont Vale Rio Doce	JFE Holdings Norilsk Nickel Vale Rio Doce

(d) Additional Trend Analysis

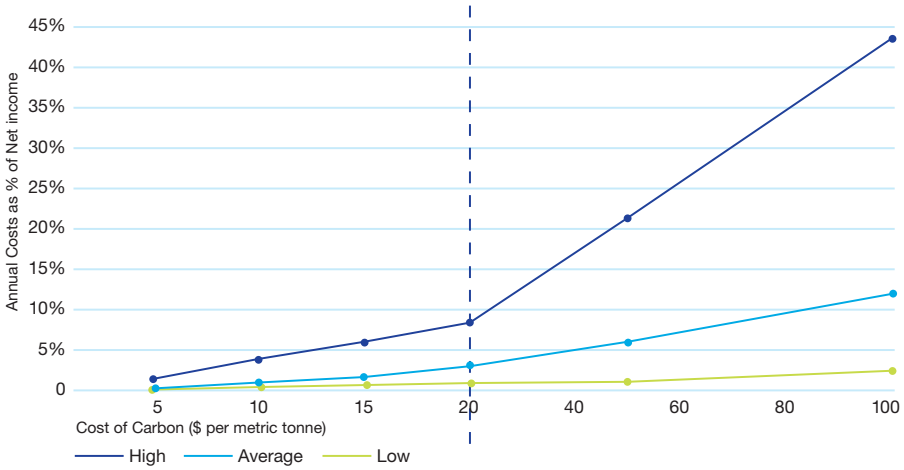
- **Potential Carbon Cost Liabilities:** Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed company in this sector could face annual compliance costs of nearly 22% of net income. Conversely, given the same assumptions, the least exposed firm faces approximately 2%.
- **Managing Product Emissions Comes to the Fore:** Previous year's responses saw a focus on reducing emissions from operations. Attention has now turned to the market risks and commodity price risks associated with the carbon-intensive products, particularly coal. **Rio Tinto** estimates that in 2004, 354 million tonnes of CO_2e were associated with the combustion of its coal product; more than 14x its own direct emissions and more than double the emissions of the highest-emitting US Electric Utility. In response, leading companies like **Rio Tinto**, are making strategic investments in clean coal technology, smelting innovations, and other mitigation technologies. **BHP Billiton** reports selling coal bundled with Certified Emission Reduction units to customers in Europe.
- **Energy Efficiency Remains a Critical Risk Management Option:** The reported cost of fuel and electricity as a percentage of revenue ranges from 6% to 12% for this sector. For certain energy-intensive businesses, the cost of energy can be upwards of 40% of operating costs. Where commodity prices are set by the market, industry is unable to pass on increased energy costs. **Anglo American**'s survey of operations identified energy efficiency projects that offer a ten year NPV saving of over $500 million at a capex cost of $320 million.
- **A Carbon-neutral Aluminum Industry?** **Alcoa** claims that by 2017 the aluminum industry can offset all its emissions with savings in GHGs from fuel use reductions in transport resulting from the use of aluminum to replace heavier materials. In a more cautious echo of this claim, **Alcan** states that with increased penetration of aluminum into key markets the possibility of a climate neutral aluminum industry could be realized.

(e) Carbon Beta© Scenario Analysis

Metals, Mining & Steel 7 year compliance period, 5% emissions contraint



Metals, Mining & Steel 7 year compliance period, 20% emissions contraint



Oil & Gas

(a) Impacts of Climate Change

- Increases in operating costs due to higher energy prices (especially downstream/chemicals)
- Exposure to national/regional GHG emissions regulations
- Business interruptions due to storm activity (e.g. Gulf of Mexico)
- Strategic opportunities in natural gas/LNG/midstream power sectors
- Erosion of fossil fuel market share in power production and vehicle propulsion markets
- Strategic opportunities in carbon sequestration
- Unplanned/Premature capital outlays for emissions control technology
- Strategic opportunities in clean technologies and renewables

(b) Analysis of CDP Reponses

	Oil & Gas Exploration & Production												
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Anadarko Petroleum	✓	✓	✓	✓	✓			✓	✓	✓			
Apache Corp.	✓	✓	✓	✓	✓				✓	✓			✓
Burlington Resources Inc	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Devon Energy Corp.		✓	✓						✓				
Encana Corp.	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓
Oil & Natural Gas	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Unocal Corp	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN

(b) Analysis of CDP Reponses

	Integrated Oil & Gas												
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
BG Group	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
BP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ChevronTexaco	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	
ConocoPhillips	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	
CNOOC	✓	✓	✓						✓	✓	✓		
ENI	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓
Exxon Mobil	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Formosa Petrochemicals	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Gazprom	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		
Imperial Oil	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Lukoil OAO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Marathon Oil	✓	✓	✓	✓	✓	✓			✓			✓	
Norsk Hydro	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Occidental Petroleum	✓	✓	✓	✓	✓	✓	✓		✓				
Petro-Canada	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Petrobras	✓	✓	✓	✓	✓	✓	✓		✓				
PTT	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Repsol YPF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
RD/Shell	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Shell Canada	see RD/Shell												
Statoil	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Suncor Energy	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Surgutneftegaz		✓	✓	✓	✓	✓			✓	✓	✓	✓	
Total	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

(c) GHG Emissions Trend Analysis

Integrated Oil and Gas companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Chevron Texaco	Gazprom	Formosa Petrochemicals
ENI	Lukoil	Imperial Oil
Exxon Mobil	Marathon Oil	Lukoil
Gazprom	SIBNEFT-Siberian Oil	PTT
Lukoil	Yukos Oil	Surgutneftegas
Petrobras		
Repsol		
Surgutneftegas		
Williams Cos		

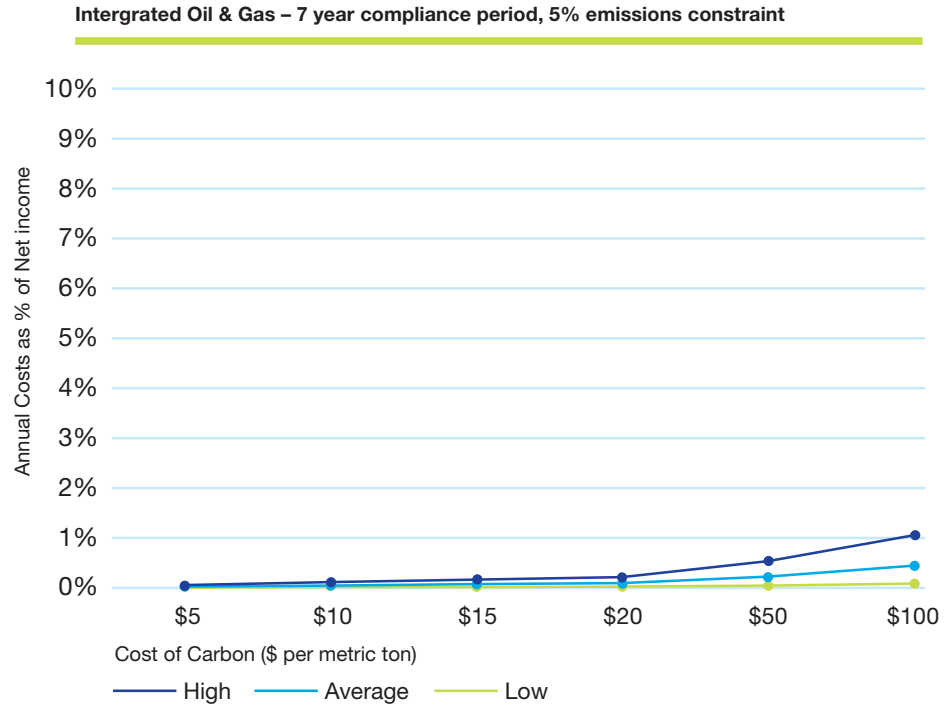
Oil and Gas Exploration companies that did provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Anadarko Petroleum	Anadarko Petroleum	Anadarko Petroleum
CNOOC	Apache Corp	Apache Corp
Unocal	Burlington Resources	Burlington Resources
	CNOOC	CNOOC
	Devon Energy Corp.	Devon Energy Corp.
	Encana Corp.	Oil & Natural Gas
	Oil & Natural Gas	Unocal Corp

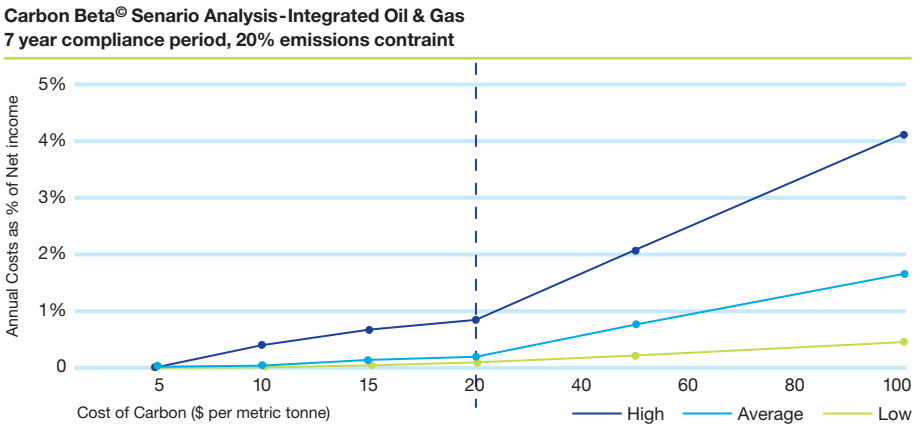
(d) Additional Trend Analysis

- **Potential Carbon Cost Liabilities:** Assuming a price of $50 per tonne of carbon, a 20% emissions constraint and a 7 year compliance period, the most exposed Oil & Gas company could face annual compliance costs in excess of 2% of net income. Conversely, given the same assumptions, the least exposed firm faces less than 0.5%.
- **Strategic Recognition of a Coming Shift to Low-Carbon Fuels:** Opinions differ on what the optimal global fuel mix should be but Oil & Gas companies see a possible "long term shift in the global energy mix" (**Petro-Canada**), recognize that they "may be vulnerable to policies that discriminate against fossil fuels" (**BG Group**) and state the possibility of a "potential decline of the fossil fuels market" in the longer term (**ENI**).
- **Carbon Risk Management Strategies Migrate to the Project Level:** Several companies including **Chevron**, **Repsol**, **Suncor** and **Total** report integrating GHG emissions analysis into the planning for major capital projects by incorporating CO_2 shadow pricing in internal financial analysis and project economic modeling. This is an evolution from CDP1 when most formal climate strategies existed primarily at the corporate level.
- **Continued Innovation in CO_2 Capture and Storage Strategies:** Most FT500 Oil & Gas firms are exploiting CO_2 capture and storage opportunities as a cost-effective means of emission reduction. **BP** recently opened what is believed to be the largest sequestration project in the world at Insalah in the Algerian desert. The company expects to inject around one million tonnes of CO_2 every year at the site. **Norsk Hydro** is currently developing technology for CO_2 separation for gas-fired power production and for the production of hydrogen as a CO_2 free energy carrier. Other sector leaders include **Statoil,** whose expanding capture and storage capabilities on the Norwegian Continental Shelf are driven in part by Norway's carbon tax of $50 per ton.

- **Energy Diversification Options and Low-Carbon Technologies Offer Some Hope:** In expectation of future regulatory constraints and the above-mentioned shift away from carbon-intensive fuels, the majority of Oil & Gas companies are investing in alternative forms of energy or other technologies that can help reduce future exposures.

(e) Carbon Beta© Scenario Analysis





Paper and Forest Products

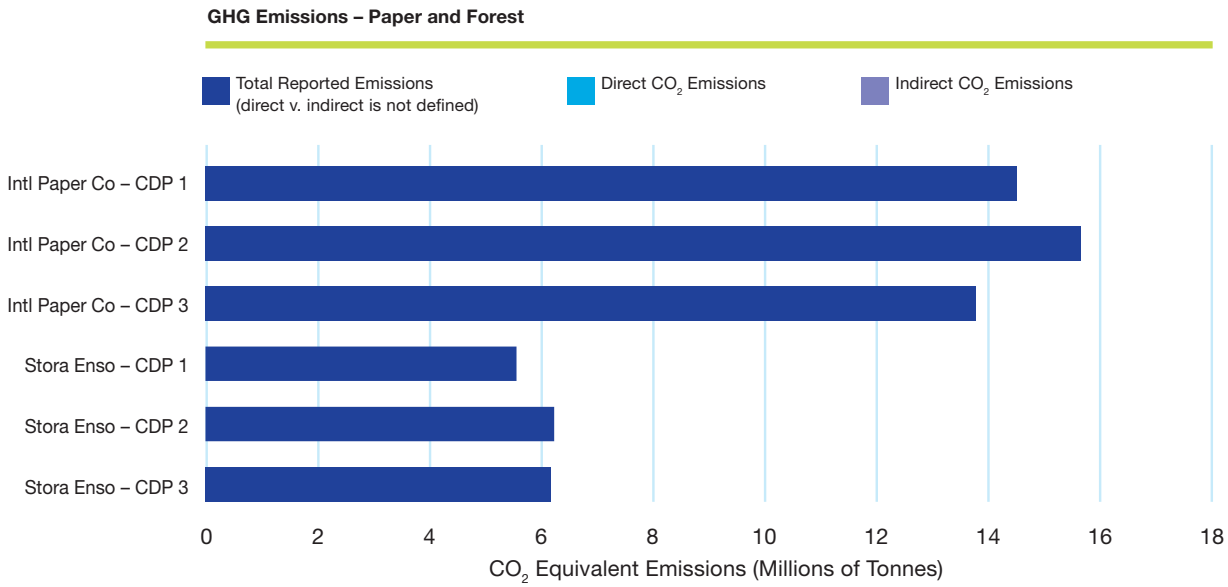
(a) Impacts of Climate Change

- Material increases in operating costs for pulp and paper operators due to higher energy prices
- Exposure of pulp and paper operators to national GHG emissions regulations
- Possible opportunities to enhance cash flow from carbon sequestration in forest operations
- Opportunities in biomass-based power production, sequestration in forests, and for biofuels in agriculture and forestry
- Increased risk from fire and pest problems
- Decreased value of land assets due to climate extremes and secondary effects

(b) Analysis of CDP Reponses

	Paper and Forest Products												
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
International Paper Company	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓
Stora Enso Corp.	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓
Weyerhaeuser Company	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	

(c) GHG Emissions Trend Analysis



Paper & Forest Products companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Stora Enso Weyerhaeuser	Weyerhaeuser	

(d) Additional Trend Analysis

- **Corporate Strategies Focused on Increased Use of Bio-Fuels:** Since the CO_2 emitted from biomass-based products is considered GHG neutral by climate conventions such as the Kyoto Protocol, paper and forest product companies are seeking to maximize the use of bio-fuels across their business lines. At **Stora Enso,** biomass fuels represented 62.5% of the firm's 2004 on-site energy production, up from 61.5% in 2003. Percentages are similar at both **International Paper** and **Weyerhaeuser.** Some firms are expanding their activities in this regard to include next-generation opportunities such as biomass gasification. **Weyerhaeuser** expects this technology will result in emissions reductions significantly beyond what can be achieved through conventional biomass energy technologies.

- **Capitalizing on Alternative Energy Efficiencies:** In addition to leveraging the use of bio-fuels across their operations, paper and forest companies are seeking additional opportunities to reduce their reliance on fossil fuels. **Stora Enso** reports that it is investing in Combined Heat and Power (CHP) facilities at its production sites. **International Paper** has set a goal for 2005 and 2006 of reducing fossil fuel energy use by over 10 trillion BTUs.

- **Growing Recognition of Emission Trading Opportunities:** Since firms in this sector have the distinct advantage of using a GHG neutral product (biomass) as their primary raw material, most are relatively well-positioned in regional emission trading markets. As **International Paper** states, "market-based credit trading will benefit our company." Last year the firm sold over $600,000 worth of CO_2 through the Chicago Climate Exchange (CCX). **Stora Enso,** a founding member of the CCX, has been trading through the exchange since 2003.

(e) Carbon Beta© Scenario Analysis

There were too few companies in this sector to produce a meaningful carbon beta analysis.

Transportation

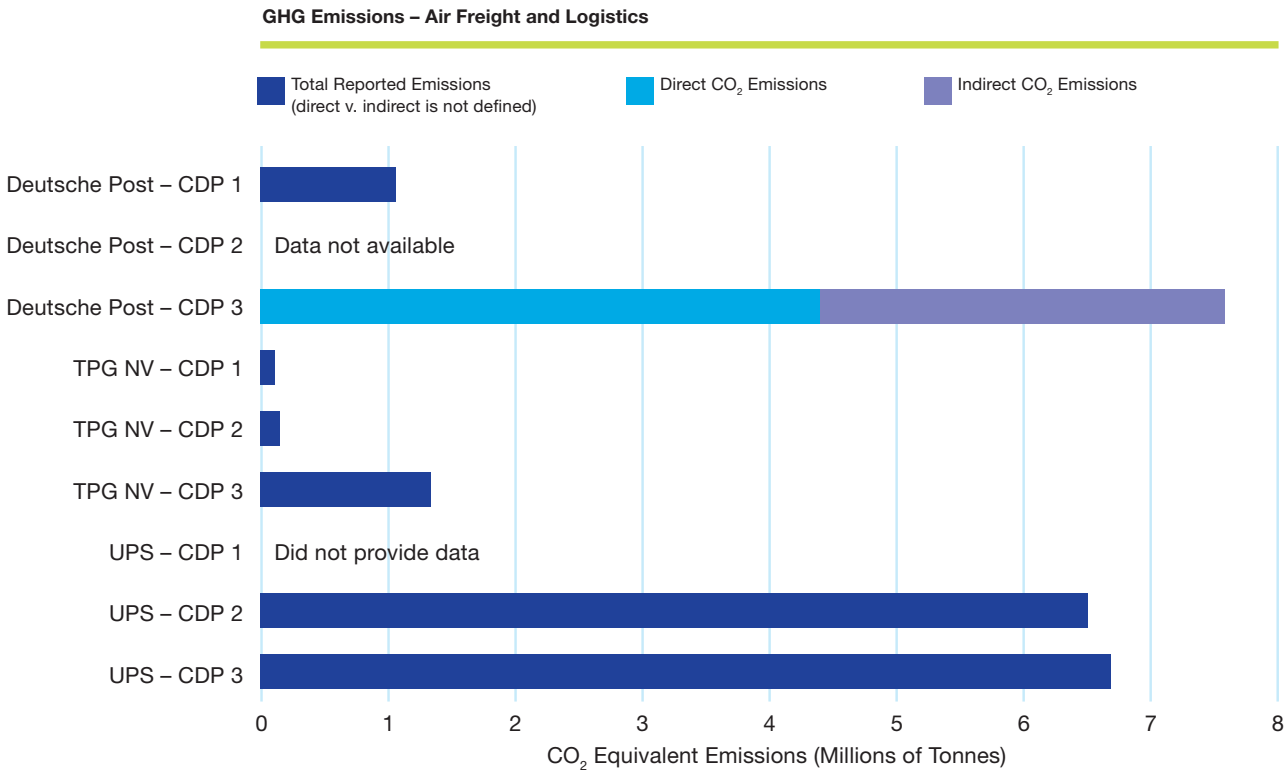
Impacts of Climate Change

- Material increases in operating costs due to higher fuel prices
- Exposure to national/global GHG emissions regulations
- Risks of reduced demand for coal transportation services
- Opportunities in clean fuel markets, logistics
- Increased opportunities and public sector support for less GHG-intense transportation forms (e.g. light rail transit)
- Disruptions to packaging, transportation regulations
- Weather disruptions to schedules, operating viability

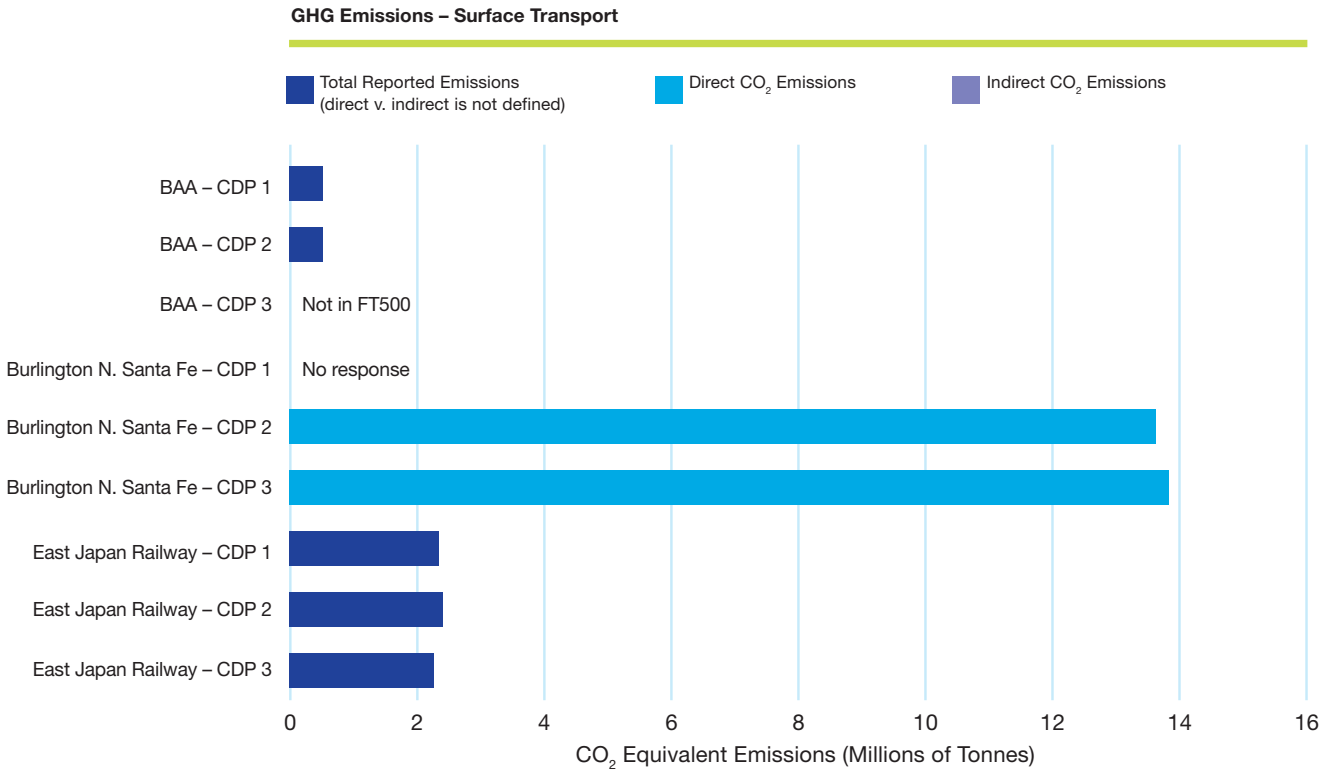
(b) Analysis of CDP Reponses

		Transportation												
		Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
					Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Surface Transport	AP Moller-Maersk	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	Autostrade	✓		✓						✓				✓
	Burlington Northern Santa Fe Corp	✓	✓	✓	✓		✓	✓		✓	✓	✓		✓
	Canadian National Railway Company	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Central Japan Railway Co	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	East Japan Railway Company	✓	✓	✓	✓		✓			✓	✓	✓	✓	
	Norfolk Southern Corp.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
	Union Pacific Corp.	✓	✓	✓										✓
Air Freight & Couriers	Deutsche Post AG	✓	✓	✓	✓		✓		✓	✓	✓	✓		
	Fedex Corp.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
	TPG NV	✓	✓				✓	✓		✓	✓		✓	
	United Parcel Service Inc	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Trading Companies	Mitsubishi	✓	✓		✓	✓	✓	✓		✓	✓	✓		
	Mitsui and Co	✓	✓		✓	✓	✓	✓		✓	✓	✓		

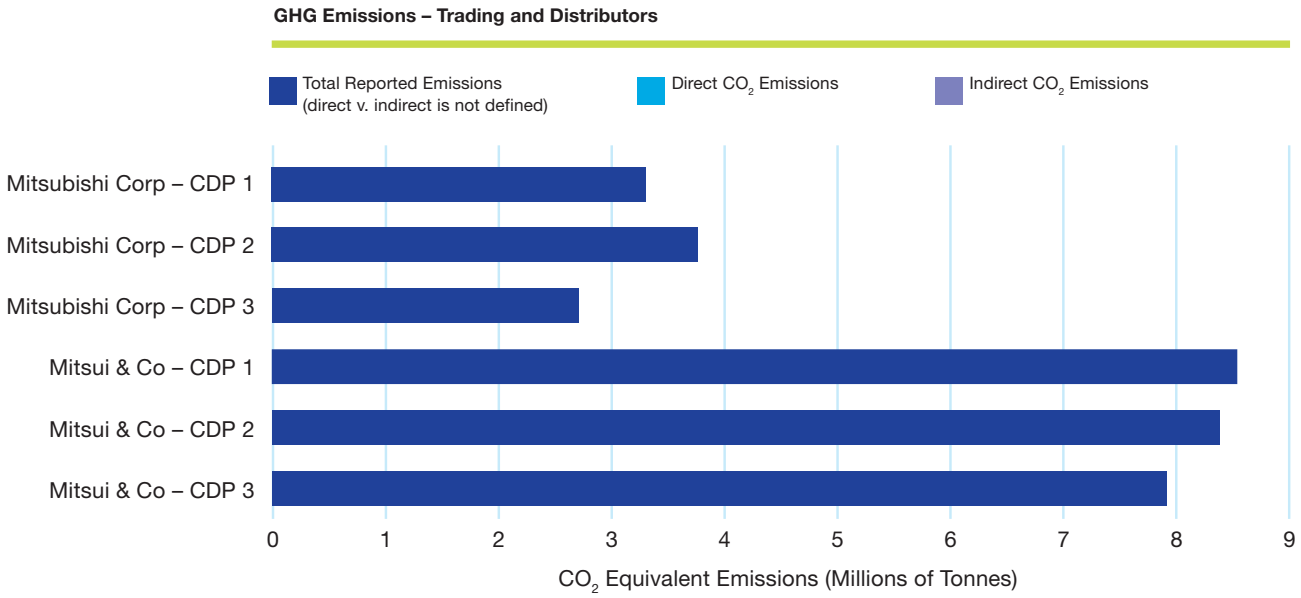
(c) GHG Emissions Trend Analysis



Air Freight & Logistics companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Fedex UPS	Fedex	Fedex



Surface Transport companies that did not provide quantitative data:		
CDP1	**CDP2**	**CDP3**
Burlington North Santa Fe	AP Moller Maersk	AP Moller Maersk
Canadian National Railway	Autostrade	Autostrade
Central Japan Railway	Canadian National Railway	Canadian National Railway
Union Pacific	Central Japan Railway	Central Japan Railway
	Norfolk Southern Corp.	Norfolk Southern Corp.
	Union Pacific	Union Pacific



(d) Additional Trend Analysis

- According to a recent study of 50 major US metropolitan areas by transportation consultant Wendell Cox, a 25% shift in freight traffic from tuck to rail would lead, by 2025, to 3.2 billion fewer traveler-hours wasted in congested traffic per year; 17 billion fewer gallons of fuel consumed; 900,000 few tons of air pollution; and approximately $44 billion in avoided costs. With these figures in mind, rail companies such as **Union Pacific** and **Burlington Northern Santa Fe (BNSF)** highlight the relative fuel efficiency of rail over truck transportation as the key component in their climate-related strategies.
- **Continued Improvements in Transportation Efficiency:** In May 2005, rail companies joined air and other freight carriers in the US Environmental Protection Agency's (EPA's) SmartWay program, a voluntary initiative aimed at reducing fuel consumption and emissions. **BNSF, CN Railway, Norfolk Southern Railway** and **Union Pacific** join **FedEX** and **UPS** as FT500 constituents. Concomitant emission reduction strategies are centered on improving engine technology. In the rail sector, **Union Pacific** and **BNSF** have ordered a number of "Green Goat" hybrid locomotives that reduce fuel consumption by 60 percent and emit up to 90 percent fewer pollutants than conventional train engines. **BNSF** also operates four liquid natural gas locomotives. In terms of air freight, **UPS,** which already operates one of the world's largest fleets of alternative fuel vehicles, announced in 2005 that it will

build and test the first fully-hydraulic urban delivery vehicle with the use of hybrid electric vehicle technology.

- **Limited Advances in Use of Emission Trading Markets:** Only two companies in the transportation sector –both based in Japan—report having developed capacity in emissions trading. **Mitsui** has formed an alliance with CO_2e.com, a major player in the brokerage of emissions reductions and other environmental products, while **Mitsubishi** has developed a strategic partnership with Natsource. Both of these companies are also active in carbon fund investments.

(e) Carbon Beta© Scenario Analysis

There were too few companies in each transportation sector to produce a meaningful carbon beta analysis.

Matrices for Remaining Sectors

Advertising	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Omnicom Group Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Aerospace & Defense	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
BAE Systems PLC	✓	✓		✓	✓	✓		✓	✓				✓
Boeing Co.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Eads	✓	✓	✓	✓		✓		✓	✓				✓
General Dynamics	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Honeywell International Inc.	✓	✓	✓	✓					✓				
Lockheed Martin Corp.	✓	✓	✓	✓		✓			✓	✓		✓	
Northrop Grumman Corp.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Raytheon Co.	✓	✓	✓	✓					✓				✓
United Technologies Corp.	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓

Biotechnology

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Amegen Inc.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Biogen Idec		✓	✓										✓
Genentech Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Genzyme	✓								✓			✓	
Gilead Sciences	✓												✓

Broadcast & Cable TV

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
British Sky Broadcasting Group	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	
Clear Channel Communications	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Comcast Corp.	✓	✓											
Cox Communications, Ltd.									✓				
Liberty Media Corp.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Mediaset	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
The DirecTC Group	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP

Building Products	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Masco	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Saint-Gobain	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	

Commercial Services & Supplies	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Automatic Data Processing	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Cendant Corp.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
First Data Corp.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Paychex Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Communications Equipment

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Alacatel	✓	✓		✓		✓	✓		✓	✓	✓	✓	✓
Cisco Systems	✓	✓	✓	✓				✓	✓	✓		✓	✓
Corning		✓	✓			✓			✓				
Ericsson	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓
Juniper Networks	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Lucent Technologies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Motorola	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Nokia	✓	✓	✓	✓		✓			✓	✓		✓	✓
Nortel Networks	✓	✓				✓	✓		✓				
Qualcomm		✓		✓		✓	✓		✓				✓

Computers & Peripherals

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Apple Computers	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Dell	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
EMC Corp.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Fujitsu	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hewlett-Packard	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
IBM	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓
NEC	✓	✓		✓		✓		✓	✓		✓	✓	✓
Sun Microsystems	✓	✓	✓						✓				✓
Toshiba	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓

Construction & Farm Machinery

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Caterpillar Inc.	✓	✓	✓						✓	✓	✓	✓	
John Deere & Co.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Paccar	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Volvo AB	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓

Construction Materials

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
CRH	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
LaFarge	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Holcim	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓

Consumer & Household Services

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Apollo Group Inc	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Electrical Equipment

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Emerson	✓	✓	✓	✓		✓			✓	✓	✓	✓	
Schneider Electric	✓	✓	✓					✓	✓				
ABB AG	✓					✓			✓				
Matsushita Electric Industrial	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓

Electronic Equipment & Instruments

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Canon Inc.	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓
Hitachi Ltd.	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Hoya	✓	✓	✓			✓			✓	✓	✓	✓	✓
Hon Hai Precision Industries	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Kyocera	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Murata Manufacturing	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓
Ricoh	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Xerox	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓

Energy Equipment & Services

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Baker Hughes Inc.	✓		✓						✓			✓	
Halliburton Energy Services	✓	✓	✓	✓		✓	✓	✓	✓				
Schlumberger Inc.	✓	✓	✓					✓	✓				✓
Transocean	✓	✓	✓			✓			✓				

Gas Utilities

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Centrica PLC	✓	✓		✓	✓	✓	✓		✓			✓	

Healthcare Equipment & Supplies

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Alcon	see Nestlé												
Baxter International	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Becton Dickinson		✓				✓	✓						
Biomet Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Boston Scientific	✓	✓	✓	✓		✓			✓	✓		✓	
Guidant Corp.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Medtronic	✓	✓	✓	✓		✓			✓	✓		✓	✓
St. Jude Medical CRMD	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Stryker	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Synthes Inc	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Zimmer Holdings	✓	✓	✓	✓					✓				✓

Healthcare Providers & Services

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Aetna Inc.			✓			✓							
Anthem (now Wellpoint)	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Cardinal Health	✓												
Caremark RX	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
HCA Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
United Health Group									✓				
Wellpoint Health Network Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Hotel, Restauant & Leisure	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Carnival	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
International Game Technology	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Marriott	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
McDonald's	✓	✓	✓	✓									✓
Starbucks	✓	✓	✓	✓		✓	✓	✓	✓				
Yum! Brands	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP

Household Durables	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Nintendo	✓	✓		✓					✓	✓	✓		✓
Philips Electronics	✓	✓	✓			✓			✓				✓
Sharp	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓
Sony	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Thomson	✓	✓				✓			✓	✓	✓		✓

Household & Personal Products

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Avon Products Inc.		✓	✓	✓					✓			✓	
Clorox	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Colgate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Gillette	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Kao	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Kimberly-Clark	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
L'Oreal	✓	✓				✓			✓				
Proctor & Gamble	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Reckitt Benckiser PLC	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	

Industrial Conglomerates

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
3M	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		
General Electric	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Hutchison Whampoa Ltd	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Saudi Basic Industries	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Siemens	✓	✓	✓	✓	✓	✓		✓	✓				✓
Tyco International Ltd	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN

Industrial Machinery

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Danaher	✓		✓						✓				
Fanuc Ltd.	✓	✓				✓				✓		✓	✓
Illinois Tool Works	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ingersoll-Rand	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN

Internet Software & Services

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Softbank	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
T-Online AG	see Deutsche Telekom												
Yahoo			✓						✓				
Yahoo Japan	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN

IT Consulting & Services

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Accenture	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Leisure Equipment & Products

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Fuji Photo Film Co. Ltd.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Movies & Entertainment

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Fox Entertainment	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
News Corp.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Time Warner	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Viacom Inc.													
Vivendi Universal	✓	✓				✓			✓	✓	✓		✓
Walt Disney Co.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN

Multiline Retail													
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Amazon Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Costco Wholesale Corp.			✓										
eBay									✓				
GUS Plc.	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
Kohls Corp.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Marks and Spencer	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓
Pinault Printemps	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Target Co.	✓	✓	✓	✓		✓			✓				✓
Wal Mart De MEX SA de CV													
Wal Mart Stores Inc.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP

	Pharmaceuticals												
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Abbott Laboratories	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
AstraZeneca	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bristol-Meyers Squibb	✓	✓	✓	✓		✓	✓		✓	✓	✓		✓
Eli Lilly	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓
Forest Laboratories	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
GlaxoSmithKline	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Johnson & Johnson	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓
Merck	✓	✓	✓	✓	✓	✓			✓			✓	✓
Novartis International	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Novo Nordisk	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Pfizer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Roche	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Sanofi-Aventis	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
Schering	✓	✓		✓		✓	✓		✓	✓	✓		
Schering - Plough	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Takeda	✓					✓			✓	✓	✓		✓
Teva Pharmaceutical	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Wyeth	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓
Yamanouchi	✓	✓	✓	✓		✓		✓	✓	✓	✓		✓

Public Services

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
SUEZ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Veolia Environnement	✓	✓	✓	✓	✓				✓			✓	
Waste Management, Inc.	✓	✓	✓	✓	✓				✓	✓	✓		✓

Publishing

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Gannett	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
McGraw Hill Co.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Reed Elsevier		✓				✓			✓	✓	✓		✓
Tribune Co.		✓				✓			✓				

Real Estate

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Cheung Kong Holdings	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Mitsubishi Estate Company Ltd	✓	✓		✓	✓	✓	✓		✓				✓
Simon Property Group	✓	✓	✓						✓				✓
Sun Hung Kai Properties Ltd	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Semi-conductor Equipment & Products

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Analog Devices	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Applied Materials	✓	✓		✓		✓			✓	✓		✓	
Intel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Linear Technology	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Maxim Integrated Products Ltd.	✓	✓	✓										
Rohm	✓	✓	✓	✓		✓			✓		✓	✓	✓
Samsung	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
ST Microelectronics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Taiwan Semiconductor Manufacturing Co.	✓	✓	✓	✓		✓			✓	✓	✓	✓	
Texas Instruments	✓		✓						✓	✓	✓		

Software

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Adobe Systems	✓								✓				✓
Computer Associates International, Inc.	✓		✓						✓				
Electronic Arts Inc.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Microsoft	✓	✓	✓	✓		✓	✓	✓	✓				
Oracle		✓	✓						✓				✓
SAP	✓		✓	✓					✓				
Symantec	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP

Specialty Retail

	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Bed Bath and Beyond Inc.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Best Buy Co. Ltd.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Gap Inc.	✓	✓		✓		✓	✓		✓				✓
H & M	✓	✓	✓			✓			✓		✓	✓	✓
Home Depot Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
IAC/Interactive Corp	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Inditex Group	✓	✓				✓			✓	✓	✓	✓	✓
Kingfisher PLC	✓	✓	✓				✓	✓	✓	✓	✓		✓
Lowe's Companies Inc.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Staples Inc.	✓		✓	✓		✓			✓	✓	✓		✓

Telecommunications													
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Alltel	✓	✓	✓										
American Movil	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
AT&T Corp.	✓	✓	✓						✓		✓		
AT&T Wireless Services Inc.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Belgacom	✓								✓				✓
BCE Inc.	✓	✓	✓	✓		✓		✓	✓			✓	✓
Bellsouth Corp.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
BT Group PLC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bouygues	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
China Mobile (Hong Kong) Ltd.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chungwa Telecom	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Deutsche Telekom	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Etisalat	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
France Telecom	✓	✓		✓					✓				✓
Kddi Corp.	✓	✓				✓			✓	✓		✓	
KPN	✓	✓				✓		✓	✓	✓			✓
MMO2	✓	✓	✓	✓		✓		✓	✓				
Mobile Telesystems	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Telecommunications													
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
Nextel Communications Inc.	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Nippon Telegraph and Telephone Co.	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
NTT Docomo Inc.	✓	✓	✓	✓		✓		✓	✓	✓			
Portugal Telecom	✓	✓				✓	✓		✓	✓		✓	✓
Saudi Telecom	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SBC Communications Inc.	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Singapore Telecom Ltd.	✓		✓			✓		✓	✓			✓	✓
SK Telecom													
Sprint	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Swisscom	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓
Telia Sonera	✓	✓	✓	✓		✓			✓				✓
Telecom Italia	✓	✓	✓	✓		✓	✓		✓	✓			✓
Telecom Italia Mobile	✓	✓	✓	✓		✓	✓		✓	✓			✓
Telefonica	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓
Telmex	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP	DP
Telenor	✓	✓				✓		✓				✓	✓
Telstra	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓
Verizon Communications Inc.	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓
Vodafone	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓

	Textiles & Apparel												
	Considers Climate Change to Present Risks and/or Opportunities	Responsibility Allocated for Management of Climate Change Related Issues	Has taken steps to implement relevant emission-reducing technologies	Strategy to Prepare for Emissions Trading Regimes		Quantified GHG Reporting		Estimates product, supply chain and/or other indirect emissions	Emission Reduction Programs in Place		Formal GHG Reduction Targets Set With Timeline	Measures emissions intensity against production, sales and/or other output measures	Reports total revenue represented by fossil fuel and electric power costs
				Monitoring Developments	Evidence of Early Engagement	Emissions Data Disclosed	Use of Third Party Reporting Protocol/ Verification		Energy Efficiency Programs	GHG Reduction Programs			
LVMH	✓	✓	✓			✓	✓	✓	✓		✓		
Nike Inc.	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		
Richemont	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Appendix B: Climate Change Shareholder Resolutions 2005

Sector	Company Name	Climate Change Resolution for the 2005 Proxy Season	Outcome
Automotive	Ford Motor Company	Shareholders request that Ford report its lobbying efforts and financial expenditures, the result of which would indirectly or directly prevent an increase in federal CAFE standards. The resolution also includes a condition that the report should also present the business case for spending shareholder funds to block CAFE improvements in light of Ford's new policy of increasing fuel economy by 80 percent in the long term.	6.4% voter support for the resolution
	Ford Motor Company	Shareholders request that a committee of independent directors of the Board assess (a) how the Company will ensure competitive positioning based on emerging near and long-term GHG regulatory scenarios at the state, regional, national and international levels, (b) how the Company plans to comply with California's greenhouse gas standards, and (c) how the Company can significantly reduce greenhouse gas emissions from its national fleet of vehicle product by 2014 and 2024.	Resolution withdrawn. Ford agreed to produce a report outlining climate risks.
	Ford Motor Company	Shareholders request that Ford's Board direct its Compensation Committee to institute an executive compensation review with a view to linking a significant portion of senior executive compensation to progress in reducing lifetime product greenhouse gas emissions from the company's new passenger vehicles, and that a report on this review be made available to shareholders within six months following the annual meeting.	5.5% voter support for the resolution
	General Motors	Shareholder request that GM assess and report on: a) expected response to GHG regulatory scenarios b) plans to comply with GHG standards c) how it can reduce GHGs from its national product fleet by 2014 and 2024.	Pending
Banking	JP Morgan Chase	Shareholders request that the Board of Directors report to shareholders by October 2005 on the effect on the company's business strategy of the challenges created by global climate change. The report should include, but need not be limited to, a discussion of the effects of (a) rising public and regulatory pressures to limit the emission of greenhouse gases, and (b) changes in the physical environment.	Satisfactory agreement preempted vote
	Wachovia	N/A	Omitted by SEC
	Wells Fargo	N/A	Satisfactory agreement preempted vote
Electric Power	Dominion	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Pending
	DTE Energy	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Agreed to prepare a climate risk report.
	First Energy	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Agreed to prepare a climate risk report.
	Progress Energy	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Agreed to prepare a climate risk report.
Manufacturing	Allergen	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Analog Devices	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Avery Dennison	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Corning	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other greenhouse gas emissions and report to shareholders by September 1 2005.	Satisfactory agreement preempted vote
	Dow Chemical	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other greenhouse gas emissions and report to shareholders by September 1 2005.	Satisfactory agreement preempted vote
	Newell Rubbermaid	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Nucor	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other greenhouse gas emissions and report to shareholders by September 1 2005.	Satisfactory agreement preempted vote

Sector	Company Name	Climate Change Resolution for the 2005 Proxy Season	Outcome
Automotive	Ford Motor Company	Shareholders request that Ford report its lobbying efforts and financial expenditures, the result of which would indirectly or directly prevent an increase in federal CAFE standards. The resolution also includes a condition that the report should also present the business case for spending shareholder funds to block CAFE improvements in light of Ford's new policy of increasing fuel economy by 80 percent in the long term.	6.4% voter support for the resolution
	Ford Motor Company	Shareholders request that a committee of independent directors of the Board assess (a) how the Company will ensure competitive positioning based on emerging near and long-term GHG regulatory scenarios at the state, regional, national and international levels, (b) how the Company plans to comply with California's greenhouse gas standards, and (c) how the Company can significantly reduce greenhouse gas emissions from its national fleet of vehicle product by 2014 and 2024.	Resolution withdrawn. Ford agreed to produce a report outlining climate risks.
	Ford Motor Company	Shareholders request that Ford's Board direct its Compensation Committee to institute an executive compensation review with a view to linking a significant portion of senior executive compensation to progress in reducing lifetime product greenhouse gas emissions from the company's new passenger vehicles, and that a report on this review be made available to shareholders within six months following the annual meeting.	5.5% voter support for the resolution
	General Motors	Shareholder request that GM assess and report on: a) expected response to GHG regulatory scenarios b) plans to comply with GHG standards c) how it can reduce GHGs from its national product fleet by 2014 and 2024.	Pending
Banking	JP Morgan Chase	Shareholders request that the Board of Directors report to shareholders by October 2005 on the effect on the company's business strategy of the challenges created by global climate change. The report should include, but need not be limited to, a discussion of the effects of (a) rising public and regulatory pressures to limit the emission of greenhouse gases, and (b) changes in the physical environment.	Satisfactory agreement preempted vote
	Wachovia	N/A	Omitted by SEC
	Wells Fargo	N/A	Satisfactory agreement preempted vote
Electric Power	Dominion	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Pending
	DTE Energy	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Agreed to prepare a climate risk report.
	First Energy	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Agreed to prepare a climate risk report.
	Progress Energy	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other emissions and report to shareholders by September 1 2005.	Agreed to prepare a climate risk report.
Manufacturing	Allergen	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Analog Devices	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Avery Dennison	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Corning	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other greenhouse gas emissions and report to shareholders by September 1 2005.	Satisfactory agreement preempted vote
	Dow Chemical	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other greenhouse gas emissions and report to shareholders by September 1 2005.	Satisfactory agreement preempted vote
	Newell Rubbermaid	Shareholders request that the company assess the feasibility of adopting and implementing greenhouse gas emission reduction targets across all U.S. and non-U.S. facilities, and report to shareholders by November 22 2005.	Satisfactory agreement preempted vote
	Nucor	Shareholders request that a committee of independent directors of the Board assess how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide and other greenhouse gas emissions and report to shareholders by September 1 2005.	Satisfactory agreement preempted vote

Coordinating Body	Fund Name	Capitalization as of May 2005	Fund Description	Launch Date	Fund Sponsors & Beneficiaries of GHG Reduction Credits
World Bank Carbon Funds					
World Bank	World Bank Prototype Carbon Fund (PCF)	$180 million (Target $180 million)	The first major public-private partnership to create a carbon fund. Investing participants in the fund (governments and corporations) receive a pro rata share of the emission reduction credits generated. Currently the most active player in the market.	July 99	6 governments (Canada, Finland, Japan, Netherlands, Norway, Sweden). 17 companies (BP, Chubu Electric, Chugoku Electric, Deutsche Bank, Electrabel, Fortum, Gaz de France, Kyushu Electric, Mitsubishi, Mitsui & Co., Norsk Hydro, Rabobank, RWE, Shikoku Electric, Statoil, Tokyo Electric, Tohoku Electric)
	World Bank Community Development Carbon Fund (CDCF)	$128.6 million (Target $100 million)	Provides carbon finance to small-scale projects in the poorer rural areas of the developing world (including renewable energy, energy efficiency and generation of energy from decomposing wastes). Participants in the fund will receive carbon emission reduction credits	July 03	7 governments (Austria, Belgium, Canada, Italy, Luxembourg, Netherlands, Spain). 15 companies (BASF, Daiwa Securities, Electricidade de Portugal, Endesa, Gas Natural, Göteborg Energi AB, Hidroeléctrica del Cantábrico, Idemitsu Kosan, KfW, Nippon Oil, Okinawa Electric, Rautaruukki, Statkraft Carbon Invest, Statoil, Swiss Re
	World Bank BioCarbon Fund (BCF)	$43.8 million (Target $100 million)	The BioCarbon Fund provides carbon finance for projects that sequester or conserve greenhouse gases in forests and agro-ecosystems. Focus is on land use, land-use change and forestry (LULUCF) activities that reduce GHG emissions. Participants in the fund will earn emission reduction credits generated by the projects sponsored by the fund	November 03	4 governments (Canada, Italy, Luxembourg, Spain). 7 companies (Agence Française de Développement, Lesley Investments Ltd., Idemitsu Kosan, Okinawa Electric, Sumitomo Chemicals, Sumitomo Joint Electric, Tokyo Electric)
	The Spanish Carbon Fund	$170 million (Target $210 million)	A Spain-sponsored fund coordinated by the World Bank. The fund was established to purchase greenhouse gas emission reductions from projects developed under the Kyoto Protocol to mitigate climate change while promoting the use of cleaner technologies and sustainable development in developing countries and countries with economies in transition.	November 04	Spanish public and private entities
	Danish Carbon Fund	$35 million (Target $35 million)	The Danish Carbon Fund became operational in January 2005 and is open to the participation of Danish public and private sector entities. The current participants in the Danish Carbon Fund (DCF) are the Danish Ministry of Environment, the Danish Ministry of Foreign Affairs and the two leading power companies Energi E2 and Elsam. The DCF will build knowledge and understanding of the flexible mechanisms of the Kyoto Protocol and implementation of projects among the participants through their engagement in the activities of the Fund. The Fund will also help build Danish private and public sector capacity to meet Danish climate obligations arising from the Kyoto Protocol.	January 05	Danish government. Energy companies Energi E2 and Elsam
	Italian Carbon Fund	$80 million (Target $100 million)	An Italian-sponsored carbon fund coordinated by the World Bank. The fund supports projects in developing countries and countries with economies in transition in exchange for emission reduction credits generated under the Clean Development Mechanism (CDM) or Joint-Implementation (JI).	October 03	Italian private and public sector entities
	Netherlands Clean Development Facility	€136 million	A Netherlands-sponsored carbon fund coordinated by the World Bank. The fund supports projects in developing countries in exchange for emission reduction credits generated under the Clean Development Mechanism (CDM).	May 02	Government of the Netherlands
	Netherlands European Carbon Facility (NECaF)	$30 million	A carbon credit buying facility run by the IFC on behalf of the Dutch government. Operates under the rules of the Joint Implementation (JI) mechanism and is managed jointly with IBRD.	May 02	Government of the Netherlands

Coordinating Body	Fund Name	Capitalization as of May 2005	Fund Description	Launch Date	Fund Sponsors & Beneficiaries of GHG Reduction Credits
Other Public Sector-Coordinated Carbon Funds					
Japan Bank for International Cooperation (JBIC) & Development Bank of Japan (DBJ)	Japan Greenhouse Gas Reduction Fund (JGRF)	$141.5 million	This fund is designed to generate emission reduction credits for Japanese companies. The fund aims to purchase emission credits from projects implemented in developing countries and Eastern Europe. The credits are then distributed among the fund participants.	December 04	JBIC and DBJ. The 10 members of the Federation of Electric Power Companies (Chubu Electric, Chugoku Electric, Hokkaido Electric, Hokuriku Electric, Kansai Electric, Kyushu Electric, Okinawa Electric, Shikoku Electric, Tohoku Electric, Tokyo Electric). 21 Japanese companies (Electric Power Development Company, Fuji Xerox, Idemitsu Kosan, Itochu Corp, Japan Energy, the Japan Iron and Steel Federation, JGC Corp, Kyushu Oil, Marubeni Corp, Mitsubishi Corp, Mitsui & Co, Nippon Oil, Sharp, Sojitz Corp, Sony, Sumitomo Corp, Taiheiyo Cement, Terumo, Tokyo Gas, Toshiba, Toyota)
European Bank for Reconstruction and Development (EBRD)	Multilateral Carbon Credit Fund (MCCF)	(Target of €50-150 million)	The fund will purchase emission reduction credits from Clean Development Mechanism (CDM) and Joint-Implementation (JI) projects, and potentially purchase allowances in the EU ETS. It will only consider projects that the EBRD is already financing. Project development, monitoring, and commercial negotiations will be outsourced to the private sector.	February 05	Undisclosed but will generally target national governments, particularly in the EU. Not open to private investors.
European Investment Bank (EIB) & World Bank	Pan-European Carbon Fund (PECF)	(Target of $50-100 million)	The fund is designed to help both companies and national governments within the EU to comply with their obligations under the EU Emissions Trading Scheme and the Kyoto Protocol. Investments would be targeted at projects that qualify under the Clean Development Mechanism (CDM) and Joint-Implementation (JI). Participants in the fund will receive carbon credits in return for their investments.	Second-half 2005	Companies and countries within the European Union
KfW Bankengruppe (German Development Bank) & Investkredit Bank (Austria)	Carbon Fund	€18 million (Target of €50 million)	The fund is designed to purchase emission reduction credits from projects under the Clean Development Mechanism (CDM) and Joint-Implementation (JI). It is open to investors from Germany, Austria and abroad. The Investkredit Bank component aims to pool the resources of medium-sized Austrian companies which have reduction obligations that are too small for direct investment in the fund.	June 04	Initial investments made by KfW (€10 million) and the German Government (€8 million). Intended beneficiaries are investors covered by the EU Emissions Trading Scheme.
Nordic Environmental Finance Corporation	Baltic Sea Testing Ground Facility (TGF)	€15 million (Target €30 million)	The fund is designed to fund emission reduction projects that help the countries of the Baltic Sea Region to cost-effectively fulfill their obligations under the Kyoto Protocol. The fund will focus on projects that comply with Joint-Implementation (JI) rules, particularly in Eastern Europe. Investors in the fund receive emission reduction credits proportionate to their investment in the fund.	December 03	Various governments (Denmark, Finland, Germany, Iceland, Norway and Sweden) Private sector investors will be invited to participate in 2005
SenterNovem (on behalf of the Dutch Government)	Emission Reduction Unit Procurement Tender (ERUPT)	N/A	Senter runs this procurement facility on behalf of the Government of the Netherlands. The ERUPT program focuses on obtaining so-called "Emission Reduction Units" as defined under the rules of Joint Implementation (JI). Investment funds are focused on renewable energy and energy efficiency projects in Central and Eastern Europe. The credits generated by these projects are used by the Netherlands to help it meet its emission reduction goals.	2000	Government of the Netherlands
	Certified Emission Reduction Unit Procurement Tender (CERUPT)	N/A	Senter runs this procurement facility on behalf of the Government of the Netherlands. The CERUPT program focuses on obtaining so-called "Certified Emission Reductions" as defined under the rules of the Clean Development Mechanism (CDM). The credits generated by these projects are used by the Netherlands to help it meet its emission reduction goals.	2001	Government of the Netherlands
Government of Argentina	Argentine Carbon Fund (ACF)	N/A	Intention of the proposed fund is to attract national and international public and private funding for GHG reduction projects in Argentina. The fund will finance small and medium Clean Development Mechanism (CDM) projects. Key goals are to reduce risk associated with CDM projects in Argentina and reduce transaction costs.	Announced January 05	Government of Argentina

Coordinating Body	Fund Name	Capitalization as of May 2005	Fund Description	Launch Date	Fund Sponsors & Beneficiaries of GHG Reduction Credits
Private Sector-Coordinated Carbon Funds					
Equity Partnership Investment Company	Trading Emissions Plc	$258 million	The Trading Emissions Plc investment vehicle will invest mainly in GHG reduction credits generated through the Clean Development Mechanism (CDM) and Joint Implementation (JI) and also EU allowances. The fund strategy is to take aggressive long positions in carbon assets to help investee companies manage their carbon risks.	April 05	Credit Suisse, HSBC, Société Générale, JP Morgan. F&C Unit Management, Gartmore Investment Management, Jupiter Asset Management, and Moore Europe Capital Management
Fortis Bank & Caisse des Dépôts et Consignations (CDC)	European Carbon Fund (ECF)	€100 million (Target €100 million)	The fund will invest about 80% of its capital in carbon credits generated via the Clean Development Mechanism (CDM) and Joint Implementation (JI), with the remaining 20% allocated to the purchase of government greenhouse gas allowances. Unlike most funds, the ECF will pay its investors in cash, rather than in GHG reduction credits.	November 04	Caisse des Dépôts et Consignations (CDC) (France). Caixa Geral de Depositos (Portugal). Dexia (Belgium-France). Fortis Bank (Belgium). Société Générale (France).
Natsource Asset Management	Greenhouse Gas Credit Aggregation Pool (GG-CAP)	€82 million (Target €98.6 million	GG-CAP is designed to deliver GHG emission reduction credits that help firms and governments comply with their obligations under the EU Emissions Trading Scheme and the Kyoto Protocol. The pool aims to purchase and manage emission reduction credits and provide ancillary risk management services including diversification, risk management contracts and insurance.	February 05	Electricity Supply Board (Ireland) Chugoku Electric, Hokkaido Electric, Osaka Gas, Tokyo Gas Company, Okinawa Electric, Cosmo Oil Company (Japan) 2 other undisclosed companies
Rabobank	CDM Facility	$40 million	Under this arrangement Rabobank entered into an agreement to purchase 10 million tons of GHG emission reduction credits on behalf of the Dutch Ministry for Housing, Planning and the Environment. Purchases will be made of emission reductions sourced under the Clean Development Mechanism (CDM) in developing nations. Rabobank will participate as financier in all of the projects.	January 03	Government of the Netherlands
Asia Carbon International B.V.	Asia Carbon Fund™	(Target €200 million)	Intended to provide EU and Japanese corporations with low-cost emission reduction compliance solutions. Main focus is on renewable energy projects that will generate emission reduction credits under the Kyoto Protocol & EU ETS systems.	N/A	Undetermined EU and Japanese corporations
EcoSecurities & Standard Bank London	EcoSecurities-Standard Bank Carbon Facility	€10 million	The facility is designed to help governments and corporations obtain low-cost emission reduction credits that can be used to comply with the Kyoto Protocol and the EU Emissions Trading Scheme. The facility will buy emission reduction credits from Joint Implementation (JI) projects in Central and Eastern Europe and from Clean Development Mechanism (CDM) projects in Central Asia. Targeted projects include energy efficiency, fuel switching, methane capture or reduction of industrial emissions.	April 04	The Danish government is currently the sole funder. The facility aims to attract Danish industrial companies going forward
Less Carbon Ltd & Investec Bank & Cumbria Energy	ICECAP	N/A	The fund aims to acquire a portfolio of 40 million tonnes of GHG reduction credits in order to help investors meet or hedge their carbon emission reduction commitments.	March 04	Undisclosed

Source: Innovest/Carbon Finance

Appendix D: The FT 500 Companies and Response Status

Key:

Answered Questionnaire	AQ
Declined to Participate	DP
Provided Information/CSR Report/Website Link	IN
No Response	NR
Not part of FT500 sample that year	Not in CDP

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
ABB	AQ	NOT IN CDP2	AQ
Abbey National – see Banco Santander	AQ	AQ	AQ
Abbott Laboratories	NR	AQ	AQ
ABN Amro Holding	DP	AQ	AQ
Accenture	AQ	NOT IN CDP2	NR
Ace	NR	AQ	AQ
Adobe Systems	NR	NOT IN CDP2	AQ
Aegon	DP	NR	IN
Aeon	NOT IN CDP1	NOT IN CDP2	DP
Aetna	NOT IN CDP1	NR	AQ
Aflac	NR	DP	NR
AGF	NOT IN CDP1	NOT IN CDP2	AQ
Air Liquide	NR	AQ	AQ
Air Products & Chemicals	AQ	AQ	AQ
Al Rahji Banking & Investment Corp	NOT IN CDP1	NR	NR
Alcan	AQ	AQ	AQ
Alcatel	AQ	AQ	AQ
Alcoa	AQ	AQ	AQ
Alcon – see Nestle	AQ	NOT IN CDP2	AQ
Allianz	AQ	AQ	AQ
Allied Irish Banks	NOT IN CDP1	AQ	DP
Allstate	AQ	DP	DP
Alltel	DP	DP	AQ
Almanij – see KBC	NOT IN CDP1	NOT IN CDP2	AQ
Altria	NOT IN CDP1	DP	NR
Amazon.com	NOT IN CDP1	DP	NR
Ambev	NOT IN CDP1	NOT IN CDP2	AQ
America Movil	NR	NOT IN CDP2	NR
American Electric Power	AQ	AQ	AQ
American Express	DP	NR	NR
American International Group	AQ	AQ	AQ
Amgen	DP	DP	IN
Anadarko Petroleum	DP	NR	AQ
Analog Devices	DP	DP	NR
Anglo American	AQ	AQ	AQ
Anheuser-Busch	IN	DP	IN
Anthem	NOT IN CDP1	AQ	DP
AP Moller Maersk	NOT IN CDP1	DP	DP
Apache	NOT IN CDP1	DP	AQ
Apollo	NOT IN CDP1	DP	NR
Apple Computers	NOT IN CDP1	NOT IN CDP2	DP
Applied Materials	AQ	AQ	AQ
Arcelor	NOT IN CDP1	NOT IN CDP2	AQ
AstraZeneca	AQ	AQ	AQ
AT&T	AQ	DP	AQ
AT&T Wireless/ Cingular Wireless	DP	DP	NR
Australia & New Zealand Banking	AQ	AQ	AQ
Automatic Data Processing	DP	DP	IN
Autostrade	NOT IN CDP1	AQ	AQ
Aviva	AQ	AQ	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Avon Products	AQ	NR	AQ
AXA Group	AQ	AQ	AQ
Bae Systems	AQ	NOT IN CDP2	AQ
Baker Hughes	AQ	DP	AQ
Banca Intesa	NOT IN CDP1	NOT IN CDP2	IN
Banco Itau	NOT IN CDP1	NOT IN CDP2	AQ
Banco Popular Espanol	NOT IN CDP1	NR	NR
Banco Santander Central Hispano	AQ	AQ	AQ
Bank of America	AQ	AQ	AQ
Bank of Ireland	AQ	AQ	AQ
Bank of Montreal Quebec	IN	AQ	AQ
Bank of New York	NR	NR	AQ
Bank of Nova Scotia (Scotiabank)	DP	AQ	AQ
Barclays	AQ	AQ	AQ
Barrick Gold	AQ	AQ	AQ
BASF	AQ	AQ	AQ
Baxter International	AQ	AQ	AQ
Bayer	AQ	AQ	AQ
BB&T	NR	AQ	AQ
BBVA	AQ	AQ	AQ
BCE	AQ	AQ	AQ
Becton Dickinson	AQ	AQ	AQ
Bed Bath & Beyond	NR	NR	IN
Belgacom	NOT IN CDP1	NOT IN CDP2	AQ
Bellsouth	DP	DP	IN
Berkshire Hathaway	NR	DP	NR
Best Buy	NR	DP	DP
BG Group	AQ	AQ	AQ
BHP Billiton	AQ	AQ	AQ
Biogen Idec	NOT IN CDP1	NOT IN CDP2	AQ
Biomet	NOT IN CDP1	NR	NR
BMW	AQ	AQ	AQ
BNP Paribas	AQ	AQ	AQ
Boc Hong Kong	NOT IN CDP1	NR	DP
Boeing	DP	NR	DP
Boston Scientific	AQ	AQ	AQ
Bouygues	NR	NOT IN CDP2	DP
BP	AQ	AQ	AQ
Bridgestone	NR	DP	DP
Bristol Myers Squibb	AQ	AQ	AQ
British American Tobacco	AQ	AQ	AQ
British Sky Broadcasting	IN	AQ	AQ
BT	AQ	AQ	AQ
Burlington Northern Santa Fe	DP	AQ	AQ
Burlington Resources	NOT IN CDP1	DP	IN
Cadbury Schweppes	AQ	AQ	AQ
CIBC	AQ	AQ	AQ
Canadian National Railways	IN	DP	NR
Canon	AQ	AQ	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Capital One Financial	NR	NOT IN CDP2	DP
Cardinal Health	DP	DP	AQ
Caremark RX	NOT IN CDP1	NOT IN CDP2	DP
Carnival	NR	NR	NR
Carrefour	AQ	AQ	AQ
Caterpillar	DP	NR	AQ
Cathay Financial Holding	NOT IN CDP1	AQ	AQ
Cendant	DP	DP	NR
Central Japan Railway	DP	DP	IN
Centrica	AQ	AQ	AQ
Charles Schwab	NR	NR	NR
Cheung Kong	NR	NR	IN
ChevronTexaco	DP	AQ	AQ
China Mobile (Hong Kong)	DP	DP	NR
Chubb	DP	NR	IN
Chubu Electric Power	IN	AQ	AQ
Chungwa Telecom	NOT IN CDP1	NOT IN CDP2	DP
Cisco Systems	IN	AQ	AQ
Citigroup	AQ	AQ	AQ
Clear Channel Communications	AQ	DP	NR
Clorox	DP	DP	DP
CLP Holdings	AQ	AQ	AQ
CNOOC	NR	AQ	AQ
Coca Cola	IN	IN	AQ
Colgate-Palmolive	IN	AQ	AQ
Comcast	DP	DP	AQ
Commonwealth Bank of Australia	DP	IN	DP
Computer Associates International	DP	IN	AQ
ConAgra	NR	NR	NR
ConocoPhillips	AQ	AQ	AQ
Corning	NOT IN CDP1	NOT IN CDP2	AQ
Costco Wholesale	NR	NR	AQ
Countrywide Financial	NOT IN CDP1	NOT IN CDP2	DP
Cox Communications	NR	AQ	AQ
Credit Agricole	DP	AQ	AQ
Credit Suisse	AQ	AQ	AQ
CRH	NOT IN CDP1	AQ	AQ
CVS	DP	NR	AQ
DaimlerChrysler	AQ	AQ	AQ
Danaher	AQ	AQ	AQ
Danone	AQ	AQ	AQ
Danske Bank	DP	DP	AQ
DBS Group	NR	AQ	AQ
Deere	IN	IN	IN
Dell	DP	AQ	AQ
Denso	AQ	AQ	AQ
Deutsche Bank	AQ	AQ	AQ
Deutsche Post	AQ	AQ	AQ
Deutsche Telekom	AQ	AQ	AQ
Devon Energy	NOT IN CDP1	DP	AQ
Dexia	AQ	AQ	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Diageo	AQ	AQ	AQ
DirecTV	NOT IN CDP1	NOT IN CDP2	DP
Dominion Resources	NR	DP	IN
Dow Chemical	AQ	AQ	AQ
Du Pont	IN	AQ	AQ
Duke Energy	AQ	AQ	AQ
EADS	DP	NOT IN CDP2	AQ
East Japan Railway	AQ	AQ	AQ
Ebay	DP	AQ	AQ
Electrabel	AQ	AQ	AQ
Electronic Arts	NOT IN CDP1	DP	DP
Eli Lilly	AQ	AQ	AQ
EMC	IN	IN	IN
Emerson Electric	DP	AQ	AQ
Encana	NOT IN CDP1	IN	AQ
Endesa	AQ	AQ	AQ
Enel	AQ	AQ	AQ
Eni	AQ	AQ	AQ
Entergy	AQ	AQ	AQ
EON	AQ	AQ	AQ
Ericsson	DP	AQ	AQ
Etisalat	NR	NR	NR
Exelon	AQ	AQ	AQ
Exxon Mobil	IN	AQ	AQ
Fannie Mae	IN	IN	DP
Fanuc	DP	DP	AQ
Fedex	AQ	AQ	DP
Fifth Third Bancorp	NR	NR	AQ
First Data	DP	AQ	NR
FirstEnergy	DP	AQ	AQ
Ford Motor	AQ	AQ	AQ
Forest Laboratories	NR	NR	NR
Formosa Petrochemicals	NOT IN CDP1	NOT IN CDP2	NR
Fortis	NR	AQ	AQ
Fortum	NOT IN CDP1	NOT IN CDP2	AQ
Fox Entertainment Group	NOT IN CDP1	NR	DP
FPL Group	NR	AQ	AQ
France Telecom	AQ	AQ	AQ
Franklin Resources	AQ	DP	DP
Freddie Mac	NR	DP	DP
Fuji Photo Film	AQ	AQ	AQ
Fujitsu	AQ	NOT IN CDP2	AQ
Gannett	DP	IN	DP
Gap	AQ	AQ	AQ
Gazprom	NR	NR	AQ
Genentech	NR	NR	NR
General Dynamics	NR	NR	NR
General Electric	AQ	AQ	AQ
General Mills	AQ	AQ	AQ
General Motors	AQ	AQ	AQ
Generali	DP	DP	DP
Genzyme	NOT IN CDP1	AQ	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Gilead Sciences	NOT IN CDP1	DP	AQ
Gillette	AQ	AQ	AQ
GlaxoSmithKline	AQ	AQ	AQ
Golden West Financial	AQ	AQ	AQ
Goldman Sachs	DP	NR	IN
Great West Lifeco	NOT IN CDP1	DP	NR
Guidant	NR	DP	DP
GUS	AQ	AQ	AQ
Halliburton	NOT IN CDP1	AQ	AQ
Hang Seng Bank	DP	AQ	AQ
Harley-Davidson	NR	NR	DP
Hartford Financial Services	DP	DP	DP
HBOS	AQ	AQ	AQ
HCA	DP	DP	NR
Heineken	IN	AQ	AQ
Heinz (HJ)	DP	AQ	AQ
Hennes & Mauritz	AQ	AQ	AQ
Hewlett-Packard	AQ	AQ	AQ
Hitachi	AQ	AQ	AQ
Holcim	NOT IN CDP1	NOT IN CDP2	AQ
Home Depot	IN	DP	NR
Hon Hai Precision Industries	NOT IN CDP1	NOT IN CDP2	NR
Honda Motor	AQ	AQ	AQ
Honeywell International	NR	DP	AQ
Hoya	NOT IN CDP1	NOT IN CDP2	AQ
HSBC	AQ	AQ	AQ
Hutchinson Whampoa	NR	NR	IN
HypoVereinsbank	AQ	NOT IN CDP2	AQ
IAC / Interactive Corp	NOT IN CDP1	DP	DP
Iberdrola	AQ	AQ	AQ
Illinois Tool Works	NR	DP	NR
Imperial Oil	IN	IN	IN
Imperial Tobacco	NOT IN CDP1	AQ	AQ
Inbev	NOT IN CDP1	NOT IN CDP2	IN
Inditex	AQ	AQ	AQ
ING	AQ	AQ	AQ
Ingersoll-Rand	NOT IN CDP1	NOT IN CDP2	IN
Intel	AQ	AQ	AQ
International Business Machines (IBM)	AQ	AQ	AQ
International Game Technology	NOT IN CDP1	NOT IN CDP2	NR
International Paper	AQ	AQ	AQ
Ito Yokado	AQ	AQ	AQ
Japan Tobacco	AQ	NOT IN CDP2	AQ
JFE Holdings	NOT IN CDP1	NOT IN CDP2	AQ
Johnson & Johnson	IN	AQ	AQ
JP Morgan Chase	NR	DP	AQ
Juniper Networks	NOT IN CDP1	NOT IN CDP2	IN
Kansai Electric Power	AQ	AQ	AQ
Kao	AQ	AQ	AQ
KBC Bancassurance	AQ	AQ	AQ
KDDI	DP	DP	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Kellogg	DP	IN	IN
Keycorp	NR	DP	AQ
Kimberly-Clark	IN	AQ	AQ
Kingfisher	NOT IN CDP1	DP	AQ
Kohls	NR	NR	NR
Korea Electric Power	NR	NR	IN
KPN	AQ	AQ	AQ
Kraft Foods	DP	DP	AQ
Kroger	NR	NR	NR
Kyocera	AQ	AQ	AQ
L' Oreal	AQ	AQ	AQ
Lafarge	AQ	AQ	AQ
Legal & General	AQ	AQ	AQ
Lehman Bros	AQ	AQ	IN
Liberty Media	NR	NR	DP
Linear Technology	NR	NR	NR
Lloyds TSB	AQ	AQ	AQ
Loblaw	NR	AQ	AQ
Lockheed Martin	AQ	IN	AQ
Lowe's Companies	IN	IN	IN
Lucent Technologies	AQ	NOT IN CDP2	AQ
Lukoil	NR	NR	NR
LVMH	NR	AQ	AQ
M&T Bank	NOT IN CDP1	NOT IN CDP2	AQ
Manulife Financial	IN	IN	AQ
Marathon Oil	NOT IN CDP1	DP	AQ
Mariott International	NR	IN	IN
Marks & Spencer Group	AQ	AQ	AQ
Marsh & Mclennan	NOT IN CDP1	NR	AQ
Masco	NR	IN	IN
Matsushita Electric Industrial	AQ	AQ	AQ
Maxim Integrated Products	DP	NR	AQ
MBNA	NR	NR	AQ
McDonalds	AQ	DP	AQ
McGraw-Hill	IN	IN	IN
Mediaset	NR	DP	NR
Medtronic	NR	AQ	AQ
Mellon Financial	DP	DP	AQ
Merck	IN	IN	AQ
Merrill Lynch	AQ	AQ	AQ
Metlife	NR	NR	NR
Metro	DP	NOT IN CDP2	IN
Microsoft	DP	AQ	AQ
Millea	NOT IN CDP1	AQ	AQ
Minnesota Mining & Manafacturing (3M)	AQ	AQ	AQ
Mitsubishi	AQ	AQ	AQ
Mitsubishi Estate	NR	AQ	AQ
Mitsubishi Tokyo Financial	DP	AQ	AQ
Mitsui	AQ	AQ	AQ
Mitsui Sumitomo Insurance	NOT IN CDP1	NOT IN CDP2	AQ
Mizuho Financial	NR	DP	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
MM02	NOT IN CDP1	NOT IN CDP2	AQ
Mobile Telesystems	NOT IN CDP1	NOT IN CDP2	NR
Morgan Stanley	NR	DP	DP
Motorola	NR	AQ	AQ
Munich RE	AQ	AQ	AQ
Murata Manafacturing	AQ	AQ	AQ
National Australia Bank	AQ	AQ	AQ
National City	AQ	AQ	AQ
National Grid	AQ	AQ	AQ
NEC	AQ	NOT IN CDP2	AQ
Nestle	AQ	AQ	AQ
Newmont Mining	NOT IN CDP1	DP	AQ
News Corporation	AQ	AQ	DP
Nextel Communications	NOT IN CDP1	NR	IN
Nike	IN	AQ	AQ
Nintendo	NR	AQ	AQ
Nippon Steel	AQ	AQ	AQ
Nippon Telegraph & Telephone (NTT)	AQ	AQ	AQ
Nissan Motor	NR	DP	AQ
Nokia	AQ	AQ	AQ
Nomura	AQ	AQ	AQ
Nordea Bank	AQ	AQ	AQ
Norfolk Southern	NOT IN CDP1	IN	IN
Norilsk Nickel	NOT IN CDP1	NOT IN CDP2	DP
Norsk Hydro	AQ	AQ	AQ
Nortel Networks	AQ	AQ	AQ
Northrop Grumman	NR	DP	IN
Novartis	AQ	AQ	AQ
Novo Nordisk	AQ	AQ	AQ
NTT DoCoMo	AQ	AQ	AQ
Occidental Petroleum	AQ	AQ	AQ
Oil & Natural Gas	NOT IN CDP1	NR	NR
Omnicom	AQ	DP	NR
Oracle	NR	DP	AQ
Paccar	NOT IN CDP1	NOT IN CDP2	NR
Paychex	NR	NR	NR
Pepsico	AQ	AQ	AQ
Petro Canada	NOT IN CDP1	AQ	AQ
Petrobras	NR	AQ	AQ
Peugeot	IN	AQ	AQ
Pfizer	AQ	AQ	AQ
PG & E	NOT IN CDP1	NOT IN CDP2	AQ
Philips Electronics	AQ	DP	AQ
Pinault Printemps	AQ	NOT IN CDP2	NR
PNC Financial Services	NR	AQ	AQ
Portugal Telecom	AQ	AQ	AQ
Posco	AQ	NOT IN CDP2	AQ
Power Financial	NOT IN CDP1	DP	DP
Praxair	IN	AQ	AQ
Principal Financial	NOT IN CDP1	IN	IN
Proctor & Gamble	AQ	AQ	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Progressive Ohio	DP	DP	DP
Prudential Financial	DP	DP	DP
Prudential plc	AQ	AQ	AQ
PTT	NOT IN CDP1	NOT IN CDP2	IN
Qualcomm	NR	AQ	AQ
RAS	AQ	AQ	AQ
Raytheon	NR	DP	AQ
Reckitt Benckiser	AQ	AQ	AQ
Reed Elsevier	IN	AQ	AQ
Regions Financial	NOT IN CDP1	NOT IN CDP2	DP
Reliance Industries	NOT IN CDP1	NR	NR
Renault	AQ	AQ	AQ
Repsol	AQ	AQ	AQ
Resona	NOT IN CDP1	NOT IN CDP2	DP
Richemont	AQ	NOT IN CDP2	NR
Ricoh	AQ	AQ	AQ
Rio Tinto	AQ	AQ	AQ
Roche	AQ	AQ	AQ
Rohm	IN	AQ	AQ
Royal Bank of Canada	AQ	AQ	AQ
Royal Bank of Scotland	AQ	AQ	AQ
Royal Dutch / Shell	AQ	AQ	AQ
RWE	AQ	AQ	AQ
SABMiller	NOT IN CDP1	NOT IN CDP2	AQ
Saint Gobain	AQ	AQ	AQ
Samba Financial Group	NOT IN CDP1	NOT IN CDP2	NR
Samsung Electronics	NR	IN	AQ
San Paolo IMI	AQ	AQ	AQ
Sanofi-Aventis	AQ	AQ	AQ
SAP	DP	AQ	AQ
Sara Lee	AQ	AQ	AQ
Saudi Basic Industries	NR	NR	NR
Saudi Electricity	NOT IN CDP1	NR	AQ
Saudi Telecom	NOT IN CDP1	NR	NR
SBC Communications	NR	DP	IN
Schering	IN	AQ	AQ
Schering-Plough	AQ	AQ	AQ
Schlumberger	AQ	AQ	AQ
Schneider Electric	AQ	AQ	AQ
Scottish & Southern Energy	NOT IN CDP1	AQ	AQ
Scottish Power	IN	AQ	AQ
Seven-Eleven	AQ	AQ	AQ
Sharp	AQ	AQ	AQ
Shell Canada	AQ	AQ	AQ
Shin Etsu Chemical	AQ	AQ	AQ
Siemens	AQ	DP	AQ
Simon Property Group	NOT IN CDP1	NOT IN CDP2	AQ
Singapore Telecom	NR	AQ	AQ
SK Telecom	NR	AQ	AQ
SLM	NOT IN CDP1	NR	NR
Societe Generale	AQ	AQ	AQ
Softbank	NOT IN CDP1	NOT IN CDP2	DP

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Sony	AQ	AQ	AQ
Southern	AQ	AQ	AQ
Southtrust – see Wachovia	NOT IN CDP1	DP	AQ
Sprint	DP	IN	IN
St. Paul travellers	NR	AQ	AQ
St.Jude Medical	NOT IN CDP1	AQ	DP
Standard Chartered	IN	AQ	AQ
Staples	NOT IN CDP1	DP	AQ
Starbucks	NOT IN CDP1	AQ	AQ
State Street	IN	AQ	AQ
Statoil	AQ	AQ	AQ
STMicroelectronics	DP	AQ	AQ
Stora Enso	AQ	AQ	AQ
Stryker	DP	NR	NR
Suez – See Electrabel	AQ	AQ	AQ
Sumitomo Mitsui Financial	NR	DP	AQ
Sun Hung Kai Properties	DP	NR	NR
Sun Life Financial	DP	DP	AQ
Sun Microsystems	NR	NR	AQ
Suncor Energy	NOT IN CDP1	AQ	AQ
Suntrust Banks	NR	DP	IN
Surgutneftegas	NR	NR	AQ
Svenska Handelsbanken	A	AQ	AQ
Swiss Re	A	AQ	AQ
Swisscom	A	AQ	AQ
Symantec	NOT IN CDP1	NOT IN CDP2	DP
Synthes	NOT IN CDP1	NOT IN CDP2	DP
Sysco	NR	IN	IN
Taiwan Semiconductor Manufacturing	NR	NR	AQ
Takeda Pharmaceutical	NR	AQ	AQ
Target	DP	DP	AQ
Telecom Italia	A	AQ	AQ
Telecom Italia Mobile	NR	AQ	AQ
Telefonica	A	AQ	AQ
Telenor	NOT IN CDP1	NOT IN CDP2	AQ
TeliaSonera	NR	AQ	AQ
Telmex	NR	DP	DP
Telstra	AQ	AQ	AQ
Tesco	DP	AQ	AQ
Teva Pharmaceutical	NOT IN CDP1	NOT IN CDP2	DP
Texas Instruments	AQ	AQ	AQ
Thomson	AQ	AQ	AQ
Time Warner	NOT IN CDP1	IN	DP
Tokyo Electric Power	AQ	AQ	AQ
T-Online – see Deutsche Telekom	AQ	DP	AQ
Toronto-Dominion bank	NR	IN	AQ
Toshiba	AQ	AQ	AQ
Total	AQ	AQ	AQ
Toyota Motor	NR	AQ	AQ
TPG	AQ	AQ	AQ

Company Name	Response Status CDP1	Response Status CDP2	Response Status CDP3
Transocean	NR	NOT IN CDP2	AQ
Tribune	DP	AQ	AQ
TXU	AQ	NOT IN CDP2	AQ
Tyco International	NR	DP	IN
UBS	AQ	AQ	AQ
UFJ Holdings	NR	NOT IN CDP2	NR
Unicredito Italiano	AQ	AQ	AQ
Unified Energy Systems	NOT IN CDP1	NOT IN CDP2	AQ
Unilever	AQ	AQ	AQ
Union Pacific	DP	DP	AQ
United Parcel Services	AQ	AQ	AQ
United Technologies	IN	AQ	AQ
UnitedHealth	DP	AQ	AQ
Unocal	IN	NOT IN CDP2	IN
US Bancorp	NR	NR	AQ
Vale do Rio Doce	AQ	NR	NR
Veolia Environnement	NOT IN CDP1	NOT IN CDP2	AQ
Verizon Communications	DP	AQ	AQ
Viacom	NR	NR	AQ
Vivendi Universal	AQ	AQ	AQ
Vodafone	AQ	AQ	AQ
Volkswagen	AQ	AQ	AQ
Volvo	NOT IN CDP1	AQ	AQ
Wachovia	DP	AQ	AQ
Wal Mart de Mexico	AQ	AQ	AQ
Wal Mart Stores	NR	IN	DP
Walgreen	DP	DP	IN
Walt Disney	NR	IN	IN
Washington Mutual	DP	DP	AQ
Waste Management	DP	AQ	AQ
Wellpoint Health Network	NOT IN CDP1	NR	NR
Wells Fargo	IN	AQ	AQ
Westpac Banking	AQ	AQ	AQ
Weyerhaeuser	NR	AQ	AQ
Wm. Wrigley Jr	NR	NR	NR
Wyeth	IN	AQ	AQ
Xerox	NOT IN CDP1	NOT IN CDP2	AQ
Yahoo	NR	NR	AQ
Yahoo Japan	NOT IN CDP1	NOT IN CDP2	IN
Yamanouchi Pharmaceuticals (Astellas)	NOT IN CDP1	AQ	AQ
Yum! Brands	NOT IN CDP1	NOT IN CDP2	DP
Zimmer	NOT IN CDP1	AQ	AQ
Zurich Financial Services	NR	AQ	AQ

Appendix E

CDP Questionnaire

Carbon Disclosure Project (CDP) Greenhouse Gas Emissions Questionnaire 1 February 2005

We request as full a reply as possible to the following questions by no later than 31st May 2005. Please send your response electronically, in English, to the Project Coordinator at info@cdproject.net. If you already publish the relevant information, please indicate for each question how this can be accessed. If at this stage you can only provide indicative information we would still welcome this; "a best guess" is more valuable to us than no response. If you are unable to answer any of these questions please state the reasons why. This is the third CDP information request (CDP3); for previous respondents, please highlight developments and trends since CDP2.

1. General: Do you believe climate change, the policy responses to climate change and/or adaptation to climate change represent commercial risks and/or opportunities for your company?

- If yes, specify the implications, detail the strategies adopted and actions taken to date.
- If no, please indicate why.

2. Responsibility: Do you allocate specific responsibility to executive and independent directors for climate change related issues?

- If yes, what is the title of the person/department/board committee with this responsibility?
- If no, are you planning on doing so, and if so when?

3. Innovation: What are the relevant technologies and/or processes that can be employed in your company/sector to achieve emission reductions? Have you taken any steps to develop/implement these technologies and do you anticipate being able to profit from their commercialisation?

4. Emissions Trading: Do you have a strategy regarding emerging greenhouse gas emissions regulation and trading initiatives such as the EU Emissions Trading Scheme and the Chicago Climate Exchange?

- If yes, specify the implications, detail the strategies adopted and actions taken to date.
- If no, are you planning on doing so, and if so when?

5. Operations[1]**:** What is the quantity in tonnes CO_2e of annual emissions of the six main GHG[2]s produced by your owned and controlled facilities in the following areas?

- Globally.
- Annex B countries of the Kyoto Protocol.
- EU Emissions Trading Directive.

6. Products and services: Do you estimate the emissions associated with:

- Use and disposal of your products and services[3]?
- Your supply chain.
- Other indirect emissions (e.g. business travel)

If yes, for each of the above, please provide further information.
If no, are you planning on doing so and if so when?

7. Emissions reduction: Do you have emission reduction programmes in place?

- If yes, when were they established and what are the targets? What have been the reductions achieved, the investment involved and the associated costs or savings? Please also detail any targets relating to Questions 6 and anticipated costs or savings.
- If no, are you planning on doing so, and if so when?

8. Emissions intensity: Do you measure emissions intensity against production, sales or other output measures?

- If yes, what is your historical and current intensity data? What are your emissions intensity targets?
- If no, are you planning on doing so and if so when?

9. Energy costs: What percentage of your total revenue is represented by the costs of fossil fuels and electric power?

1. Please specify the methodology and boundaries used for measuring emissions e.g. www.ghgprotocol.org. Explain if these data are audited and/or externally verified. If responding for the first time please supply data for the last three annual measurement cycles.
2. Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), Hydroflurocarbons (HFCs), Perfluorcarbons (PFCs) and Sulphur Hexafluoride (SF_6).
3. For example, if you are a financial services company, do you take into account the emissions related risks and/or opportunities of the companies you invest in, lend to, or insure.

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In May 2004, the Carbon Disclosure Project secretariat invited me to speak at the launch of CDP2. At that time, investors representing assets in excess of US$10 trillion dollars had signed up. Of the 500 largest companies in the world, only 59% had responded to the CDP questionnaire, which prompted me to say, “there is still a long way to go”.

I am impressed that the CDP has grown so quickly since then. The CDP3 information request was signed by 155 investors with assets in excess of US$20 trillion, with 71% of the FT 500 corporations providing information.

The Carbon Disclosure Project has helped us all to focus on the things we can do to play our part in the future low carbon economy. Over the last year, HSBC has launched three-year, company-wide targets to reduce energy use and carbon dioxide emissions. We have committed to become a carbon neutral company by January 2006 and we have started to identify business opportunities in renewable energy technologies.

We have a lot of work ahead to meet those targets, but they will help us achieve a better, more efficient business where we can show benefit from measuring, managing and reporting more about our response to climate change. The fact that so many other companies appear to think the same way is encouraging for today’s business and for future generations.

Sir John Bond
Group Chairman, HSBC Holdings plc

Designed by Rufus Leonard, one of the UK’s leading brand and digital media consultancies. Established for 15 years, we work with UK and global businesses including BT, Lloyds TSB, Shell, Credit Suisse Asset Management and O2. We were the first sponsor of CDP and the project is housed in our offices. **www.rufusleonard.com**

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