CARBON DISCLOSURE PROJECT

CDP 2009 Industry Snapshots
Global 500/S&P 500/FTSE 350

Report written for
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Industry snapshots

Consumer Discretionary sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

At the moment, there are three different institutions to regulate fuel economy standards in the United States. First, there is a federal standard released by the US Environmental Protection Agency. Beneath that, there are National Highway Traffic Safety Administration standards and a California Air Resources Board standard. The last one is the most stringent one for BMW. Because of the economic crisis, especially for the Big Three in Detroit, and the new US president, it is not very clear how strict the new laws will be.

BMW Bayerische Motoren Werke

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Consumer Discretionary companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Consumer Discretionary
Response rate[1]	**66% (103 of 156)**
Global 500	76% (28 of 37)
S&P 500	59% (47 of 80)
FTSE 350	72% (44 of 61)
Overall sector rank (1-10)[2]	**10th**
Highest disclosure score	87
Lowest disclosure score	0
Average disclosure score	50
Overall emissions disclosure[3]	
Scope 1 emissions	81% (68 million Mt/CO_2-e)
Scope 2 emissions[4]	82% (139 million Mt/CO_2-e)
Scope 3 emissions	52% (425 million Mt/CO_2-e)
Average emissions intensity[5]	99 (Mt CO_2-e/US$ million revenue)

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

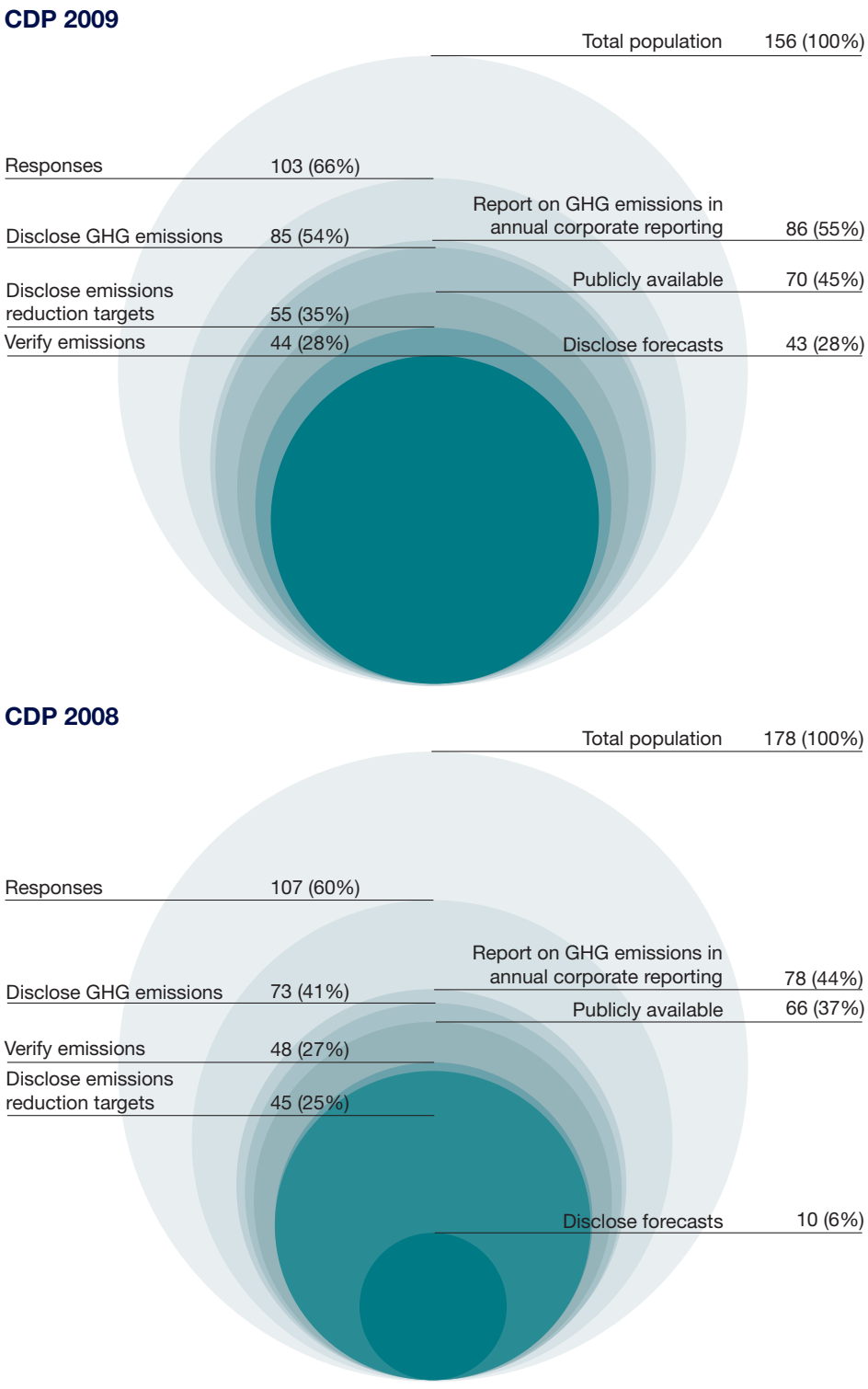
2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

Fig. A: Year-on-year disclosure rates, as a proportion of total Consumer Discretionary companies (Global 500, S&P 500 and FTSE 350)



Carbon disclosure trends in the Consumer Discretionary sector

Diversity is a hallmark of the Consumer Discretionary sector. Respondents represent businesses ranging from advertising agencies to big-box retailers and cruise lines, to windshield wiper manufacturers. Consequently, industry views on energy efficiency and climate change issues vary according to the unique idiosyncrasies, demands and expectations of each industry.

A look at the types of respondents that make up the Consumer Discretionary sector reveals the sector's variety. The five Consumer Discretionary industries are automobiles and components (auto and motorcycle manufacturers, auto parts); consumer durables and apparel (household items including electronics, appliances, home furnishings, clothing and accessories, luxury items); consumer services (restaurants and leisure, diversified services); media (advertising, TV, movies and entertainment, publishing); and retailing (distributors, Internet and catalog retail, multiline and specialty retailers).

Many companies within the Consumer Discretionary sector operate or rely on extensive retail networks or own large real estate portfolios and therefore recognize the physical risks related to severe-weather events. Many also operate within razor-thin margins that make minor price increases in utilities or raw material costs significant concerns.

Although the Consumer Discretionary sector as a whole had the lowest average carbon disclosure score among all ten sectors reporting and the third-lowest response rate, a closer look at the individual company scores that make up the sector reveals a more complex picture. Within the group, respondents that manufacture automobiles and consumer durables along with Internet and catalog retailers have higher disclosure scores than their sector peer group does.

Across geographies, a higher percentage of Consumer Discretionary companies responded[6] to the CDP in 2009, up six percentage points from 2008. The proportion of Consumer Discretionary companies responding at each disclosure level also increased in 2009 for all key areas of disclosure (see Figure A).

6 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

The US Congress and several states are currently pursuing climate change legislation. NIKE is working at both the state and federal levels to secure their passage, preferably in advance of the COP15 United Nations Climate Change Conference in Copenhagen in 2009. NIKE also works with bodies to monitor and support legislation. In 2008, NIKE worked with CERES to create a coalition of businesses called Business for Innovative Climate & Energy Policy (BICEP), which presses for the passage of comprehensive climate change and energy legislation in the United States

NIKE

Few Consumer Discretionary respondents reported that the poor economy was causing them to delay carbon reduction plans. In fact, the anticipated increase in utility costs seemed to justify spending more now to reduce future energy needs. Also, some respondents noted that they committed to carbon reduction plans in 2006 or 2007 and had already made the majority of their capital expenditures before the recession began.

A number of respondents are addressing climate change issues proactively from both internal and external perspectives. Internally, those respondents may calculate the carbon footprint of their operations and their supply chains to help identify and track opportunities for increased energy efficiency, or they may form office programs to help shift employee behaviors to effectively reduce overall carbon emissions. Externally, some respondents are working with nongovernmental organizations to actively monitor and support relevant legislation.

Consumer Discretionary leaders for carbon disclosure are listed below in the order of their disclosure score. While the remaining Consumer Discretionary respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

Fig. B. Disclosure score leaders for the sector[7]

Global 500 leaders

Company name	Disclosure score
Carnival	87
BMW Bayerische Motoren Werke	79
Toyota Motor	77
Reed Elsevier	76
News Corporation	75

S&P 500 leaders

Company name	Disclosure score
Carnival	87
News Corporation	75
Stanley Works	75
Limited Brands	74
Darden Restaurants	69
Johnson Controls	69

FTSE 350 leaders

Company name	Disclosure score
Carnival	87
Reed Elsevier	76
N Brown Group	75
Wetherspoon	75
Berkeley Group Holdings	72

7 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the CDLI for the index overall when all ten sectors are considered.

One-third of Consumer Discretionary companies (34%, or 53 companies) chose not to participate. The largest non-respondents are listed in Fig. C based on their market capitalization.

When compared with a cross section of global leaders for carbon disclosure, Consumer Discretionary companies' disclosure scores closely follow global leaders in the quality of their climate-related efforts; including their Scopes 1 and 2 emissions and the accountability structures and employee incentives they have in place to reduce greenhouse gas (GHG) emissions. However, they lag in nearly all other areas, particularly in the reporting of Scope 3 emissions and the disclosing of emissions reduction targets. US S&P 500 companies, the largest number of companies in the sector, also continue to lag their peers in other geographic regions (see Figure D).

Risks and opportunities

In 2009, 81% (83) of Consumer Discretionary respondents reported at least one significant risk related to climate change, and 83% (85) reported business opportunities – primarily opportunities to meet changing consumer demand. Consumer Discretionary respondents frequently noted the rising costs of utilities and natural resources as significant risks.

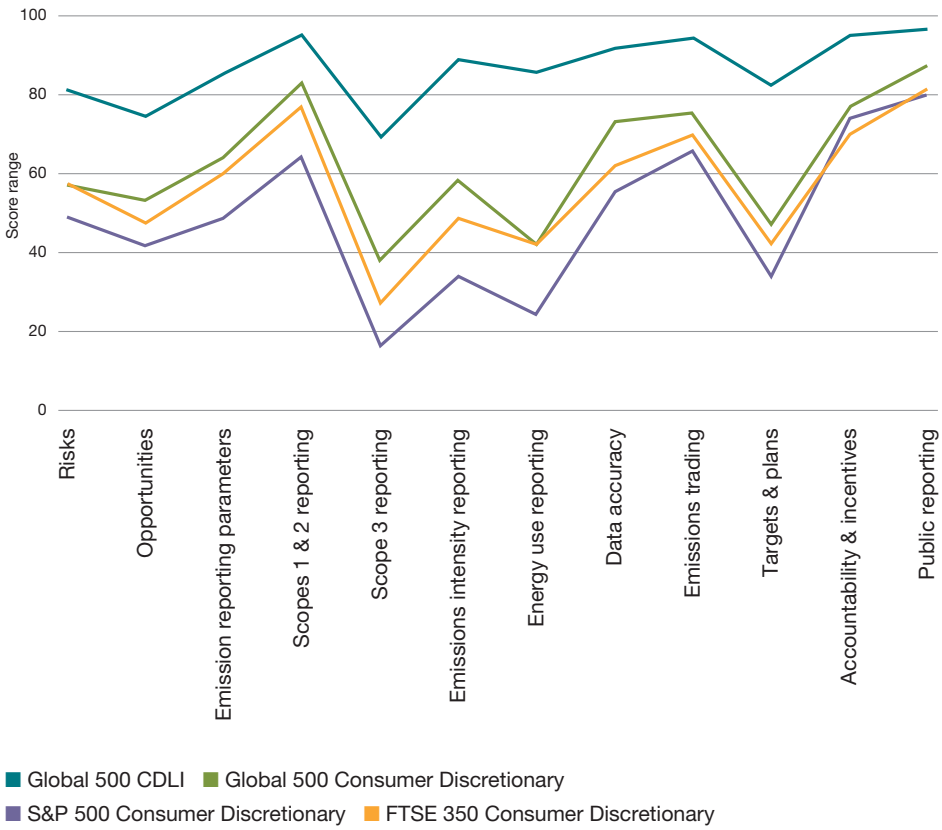
Physical risks that could disrupt a company's supply chain or operational efficiency were reported by 79% (22) of Global 500 respondents, 66% (31) of S&P 500 respondents and 74% (32) of FTSE 350 respondents. Physical risks for this sector concerned the impacts of adverse weather conditions and/or natural disasters – specifically, increased storm and hurricane activity followed closely by drought or flood occurrences and operational disruptions due to severe weather events.

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization[8]

Company name	Index
Comcast	Global 500, S&P 500
Amazon.com	Global 500, S&P 500
DIRECTV Group	Global 500, S&P 500
DENSO Corporation	Global 500
Hermes International	Global 500

Fig. D: Score breakdown for Consumer Discretionary within each index versus the global leaders[9]



8 Market data retrieved from Bloomberg as of June 18, 2009.

9 The 2009 Global 500 Carbon Disclosure Leadership Index is an index of the top 10% of companies with the highest disclosure scores in the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net.

Costs of business travel and goods transportation may also increase due to cap-and-trade programs. The aviation sector will likely be included in the EU ETS [European Union's Emissions Trading System] as of 2012, and shipping is discussed for inclusion in the EU ETS in the longer term. Increasingly stringent vehicle emission standards also increase costs of road transportation by pushing transport service providers to invest in new vehicles that meet requirements.

H&M
Hennes & Mauritz

The costs of raw materials – primarily energy and paper [are risks]. We manage this by arranging long-term fixed-price contracts our paper and energy procurement. Storm damage and extreme cold can affect tree harvests, impacting virgin fiber supply and availability of printed directories. Extreme cold, flooding, or snowfall could affect our ability to visit customers and deliver our products.

Yell

The CRC [Carbon Reduction Commitment] system provides us with a good opportunity to compare ourselves with our peers and companies of the same size. Over time, we will be able to improve our efficiency and reduce our spending on the system relative to the size of our operations. There is also the added incentive to improve our performance so that we receive larger revenue from recycling payments.

Compass

Regulatory risks related to climate change were reported by 79% (22) of Global 500 respondents, 62% (29) of S&P 500 respondents and 84% (36) of FTSE 350 respondents.

Though many respondents indicated they would not be directly impacted by regulatory risks, a significant percentage mentioned indirect risk related to statutory emissions limits or emissions trading systems, as well as meeting changing energy efficiency standards. These risk factors may result in increased costs or may change consumers' buying behaviors.

Many UK Consumer Discretionary respondents said the Carbon Reduction Commitment (CRC)[10] and its potential cash flow requirements to purchase carbon allowances were risks.

Though the CRC affects only respondents operating in the United Kingdom, several non-UK respondents noted that the uncertainty of anticipated climate change legislation within their local jurisdictions was a factor in identifying carbon reduction plans.

Some Consumer Discretionary industries, such as the automotive industry, must comply with a plethora of international and national standards and regulations. Though compliance with these existing requirements may be standard operating procedure for automotive respondents, the ongoing costs required to maintain compliance and the uncertainty related to pending legislation remain formidable challenges.

Overall, respondents expressed the need to reduce emissions and realize cost savings through energy efficiency strategies.

These strategies also include making investments to replace existing equipment with new, more efficient models and realigning distribution networks to reduce transportation costs.

Some respondents disclosed how multiple climate change risks could potentially cascade into one another and eventually impact their brands and reputations.

"There is a potentially significant risk arising from general damage to the economy and prolonged recession caused by a combination of high energy prices, high carbon prices, high levels of climate-related taxation or regulation, and the direct effects of a changed climate. The final risk relates to the public goodwill wrapped up in our corporate reputation and brands. As climate change becomes more of an accepted public fact, we are seeing companies' responses to it being used as something of a litmus test of their commitment to other social and environmental matters. There is, therefore, a risk to our reputation and brand equity – from being seen to be laggardly or reluctant in our response or from inappropriate or insincere communications on the topic."
Home Retail Group

The duality of risks presented by climate change was noted by some respondents, who viewed current and pending climate regulations not as limitations but as opportunities for innovation.

While carbon trading continues to evolve globally, a number of respondents noted that they are participating in the voluntary carbon markets to help fund additional reduction programs.

NIKE has participated in the emerging voluntary market by procuring a total of 111,000 tons of CO_2 to offset nearly one-half of the CO_2 emissions from our business travel during that period. We now have an opportunity to sell excess carbon credits to fund efforts to reduce our supply chain's greenhouse gas emissions footprint in underserved or excluded communities.

NIKE

Complete company responses to CDP can be downloaded from www.cdproject.net

10 For more about the Carbon Reduction Commitment, see http://www.defra.gov.uk/environment /climatechange/uk /business/crc/about.htm.

Insights from the performance score pilot

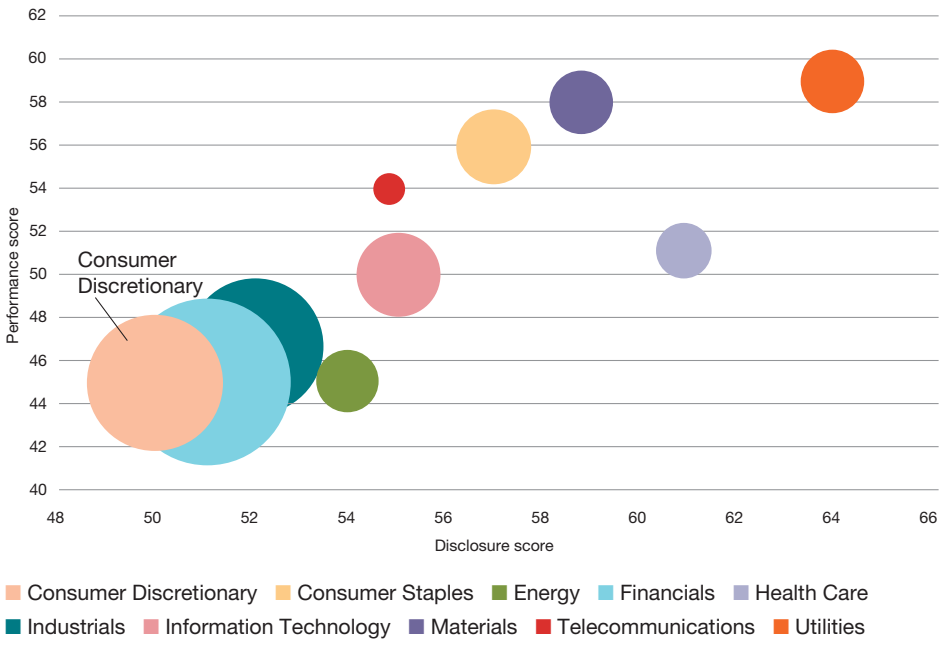
The CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Consumer Discretionary sector scored tenth overall for disclosure and tenth for performance. The chart below shows how the sector compares with the other sectors for performance.

As 2009 is the first year of use of the performance scoring methodology,[11] individual company performance scores are not shown in the CDP 2009 reports, but we provide comment on initial findings below.

- Three Consumer Discretionary respondents – **BMW Bayerische Motoren Werke**, **Sony Corporation** and **Toyota Motor** – tied for the top-performing respondent.
- Consumer Discretionary Global 500 respondents generally outperform their S&P 500 and FTSE 350 peers in all areas scored for performance. They show stronger performance than their industry peers in the development of goods and services that enable customers to reduce GHG emissions, in establishing emissions reduction targets and plans and in having accountability structure incentives in place for employees to meet those targets.
- Consumer Discretionary S&P 500 respondents generally outperformed their FTSE 350 industry peers in the areas of maximizing the opportunities related to climate change, identifying risks associated with climate change, and developing goods and services that enable customers to reduce GHGs.
- Consumer Discretionary FTSE 350 respondents showed stronger performance than their S&P 500 peers in making progress towards meeting emissions reduction targets and plans, in having accountability structures and incentives in place for employees to meet those targets, and in making investments in lower-carbon technologies that improve operational efficiency.

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

11 For more about the performance scoring methodology, see http://www.cdproject.net/ 2009CDLImethodology.asp

Regulatory requirements can generally be seen as incentives for innovation – specifically, innovation in production processes and products. Innovation advances the acceptance for new, more efficient car models and creates new markets. An early picking and implementing of these incentives can lead to competitive advantage.

Volkswagen

As evidenced by severe weather events that have occurred throughout the world in the past few years, when those events impact areas where there is heavy oil production, supplies can be disrupted or reduced, and cost may increase dramatically.

Limited Brands

The majority of Consumer Discretionary respondents have assigned a Board member or senior executive body with overall responsibility for climate change (72%, or 73 respondents). Half have GHG emissions and/or energy reduction plans in place 54% (55), but only 35% (36) incorporate emissions reduction targets into accountability/incentive structures.

Overall, Consumer Discretionary respondents have relatively high rates of disclosing GHG emissions to the public in annual reports or other mainstream filings (84%, or 86 respondents), publishing corporate social responsibility reports (79%, or 81 respondents), and engaging regularly with stakeholders on climate-related 60%, 61 respondents for engaging with stakeholders on climate related issues.

Conclusion

Across geographies, Consumer Discretionary respondents are improving their disclosures in nearly every area and setting a faster pace for competitors to follow. Leaders for disclosure can be found in all geographies, yet Global 500 respondents lead the pack compared with FTSE 350 and S&P 500 industry peers. By continuing to monitor potential legislation, improve energy efficiency, and respond to changing market and consumer expectations related to climate change, savvy Consumer Discretionary companies can mitigate the associated risks and gain market advantage.

As consumers increasingly demand lower-carbon products and services, investors should continue to look for companies that balance the needs of the marketplace with the needs of the climate. How those companies leverage their reputations as trusted, socially responsible corporate citizens provides important insights into their future success.

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Consumer Discretionary scores and emissions by company[12]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
888 Holdings	F	AQ	AQ	24	NP											
Abercrombie & Fitch	S	NR	NR													
Aegis Group	F	AQ	AQ	64		14	18,170		18,170		13,530				x	x
Amazon.com	G, S	NR	DP													
Apollo Group	G, S	DP	NR													
AutoNation	S	NR	DP													
AutoZone	S	NR	NR													
Bed Bath & Beyond	S	AQ	AQ	25	NP											
Bellway	F	AQ	AQ	60		7	8,467	5,076	3,391	*						
Berkeley Group Holdings	F	AQ	AQ	72		5	5,228	684	4,544		2,742				x	
Best Buy	S	AQ	AQ	54	NP											
Big Lots	S	AQ	AQ	30		99	460,886		460,886							
Black & Decker	S	AQ	AQ	50		37	223,226	38,449	184,777							
BMW Bayerische Motoren Werke	G	AQ	AQ	79		17	1,250,461	375,425	875,036	*	395,297		x		x	
Bovis Homes Group	F	AQ	AQ	40		6	1,711	976	735		847				x	
Bridgestone	G	AQ	–	54	NP											
British Sky Broadcasting	G, F	AQ	AQ	42		9	45,068	23,793	21,275		31,547	x		x	x	
Burberry Group	F	AQ	AQ	57		24	23,542	2,191	21,351		1,843				x	
Carnival	G, S, F	AQ	AQ	87		703	10,298,265	10,247,517	50,748	144	19,150	x	x	x		

12 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Carpetright	F	NR	NR													
Carphone Warehouse	F	NR	AQ													
CBS	S	AQ	AQ	21	NP											
Centex	S	IN	IN													
Coach	S	DP	DP													
Comcast	G, S	IN	IN													
Compass	F	AQ	AQ	46		8	91,870	82,700	9,170							
Daily Mail & General Trust	F	AQ	AQ	49		39	90,076	18,940	71,136		28,159		x		x	
Daimler	G	AQ	AQ	65	NP											
Darden Restaurants	S	AQ	AQ	69		162	1,075,223	324,835	750,388	*	6,226				x	
Debenhams	F	AQ	DP	54		98	180,632	18,063	162,569	*	1,519				x	x
Denso	G	NR	AQ													
Dignity	F	AQ	NR	67		140	24,650	13,727	10,923							
DIRECTV Group	G, S	NR	DP													
Dominos Pizza	F	DP	–													
DSG International	F	NR	NR													
Dunelm Group	F	NR	–													
Eaga	F	NR	AQ													
Eastman Kodak	S	AQ	AQ	50	NP											
Enterprise Inns	F	AQ	AQ	22	NP											
Euromoney Institutional Investors	F	AQ	AQ	53		14	4,680	1,865	2,815		5,635				x	
Expedia	S	NR	NR													
Family Dollar Stores	S	DP	DP													
Fast Retailing	G	NR	–													
Ford Motor	S	AQ	AQ	51	NP											
Fortune Brands	S	NR	IN													
Game Group	F	NR	NR													
GameStop	S	NR	NR													
Gannett	S	NR	DP													
Gap	S	AQ	AQ	25						*						
General Motors	S	AQ	AQ	48		669	99,700,000	24,300,000	75,400,000							
Genuine Parts	S	DP	NR													
GKN	F	AQ	AQ	53	NP											
Goodyear Tire & Rubber	S	NR	AQ													
Greene King	F	AQ	AQ	44		170	163,523	54,247	109,276							
H&M Hennes & Mauritz	G	AQ	AQ	58		16	178,616	5,273	173,343	100,792	174,570		x		x	
H&R Block	S	AQ	AQ	19	NP											
Halfords Group	F	NR	AQ													
Harley-Davidson	S	NR	NR													
Harman International Industries	S	NR	NR													
Hasbro	S	DP	NR													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Hermes International	G	DP	–													
HMV Group	F	NR	DP													
Home Depot	G, S	AQ	AQ	11	NP											
Home Retail Group	F	AQ	AQ	49		48	285,000	138,400	146,600	73,000						
Honda Motor Company	G	AQ	AQ	56		33	3,591,000	1,220,000	2,371,000		74,893		x			
Inchcape	F	AQ(L)	AQ(L)		NP											
Inditex	G	AQ	AQ	59		22	316,668	25,182	291,486		37,878		x			
Informa	F	AQ	AQ	47	NP											
InterContinental Hotel Group	F	AQ	NR	43		2540	4,600,000		4,600,000		4,400,000				x	
International Game Technology	S	NR	NR													
Interpublic Group of Companies	S	AQ	AQ	36	NP											
ITV	F	AQ	AQ	23	NP											
J.C. Penney	S	AQ	AQ	52		61	1,216,850	103,850	1,113,000		7,251				x	
Johnson Controls	G, S	AQ	AQ	69		45	1,714,631	458,324	1,256,307	*	72,813				x	
Jones Apparel Group	S	NR	NR													
KB Home	S	AQ	AQ	58		14	42,204		42,204	*						
Kesa Electricals	F	AQ	AQ	9	NP											
Kingfisher	F	AQ	AQ	67		61	549,382	148,621	400,761		63,000		x		x	x
Kohl's	G, S	AQ	AQ	68		50	816,144	27,156	788,988	*	182,154		x			
Ladbrokes	F	AQ	AQ	35	NP											
Leggett & Platt	S	AQ	DP	42	NP											
Lennar	S	DP	DP													
Limited Brands	S	AQ	AQ	74		38	385,008	31,631	353,377		254,767		x		x	
Loews	G, S	NR	DP													
Lowe's	G, S	AQ	NR	57	NP											
LVMH	G	AQ	AQ	72		10	238,498	46,358	192,140		370,348		x	x		x
Macy's	S	AQ	AQ	14	NP											
Marks & Spencer Group	F	AQ	AQ	65		65	589,126	126,283	462,843	215,502	5,121,023	x	x	x	x	
Marriott International	S	AQ	AQ	44		217	2,800,122	568,938	2,231,184							
Marstons	F	AQ	AQ	47	NP											
Mattel	S	AQ	AQ	30		39	233,494	21,155	212,339							
McDonald's	G, S	AQ	AQ	38	NP											
McGraw-Hill	S	AQ	AQ	37		16	99,331	13,967	85,364							
Meredith	S	AQ	AQ	0												
Millennium & Copthorne Hotels	F	DP	IN													
Mitchells & Butlers	F	AQ	AQ	21	NP											
Mothercare	F	AQ	–	57		41	28,000	2,500	25,500		9,219		x		x	
N Brown Group	F	AQ	AQ	75		16	9,633	2,810	6,823	*	420				x	x
New York Times	S	AQ	AQ	17	NP											
Newell Rubbermaid	S	NR	AQ													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
News Corporation	G, S	AQ	AQ	75		19	637,274	108,931	528,343		177,650			x	x	x
Next	F	AQ	AQ	67	NP											
NIKE	G, S	AQ	AQ	41		6	109,284		109,284		1,526,404		x	x	x	
Nissan Motor	G	AQ	AQ	69		29	2,440,000	909,000	1,531,000	*	170,862,000	x	x		x	
Nordstrom	S	AQ	NR	22	NP											
Office Depot	S	AQ	AQ	55		33	485,600	96,300	389,300		49,000		x			
Omnicom Group	S	AQ	AQ	49		15	198,227	52,651	145,576		154,007				x	
Panasonic	G	AQ	AQ	67		43	3,673,095	904,898	2,768,197		76,880,000	x	x			
Partygaming	F	NR	NR													
Pearson	F	AQ	AQ	57		40	193,608	43,811	149,797		27,886				x	x
Persimmon	F	AQ	AQ	40		7	11,900	10,000	1,900							
Polo Ralph Lauren	S	DP	NR													
Pulte Homes	S	AQ	NR	31												
Punch Taverns	F	AQ	AQ	56		85	133,429	36,617	96,812							
RadioShack	S	NR	NR													
Rank Group	F	NR	–													
Redrow	F	NR	AQ													
Reed Elsevier	G, F	AQ	AQ	76		16	126,212	18,559	107,653	93,512	131,703		x	x	x	
Restaurant Group	F	NR	NR													
Rightmove	F	NR	NR													
Scripps Networks Interactive	S	NR	–													
Sears Holdings	S	AQ	NR	53		95	4,818,277	218,679	4,599,598							
Serco Group	F	AQ	DP	50		81	253,693	65,029	188,664		10,114				x	
Sherwin-Williams	S	AQ	AQ	57		77	615,848	286,293	329,555							
Snap-on	S	AQ	DP	12	NP											
Sony Corporation	G	AQ	AQ	66		22	1,884,460	434,116	1,450,344	1,350,000	24,338,000	x	x		x	
Sports Direct International	F	DP	NR													
Stanley Works	S	AQ	AQ	75		48	212,936	50,746	162,190		533,119	x	x		x	
Staples	G, S	AQ	AQ	60		20	396,600	62,400	334,200	*						
Starbucks	S	AQ	AQ	48		88	913,000	228,250	684,750							
Starwood Hotels & Resorts Worldwide	S	AQ	AQ	52	NP											
Target	G, S	AQ	AQ	48		46	2,938,374	243,440	2,694,934							
Thomas Cook Group	F	AQ	DP	69		456	4,019,360	3,985,071	34,289							
Thomson Reuters	G, F	AQ	AQ	36	NP											
Tiffany & Co.	S	AQ	AQ	50	NP											
Time Warner	G, S	AQ	AQ	41		9	428,833	39,244	389,589		57,363				x	
TJX Companies	S	IN	IN													
Toyota Motor	G	AQ	AQ	77		38	8,540,000	3,480,000	5,060,000	*	484,353		x		x	
TUI Travel	F	AQ	AQ	71		475	6,617,498	6,564,026	53,472	*	70,597		x	x	x	

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
United Business Media	F	AQ	NR	52		5	4,369	506	3,863		1,073				x	
V.F. Corporation	S	DP	DP													
Viacom	S	AQ	AQ	14	NP											
Vivendi Universal	G	AQ	AQ	54		6	209,000	19,000	190,000		9,000				x	
Volkswagen	G	AQ	AQ	69		44	6,908,704	1,678,407	5,230,297		8,827,000	x			x	
Walt Disney	G, S	AQ	AQ	46		44	1,649,042	566,042	1,083,000							
Washington Post	S	IN	NR													
Wetherspoon	F	AQ	AQ	75		186	168,535	44,049	124,486		48,518	x	x		x	
WH Smith	F	AQ	AQ	65	NP											
Whirlpool	S	AQ	AQ	55		46	866,334	259,193	607,141	*	133,000,000	x				
Whitbread	F	AQ	AQ	66		170	206,800	57,363	149,437		24,981	x	x		x	x
William Hill	F	NR	NR													
WPP	F	AQ	AQ	56		15	112,901	4,344	108,557	94,376	117,087		x		x	
Wyndham Worldwide	S	IN	AQ													
Wynn Resorts	S	DP	–													
Yell	F	AQ	AQ	47		14	31,323	985	30,338		241,101		x	x	x	
Yum! Brands	G, S	IN	NR													

13 Disclosed Scopes 1 and 2 emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

14 Company reported total emissions (Scope 1 and 2).

15 Where there is a * in this column, the company did not provide a numerical figure for its contractual Scope 2 emissions but did describe some use of renewable energy. Please see the company response for more detail.

16 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

Consumer Staples sector report
Covering Global 500, S&P 500 and FTSE 350 listed respondents

Kimberly-Clark has been affected by the European Union's Emissions Trading Scheme and is closely following the development of proposed climate emissions cap-and-trade legislation in the United States and Australia. We see the financial impacts being the future increases in energy costs, with estimates as high as 30% increases within the next 3 years as well as the costs of emissions allowances for our affected manufacturing facilities.

Kimberly-Clark

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Consumer Staples companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Consumer staples
Response rate[1]	**(85%) 71 out of 84**
Global 500	(88%) 45 out of 51
S&P 500	(76%) 32 out of 42
FTSE 350	(86%) 19 out of 22
Overall sector rank (1-10)[2]	**4th**
Highest disclosure score	89
Lowest disclosure score	0
Average disclosure score	57
Overall emissions disclosure[3]	
Scope 1 emissions	87% (66 million Mt CO_2-e)
Scope 2 emissions[4]	82% (67 million Mt CO_2-e)
Scope 3 emissions	48% (249 million Mt CO_2-e)
Average emissions intensity[5]	81 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues for those sectors respondents who disclosed emissions. Revenues based on data retrieved from Bloomberg on June 18, 2009.

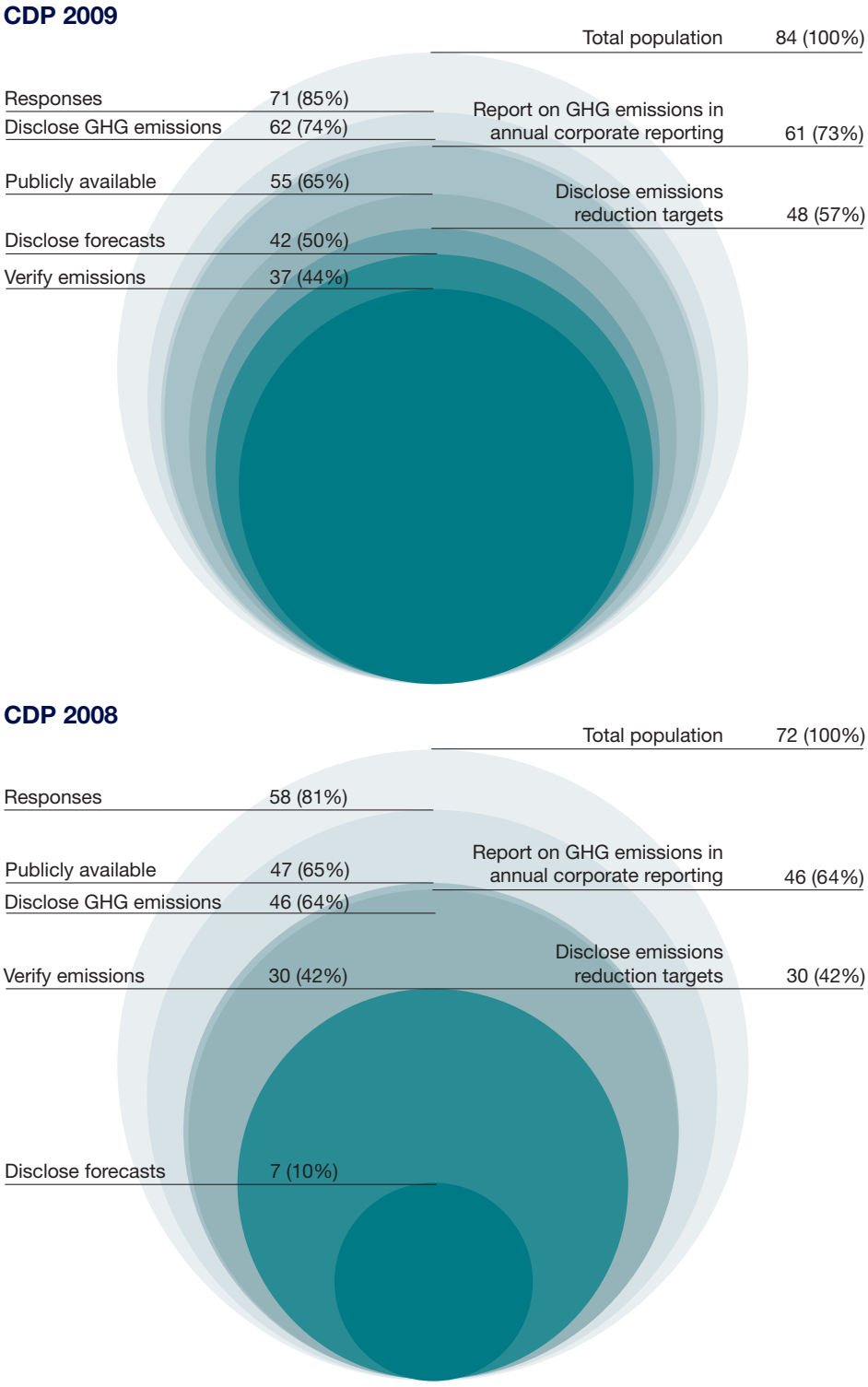
Carbon disclosure trends in the Consumer Staples sector

The Consumer Staples sector in CDP 2009 comprises a broad range of companies, the greatest concentration of which – 31% (26 companies) – is within the food products category. Remaining respondents are involved in a range of businesses, including food and staples retailing 21% (18), beverages 20% (17), tobacco 12% (10), household products 11% (9), and personal products 5% (4). For purposes of comparison, the GICS industry classification for Consumer Staples is broadly the same as the Retail and Consumer sector used in CDP 2008.

Although not as carbon-intensive as the Utilities, Materials, and Energy sectors, many of the businesses within this sector involve industrial production and raw materials processing. This year's responses show that key pressure points for the sector include the extension of carbon regulation at the global and regional levels, carbon cost pass-through from energy companies, extreme climatic events causing operational and supply chain disruption and changing consumer demand forcing action on climate change.

Notwithstanding today's economic challenges, the overall response rate[6] for Consumer Staples is an impressive 85% (71) overall placing the sector second only to Utilities (88% or 59 companies). This figure also represents an increase compared to CDP 2008 and may reflect concern that brand values are becoming more sensitive to a range of factors, including the corporate stance on sustainability issues.

Fig. A: Year-on-year disclosure rates, as a proportion of total Consumer Staples companies (Global 500, S&P 500 and FTSE 350)



6 This response rate represents companies that responded after the deadline for analysis. Statistics and figures found throughout the rest of this report are based on the number analyzed rather than the final number responding.

We have identified those production sites which are most likely to become water stressed over the next couple of decades and have prioritised these within our water efficiency programme. There are currently ten such sites, and we have set these the target of reducing the use of non-ingredient water by 50% by 2015.

Diageo

Fig. B: Disclosure score leaders for the sector[7]

Global 500 leaders

Company name	Disclosure score
Wal-Mart Stores	89
Woolworths	82
Reckitt Benckiser	80
Colgate-Palmolive	77
Unilever	76

S&P 500 leaders

Company name	Disclosure score
Wal-Mart Stores	89
Dean Foods	87
Colgate-Palmolive	77
H.J. Heinz	75
Estée Lauder	73
Molson Coors Brewing	73

FTSE 350 leaders

Company name	Disclosure score
Reckitt Benckiser	80
Unilever	76
Cadbury	72
Northern Foods	72
Tesco	69

Consumer Staples companies improved across the board on all disclosure metrics in 2009. Most impressively, they showed significant progress in the areas of disclosing emissions reduction targets and forecasting emissions (see Fig. C). This may be due to the question in the CDP Information Request (23.13) which allows companies to explain their forecasting plans this year (qualitative, as opposed to quantitative disclosure), thus removing some of the commercial sensitivity. Disappointingly, however, less than half of respondents verify their emissions data through an independent third party. This remains an area where progress is limited across all sectors.

Consumer Staples leaders for carbon disclosure are listed above in the order of their carbon disclosure scores. While the remaining Consumer Staples respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

7 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the CDLI for the index overall when all 10 sectors are considered.

Several Consumer Staples companies (15% or 13 companies) chose not to participate. The largest non-respondents are listed below based on their market capitalization.[8]

Notwithstanding the strong representation of the Consumer Staples sector in the Global 500 and a high response rate, only three respondents (**Wal-Mart Stores**, **Woolworths** and **Reckitt Benckiser**) made the Carbon Disclosure Leadership Index (CDLI) for the Global 500. This suggests that while the Consumer Staples sector has an impressive response rate, it is less effective in delivering leading disclosures.

The sector leaders go beyond simply identifying risks and opportunities in their CDP responses, they provide examples of the steps they are taking to change their businesses. In particular, these companies understand the potential impacts of climate change on their supply chains and are seeking ways to work with suppliers to address them. Many of these leaders also participate in CDP Supply Chain, which helps procurement professionals better understand how their supply chains may be impacted by climate change and thereby begin the exercise of futureproofing. More information on CDP Supply Chain can be found at www.cdproject.net.

"...using preliminary macroeconomic assessments, we believe Wal-Mart's supply chain is likely to have an annual carbon footprint that is at least 100 times greater than our total Scope 1 and 2 emissions. We are working with our suppliers to make their products more sustainable, but we are also helping them become more sustainable businesses."
Wal-Mart Stores

"For Woolworths to manage the physical impacts of climate change, significant investment in infrastructure will be required. Extensive investment has occurred in green store design and construction, particularly in areas of refrigeration plant and cases, lighting, and air-conditioning."
Woolworths

"Our carbon reduction commitments and strategy focuses across the complete life cycle of our products. With consumer use being over 60% of our total carbon footprint, identifying opportunities to reduce energy and water use during the use-phase of our products is going to become an increasingly important element of research and development and product innovation."
Reckitt Benckiser

Whilst the precise impacts of climate change on crop yields are still unclear, we have already seen that drought in Australia reduced the availability of milk, resulting in a significant price increase. We have an active sustainable agriculture programme in place, working with our supply chain partners to make our key agricultural raw materials more sustainable.

Cadbury

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization

Company name	Index
Philip Morris International	Global 500, S&P 500
CVS Caremark	Global 500, S&P 500
British American Tobacco	FTSE 350, Global 500
Archer Daniels Midland	Global 500, S&P 500
Sysco	Global 500, S&P 500

8 Market data retrieved from Bloomberg as of June 18, 2009.

Because of the disparity between countries and the fact that our global network includes 78 manufacturing facilities in 23 countries as well as a global supply chain, the exposure to risk is tremendous. Heinz believes that if consistent regulations were implemented and enforced on a global scale, everyone would benefit from the increased communication and coordination that would result.

H. J. Heinz

Recent EU and US biofuel legislation has already had a tangible impact on corn prices which has been passed through the supply chain via the cost of corn-derived sugar syrups, and similar pressure is expected on vegetable oil and sugar prices.

Cadbury

As a group, Consumer Staples respondents significantly lagged the global leaders in the quality of their disclosures, particularly in the areas of Scope 3 emissions reporting, energy use and disclosing targets and plans. They scored better in Scopes 1 and 2 reporting, emissions trading, having accountability structures and incentives in place for management/staff to meet climate related targets and public reporting.

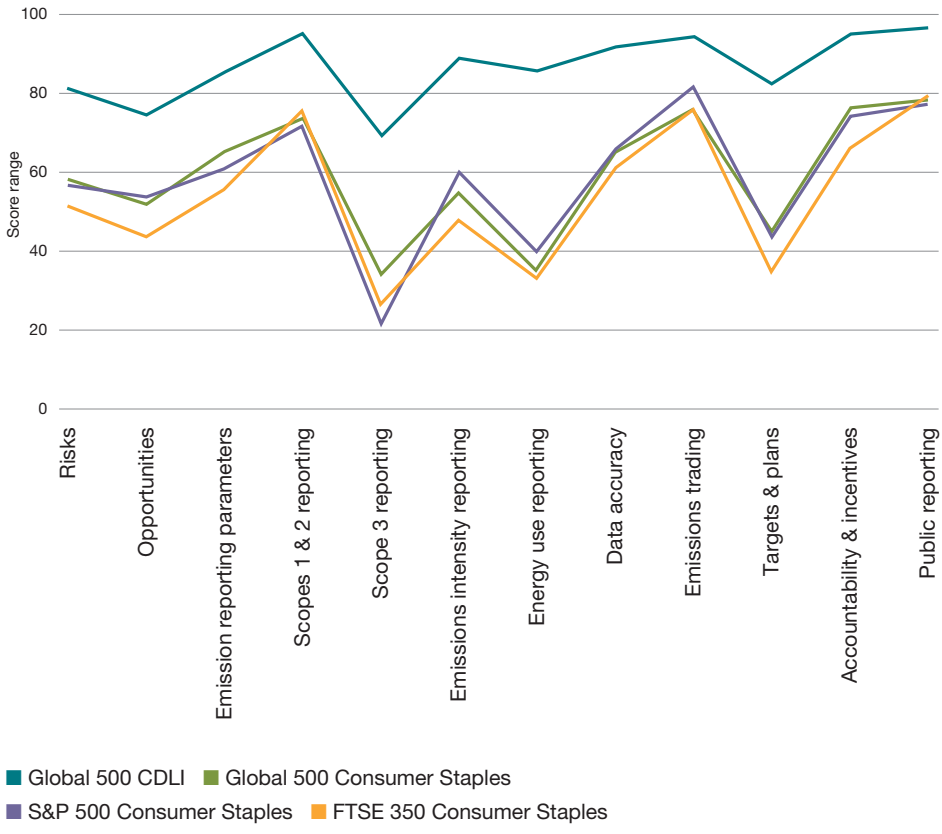
In most areas, the S&P 500 respondents from this sector scored higher than their FTSE 350 counterparts. Overall, the Consumer Staples sector is ranked fourth across all sectors, behind Utilities, Health Care and Materials.

Risks and opportunities

Despite the economic challenges and the sector's relatively low carbon impact, Consumer Staples companies appear to be strongly engaged in assessing the implications of climate change on their businesses. Current and future regulation is recognized as a business risk, with 80% of Global 500 (32), 75% of S&P 500 (24), and 95% of FTSE 350 (18) respondents considering themselves to be exposed.

Among European respondents there is an expectation of higher compliance costs in the future for assets covered by the existing European Union's Emissions Trading System (EU ETS), and the introduction of the UK's Carbon Reduction Commitment is a concern of FTSE 350 respondents.

Fig. D: Score breakdown for Consumer Staples within each index versus the global leaders[9]



9 The 2009 Global 500 Carbon Disclosure Leadership Index (CDLI), is an index of the top 10% of companies with the highest disclosure scores in the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net.

For S&P 500 respondents, emissions limits (or caps) represented the second most-frequently identified regulatory risk, after emissions trading.

Interestingly, a final issue flagged by some respondents is the possible impact of policies to promote greater development of biofuels on food commodity prices, the implication being that greater demand for land and crops for fuels could put pressure on prices for food-grade inputs. As a result, many multinational respondents expressed a desire for energy and climate policies to be coherent, and, ideally, harmonized in order to avoid perverse incentive structures and market distortions.

Physical risks from climate change were noted by 78% of both the Global 500 (31) and the S&P 500 (25) Consumer Staples respondents, and by 84% (16) of the FTSE 350 respondents. Resource scarcity is the prime concern in this respect, as is the increased incidence of storms, flooding and droughts resulting in operational and supply chain disruptions. Many respondents are undertaking activities with their suppliers to mitigate these risks; examples include risk analysis, diversification of supplier countries and input sources, and alternative production techniques for certain products.

Other commonly stated risks facing the Consumer Staples sector include changing consumer demand and preferences, reputational risk (especially around the sourcing of inputs or employee conditions) and the merits, or otherwise, of carbon labeling. Many respondents were concerned over the accuracy and consistency of carbon labeling (given that there is no universal standard in place) and the potential costs involved for companies that have a wide range of products.

This concern supports recent research undertaken with UK consumers that suggests that consumer confusion is increasing and acting as a hindrance to the purchase of more sustainable products and services. A related concern here is the issue of trust: when asked whom they trust to tell them the truth about the climatic impact of a product, research suggests that scientists and non-governmental organizations rank much higher than producers and retailers.[10]

In addition to the risks outlined above, 85% (34) of the Global 500, 82% (26) of the S&P 500 and 100% (19) of the FTSE 350 Consumer Staples sector respondents said regulation also presents opportunities. Key areas of opportunity includes:

- Revenue generation from participation in emissions trading systems;
- Cost savings due to improved energy efficiency (due to mandatory or voluntary initiatives);
- Technological advancements being brought to market faster due to demand for energy-efficient products; and
- The ability to increase market share for some products through the provision of information for customers (e.g., carbon labeling).

> Regulatory programs addressing labeling schemes are becoming more prevalent unfortunately during a time when the technology to provide this information to consumers is not yet mature. This has the potential to lead to conflicting and misleading communication on labels.
>
> **Kellogg Company**

10 Research undertaken by YouGov plc for PricewaterhouseCoopers LLP (total online sample size 2,145 adults and fieldwork undertaken July 20–22, 2009.)

Unilever believes that its reputation and those of its competitors will be judged largely by their response to climate change, which is widely recognized as the most critical challenge facing our planet.

Unilever

In the United Kingdom and Ireland, longer periods of sunshine mean shorter growing times for raw ingredients.

H. J. Heinz

"As governments worldwide decide how to implement their GHG regulations, there is a possibility that growers could be paid for sequestering carbon. Agricultural carbon sequestration can occur by adding more organic matter to soil as cover crops or compost, or by reducing or eliminating tillage."
Constellation Brands

"...we have participated in the construction of an anaerobic digester project with Big Sky Dairy, in Gooding, Idaho. Using the rigorous Gold Standard for carbon reduction project quantification, the digester converts biogas into electricity that is sold to the local power grid."
Dean Foods

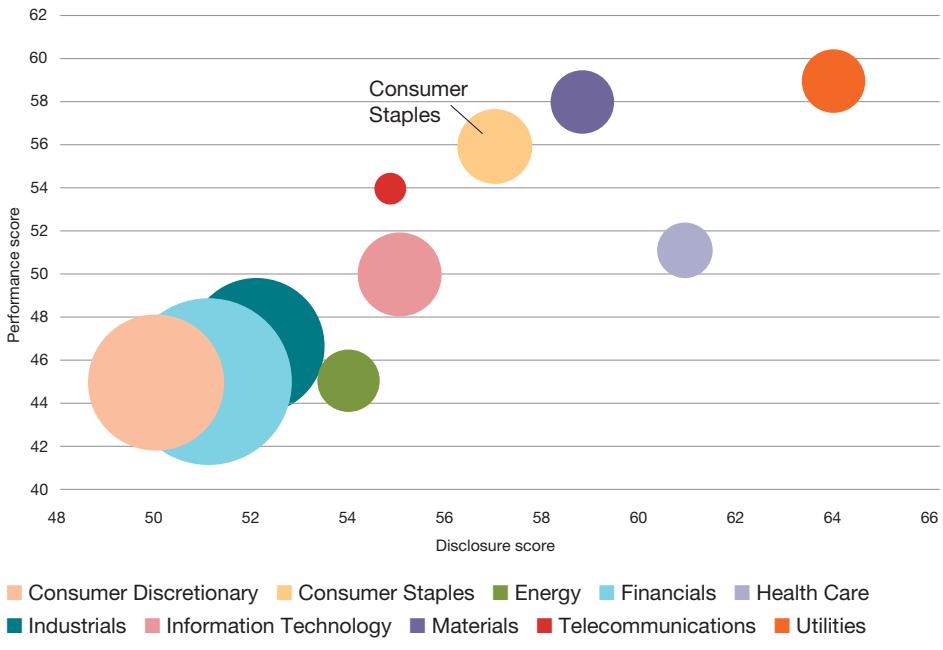
Climate change presents opportunities to the Consumer Staples sector that can either erode or enhance company value depending on the approach taken and the timing of any capital commitments. For some respondents, climate change is presenting opportunities in the form of extended growing seasons and increasing crop yields. Others recognized the opportunity to work with their suppliers to ensure that they are collectively prepared for climate change in order to achieve competitive advantage.

Insights from the performance scores pilot

The CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Consumer Staples sector scored fourth overall for disclosure and third for performance. The chart below shows how the Consumer Staples sector compares with the other industry groups for performance.

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

As 2009 is the first year of use of the performance scoring methodology,[11] individual company performance scores are not shown in the CDP 2009 reports, though comment on initial findings is provided below:

- The three Consumer Staples companies scoring highest in the performance score pilot (in alphabetical order) are **Carrefour, Reckitt Benckiser**, and **Wal-Mart Stores**;
- Generally, Consumer Staples respondents performed in line with the average performance of other sectors across the three CDP populations. However, they significantly underperformed in the provision of goods and services that enable customers to reduce emissions and in having targets and plans for climate change; and
- In aggregate, Consumer Staples respondents within the S&P 500 tended to consistently underperform compared with their peers in the Global 500 and FTSE 350.

Overall, the Consumer Staples sector has established strong governance through board committees that have overall responsibility for climate change: 88% (58); staff incentives to reduce emissions: 71% (47); and publication of the climate change impact on the business: Publication of climate change impact on business is 92% (61).

Conclusion

On the basis of CDP 2009, "agility" would seem to be the attribute that the Consumer Staples sector must foster in order to deal effectively with the climate change challenge. Whether it is a changing cost base due to physical climate risks or shifting consumer preferences, Consumer Staples businesses will need to be responsive in order to preserve value and, ideally, enhance it. Many are already making good progress in this regard and diversification is a key strategic element, providing a hedge that should underpin greater operational resilience, particularly in the supply chain.

The attribute that may take a little longer to develop, however, is one of trust. CDP 2009 responses suggest that developing effective communication strategies with consumers, either through general stakeholder dialogue or through the products they sell, will be a challenge for the Consumer Staples sector over the years to come.

With anticipated increases in atmospheric carbon dioxide and surface temperatures, it is possible that tree growth rates and geographic distribution of certain trees that K-C uses to make its products will increase, leading to increased wood fiber availability in the future.

Kimberly-Clark

We have also seen increasing sales as a result of installing a waste-to-energy anaerobic digestion system in our Lowville, NY, Philadelphia Cream Cheese factory. The facility is converting whey, a by-product of cream cheese production, into methane and subsequently using the methane in the facility's boilers to produce energy. We started leveraging this fact with customers and consumers and as a result, sold more products.

Kraft Foods

11 For more about the performance scoring methodology, see http://www.cdproject.net/ 2009CDLImethodology.asp.

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Consumer Staples scores and emissions by company[12]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Altria Group	G, S	AQ	AQ	55		45	713,474	398,232	315,242		34,675				x	
Ambev – Cia. Bebidas das Americas	G	AQ	AQ	51		65	586,239	497,348	88,891	*						
Anheuser Busch InBev	G	AQ	AQ	50		276	6,177,963	3,716,881	2,461,082							
Archer Daniels Midland	G, S	NR	DP													
Associated British Foods	F	AQ	AQ	53		437	3,595,292	2,609,346	985,946							
Avon Products	S	AQ	AQ	51		13	140,972	35,941	105,031							
Barr (A.G.)	F	NR	–													
Beiersdorf	G	AQ	AQ	45		9	74,874	24,689	50,185							
British American Tobacco	F, G	IN	AQ													
Britvic	F	AQ	AQ	58	NP											
Brown-Forman	S	AQ	AQ	69		71	184,566	111,125	73,441		4,767				x	
Cadbury	F, G	AQ	AQ	72		155	836,052	385,901	450,151		2,700,000		x	x	x	
Campbell Soup	G, S	AQ	DP	63		112	899,537	499,149	400,388							
Carrefour	G	AQ	AQ	73		36	4,306,784	1,873,299	2,433,485	*	1,175,572	x	x		x	
Clorox	S	AQ	AQ	69		80	422,632	98,244	324,388							
Coca-Cola	G, S	AQ	AQ	70		162	5,160,436	1,951,041	3,209,395		59,000†				x	x
Coca-Cola Enterprises	S	AQ	AQ	56		70	1,532,967	967,410	565,557		4,578,069	x	x		x	
Colgate-Palmolive	G, S	AQ	AQ	77		46	701,591	271,599	429,992	*	87,572		x		x	

12 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Conagra Foods	S	AQ	AQ	72		194	2,254,356	1,163,215	1,091,141		546,135		x			
Constellation Brands	S	AQ	IN	72		65	244,883	151,114	93,769		298,151	x	x		x	
Costco Wholesale	G, S	AQ	AQ	17	NP											
Cranswick	F	AQ	–	56	NP											
CVS Caremark	G, S	NR	NR													
D.R. Horton	S	NR	NR													
Dairy Crest Group	F	AQ	AQ	67		170	266,075	178,665	87,410	*	3,176,302		x	x	x	
Danone	G	AQ	AQ	42		36	758,996	387,155	371,841							
Dean Foods	S	AQ	AQ	87		132	1,650,053	884,448	765,605		187,757†		x		x	
Diageo	F, G	AQ	AQ	66		90	729,000	625,000	104,000	*	384,300		x	x	x	
Dr Pepper Snapple Group	S	NR	–													
Estée Lauder	S	AQ	DP	73		16	128,000	36,600	91,400	76452	40,800	x			x	
General Mills	G, S	AQ	AQ	63		79	1,077,057	283,275	793,782	*	16,369				x	
Greggs	F	AQ	AQ	48		150	94,514	29,222	65,292		9,708	x				
Heineken	G	AQ(L)	AQ				1,986,800	1,238,000	748,800							
The Hershey Company	S	AQ	DP	64		71	366,847	126,991	239,856							
H.J. Heinz	G, S	AQ	AQ	75		86	863,132	524,606	338,526	*						
Hindustan Unilever (see Unilever)	G	AQ	AQ													
Imperial Tobacco Group	F, G	AQ	AQ	62		11	114,925	46,740	68,185	*						
ITC	G	AQ	AQ	42	NP											
J Sainsbury	F	AQ	AQ	49		49	873,464	205,765	667,699							
Japan Tobacco[17]	G	AQ(L)	AQ(L)													
J.M. Smucker	S	IN	–													
KAO	G	AQ	AQ	68		81	1,162,500	1,162,500			6,394,000	x	x	x		
Kellogg Company	G, S	AQ	AQ	45		105	1,339,949	602,131	737,818							
Kimberly-Clark	G, S	AQ	AQ	64		309	5,994,424	2,682,694	3,311,730		693,211		x		x	
Kirin Holdings[17]	G	AQ	AQ													
Kraft Foods	G, S	AQ	AQ	68		61	2,581,279	1,339,442	1,241,837		1,032,809		x		x	
Kroger	G, S	AQ	AQ	18	NP											
L'Oreal	G	AQ	AQ	63		8	203,799	80,823	122,976		2,214,936	x	x	x	x	
Lorillard	G, S	NR	–													
McBride	F	NR	–													
McCormick & Company	S	AQ	AQ	61		19	60,469	11,997	48,472							
Metro	G	AQ	AQ	50												
Molson Coors Brewing	S	AQ	AQ	73		234	1,118,636	680,831	437,805							
Morrison Supermarkets	F, G	AQ	AQ	43		95	1,233,351	632,857	600,494		39,675				x	
Nestle	G	AQ	AQ	60		71	7,374,453	4,217,927	3,156,526	*	2,150,000		x			
Northern Foods	F	AQ	AQ	72		254	236,570	118,285	118,285		84,904	x	x	x		
Pepsi Bottling Group	S	AQ	AQ	68		52	717,020	447,547	269,473		59,238		x			
PepsiCo	G, S	AQ	AQ	63		98	4,252,973	2,878,433	1,374,540		263,300			x		x
Pernod-Ricard	G	AQ	AQ	59		46	420,965	311,461	109,504	105,728	621,548			x		
Philip Morris International	G, S	NR	–													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Premier Foods	F	AQ	AQ	52	NP											
Procter & Gamble	G, S	AQ	AQ	55		76	6,384,000	2,782,000	3,602,000							
PZ Cussons	F	AQ	NR	45	NP											
Reckitt Benckiser	F, G	AQ	AQ	80		44	291,059	125,795	165,264		18,215,832†	x	x	x	x	x
Reynolds American	G, S	AQ	AQ	59		39	349,377	144,979	204,398	*						
Robert Wiseman Dairies	F	AQ	–	62	NP											
Royal Ahold	G	AQ	IN	45		69	2,474,427	1,150,964	1,323,463							
SABMiller	F, G	AQ	AQ	54		109	2,343,184	1,513,037	830,147		404,533		x			
Safeway	S	IN	IN													
Sara Lee	S	AQ	AQ	61		71	940,350	341,057	599,293							
Seven & I Holding	G	AQ	AQ(L)	45	NP											
SUPERVALU	S	AQ	NR	32	NP											
Sysco	G, S	IN	AQ													
Tate & Lyle	F	AQ	NR	8		1,138	3,261,824	3,261,824								
Tesco	F, G	AQ	AQ	69		105	4,957,470	1,877,340	3,080,130		58,744				x	
Tyson Foods	S	NR	DP													
Unilever	F, G	AQ	AQ	76		69	2,785,882	1,167,662	1,618,220		110,600,000	x	x	x	x	
UST (see Altria)	G, S	AQ	AQ													
Wal Mart de Mexico (see Wal-Mart Stores)	G	AQ	AQ													
Wal-Mart Stores	G, S	AQ	AQ	89		56	21,066,956	5,566,006	15,500,950	3,563						
Walgreens	G, S	AQ	AQ	46		37	2,180,000	268,000	1,912,000							
Whole Foods Market	S	AQ	AQ	30												
Wilmar International	G	AQ	–	47	NP											
Woolworths	G	AQ	AQ	82		95	3,108,719	675,991	2,432,728		85,313,090†	x	x		x	x

13 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

14 Scope 1 and Scope 2 grid average reported emissions.

15 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

16 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

17 This company answered CDP 2009 in Japanese and was therefore not scored.

Energy sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

Policy approaches that promote the usage of nonhydrocarbon electricity sources such as renewables, biofuels, hydroelectric power, and nuclear power may have an impact on BG Group's ability to maintain its position in key markets. Additionally, new regulatory regimes intended to establish emissions trading schemes could alter hydrocarbon production economics....BG Group's strategy takes account of the fact that many governments are now seeking increased natural gas utilisation as a lower-carbon alternative to coal or oil...

BG Group

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions, and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Energy companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Energy
Response rate[1]	**62% (57 of 92)**
Global 500	72% (39 of 54)
S&P 500	64% (25 of 39)
FTSE 350	57% (12 of 21)
Overall sector rank (1-10)[2]	**7th**
Highest disclosure score	88
Lowest disclosure score	12
Average disclosure score	54
Overall emissions disclosure[3]	
Scope 1 emissions	82% (895 million Mt CO_2-e)
Scope 2 emissions[4]	75% (98 million Mt CO_2-e)
Scope 3 emissions	46% (3,053 million Mt CO_2-e)
Average emissions intensity[5]	330 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues for those sector respondents who disclosed emissions. Revenues based on data retrieved from Bloomberg on June 18, 2009.

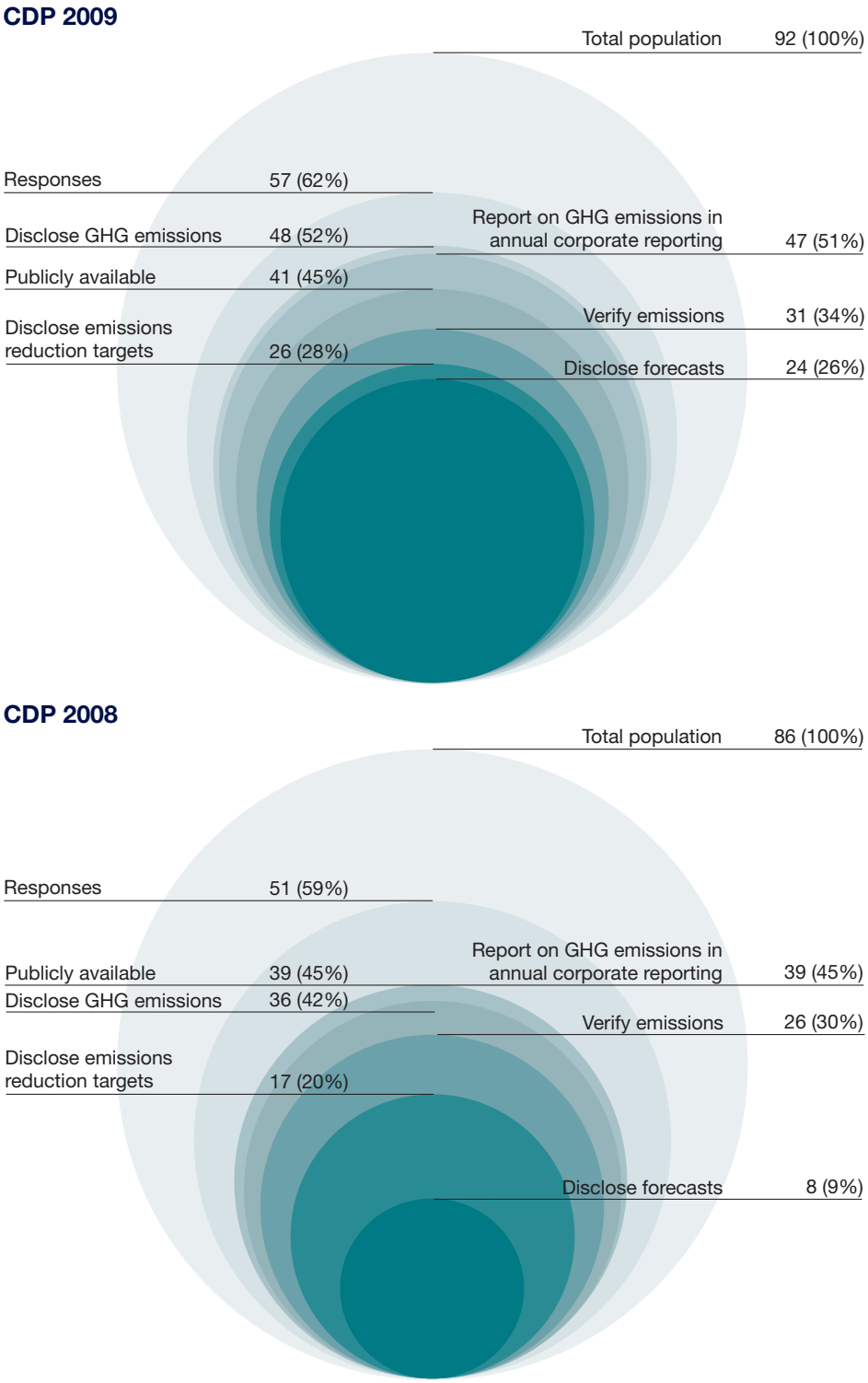
Carbon disclosure trends in the Energy sector

The Energy sector represents a range of industries that focus on oil and gas, coal and combustible fuels, and energy equipment and services. This includes oil and gas exploration and production, drilling, refining and marketing and storage and transportation.

Overall, 62% (57) of Energy companies responded to CDP in 2009, up from 59% (51) in 2008. This moderate increase in response rate[6] is accompanied by improvements in disclosures from nearly all Energy respondents. Despite these increases, the Energy sector still has great opportunities to improve. While the sector clearly has leaders for carbon disclosure, nearly half of the participating companies from this sector scored lower than the overall CDP 2009 average – meaning this carbon-intensive sector lags many other sectors in the quality of their disclosures.

An uncertain global policy framework continues to contribute to a wait-and-see approach by the Energy sector in several areas related to climate change. Growing international attention has turned the debate toward adaptation, and Energy companies face increasing responsibility to identify solutions that will reduce greenhouse gas (GHG) emissions at an acceptable cost. While policies are debated, this asset-intensive sector must continue its focus on keeping production running in the short term while it balances long-term and large-scale capital planning with changing regulatory requirements, standards and technologies.

Fig. A: Year-on-year disclosure rates, as a proportion of total Energy companies (Global 500, S&P 500 and FTSE 350)



6 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

Paradoxically, even if physical changes from climate change represent, primarily, a risk for the oil and gas industry (for instance, damaging fundamental infrastructures situated in critical areas), on the other hand, it is evident that some extreme events could force up oil and gas prices (e.g. Hurricane Katrina in 2005) and, therefore, increase oil producers' revenues.

ENI

Fig. B: Disclosure score leaders for the sector[7]

Global 500 leaders

Company name	Disclosure score
Chevron	88
Spectra Energy	88
Hess	86
Total	81
Anadarko Petroleum	79
Transocean	79

S&P 500 leaders

Company name	Disclosure score
Chevron	88
Spectra Energy	88
Hess	86
Anadarko Petroleum	79
Transocean	79

FTSE 350 leaders

Company name	Disclosure score
Royal Dutch Shell	75
BG Group	66
BP	66
Cairn Energy	63
AMEC	53

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization

Company name	Index
PetroChina	Global 500
China Petroleum & Chemical	Global 500
Reliance Industries	Global 500
Rosneft	Global 500
Lukoil	Global 500

Energy leaders for carbon disclosure are listed above in the order of their disclosure scores.[8] While the remaining Energy respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

More than one-third of Energy companies (38%, or 35 companies) chose not to participate. The largest non-respondents are listed above based on their market capitalization.[9]

When compared with a cross section of global leaders for disclosure, companies in the Energy sector closely followed the global leaders in the quality of their disclosures for reporting their climate-related efforts, including Scopes 1 and 2 emissions and participation in emissions trading activities. However, they lag in nearly all other areas, particularly in Scope 3 reporting and the disclosure of emissions reduction targets (see Fig. D).

7 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the Carbon Disclosure Leadership Index overall when all ten sectors are considered.

8 For more information on the disclosure score methodology, see www.cdproject.net/2009CDLImethodology.asp.

9 Market data retrieved from Bloomberg as of June 18, 2009.

In the future, in order to help meet the world's energy demand, we will produce more oil from unconventional sources. Therefore, in the long term, it is expected that the CO_2 intensity of our production will increase. If we are unable to find CO_2 solutions for new and existing projects, future government regulation could lead to additional costs and compliance risks. These risks, if realized, could affect our operational performance and financial position.

Royal Dutch Shell

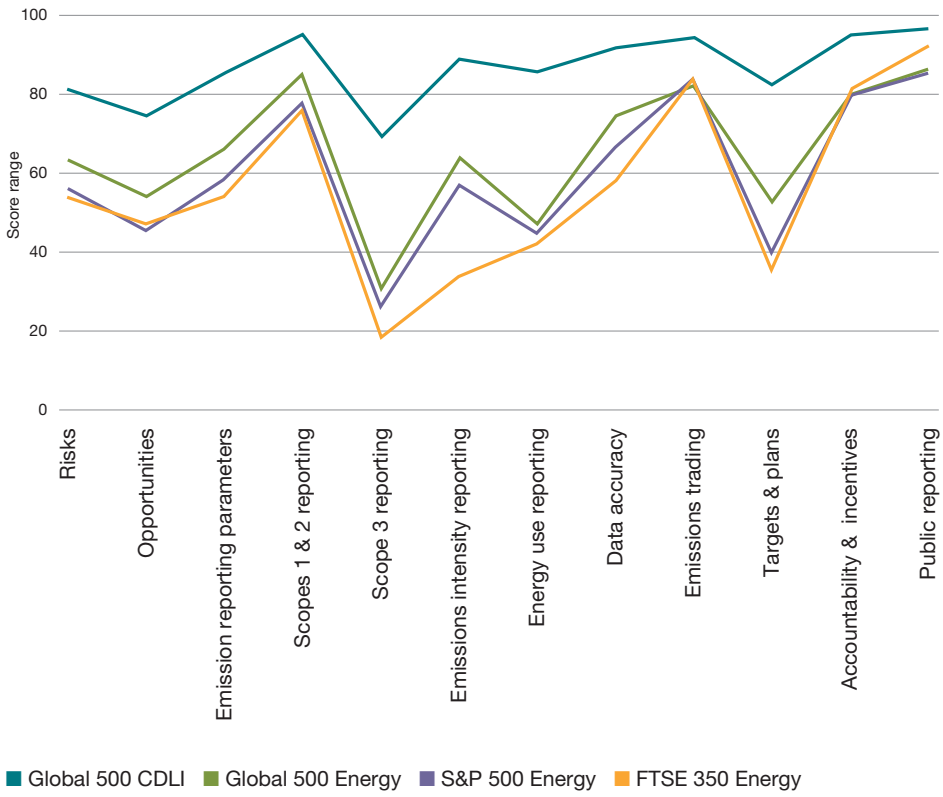
Despite the lag behind the global leaders in disclosure scores for these areas, response rates show that more Energy respondents disclosed greenhouse gas emissions reduction targets in 2009 than ever before – a signal that the leaders in this sector are responding to investor concerns. In 2009, 47% (26) of Energy respondents disclosed GHG emissions reduction targets; in 2008 this was 33% (17).

In addition, more Energy companies are reporting Scope 3 emissions, which include estimates of emissions from business travel, supply chain, logistics and distribution and downstream product use. In 2009, five of the top ten Energy respondents by market capitalization reported Scope 3 emissions: **BP**, **Chevron**, **ENI**, **Royal Dutch Shell** and **Total**.

In their responses, Energy companies made few mentions of the global economic recession. One company indicated that statutory emissions limits would place it in a position to raise large amounts of capital, which could present financial risk. Several respondents noted that a decrease in demand has enabled them to reduce emissions, but it also has resulted in a decline in revenue. At least two respondents (**Nexen** and **Total**) acknowledged that long-term economic uncertainty alongside regulatory ambiguity makes forecasting difficult.

Others, including **Royal Dutch Shell**, indicated that future demand would drive up emissions intensity. As a result, new technologies will be required to adapt to any future scenario in which regulation places a price on carbon emissions.

Fig. D: Score breakdown for Energy within each index versus the global leaders[10]



10 The 2009 Global 500 Carbon Disclosure Leadership Index (CDLI), is an index of the top 10% of companies with the highest disclosure scores in the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net.

Risks and opportunities

91% (50) of respondents reported at least one significant risk related to climate change and 85% (47) reported opportunities.

Regulatory risks related to climate change were reported by 92% (34) of Global 500 respondents 84% (21) of S&P 500 respondents, and 100% (12) of FTSE 350 respondents. These include a host of regulatory risks – from statutory emissions limits to compliance with energy efficiency standards and participation in emissions trading systems.

Energy respondents also expressed concern about regulatory disparities across the globe, which could hurt profitability or give some competitors an advantage. Specifically, energy-intensive entities that operate in less restrictive regulatory environments may avoid costly and difficult adaptation measures if they are not subject to carbon constraints.

While companies in some geographies have a clear understanding of their regulatory risks, most Energy companies continue to grapple with layers of regulation and uncertainty about future policy developments.

"Spectra Energy expects pending [US] federal climate change regulations will affect a number of its assets and operations, but the materiality of any potential compliance costs is unknown because policy makers have yet to determine the regulations' final form or compliance options."
Spectra Energy

BP reports that its obligations under the European Union's Emissions Trading System are growing at the same time that they are being subject to the European Union's Climate Action and Renewable Energy Package[11] and the Australian government's proposed Carbon Pollution Reduction Scheme.[12]

Some US respondents said materiality of regulatory risk related to climate change is unknown at this time because more comprehensive legislation is not expected until 2014. They expect a potential impact from the US Environmental Protection Agency's (EPA's) proposed mandatory greenhouse gas reporting rule that would require companies to report GHGs as early as 2011. They are also watching the EPA closely after it issued a proposed endangerment finding for greenhouse gas emissions under the authority of the US Clean Air Act.[13] The endangerment finding does not automatically trigger regulation but lays the groundwork for regulatory action by the EPA. Meanwhile, the US Congress is focused on legislation to address climate change: the House of Representatives has passed the American Clean Energy and Security Act[14] and the Senate is preparing to debate a bill during the Fall legislative session.

While Husky accepts that it will be operating in a carbon-constrained world, until there is regulatory certainty, it is difficult to assess how the company's emissions will be constrained, monitored, and measured; when they will be constrained; and ultimately, what the price of carbon will be.

Husky Energy

Complete company responses to CDP can be downloaded from www.cdproject.net

11 See http://ec.europa.eu/environment/climat/climate_action.htm

12 See http://www.climatechange.gov.au/emissionstrading/index.html

13 See http://www.epa.gov/climatechange/endangerment.html

14 H.R. 2454, American Clean Energy and Security Act of 2009 (ACESA).

Occidental's businesses may experience catastrophic events, including the occurrence of natural disasters, such as earthquakes, hurricanes, and floods. Third-party insurance may not provide adequate coverage, or Occidental may be self-insured with respect to the related losses. Occidental has several facilities located near the Texas and Louisiana coasts that have been in the path of hurricanes, which have at times resulted in the interruption of some operations.

Occidental Petroleum

To help determine potential regulatory impacts, Energy respondents are investing in modeling systems to evaluate the ways that comprehensive climate change legislation could affect them. Companies are investing in the development of tailored internal processes and working to collaborate with external experts such as research bodies and non-governmental organizations.

Energy companies acknowledge that technologies will be required to realize reductions in GHG emissions and that the costs of these new and non-hydrocarbon technologies – such as wind turbines, photovoltaic panels and biofuels – are unknown. It is uncertain whether technological developments will be effective or timely enough to enable Energy companies to meet any statutory emissions limits at an acceptable cost.

As such, many respondents are anticipating long-term changes yet are uncertain of the impacts in the near term to midterm.

Despite the uncertainty, 84% (31) of Global 500 respondents, 76% (19) of S&P 500 respondents and 83% (10) of FTSE 350 respondents reported that regulation presents opportunities for their businesses, which is a sign that some Energy respondents are exploring their options to adapt to the identified risks.

With a goal of increasing the diversity of supply, many Energy companies continue to invest in technologies for alternative and renewable fuels – including manufacturing, blending and distributing biofuels – which are growing components in the transportation fuel mix. Those that supply cleaner natural gas and nuclear power also see an advantage.

Several companies reported their efforts to pioneer underground storage – also known as geologic storage or sequestration – of carbon dioxide in an effort to make this a commercially viable approach to help control GHGs.

Physical risks that could disrupt a company's supply chain or operational efficiency were reported by 78% (29) of Global 500 respondents, 64% (16) of S&P 500 respondents and 83% (10) of FTSE 350 respondents. The most frequently mentioned physical risk is increased storm and hurricane activity, which requires investment in both equipment and procedures to promote safe shutdown of operations and to prevent potential supply disruptions.

In terms of the physical risks of climate change, coastal facilities are most vulnerable to floods, hurricanes, and other storms. In addition, severe weather events can cause temporary shutdowns and result in lost or damaged equipment, which would hinder production. Some respondents acknowledged that third-party insurance, which is becoming increasingly expensive, may not provide adequate coverage for losses due to severe weather events. Others reported that costs related to disruptions in supply may be offset by increased prices.

Insights from the performance score pilot

CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

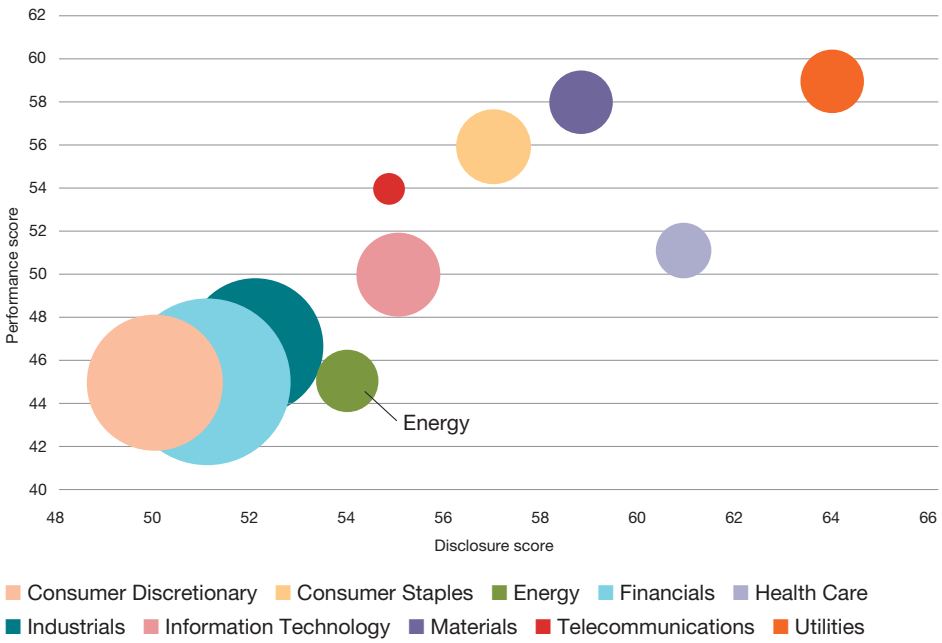
The Energy sector scored seventh overall for disclosure and eighth for performance. The chart below shows how the Energy sector compares with other sectors for performance.

As 2009 is the first year of use of the performance scoring methodology,[15] individual company performance scores are not shown in the CDP 2009 reports, but we provide comment on initial findings below.

- The top three scoring Energy companies (in alphabetical order) on the performance score pilot are **Royal Dutch Shell**, **Total** and **Transocean**.
- Generally, Energy respondents have lower performance scores than respondents in all other sectors. Scores for maximizing opportunities and establishing emissions reduction targets and plans represent the largest disparities.
- A sector comparison shows that Global 500 Energy respondents typically outperform Energy companies in the FTSE 350 and S&P 500 in most areas. In particular, Global 500 Energy companies stand out as the most progressive by clearly describing emission reduction targets and their plans to dedicate investments to reach their targets.

> Beginning in 2014, possible US regulatory approaches to GHG mitigation such as emissions allocations, cap-and-trade schemes, carbon taxes, and low-carbon fuel standards have the potential to reshape our business.
>
> **Hess**

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

15 For more about the performance scoring methodology, see http://www.cdproject.net/2009CDLImethodology.asp.

Despite overall below-average disclosure scores, most Energy respondents have a Board member or executive body with overall responsibility for climate change (76%, or 42 companies) and engage stakeholders regularly on climate-related issues (76%, or 42 companies).

These companies have a high rate of disclosing GHG emissions to the public (85%, or 47 companies) and of publishing corporate social responsibility reports (82%, or 45 companies), which is expected of the sector.

Most Energy respondents demonstrate strong awareness of the implications of climate change and what would be required for their businesses to adapt. They also know that the nature and size of the changes necessary will come at significant cost. Despite this, we see fewer but still important numbers of respondents with GHG emissions and/or energy reduction plans in place (47%, or 26 companies) and even fewer incorporating reduction targets into incentives and accountability structures (36%, or 20 companies).

Conclusion

The actions of Energy companies are critical to establishing a global economy that is lower carbon yet still provides access to affordable fuels. To date, the sector has worked to shape the policy debate and underscore the importance of the necessary technological advancements that would be required to meet global emission reduction commitments.

Lower-than-average disclosure scores, however, show that significant opportunity exists for the sector to improve. The sector provides robust disclosures in understanding the immediate and future issues, but due to a host of uncertainties, it remains challenged to provide overall long-term targets and plans. Investors should note how well the respondents to this year's Carbon Disclosure Project are adapting to climate-related risks and identifying opportunities and should encourage non-participating companies to respond in future years.

The global push to reduce carbon emissions has made nuclear power generation a more viable option with governments such as Canada, the UK, France, Finland, etc. As an established nuclear service supplier there is an obvious potential revenue stream from this service and AMEC's other renewable portfolio.

AMEC

For our company, the balance between risks and opportunities arises from a combination of global trends related to climate change and others factors, and it is not straightforward to find obvious links between regulatory developments and opportunities. However, the more stringent technical and managerial requirements resulting from climate change-related policies might favour a company with high technical, financial and project management expertise.

Total

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Energy scores and emissions by company[16]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[17]	Total Emissions[18]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[19]	Scope 3[20]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
AMEC	F	AQ	AQ	53		14	36,256	6,625	29,631	*	15,330				x	
Anadarko Petroleum	G, S	AQ	AQ	79		610	8,925,871	8,284,413	641,458							
Apache	G, S	AQ	AQ	72		806	9,939,352	9,099,776	839,576							
Baker Hughes	G, S	AQ	AQ	57		36	422,000	200,000	222,000		113,000				x	
BG Group	G, F	AQ	AQ	66		704	8,843,443	8,821,241	22,202	*	86,859,899	x			x	
BJ Services	S	AQ	DP	39	NP											
BP	G, F	AQ	AQ	66		199	70,630,000	61,400,000	9,230,000		515,000,000	x				
Cairn Energy	F	AQ	AQ	63		100	29,861	29,339	522		216,502				x	
Cameron International	S	NR	–													
Canadian Natural Resources	G	AQ(L)	AQ(L)													
Chesapeake Energy	G, S	IN	–													
Chevron	G, S	AQ	AQ	88		267	68,195,321	62,978,970	5,216,351	*	382,000,000	x				x
China Petroleum & Chemical	G	NR	NR													
Cia Espanola De Petroleos	G	NR	NR													
CNOOC (Red Chip)	G	AQ	AQ	33	NP											
ConocoPhillips	G, S	AQ	AQ	52	NP											
CONSOL Energy	S	NR	DP													
Dana Petroleum	F	AQ	AQ	44		35	18,027	17,369	658		60				x	
Devon Energy	G, S	AQ	AQ	47		271	4,170,000	3,680,000	490,000							
Diamond Offshore Drilling	G	NR	–													

16 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[17]	Total Emissions[18]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[19]	Scope 3[20]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
El Paso	S	AQ	AQ	61		2,778	14,897,502	13,939,795	957,707							
Emerald Energy	F	DP	–													
Enbridge	G	AQ	AQ	68		390	5,096,400	2,559,800	2,536,600		23,405,000	x			x	
Encana	G	AQ	AQ	70		422	10,917,978	9,644,166	1,273,812	*	3,451				x	
ENI	G	AQ	AQ	63		442	66,200,812	62,428,000	3,772,812	*	318,000,000	x				
Ensco International	S	NR	DP													
EOG Resources	G, S	AQ	AQ	41		25	159,119		159,119							
Exxon Mobil	G, S	AQ	AQ	62		341	145,000,000	131,000,000	14,000,000	*						
Fisher (James) & Sons	F	DP	–													
Formosa Petrochemical	G	NR	NR													
Gazprom	G	AQ	NR	44	NP											
Halliburton	G, S	AQ	AQ	57		208	3,798,400	3,618,200	180,200		75				x	
Heritage Oil	F	NR	–													
Hess	G, S	AQ	AQ	86		274	11,288,872	10,714,780	574,092		78,037,693	x	x	x		
Hunting	F	AQ	AQ	26	NP											
Husky Energy	G	AQ	IN	22		402	8,039,000	8,039,000								
Imperial Energy Corporation	F	NR	DP													
Imperial Oil	G	AQ	AQ	63		437	11,047,000	10,224,000	823,000	*						
Inpex Corporation	G	AQ	NR	60		36	473,458	473,458			12,700		x			
JKX Oil and Gas	F	AQ	AQ	52	NP						10				x	
Lukoil	G	NR	NR													
Marathon Oil	G, S	AQ	AQ	59		259	18,640,000	14,010,000	4,630,000	*	8,000				x	
Massey Energy	S	NR	–													
Melrose Resources	F	AQ	–	32	NP											
Murphy Oil	S	DP	DP													
Nabors Industries	S	NR	DP													
National-Oilwell Varco	G, S	NR	NR													
Nexen	G	AQ	AQ	68		599	3,830,000	3,610,000	220,000							
Noble Corporation	S	NR	DP													
Noble Energy	S	AQ	NR	21		669	2,493,869	2,493,869								
Occidental Petroleum	G, S	AQ	AQ	41		665	16,100,000	10,100,000	6,000,000							
Oil & Natural Gas	G	AQ	AQ	34												
Peabody Energy	S	NR	IN													
Petro Canada	G	IN	AQ													
PETROBRAS	G	AQ	AQ	44	NP											
PetroChina	G	IN	IN													
Petrofac	F	NR	DP													
Pioneer Natural Resources	S	NR	–													
Premier Oil	F	AQ	AQ	45		327	214,304	214,304			5,500,000	x				
PTT	G	AQ	AQ	53	NP											
Range Resources	S	AQ	AQ	12	NP											
Reliance Industries	G	NR	NR													
Repsol YPF	G	AQ	AQ	75		356	28,570,000	26,550,000	2,020,000		173,427,031	x	x	x	x	

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[17]	Total Emissions[18]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[19]	Scope 3[20]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Rosneft	G	DP	NR													
Rowan Companies	S	AQ	AQ	21												
Royal Dutch Shell	G, F	AQ	AQ	75		185	85,000,000	75,000,000	10,000,000		691,401,000	x	x		x	
Salamander Energy	F	DP	–													
Sasol	G	AQ	AQ	71		5,171	72,680,000	62,966,000	9,714,000		570,992			x		
Schlumberger	G, S	AQ	AQ	64		70	1,890,000	1,500,000	390,000	*	1,332,000		x	x	x	
Smith International	S	AQ	AQ	40	NP											
Soco International	F	AQ	NR	34	NP											
Southwestern Energy	G, S	NR	–													
Spectra Energy	G, S	AQ	AQ	88		2,175	11,035,854	9,614,164	1,421,690		4,419				x	
StatoilHydro	G	AQ	AQ	40		164	15,300,000	15,100,000	200,000		46,000				x	
Suncor Energy	G	AQ	AQ	72		465	11,115,120	10,783,441	331,679		11,373				x	
Sunoco	S	NR	NR													
Surgutneftegas	G	NR	NR													
Talisman Energy	G	AQ	AQ	62		1,376	10,769,000	10,401,000	368,000							
Tenaris	G	NR	NR													
Tesoro	S	NR	DP													
Total	G	AQ	AQ	81		275	61,400,000	57,900,000	3,500,000		603,100,000	x	x		x	
TransCanada Corporation	G	NR	AQ(L)													
Transocean	G, S	AQ	AQ	79		170	2,152,970	2,148,208	4,762		1,803,735		x		x	
Tullow Oil	F	AQ	AQ	43		249	172,260	172,260								
Valero Energy	S	AQ	NR	51	NP											
Venture Production	F	NR	AQ													
Weatherford International	S	AQ	NR	55	NP											
Wellstream Holdings	F	NR	IN													
Williams Companies	S	AQ	AQ	36		1,449	17,900,000	16,900,000	1,000,000							
Wood Group	F	IN	DP													
Woodside Petroleum	G	AQ	AQ	64	NP											
XTO Energy	G, S	AQ	AQ	35		725	5,575,267	4,922,450	652,817							

17 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

18 Scope 1 and Scope 2 grid average reported emissions.

19 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

20 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

Financials sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

Stakeholder research commissioned in early 2008 showed that climate change was the third most important sustainability issue overall for stakeholders to HSBC in four key regions. In the 12 markets surveyed in HSBC's 2008 Climate Confidence Monitor, 43% of the consumers surveyed chose climate change ahead of global economic stability when asked about their top three concerns in September-October 2008.

HSBC Holdings

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Financials companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Financials
Response rate[1]	**66% (176 of 266)**
Global 500	83% (90 of 109)
S&P 500	61% (52 of 85)
FTSE 350	63% (69 of 109)
Overall sector rank (1-10)[2]	**9th**
Highest disclosure score	92
Lowest disclosure score	0
Average disclosure score	51
Overall emissions disclosure[3]	
Scope 1 emissions	63% (2 million Mt CO_2-e)
Scope 2 emissions[4]	61% (16 million Mt CO_2-e)
Scope 3 emissions	53% (3 million Mt CO_2-e)
Average emissions intensity[5]	6 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues based on data retrieved from Bloomberg on June 18, 2009.

Carbon disclosure trends in the Financials sector

The Financials sector comprises banks, insurers, diversified financials and real estate companies. Responses indicate that the sector perceives relatively little direct exposure to climate change, by virtue of its low carbon intensity. Instead, the sector is focused on its indirect exposure from the sectors it chooses to invest in, lend to and insure.

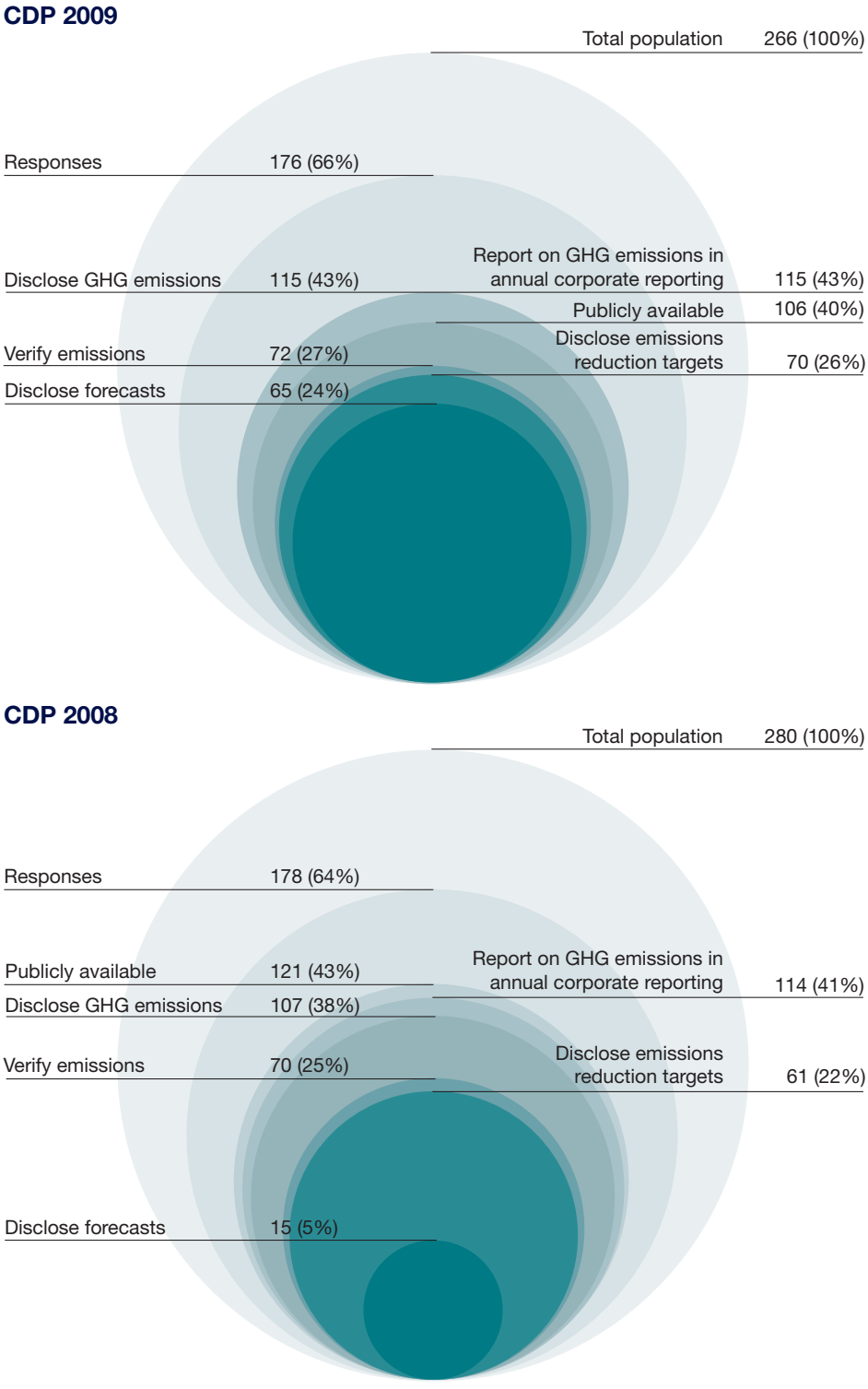
The Intergovernmental Panel on Climate Change's (IPCC) Second Working Group paper described the Financials sector as "a unique qualitative indicator of the potential socioeconomic impacts of climate change because the sector is sensitive to climate change and offers an integrator of effects on other sectors."[6] In its role as an integrator, Financials companies face a broad range of climate-related risks and opportunities. Those with a strong awareness of these risks and opportunities are likely to make better capital allocation decisions in the coming years.

Financials accounts for 22% (109) of the Global 500, 17% (85) of the S&P 500 and 31% (109) of the FTSE 350 invitees. On this basis, it has the greatest representation of any sector participating in the Carbon Disclosure Project.

The overall response rate[7] of 66% (176) is markedly lower than the top sector (Utilities, 88%), and its average disclosure score of 51 places the sector ninth (out of ten) across all sectors in CDP 2009. Given that Financials companies are closely interlinked with all sectors, this relatively low level of response indicates that much needs to be done in quantifying, managing and reporting on the impacts of climate change.

The sector shows modest improvements in nearly all the disclosure metrics from last year, with a notable improvement in the disclosure of emission forecasts (up 19 percentage points from 2008). Disappointingly, however, the proportion of companies choosing to make their responses public declined slightly and stands at 40% for CDP 2009 (see Fig. A).

Fig. A: Year-on-year disclosure rates, as a proportion of total Financials companies (Global 500, S&P 500 and FTSE 350)



6 Source: http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=322.

7 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

Fig. B: Disclosure score leaders for the sector[8]

Global 500 leaders	
Company name	**Disclosure score**
HSBC Holdings	92
Bank of Montreal	87
Simon Property Group	86
Allianz	83
Australia and New Zealand Banking Group	82
National Australia Bank	82

S&P 500 leaders	
Company name	**Disclosure score**
Comerica	91
Simon Property Group	86
Hartford Financial Services	81
Allstate	79
Bank of New York Mellon	78

FTSE 350 leaders	
Company name	**Disclosure score**
HSBC Holdings	92
Hammerson	84
Aviva	80
Lloyds Banking Group	80
Legal and General Group	78

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization[9]	
Company name	**Index**
Bank of China	Global 500
Berkshire Hathaway	Global 500
Sun Hung Kai Properties	Global 500
Generali	Global 500
Sberbank	Global 500

Comerica believes that climate change regulation will create opportunities for us to provide financial products and services to enable our customers to reduce their emissions; increase the energy efficiency of their homes, commercial buildings, and operating facilities; and reduce their overall dependence on fossil fuel energy sources.

Comerica

Climate change affects an estimated 35% to 40% of all global insured property risks, which presents both challenges and opportunities to Amlin's business.

Amlin

When compared with a cross section of global leaders for carbon disclosure, Financials respondents provided relatively basic disclosures. They significantly lag behind the global leaders in the disclosure of Scope 3 emissions and targets/plans to reduce emissions. S&P 500 respondents fall behind their Global 500 and FTSE 350 peers in the areas of Scopes 1 and 2 emissions reporting, emissions trading and public reporting (see Fig. D).

Financials leaders for carbon disclosure are listed in the order of their disclosure scores. While the remaining Financials respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

One-third of Financials companies (34%, or 90 companies) chose not to participate. The largest non-respondents are listed in Fig. C based on their market capitalization.

8 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the CDLI for the index overall when all 10 sectors are considered.

9 Market data retrieved from Bloomberg as of June 18, 2009.

...opportunities exist for us by supporting our customer base in their climate change mitigation or adaptation efforts. To this end, BMO was one of the first financial institutions to finance the development of wind power generation in Canada. Today, we are a leader in the financing of renewable energy projects. Since 2001, BMO has been involved in over $3 billion of financing transactions, including wind, hydroelectric, and biomass projects. As the regulatory environment in Canada and the US evolves, we will continue to monitor developments in the various emissions trading systems and when needed, will support our client base in this respect as well.

Bank of Montreal

Complete company responses to CDP can be downloaded from www.cdproject.net

The responses of the top three disclosers – **HSBC Holdings**, **Comerica** and **Bank of Montreal** – demonstrate an acute awareness of the range of risks and opportunities presented by climate change, with each company recognizing how the impacts of climate change are interrelated across different areas of business.

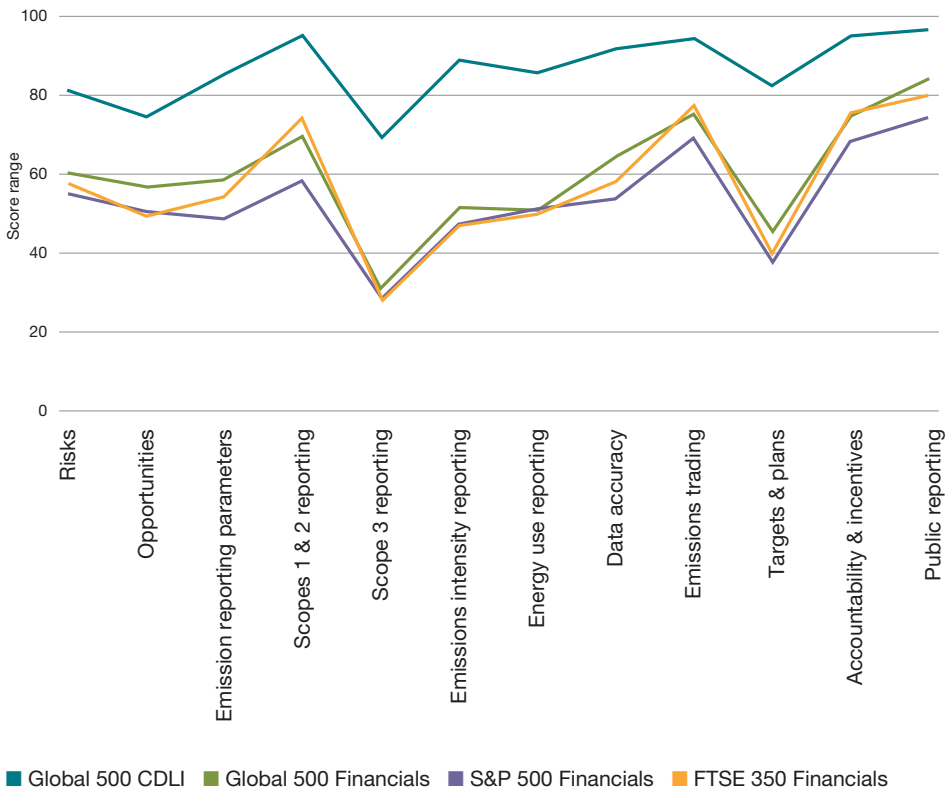
It is clear that there are a small number of Financials respondents that have provided very thorough responses. These companies recognize climate change risks and opportunities, have action plans in place, and communicate regularly with their stakeholders. However, a considerable portion of respondents fail to identify these same risks and opportunities. This should be of some concern to institutional investors and other stakeholders.

Risks and opportunities

Most Financials sector respondents across the Global 500, S&P 500 and FTSE 350 populations report limited exposure to direct regulatory risks in relation to climate change but express a high degree of concern over the risks faced by their client base.

An example of a concern for the client base around regulatory and commercial risks is rising energy costs as policymakers seek to internalize the costs of carbon. In the US, respondents are concerned about the possible introduction of a cap-and-trade regime as proposed under the Waxman-Markey bill[11] and how federal and state policies for the promotion of renewable energy and energy efficiency will evolve and interact.

Fig. D: Score breakdown for Financials within each index versus the global leaders[10]



10 The 2009 Global 500 Carbon Disclosure Leadership Index is an index of the top 10% of companies with the highest disclosure scores in the Global 500 and is used here as a global benchmark. For more information, see www.cdproject.net.

11 H.R. 2454, American Clean Energy and Security Act of 2009 (ACESA).

In Europe, some are concerned that wholesale energy prices may rise as the European Union's Emissions Trading System (EU ETS) becomes more stringent during Phase III (2013 –2020) and, in common with views expressed by Utilities respondents, the uncertainty around how the EU ETS may be modified in the light of any international commitments agreed to at Copenhagen in December 2009.

Nearly half of all UK respondents from the diversified financials, insurance and real estate industries identified the introduction of the Carbon Reduction Commitment (CRC) in April 2010 as a risk. Aside from the financial costs, the administrative obligations and reputational risk aspects of this policy instrument were highlighted.

Relatively high-risk areas of financial services such as project finance and emerging-market investment have been strongly impacted by the economic downturn. Indeed, some Financials respondents noted that their exposure to some regulatory and physical risks associated with climate change would cease as a result of their decision to withdraw from certain markets and/or asset classes. Others suggested that current market sentiment would impact the appetite to finance certain low-carbon technologies and activities which tend to have higher risk profiles.

It is clear, therefore, that carbon creates a new commercial risk which needs to be carefully appraised when evaluating lending and investment decisions

Aside from regulatory and commercial risks, physical risks from climate change were noted by 86% (71) of the Global 500, 84% (41) of the S&P 500 and 73% (35) of the FTSE 350 Financials sector respondents.

The most commonly identified physical risk is the increased incidence of extreme weather events, with the Financials respondents from the S&P 500 ascribing a higher importance to storms and hurricane activity, whereas FTSE 350 respondents are more concerned with floods and droughts. It is unclear whether this reflects recent experience in domestic markets/core customer bases or perhaps the geographic exposure of the investment portfolios of the companies concerned.

Insurance companies, in particular, recognize that they will be presented with a relatively higher exposure to the physical risks of climate change, although most view this, on balance, as an opportunity. Nevertheless, a number of companies commented on the need for a reappraisal of underwriting models in order to develop a coherent strategy on the issue.

The perspective of the real estate sector is less clear, with comparatively few respondents identifying physical risks as a concern. Emphasis here was placed instead on the impact of new building legislation (especially in Europe) to promote energy efficiency and the changing requirements of local planning bodies and tenants prompted by awareness of sustainability issues.

Climate policy /regulation affects Allianz almost immediately through the risks we accept for our businesses and our customers across the insurance, banking and asset management business lines, as well as the risks Allianz faces as an investor through the company's holdings.

Allianz

In the approach to the UNFCCC meetings in Copenhagen in December 2009... there is an expectation that regulation will increasingly affect our markets, presenting both risks and opportunities. It is encouraging that the negotiating progress will likely lead to a post-2012 international agreement on climate change, but there is still little clarity on elements of the post-Kyoto framework.

Standard Chartered

The most promising opportunities for us are to offer products and services to hedge or diversify the risks of current and anticipated physical changes – for instance, weather derivatives. From another perspective, there are also opportunities in adaptation. We see opportunities to increase our lending in the maintenance and upgrade of levees or other physical infrastructures.

Mitsubishi UFJ Financial Group

We believe the physical impacts of climate change will create business opportunities for companies which provide products and services that help others to mitigate and adapt, e.g. reduce the vulnerability of infrastructure to flooding; provide consultancy advice, offer technologies that help manage water more effectively etc.

Henderson Group

As part of our business offers life assurance, we are mindful of the impacts on the health of our clients due to climate change. Shifting disease vectors will have an impact on mortality rates, with knock-on effects for actuarial tables, of which the life assurance business remains sensitive to changes in trend lines.

Old Mutual

Eight of the ten biggest natural catastrophes in US history have occurred in the last decade. Recent hurricane seasons have caused unprecedented damage and affected millions of Americans throughout the Gulf Coast and Florida. These infrequent but extraordinarily devastating natural catastrophes present serious risks for consumers, for insurers and for the economy. It's one of the reasons insurance in catastrophe-prone areas is growing more expensive – and less available.

Allstate

We believe that regulatory change is accelerating and hence is creating more opportunities for companies. However, this has been tempered somewhat over the past 12 months by the lack of credit availability and the fall in the carbon price, both of which have seriously constrained opportunities for companies. Hence we have a long-term positive view but are more cautious short-term.

F&C Asset Management

Lloyds Banking Group will have to participate fully in the Carbon Reduction Commitment. The proposed nature of the scheme will have a projected £5m-per-annum cash flow impact upon the Group. It is in the Group's interest, therefore, to seek every opportunity to reduce emissions where practicable, to maximise the return from recycled payments.

Lloyds Banking Group

The strategic review of RBS indicates that we will gradually reduce our exposure to project finance transactions, especially those in emerging economies over the next three years. As such, it is likely that many of our project finance risks, including those related to climate change, will gradually diminish over the coming years.

Royal Bank of Scotland Group

In the 2009 budget announcement the UK Government announced a raft of initiatives to accelerate the deployment of renewables... The size of the opportunity in the market is considerable, with annual capital expenditure requirement of circa £4bn per annum over the next 13 years in order to meet Government targets.

Lloyds Banking Group

In addition to the risks outlined above, 95% (79) of the Global 500, 88% (43) of the S&P 500 and 85% (41) of the FTSE 350 Financials respondents said climate change also presents opportunities. Although some Financials respondents commented that climate change issues have diminished in importance given difficult market conditions in the short term, many said the issue will not go away and will remain near the top of most stakeholders' agendas for the long term. In this context, key areas of opportunity included:

- The impact that the various fiscal (and green) stimulus packages announced over the last year will have upon the transition to a low-carbon future;
- Existing and proposed regulations to promote renewable energy, energy efficiency in industrial applications, and green buildings; and
- The anticipated expansion in coverage of cap-and-trade programs that will underpin trading, structuring, and principal investment activity, with carbon as a commodity.

Regarding green stimulus packages, Financials respondents provided little detail on which elements (and in which countries) would have the most meaningful impacts. This may reflect the fact that at the time the CDP questionnaire was completed, such details had not been released by the respective governments involved.

Regulatory instruments – whether in the form of technology push, favorable off-take tariffs for renewable energy, or tax incentives and certification schemes to promote greener buildings, are all expected to continue and expand in reach. Banks cited examples at various scales, from the provision of debt finance for large infrastructure projects for the purposes of climate change adaptation, to branch-level support for customers and small businesses looking to undertake energy efficiency improvements.

Many of the large banks within Financials are already established players in the carbon market, with dedicated front-office and research teams responsible for much of the traded volume within the EU ETS. Others are keeping a close watch on regulatory developments in other key regions (US, Japan, Australia and Canada), with the expectation that eventually, the world may move to regionally linked carbon markets that will present interesting arbitrage and investment opportunities. Insurance respondents are also aware of this and hope to extend their profiles to the provision of such products as project finance insurance and carbon credit guarantees.

Insights from the Performance Scores Pilot

The CDP 2009 included, for the first time, separate scores for performance. While the CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Financials sector scored ninth overall for disclosure and ninth for performance. The chart below shows how Financials compares with the other sectors for performance.

As 2009 is the first year of use of the performance scoring methodology,[12] individual company performance scores are not shown in the CDP 2009 reports, though comment on initial findings is provided below.

- The top three Financials companies scoring highest in performance in alphabetical order are **Allianz**, **Deutsche Bank** and **Swiss Re**.
- Generally, Financials respondents performed slightly lower than the average performance of the other sectors across the three CDP populations. They significantly underperformed in the provision of goods and services that enable customers to reduce emissions and having targets and plans over climate change.
- In aggregate, Financials respondents within the S&P 500 tended to consistently underperform compared with their peers in the Global 500 and FTSE 350.

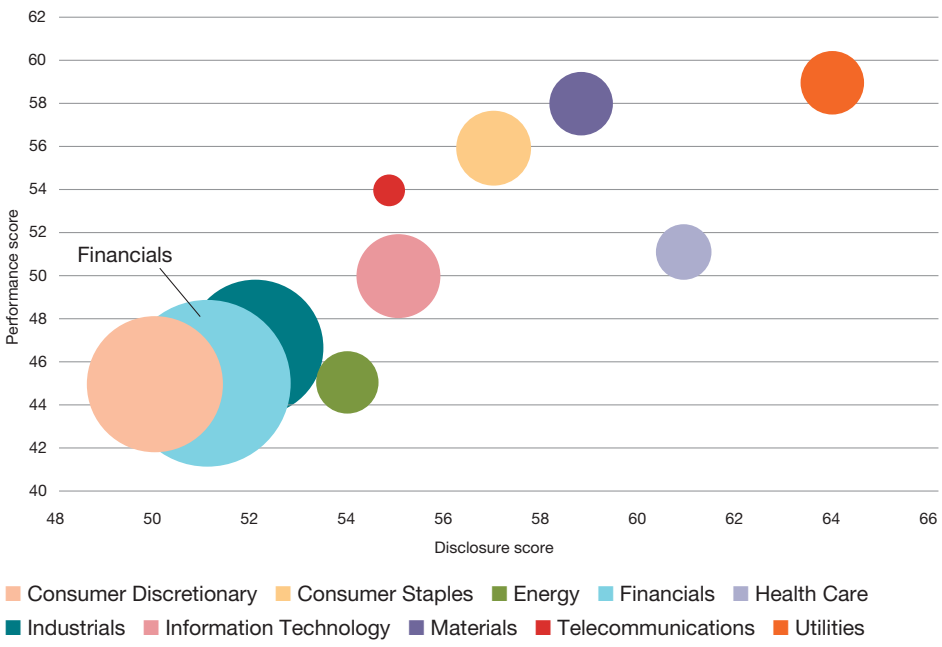
Cap-and-trade legislation and governmental incentives will promote low-carbon investments, and this demand may provide Capital One with lending opportunities to both consumer and commercial customers.

Capital One Financial

Given its recent ruling that carbon dioxide emissions pose a threat to the planet, we expect the Environmental Protection Agency (EPA) will play an increasingly active role in the regulation of greenhouse gas (GHG) emissions in the US. Failure to anticipate and adapt to the changing regulatory environment in the US may put the Bank at a competitive disadvantage versus other financial service firms.

Bank of America Merrill Lynch

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

12 For more about the performance scoring methodology, see http://www.cdproject.net/2009CDLImethodology.asp.

We recognise that tenants are raising the level of sustainability requirements needed within their developments. As a consequence, they have higher expectations concerning the energy efficiency of buildings, especially as energy prices are on the rise and EPCs [Energy Performance Certificates] give greater clarity about the expected performance of a building. Therefore, providing buildings with high EPC and BREEAM [BRE Environmental Assessment Method] ratings will be very important in future.

Hammerson

…KBC also promotes loans for JI/CDM projects that generate CO_2 reduction certificates, Green loans, taking part to Public-Private Partnership loans directed towards government expenditures for infrastructure to tackle climate change risks.

KBC Group

Within the Global 500 Financials population, 75% of companies (62) reported having a Board level or overall committee to manage climate change, compared with 53% (26) in the S&P 500 and 73% (35) in the FTSE 350. However, only a third of the respondents reported having financial incentives in place to reward individuals and management teams for either reducing emissions or developing new business opportunities.

Where they are in place, examples of such incentives include bonuses for employees engaged in facilities management, energy management, or procurement or for those business divisions responsible for commercial product development. The strongest respondents in this area were able to clearly articulate how emissions targets were cascaded from the executive team downward through the organization.

Conclusion

While it is clear that the financial crisis has had a limited impact on the long-term risks and opportunities presented by climate change, the Financials sector remains vulnerable to emerging regulatory, physical, and other risks such as reputational damage as a result of the exposure of its portfolio companies. If these indirect risks are not managed adequately, it could result in significant erosion of value.

This necessitates the need for more transparent disclosure around both internal carbon management programs and the exposure of investment and lending portfolios.

The coming year will present opportunities for the Financials sector, with the likely emergence of new regulation and the various fiscal stimulus packages promoting investment in climate change mitigation and adaption, especially in the areas of energy efficiency, renewables and clean technology. The Financials sector holds great promise in the transition to a low-carbon economy and will be a driving force in helping its clients prepare for, and manage, the risks and opportunities presented by climate change.

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Financials scores and emissions by company[13]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
3i Group	F	AQ	AQ	51		4	5,535	1,233	4,302		2,790		x		x	
3i Infrastructure (see 3i Group)	F	AQ	AQ													
3i Quoted Private Equity (see 3i Group)	F	AQ	–													
Aberdeen Asset Management	F	AQ	AQ	46	NP											
Aberforth Smaller Companies Trust	F	DP	DP													
Absolute Return Trust	F	DP	–													
Ace Ltd	G	AQ	–	53		3	45,231	12,540	32,691		8,085				x	
Admiral Group	F	AQ	AQ	42		7	3,045	0	3,045		452				x	
Affiliated Computer Services	S	NR	NR													
Aflac	G, S	AQ	AQ	62		2	32,656	6,225	26,431							
Alliance Trust	F	IN	IN													
Allianz	G	AQ	AQ	83		4	470,595	73,762	396,833	*	187,962			x	x	x
Allstate	G, S	AQ	AQ	79		7	212,467	33,575	178,892		57,071		x		x	
Alternative Investment Strategies	F	NR	–													
American Capital	S	NR	DP													
American Express	G, S	AQ	AQ	57		7	238,413	26,887	211,526		64,324				x	
American International Group	S	AQ	AQ	11												
Ameriprise Financial	S	AQ	DP	16												

13 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Amlin	F	AQ	AQ	53		2	2,323	312	2,011		1,726	x			x	
Aon	G, S	AQ	–	6	NP											
Apartment Investment and Management	S	DP	DP													
Ashmore Group	F	AQ	DP	14	NP											
Assurant	S	AQ	NR	38	NP											
Australia and New Zealand Banking Group	G	AQ	AQ	82		8	199,037	14,615	184,422		18,789				x	x
AvalonBay Communities	S	DP	NR													
Aviva	F, G	AQ	AQ	80		13	266,407	61,886	204,521	*	26,409				x	
AXA Group	G	AQ	AQ	65		2	294,988	101,814	193,174		116,907				x	x
Babcock & Brown Public Partnerships	F	DP	–													
Banca Monte dei Paschi di Siena Group	G	AQ	AQ	56		4	73,248	11,750	61,498	2,526	4,774				x	
Banco Bradesco	G	AQ	AQ	58	NP											
Banco do Brasil	G	AQ	AQ	48	NP											
Banco Itau	G	AQ	AQ	44		1	31,808	5,845	25,963	*	97,553		x		x	
Banco Santander	G	AQ	NR	59		0.4	43,668	4,637	39,031		26,579				x	
Bank of America	G, S	AQ	AQ(L)	73		13	1,483,431	121,549	1,361,882	*	156,587				x	
Bank of China	G	IN	IN													
Bank of Communications (H)	G	AQ	AQ	5												
Bank of Montreal	G	AQ	AQ	87		3	48,878	15,898	32,980	29,354	14,690†		x		x	x
Bank of New York Mellon	G, S	AQ	AQ	78		13	213,985	9,550	204,435	*	28,166				x	
Bank of Nova Scotia (Scotiabank)	G	AQ	AQ	56							15,235			x	x	
Bankers Investment Trust (see Henderson Group)	F	AQ	AQ													
Barclays	F, G	AQ	AQ	74		15	607,011	27,709	579,302	*	71,735				x	
BB&T	G, S	AQ	AQ	61		9	92,444	2,134	90,310							
BBVA	G	AQ	AQ	63		371	352,826	7,860	344,966	*	40,679				x	
Beazley Group	F	NR	NR													
Berkshire Hathaway	G	NR	NR													
BH Global (GBP)	F	DP	–													
BH Macro (GBP)	F	DP	–													
Big Yellow Group	F	IN	AQ													
BlackRock World Mining Trust	F	IN	–													
BNP Paribas	G	AQ	AQ	52		2	207,444	33,379	174,065	*	186,302				x	
BOC Hong Kong	G	NR	NR													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Boston Properties	S	NR	NR													
Brewin Dolphin Holdings	F	DP	–													
Brit Insurance Holdings	F	DP	IN													
British Assets Trust	F	AQ	–													
British Empire Sec & General Tst	F	IN	IN													
British Land	F	AQ	AQ	54		43	29,570	1,554	28,016							
Brixton	F	AQ	AQ	60		7	1,354	188	1,166	*	58			x	x	
Caledonia Investments	F	IN	DP													
Canadian Imperial Bank of Commerce (CIBC)	G	AQ	AQ	78		5	52,371	11,129	41,242		30,388			x	x	
Candover Investments	F	NR	NR													
Capital One Financial	G, S	AQ	AQ	54		11	198,797	13,260	185,537	*						
Cathay Financial Holding	G	AQ	NR	13	NP											
Catlin Group	F	AQ	IN	46	NP											
Cattles	F	AQ	AQ	20	NP											
CB Richard Ellis Group	S	AQ	AQ	53	NP											
Charles Schwab	G, S	AQ	AQ	3	NP											
Chaucer Holdings	F	AQ	–	12	NP											
Cheung Kong	G	NR	NR													
China Construction Bank (H)	G	IN	NR													
China Life Insurance (H)	G	IN	NR													
China Overseas Land & Investment	G	NR	–													
Chubb	G, S	AQ	AQ	30												
Cincinnati Financial	S	AQ	NR	26	NP											
CIT Group	S	DP	NR													
Citigroup	G, S	AQ	AQ	70		13	1,371,954	40,990	1,330,964		146,019			x	x	
City of London Investment Trust (see Henderson Group)	F	AQ	AQ													
Close Brothers Group	F	AQ	AQ	56	NP											
CLS Holdings	F	NR	–													
CME Group	G, S	AQ	NR	14	NP											
Comerica	S	AQ	AQ	91		18	69,208	13,614	55,594		26,052			x	x	
Commonwealth Bank of Australia	G	AQ	AQ	81		6	147,979	10,933	137,046		†					x
Credit Agricole	G	AQ	AQ	51		1	64,576	32,288	32,288	*	54,742				x	
Credit Suisse	G	AQ	AQ	68		4	190,646	17,108	173,538	*	83,888			x	x	
Criteria Caixa	G	NR	–													
Daejan Holdings	F	DP	DP													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Derwent London	F	AQ	AQ	54		9	1,062	42	1,020		10,546			x		
Deutsche Bank	G	AQ	AQ	66		3	230,414	27,815	202,599	*	87,441				x	
Deutsche Boerse	G	AQ	AQ	31	NP											
Developers Diversified Realty	S	NR	NR													
Dexion Absolute	F	DP	DP													
Discover Financial Services	S	IN	IN													
Dunedin Income Growth Investment Tst (see Aberdeen Asset Management)	F	AQ	–													
E*TRADE FINANCIAL	S	NR	NR													
Edinburgh Dragon Trust (see Aberdeen Asset Management)	F	AQ	–													
Edinburgh Investment Trust	F	NR	DP													
Edinburgh UK Tracker Trust	F	DP	–													
Electra Private Equity	F	AQ	AQ	0												
Electric & General Investment Trust	F	DP	–													
Equity Residential	S	NR	NR													
F&C Asset Management	F	AQ	AQ	53		2	681		681	*	938				x	
F&C Commercial Property Trust (see F&C Asset Management)	F	AQ	AQ													
Federated Investors	S	NR	DP													
Fidelity European Values	F	DP	DP													
Fidelity National Information Services	S	AQ	DP	13	NP											
Fidelity Special Values	F	DP	–													
Fifth Third Bancorp	S	AQ	AQ	62	NP											
Finsbury Worldwide Pharmaceutical	F	NR	–													
First Horizon National	S	NR	NR													
Foreign & Colonial Eurotrust Trust (see F&C Asset Management)	F	AQ	–													
Foreign & Colonial Invest Trust Trust (see F&C Asset Management)	F	AQ	AQ													
Franklin Resources	G, S	AQ	AQ	77		5	30,967	9,616	21,351		5,511				x	
Friends Provident	F	AQ	AQ	57		◆	12,028	3,276	8,752							

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
GBL (see Pernod-Ricard and GDF Suez)	G	AQ	DP													
Generali	G	NR	NR													
Genworth Financial	S	AQ	AQ	62		2	17,084	220	16,864		6,224				x	
Goldman Sachs	G, S	AQ	AQ	54	NP											
Great Portland Estates	F	AQ	AQ	61		22	1,910	1,910		3,531	12				x	
Great West Lifeco	G	DP	DP													
Hammerson	F	AQ	AQ	84		151	61,561	6,093	55,468	30,669	91,830	x	x		x	x
Hang Seng Bank	G	AQ	AQ	42	NP											
Hargreaves Lansdown	F	DP	DP													
Hartford Financial Services	S	AQ	AQ	81		13	122,333	34,238	88,095	*	16,255*				x	
HBOS – see Lloyds Banking Group	F	AQ	AQ													
HCP	S	NR	–													
Helical Bar	F	DP	–													
Henderson Group	F	AQ	AQ	62		2	517	197	320	*	1,766	x	x		x	
Hiscox	F	AQ	AQ	34	NP											
Host Hotels & Resorts	S	DP	NR													
HSBC Holdings	F, G	AQ	AQ	92		7	874,439	102,933	771,506	669,713	107,445		x		x	
Hudson City Bancorp	S	IN	IN													
Huntington Bancshares	S	AQ	AQ	1												
Icap	F	AQ	NR	19		2	3,046	907	2,139							
IG Group Holdings	F	AQ	AQ	47		10	1,818	2	1,816		585				x	
Impax Environmental Markets	F	AQ	–	41	NP											
Industrial and Commercial Bank of China	G	AQ	AQ	21	NP											
ING Group	G	AQ	AQ	56		1	126,868	34,085	92,783		53,245				x	
Intercontinental Exchange	S	NR	DP													
Intermediate Capital Group	F	NR	AQ													
International Personal Finance	F	AQ	AQ	45	NP											
Intesa Sanpaolo S.p.A	G	AQ	AQ	51		4	183,448	78,703	104,745	*	17,974				x	
Invesco	S	NR	–													
Investec	F	AQ	AQ	38							12,154				x	x
Janus Capital Group	S	AQ	AQ	32	NP											
Jardine Lloyd Thompson Group	F	NR	IN													
JPMorgan American IT	F	AQ	–													
JPMorgan Chase	G, S	AQ	AQ	74		9	952,646	69,709	882,937		129,251				x	
JPMorgan Emerging Mkts Inv Trust▲	F	AQ	AQ													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
JPMorgan Euro Fledgling Investment Tst▲	F	AQ	–													
JPMorgan IT Fleming Mercantile▲	F	AQ	AQ													
JPMorgan Indian Investment Trust▲	F	AQ	AQ													
JPMorgan Japanese Investment Trust▲	F	AQ	–													
KBC Group	G	AQ	AQ	64		3	79,547	79,547								
KeyCorp	S	DP	NR													
Kimco Realty	S	NR	NR													
Land Securities	F	AQ	AQ	62		90	73,514	11,629	61,885							
Law Debenture Corporation	F	AQ	AQ	28	NP											
Legal & General Group	F	AQ	AQ	78		◆	16,306	0	16,306		3,855				x	
Legg Mason	S	AQ	AQ	37						*						
Leucadia National	S	DP	NR													
Liberty International	F	AQ	AQ	49		72	43,989	6,366	37,623		1,070				x	
Lincoln National	S	NR	NR													
Lloyds Banking Group	F, G	AQ	AQ	80		22	455,651	97,709	357,942	*	25,129				x	
London Stock Exchange	F	AQ	AQ	22		5	2,687	631	2,056							
MT&T Bank	S	AQ	AQ	74	NP											
Man Group	F	AQ	AQ	65		2	7,262	1,375	5,887	1,144	3,296				x	
Manulife Financial	G	AQ	AQ	58		1	37,059	4,415	32,644							
Marsh & McLennan	G, S	AQ	AQ	32	NP											
Marshall & Ilsley	S	AQ	AQ(L)	19	NP											
MBIA	S	NR	AQ													
Merchants Trust (see Allianz)	F	AQ	AQ													
Merrill Lynch (see Bank of America Corporation)	G, S	AQ	AQ													
MetLife	G, S	AQ	NR	57	NP											
Mitsubishi Estate	G	AQ	AQ	25	NP											
Mitsubishi UFJ Financial Group	G	AQ	AQ	58		5	286,343	22,223	264,120		22,538				x	x
Mitsui Fudosan	G	NR	NR													
Mitsui Sumitomo Insurance[18]	G	AQ	AQ													
Mizuho Financial Group	G	AQ	AQ	42		5	236,966	12,995	223,971		93	x				
Monks Investment Trust	F	IN	IN													
Moody's	S	AQ	AQ(L)	23	NP											
Morgan Stanley	G, S	AQ	AQ	54		6	350,024	7,609	342,415		71,711				x	
Munich Re	G	AQ	AQ	72		2	156,648	8,891	147,757	28,744	67,395				x	
Murray Income Trust (see Aberdeen Asset Management)	F	AQ	AQ													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Murray International Trust (see Aberdeen Asset Management)	F	AQ	AQ													
NASDAQ OMX Group	S	NR	–													
National Australia Bank	G	AQ	AQ	82		6	223,805	15,337	208,468	176,244	16,107†				x	x
National City	S	DP	AQ													
Nomura Holdings	G	AQ	AQ	45		6	49,261	49,261								
Nordea Bank	G	AQ	AQ	58	NP											
Northern Trust	G, S	AQ	AQ	50		14	74,936	7,759	67,177		10,483				x	
Novae Group	F	DP	–													
NYSE Euronext	S	NR	NR													
Old Mutual	F	AQ	AQ	73		◆	525,253	5,822	519,431	*	39,202	x	x		x	
Overseas Chinese Banking	G	AQ	AQ	11	NP											
People's United Financial	S	NR	–													
Perpetual Income & Growth Inv Tst	F	NR	AQ													
PKO Bank Polski	G	NR	NR													
Plum Creek Timber	S	AQ	AQ	67		107	173,407	42,276	131,131	2,000	89,256		x		x	
PNC Financial Services	G, S	DP	AQ(L)													
Power Financial	G	IN	DP													
Principal Financial Group	S	IN	IN													
Progressive	G, S	AQ	AQ	56		19	237,688	146,873	90,815							
ProLogis	S	AQ	AQ	70		2	9,731	1,283	8,448		6,563				x	
Provident Financial	F	AQ	AQ	68		10	7,854	2,840	5,014	3,325	2,721				x	
Prudential	F, G	AQ	AQ	57		◆	74,139	19,337	54,802		19,271	x			x	
Prudential Financial	S	AQ	AQ	64		3	95,456	7,176	88,280		15,730				x	
Public Storage	G, S	DP	DP													
QBE Insurance Group	G	AQ	AQ	47		4	37,709	567	37,142		10,398				x	
Rathbone Brothers	F	AQ	AQ	53	NP											
Regions Financial	S	NR	NR													
Resona Holdings[18]	G	AQ	DP		NP											
RIT Capital Partners	F	DP	DP													
Royal & Sun Alliance Insurance Group	F	AQ	AQ	53		7	50,080	20,033	30,047		12,997				x	x
Royal Bank of Canada	G	AQ	AQ	74		4	137,390	27,619	109,771	*	23,219				x	
Royal Bank of Scotland Group	F, G	AQ	AQ	77		13	690,222	118,270	571,952	*	59,550				x	
Sampo	G	DP	DP													
Savills	F	AQ	DP	15												
Sberbank	G	NR	IN													
Schroders	F	AQ	AQ	63		9	9,289	733	8,556		5,738				x	

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Scottish Investment Trust	F	AQ	NR	30	NP											
Scottish Mortgage Investment Trust	F	IN	IN													
Segro	F	AQ	AQ	65		4	1,275	142	1,133	*	17				x	
Shaftesbury	F	AQ	AQ	69		18	1,188	0	1,188		1				x	
Simon Property Group	G, S	AQ	AQ	86		189	715,982	26,068	689,914	*	2,876				x	x
SLM	S	DP	NR													
Societe Generale	G	AQ	AQ	68		3	216,011	37,571	178,440		78,360			x	x	
Sovereign Bancorp (See Banco Santander)	S	AQ	–													
St. James Place	F	AQ	AQ	64		◆	3,617	1,606	2,011		5,123	x	x		x	
Standard Bank Group	G	AQ	AQ	51		10	165,332	6,107	159,225		3,492				x	
Standard Chartered	F, G	AQ	AQ	66		12	269,902	14,913	254,989		50,262				x	
Standard Life	F	AQ	AQ	57		◆	20,222	3,684	16,538		4,057				x	
State Bank of India	G	AQ(L)	AQ													
State Street	G, S	AQ	AQ	63		9	120,000	5,000	115,000	90,000	13,500				x	
Sumitomo Mitsui Financial Group[18]	G	AQ	AQ		NP											
Sun Hung Kai Properties	G	NR	NR													
Sun Life Financial	G	AQ	AQ	24	NP											
SunTrust Banks	G, S	AQ	AQ	29												
Svenska Handelsbanken	G	AQ	AQ	11	NP											
SVG Capital	F	NR	IN													
Swiss Re	G	AQ	AQ	76		2	57,783	6,761	51,022	*	160		x			
T. Rowe Price Group	S	AQ	AQ	69	NP											
Temple Bar Investment Trust (see Investec)	F	AQ	AQ													
Templeton Emerging Markets IT	F	IN	DP													
Thames River Multi Hedge PCC (GBP)	F	DP	–													
Tokio Marine Holdings	G	AQ	AQ	74		2	68,637	14,041	54,596	555	10,827				x	
Torchmark	S	NR	NR													
Toronto-Dominion Bank	G	AQ	AQ	62		9	197,720	40,337	157,383		30,976				x	
TR Property Investment Trust	F	IN	IN													
Travelers Companies	G, S	AQ	AQ	57		4	94,623	41,841	52,782							
Tullett Prebon	F	NR	NR													
U.S. Bancorp	G, S	AQ	AQ	59		20	384,143	35,809	348,334		22,107				x	
UBS	G	AQ	AQ	68		4	230,834	26,490	204,344		129,364	x		x	x	
UK Commercial Property Trust	F	DP	DP													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Unibail-Rodamco	G	AQ	DP	53		41	102,220	10,124	92,096	*						
Unicredit Group	G	AQ	AQ	48		2	188,640	59,387	129,253		54,930				x	
United Overseas Bank	G	NR	DP													
Unum Group	S	AQ	AQ	56		4	40,121	10,394	29,727							
Vornado Realty Trust	S	NR	AQ													
Wachovia (see Wells Fargo)	G, S	AQ	AQ													
Wells Fargo & Company	G, S	AQ	AQ	17												
Westfield Group	G	AQ	AQ	63		233	549,284	17,869	531,415		165,145			x	x	x
Westpac Banking	G	AQ	AQ	80		6	127,424	6,316	121,108	116,658	20,126	x			x	
Witan Investement Trust	F	DP	DP													
XL Capital	S	AQ	AQ	10	NP											
Zions Bancorporation	S	AQ	AQ	29	NP											
Zurich Financial Services	G	AQ	AQ	63	NP											

14 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

15 Scope 1 and Scope 2 grid average reported emissions.

16 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

17 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

18 This company answered CDP 2009 in Japanese and was therefore not scored.

▲ See JP Morgan Chase.

◆ Intensity was not calculated where reported revenue was a negative value.

Health Care sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

Novartis has developed an internal emissions trading strategy, which determines conditions for internal trading. As long as total shortage is below certain limits, sites are free to sell or buy allowances if needed. Experience so far has shown that sites were able to reduce their emissions considerably more than expected. Instead of a shortage as primarily forecast, emission reduction measures have resulted in a small surplus.

Novartis

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Health Care companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Health Care
Response rate[1]	**63% (51 of 81)**
Global 500	86% (37 of 43)
S&P 500	60% (33 of 55)
FTSE 350	55% (6 of 11)
Overall sector rank (1-10)[2]	**2nd**
Highest disclosure score	95
Lowest disclosure score	33
Average disclosure score	61
Overall emissions disclosure[3]	
Scope 1 emissions	86% (13 million Mt CO_2-e)
Scope 2 emissions[4]	84% (17 million Mt CO_2-e)
Scope 3 emissions	59% (31 million Mt CO_2-e)
Average emissions intensity[5]	34 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among 10 sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

Carbon disclosure trends in the Health Care sector

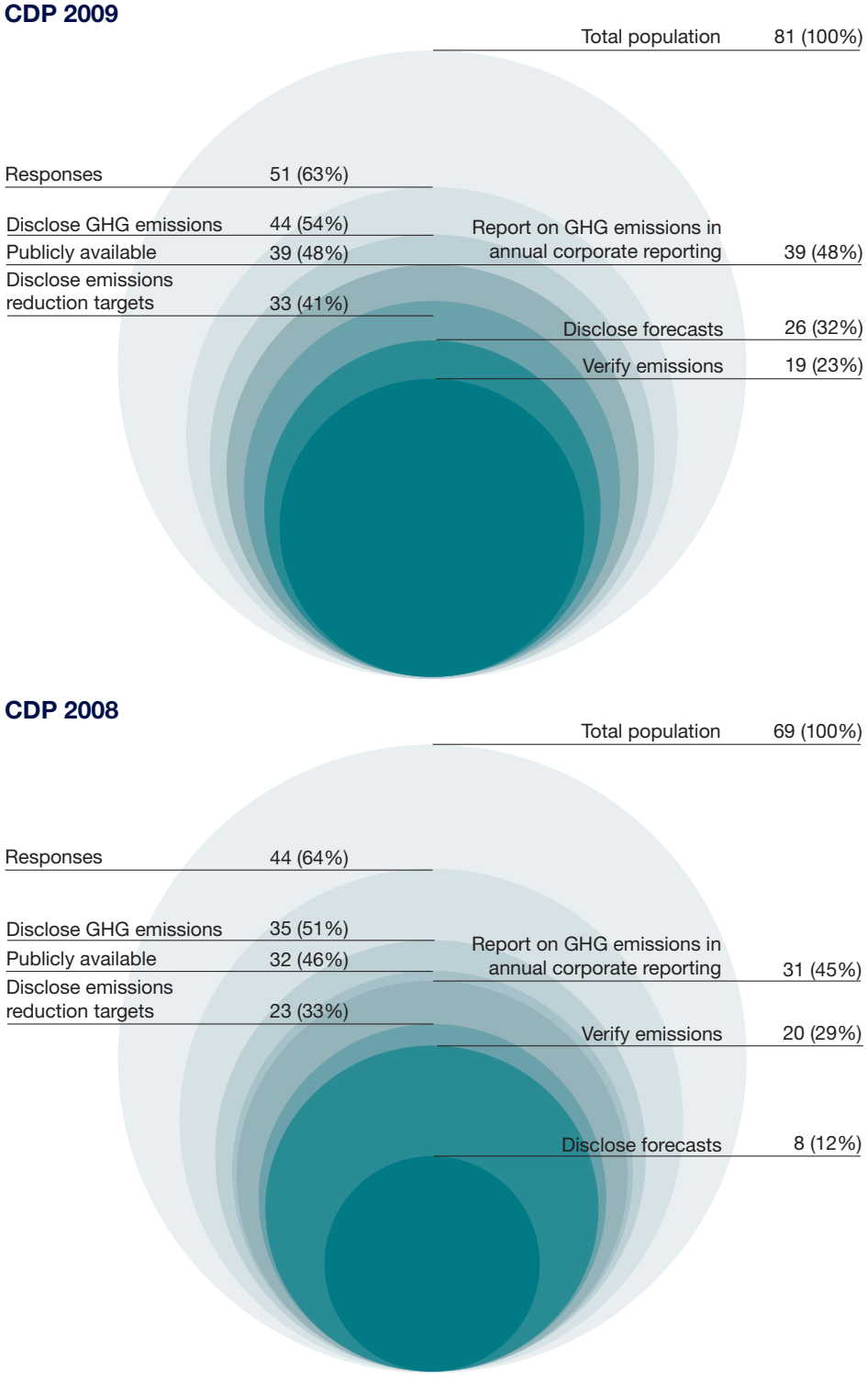
The impact of increased climate change is a double-edged sword for the Health Care sector. On one hand, respondents report that increased storm and hurricane activity can cause operational interruptions. On the other hand, the impact climate change can have on people's health and well-being can lead to increased consumer demand for health-care services and pharmaceuticals, on which the sector can potentially capitalize.

Some respondents noted that this increased incidence of disease and new viral strains brought about by changing climate conditions can also adversely affect their own company employees, crippling production. Also, the potential of decreased biodiversity brought about by changing regional climates, such as droughts or floods, can jeopardize pharmaceutical companies' access to the natural ingredients they need to produce new medicines.

The Health Care sector represents a wide range of health-care services divided into six industries: pharmaceuticals;[6] life sciences tools and services; health-care equipment and supplies; health-care providers and services, which includes distributors, services, facilities, and managed health care; health-care technology; and biotechnology. The sector is considered to be a carbon-intensive sector[7] due to the composition of companies with large operating and manufacturing facilities, which makes them subject to statutory emissions limits or voluntary reduction programs in some regions. Of Health Care respondents in 2009, 43% (22) represent the pharmaceuticals industry.

Across geographies, 63% (51) of Health Care companies responded[8] to the CDP in 2009. The proportion of Health Care companies responding at each disclosure level increased over last year's in several areas, including the disclosure of greenhouse gas (GHG) emissions reduction targets and forecasts and the reporting of GHG emissions in annual reports or other mainstream filings.

Fig. A: Year-on-year disclosure rates, as a proportion of total Health Care companies (Global 500, S&P 500 and FTSE 350)



6 Pharmaceuticals are included in the Health Care industry group in 2009 based on the GICS classifications, which is different from the 2008 CDP reports, where they were included as part of the Chemicals sector.

7 The sectors traditionally viewed as carbon-intensive according to GICS classifications are Energy, Health Care, Industrials, Materials and Utilities.

8 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

The EU ETS has already provided savings within the UK, and the same is to be hoped for the Carbon Reduction Commitment. However, the UK sites may be disadvantaged under that system in that a substantial energy reduction programme has been in place since 2002 and, depending on the base line set, most of the large reductions will have already been achieved with relatively small reduction left in the pipeline.

Smith & Nephew

Fig. B: Disclosure score leaders for the sector[9]

Global 500 leaders

Company name	Disclosure score
Bayer AG	95
Allergan	85
Schering-Plough	85
Biogen Idec	83
Johnson & Johnson	83

S&P 500 leaders

Company name	Disclosure score
Allergan	85
Schering-Plough	85
Biogen Idec	83
Johnson & Johnson	83
Bristol-Myers Squibb	75
Pfizer	75

FTSE 350 leaders

Company name	Disclosure score
GlaxoSmithKline	79
AstraZeneca	71
Shire	70
Smith & Nephew	63
Synergy Health	50

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization[10]

Company name	Index
Teva Pharmaceutical Industries	Global 500
Covidien	Global 500, S&P 500
Synthes	Global 500
Stryker	Global 500, S&P 500
St. Jude Medical	S&P 500

The respondents with the top five scores for each index from the Health Care sector are listed above in the order of their disclosure score.[11] While the remaining Health Care respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

More than one-third of Health Care companies (37%, or 30 companies) chose not to participate. The largest non-respondents are listed above based on their market capitalization

A number of Health Care respondents participated in the Carbon Disclosure Project for the first time in 2009. Two notable non-respondents in 2008 – **Shire** and **Takeda Pharmaceutical** – responded this year. Other first-time respondents were **CSL**, **Fresenius Medical Care KGaA**, **Life Technologies**, **Medco Health Solutions** and **Synergy Health**.

9 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the CDLI for the index overall when all 10 sectors are considered.

10 Market data retrieved from Bloomberg as of June 18, 2009.

11 For more about the disclosure scoring methodology, see www.cdproject.net/2009CDLImethodology.asp.

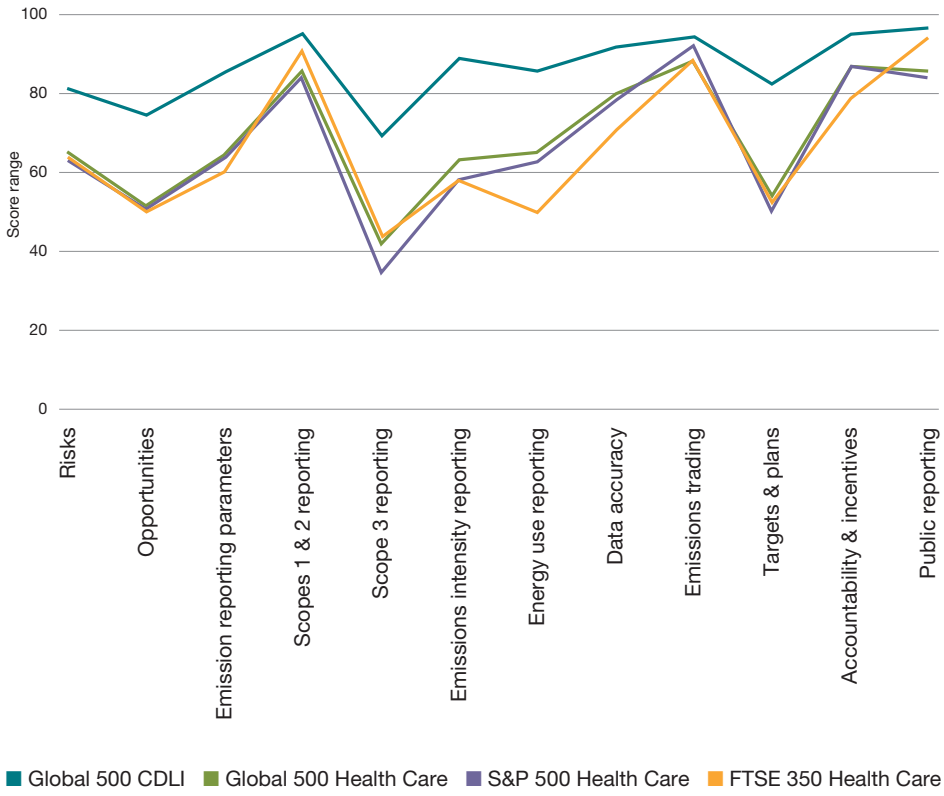
Because the sector includes a high level of respondents with global operations subject to emissions trading systems, the level of disclosures across the Global 500, S&P 500 and FTSE 350 companies did not vary significantly. As a sector, the average disclosure scores for Health Care respondents closely mirror those of global leaders in the reporting quality for Scopes 1 and 2 emissions, participation in emissions trading systems and having incentive structures in place to reduce emissions. However, respondents lag global leaders in disclosing information for nearly all other areas, particularly Scope 3 reporting and identification of emissions reduction targets (see Fig. D). Given that the sector is characterized by long-term planning and risk management procedures, it is not surprising that the Health Care sector has the second-highest average disclosure score among all sectors analyzed.

Health Care respondents reported a range of steps that contribute to overall emissions reduction goals. These include developing internal emissions trading systems to Leadership in Energy and Environmental Design (LEED) certification, switching from gasoline-powered vehicles to hybrid cars and creating employee energy reduction targets.

Respondents indicated that energy conservation can yield significant savings. **Baxter International's** global energy conservation (GHG reduction) activities resulted in energy savings and a cost avoidance of $18.9 million from 2005 to 2008.

Complete company responses to CDP can be downloaded from www.cdproject.net

Fig. D: Score breakdown for Health Care within each index versus the global leaders[12]



12 The 2009 Global 500 Carbon Disclosure Leadership Index (CDLI), is an index of the top 10% of companies with the highest disclosure scores in the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net.

Risks and opportunities

Health Care companies received higher-than-average disclosure scores for recognizing the risks and opportunities related to climate change. Of the respondents, 90% (44) reported at least one significant risk and 80% (39) reported opportunities.

Multiple risks were often reported, including increased susceptibility to disease, increased storm level and hurricane activity, droughts and floods, operational interruptions and increases in utility and other resource costs. The majority also reported regulatory risk.

The most significant climate-related risks and opportunities identified by respondents are the effects of climate change on consumers in the form of geographic or seasonal shifts in diseases, increased frequency of outbreaks and increased susceptibility to disease. Such situations can increase consumer need for existing and new treatments.

"CSL is a major supplier of seasonal influenza vaccine globally and has important strategic partnerships with governments to develop and supply pandemic influenza vaccines. There are indications that climate change may change the prevalence of seasonal influenza and the likelihood of future influenza pandemics. Influenza is a disease that is most prevalent in winter months, with the transmission of the virus linked to air temperature and humidity. As such, climate change has the potential to alter the prevalence and demographics of influenza across the globe. CSL's core capabilities and production capacity position the company well to assist governments and health authorities in countering and controlling seasonal influenza outbreaks and influenza pandemics."
CSL

Health Care respondents are increasingly aware of the significance of physical risks to the sector, as natural disasters associated with climate change become more frequent. Physical risks that could disrupt a company's supply chain or operational efficiency were reported by 77% (27) of Global 500 respondents, 76% (25) of S&P 500 respondents and 83% (5) of FTSE 350 respondents. Those physical risks can impact manufacturing facilities, suppliers, and distribution channels, depending on their geographic locations.

Another often-mentioned risk – and opportunity – is decreased biodiversity. For respondents dependent on natural ingredients to produce pharmaceuticals, climate change affecting the natural world can pose a threat to their ability to discover new treatments. At the same time, pharmaceutical respondents that use synthetic materials to produce their products view decreased biodiversity as an opportunity to surpass their competitors.

Other climate-related risks Health Care respondents reported include resource and utility cost increases, changing consumer demand, and their reputations as leaders in mitigating carbon emissions. (Notably, many Health Care respondents also perceive their commercial reputations as opportunities on which to capitalize.)

By anticipating rather than reacting to compliance requirements and emissions regulations, respondents can distinguish themselves from their competitors. It's also a way they can strengthen their employee recruitment and retention efforts, particularly their efforts to attract and retain younger workers who prize corporate responsibility.

Energy reduction targets are included in annual employee objectives. Bonuses (monetary rewards) are affected depending on whether the employees achieve their energy reduction goals.

Allergan

Aetna's Atrium Building in Hartford, Connecticut, is going green with the installation of roughly 1,000 solar panels on the roof and along the south-facing elevation, as well as numerous changes that are expected to earn the building prestigious LEED certification. Aetna's teleworkers are reducing Aetna's carbon footprint by saving more than 65 million miles per year, which saves more than 2 million gallons of gas and reduces carbon dioxide emissions by over 23,000 metric tons per year.

Aetna

We have decided to change all sales vehicles – which are used not only in Tokyo but in all areas – from gasoline vehicles to hybrid cars.

Astellas Pharma

Regulatory risks related to climate change were reported by 77% (27) of Global 500 respondents, 67% (22) of S&P 500 respondents and 83% (5) of FTSE 350 respondents. Among the specific regulatory issues related to statutory limits on emissions were the European Union's Emissions Trading System (EU ETS), the US Environmental Protection Agency's proposed endangerment finding,[13] regional and state requirements and proposed legislation in the US, which respondents say could impose higher energy and compliance costs.

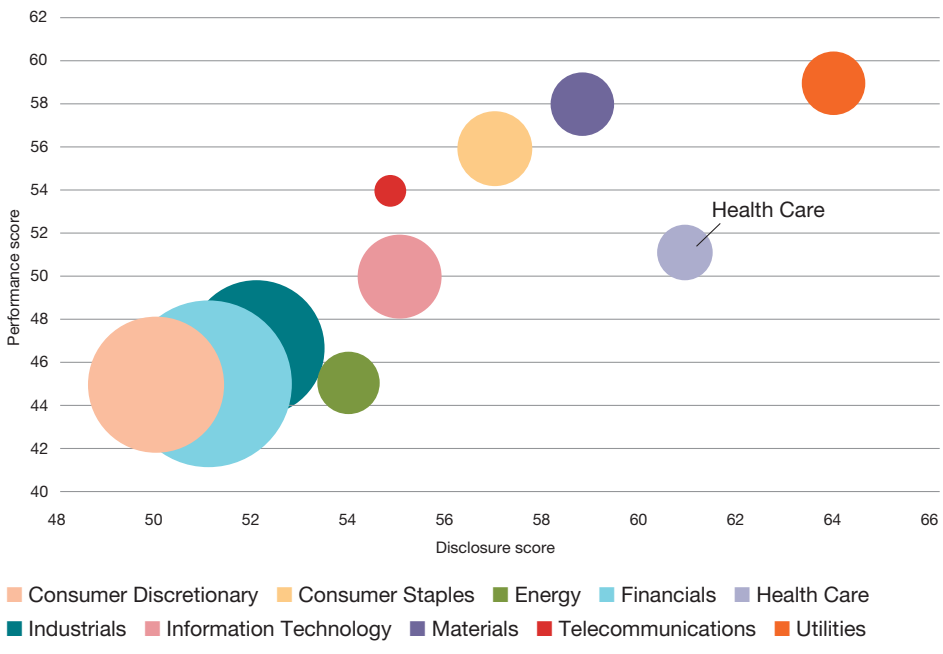
Although most UK and Western European respondents noted that prospective regulations such as phase II of the EU ETS and the Carbon Reduction Commitment[14] were unlikely to be issues given that they had already taken early, preemptive actions, others are anticipating a harder challenge ahead.

Insights from the performance score pilot

The CDP 2009 included, for the first time, separate scores for performance. While the CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Health Care sector scored second overall for disclosure and fifth for performance. The chart below shows how the sector compares with the other sectors for performance.

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

13 See http://www.epa.gov/climatechange/endangerment.html.

14 See http://www.defra.gov.uk/environment/climatechange/uk/business/crc/index.htm.

The key opportunity for Wyeth is the ability to minimize the cost impact of rising energy prices and the costs associated with carbon regulation. We anticipate that the approach Wyeth has adopted to implement energy efficiency and combined heat-and-power (CHP, also known as cogeneration) plants will serve us well as carbon regulation expands throughout the world. Wyeth sees our ability to reduce the amount of energy consumed as an opportunity to remain competitive in a dynamic marketplace. Additionally, this gives us the opportunity to demonstrate our role as a leader in the community.

Wyeth

As 2009 is the first year of use of the performance scoring methodology,[15] individual company performance scores are not shown in the CDP 2009 reports, though Health Care observations from the pilot are:

- The top three Health Care companies scoring highest in performance (in alphabetical order) are **Allergan**, **Johnson & Johnson** and **Merck & Co**.
- Global 500 and S&P 500 Health Care respondents have very similar performance scores for nearly all areas. S&P 500 companies lag in one area from their Global 500 peers: performance progress toward emissions reduction targets.
- FTSE 350 Health Care respondents scored lower on the performance scale in areas of identifying risk and maximizing opportunities related to climate change compared with industry peers. They also have lower scores for having accountability structures and incentives in place for employees to reduce GHG emissions.

The majority of Health Care respondents have assigned a board member or senior executive body with overall responsibility for climate change (69%, or 34 companies). They also have relatively high rates of disclosing GHG emissions to the public in annual reports or other mainstream filings (80%, or 39 companies) and of publishing corporate social responsibility reports (76%, or 37 companies).

Although 67% of respondents (33 companies) have GHG emissions and/or energy reduction plans in place, only 39% (19 companies) have incentive structures in place to reduce emissions.

Conclusion

Health Care companies are keenly aware of the importance of their roles in preventing the loss of life and health that could occur with global climate change, including geographic shifts in diseases, increased frequency of disease outbreaks, and increased susceptibility to disease. While their primary focus is on saving lives, Health Care companies also accept their responsibilities as good corporate citizens and are working to reduce greenhouse gas emissions. The sector clearly has a number of companies that are dedicated to transparency and to working to maintain the public's trust in all areas, including issues related to climate change.

Overall, the relatively high disclosure scores received by Health Care companies demonstrate that the sector is active in understanding climate-related risks to the sector and to the populations they serve. They show particular improvement in the practice of disclosing emissions reduction targets and emissions forecasts and rank as the second-highest-scoring group for disclosure among all 10 sectors analyzed, second only to Utilities.

Health Care companies participating in the Carbon Disclosure Project in the future should consider that their peer group has set a high standard for them. They should work together to further develop industry best practices for disclosure for the benefit of investors in the years to come.

15 For more about the performance scoring methodology, see http://www.cdproject.net 2009CDLImethodology.asp

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Health Care scores and emissions by company[16]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[17]	Total Emissions[18]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[19]	Scope 3[20]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Abbott Laboratories	G, S	AQ	AQ	65		55	1,619,500	842,103	777,397		64,312				x	
Aetna	G, S	AQ	AQ	60		3	81,691	18,706	62,985							
Alcon (see Nestle)	G	AQ	AQ													
Allergan	G, S	AQ	AQ	85		24	104,210	45,643	58,567		32,548				x	
Amerisource Bergen	S	NR	AQ													
Amgen	G, S	AQ	AQ	63	NP											
Astellas Pharma	G	AQ	AQ	41		18	194,210	82,531	111,679							
AstraZeneca	G, F	AQ	AQ	71		22	698,340	421,200	277,140		595,700	x	x	x	x	
Barr Pharmaceuticals	S	NR	IN													
Baxter International	G, S	AQ	AQ	69		59	726,428	256,828	469,600	*	1,531,000	x	x	x	x	x
Bayer	G	AQ	AQ	95		165	7,570,000	4,000,000	3,570,000	3,570,000	21,900,000	x	x	x	x	x
Becton, Dickinson & Co.	G, S	AQ	AQ	45		68	490,003	68,896	421,107							
Biogen Idec	G, S	AQ	AQ	83		24	96,897	49,459	47,438		4,234†				x	x
Boston Scientific	S	AQ	AQ	45		22	178,500	28,500	150,000							
Bristol Myers Squibb	G, S	AQ	AQ	75		40	832,135	377,825	454,310		55,686				x	
BTG	F	IN	–													
Cardinal Health	G, S	AQ	DP	49		3	314,864	90,528	224,336		25,011				x	
Celgene	G, S	AQ	DP	64		6	13,689	4,331	9,358							
Cephalon	S	DP	–													
CIGNA	S	AQ	AQ	43	NP											
Coventry Health Care	S	NR	NR													
Covidien	G, S	NR	DP													

16 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[17]	Total Emissions[18]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[19]	Scope 3[20]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
C.R. Bard	S	DP	AQ													
CSL	G	AQ	AQ	65		60	148,334	52,861	95,473							
Daiichi Sankyo	G	AQ	AQ	40	NP											
DaVita	S	NR	–													
Dechra Pharmaceuticals	F	NR	–													
DENTSPLY International	S	NR	–													
Eisai	G	NR	–													
Eli Lilly	G, S	AQ	AQ	53		98	1,991,946	599,536	1,392,410		95,202†		x		x	x
Express Scripts	G, S	NR	DP													
Forest Laboratories	S	AQ	AQ	52	NP											
Fresenius Medical Care KGaA	G	AQ	AQ	41	NP											
Genentech (see Roche Holding)	G	AQ	AQ													
Genus	F	DP	–													
Genzyme	G, S	AQ	AQ	57	NP											
Gilead Sciences	G, S	AQ	AQ	74	NP											
GlaxoSmithKline	G, F	AQ	AQ	79		85	2,079,227	945,678	1,133,549		4,911,482	x	x		x	
Hikma Pharmaceuticals	F	NR	NR													
Hospira	S	AQ	NR	53	NP											
Humana	S	AQ	AQ	69		5	137,218	12,238	124,980	*	18,200				x	
IMS Health	S	NR	DP													
Intuitive Surgical	S	NR	–													
Johnson & Johnson	G, S	AQ	AQ	83		21	1,327,272	356,729	970,543	*	369,673				x	
King Pharmaceuticals	S	NR	NR													
Laboratory Corporation of America	S	NR	NR													
Life Technologies	S	AQ	–	67		55	89,102	38,592	50,510	*						
McKesson	S	AQ	AQ	37							32,892				x	
Medco Health Solutions	G, S	AQ	AQ	67		1	69,914	3,230	66,684							
Medtronic	G, S	AQ	AQ	58		18	249,335	25,229	224,106							
Merck & Co.	G, S	AQ	AQ	71		50	1,187,582	663,506	524,076	*	60,595				x	
Millipore	S	AQ	AQ	57		91	145,398	100,976	44,422							
Mylan	S	NR	NR													
Novartis	G	AQ	AQ	70		36	1,501,730	575,589	926,141		182,200				x	
Novo Nordisk	G	AQ	AQ	73		25	214,727	43,196	171,531		120,000		x		x	
Patterson Companies	S	NR	NR													
PerkinElmer	S	AQ	AQ	44		32	61,747	20,723	41,024		8,461				x	
Pfizer	G, S	AQ	AQ	75		42	2,018,769	1,017,810	1,000,959		120,820				x	
Quest Diagnostics	S	IN	IN													
Roche Holding	G	AQ	AQ	45		21	917,133	439,509	477,624		136,343				x	x
Sanofi-Aventis	G	AQ	AQ	76	NP											
Schering-Plough	G, S	AQ	AQ	85		54	1,004,144	446,987	557,157		32,416				x	

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[17]	Total Emissions[18]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[19]	Scope 3[20]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Shire	F	AQ	NR	70		14	41,370	15,276	26,094		6,910				x	
Smith & Nephew	F	AQ	AQ	63		19	73,224	8,428	64,796							
Southern Cross Healthcare	F	IN	AQ													
SSL International	F	AQ	AQ	40		59	31,360	7,986	23,374							
St. Jude Medical	S	DP	DP													
Stryker	G, S	IN	NR													
Synergy Health	F	AQ	–	50	NP											
Synthes	G	DP	–													
Takeda Pharmaceutical	G	AQ	DP	54		27	456,774	323,575	133,199		10,469		x			
Tenet Healthcare	S	NR	DP													
Teva Pharmaceutical Industries	G	NR	NR													
Thermo Fisher Scientific	G, S	AQ	AQ	50												
UnitedHealth Group	G, S	AQ	AQ	33												
Varian Medical Systems	S	NR	NR													
Waters	S	IN	IN													
Watson Pharmaceuticals	S	NR	NR													
WellPoint	G, S	AQ	DP	71		3	181,100	8,539	172,561		100,962				x	
Wyeth	G, S	AQ	AQ	57		50	1,144,236	567,580	576,656							
Zimmer Holdings	S	AQ	AQ	45												

17 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

18 Scope 1 and Scope 2 grid average reported emissions.

19 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

20 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

Industrials sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

UTC has facilities and employees all over the world. Our business activities and the well-being of our employees could be significantly affected depending on location and local conditions… we have developed and documented emergency response plans for each of our facilities worldwide ...UTC also requires key suppliers to develop and document risk mitigation plans to ensure business continuity in the event of an emergency.

United Technologies Corporation

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Industrials companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Industrials
Response rate[1]	**(67%) 103 out of 154**
Global 500	(76%) 41 out of 54
S&P 500	(60%) 35 out of 58
FTSE 350	(71%) 47 out of 66
Overall sector rank (1-10)[2]	**8th**
Highest disclosure score	87
Lowest disclosure score	7
Average disclosure score	52
Overall emissions disclosure[3]	
Scope 1 emissions	83% (200 million Mt CO_2-e)
Scope 2 emissions[4]	76% (33 million Mt CO_2-e)
Scope 3 emissions	47% (468 million Mt CO_2-e)
Average emissions intensity[5]	155 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

Carbon disclosure trends in the Industrials sector

Industrials is a new sector classification for CDP 2009. It comprises an eclectic range of businesses across three industries, namely: capital goods (which includes aerospace and defense, machinery and building and construction companies), commercial and professional services (which includes service providers from waste management to security) and transportation (which includes surface and land transportation, logistics and transport infrastructure). On this basis, therefore, it can be viewed as a sector that has significant carbon intensity overall but that exhibits considerable variance at the industry level.

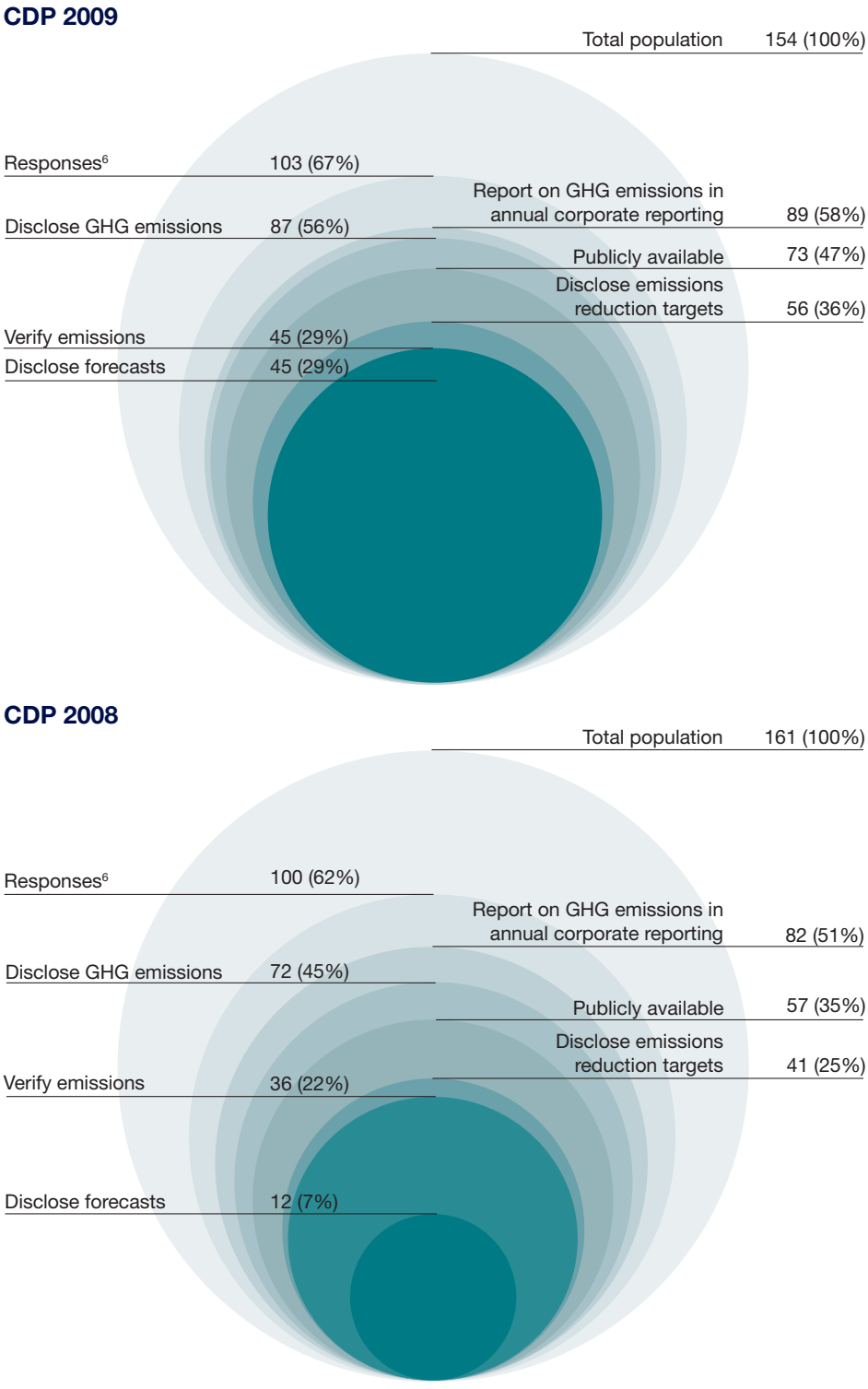
The overall response rate[6] for Industrials has risen to 67% (103 companies) for CDP 2009. This is markedly lower than the top-performing sector (Utilities, 88%, or 59 companies) and places the sector eighth (out of ten) for response rate across all sectors for CDP 2009.

Despite a lower than expected response rate in 2009, Industrials companies have increased disclosures significantly in several areas, including:

- Disclosing emissions figures (56% or an increase of 11 percentage points, year on year),
- Disclosing emission reduction targets (36% or an increase of ten percentage points, year on year), and
- Disclosing emissions forecasts (29% or an increase of 21 percentage points, year on year).

These increases are particularly encouraging, because they suggest the sector is adopting a longer-term view on climate change mitigation and that it recognizes the value of forward-looking information to its stakeholders.

Fig. A: Year-on-year disclosure rates, as a proportion of total Industrials companies (Global 500, S&P 500 and FTSE 350)



6 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

EasyJet supports the forthcoming inclusion of aviation into the EU ETS as a first step, and EasyJet has been pressing for a scheme that will cover the largest carbon footprint (i.e. include flights both within Europe and all departing and arriving flights) and reward airlines that are environmentally efficient and punish those that are not.

EasyJet

The physical risk assessment of three of our Florida-based business units identified similar levels of risk arising from hurricanes and flooding. As a result, flood defenses have been improved and roofing reinforced at these locations.

Cobham

Fig. B: Disclosure score leaders for the sector[7]

Global 500 leaders

Company name	Disclosure score
Boeing	87
Burlington Northern Santa Fe	85
Siemens	85
United Parcel Service	82
Vinci	78

S&P 500 leaders

Company name	Disclosure score
Boeing	87
Burlington Northern Santa Fe	85
Eaton	85
United Parcel Service	82
United Technologies Corporation	70

FTSE 350 leaders

Company name	Disclosure score
Interserve	76
Rolls-Royce	76
VT Group	75
Morgan Crucible	73
Go-Ahead Group	72

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization[8]

Company name	Index
Lockheed Martin	Global 500, S&P 500
Hutchison Whampoa	Global 500
Bharat Heavy Electricals	Global 500
FANUC	Global 500
Caterpillar	Global 500, S&P 500

Disappointingly, however, less than a third of respondents have their emissions verified by an independent third party. This remains an area where progress in many sectors is limited.

Industrials leaders for carbon disclosure are listed above in the order of their Carbon Disclosure Leadership Index scores[9]. The top-scoring companies' responses demonstrate acute awareness of the range of risks and opportunities presented by climate change, recognizing how the impacts of climate change are interrelated across different areas of business. While the remaining Industrials respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

One-third of Industrials companies (33% or 51 companies) chose not to participate. The largest non-respondents are listed above based on their market capitalization.

7 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the Carbon Disclosure Leadership Index (CDLI) for the index overall when all ten sectors are considered.

8 Market data retrieved from Bloomberg as of June 18, 2009.

9 For more about the disclosure scoring methodology, see www.cdproject.net/2009CDLImethodology.asp.

We anticipate increasing demand for more energy efficient products and services as well as the use of manufacturing processes that minimize the use of energy resources and greenhouse gas-emitting materials.

Boeing

Some form of federal climate change legislation is possible in the relatively near future, especially under the new leadership in the White House and on Capitol Hill… Until the timing, scope and extent of such regulation becomes known, we cannot predict its effect on our cost structure or our operating results. It is reasonably possible, however, that it could impose material costs on us.

FedEx Corporation

What is particularly encouraging is that some of the largest non-respondents by market capitalization during CDP 2008 have participated in CDP 2009. Notable companies in this category include Denmark's **A.P. Moller-Maersk** and Spain's construction and industrial services group **ACS Actividades de Construcción y Servicios**.

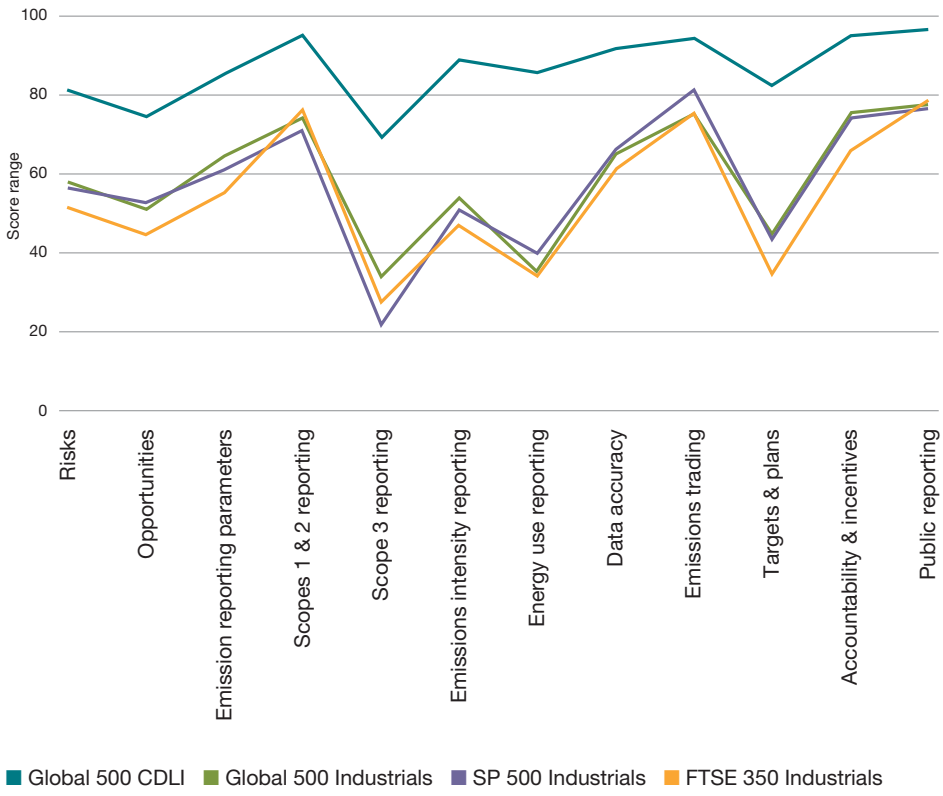
When compared with a cross section of global leaders for carbon disclosure, Industrials respondents significantly lagged the global leaders in the quality of disclosures, particularly in the areas of Scope 3 emissions reporting, energy use and intensity reporting, and disclosing targets and plans. They scored better in Scopes 1 and 2 reporting, emissions trading, having accountability structures and incentives in place for management/staff to meet climate related targets and public reporting. In most areas, the S&P 500 respondents from this sector scored higher than their FTSE 350 counterparts.

Risks and opportunities

Most respondents from the Industrials sector across the Global 500, S&P 500 and FTSE 350 populations report exposure to regulatory risks in relation to climate change. Respondents expressed concern around the form and timing of future regulation at both the national and international levels.

The overarching sentiment with respect to regulation was an expectation that operations costs would rise, creating competitive distortions in a global marketplace. This echoes the views of their peers within the Materials sector, who noted that measures such as the European Union's Emissions Trading System (EU ETS) – or other policy instruments, like carbon taxes – create the possibility of carbon leakage, whereby production is incentivized to relocate overseas.

Fig. D: Score breakdown for Industrials within each index versus the global leaders[10]



10 The 2009 Global 500 Carbon Disclosure Leadership Index (CDLI), is an index of the top 10% of companies with the highest disclosure scores for the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net

Among European respondents, there is an expectation of higher compliance costs in the future for assets covered by the existing EU ETS – particularly for the airline industry, which will be brought into the EU ETS in 2012. A trend within the S&P 500 group is that the current uncertainty surrounding forthcoming regulation is beginning to impact companies' ability to make long-term plans and investment decisions. Companies expressed concern that, in a low-carbon economy, there may simply be a lower overall demand for manufactured products.

The UK's Carbon Reduction Commitment (CRC) is a risk factor for FTSE 350 respondents; nearly two-thirds mentioned it explicitly as a regulatory risk, but views on the financial materiality of the policy vary, with some companies expecting that it will have a negligible financial impact.

Construction companies reported that they are already operating and delivering under specific standards such as the BRE Environmental Assessment Method (BREEAM) in the UK and Leadership in Energy and Environmental Design (LEED) in the US. Responses from the commercial and professional services industries were less detailed. In some cases, no regulatory risks were identified at all, whereas others were not able to cite specific legislation, but confirmed that they expected to have exposure at some point in the future.

Aside from regulatory and commercial risks from climate change 68% (28) of the Global 500, 62% (21) of the S&P 500 and 77% (36) of the FTSE 350 Industrials sector respondents expect physical risks.

The most significant physical risks identified were localized flooding and rising sea levels, followed closely by increased incidence of extreme weather events such as storms and hurricanes. The primary concern is operational interruptions from flooding and extreme weather patterns and the resulting financial implications in terms of both remediation costs and forgone revenue. To mitigate these risks, companies are preparing comprehensive contingency plans and considering climate risk in the selection of new sites – for example, by not locating new facilities within floodplains susceptible to 100-year-or-more flood events.

Changing consumer demand at the product level and greater scrutiny of the producers and retailers behind products are also risks and, to a lesser extent, opportunities. Interestingly, such risks were cited not only by companies in the sector that trade directly with the end consumer, but also by intermediary producers who recognize that supply chain emissions are coming under greater scrutiny.

Changing consumer demand is particularly pertinent in terms of the interplay between airlines and surface-based transportation and especially around the concept of a future modal shift away from air transport and toward rail for certain journeys.

"Changes in public opinion regarding products that emit GHG may result in greater pressure down the supply chain to component and part manufacturers such as Tomkins."
Tomkins

Transport infrastructure is clearly vulnerable to extreme weather conditions. Railways along the coast are vulnerable to cliff instability, flooding of tunnels, and landslips. Bus and rail depots close to rivers and coastal areas may be vulnerable to flooding. Damage to infrastructure prevents us from delivering our services and could lead to consequent loss of revenue – in particular, where the infrastructure may take time to repair.

FirstGroup

...carbon limitations will likely enhance the competitive position of rail transportation when compared to less efficient modes of moving freight…One BNSF intermodal train transports enough truck trailers and containers to remove more than 280 trucks from the highway.

Burlington Northern Santa Fe

We have observed changes in species distribution (such as termites, cockroaches and bedbugs) which have moved into areas that were previously too cold for them to breed and survive. Control of these species is offering opportunities in the more temperate parts of the world for our pest control division, which has already had to deal with them in warmer climates.

Rentokil Initial

Regulation is likely to increase the price of energy, due to energy production restrictions, energy taxes or mandated pollution control technologies on utility companies. Higher energy costs for Raytheon would increase Raytheon's production costs and decrease cost competitiveness in the global marketplaces.

Raytheon

British Airways supports the concept of carbon trading as the most environmentally effective instrument to control emissions from aviation. However, we have consistently proposed that the EU ETS should initially only apply to intra-EU flights prior to reaching a global multilateral agreement on aviation emissions. The EU decision to apply the system to all flights in and out of the EU will distort competition in many of our markets, leading to carbon leakage.

British Airways

Whilst we are well placed with regard to the CRC, the operational implications are around correct identification of boundaries on MOD [Ministry of Defence] – owned sites that we operate and data gathering and analysis to ensure the standards conform to the needs of CRC.

QinetiQ Group

Regulatory changes toward energy efficiency are also taking place in China. Siemens has entered into comprehensive agreements on energy saving and emissions reduction with local authorities – for example in Shandong, Zhejiang, Jiangshu and Shenzhen.

Siemens

Rockwell already offers its customers a large number of innovative products and technologies for climate protection and for energy and resource efficiency that help maintain regulatory requirements and internal environmental metrics. Examples of these include: Rockwell's Pavilion Technologies environmental applications have helped major manufacturers to enhance air quality and achieve environmental compliance goals.

Rockwell Automation

"In addition, the high visibility of climate change concerns has led to increased expectations from investor groups and the general public regarding industry's approach to GHG emissions. Further, we have had some customers express their expectations for increased focus on reduced energy use and GHG emissions."
Northrop Grumman

"Surface passenger transport is not currently covered by the EU Emissions Trading Scheme, but the possible extension of emissions trading schemes to surface-based passenger transport has the potential to increase the cost base of operators and divert consumer spending towards alternative forms of travel or non-travel-related expenditure."
Arriva

In addition to the risks outlined above, 95% (39) of the Global 500, 88% (30) of the S&P 500 and 96% (45) of the FTSE 350 Industrials sector respondents said climate change also presents opportunities. Key areas of opportunity include:

- New business-to-business or business-to-consumer markets underpinned by climate change risks or regulation;
- The effect of new regulation on solidifying existing competitive advantages for companies that have taken early-mover actions; and
- The impact of the various fiscal (and climate) stimulus packages announced over the past year.

Reflecting the broad scope of the sector, the opportunities identified as a result of physical changes to the climate vary, ranging from increased use of advanced technology such as satellites for helping model and track the physical impacts of climate change (in aerospace and defense) to more demand for security services in order to protect key resources, and the need for greater pest controls in response to changes in biodiversity.

As a global company, John Deere, our suppliers, and our customers face uncertain, uncoordinated regulation of greenhouse gas emissions at the state, region, and country levels. This environment does not provide certainty for long-term business planning.

Deere

The forthcoming incorporation of aviation into the EU Emissions Trading Scheme will complement existing commercial drivers related to fuel costs, potentially resulting in increased demand for advanced technology that can deliver improved fuel efficiency. Reducing fuel burn is central to our business, and this driver is well-aligned with the overarching need to reduce emissions.

Rolls-Royce

Because of ITT's energy efficient water and wastewater product line, climate change could provide a competitive advantage to ITT with regard to supply chain management, as customers preferentially select manufacturers with sustainable product lines.

ITT

We actively engage with policy makers and governments. We see the dialogue with stakeholders in politics as an opportunity to actively contribute and shape the future constructively, focused on stability and well-being of the international community. Solving the world's environmental and climate change problems is something we need to do together.

A.P. Moller-Maersk

Insights from the performance scores pilot

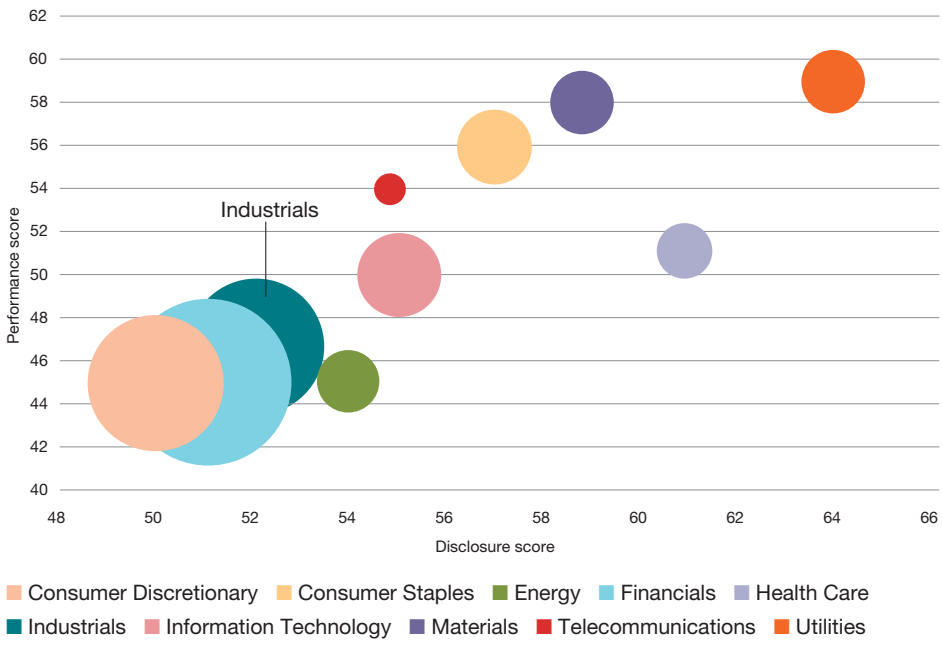
The CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Industrials sector scored eighth overall for disclosure and seventh for performance. The chart below shows how the Industrials sector compares with the other sectors for performance.

As 2009 is the first year of use of the performance scoring methodology,[11] individual company performance scores are not shown in the CDP 2009 reports, though comment on initial findings is provided below:

- The three Industrials companies scoring highest in the performance scoring pilot (in alphabetical order) are **Boeing**, **Interserve** and **Siemens**;
- Industrials respondents from all three CDP indexes outperformed the other sectors analyzed in the provision of goods and services that enable customers to reduce emissions; and
- The Global 500 and FTSE 350 Industrials respondents underperformed other sectors in nearly all areas of the questionnaire that attracted performance points, suggesting relatively poor management of the climate change risks they had identified.

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

11 For more about the performance scoring methodology, see http://www.cdproject.net/2009CDLImethodology.asp.

Cummins is engaged in two main ways in the public policy discussions surrounding climate change regulation. These include our active involvement in Washington groups and engagement on specific policies. As mentioned previously, four of Cummins's Climate Change principles specifically shape our partnerships with legislative and regulatory entities to develop sound public policy to address climate change.

Cummins

CN has been actively engaged at various levels through North America, engaging with policy makers on responses to climate change – specifically in the area of carbon trading regimes, rail industry GHG emission standards and biofuel specifications.

Canadian National Railway

- Industrials respondents within the S&P 500 typically performed better than other sectors. In addition to their strong performance around the provision of goods and services that enable customers to reduce emissions, S&P 500 Industrials respondents did well in maximizing the opportunities they identified.
- Overall, the Industrials sector provided mixed messages by establishing good governance through board committees that have overall responsibility for climate change 80% (82), but providing few staff incentives to reduce emissions 32% (33).

Evidence of companies' engaging with policy makers as well as local communities suggests a significant level of awareness and proactivity within the sector; and a large proportion, 62% (63) of companies engage with policy makers on a regular basis, although this is below the average overall for CDP respondents.

Conclusion

CDP 2009 responses suggest that, while there are clearly some areas where activity levels are high in terms of addressing the business implications of climate change, overall there is significant room for improvement among the Industrials sector. Respondents perform strongly in detailing the provision of goods and services that enable customers to reduce emissions, but disclosure in other areas is below average.

Interestingly, the motivation for action within this sector is weighted more towards creating new business-to-business opportunities and ensuring operational resilience, rather than any regulatory imperative, although this may change.

Transportation, in particular, is an area that has not been subject to extensive direct regulation to date, either in Europe or the US. However, the agenda is moving quickly and we can expect to see greater emphasis on transport emissions over the next five years with the extension of cap-and-trade programs and mandatory efficiency standards for vehicles. For equipment suppliers in these industries, there is the clear incentive to achieve competitive differentiation on the basis of low-carbon product performance. This year's responses show that aerospace and construction companies are making progress in this regard, but others have yet to develop a coherent strategy for maximizing the inherent opportunities.

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Industrials scores and emissions by company[12]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
3M	G, S	AQ	AQ	60		269	6,790,000	5,130,000	1,660,000							
A.P. Moller – Maersk	G	AQ	DP	67		840	48,921,315	48,198,000	723,315		201,375				x	
ABB	G	AQ	AQ	57		1,121	1,572,400	817,000	755,400							
Abertis Infraestructuras	G	AQ	AQ(L)	52		38	189,983	30,826	159,157	*						
ACS Actividades de Construccion y Servicios	G	AQ	IN	59	NP											
Aggreko	F	AQ	NR	22												
Alstom	G	AQ	AQ	63		19	496,000	216,000	280,000							
Arriva	F	AQ	AQ	51		486	1,479,660	1,374,927	104,733		7,267	x				
Ashtead Group	F	AQ	AQ	35	NP											
Atkins	F	AQ	AQ	60		11	15,071	2,081	12,990		23,351				x	
Avery Dennison	S	AQ	AQ	34												
Babcock International Group	F	AQ	AQ	28	NP											
BAE Systems	F, G	AQ	AQ	56	NP											
Balfour Beatty	F	AQ	AQ	48		37	307,187	249,425	57,762		12,374				x	
BBA Aviation	F	AQ	AQ	53		107	123,427	69,452	53,975							
Bharat Heavy Electricals	G	NR	NR													
Bodycote International	F	NR	IN													
Boeing	G, S	AQ	AQ	87		28	1,679,000	575,000	1,104,000	*	280,140			x	x	
Bouygues	G	AQ	AQ	31	NP											
British Airways	F	AQ	AQ	58		1,935	16,946,408	16,840,627	105,781		639,113		x		x	

12 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
BSS Group	F	AQ	AQ	19	NP											
Bunzl	F	AQ	AQ	58		◆	◆	◆	31,062		276,684		x		x	
Burlington Northern Santa Fe	G, S	AQ	AQ	85		844	15,213,194	14,889,927	323,267		27,715		x		x	
C.H. Robinson Worldwide	S	AQ	AQ	34	NP											
Canadian National Railway	G	AQ	AQ	77		630	4,330,945	4,330,945		*						
Capita Group	F	AQ	AQ	58		18	44,822	9,199	35,623		19,717				x	
Carillion	F	AQ	NR	56		21	92,869	81,754	11,115	*	7,019			x	x	
Caterpillar	G, S	IN	AQ													
Central Japan Railway	G	IN	NR													
Charter	F	NR	DP													
Chemring Group	F	AQ	IN	31	NP											
China Communications Construction (H)	G	IN	DP													
Chloride Group	F	IN	IN													
Cintas	S	NR	NR													
Cobham	F	AQ	NR	55		131	191,476	136,224	55,252		292,293		x			
Connaught	F	NR	NR													
Cookson Group	F	NR	IN													
Cooper Industries	S	AQ(L)	NR													
CSX	G, S	AQ	AQ	68		570	6,419,342	6,046,277	373,065	*						
Cummins	S	AQ	AQ	61		58	834,193	387,421	446,772							
Danaher	G, S	AQ	AQ	24	NP											
Davis Service Group	F	AQ	IN	14												
De La Rue	F	NR	AQ													
Deere	G, S	AQ	AQ	66		56	1,578,558	511,976	1,066,582							
Deutsche Post	G	AQ	AQ	63		88	6,700,000	6,700,000		*	25,600,000		x		x	
Dover	S	DP	NR													
Dun & Bradstreet	S	NR	–													
EADS	G	AQ	AQ	69	NP											
East Japan Railway	G	AQ	AQ	38	NP											
EasyJet	F	AQ	AQ	58		1,824	4,309,000	4,307,000	2,000							
Eaton	S	AQ	AQ	85		55	848,000	122,000	726,000	*						
Emerson Electric	G, S	AQ	AQ	21		24	603,723	603,723								
Equifax	S	NR	AQ													
Expeditors International of Washington	S	NR	NR													
Experian Group	F	AQ	AQ	55		18	63,445	9,255	54,190	*	12,556				x	
FANUC	G	NR	NR													
Fastenal	S	NR	–													
FedEx Corporation	G, S	AQ	AQ	59		395	14,983,506	14,983,506								
First Solar	G	NR	–													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
FirstGroup	F	AQ	AQ	58		682	3,209,695	2,926,775	282,920	*	1,217				x	
Flowserve	S	NR	–													
Fluor	S	IN	DP													
Forth Ports	F	DP	DP													
G4S	F	AQ	AQ	42		73	432,000	342,000	90,000		18,000				x	
General Dynamics	G, S	IN	IN													
General Electric	G, S	AQ	AQ	58	NP											
Go-Ahead Group	F	AQ	AQ	72	NP											
Goodrich	S	NR	NR													
Hays	F	AQ	AQ	26	NP											
Homeserve	F	AQ	AQ	49	NP											
Honeywell International	G, S	AQ	AQ	7												
Hutchison Whampoa	G	NR	NR													
Illinois Tool Works	G, S	AQ	AQ	59	NP											
IMI	F	AQ	AQ	45		54	102,550	26,800	75,750							
Ingersoll-Rand	S	AQ	AQ	50		44	577,864	148,446	429,418							
Interserve	F	AQ	AQ	76		20	35,621	29,649	5,972		971				x	
Intertek Group	F	AQ	AQ	23	NP											
Invensys	F	AQ	AQ	64		54	112,866	28,608	84,258		20,363				x	
ITE Group	F	NR	NR													
ITT	S	AQ	AQ	67		26	302,609	85,156	217,453	*	21,509				x	
Jacobs Engineering Group	S	NR	NR													
Jardine Matheson	G	DP	–													
Keller	F	NR	IN													
Kier Group	F	AQ	IN	59		11	26,723	19,978	6,745		733				x	
Komatsu	G	AQ	AQ	63		20	449,000	152,000	297,000		2,665,900	x	x	x	x	
L-3 Communications Holdings	S	DP	NR													
Lockheed Martin	G, S	IN	DP													
Manitowoc	S	DP	NR													
Masco	S	AQ	AQ	53		68	657,454	289,170	368,284							
Meggitt	F	AQ	AQ	46	NP											
Melrose	F	NR	–													
Michael Page International	F	IN	AQ													
MITIE Group	F	AQ	AQ	47		23	32,280	32,280								
Mitsubishi	G	AQ	AQ	46		0.1	4,238	0	4,238		95,100		x			
Mitsubishi Electric	G	NR	AQ													
Mitsubishi Heavy Industries	G	AQ	AQ	44							245,000		x			
Mitsui & Co	G	AQ	AQ	46	NP											
Monster Worldwide	S	NR	NR													
Morgan Crucible	F	AQ	AQ	73		546	455,708	166,647	289,061	*						
Morgan Sindall	F	AQ	NR	46		4	11,450	6,535	4,915							x

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Mouchel Group	F	IN	AQ													
MTR Corporation	G	AQ	AQ	48		478	1,087,954	21,775	1,066,179		1,129†				x	x
National Express Group	F	AQ	AQ	63		287	792,944	413,980	378,964	*	1,824				x	x
Norfolk Southern	G, S	AQ	AQ	11												
Northrop Grumman	G, S	AQ	AQ	42												
PACCAR	G, S	DP	DP													
Pall	S	AQ	AQ	59		61	156,779	44,147	112,632							
Parker-Hannifin	S	AQ	AQ	48	NP											
Paypoint	F	DP	DP													
Philips Electronics	G	AQ	AQ	73		35	1,288,665	483,584	805,081	720,509	308,443,296	x	x	x	x	
Pitney Bowes	S	AQ	AQ	50		16	97,242	23,126	74,116							
Precision Castparts	S	NR	IN													
Pv Crystalox Solar	F	IN	IN													
QinetiQ Group	F	AQ	AQ	53		53	71,832	18,108	53,724		7,158				x	
R.R. Donnelley & Sons	S	NR	DP													
Raytheon	G, S	AQ	AQ	48		27	617,445	117,112	530,333							
Regus Group	F	DP	DP													
Rentokil Initial	F	AQ	AQ	68		113	273,091	246,862	26,229		870				x	
Republic Services	S	NR	–													
Robert Half International	S	IN	IN													
Rockwell Automation	S	AQ	AQ	64		17	96,150	9,980	86,170		17,870				x	
Rockwell Collins	S	AQ	AQ(L)	61		28	132,231	12,764	119,467							
Rolls-Royce	F	AQ	AQ	76		73	665,078	292,679	372,399		100,034,000	x	x		x	
RPS Group	F	AQ	AQ	58		16	7,527	4,912	2,615		1,216				x	
Ryder System	S	AQ	AQ	61		109	675,216	565,488	109,728							
Saint-Gobain	G	AQ	AQ	67		304	18,500,571	14,029,930	4,470,641							
Schneider Electric	G	AQ	AQ	60		22	558,200	240,200	318,000		7,200,000†		x	x	x	x
Secom	G	NR	NR													
Shanks Group	F	AQ	AQ	41	NP											
Siemens	G	AQ	AQ	85		33	3,540,000	1,480,000	2,060,000		1,051,200		x		x	
SIG	F	AQ	AQ	58	NP											
Smiths Group	F	AQ	AQ	32		52	121,268	121,268								
Southwest Airlines	S	IN	DP													
Spice	F	DP	–													
Spirax-Sarco Engineering	F	AQ	AQ	54	NP											
Stagecoach Group	F	AQ	AQ	59		691	1,217,943	898,300	319,643		25,666	x			x	
Stericycle	S	DP	–													
Stobart Group	F	DP	–													
Sumitomo Corporation	G	AQ	AQ	43	NP											
Textron	S	AQ	AQ	32	NP											
Tomkins	F	AQ	AQ	44		32	176,839	176,839			32,511				x	
Travis Perkins	F	AQ	AQ	48		50	158,201	96,604	61,597		9,040				x	

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[13]	Total Emissions[14]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[15]	Scope 3[16]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Tyco International	G, S	AQ	AQ	55	NP											
Ultra Electronics Holdings	F	DP	DP													
Union Pacific	G, S	AQ	AQ	39												
United Parcel Service	G, S	AQ	AQ	82		257	13,254,000	12,148,866	1,105,134		2,357,467	x	x		x	
United Technologies Corporation	G, S	AQ	AQ	70		35	2,081,907	968,080	1,113,827	*	76,028				x	
Vinci	G	AQ	AQ	78		61	2,885,000	2,695,000	190,000		18,349,131†	x	x	x	x	x
VT Group	F	AQ	AQ	75		214	94,741	24,057	70,684		83				x	
W.W. Grainger	S	AQ	AQ	42	NP											
Waste Management	G, S	AQ	AQ	60												
Weir Group	F	NR	NR													
Wincanton	F	AQ	AQ	14	NP											
Wolseley	F	AQ	AQ	33	NP											

13 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

14 Scope 1 and Scope 2 grid average reported emissions.

15 Where there is a * in this column, the company did provide detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

16 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

◆ Reported Scope 1 data was removed at time of going to press due to miscalculation in the submission, therefore intensity and total emission data were also removed. Please see full company response at www.cdproject.net for updated Scope 1 emission data.

Information Technology sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

Climate change may impose limits to the growth of the physical economy, but the information and communication technology sector can grow without limit, providing services like video communications substituting for physical travel. This dematerialization of the economy is vital, and may provide massive opportunities for ICT companies like Cisco, Hewlett-Packard and Apple as well as content providers of every kind.

Paul Dickinson, CEO, **Carbon Disclosure Project**

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Information Technology companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Information Technology
Response rate[1]	**70% (78 of 111)**
Global 500	95% (38 of 40)
S&P 500	72% (51 of 71)
FTSE 350	43% (9 of 21)
Overall sector rank (1-10)[2]	**6th**
Highest disclosure score	88
Lowest disclosure score	7
Average disclosure score	55
Overall emissions disclosure[3]	
Scope 1 emissions	76% (14 million Mt CO_2-e)
Scope 2 emissions[4]	79% (30 million Mt CO_2-e)
Scope 3 emissions	63% (189 million Mt CO_2-e)
Average emissions intensity[5]	37 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 or emissions totals divided by annual US$ million revenues for those sector respondents who disclosed emissions. Revenues based on data retrieved from Bloomberg on June 18, 2009.

Innovative systems solutions [at IBM] include the Stockholm smart traffic solution. Stockholm has seen approximately 20% less traffic, a 12% drop in emissions, and reported 40% additional daily users of public transportation.

IBM

This past year, we took the innovative step of reporting all carbon emission on a per-product basis. Apple's Product Environmental Reports detail the emissions associated with the earliest stages of product design through manufacturing to customer use and recycling. As an example of the progress we've made in just one product generation, the current 20-inch iMac has an 18% smaller carbon footprint than its 2008 predecessor.

Apple Inc.

Carbon disclosure trends in the Information Technology sector

The Information Technology sector is characterized as a trendsetter in creating products and services designed to improve energy efficiency and reduce greenhouse gas (GHG) emissions. Respondents portray an innovative sector that is ready to deliver a range of information and communication technologies (ICT), including virtual alternatives to physical products or activities (dematerialization), services for more efficient power transmission and distribution and building efficiency (smart grids and smart buildings), and services that optimize motors, transport routes and logistics.[6]

While respondents identified a number of regulatory, physical and other risks related to climate change, they clearly sense a reason for optimism as they will play a central role in the low-carbon economy. The sector is not homogeneous, however, and respondents have not reached identical levels of maturity and sophistication in dealing with climate change. Of the ten sectors analyzed, the Information Technology sector ranks sixth, according to its average disclosure score.

The Information Technology sector consists of three industries:

- The semiconductor industry, which designs, markets and sells chips for use in computers and electronic devices
- The software and services industry, which includes companies that create and provide information technology products, consulting, data processing and outsourced data storage services, application software, systems software and home entertainment software
- The technology hardware and equipment industry, which includes companies that design, market and sell communications equipment, computers, peripherals, personal electronics, home electronics, office electronics and instruments

In 2009, 70% (78) of Information Technology companies responded to the Carbon Disclosure Project, down one percentage point from 71% (75) in 2008. This response rate includes seven new companies that had not previously responded to CDP's Information Request and seven companies that have historically participated, but chose not to respond this year. Despite a decrease in the overall response rate, the sector made improvements in all key areas of disclosure and notable improvements in disclosing emissions reduction targets and forecasts (see Fig. A).

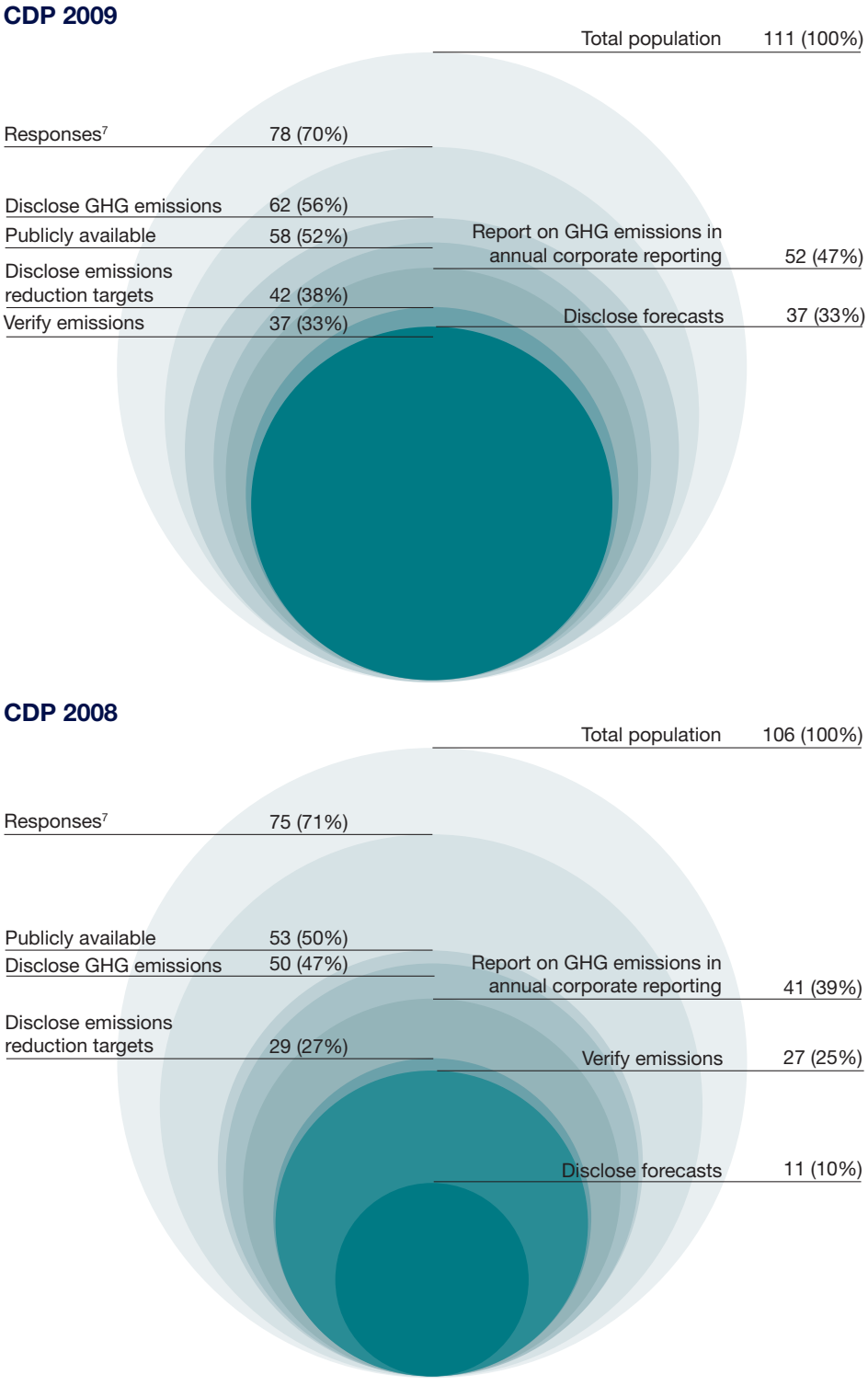
6 The Climate Group, *Smart 2020: Enabling the Low Carbon Economy in the Information Age (2008).*

Information Technology companies have a stronger rate of disclosing Scope 3 emissions compared with other non-carbon-intensive sectors. Their higher rate of Scope 3 tracking is attributed to semiconductor and hardware manufacturing companies that participate in supply chain coalitions and to the desire of software firms to track emissions reductions (e.g. employee commuting and business travel) that can help reduce costs, contribute to employee satisfaction and provide valuable experience in measuring the efficiency gains that industry innovations produce. Many respondents are members of the CDP Supply Chain and follow the code of conduct of the Electronic Industry Citizenship Coalition, an industry coalition that promotes climate stewardship throughout the supply chain.

European Union Information Technology respondents continue to show high levels of awareness of climate change, mirroring the strong agenda to curb GHG emissions in the region. Asian companies are responding to market research that shows consumer attitudes and behaviors have shifted toward more climate-friendly products; they are participating in voluntary carbon reduction programs in anticipation of regulation. In Silicon Valley – the epicenter of the US Information Technology industry – companies are subject to California's efforts to implement statewide climate regulations, and Information Technology employees are highly aware of climate concerns.

Among respondents, leading companies are actively working to meet customers' needs and empower them through the design of more-climate-sensitive and more-energy-efficient products and services.

Fig. A: Year-on-year disclosure rates, as a proportion of total Information Technology companies (Global 500, S&P 500 and FTSE 350)



7 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

At Cisco, worldwide utilization of Cisco TelePresence units remains near 50% based on a 10-hour day. The impact of increasingly pervasive TelePresence, WebEx, and MeetingPlace use is clear. Where changes in revenue and air travel once moved in sync, air travel in fiscal year 2008 was essentially flat compared with fiscal year 2006 even though revenue and head count increased 40%.

Cisco Systems

Fig. B: Disclosure score leaders for the sector[8]

Global 500 leaders

Company name	Disclosure score
Cisco Systems	88
Samsung Electronics	87
Hewlett-Packard	86
EMC	82
Intel	78
Nokia Group	78

S&P 500 leaders

Company name	Disclosure score
Cisco Systems	88
Hewlett-Packard	86
Advanced Micro Devices	82
EMC	82
Intel	78

FTSE 350 leaders

Company name	Disclosure score
Logica	77
Dimension Data Holdings	74
Premier Farnell	61
Electrocomponents	60
Xchanging	59

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization

Company name	Index
Activision Blizzard	Global 500
Paychex	Global 500, S&P 500
Western Union	S&P 500
BMC Software	S&P 500
Electronic Arts	S&P 500

Information Technology leaders for carbon disclosure are listed above in the order of their disclosure scores.[9] While the remaining Information Technology respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

One-third of Information Technology companies (30%, or 33 companies) chose not to participate. The largest non-respondents are listed above based on their market capitalization.[10]

When compared with a cross-sector group of global leaders for carbon disclosure,[11] Information Technology respondents closely followed the leaders in several key areas, including reporting climate-related information to the public, disclosures of Scopes 1 and 2 emissions and participation in emissions trading systems. However, their scores were far lower for nearly all other areas – particularly, energy intensity, energy use and the disclosure of emissions reduction targets (see Fig. D).

8 The companies included in this list are leaders in their sector for each of the indexes. However, they may not appear in the Carbon Disclosure Leadership Index (CDLI) for the index overall when all ten sectors are considered.

9 For more about the disclosure scoring methodology, see www.cdproject.net /2009CDLImethodology.asp.

10 Market data retrieved from Bloomberg as of June 18, 2009.

11 The 2009 Global 500 CDLI is an index of the top 10% of companies with the highest disclosure scores in the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net.

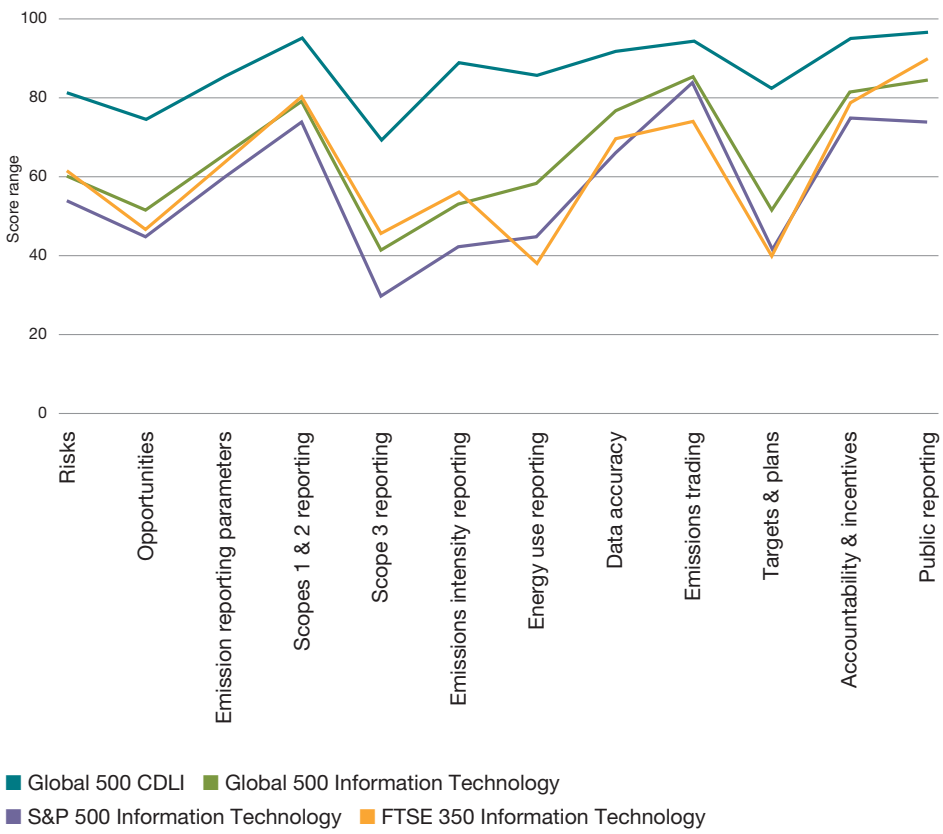
At least one large, global Information Technology company outlined why it does not use intensity metrics to measure CO_2 [carbon dioxide] reductions and why this metric should be used with caution. The company conducts business in more than 160 countries and manages a diverse range of businesses, which makes intensity difficult to measure with precision.

"IBM does not use intensity metrics (whether it is based on activity, production, financials, etc.) to measure its CO_2 emissions reduction. For instance, we could have two data centers with identically equipped, state-of-art hardware, producing the same revenue and subject to the same stringent company energy management goals and practices, yet they would have very different performances against a financial emissions intensity measurement simply due to the fact that one might be located in UK and one in Australia."
IBM

Japanese company FujiFilm Holdings Corporation mentioned that running a global operation presents difficulties in measuring and forecasting energy use.

"The Japanese government is currently preparing to amend the Energy Conservation Law to ascertain accurately the energy consumed by individual companies from the year 2010. In preparation for this amendment, since April 2009 companies have been required to ascertain energy use at all sites. Since FujiFilm has plants in the United States, Europe, and other areas in addition to Japan, even greater caution is needed with regard to these regulatory guidelines."
FujiFilm Holdings Corporation

Fig. D: Score breakdown for Information Technology within each index versus the global leaders



A subsidiary company of Toshiba(Vietnam) uses Toshiba's high concentration organic wastewater treatment technology to recover biogas, a flammable mixture of methane and carbon-dioxide gas resulting from bacterial decomposition of organic matter from wastewater discharged by starch factories in Vietnam. The project meets the CDM requirement of cutting greenhouse gas emissions, and also lowers the fuel costs of the starch factories. In FY2009, this company will construct a plant able to recover greenhouse gases equivalent to emission of approximately 70,000 tons of CO_2 a year.

Toshiba

As the economic position stabilizes, we anticipate that attention will turn to costs and efficiencies, which provides more opportunity for green technologies.

Electrocomponents

Risks and opportunities

Information Technology respondents received average disclosure scores for reporting risks and opportunities. Among them, 72% (53) anticipate regulatory, physical or general risk related to climate change, and 89% (66) said climate change presents opportunities.

Physical risks that could disrupt a company's supply chain or operational efficiency were reported by 62% (21) of Global 500 respondents, 53% (27) of S&P 500 respondents and 44% (4) of FTSE 350 respondents. Most cited increased storm and hurricane activity as well as drought, flooding and other water resource concerns.

Similar proportions of Information Technology companies reported regulatory risks as physical risks. Regulatory risks related to climate change were reported by 56% (19) of Global 500 respondents, 57% (29) of S&P 500 respondents and 67% (6) of FTSE 350 respondents. Respondents cited rising costs for energy, utilities and resources as an indirect risk related to regulatory change as well as risk involved in adapting to new energy efficiency standards.

Semiconductor and hardware companies, due to the nature of their industries, expect a more direct regulatory impact from statutory emissions limits and energy efficiency standards and are working side by side with policy makers to raise awareness of industry needs.

Taiwan Semiconductor Manufacturing, for example, stands out as active in policy discussions and in sharing its experience in measuring GHGs as a means of shaping the details of the Greenhouse Gas Reduction Act in Taiwan.

Intel has founded a consortium of ICT companies and climate-oriented non-governmental organizations called Digital Energy Solutions Campaign to advocate for the industry with government leaders.

Overall, the Information Technology sector is poised to provide a range of services and new technologies for other businesses striving to meet their emissions reduction targets. As a result, respondents often cited potential opportunities – particularly in the contexts of tighter energy efficiency standards, rising fuel costs and regulation that could drive shifts in consumer demand. Regulatory opportunities were noted by 91% (31) of Global 500 respondents, 80% (41) of S&P 500 respondents and 67% (6) of FTSE 350 respondents in the sector.

Innovation continues to drive the advances that lower power consumption, reduce carbon output and eliminate waste for Information Technology respondents and their customers.

"Hewlett-Packard is consolidating its 85 legacy data centers into 6 data centers in three cities, each equipped with the latest energy-efficient equipment and Dynamic Smart Cooling technology. This is saving enough electricity to power all the homes in the city of Palo Alto, California, for more than a year. When the initiative is complete and fully optimized, we anticipate yearly energy savings from data center consolidation up to 380 million kilowatt-hours and annual cost savings of up to $30 million."
Hewlett-Packard

"During fiscal year 2008, customers using a variety of Intuit's products (including QuickBooks, TurboTax, Intuit Payroll, etc.) avoided approximately 8,000 $MtCO_2$-e [metric ton carbon dioxide equivalent] by avoiding the printing and mailing of paper. Approximately 590 million sheets of paper were saved by e-mailing or e-filing through Intuit's products."
Intuit

Innovation also plays a role in how respondents approach manufacturing and design. **Motorola** has developed a carbon-free phone, incorporating recyclable materials and utilizing carbon offsets. **Apple Inc.** has engineered new techniques for charging batteries – extending their life to three times the industry norm – and reducing the number of batteries that need to be manufactured and shipped. Many semiconductor respondents are designing chips that use less energy than those of their predecessors.

Physical risks may affect not only our own operations but also the businesses of our suppliers and clients. This may mean, for example, the disruption of data center operations or the ability of suppliers to provide necessary [information technology] hardware. Directly or indirectly, such risk may affect the financial stability of suppliers and customers in different parts of the world and, in turn, reflect on Dimension Data's own business performance.

Dimension Data Holdings

At the headquarters site, we've already had to import large amounts of soil to raise the grades on the new building under development to be above the 100-year flood plain.

NetApp

Complete company responses to CDP can be downloaded from www.cdproject.net

Accenture is working with Xcel Energy to build the world's first Smart Grid City, in Boulder, Colorado. If Smart Grid allows consumers in Boulder to reduce their electricity usage by just 2.5 percent, Xcel Energy will be able to cut carbon emissions by more than 1 million tons annually.

Accenture

It is clear that customer purchasing behavior has changed toward environmentally friendly products such as energy saving and RoHS [reduction of hazardous substances]. If a company cannot follow this trend, the company will be out of business.

Samsung Electronics

Insights from the performance score pilot

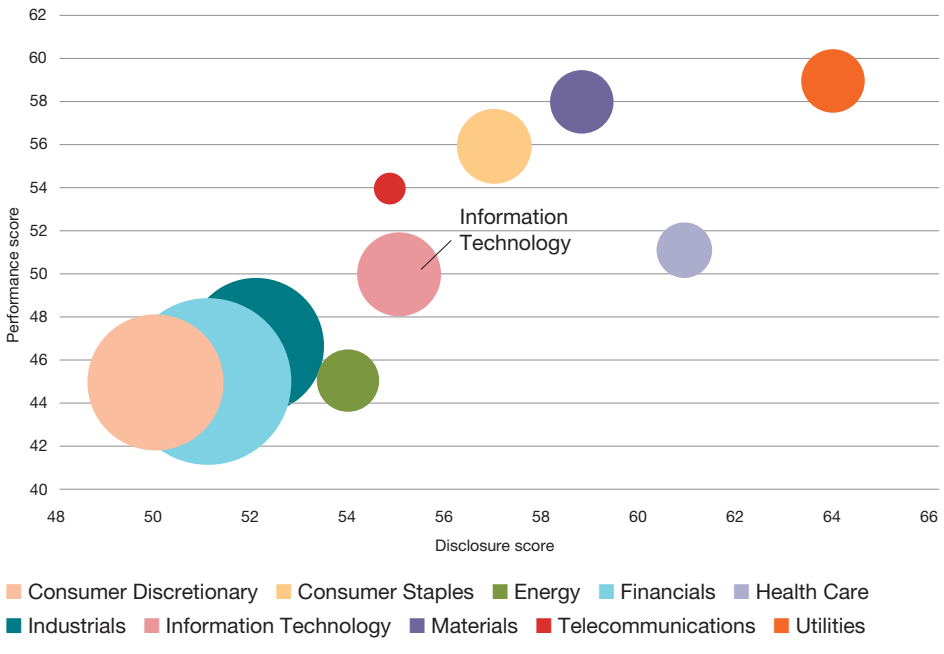
The CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Information Technology sector scored sixth overall for disclosure and performance. The chart below shows how the sector compares with the other sectors for performance.

As 2009 is the first year of use of the performance scoring methodology,[12] individual company performance scores are not shown in the CDP 2009 reports, but we provide comment on initial findings below:

- Four Information Technology respondents – **Accenture**, **Cisco Systems**, **EMC** and **Nokia Group** – tied for the top-performing companies;
- Compared with all other sectors, the Information Technology sector received comparable performance scores in all but one category: the development of products and services that help consumers reduce GHGs. Within that category, Information Technology companies excel; and
- Global 500 Information Technology companies also tend to outperform their sector peers in the S&P 500 and FTSE 350 in creating emissions reduction plans and having accountability and incentive structures in place to drive employees to meet those targets.

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

12 For more about the performance scoring methodology, see http://www.cdproject.net/2009CDLImethodology.asp

Other areas show signs that the Information Technology sector is improving its overall response to climate change. The majority of respondents have a Board member or executive body with overall responsibility for climate change (70%, or 52 companies). More than half have GHG emissions reduction targets (57%, or 42 companies) and 43% (32 companies) have incentives in place to encourage accountability to those targets.

Overall, Information Technology respondents have relatively high rates of disclosing GHG emissions to the public in annual corporate reports or other mainstream filings (70%, or 52 companies) and of publishing corporate social responsibility reports (66%, or 49 companies).

Conclusion

While Information Technology companies forecast that their emissions will increase with demand, the potential for this sector overall to reduce global emissions by industrializing technologies seems without limit. Videoconferencing could lead to significant reductions in business air travel, and consequently, significant reductions in emissions. Broadband networks can theoretically reduce energy consumption by making infrastructure smarter. Dematerialized products and services – those without physical limitations – may become important differentiators for companies in societies seeking to reduce their consumption and minimize waste. At the same time, broadband will grow consumption of communications, education, entertainment and other forms of information exchange.

Respondents from the Information Technology sector are optimistic that increasing awareness of carbon issues and new regulations will expand the marketplace for their products and services as businesses and consumers search for inventive and cost-effective methods to reduce, mitigate and measure their own carbon footprints. Despite this, carbon disclosure scores are only average for the Information Technology sector compared with other sectors in the economy. This provides a great opportunity for lower-scoring companies to learn from sector leaders and improve their disclosures in years to come.

Rising fuel costs and limits on organizations' overall carbon footprints could encourage large-scale telework initiatives such as Sun's in-house Open Work [flexible work] program and drive adoption and use of Sun's cloud-computing initiative.

Sun Microsystems

As a software developer, there is a major upside to regulatory risks associated with the climate. Some of Adobe's software provides Internet-based conferencing and training, which supports travel reduction.

Adobe Systems

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Information Technology scores and emissions by company[13]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Accenture	G	AQ	AQ	76		6	153,580	8,262	145,318	*	413,042				x	
Activision Blizzard	G	NR	–													
Adobe Systems	G, S	AQ	AQ	60		5	19,567	3,241	16,326		17,221				x	
Advanced Micro Devices	S	AQ	AQ	82		76	439,503	84,719	354,784		394,166		x	x	x	
Agilent Technologies	S	AQ	AQ	62		22	124,318	14,134	110,184		35,000				x	
Akamai Technologies	S	NR	DP													
Altera	S	IN	AQ													
Amphenol	S	NR	–													
Analog Devices	S	AQ	DP	44	NP											
Apple Inc.	G, S	AQ	AQ	73		4	135,324	22,633	112,691	*	9,912,394	x	x	x	x	
Applied Materials	G, S	AQ	AQ	57		25	199,944	30,897	169,047		45,206				x	
ARM Holdings	F	AQ	DP	54	NP											
Autodesk	S	AQ	AQ	77		10	22,067	2,272	19,795		25,115				x	
Automatic Data Processing	G, S	AQ	DP	32		4	36,312	15,849	20,463							
Autonomy Corporation	F	NR	NR													
Aveva Group	F	IN	DP													
Axon Group	F	DP	–													
BMC Software	S	NR	AQ													
Broadcom	S	AQ	DP	48		6	27,057	2,162	24,895		875				x	
CA	S	AQ	AQ	69		21	88,621	3,828	84,793	*	16,109				x	
Canon	G	AQ	AQ	66		881	1,116,983	179,964	937,019		5,449,000	x	x	x		
Ciena	S	DP	DP													

13 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Cisco Systems	G, S	AQ	AQ	88		15	598,382	51,620	546,762	307,143	197,951				x	
Citrix Systems	S	NR	AQ													
Cognizant Technology Solutions	S	AQ	NR	53		52	146,574	22,981	123,593		35,964				x	
CSC	S	NR	NR													
Compuware	S	AQ	AQ	7	NP											
Convergys	S	DP	AQ													
Corning	G, S	AQ	AQ	57		212	1,262,281	329,629	932,652	*						
CSR	F	AQ	AQ	46		6	4,243	255	3,988		3,714				x	
Dell	G, S	AQ	AQ	66		7	406,252	30,780	375,472	313,837	93,382				x	
Dimension Data Holdings	F	AQ	AQ	74		15	67,595	12,409	55,186		23,620				x	
Domino Printing Sciences	F	DP	–													
eBay	G, S	AQ	AQ	59		14	116,618	6,210	110,408		10,198				x	
Electrocomponents	F	AQ	AQ	60		23	20,994	2,698	18,296	*	1,902				x	
Electronic Arts	S	NR	NR													
EMC	G, S	AQ	AQ	82		25	371,620	35,850	335,770		60,500				x	
Ericsson	G	AQ	AQ	63		8	224,000	28,000	196,000	*	4,815,000	x	x	x	x	
Fiserv	S	AQ	AQ	17	NP											
FujiFilm Holdings Corporation	G	AQ	AQ	71		43	1,361,398	794,722	566,676		949,825	x	x			
Google	G, S	AQ	AQ	53												
Halma	F	NR	AQ													
Harris	S	NR	–													
Hewlett-Packard	G, S	AQ	AQ	86		21	2,449,378	303,844	2,145,534	2,094,321	5,926,506	x	x	x	x	
Hitachi	G	AQ	AQ	69	NP											
Hon Hai Precision Industries	G	AQ	AQ(L)	52	NP											
Infosys Technologies	G	AQ(L)	AQ(L)													
Intel	G, S	AQ	AQ	78		93	3,500,000	1,000,000	2,500,000	1,800,000	43,670,000	x	x	x	x	
IBM	G, S	AQ	AQ	77		29	2,961,791	580,344	2,381,447	2,214,000					x	
Intuit	S	AQ	AQ	23		14	41,525	6,840	34,685		18,548†			x	x	
Jabil Circuit	S	AQ	NR	66		38	488,145	23,811	464,334		16,021				x	
JDS Uniphase	S	AQ	AQ	43		39	59,797	8,376	51,421		5,466				x	
Juniper Networks	S	AQ	AQ	66		16	55,655	3,592	52,063		19,045				x	
KLA-Tencor	S	DP	NR													
Kyocera Corporation	G	AQ	AQ	56	NP											
Lexmark International	S	AQ	AQ	53		43	196,454	19,353	177,101		10,916				x	
Linear Technology	S	NR	NR													
Logica	F	AQ	AQ	77		27	97,668	45,814	51,854	51,854	46,158		x		x	
LSI	S	AQ	AQ	76		34	91,651	7,623	84,028		7,491				x	

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
MasterCard	G, S	AQ	–	51	NP											
MEMC Electronic Materials	S	NR	NR													
Micro Focus International	F	NR	NR													
Microchip Technology	S	NR	NR													
Micron Technology	S	AQ	DP	17		314	1,836,563	779,055	1,057,508							
Microsoft	G, S	AQ	AQ	70		14	845,925	46,066	799,859	*	347,738†			x	x	x
Misys	F	NR	DP													
Molex	S	AQ	AQ	33						*						
Moneysupermarket.com Group	F	AQ	AQ	34	NP											
Motorola	S	AQ	AQ	52		18	531,661	38,768	492,893		136,866				x	
National Semiconductor	S	AQ	NR	55		181	340,884	168,495	172,389							
NetApp	S	AQ	AQ(L)	23												
Nintendo	G	AQ	AQ	15	NP											
Nokia Group	G	AQ	AQ	78		4	279,300	14,700	264,600	*	5,252,500	x	x	x	x	
Novell	S	NR	NR													
Novellus Systems	S	AQ	AQ	56	NP											
NTT Data[18]	G	AQ	AQ													
NVIDIA	S	AQ	AQ	34		6	23,296	1,318	21,978		4,379				x	
Oracle	G, S	AQ	AQ	35												
Paychex	G, S	NR	NR													
Premier Farnell	F	AQ	AQ	61		32	23,926	4,909	19,017		1,194				x	
QLogic	S	AQ	DP	44	NP											
Qualcomm	G, S	AQ	AQ	48		8	90,616	43,922	46,694							
Renishaw	F	NR	AQ													
Research In Motion	G	AQ	DP	44		4	36,933	9,313	27,620		20,746				x	
Rotork	F	NR	AQ(L)													
Sage Group	F	AQ	AQ	46		12	15,091	3,575	11,516							
salesforce.com	S	NR	–													
Samsung Electronics	G	AQ	AQ	87		97	9,319,257	4,043,115	5,276,142	*	96,104,520	x	x	x	x	
SanDisk	S	DP	DP													
SAP	G	AQ	AQ	54		14	224,000	110,000	114,000		185,000†				x	x
Spectris	F	IN	IN													
Spirent Communications	F	NR	AQ													
Sun Microsystems	S	AQ	AQ	55		17	241,702	9,670	232,032		81,926				x	
Symantec	G, S	AQ	AQ	52		28	163,243	0	163,243	*	54,000				x	
Taiwan Semiconductor Manufacturing	G	AQ	AQ	71		410	4,158,205	2,016,969	2,141,236	*	2,081,072		x	x	x	
Tata Consultancy Services	G	AQ	AQ	69		51	290,436	36,509	253,927		51,539				x	
Telecity Group	F	NR	–													

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[14]	Total Emissions[15]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[16]	Scope 3[17]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Tellabs	S	AQ	AQ	48	NP											
Teradata	S	AQ	AQ	38	NP											
Teradyne	S	AQ	AQ	53		22	24,208	2,468	21,740		8,398				x	
Texas Instruments	G, S	AQ	AQ	56												
Toshiba	G	AQ	AQ	51		34	2,914,000	1,166,000	1,748,000		10,365,000	x	x			
Total System Services	S	AQ	AQ	22	NP											
Tyco Electronics	S	AQ	AQ	31												
Verisign	S	NR	NR													
Western Union	S	DP	NR													
Xchanging	F	AQ	AQ	59		18	9,853	1,097	8,756		887				x	
Xerox	S	AQ	AQ	59		23	408,862	154,493	254,369							
Xilinx	S	AQ	AQ	47	NP											
Yahoo Japan[18]	G	AQ	AQ													
Yahoo!	G, S	AQ	AQ	22	NP											

14 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

15 Scope1 and Scope 2 grid average reported emissions.

16 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

17 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

18 This company answered CDP 2009 in Japanese and was therefore not scored.

Materials sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

Increasing tropical cyclones and other extreme weather events potentially pose the greatest risk, especially in Asia, Australia, and Latin America. These present physical risks to our offshore petroleum operations, including impacts on personnel as well as loss of business continuity, production interruption, and damaged or lost facilities. Combined with local sea-level changes, such extreme weather events also increase the risk of damage and disruption to our onshore operations located near coastlines.

BHP Billiton

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions, and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Materials companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Materials
Response rate[1]	**77% (58 of 75)**
Global 500	89% (31 of 35)
S&P 500	79% (23 of 29)
FTSE 350	65% (15 of 23)
Overall sector rank (1-10)[2]	**3rd**
Highest disclosure score	94
Lowest disclosure score	11
Average disclosure score	59
Overall emissions disclosure[3]	
Scope 1 emissions	91% (907 million Mt CO_2-e)
Scope 2 emissions[4]	88% (240 million Mt CO_2-e)
Scope 3 emissions	36% (1,318 million Mt CO_2-e)
Average emissions intensity[5]	1,197 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

Carbon disclosure trends in the Materials sector

Materials companies account for 7% of the Global 500, 6% of the S&P 500 and 7% of the FTSE 350 invitees. The sector is both large and diverse, including companies involved in extractive industries (mining and metals), chemicals, heavy manufacturing and forestry.

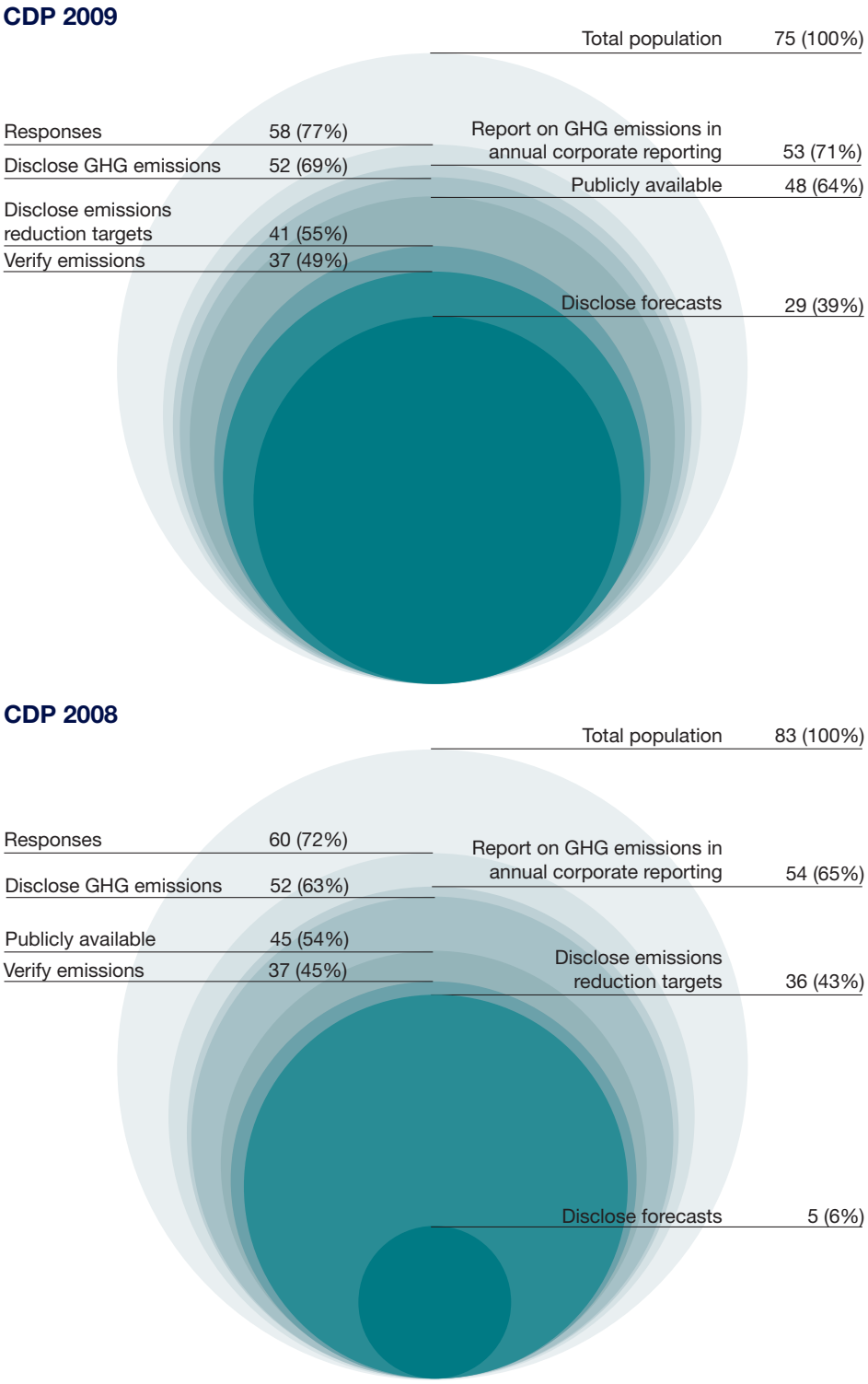
Respondents from the Materials sector typically operate in carbon-intensive industries that are relatively mature in terms of regulatory obligations around climate change (especially in Europe). On the basis of this year's responses, key pressure points for the sector include physical risks to fixed assets and raw material supplies, the extension of carbon regulation at a global/regional level, and the increasing customer focus on the level of embedded carbon in final products.

The effects of the economic downturn were cited in many company responses as having had a significant impact on the sector over the past year. This is underpinned by the fact that the Materials sector has seen the largest fall in the number of companies represented in the Global 500 compared with CDP 2008.

The economic slowdown has, however, had other consequences. For energy-intensive industries covered by the European Union's Emissions Trading System (EU ETS), a contraction of output has meant that many have accrued surplus carbon allowances. In steelmaking for example, **WorldSteel** estimates that EU steel production fell by more than 43% for the six months from January to June 2009 compared with the same period last year.[6] This equates to saving the equivalent of around 85 million metric tonnes of carbon dioxide (CO_2-e).

Notwithstanding the challenges facing the sector, the overall response rate[7] for Materials is an impressive 77% – a performance not dissimilar to CDP 2008.

Fig. A: Year-on-year disclosure rates, as a proportion of total Materials companies (Global 500, S&P 500 and FTSE 350)



6 See June 2009 Crude Steel Production statistics at http://www.worldsteel.org.

7 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

Through Climate Leaders, CCX, and EU ETS participation, IP has formed opinions about how emissions should be counted and registered. IP engages directly with our elected leaders on this topic. We have formed our opinions about climate change regulation over a number of years and are willing to share those opinions with others.

International Paper

The most significant impact of climate change on MONDI Group's operations is likely to arise from changes in the availability of water – in particular, in the incidence and duration of droughts.

Mondi

Fig. B: Disclosure score leaders for the sector[8]

Global 500 leaders

Company name	Disclosure score
BASF	94
Rio Tinto	87
Lafarge	84
Praxair	83
BHP Billiton	82

S&P 500 leaders

Company name	Disclosure score
Praxair	83
PPG Industries	81
E. I. du Pont de Nemours	80
Air Products & Chemicals	74
Newmont Mining	70

FTSE 350 leaders

Company name	Disclosure score
Rio Tinto	87
BHP Billiton	82
Xstrata	68
Mondi	67
Antofagasta	60

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization[9]

Company name	Index
Mosaic Company	Global 500
Southern Copper Corporation	Global 500
Vulcan Materials	S&P 500
CF Industries Holdings	S&P 500
Randgold Resources	FTSE 350

8 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the CDLI for the index overall when all ten sectors are considered.

9 Market data retrieved from Bloomberg as of June 18, 2009.

Materials companies show modest improvements in many of the disclosure metrics and a 10-percentage-point increase in those respondents choosing to make their CDP submission publicly available. The most significant progress, however, is in the areas of disclosing emission reduction targets and forecasting emissions. This may be due to the question (23.13), which allows companies to explain their forecasting plans this year, thus removing some of the commercial sensitivity. Disappointingly, less than half the respondents have their emissions verified by an external party, the overwhelming majority of which are US-based.

When compared with a cross section of global leaders for disclosure, Materials respondents closely followed the leaders in the quality of Scopes 1 and 2 emissions reporting, accountability, and incentive structures to reduce emissions and public reporting in annual reports or other mainstream filings. However, they lag in all other

Praxair is the technology lead on a state-of-the-art demonstration project for carbon capture and storage (CCS) with the City of Jamestown, New York, Board of Public Utilities and several other private and public entities.

Praxair

From a medium- and long-term perspective, we are likely to see changes in the margins of our greenhouse-gas-intensive assets as a result of regulatory impacts in the countries in which we operate...Inconsistency of regulations – particularly between developed and developing countries – may also change the attractiveness of the locations of some of our assets.

BHP Billiton

areas, particularly in reporting of Scope 3 emissions, emissions intensity, energy use, and disclosing targets and plans to reduce emissions (see Fig. D).

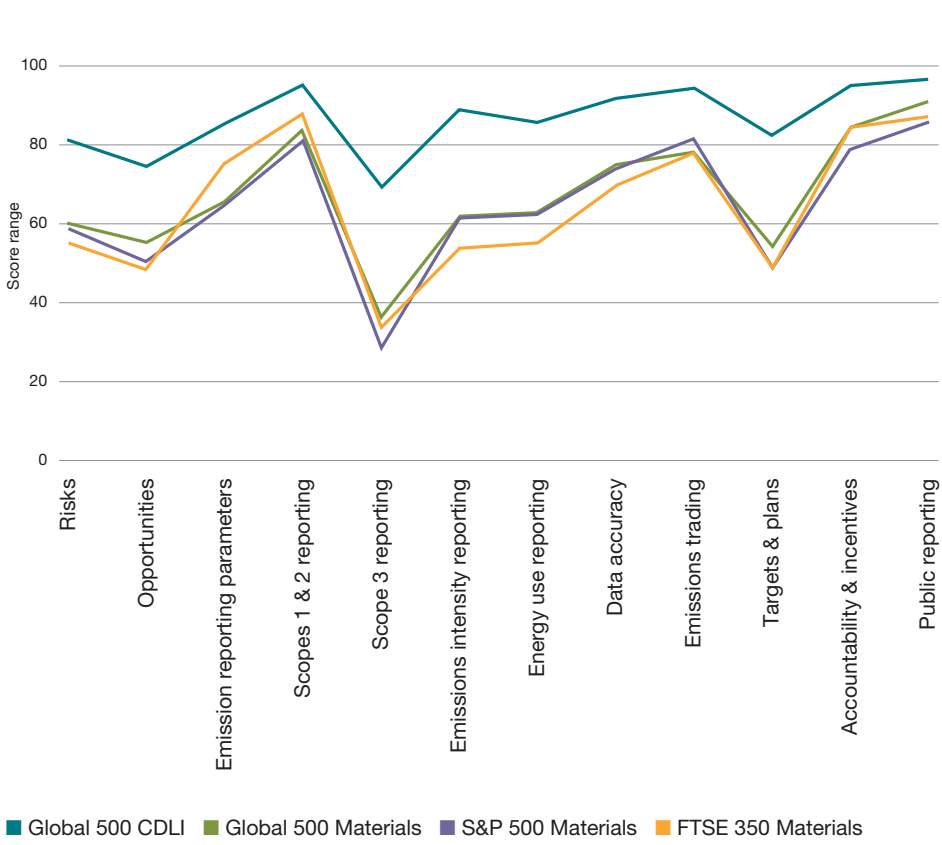
Materials leaders for carbon disclosure are listed in Fig. B in the order of their disclosure score.[10] While the remaining Materials respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

Several Materials companies (23%, or 17 companies) chose not to participate. The largest non-respondents are listed in Fig. C based on their market capitalization.

In 2009, Materials respondents account for 12% of the CDLI[11] for the Global 500; this clearly indicates that Materials is punching above its weight with respect to disclosure (relative to its weighting within the Global 500 population). **BASF** is the second-top-scoring company in the overall leadership table and among the Global 500 leaders. **Praxair** and **Rio Tinto** also appear in the leadership table.

All three companies note the development of new technology as crucial to gaining competitive advantage in the transition to a low-carbon economy. In order to achieve results in this area, the leaders are involved with next-generation production processes and the demonstration of new technology on a commercial scale and have developed strong financial incentives to innovate carbon abatement solutions. High-scoring companies have dedicated departments or cross-departmental working groups to focus on the climate change agenda.

Fig. D: Score breakdown for Materials within each index versus the global leaders[12]



10 For more about the disclosure scoring methodology, see www.cdproject.net/2009CDLImethodology.asp.

11 The Carbon Disclosure Leadership Index (CDLI) identifies the top 10% of each financial index with the highest disclosure scores. To view a complete list of the companies in the CDLI, see http://www.cdproject.net/carbon-disclosure-leadership-index.asp.

12 The 2009 Global 500 Carbon Disclosure Leadership Index is an index of the top 10% of companies with the highest disclosure scores in the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net.

Risks and opportunities

Despite the economic challenges, the sector appears very much engaged in emissions reduction activities. Respondents report that significant investment (in research and development and through capital investment programs) is already under way, and this will help position the sector well in a carbon-constrained environment over the long term.

Investments aiming to mitigate climate change through improvements to operations or products, but that have uncertain payback, may be driven by shifts in customer attitudes and behaviors toward climate change awareness and in demand for lower-carbon products. Responses to CDP 2009 also suggest that indirect impacts (such as water use and social aspects) are receiving scrutiny comparable to the direct emissions from production.

Respondents from all industries within Materials recognize that regulation, whether current or pending, poses a risk to their businesses. A third of Materials respondents cited increased energy and raw materials costs as a significant risk. The mining industry, in particular, expressed concern over the continued availability and cost of natural resources and the impact this may have on corporate strategy.

For European respondents, there is an expectation of higher compliance costs for assets covered by the existing EU ETS in the future. The introduction of the UK's Carbon Reduction Commitment was also mentioned, although this may create a smaller direct financial impact. The mind-sets among some Materials respondents differ markedly, with high-scoring companies seeing the imposition of new regulation as an opportunity to transfer knowledge from existing programs (such as the EU ETS), whereas those scoring less well are focused on potential penalties and impacts on their cost bases.

In mining, **BHP Billiton**, ranked second among Materials companies in the FTSE 350 leadership table, has been an active participant in the carbon markets and notes that *"to date, the costs of meeting our EU ETS compliance obligations have been met by the economic benefits of our trading activities."* Mining companies also stressed the climatic benefit derived by the use of platinum in the production of catalytic converters in the automotive industry.

Linde, the gases and engineering company, is supportive of market-based instruments for carbon mitigation but cautions that the design of such measures may impact the structure of the value chain for certain products.

Among the steel companies, two concerns are consistently raised by CDP respondents:

- Existing production processes are close to their technical limits, and new techniques will take time to develop; and
- Steel is sold in a global marketplace and the existence (and strengthening) of measures such as the EU ETS creates the possibility of carbon "leakage," where production is incentivized to relocate overseas.

This is something that the European Commission was cognizant of in its recent review of the EU ETS and remains a topic of much debate in Australia as plans are finalized for the introduction of the Carbon Pollution Reduction Scheme.

Aside from regulatory risks, physical risks from climate change were noted by 87% (26) of the Global 500, 65% (15) of the S&P 500 and 93% (13) of the FTSE 350 Materials sector respondents. Resource scarcity is the prime concern, as are the increased incidences of storms, flooding, and droughts. Understandably, the forestry industry stated that water availability was a key risk to the business both for forest growth and for pulp and paper operations.

Linde fundamentally supports the EU's goal of reducing greenhouse gas emissions in the medium term through the market-based system of emission trading. We are concerned, however, that the Commission's draft could generate adverse incentives amongst the major customers in our industry – refineries and customers from the steel and chemicals industry – which would lead to greater emissions of CO_2.

Linde

Rio Tinto Alcan is a leader in the development of energy-efficient aluminium smelting technology. In an energy- and carbon-constrained world, operating and selling this technology will become a competitive advantage.

Rio Tinto

Complete company responses to CDP can be downloaded from www.cdproject.net.

Significant changes to precipitation and temperature may cause instability in waste rock or tailings covers. We have just completed initial research and analysis in-house as to which sites may be at risk. Barrick's water supply may be compromised in areas that will be susceptible to increased drought.

Barrick Gold

Climate change has the potential to impact our assets, people, and operations through the long-term availability of water for operations, energy security, disruption to linear infrastructure, flooding affecting mines, storms affecting port availability and rail power supply, and changes in life-of-mine projections. Changes in precipitation patterns may reduce the amount of water available for business activities, increase competition for available water and increase the cost of water.

Anglo American

Disruption from adverse weather conditions is a risk identified by many respondents from the mining industry. Companies have responded to the threat of extreme weather events by developing emergency plans and also by enhancing the structural designs of their physical assets.

The final area of risk reported by Materials companies is reputation, although only 23% (13) of respondents from the sector identified this as a concern. This may reflect the fact that isolating the climate change element within a broader suite of sustainability issues is often difficult. For some industries, such as mining, reputational risks are more often associated with localized issues, such as mine tailings and water consumption.

In addition to the risks outlined above, 100% (30) of the Global 500, 87% (20) of the S&P 500 and 93% (13) of the FTSE 350 Materials sector respondents said regulation also presents opportunities. Key areas of opportunity include:

- New techniques and products to help other industries reduce emissions (chemicals);
- New markets for the forestry industry, which aims to create value by sequestering carbon and generating carbon credits/offsets (forestry); and
- Demand for upgraded physical infrastructure that is resilient to more extreme weather events (steel).

Respondents from the chemicals industry were particularly optimistic that the climate change imperative would require new production techniques to be developed that would present opportunities. Carbon capture and storage was one area cited, as were advanced processes for hydrocarbon refining.

"Regulatory requirements that enforce the application or use of energy-saving products or technologies in these sectors (e.g. building sector, automotive sector) lead to a market pull for existing and demand for new products of the chemical industry. Therefore current and future regulatory requirements are connected with business opportunities for BASF as they increase the demand for existing products, open up new markets, and boost access to market shares."
BASF

"The greatest opportunity for us is in making a contribution to reducing carbon emissions through the development of low-carbon, resource-efficient technologies to service the needs of our customers. We believe that Johnson Matthey's products will provide some of the key enabling technologies which will help in meeting global-warming-reduction targets."
Johnson Matthey

Although the forestry industry has endured a difficult year, with falling profitability and excess capacity, especially in Europe and North America, there are some indications that a few CDP respondents are looking at possible opportunities around carbon as part of their longer-term business strategy. Large timberland investors and integrated paper producers, for example, are looking to see whether markets evolve that would attach a long-term price to carbon storage or value the ecosystem functions provided by indigenous forests.[13]

"In recent years MONDI Group has been developing an approach called responsible forestry, a science-based method involving key stakeholders. The new-generation plantations that are resulting from this approach reflect the greatest improvement, because of their short, seven- to nine-year rotations (the time from planting to logging). The carbon sequestration ability of forests could result in favourable conditions for extension of forest plantations in South Africa."
Mondi

13 For further discussion, see Sukhdev (2008). The Economics of Ecosystems and Biodiversity: An Interim Report. Report to the European Commission.

Finally, the changing climate is likely to alter the performance specification of physical infrastructure – from bridges to power plants, to automobiles. Steelmakers are aware of this, and a number noted opportunities including greater demand for lightweight steels and high-strength steels. The steel industry is already doing much to promote the carbon credentials of its product, and it will be interesting to see whether green credentials (carbon related or otherwise) are able to command price premiums in the highly competitive commodity markets.

"The growing demands [for] high-energy-efficient products result in achieving sales benefits and advanced steelmaking technology."
POSCO

Insights from the performance score pilot

The CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Materials sector scored third overall for disclosure and second for performance. The chart below shows how Materials compares with the other sectors for performance.

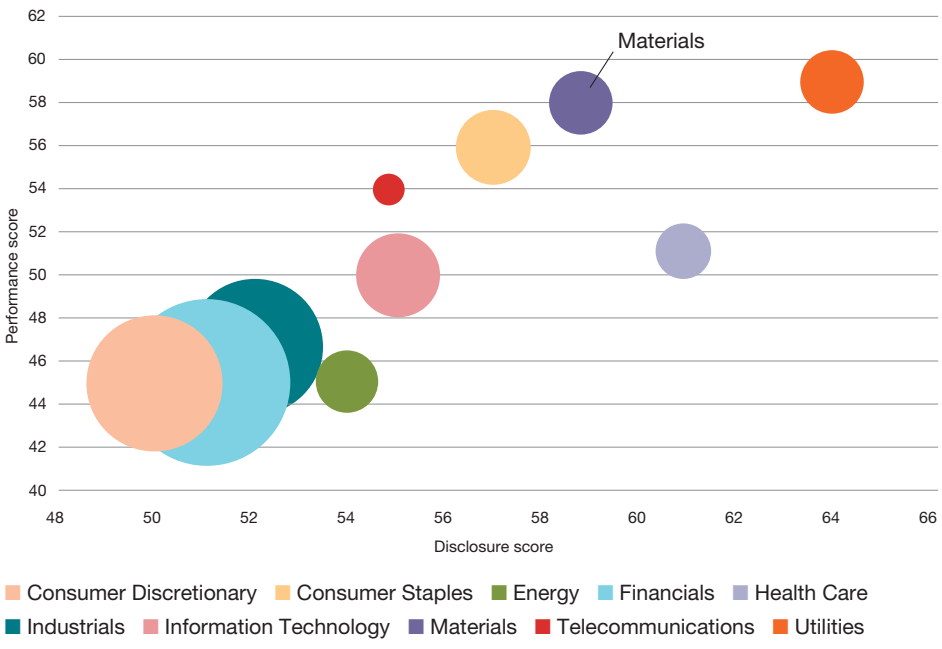
In the energy management growth cluster we are developing new materials for energy storage and energy conversion, including new materials for organic light-emitting diodes (OLED) in lighting technology, semiconductor organic materials for photovoltaics, or membrane systems for more-effective portable energy supply facilities such as fuel cells.

BASF

...electricity prices are escalating at a higher rate than in the past. Anglo Platinum as a large consumer of electricity will see its cost increase as a result. Platinum is a product with a positive impact on the environment in terms of its use, as in catalytic converters in cars. As the largest producer of this metal, Anglo Platinum must be seen to be environmentally sensitive, and this could expose it to a higher level of public scrutiny.

Anglo Platinum

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

As 2009 is the first year of use of the performance scoring methodology,[14] individual company performance scores are not shown in the CDP 2009 reports, though comments on initial findings are provided below:

- The top three Materials companies (in alphabetical order) scoring highest in performance in alphabetical order are **BASF**, **E. I. du Pont de Nemours** and **PPG Industries**;
- Within the Global 500, Materials respondents typically outperform other sectors in all areas of the questionnaire that attracted performance points. This was particularly evident in the areas of taking advantage of climate change opportunities, such as the provision of goods and services that enable customers to reduce emissions; having emissions reduction targets and plans; and assigning an executive body with responsibility over climate change;
- Materials respondents within the S&P 500 also performed better than other sectors in all areas of the questionnaire that attracted performance points. In addition to the performance areas noted for the Global 500 above, the S&P 500 Materials respondents also did well in the management of climate change risks and in dedicated investments to achieve emissions reductions and energy savings;
- Within the FTSE 350, Materials respondents performed comparably well with the sectors in maximizing opportunities they have identified but performed less well in managing the risks they have identified and in investing to achieve emissions reductions;

Overall, the Materials sector has established good governance arrangements, with 95% (53) having Board committees with responsibility for climate change, 54% (30) reporting staff incentives to reduce emissions, and 95% (53) producing publications discussing the effects of climate change on the business.

Evidence of companies' engaging with policy makers as well as local communities suggests a significant level of awareness and proactivity within the sector, and 84% (47) of respondents engage with policy makers on a regular basis.

Conclusion

Materials is an eclectic sector that contains some industries with relatively high direct emissions (e.g., steel, chemicals) and others where it is perhaps the indirect emissions and impacts of their activities that are of greater interest (e.g. mining, forestry). The potential responses to climate change are, therefore, quite different.

The overall performance by the sector this year is encouraging – particularly as the quality of disclosure provides evidence that many responding companies are beginning to take a longer-term view in respect of capital allocation and their interaction with suppliers and customers. How the Materials sector continues to meet the growing demand for its products whilst using natural resources in a sustainable manner and concurrently reducing emissions will be a key challenge for the sector in the years to come.

> Increasingly, investors look beyond bottom-line financial performance, focusing on corporate social responsibility [CSR] performance issues. Our performance in addressing CSR issues such as climate change may have an effect on share price, positively or negatively, depending on our performance, which in turn could affect our ability to compete for capital to develop new projects.
>
> **Kinross Gold**

> We actively engage with decision makers and governments either as an individual company or via a trade association or other organization. We see the dialogue with stakeholders in politics and NGOs [non-governmental organizations] as an opportunity to actively contribute and shape the future constructively, with the focus on sustainable development and well-being of the international community.
>
> **BASF**

14 For more about the performance scoring methodology, see http://www.cdproject.net/2009CDLImethodology.asp.

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Materials scores and emissions by company[15]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[16]	Total Emissions[17]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[18]	Scope 3[19]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Air Liquide	G	AQ	AQ	60		931	16,966,000	9,014,000	7,952,000	*	496,000			x	x	
Air Products & Chemicals	G, S	AQ	AQ	74		2,036	21,200,000	12,300,000	8,900,000	*						
AK Steel Holding	S	NR	–													
Alcoa	S	AQ	AQ	63		2,175	58,521,999	29,933,645	28,588,354							
Allegheny Technologies	S	AQ	AQ	11	NP											
Anglo American	F, G	AQ	AQ	58		752	19,797,000	9,620,000	10,177,000							
Anglo Platinum	G	AQ	AQ	73		999	5,486,448	493,312	4,993,136		4,134†			x	x	x
Antofagasta	F	AQ	NR	60	NP											
Aquarius Platinum	F	AQ	AQ	52		611	544,024	57,676	486,348							
Arcelor Mittal	G	AQ	AQ	35		1,758	207,799,000	184,408,000	23,391,000							
Ball	S	AQ	AQ	50		199	1,508,225	388,845	1,119,380							
Barrick Gold	G	AQ	AQ	56		676	4,604,427	2,780,977	1,823,450							
BASF	G	AQ	AQ	94		320	27,687,716	23,531,528	4,156,188	*	113,184,000	x		x	x	x
Bemis Company	S	AQ	AQ	60		176	664,394	157,262	507,132							
BHP Billiton	F, G	AQ	AQ	82		1,131	51,892,825	23,093,870	28,798,955		318,872,809	x			x	
Cabot	S	AQ	–	69		4,670	4,402,000	4,040,000	362,000							
CF Industries Holdings	S	NR	–													
CRH	G	AQ	AQ	54		500	14,503,000	13,049,000	1,454,000		1,000,000		x			
Croda International	F	AQ	AQ	52		312	298,301	198,507	99,794							
Dow Chemical	G, S	AQ	AQ	63		614	35,299,000	27,773,000	7,526,000		5,020,000		x		x	
E.I. du Pont de Nemours	G, S	AQ	AQ	80		437	13,339,560	9,336,753	4,002,807	*	78,457	x			x	
Eastman Chemical	S	AQ	AQ	46												

15 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[16]	Total Emissions[17]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[18]	Scope 3[19]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Ecolab	S	AQ	AQ	59		31	189,431	134,089	55,342	*						
Elementis	F	IN	–													
Eurasian Natural Resources Corporation	F	DP	–													
Ferrexpo	F	IN	IN													
Filtrona	F	AQ	AQ	59		134	70,332	9,744	60,588							
Freeport-McMoRan Copper & Gold	S	AQ	AQ	59		539	9,586,200	5,108,000	4,478,200							
Fresnillo	F	NR	–													
GMK Norilsk Nickel	G	DP	NR													
Goldcorp	G	AQ	AQ	41		310	645,800	424,900	220,900							
Hochschild Mining	F	NR	NR													
Holcim	G	AQ	AQ	61		4,501	106,373,585	99,521,814	6,851,771		1,072,740			x	x	
International Flavors & Fragrances	S	AQ	AQ	56	NP											
International Paper	S	AQ	AQ	57		641	15,916,055	10,961,781	4,954,274		2,000,000		x			
JFE Holdings	G	AQ	AQ	47	NP											
Johnson Matthey	F	AQ	AQ	56		49	371,000	160,000	211,000		23,815		x		x	
Kazakhmys	F	NR	NR													
Kinross Gold	G	AQ	AQ	59		502	699,000	347,000	352,000							
Lafarge	G	AQ	AQ	84		4,489	118,768,000	108,879,000	9,889,000		2,264,000		x	x	x	
Linde	G	AQ	AQ	60		807	14,200,000	4,500,000	9,700,000		760,000		x			
Lonmin	F	AQ	AQ	47		744	1,659,103	75,850	1,583,253							
MeadWestvaco	S	AQ	AQ	62		426	2,827,865	2,120,126	707,739							
Mondi	F	AQ	AQ(L)	67		946	6,003,000	4,435,000	1,568,000		2,922				x	
Monsanto	G, S	AQ	AQ	49		183	2,081,000	1,287,000	794,000							
Mosaic Company	G	NR	NR													
Newmont Mining	G, S	AQ	AQ	70		859	5,325,543	4,138,189	1,187,354	268,947						
Nippon Steel	G	AQ(L)	AQ													
Nucor	G, S	DP	NR													
Pactiv	S	NR	DP													
POSCO	G	AQ	AQ	68		2,197	72,800,000	70,600,000	2,200,000		7,421				x	
Potash Corporation of Saskatchewan	G	AQ	AQ	59		1,185	9,639,000	7,996,000	1,643,000							
PPG Industries	S	AQ	AQ	81		394	6,248,264	4,442,743	1,805,521		19,281				x	
Praxair	G, S	AQ	AQ	83		1,244	13,428,346	3,695,830	9,732,516	*	265,292		x		x	
Randgold Resources	F	AQ	NR		NP											
Rexam	F	AQ (L)	DP													
Rio Tinto	F, G	AQ	AQ	87		927	50,300,000	30,300,000	20,000,000	*	657,555,000	x	x	x	x	x
Rohm and Haas	G, S	AQ	AQ	39	NP											
Sealed Air	S	AQ	AQ	58		155	751,346	258,456	492,890							
Shin Etsu Chemical	G	AQ	AQ	35												
Sigma-Aldrich	S	AQ	AQ	36		76	168,031	37,831	130,200							

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[16]	Total Emissions[17]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[18]	Scope 3[19]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Smith (DS)	F	AQ	AQ	53		506	996,000	315,000	681,000							x
Southern Copper Corporation	G	NR	NR													
Sumitomo Metal Industries	G	AQ	AQ	61		1,426	29,010,000	29,010,000			220,000		x			
Syngenta International	G	AQ	AQ	60		96	1,126,874	700,874	426,000		416,260		x	x	x	
Talvivaara Mining Company	F	AQ	NR	52	NP											
ThyssenKrupp	G	AQ	AQ	45	NP											
Titanium Metals	S	DP	DP													
United States Steel	S	AQ	AQ	67		2,081	49,427,981	45,086,791	4,341,190							
VALE (formerly Companhia Vale do Rio Doce)	G	AQ	AQ	74		522	16,831,316	15,547,662	1,283,654	*						
Vedanta Resources	F	AQ	AQ	48	NP											
Victrex	F	DP	IN													
Vulcan Materials	S	IN	NR													
Weyerhaeuser	S	AQ	AQ	56		376	3,017,352	1,700,061	1,317,291							
Xstrata	F, G	AQ	AQ	68		891	24,913,251	15,605,091	9,308,160	*	215,157,719	x	x			x

16 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

17 Scope 1 and Scope 2 grid average reported emissions.

18 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

19 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

Telecommunications sector report
Covering Global 500, S&P 500 and FTSE 350 listed respondents

Since developing ICT increases electricity consumption from base stations, servers, and other equipment, we are taking measures to reduce overall power consumption through research and development, by implementing highly efficient power outlets and air-conditioning equipment, and even by reviewing the structure of buildings.

NTT DoCoMo

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Telecommunications companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Telecommunications
Response rate[1]	**67% (29 of 43)**
Global 500	70% (23 of 33)
S&P 500	67% (6 of 9)
FTSE 350	83% (5 of 6)
Overall sector rank (1-10)[2]	**5th**
Highest disclosure score	73
Lowest disclosure score	16
Average disclosure score	55
Overall emissions disclosure[3]	
Scope 1 emissions	90% (3 million Mt CO_2-e)
Scope 2 emissions[4]	90% (27 million Mt CO_2-e)
Scope 3 emissions	55% (96 million Mt CO_2-e)
Average emissions intensity[5]	33 Mt CO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among ten sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

Carbon disclosure trends in the Telecommunications sector

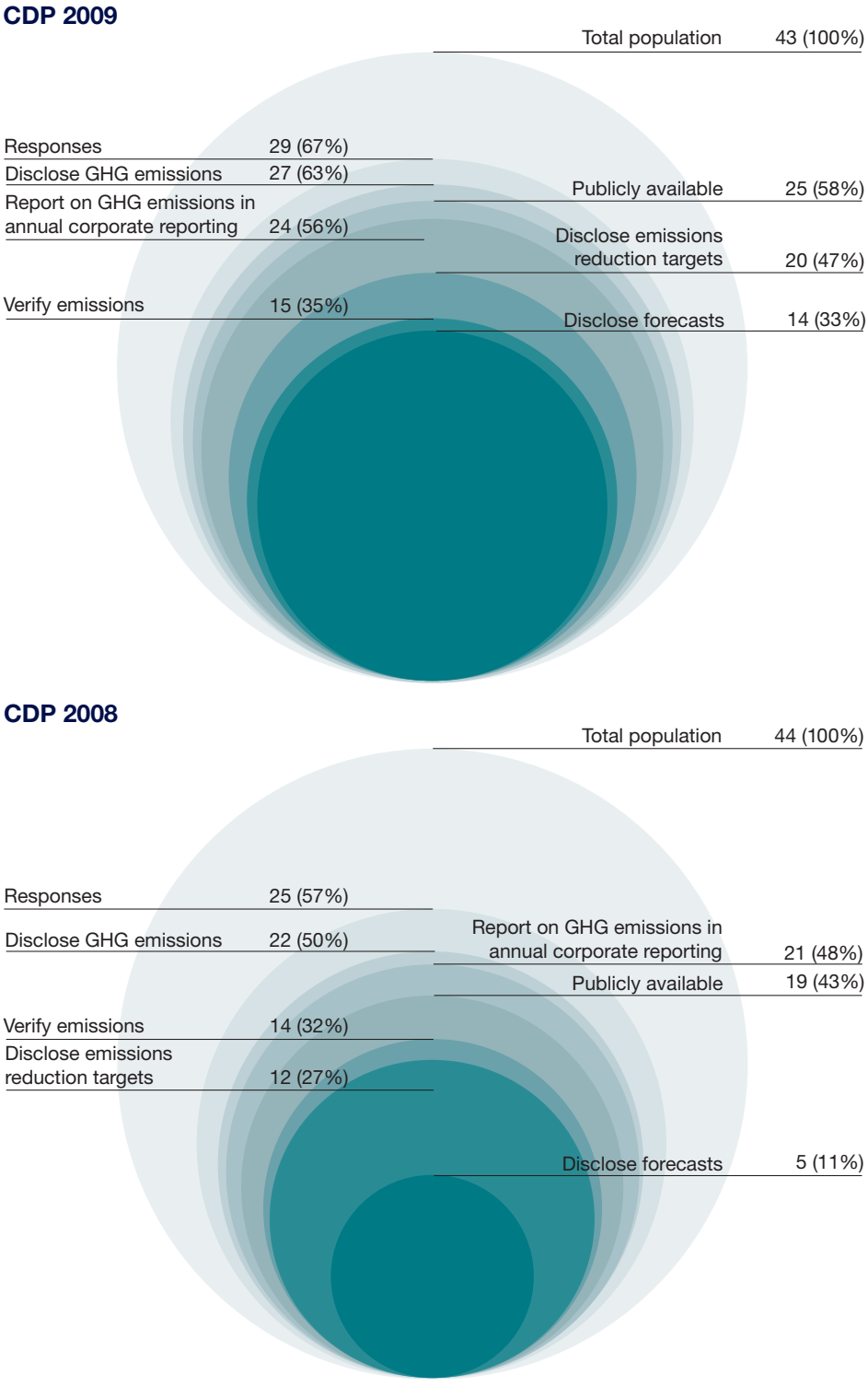
Telecommunications companies have a large role to play in helping businesses and consumers manage their energy costs and reduce their emissions through more efficient use of technology. telecommunications companies – those that provide wireless and other diversified telecommunications services – provide convergent services with Information Technology companies as part of the broader information and communications technology sector (ICT). Broadly, ICT companies help economies run more efficiently in several areas: improving power transmission and distribution (smart grids); making buildings more energy efficient (smart buildings); creating virtual alternatives to physical products or activities (dematerialization); and helping industries optimize motors, transport routes and logistics.[6]

Aside from owning and operating the infrastructures of large telecommunications networks, these companies also have underlying transportation, warehousing and logistics needs that are the source of greenhouse gas (GHG) emissions.

Respondents in the sector represent:

- Large Global 500 diversified Telecommunications companies in Asia, Africa, Australia, Europe and North and South America (23 of 29 respondents). The sizes of these firms give them economies of scale when it comes to upgrading and expanding their networks. Many have international operations that subject them to a range of regulations;
- UK Telecommunications companies (4 of 29 respondents) listed on the FTSE 350. The responses from UK providers reflect progressive regional efforts to respond to climate change; and
- US Telecommunications providers listed on the S&P 500 (6 of 29 respondents). Largely domestic providers, these companies are not subject to the same regulatory frameworks and climate initiatives as their global peers.

Fig. A: Year-on-year disclosure rates, as a proportion of total Telecommunications companies (Global 500, S&P 500 and FTSE 350)



6 *The Climate Group, Smart 2020: Enabling the low carbon economy in the information age (2008).*

We are planning to use the energy consumption specifications for CPE [customer-premises equipment] and network equipment in the EU [European Union] Code of Conduct on Broadband Equipment as guidance in our procurement and vendor selection.

Royal KPN

Fig. B: Disclosure score leaders for the sector.[7]

Global 500 leaders

Company name	Disclosure score
Royal KPN	73
TeliaSonera	71
American Tower	70
BCE	68
Vodafone Group	67

S&P 500 leaders

Company name	Disclosure score
American Tower	70
Qwest Communications International	58
Sprint Nextel	57
AT&T	47
Verizon Communications	41

FTSE 350 leaders

Company name	Disclosure score
Vodafone Group	67
BT Group	65
Cable and Wireless	65
COLT Telecom Group	52
Inmarsat	51

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization[8]

Company name	Index
América Móvil	Global 500
China Mobile	Global 500
China Unicom	Global 500
Bharti Airtel	Global 500
SoftBank	Global 500

Telecommunications companies improved their response rate[9] to CDP in 2009, with 67% (29) responding, up from 57% (25) in 2008. They also improved their disclosure practices in all categories of disclosure, with notable increases in the number reporting emissions reduction targets and forecasts (see Fig. A). On the whole, the sector ranks fifth according to its average disclosure score compared with the scores of all ten sectors analyzed.

Telecommunications leaders for carbon disclosure are listed above in the order of their carbon disclosure scores.[10] While other sector respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation. One-third of Telecommunications companies (33%, or 14 companies) chose not to participate. The largest non-respondents are listed above based on their market capitalization.

7 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the CDLI for the index overall when all ten sectors are considered.

8 Market data retrieved from Bloomberg as of June 18, 2009.

9 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

10 For more information on the disclosure score methodology, see www.cdproject.net/2009CDLImethodology.asp.

Climate change has the potential to physically affect BT's operations, since the associated extreme weather conditions, such as gales and floods, can lead to network disruptions, damaged equipment, customer complaints, etc. The impact of this issue often arises not from a single incident but from an aggregation of many incidents. To rectify network faults takes resources away from other planned network enhancement work and causes customer dissatisfaction.

BT Group

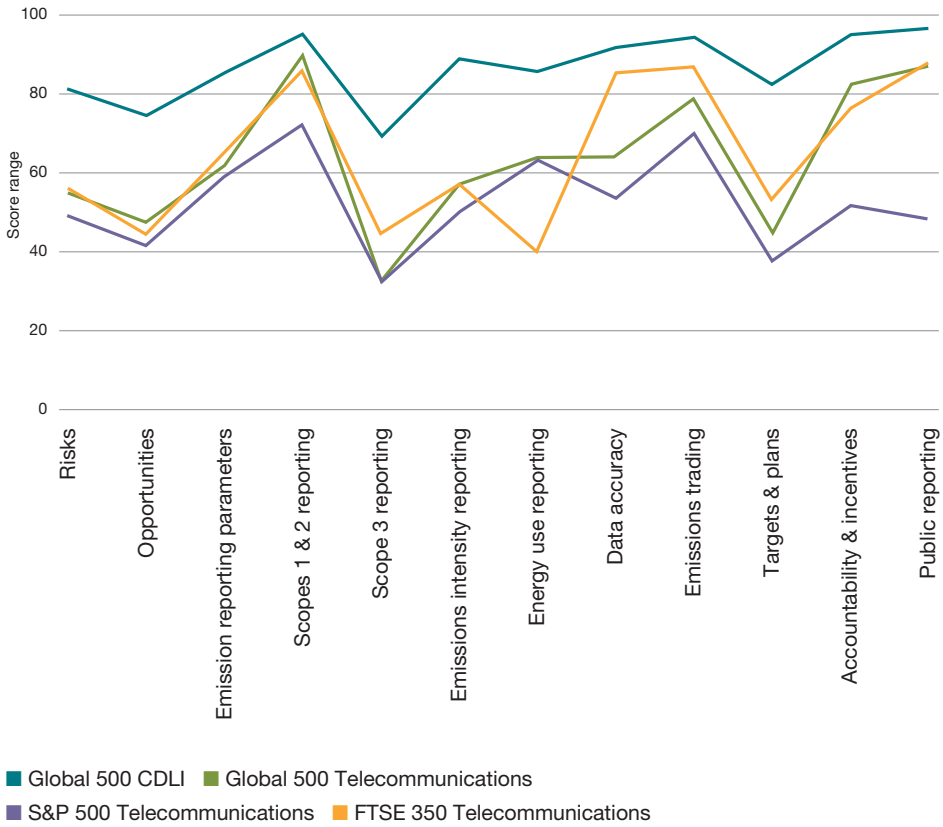
When compared with a cross section of global leaders for carbon disclosure, Telecommunications respondents' disclosure scores closely follow global leaders in the reporting of Scope 1 and 2 emissions. However, they lag in nearly all other areas, particularly disclosure of Scope 3 emissions and emissions reduction plans (see Fig. D).

Notably, the six US Telecommunications respondents lag 48 percentage points behind global leaders for disclosing carbon emissions in annual reports or other mainstream filings. These firms have some challenges in the reporting of carbon emissions across disparate networks due to years of acquiring smaller networks after US deregulation of the industry.

FTSE 350 respondents lead their industry peers in verifying the accuracy of emissions data and participating in emissions trading systems. Their average disclosure score for data accuracy, a requirement for participation in emissions trading, is 22 percentage points higher than that of their Global 500 peers and 32 percentage points higher than that of their S&P 500 peers.

At least one company noted economic conditions are making it difficult to justify investments in climate change projects when cost-cutting efforts top the agenda of the company's C-suite executives. At the same time, Telecommunications companies serve large brands that are similarly pressed and are now exploring more options than ever before to use information and communication technologies as alternates to more expensive activities like business travel.

Fig. D: Score breakdown for Telecommunications within each index versus the global leaders[11]



11 The 2009 Global 500 Carbon Disclosure Leadership Index is an index of the top 10% of companies with the highest disclosure scores in the Global 500 and is used here as a global benchmark. For more information, see www.cdproject.net.

Risks and opportunities

Telecommunications respondents received average disclosure scores for reporting risks and opportunities. Among them, 96% (27) reported at least one significant risk related to climate change – the same number reported that they see at least one significant business opportunity.

Physical risks were reported by 95% (21) of Global 500 respondents, 83% (5) of S&P 500 respondents and 100% (5) of FTSE 350 respondents. Telecommunications networks can be greatly affected by minor climatic variance, and even small changes in temperature or precipitation can impact network service. The ability to supply continuous service for all providers hinges on preventing network disruptions or quickly repairing damage to data centers, mobile towers or underground wires. Even a series of small disruptions could have a negative effect on broadband customers, who place a premium on reliable service.

Regulatory risks related to climate change were reported by 77% (17) of Global 500 respondents, 100% (6) of S&P 500 respondents and 100% (5) of FTSE 350 respondents.

Most respondents noted that the largest impact from regulatory risk is indirect because of their reliance on electricity. Significant increases in energy costs could occur if electric utilities raise their costs to minimize the burden of complying with statutory emissions limits. As a result, many companies, like **NTT DoCoMo**, are preparing their operations to be more energy efficient.

Deutsche Telekom, as a part of the European Telecommunications Network Operators Association's Energy Task Team, is researching energy efficiency measures for infrastructure equipment. Early recommendations focus on steps suppliers can take to improve the efficiency of network components.

Large FTSE 350 and Global 500 Telecommunications respondents reported concern that Carbon Reduction Commitment[12] (CRC) risk may extend beyond compliance to negative financial and reputational impacts. While the CRC clearly resonates with companies operating in the United Kingdom, their concerns may be a harbinger for Telecommunications companies operating in other parts of the world as the push for comprehensive climate change regulations intensifies. While US and Asian companies do not have immediate concerns about regulation, they expect that more change could happen on the regulatory front in the coming years.

> [Our] investments include the installation of permanent generators for our wireless sites and network facilities, as well as investment in additional portable generators and Cell Sites on Wheels and mobile cell sites that can be deployed in impacted areas to restore service quickly. We are deeply involved in researching renewable energy sources that can be used as both backup and even primary power for sites with greater risk of climate change impact.
>
> **Sprint Nextel**

12 For more about the CRC, see http://www.defra.gov.uk/environment/climatechange/uk/business/crc/index.htm.

Over 90% of the NTT Group's CO_2 emissions are attributable to electrical power consumption by offices and communications equipment. To reduce our demand for electrical power, we are implementing a group-wide Total Power Revolution (TPR) campaign. Through this campaign, we have been promoting energy management schemes for the 4,000 buildings that our various companies occupy throughout Japan.

Nippon Telegraph & Telephone (NTT)

An increasing number of customers are incorporating energy and emissions standards into their procurement and vendor selections, and Telecommunications companies are asking the same of their own suppliers.

Nearly all Telecommunications respondents (96% or 27 companies) said the regulatory, physical and other risks posed by climate change also present business opportunities. Impending regulations that encourage the use of communications technologies will foster investment and place more emphasis on the role of the sector in helping major economies meet global reduction targets.

"Vodafone's analysis shows the potential of the mobile industry to enable a saving of approximately 112 million tons of carbon-dioxide-equivalent emissions per annum by the year 2020, across the EU. This equates to a projected saving of €43 billion from reduced energy purchasing."
Vodafone Group

"We are developing products and services to help our customers reduce their energy consumption. This is in line with our CBI Climate Change Task Force pledge to help UK households halve their energy consumption by 2020 to contribute to UK government targets."
BT Group

Extreme physical conditions provide other opportunities for Telecommunications companies to develop reliable technology for monitoring physical changes in the environment. For example, companies can retask existing satellites to monitor physical change, or they can develop products that provide comfort during natural disasters or give advance warning of climatic events.

"Since April 2005, SK Telecom has been offering a text-message service for disaster-related information so that customers in disaster-prone regions can prepare for such emergencies."
SK Telecom

"Telecommunications have a role to play in monitoring the physical impacts through the use of telemetry. As an example, the Australian Institute of Marine Science is using one of the world's first reef-based Internet protocol networks to monitor coral bleaching events on the Great Barrier Reef."
Telstra Corporation

Insights from the performance score pilot

CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

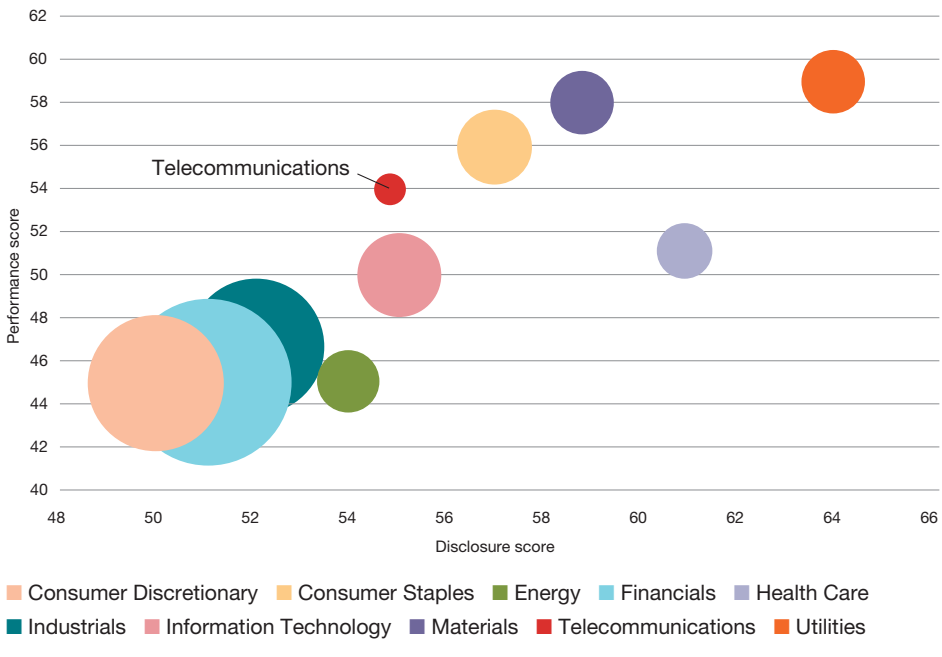
The Telecommunications sector scored fifth overall for disclosure and fourth for performance. The chart below shows how the Telecommunications sector compares with the other sectors for performance.

As 2009 is the first year of use of the performance scoring methodology,[13] individual company performance scores are not shown in the CDP 2009 reports, but we provide comment on initial findings below.

- The three Telecom companies scoring highest in the performance scoring pilot (in alphabetical order) are **BCE**, **Deutsche Telekom** and **Royal KPN**.
- Global 500 Telecommunications respondents lead in most areas of performance. They demonstrate particular strengths relative to all other sectors in maximizing business opportunities related to climate trends, creating the right accountability structures and incentives to help their organizations reach carbon emissions reductions, and creating goods and services that help reduce overall carbon emissions.
- S&P 500 Telecommunications respondents lag their sector peer group in every performance category – largely a reflection of lower participation in voluntary climate-related initiatives in the region and the regulatory differences US companies face compared with companies in other geographies.

All Carbon Disclosure Project reports are available at www.cdproject.net

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

13 For more about the performance scoring methodology, see http://www.cdproject.net/2009CDLImethodology.asp.

Most Telecommunications respondents have a Board member or executive body with overall responsibility for climate change (68%, or 19 companies), and 71% (20 companies) have emissions reduction targets in place. Yet far fewer Telecommunications respondents – only 39% (11 companies) – have incentives in place to encourage accountability to these targets.

Telecommunications respondents also have relatively high rates of disclosing GHG emissions in annual reports or other mainstream filings (86%, or 24 companies), of publishing corporate social responsibility reports (79%, or 22 companies), and of engaging regularly with stakeholders on climate-related impacts (75%, or 21 companies).

Conclusion

In 2009, the Telecommunications sector made significant improvements in terms of the number of companies disclosing emissions reduction targets and emissions forecasts. Yet disclosure scores overall remain average compared with other sectors analyzed, and no Telecommunications company scored well enough to reach the Carbon Disclosure Leadership Index table for the Global 500, S&P 500 or FTSE 350.

While respondents forecast that their emissions will increase with demand, the overall potential for the sector to reduce global emissions by industrializing technologies seems without limit. By providing broadband and mobile services that improve energy efficiency throughout the economy – in power transmission and distribution, buildings and factories, logistical processes to transport goods, and business communication services such as teleconferencing and paperless transactions – Telecommunications companies can make significant contributions to the stabilization of greenhouse gas emissions.

As demand for their products and services increases, Telecommunications companies must stay attuned to the impacts of climate change legislation and continually focus on their own energy efficiency to keep their emissions and utility costs in check. By doing this, they will become better prepared to compete in a carbon-constrained economy and capitalize on emerging opportunities.

> The changing expectations of our major customers, such as banks or large corporations, mean that our response to climate change could impact how we are perceived by those customers.
>
> **Telstra Corporation**

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Telecommunications scores and emissions by company[14]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[15]	Total Emissions[16]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[17]	Scope 3[18]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
América Móvil	G	NR	NR													
American Tower	G, S	AQ	–	70		122	193,896	431	193,465		8,335				x	
AT&T	G, S	AQ	AQ	47		5	580,755	129,985	450,770							
BCE	G	AQ	AQ	68	NP											
Belgacom	G	AQ	–	43		19	154,428	58,385	96,043	150	1,712				x	
Bharti Airtel	G	NR	NR													
BT Group	G, F	AQ	AQ	65		84	1,739,229	330,008	1,409,221	517,364	95,051,977			x	x	x
Cable and Wireless	F	AQ	AQ	65		57	178,798	5,832	172,966		166,389	x	x		x	x
Carso Global Telecom	G	NR	–													
CenturyTel	S	NR	NR													
China Mobile	G	IN	NR													
China Telecom	G	IN	IN													
China Unicom	G	NR	NR													
Chunghwa Telecom	G	AQ	NR	45		151	930,439	27,175	903,264							
COLT Telecom Group	F	AQ	NR	52		62	103,549	4,304	99,245		1,547				x	
Deutsche Telekom	G	AQ	AQ	66		33	2,816,751	375,427	2,441,324		24,381				x	
Embarq	S	DP	AQ													
France Telecom	G	AQ	AQ	49		14	1,046,786	233,157	813,629		20,653				x	
Frontier Communications	S	NR	–													
Inmarsat	F	AQ	DP	51		3	3,220		3,220	*	1,300				x	
KDDI Group	G	AQ(L)	AQ													

14 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[15]	Total Emissions[16]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[17]	Scope 3[18]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Maroc Telecom	G	NR	–													
MTN Group	G	AQ	AQ	39		22	248,927	8,100	240,827							
Nippon Telegraph & Telephone (NTT)	G	AQ	AQ	42		31	3,599,000	222,000	3,377,000							
NTT DoCoMo	G	AQ	AQ	45		21	1,090,169	7,613	1,082,556							x
Optus (Singtel)	G	AQ	DP	65		48	501,534	7,134	494,400							x
Qwest Communications International	S	AQ	AQ	58		102	1,372,627	168,467	1,204,160		9,324		x		x	
Rogers Communications	G	AQ	AQ	44		15	141,758	39,205	102,553		48,445				x	
Royal KPN	G	AQ	AQ	73		27	534,829	87,829	447,000	*	†					x
SK Telecom	G	AQ	AQ	54		35	389,427	10,045	379,382							
SoftBank	G	IN	NR													
Sprint Nextel	S	AQ	AQ	57		58	2,083,274	68,057	2,015,217		37,307				x	
Swisscom	G	AQ	AQ	55		2	28,367	28,367	0							
Telecom Italia	G	AQ	AQ	66	NP											
Telecom Plus	F	NR	–													
Telefonica	G	AQ	AQ	59		22	1,790,900	122,631	1,668,269		27,909				x	
TeliaSonera	G	AQ	AQ	71		21	279,801	54,388	225,413	94,177	59,274		x	x	x	
Telstra Corporation	G	AQ	AQ	66		77	1,315,980	100,440	1,215,540							x
Turkcell Iletisim Hizmet	G	DP	NR													
Verizon Communications	G, S	AQ	AQ	41		64	6,270,714	527,802	5,742,912							
Vimpelcom	G	NR	NR													
Vodafone Group	G, F	AQ	AQ	67		46	1,625,922	271,817	1,354,105	1,150,938	55,358				x	
Windstream	S	AQ	AQ	16	NP											

15 Disclosed Scopes 1 and 2 grid average emissions emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

16 Scope 1 and Scope 2 grid average reported emissions.

17 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

18 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

Utilities sector report

Covering Global 500, S&P 500 and FTSE 350 listed respondents

The election of President Obama is likely to reinforce and globalise efforts to reduce emissions, which will have significant impact on energy markets worldwide. We can expect to see this translate into a continued strong legislative and regulatory push in Europe (which, given the very different nature of the major European energy companies, will have differing competitive consequences) and a transition from disjointed state-by-state and province-to-province initiatives in the USA and Canada into a more coordinated North American basis.

Centrica

All Carbon Disclosure Project reports are available at www.cdproject.net

Introduction

In 2009, the Carbon Disclosure Project (CDP) received the highest response rate to date, the highest level of disclosed emissions and greater detail than ever before on the activities being undertaken by the largest corporations around climate change mitigation and adaptation. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis.

This year, CDP has responded to feedback from its signatories and other stakeholders for more industry-specific analysis of the responses and has chosen to present this in a series of sector reports.

This sector report, prepared by PricewaterhouseCoopers LLP (PwC), summarizes responses to the 2009 Carbon Disclosure Project Information Request from Utilities companies in the FTSE Global Equity Index Series (Global 500), Standard & Poor's 500 Index (S&P 500) and the FTSE 350 Index (FTSE 350).

Responses to CDP 2009 are grouped according to the Global Industry Classification Standard (GICS).

Summary table

GICS sector	Utilities
Response rate[1]	**88% (59 of 67)**
Global 500	89% (39 of 44)
S&P 500	88% (28 of 32)
FTSE 350	100% (10 of 10)
Overall sector rank (1-10)[2]	**1st**
Highest disclosure score	88
Lowest disclosure score	15
Average disclosure score	64
Overall emissions disclosure[3]	
Scope 1 emissions	88% (2,090 million Mt CO_2-e)
Scope 2 emissions[4]	59% (131 million Mt CO_2-e)
Scope 3 emissions	49% (250 million Mt CO_2-e)
Average emissions intensity[5]	2,171 MtCO_2-e/US$ million revenue

1 The overall response rate will not equal the sum of total respondents for each index (Global 500, S&P 500 and FTSE 350) because respondents can be listed on more than one index.

2 The rank order of the sector among 10 sectors analyzed. The rank is determined by the average disclosure score for each sector.

3 Percentage of respondents who reported emissions and total disclosed emissions for the sector.

4 Gross Scope 2 emissions represent the sum of all grid averages, not adjusted for contractual arrangements.

5 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

Carbon disclosure trends in the Utilities sector

The Utilities sector comprises electricity, gas and water businesses, which include various activities such as energy generation and trading, energy distribution, wholesale/retail sales, water supply and wastewater treatment.

Utilities are among the most carbon-intensive sectors.[6] The production of electricity generates greenhouse gases (GHGs), which are accounted for as Scope 1 (direct) emissions. These translate into the Scope 2 emissions of companies in other industries that purchase the electricity. Due to its high level of GHG emissions, the Utilities sector is highly regulated and often subject to mandatory emissions-reporting requirements. These characteristics necessitate a high level of engagement with policy makers as the sector develops coherent strategies to manage the ongoing risks to the business and to harness the opportunities presented by climate change.

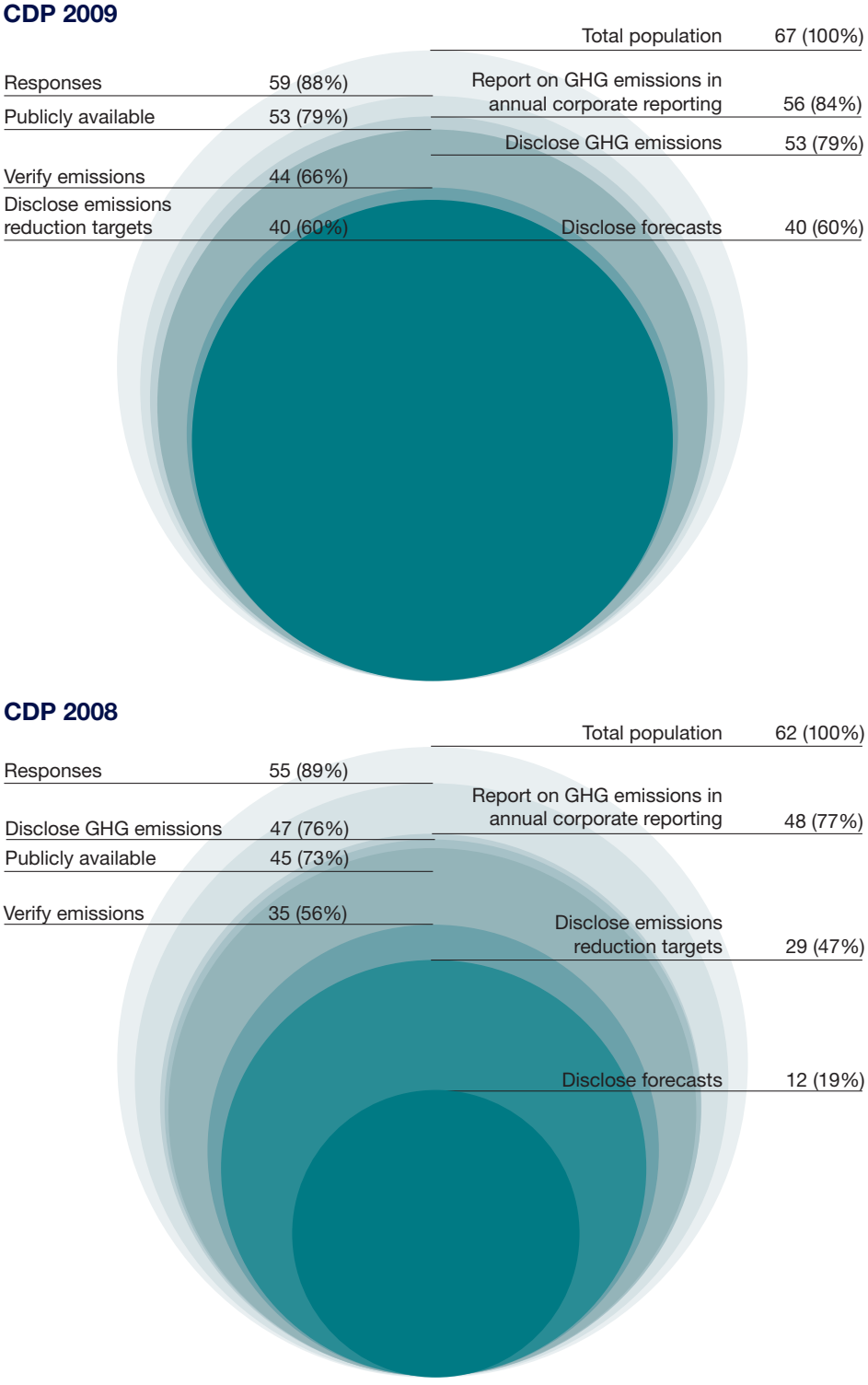
Utilities companies account for 9% (44) of the Global 500, 6% (32) of the S&P 500 and 3% (10) of the FTSE 350 invitees.

The overall response rate[7] for Utilities is a sector-leading 88% (59), although this figure is marginally lower than for CDP 2008. Compared with other sectors, Utilities is ranked first for overall disclosure – ahead of Consumer Staples and Materials in second and third places, respectively.

Utilities are showing modest improvements in nearly all the disclosure metrics, but a marked improvement in the number of respondents choosing to:

- Verify emissions (up 10 percentage points from 2008);
- Disclose emission reduction targets (up 13 percentage points from 2008); and
- Disclose emission forecasts (up 41 percentage points from 2008).

Fig. A: Year-on-year disclosure rates, as a proportion of total Utilities companies (Global 500, S&P 500 and FTSE 350)



6 The sectors traditionally viewed as carbon intensive, according to GICS classifications are Energy, Health Care, Industrials, Materials and Utilities.

7 The response rate represents all responding companies for this sector. Statistics in the remainder of this report are based on the number of analyzed responses only and do not represent companies that responded after the deadline for analysis.

We have seen an increasing sense of urgency in addressing climate change...The Obama Administration has made energy one of its top three priorities and signaled its support for a broad-based GHG cap-and-trade program that requires industry to purchase allowances from the federal government at auction.

Xcel Energy

Fig. B: Disclosure score leaders for the sector[8]

Global 500 leaders

Company name	Disclosure score
PG&E	88
Public Service Enterprise Group	88
Unión Fenosa	86
Centrica	84
RWE	83

S&P 500 leaders

Company name	Disclosure score
PG&E	88
Public Service Enterprise Group	88
Pepco Holdings	87
Xcel Energy	85
DTE Energy	84

FTSE 350 leaders

Company name	Disclosure score
Centrica	84
Northumbrian Water Group	81
Scottish and Southern Energy	78
United Utilities	71
National Grid	69

Fig. C: Largest non-respondents

Largest non-respondents by market capitalization[9]

Company name	Index
National Thermal Power (NTPC)	Global 500
CEZ	Global 500
Hong Kong and China Gas	Global 500
PPL	Global 500, S&P 500
Kyushu Electric Power	Global 500

The increase in forecasting emissions is particularly encouraging and suggests the sector is recognizing the value of forward-looking information to its stakeholders. When compared with a cross-sector group of global leaders for disclosure,[10] Utilities respondents closely followed the leaders in the quality of disclosure with respect to Scopes 1 and 2 emissions reporting, emissions trading, accountability and incentive structures to reduce emissions, and public reporting in annual reports or other mainstream filings. However, they lag in other areas – particularly, disclosure of Scope 3 emissions and targets and plans to reduce emissions (see Fig. D).

Utilities leaders for carbon disclosure are listed above in the order of their disclosure score.[11] While the remaining Utilities respondents ranked lower than these companies, they are nonetheless commended for their disclosures and participation.

8 The companies in this list are leaders in their sector for each of the indexes. However, they may not appear in the CDLI for the index overall when all ten sectors are considered.

9 Market data retrieved from Bloomberg as of June 18, 2009.

10 The 2009 Global 500 Carbon Disclosure Leadership Index is an index of the top 10% of companies with the highest disclosure scores in the Global 500 and is used here as a global benchmark. For more information, see www.cdproject.net.

11 For more about the disclosure scoring methodology, see www.cdproject.net/2009CDLImethodology.asp.

Under current regional (i.e. RGGI [Regional Greenhouse Gas Initiative]) and anticipated federal climate policies (i.e. ACESA [American Clean Air and Security Act]), regulatory risks are, and will continue to be, negated by PSEG's low carbon intensity relative to our competitors and the rest of the US electric power industry. As a result of investments over the past 15 years to reduce carbon emissions and increase our operational ecoefficiency, PSEG has positioned itself to be one of the nation's leading low-carbon energy providers.

Public Service Enterprise Group

Several Utilities companies (12%, or 8 companies) chose not to participate. The largest non-respondents are listed on the previous page based on their market capitalization (see Fig. C).

PG&E and Public Service Enterprise Group, both diversified US Utilities, are the sector leaders in both the Global 500 and S&P 500 populations. **Centrica** from the UK is also well placed in the Global 500 and is sector leader in the FTSE 350.

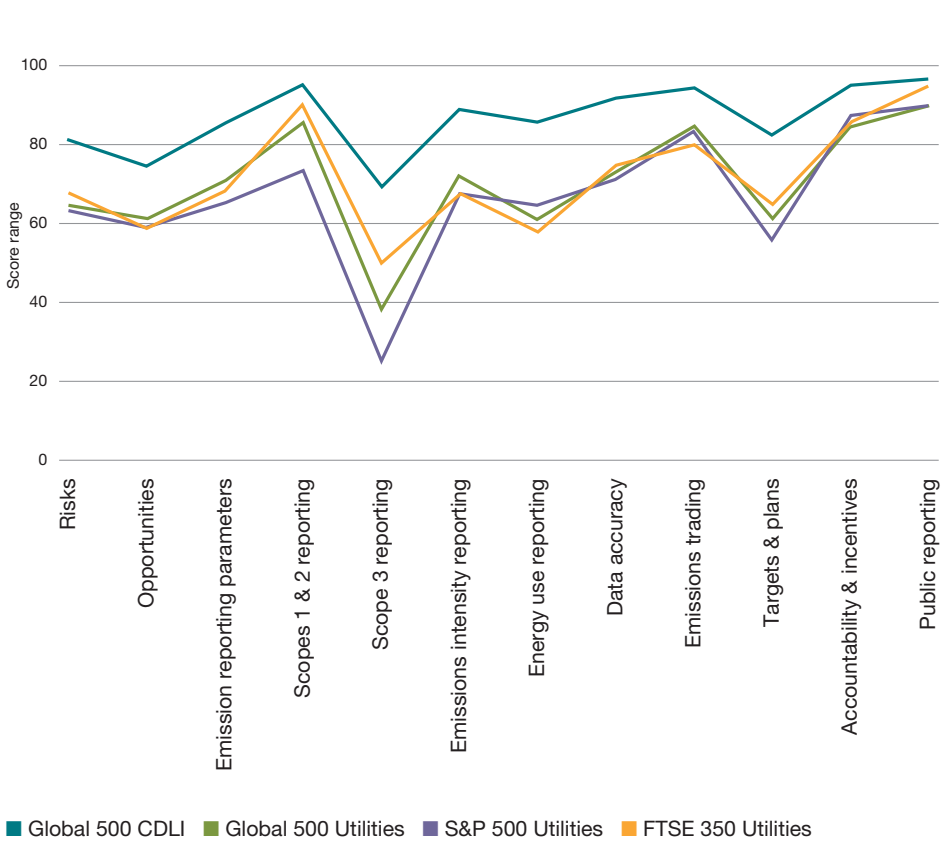
The responses from these three companies clearly demonstrate an acute awareness of the range of risks and opportunities presented by climate change. They also articulate a clear vision of how the business needs to adapt to deal with climate change in terms of either the physical asset infrastructure or the requirements of regulators and customers. Furthermore, the business planning process is already well developed to deal with climate change, with structured targets for reducing emissions over time through either internal abatement measures or diversification of energy sources within the portfolio.

Risks and opportunities

Most respondents from the Utilities sector across the Global 500, S&P 500 and FTSE 350 samples see themselves as exposed to regulatory risks in relation to climate change. In general, there is a clear understanding and appreciation of a more carbon-constrained future ahead. The primary concern is around the form and timing of future regulation at the regional, national, and international levels.

In Europe, uncertainty exists around how the European Union's Emissions Trading System (EU ETS) may be modified in the light of any international commitments agreed to at Copenhagen in December 2009.

Fig. D: Score breakdown for Utilities within each index versus the global leaders[12]



12 The 2009 Global 500 Carbon Disclosure Leadership Index (CDLI), is an index of the top 10% of companies with the highest disclosure scores in the Global 500 index and is used here as a global benchmark. For more information, see www.cdproject.net.

In the US, respondents are concerned about the possible introduction of a cap-and-trade regime as proposed under the Waxman-Markey bill[13] and how federal and state policies for the promotion of renewable energy and energy efficiency will evolve and interact.

In nearly all cases, the implication of this uncertainty is that it may hinder strategic investment decisions in cleaner generation capacity. Notwithstanding this, a high proportion (39%) of Utilities respondents reported company emission reductions targets that extend beyond 2012, compared with an average across all industries of just 20%. This is encouraging.

Regulation impacts on both operational decisions and strategic choices for the sector and respondents cite the following areas where carbon costs are already being incurred or are expected in the future:

- Setting up systems and processes to monitor and comply with regulation;
- Early retirement or adaption of existing generation capacity or network assets to comply with climate change regulation;
- Development of new technologies and energy efficiency programs to reduce emissions;
- Carbon taxation; and
- Direct compliance costs to meet obligations under cap-and-trade programs.

In Europe, the next phase of the EU ETS (starting in 2013) will no longer provide free carbon allowances for the power generation sector: the majority of obligated entities will be required to purchase their requirement through auctions or on the open market. This clearly imposes a new cash constraint on the business. At the time of writing, the expectation in the US is that utilities will be expected to purchase the majority of any future carbon allowances through an auction process instead of receiving them on grandfathered basis at no charge.

On the revenue side, companies are cognizant of two key risk areas as follows.

- A carbon-constrained world is likely to mean less energy is consumed, although this may present opportunities for new business around energy efficiency programs. In addition, numerous companies noted that the potential increase in demand for cooling during summer months could offset any decrease in demand due to warmer winters.
- Regulators are showing increasing interest around whether, and to what extent, carbon costs will be allowed to be passed on to consumers. In particular, respondents from the UK regulated by Ofgem and Ofwat noted some concern over the extent to which the costs of meeting ambitious carbon targets could be recovered in final product prices (i.e., prices paid by consumers for electricity and water).

Aside from regulatory risks, physical risks from climate change are noted by 86% (31) of the Global 500, 79% (22) of the S&P 500 and 78% (7) of the FTSE 350 Utilities sector respondents. Direct risks to fixed assets and operations are cited, including damage to, or deterioration of, power generation facilities, nuclear power plants and hydroelectric dams, as well as gas and power networks. Respondents are already facing increased expenditure to ensure that their physical assets are more resilient in the face of extreme climatic events, although few were willing to quantify actual or projected spend.

Aside from contingency planning and the need for operational resilience, the demand implication of uncertain weather patterns was also noted. Gas companies comment on warmer summer temperatures affecting the efficiency of gas turbines, while water companies remark on insufficient reservoir capacity at certain times of the year. Interestingly, longer-term water availability for hydrogeneration was cited as a significant concern across the Utilities sector, irrespective of whether respondents maintained hydroassets within their portfolio.

Over the past 32 years, PG&E has implemented some of the most comprehensive and aggressive energy efficiency programs in the nation, working to help customers achieve cost-effective energy savings. In total, PG&E's programs have helped customers save almost $24 billion and prevented more than 155 million tons of carbon dioxide (CO_2) from being emitted into the atmosphere, based on cumulative life cycle savings.

PG&E

Complete company responses to CDP can be downloaded from www.cdproject.net

13 H.R. 2454, American Clean Energy and Security Act of 2009 (ACESA).

We have seen an increasing sense of urgency in addressing climate change...The Obama Administration has made energy one of its top three priorities and signaled its support for a broad-based GHG cap-and-trade program that requires industry to purchase allowances from the federal government at auction.

Xcel Energy

Both Ofwat and the Environment Agency have recently established targets on water efficiency...and these also represent a significant regulatory risk. The financial impact of these risks is difficult to estimate but if unmanaged could run to many millions of pounds. For this reason they receive the appropriate level of management attention.

Northumbrian Water Group

During periods of low summer rainfall followed by low winter rainfall there may be insufficient refill to reservoirs to guarantee that the company can provide normal supplies to its customers.

Severn Trent

PHI believes that current and anticipated regulatory requirements offer opportunities in providing renewable and efficient energy and providing net metering programs to our customers. Specifically, PHI's "Blueprint for the Future" is designed to improve service to PHI's customers and empower them to manage their energy use and costs.

Pepco Holdings

Regulation will also lead to increased opportunities for servicing the wider needs of our customers through our broad range of products. For example, if it becomes mandatory for every household in the UK to have a smart meter installed, there will be an opportunity for SSE to provide other services to customers at the same time.

Scottish and Southern Energy

In September 2005, Viridor formed a joint venture with Grundon Waste Management Ltd. for a new £180m, 400,000-tonnes-per-annum-capacity, energy-from-waste facility.

Pennon Group

In addition to the risks outlined above, 94% (34) of the Global 500, 86% (24) of the S&P 500 and 100% (9) of the FTSE 350 Utilities respondents said regulation also presented opportunities. Key areas of opportunity included:

- Development of new business units such as Energy Service Companies (ESCO's) and products that help consumers manage and reduce energy use;
- Diversification into new markets, either self-funded or through joint ventures; and
- Research and Development (R&D) and investment programs to bring new energy technologies to market.

In order to counteract the impact of reduced demand from energy consumption, Utilities have recognized the opportunity to develop business in new areas by providing new products and services for customers. Key ideas noted in responses include smart metering, consultancy services for customers, products to help with demand-side management, insulation options, low-energy products, and green energy tariffs. Although not explicitly stated, it is likely that two of the drivers of such activity are greater customer retention and cross-selling potential in an increasingly competitive, liberalized energy market.

In order to effectively pursue new solutions for climate change mitigation, many companies are entering into, or actively seeking, new joint ventures or other collaborative partnerships.

These serve to bring together complementary skills and ideas and share risks around new capital investment in new areas where technologies may not have a strong commercial track record and external financing may be limited.

Leading Utilities companies are conscious that the industry features long-lived assets and complex value chains. Many recognize that the future structure of the industry is likely to be influenced by key factors such as security of supply, diversified (and, potentially, decentralized) generation, ongoing market liberalization and carbon constraints. This, in turn, means R&D activity may need to be broader in focus and involve other industry players and new alliances.

Carbon capture and storage (CCS) is a prime example in this regard, requiring an understanding of generation technologies and power markets, transportation networks and the prospecting, development and licensing of CO_2 storage sites, which has parallels with traditional exploration for and production of fossil fuels.

A final opportunity considered by several respondents is nuclear energy. A diversified energy mix is embedded in the strategy of many Utilities companies in order to address security of supply and climate change concerns simultaneously. Nuclear is seen by many as a key component in the ongoing low-carbon-energy mix.

> We are investing in R&D for new superconductors to make it more efficient to connect more distant sources of generation (e.g. offshore wind turbines) to our network.
>
> **National Grid**

> As Brazil is a Non-Annex I country the Eletrobrás System is not obliged to have an emission reduction target. Nevertheless... it sees the carbon market as an opportunity due to CDM [clean development mechanism] projects.
>
> **Eletrobrás**

Duke Energy is helping advance the demonstration of geologic CO_2 storage technology through its participation in the US DOE Midwest Regional Carbon Sequestration Partnership Program. Through this partnership, Duke Energy is helping demonstrate the technical feasibility and cost-effectiveness of sequestering large amounts of CO_2.

Duke Energy

PG&E has identified a potential physical risk of reduced hydroelectric generation due to reductions in snowpack in the Sierra Nevada.

PG&E

Insights from the performance score pilot

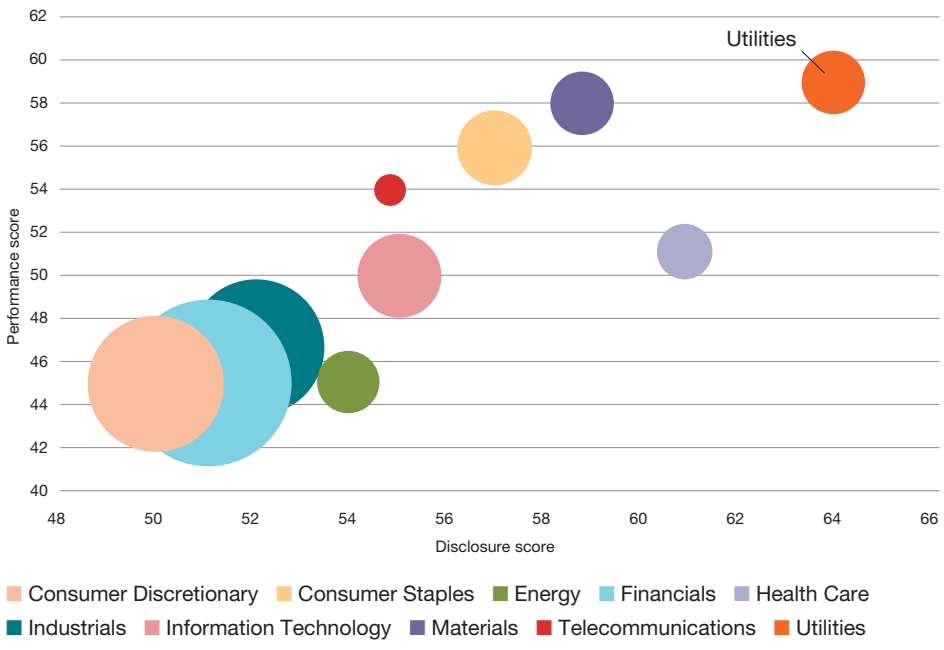
CDP 2009 included, for the first time, separate scores for performance. While CDP has traditionally rated the quality of disclosure, the objective of identifying a performance score is to provide a means of assessing the effectiveness of companies' actions taken to manage their business responses and reduce their contributions to climate change. Certain questions (22 in total) in the CDP Information Request qualified for performance points. (See the main CDP reports for more detail on the performance scoring.)

The Utilities sector scored first overall for disclosure and first for performance. The chart below shows how the Utilities sector compares with the other sectors for performance.

As 2009 is the first year of use of the performance scoring methodology,[14] individual company performance scores are not shown in the CDP 2009 reports, although comment on initial findings is provided below.

The Utilities companies scoring the highest number of performance points (in alphabetical order) are **Centrica**, **Consolidated Edison**, **Exelon** and **Pepco Holdings**.

Fig. E: Average performance scores versus disclosure scores by sector



Sizes of bubbles are based on number of respondents.

14 For more about the performance scoring methodology, see http://www.cdproject.net/2009CDLImethodology.asp.

A number of trends regarding performance were observed in the Utilities sector:

- Within the Global 500, Utilities respondents outscored the other sectors in several areas, with the most significant being progress in respect of the provision of goods and services that enable customers to reduce emissions;
- Utilities respondents within the S&P 500 performed strongly in the management of climate change risks and in the setting of targets and plans (and meeting them); and
- Relative to their sector peers from the Global 500 and S&P 500, FTSE 350 Utilities respondents performed particularly well at providing staff incentives for achieving climate change targets and assigning an executive-level body with responsibility over climate change.

Across the three CDP populations, the Utilities sector as a whole has established good governance, with 91% (51) having Board-level committees with responsibility for climate change in place and 57% (32) reporting staff incentives to reduce emissions. Examples illustrating good governance include regular (monthly or quarterly) management meetings (ideally with cross-departmental representation), specific key performance indicators across different business units and agreed-upon benchmarks to track progress with clear feedback communicated downward to managers and staff.

Conclusion

Consistent with CDP 2008, the Utilities sector has been a strong performer in CDP 2009. Disclosure rates are the highest of all industries, and performance is strong.

To date, this sector has faced a large portion of the burden of regulation and public scrutiny over climate change. Utilities companies have been successful in managing this burden through having systems in place to detect, respond to and take action against potential risks. The impressive performance in this sector to date comes from its ability to not only manage these risks but to also turn them into opportunities for growth in a more carbon-constrained future.

However, if the medium to long-term reduction targets outlined by the Intergovernmental Panel on Climate Change (IPCC) are to be met, then there is still much that needs to be done in the Utilities sector. It can be expected that many more significant challenges lie ahead for Utilities that will inevitably produce winners and losers during the transition to a low-carbon economy.

We have taken the opportunities provided by government support for nuclear by purchasing a 20% stake in nuclear power generator British Energy from EDF for £2.3 billion.

Centrica

Regulations may be placed upon our customers to reduce their energy use, whether it be at the commercial or domestic level, and this would present us with a challenge as to how to assist them in achieving this in a way which maintains our profitability.

Scottish and Southern Energy

Key

AQ	Answered questionnaire
AQ(L)	Answered questionnaire late
DP	Declined to participate
IN	Provided some information (but did not answer the CDP questions)
NP	Non public response
NR	No response
–	Company not in CDP sample that year

Index

F = FTSE 350

G = Global 500

S = S&P 500

For information about the scoring methodology, visit www.cdproject.net/2009CDLImethodology.asp

Utilities scores and emissions by company[15]

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[16]	Total Emissions[17]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[18]	Scope 3[19]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
AES	S	AQ	AQ	15		0	84	84								
Allegheny Energy	S	AQ	AQ	51		11,993	40,606,754	40,606,754								
Ameren	S	AQ	AQ	63		8,688	68,102,804	68,102,804								
American Electric Power	G, S	AQ	AQ	52		10,347	149,415,000	149,415,000								
British Energy Group (see EDF)	F, G	AQ	AQ		NP											
CenterPoint Energy	S	AQ	AQ	45												
Centrica	F, G	AQ	AQ	84		520	11,103,697	10,871,403	232,294		23,317,006	x	x	x	x	
CEZ	G	IN	AQ													
Chubu Electric Power	G	AQ	AQ	50		2,338	64,730,000	64,730,000			30,000		x		x	x
CLP Holdings	G	AQ	AQ	68		6,342	44,430,017	44,422,000	8,017							
CMS Energy	S	AQ	AQ	43		3,322	22,659,483	22,659,483								
Consolidated Edison	G, S	AQ	AQ	79		351	4,769,429	4,211,511	557,918	*	†					x
Constellation Energy Group	S	AQ	AQ	59		952	18,875,860	17,900,347	975,513	*	5,694				x	
Dominion Resources	G, S	AQ	AQ	67		3,303	53,798,568	53,798,568		*						
Drax Group	F	AQ	AQ	54		12,769	22,381,803	22,381,803			249,000		x			
DTE Energy	S	AQ	AQ	84		4,528	42,245,000	41,800,000	445,000	*						
Duke Energy	G, S	AQ	AQ	64		7,482	98,811,000	98,811,000								
Dynegy	S	NR	AQ													
E.ON AG	G	AQ	AQ	74		1,317	158,837,794	155,329,015	3,508,779		797,717		x		x	

15 Some of the figures in this table have been updated since the initial response analysis and may therefore differ from data in the main report contents.

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[16]	Total Emissions[17]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[18]	Scope 3[19]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Edison International	G, S	AQ	–	39	NP											
EDP – Energias de Portugal	G	AQ	AQ	75		1,107	21,384,671	19,813,643	1,571,028		4,902			x	x	x
Electricite de France (EDF)	G	AQ(L)	AQ				91,982,800	91,790,000	192,800							
Eletrobrás	G	AQ	AQ	49		23	300,514	300,514								
ENEL	G	AQ	AQ	55		1,327	109,862,979	109,862,979								
Entergy	G, S	AQ	AQ	78		3,734	48,891,292	33,186,984	15,704,308	*						
Exelon	G, S	AQ	AQ	71		512	9,664,883	9,431,588	233,295		10,234				x	x
FirstEnergy	G, S	AQ	AQ	65		3,587	48,877,547	48,877,547								
Fortum	G	AQ	AQ	79		2,324	18,211,090	17,903,090	308,000		4,078,570	x		x	x	
FPL Group	G, S	AQ	AQ	82		2,813	46,166,488	46,007,608	158,880	*	14,987				x	
Gas Natural SDG	G	AQ	AQ	77	NP											
GDF Suez (formerly Gaz de France / Suez)	G	AQ	AQ	67		1,120	105,705,662	102,602,659	3,103,003							
Hong Kong and China Gas	G	NR	–													
Hong Kong Electric Holdings	G	AQ	–	58		5,564	9,170,000	9,170,000								
Iberdrola	G	AQ	AQ	73		1,282	44,918,783	40,869,083	4,049,700	*	1,028,093				x	
Integrys Energy Group	S	NR	AQ													
International Power	F	AQ	AQ	67	NP											
Kansai Electric Power	G	AQ	AQ	54		1,787	54,990,000	54,990,000		*	11,000			x		
Korea Electric Power (Kepco)	G	AQ	AQ	49		7,658	191,884,046	180,952,435	10,931,611							
Kyushu Electric Power	G	NR	AQ													
National Grid	F, G	AQ	AQ	69		1,066	12,182,000	11,939,000	243,000		5,263,000	x			x	
National Thermal Power (NTPC)	G	NR	NR													
Nicor	S	NR	DP													
NiSource	S	AQ	AQ	50		3,303	29,314,067	29,054,546	259,521		2,459,491	x				
Northumbrian Water Group	F	AQ	AQ	81		419	280,842	59,552	221,290		43,640	x		x	x	x
Pennon Group	F	AQ	AQ	65		269	235,332	117,554	117,789	*	13,344		x		x	
Pepco Holdings	S	AQ	AQ	87		284	3,038,868	2,959,112	79,756		1,488				x	
PG&E	G, S	AQ	AQ	88		235	3,439,406	1,903,901	1,535,505		22,569,017	x				
Pinnacle West Capital	S	AQ	AQ	51		4,844	16,310,917	16,290,019	20,898							
PPL	G, S	NR	AQ													
Progress Energy	G, S	AQ	AQ	67		5,445	49,918,840	49,918,840								
Public Service Enterprise Group	G, S	AQ	AQ	88		1,962	26,138,959	24,287,856	1,851,103	*	42,593,087	x		x	x	

Company Name	Index	2009	2008	CDLI Score	Non-public	Intensity[16]	Total Emissions[17]	Scope 1	Scope 2 Grid Average	Scope 2 Contractual Arrangements[18]	Scope 3[19]	Use & Disposal of Products & Services	Logistics & Distribution	Supply Chain	Business Travel	Other
Questar	S	AQ	AQ	56		776	2,690,222	2,571,101	119,121							
RWE	G	AQ	AQ	83		3,743	247,180,000	172,100,000	75,080,000	*	68,145,400	x	x		x	
Scottish and Southern Energy	F, G	AQ	AQ	78		1,270	19,372,778	19,286,697	86,081	65,567	47,109		x		x	
Sempra Energy	G, S	AQ	AQ	41		971	10,441,679	9,906,141	535,538							
Severn Trent	F	AQ	AQ	58		430	667,866	244,830	423,036	*	126				x	x
Snam Rete Gas	G	AQ	AQ	65		559	1,478,335	1,450,000	28,335							
Southern	G, S	AQ	AQ	48		8,241	141,137,000	141,137,000								
TECO Energy	S	AQ	IN	70		4,077	13,762,234	13,762,234								
Tepco (Tokyo Electric Power)	G	AQ(L)	AQ(L)													
Tohoku Electric Power	G	AQ	AQ	43		1,779	35,380,000	33,730,000	1,650,000		33,395,680	x	x		x	
Tokyo Gas Co.	G	AQ	AQ	63		14	263,000	111,000	152,000		35,715,000	x	x	x		
Union Fenosa	G	AQ	AQ	86		2,008	20,070,935	19,034,052	1,036,883	*	10,583,502	x		x	x	
United Utilities	F	AQ	AQ	71		231	545,791	122,141	423,650	313,025	6,098				x	x
Veolia Environnement	G	AQ	AQ	76		937	47,169,060	42,267,900	4,901,160		475,660†	x	x	x	x	x
Wisconsin Energy	S	AQ	–	31												
Xcel Energy	S	AQ	AQ	85		5,598	62,709,863	62,650,466	59,397		27,375				x	

16 Disclosed Scopes 1 and 2 grid average emissions totals divided by annual US$ million revenues. Revenues based on data retrieved from Bloomberg on June 18, 2009.

17 Scope 1 and Scope 2 grid average reported emissions

18 Where there is a * in this column, the company provided detail in relation to its contractual Scope 2 emissions. Please refer to the company's response.

19 The Scope 3 figure is the sum of data given in answer to questions 13.1-13.4. Information in response to 13.5 was not included in this figure. In a number of cases (marked with †), companies provided data for non-transfer emissions under 13.5, and CDP advises you to look at their full response for details of these emissions.

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