

Carbon Disclosure Project 2009 S&P 500 Report

On behalf of 475 investors with assets of \$55 trillion



Report written for
Carbon Disclosure Project by:

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Carbon Disclosure Project 2009

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CDP Members 2009



- ABRAPP - Associação Brasileira das Entidades Fechadas de Previdência Complementar** Brazil
- Aegon N.V.** Netherlands
- AIG Investments** US
- APG Investments** Netherlands
- ASN Bank** Netherlands
- ATP Group** Denmark
- Aviva Investors** UK
- AXA Group** France
- Bank of America Corporation** US
- BBVA** Spain
- BlackRock** US
- BP Investment Management Limited** UK
- Caisse de dépôt et placement du Québec** Canada
- California Public Employees' Retirement System** US
- California State Teachers Retirement System** US
- Calvert Group** US
- Catholic Super** Australia
- CCLA Investment Management Ltd** UK
- CIBC** Canada
- Daiwa Asset Management Co. Ltd** Japan
- Essex Investment Management, LLC** US
- Ethos Foundation** Switzerland
- Folksam** Sweden
- Fortis Investments** Belgium
- Generation Investment Management** UK

- Grupo Santander Brasil** Brazil
- ING** Netherlands
- KLP Insurance** Norway
- Legg Mason, Inc.** US
- Libra Fund, L.P.** US
- London Pensions Fund Authority** UK
- Mistra, Foundation for Strategic Environmental Research** Sweden
- Mitsubishi UFJ Financial Group (MUFG)** Japan
- Morgan Stanley Investment Management** US
- National Australia Bank Limited** Australia
- Neuberger Berman** US
- Newton Investment Management Limited** UK
- Northwest and Ethical Investments LP** Canada
- Pictet Asset Management SA** Switzerland
- Rabobank** Netherlands
- Robeco** Netherlands
- Russell Investments** UK
- Schroders** UK
- Second Swedish National Pension Fund (AP2)** Sweden
- Sompo Japan Insurance Inc.** Japan
- Standard Chartered PLC** UK
- Sun Life Financial Inc.** Canada
- Swiss Reinsurance Company** Switzerland
- The RBS Group** UK
- The Wellcome Trust** UK
- Zurich Cantonal Bank** Switzerland

CDP Signatories 2009

475 institutional investors with assets of over US\$55 trillion were signatories to the CDP 2009 information request dated February 1st 2009, including:

Aachener Grundvermögen Kapitalanlagegesellschaft mbH	Germany
Aberdeen Asset Managers	UK
Acuity Funds	Canada
Addenda Capital Inc.	Canada
Advanced Investment Partners	US
Advantage Asset Managers (Pty) Ltd	South Africa
Aegon N.V.	Netherlands
Aeneas Capital Advisors	US
AGF Management Limited	Canada
AIG Investments	US
Alberta Investment Management Corporation (AIMCo)	Canada
Alberta Teachers Retirement Fund	Canada
Alcyone Finance	France
Allianz Group	Germany
Altshuler Shacham LTD	Israel
AMP Capital Investors	Australia
AmpegaGerling Investment GmbH	Germany
APG Investments	Netherlands
ARIA (Australian Reward Investment Alliance)	Australia
Arkitekternes Pensionskasse	Denmark
Artus Direct Invest AG	Germany
ASB Community Trust	New Zealand
ASN Bank	Netherlands
ATP Group	Denmark
Australia and New Zealand Banking Group Limited	Australia
Australian Ethical Investment Limited	Australia
AustralianSuper	Australia
Aviva Investors	UK
Aviva plc	UK
AXA Group	France
Baillie Gifford & Co.	UK
Bakers Investment Group	Australia
Banco	Sweden
Banco Bradesco S.A	Brazil
Banco de Galicia y Buenos Aires S.A.	Argentina
Banco do Brazil	Brazil
Banco Santander, S.A.	Spain
Banesprev – Fundo Banespa de Seguridade Social	Brazil
Bank of America Corporation	US
Bank Sarasin & Co, Ltd	Switzerland
Bank Vontobel	Switzerland
BANKINTER S.A.	Spain
Barclays Group	UK
BayernInvest Kapitalanlagegesellschaft mbH	Germany
BBC Pension Trust Ltd	UK
BBVA	Spain
Bedfordshire Pension Fund	UK
Beutel Goodman and Co. Ltd	Canada
BlackRock	US
Blue Marble Capital Management Limited	Canada
BMO Financial Group	Canada
BNP Paribas Investment Partners	France
Boston Common Asset Management, LLC	US
BP Investment Management Limited	UK
Brasilprev Seguros e Previdência S/A.	Brazil
British Columbia Investment Management Corporation (bcIMC)	Canada
BT Financial Group	Australia
BT Investment Management	Australia
Busan Bank	South Korea
CAAT Pension Plan	Canada
Caisse de dépôt et placement du Québec	Canada
Caisse des Dépôts	France
Caixa de Previdência dos Funcionários do Banco do Nordeste do Brasil (CAPEF)	Brazil
Caixa Econômica Federal	Brazil
Caixa Geral de Depósitos	Portugal
California Public Employees' Retirement System	US
California State Teachers Retirement System	US
California State Treasurer	US
Calvert Group	US
Canada Pension Plan Investment Board	Canada
Canadian Friends Service Committee (Quakers)	Canada
CAPESEP	Brazil
Capital Innovations, LLC	US
CARE Super Pty Ltd	Australia
Carlson Investment Management	Sweden
Carmignac Gestion	France
Catherine Donnelly Foundation	Canada
Catholic Super	Australia
Cbus Superannuation Fund	Australia
CCLA Investment Management Ltd	UK
Central Finance Board of the Methodist Church	UK
Ceres, Inc.	US
Cheyne Capital Management (UK) LLP	UK
CI Mutual Funds' Signature Advisors	Canada
CIBC	Canada
Clean Yield Group, Inc.	US
ClearBridge Advisors, Socially Aware Investment	US
Close Brothers Group plc	UK
Colonial First State Global Asset Management	Australia
Comite syndical national de retraite Bâtirente	Canada
Commerzbank AG	Germany
CommInsure	Australia
Companhia de Seguros Aliança do Brasil	Brazil
Compton Foundation, Inc.	US
Connecticut Retirement Plans and Trust Funds	US
Co-operative Financial Services (CFS)	UK
Corston-Smith Asset Management Sdn. Bhd.	Malaysia
Crédit Agricole Asset Management	France
Credit Suisse	Switzerland
Daegu Bank	South Korea
Daiwa Securities Group Inc.	Japan
DB Advisors Deutsche Asset Management	Germany
DEFO – Deutsche Fonds für Immobilienvermögen GmbH	Germany
DEGI Deutsche Gesellschaft für Immobilienfonds mbH	Germany
Deka FundMaster Investmentgesellschaft mbH	Germany
Deka Investment GmbH	Germany
DekaBank Deutsche Girozentrale	Germany
Deutsche Bank	Germany
Deutsche Postbank Privat Investment Kapitalanlagegesellschaft mbH	Germany
Development Bank of Japan	Japan
Development Bank of the Philippines (DBP)	Philippines
Dexia Asset Management	France
DnB NOR ASA	Norway
Domini Social Investments LLC	US
DPG Deutsche Performancemessungs-Gesellschaft für Wertpapierportfolio mbh	Germany
East Sussex Pension Fund	UK
Economus Instituto de Seguridade Social	Brazil
ELETRA – Fundação Celg de Seguros e Previdência	Brazil
Environment Agency Active Pension fund	UK
Epworth Investment Management	UK
Erste Group Bank AG	Austria
Essex Investment Management, LLC	US
Ethos Foundation	Switzerland
Eureko B.V.	Netherlands
Eurizon Capital SGR	Italy
Evangelical Lutheran Church in Canada Pension Plan for Clergy and Lay Workers	Canada
Evli Bank Plc	Finland
F&C Management Ltd	UK
Faelba	Brazil
FAELCE – Fundação Coelce de Seguridade Social	Brazil
Fédéris Gestion d'Actifs	France
First Affirmative Financial Network	US
First Swedish National Pension Fund (AP1)	Sweden
FirstRand Ltd.	South Africa
Fishman & Co.	Israel
Five Oceans Asset Management Pty Limited	Australia
Florida State Board of Administration (SBA)	US
Folksam	Sweden
Fondaction CSN	Canada
Fonds de Réserve pour les Retraites – FRR	France
Fortis Bank Nederland	Netherlands
Fortis Investments	Belgium
Forward Management, LLC	US
Fourth Swedish National Pension Fund, (AP4)	Sweden
Frankfurter Service Kapitalanlagegesellschaft mbH	Germany
FRANKFURT-TRUST Investment Gesellschaft mbH	Germany
Franklin Templeton Investment Services GmbH	Germany
Frater Asset Management	South Africa
Friends Provident	UK
Front Street Capital	Canada

Fukoku Capital Management Inc	Japan	Infrastructure Development Finance Company Ltd. (IDFC)	India	MEAG Munich Ergo Asset Management GmbH	Germany
Fundação AMPLA de Seguridade Social – Brasieltros	Brazil	ING	Netherlands	MEAG Munich Ergo Kapitalanlagegesellschaft mbH	Germany
Fundação Atlântico de Seguridade Social	Brazil	Inhance Investment Management Inc	Canada	Meeschaert Gestion Privée	France
Fundação Banrisul de Seguridade Social	Brazil	Insight Investment Management (Global) Ltd	UK	Meiji Yasuda Life Insurance Company	Japan
Fundação CEEE de Seguridade Social – ELETROCEEE	Brazil	Instituto de Seguridade Social dos Correios e Telégrafos- Postalís	Brazil	Merck Family Fund	US
Fundação Codesc de Seguridade Social – FUSESC	Brazil	Instituto Infraero de Seguridade Social – INFRAPREV	Brazil	Mergence Africa Investments (Pty) Limited	South Africa
Fundação de Assistência e Previdência Social do BNDES – FAPES	Brazil	Insurance Australia Group	Australia	Meritas Mutual Funds	Canada
Fundação Forluminas de Seguridade Social – FORLÚZ	Brazil	Internationale Kapitalanlagegesellschaft mbH	Germany	Metzler Investment GmbH	Germany
Fundação Promon de Previdência Social	Brazil	Investec Asset Management	UK	Midas International Asset Management	South Korea
Fundação São Francisco de Seguridade Social	Brazil	Itaú Unibanco Banco Múltiplo S.A.	Brazil	Miller/Howard Investments	US
Fundação Vale do Rio Doce de Seguridade Social – VALIA	Brazil	J.P. Morgan Asset Management	US	Mirae Investment Asset Management	South Korea
FUNDIÁGUA - Fundação de Previdência da Companhia de Saneamento e Ambiental do Distrito Federal	Brazil	Janus Capital Group Inc.	US	Mistra, Foundation for Strategic Environmental Research	Sweden
Gartmore Investment Management Ltd	UK	Jarislowsky Fraser Limited	Canada	Mitsubishi UFJ Financial Group (MUFG)	Japan
Generation Investment Management	UK	Jubitz Family Foundation	US	Mitsui Sumitomo Insurance Co.,Ltd.	Japan
Genus Capital Management	Canada	Jupiter Asset Management	UK	Mizuho Financial Group, Inc.	Japan
Gjensidige Forsikring	Norway	K&H Investment Fund Management/K&H Befektetési Alapkezelő Zrt	Hungary	Mn Services	Netherlands
GLG Partners LP	UK	KB Kookmin Bank	South Korea	Monega Kapitalanlagegesellschaft mbH	Germany
Goldman Sachs & Co.	US	KB Asset Management NV	Belgium	Morgan Stanley Investment Management	US
Governance for Owners	UK	KCPS and Company	Israel	Motor Trades Association of Australia Superannuation Fund Pty Ltd	Australia
Government Employees Pension Fund (“GEPF”), Republic of South Africa	South Africa	KDB Asset Management Co., Ltd.	South Korea	MP Pension – Pensionskassen for Magistre og Psykologer	Denmark
Green Cay Asset Management	Bahamas	Kennedy Associates Real Estate Counsel, LP	US	Munich Re Group	Germany
Green Century Funds	US	KfW Bankengruppe	Germany	Mutual Insurance Company Pension-Fennia	Finland
Groupe Investissement Responsable Inc.	Canada	Kibo Technology Fund	South Korea	Natcan Investment Management	Canada
GROUPE OFI AM	France	KLP Insurance	Norway	Nathan Cummings Foundation, The	US
GrowthWorks Capital Ltd.	Canada	Korea Investment Trust Management Co., Ltd.	South Korea	National Australia Bank Limited	Australia
Grupo Banco Popular	Spain	KPA Pension	Sweden	National Bank of Canada	Canada
Grupo Santander Brasil	Brazil	Kyobo Investment Trust Management Co., Ltd.	South Korea	National Bank of Kuwait	Kuwait
Gruppo Monte Paschi	Italy	La Banque Postale Asset Management	France	National Grid Electricity Group of the Electricity Supply Pension Scheme	UK
Guardian Ethical Management Inc	Canada	La Financiere Responsable	France	National Grid UK Pension Scheme	UK
Guardians of New Zealand Superannuation	New Zealand	LBBW – Landesbank Baden-Württemberg	Germany	National Pensions Reserve Fund of Ireland	Ireland
Hang Seng Bank	Hong Kong	LBBW Asset Management GmbH	Germany	Natixis	France
HANSAINVEST Hanseatische Investment GmbH	Germany	LD Lønmodtagernes Dyrtingsfond	Denmark	Needmor Fund	US
Harrington Investments	US	Legal & General Group plc	UK	Nest Sammelstiftung	Switzerland
Hastings Funds Management Limited	Australia	Legg Mason, Inc.	US	Neuberger Berman	US
Hazel Capital LLP	UK	Lend Lease Investment Management	Australia	New Alternatives Fund Inc.	US
Health Super Fund	Australia	Libra Fund, L.P.	US	New Jersey Division of Investment	US
Helaba Invest Kapitalanlagegesellschaft mbH	Germany	Light Green Advisors, LLC	US	New Mexico State Treasurer	US
Henderson Global Investors	UK	Living Planet Fund Management Company S.A.	Switzerland	New York City Employees Retirement System	US
Hermes Fund Managers	UK	Local Authority Pension Fund Forum	UK	New York City Teachers Retirement System	US
HESTA Super	Australia	Local Government Superannuation Scheme	Australia	New York State Common Retirement Fund (NYSCRF)	US
Hospitals of Ontario Pension Plan (HOOPP)	Canada	Local Super SA-NT	Australia	Newton Investment Management Limited	UK
HSBC Holdings plc	UK	Lombard Odier Darier Hentsch & Cie	Switzerland	NFU Mutual Insurance Society	UK
Hyundai Marine & Fire Insurance Co, Ltd	South Korea	London Pensions Fund Authority	UK	NH-CA Asset Management	South Korea
IDBI Bank Limited	India	Lothian Pension Fund	UK	Nikko Asset Management Co., Ltd.	Japan
Ilmarinen Mutual Pension Insurance Company	Finland	Macif Gestion	France	Nissay Asset Management Corporation	Japan
Impax Group plc	UK	Macquarie Group Limited	Australia	Nordea Investment Management	Sweden
Industrial Bank	China	Magnolia Charitable Trust	US	Norfolk Pension Fund	UK
Industry Funds Management	Australia	Maine State Treasurer	US	Norges Bank Investment Management (NBIM)	Norway
		Man Group plc	UK	Norinchukin Zenkyouren Asset Management Co., Ltd	Japan
		Maple-Brown Abbott Limited	Australia	North Carolina State Treasurer	US
		Marc J. Lane Investment Management, Inc.	US		
		Maryland State Treasurer	US		
		McLean Budden	Canada		

Northern Ireland Local Government Officers' Superannuation Committee (NILGOSC) UK	Scotiabank Canada	The Japan Research Institute, Limited Japan
Northern Trust US	Scottish Widows Investment Partnership UK	The Joseph Rowntree Charitable Trust UK
Northwest and Ethical Investments LP Canada	SEB Sweden	The Local Government Pensions Insitution (LGPI)(keva) Finland
Oddo & Cie France	SEB Asset Management AG Germany	The Presbyterian Church in Canada Canada
Old Mutual plc UK	Second Swedish National Pension Fund (AP2) Sweden	The RBS Group UK
OMERS Administration Corporation Canada	Seligson & Co Fund Management Plc Finland	The Russell Family Foundation US
Ontario Teachers Pension Plan Canada	Sentinel Funds US	The Shiga Bank, Ltd. Japan
Opplysningsvesenets fond (The Norwegian Church Endowment) Norway	SERPROS Fundo Multipatrocinado Brazil	The Standard Bank of South Africa Limited South Africa
Oregon State Treasurer US	Service Employees International Union Benefit Funds US	The Sustainability Group at the Loring, Wolcott & Coolidge Office US
Orion Asset Management LLC US	Seventh Swedish National Pension Fund (AP7) Sweden	The Travelers Companies, Inc. US
Pax World Funds US	Shinhan Bank South Korea	The United Church of Canada – General Council Canada
PBU – Pension Fund of Early Childhood Teachers Denmark	Shinhan BNP Paribas Investment Trust Management Co., Ltd South Korea	The University of Edinburgh Endowment Fund UK
Pension Fund for Danish Lawyers and Economists Denmark	Shinkin Asset Management Co., Ltd Japan	The Wellcome Trust UK
Pension Protection Fund UK	Shinsei Bank Limited Japan	Third Swedish National Pension Fund (AP3) Sweden
Pensionskassen for Jordbrugsakademikere og Dyrleger Denmark	Siemens Kapitalanlagegesellschaft mbH Germany	Threadneedle Asset Management UK
PETROS – The Fundação Petrobras de Seguridade Social Brazil	Signet Capital Management Ltd Switzerland	Tokio Marine & Nichido Fire Insurance Co., Ltd. Japan
PFA Pension Denmark	Skandia Nordic Division Sweden	Toronto Atmospheric Fund Canada
PGGM Netherlands	SMBC Friend Securities Co., LTD Japan	Trillium Asset Management Corporation US
Phillips, Hager & North Investment Management Ltd. Canada	Smith Pierce, LLC US	Triodos Bank Netherlands
PhiTrust Active Investors France	SNS Asset Management Netherlands	TrygVesta Denmark
Pictet Asset Management SA Switzerland	Social(k) US	UBS AG Switzerland
Pioneer Alapkezelő Zrt. Hungary	Société Générale France	Unibanco Asset Management Brazil
Pioneer Investments Kapitalanlagegesellschaft mbH Germany	Sompo Japan Insurance Inc. Japan	UniCredit Group Italy
PKA Denmark	Souls Funds Management Limited Australia	Union Asset Management Holding AG Germany
Portfolio 21 Investments US	SPF Beheer bv Netherlands	Union Investment Institutional GmbH Germany
Portfolio Partners Australia	Sprucegrove Investment Management Ltd Canada	Union Investment Privatfonds GmbH Germany
Porto Seguro S.A. Brazil	Standard Chartered PLC UK	Union Investment Service Bank AG Germany
PPM Premiepensionsmyndigheten Sweden	Standard Life Investments UK	Union PanAgora Asset Management GmbH Germany
PRECE Previdência Complementar Brazil	State Street Corporation US	UniSuper Australia
PREVI Caixa de Previdência dos Funcionários do Banco do Brasil Brazil	Statewide Superannuation Trust Australia	Unitarian Universalist Association US
Principle Capital Partners Limited UK	Storebrand ASA Norway	United Methodist Church General Board of Pension and Health Benefits US
PSP Investments Canada	Strathclyde Pension Fund UK	United Nations Foundation US
QBE Insurance Group Limited Australia	Stratus Group Brazil	Universal Investment Gesellschaft mbH Germany
Q Capital Partners South Korea	Sumitomo Mitsui Banking Corporation Japan	Universities Superannuation Scheme (USS) UK
Railpen Investments UK	Sumitomo Mitsui Card Company, Limited Japan	Vancity Group of Companies Canada
Rathbones/Rathbone Greenbank Investments UK	Sumitomo Mitsui Finance & Leasing Co., Ltd Japan	VERITAS SG INVESTMENT TRUST GmbH Germany
Real Grandeza Fundação de Previdência e Assistência Social Brazil	Sumitomo Mitsui Financial Group Japan	Vermont State Treasurer US
Rei Super Australia	Sumitomo Trust & Banking Japan	VicSuper Pty Ltd Australia
Rhode Island General Treasurer US	Sun Life Financial Inc. Canada	Victorian Funds Management Corporation Australia
RLAM UK	Superfund Asset Management GmbH Germany	Visão Prev Sociedade de Previdencia Complementar Brazil
Robeco Netherlands	Svenska Kyrkan, Church of Sweden Sweden	Waikato Community Trust Inc New Zealand
Rose Foundation for Communities and the Environment US	Swedbank Sweden	Walden Asset Management, a division of Boston Trust and Investment Management Company US
Royal Bank of Canada Canada	Swiss Reinsurance Company Switzerland	Warburg-Henderson Kapitalanlagegesellschaft für Immobilien mbH Germany
RREEF Investment GmbH Germany	Swisscanto Holding AG Switzerland	West Yorkshire Pension Fund UK
Russell Investments UK	Syntrus Achmea Asset Management Netherlands	WestLB Mellon Asset Management (WMAM) Germany
SAM Group Switzerland	TD Asset Management Inc. and TDAM USA Inc. Canada	Westpac Investment Management Australia
Sanlam Investment Management South Africa	Teachers Insurance and Annuity Association – College Retirement Equities Fund (TIAA-CREF) US	Winslow Management Company US
Santa Fé Portfolios Ltda Brazil	Tempis Capital Management South Korea	WOORI BANK South Korea
Sauren Finanzdienstleistungen Germany	Terra Forvaltning AS Norway	YES BANK Limited India
Savings & Loans Credit Union (S.A.) Limited. Australia	TfL Pension Fund UK	York University Pension Fund Canada
Schroders UK	The Bullitt Foundation US	Youville Provident Fund Inc. Canada
	The Central Church Fund of Finland Finland	Zurich Cantonal Bank Switzerland
	The Collins Foundation US	
	The Co-operators Group Ltd Canada	
	The Daly Foundation Canada	
	The Dreyfus Corporation US	



Commentary for the Carbon Disclosure Project

As a Global Sponsor of the Carbon Disclosure Project (CDP), Bank of America is committed to supporting CDP's core mission of creating the most accurate database of corporate carbon emissions worldwide. I would like to thank all of CDP's 475 institutional investor signatories — representing a combined asset base of \$55 trillion — for encouraging disclosure on this important issue.

In our capacity as Global Sponsor of CDP, I am pleased to present the CDP 2009 S&P 500 report, the most comprehensive compilation to-date of the specific emissions, risk-assessments and strategies of 332 of the S&P 500 companies.

This report builds on the current momentum surrounding the issue of climate change — delegates from 192 countries will gather to work toward a new global climate treaty at the upcoming UN Climate Change Conference in Copenhagen, and legislation continues to gain traction in the US Congress.

Now more than ever, there is a critical need for a clear, consistent way to disclose and understand the risks and opportunities associated with climate change across industries.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Brille".

Brian Brille

Head of Americas Corporate and Investment Banking

Bank of America Merrill Lynch

Executive summary

Introduction

It is often said that a business can manage only what it measures. Since 2000, the Carbon Disclosure Project (CDP) has, on behalf of institutional investors, challenged the world's largest companies to measure and report their carbon emissions, integrating the long-term value and cost of climate change into their assessment of the financial health and future prospects of their businesses.

In 2009, 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 regarding climate change mitigation and adaptation. This is testament to realization of the need to respond to an increasingly pressing issue.

Since the first CDP report in 2003, the quantity and quality of data disclosed have advanced significantly — a credit to those investors and companies participating in the initiative. In parallel, CDP data is increasingly being applied as a catalyst for changing business behavior and is becoming more integrated into mainstream financial analysis. Again, this is a notable achievement.

This year, CDP (backed by 475 institutional investors representing more than \$55 trillion of funds under management) sent questionnaires to more than 3,700 of the world's largest corporations, including the S&P 500, requesting information on greenhouse gas (GHG) emissions, on the potential risks and opportunities related to climate change and on strategies for managing those risks and opportunities. The corporations' responses, in addition to reports assessing the results of the responses, will be published in more than 20 countries around the world and are freely available at www.cdproject.net.

CDP continues to be the global leader in data that records the business response to climate change — whether the data covers risks and opportunities, absolute emissions levels, performance over time or governance. This report, prepared by CDP's global adviser, PricewaterhouseCoopers (PwC), analyzes responses from the S&P 500 corporations.

In the past year, climate change has risen in prominence as a major strategic concern for businesses globally, as operational and reputational climate-change-related risks and opportunities

intensify. Where GHG mitigation efforts were traditionally the focus of environmental managers and directors, we see intensified attention from the C-suite. Climate-change-related commitments, investments and activities — including some innovative cross-industry alliances — are under way at America's largest companies. This shift is best characterized by a sharp spike in the number of respondents reporting emissions reduction targets, which increased to 169 (52%) of all respondents from 102 (32%) last year.

Indeed, growing certainty of some form of carbon-emissions-capping regulation is a significant factor but not the sole force. Climate change policies are emerging as potentially brand defining, helping differentiate companies in a world moving swiftly toward attaching a cost to carbon. Many respondents underscore the increasing need to meet consumers' expectations for climate change action. The apparent strengthening of emissions reporting this year also suggests a sense of urgency, in anticipation of possible mandatory reporting requirements.

Fig. A: S&P 500 responses over time



Number of respondents and percentage of response rates

Report highlights: Key findings

Response rates and disclosure quality

This year's responses provided a wealth of detail on new and increasingly substantive efforts to capture climate-change-related opportunities, as the nation's agenda to cut GHGs plays out. CDP received 332 responses this year, representing 66% of the S&P 500, up from 64% (321) last year. That increase occurred despite the extraordinary economic conditions over the past 12 months and substantial changes in the composition of the S&P 500 due largely to acquisitions and bankruptcies. Of the 332 responses, 328 were submitted by the deadline and are included in this year's analysis.

Emission disclosures expand

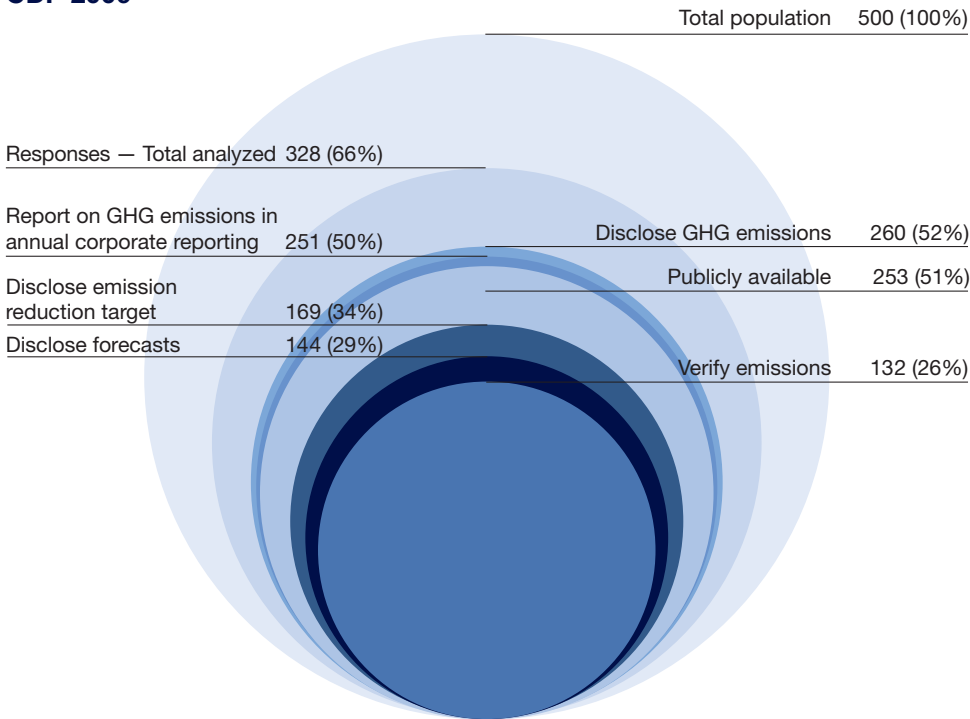
GHG emissions disclosure rose markedly — to 79% (260) of all respondents, up from 73% (228) in 2008. This increase in emissions disclosure and more aggressive emissions targets provides investors, stakeholders and consumers with an understanding of the direction the country's largest public companies are taking in this increasingly carbon-constrained world. The three sectors with the highest percentages of emissions data disclosures in 2009 were Utilities, with 93% (26); Materials, with 91% (21); and Consumer Staples, with 91% (29). All of these sectors are facing potential challenges should carbon regulations be implemented.

Reduction targets nearly double

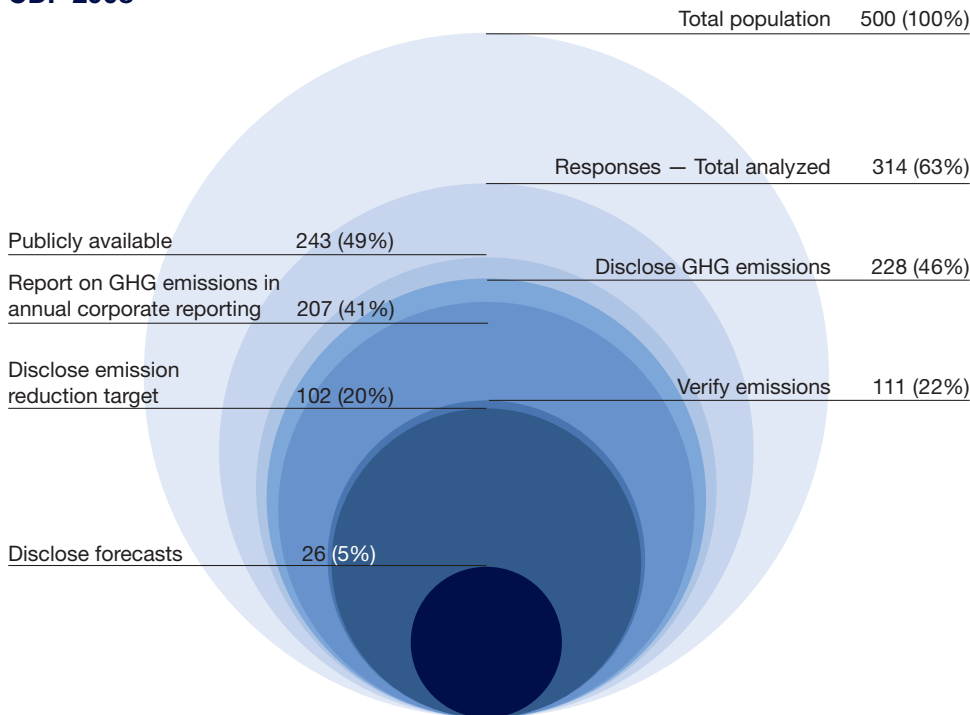
The number of respondents disclosing emissions reduction targets (percentage of CO₂-equivalent basis [CO₂-e]¹ reduction targeted over given time periods) expanded to 52% (169) from 32% (102) last year, a 66% increase. Additionally, respondents are disclosing ever more ambitious targets.

Fig. B: Proportion of S&P 500 at each disclosure level — year-on-year*

CDP 2009



CDP 2008



¹ GHGs are reported on a carbon dioxide equivalent (CO₂-e) basis — a measure used to indicate the global warming potential of each GHG.

* The circle for responses and “publicly available” are based on data at time of printing. Data for the other circles are based on data for those companies scored.

Fig. C: The highest scoring S&P 500 companies in CDP's CDLI 2009

Sector	Company	Score
Financials	Comerica	91
Consumer Staples	Wal-Mart Stores	89
Energy	Chevron	88
Information Technology	Cisco Systems	88
Utilities	PG&E	88
Utilities	Public Service Enterprise Group	88
Energy	Spectra Energy	88
Industrials	Boeing	87
Consumer Discretionary	Carnival	87
Consumer Staples	Dean Foods	87
Utilities	Pepco Holdings	87

While disclosure of Scope 1 emissions remained flat, disclosure of both Scope 2 and Scope 3 increased significantly²

Given that many carbon-intensive companies have been reporting their direct emissions to regulators for some time, it is not unexpected that Scope 1 (direct) emissions reported did not change appreciably from 2008 (from 1.69 billion metric tons to 1.65 billion metric tons in 2009). Importantly, respondents made great strides in reporting Scope 2 and Scope 3 emissions. Scope 2 (purchased-electricity) emissions reported rose by 50% (from 0.24 to 0.36 billion metric tons) and Scope 3 (other indirect) emissions reported increased by 215.5% (from 0.24 to 0.75 billion metric tons).

Scope 3 importance is better understood

Respondents disclosing Scope 3 emissions increased 55% from 26% (83) to 39% (129), due to a sharp increase in those tracking employee travel, up 63% from 23% (71) to 35% (116). Reports of indirect supply chain emissions rose nearly 63%, from 3% (8) to 5% (17), reflecting a rise in companies asking their suppliers to report on carbon through the CDP Supply Chain Project and other initiatives. Financials, at 43% (21), and Information Technology, at 59% (30), had the greatest number of companies reporting Scope 3 emissions. These two non-carbon-intensive sectors traditionally focus on Scope 3 emissions sources because this is where the biggest impact resides.

Utilities and Information Technology are best represented in the Carbon Disclosure Leadership Index (CDLI)

There were 8 respondents each (16% each of the CDLI) and average CDLI scores of 84 and 81, respectively. The relative maturity of Utilities on the emissions reporting continuum, coupled with the attention given by Information Technology to cutting energy consumptions made for robust disclosure by each of the sectors this year. The table above lists the 11 highest scoring respondents for 2009.

Risks and opportunities in the new climate change economy

Respondents see more climate change opportunities than risks

This year's respondents are identifying and anticipating business opportunities emerging from regulatory, physical and other climate change events. In fact, more respondents (281, or 86%) perceived opportunity than risks (269, or 82%).

Regulatory risks loom large in a fast-moving legislative environment

Compliance costs were cited repeatedly as a significant risk. The concerns are not surprising in light of proposed GHG legislation and emissions trading schemes in the past 12 months. Sectors with the highest number reporting exposure to regulatory risks were Utilities at 96% (27), Energy at 84% (21), Materials at 83% (19) and Consumer Discretionary at 62% (29).

The regulatory opportunities related to climate change concerns have changed with the new US administration and the enhanced focus and pressure to respond to climate change concerns through legislative or regulatory mechanisms in a tighter time frame than previously anticipated.

Boeing

² Scopes 1, 2 and 3 emissions are terms used under the GHG Protocol. For a full description, see GHG Protocol: A Corporate Accounting and Reporting Standard, available at www.ghgprotocol.org/files/ghg-protocol-revised.pdf.

Respondents cite physical risks associated with a changing climate

A broad range of physical climate risks were raised by respondents, from potential raw material shortages to business continuity and supply chain disruptions driven by changing and more severe weather patterns.

Financials topped the list noting physical risk concerns at 84% (41), up from 77% (37) in 2008. This relatively high response rate reflects a broad exposure across the respondents' client bases.

Climate change and the consumer factor

Respondents reported that consumers are increasingly seeking out and buying environmentally-friendly products that also decrease the overall cost of ownership and operations such as fuel-efficient vehicles, which require less gasoline to drive a given distance, or more energy efficient appliances.

The link between climate change actions and Wall Street valuations

Some respondents illuminated how climate change business strategy and emissions efforts may begin to influence company valuations. **Comerica** drew the connection: *"There is some evidence that other investors, although not primarily motivated by ESG [environmental, social and governance] performance, may be beginning to view companies with both a climate change strategy and a broader sustainability focus as better long-term managers of risk and opportunity and therefore as better investment choices."*

Governance and communication

Companies continue to embed client change policies and practices enterprise wide

Climate change strategies are more widely embraced at the top as well as more deeply embedded, or institutionalized according to this year's responses. Across all sectors, 68% (222) of respondents reported Board or

executive-level responsibility for climate change oversight, up from 65% (204) last year. Sectors with the highest percentages were Materials at 91% (21), Utilities at 86% (24) and Consumer Staples at 84% (27).

Incentives for action increase

Of particular note is a trend toward linking compensation incentives programs to the achievement of climate-change-related goals (115, or 35%). Programs varied from impacting annual and long-term bonuses to offering company-wide recognition achievement awards for reducing GHG emissions, to directly affecting compensation of those employees with specific climate-change-related objectives (**Air Products & Chemicals**). **Google** reported, *"We provide incentives for employees to make choices that have a better overall climate impact, primarily around transportation and commuting, food and beverage packaging waste, and composting...Employees in eligible offices who bike, walk, pogo-stick, unicycle, or otherwise self-power to work can earn points that translate into a donation from Google to their charity of choice."*

External stakeholders raising the bar on carbon disclosure

The global investor community continues to request more data on direct and indirect emissions as well as climate change progress, effectively raising the carbon disclosure bar. Institutional investors are moving beyond corporate commitments, assessing investments in forward-looking, climate-change-related business strategies. In addition, CDP respondents noted that increasingly educated consumers, as well as other stakeholders, including their own employees, are contributing to the higher profile for emissions disclosure. The heightened standards expected by investors were applied to this year's CDP questionnaire, which included numerous new — and more detailed — questions requiring more rigorous disclosure than in prior years.

Future challenges

Balancing new risks and responsibilities while seizing climate-related opportunities

Respondents enumerated many challenges to meeting emerging emissions-related regulations and standards. However, they are seeking to strengthen their financial conditions, growth prospects and competitiveness in a carbon-constrained global economy; examples of how respondents are approaching these challenges are:

1. Launching new products tied to GHG emissions mitigation and natural resource conservation;
2. Building out electricity smart grids;
3. Leveraging tax and utility incentives to develop renewable and alternative energy and fuels; and,
4. Innovating an efficient and lower-carbon-intensive transportation systems and fleet vehicles.

With attention to climate change challenges moving squarely onto the C-suite agenda and with preparation for the monetization of carbon afoot, the US seems to be at its tipping point, where access to reliable emissions information will become a necessity.

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1

Overview of CDP

The turmoil in the financial markets and the global economy over the last year has highlighted the importance of effective disclosure and high-quality risk management. The financial crisis of 2008 suggests we need to better understand systemic risks that can cause significant de-stabilizing impacts in the global economy. Climate change has the potential to cause disruption in the form of unforeseen, high-impact events (such as extreme weather) as well as a longer term reassignment of value across countries, industries and corporations.

The Intergovernmental Panel on Climate Change (IPCC) predicts that 'future climate impacts show that the consequences could vary from disruptive to catastrophic'.³ So it is vital that policymakers, companies and investors have a full understanding of the associated risks and opportunities. According to **HSBC** research,⁴ governments around the world have allocated \$430 billion in fiscal stimulus to key climate change themes. Those providing the low carbon solutions are very well positioned to benefit, while those who ignore the risks gamble on being left behind.

By convening the collective power of the investment community, represented in 2009 by more than 475 investors, with \$55 trillion in assets under management, CDP motivates more than 1800 companies globally to report their climate change strategies and greenhouse gas emissions. This global system provides the market, investors, policymakers and procurement directors with a clear understanding of how companies are positioned as we move towards a low-carbon economy and ensures corporations provide full transparency on climate change.

This year has seen considerable growth in responses from emerging economies such as China, South Africa and Korea, and CDP expanded in Russia in 2009 where major companies such as **Gazprom** and **Novatek** reported. CDP's reach continues to grow with the launch of the first CDP Europe report, covering the largest 300 European listed companies, as well as expansion into countries within Central and Eastern Europe. We have also opened new offices in Germany and Brazil, both key economies in the fight against climate change.

While the quantity and quality of data available has increased significantly, so has the use of the data, which is acting as a catalyst for changing business behavior. CDP data is increasingly being integrated into mainstream financial analysis, is available through **Bloomberg Professional Services**, and used to provide sector based analysis to CDP signatory members. A recent report produced by Mercer supports this view.

Some CDP signatories, such as **CalSTRS** are going a step further, using shareholder resolutions to encourage companies to report through CDP and implement climate change management strategies. We are also working with the Principles of Responsible Investment (PRI) to drive awareness and improve climate change reporting. CDP has recently entered a new partnership with financial information services company **Markit** to build a suite of indices based on the Carbon Disclosure Leadership Index, which will be licensed to exchange-traded fund (ETF) and structured product providers.

CDP now works with more than 55 organizations including **Dell**, **Unilever**, **Wal-Mart Stores** and departments of the **British Government** to measure and assess climate change risk and opportunity through the supply chain. More than 800 companies report their climate change strategies through the CDP system to their customers and as a result we have seen a significant increase in the use of CDP data in procurement operations. Now procurement professionals can understand how their supply chains may be impacted and as a result begin to future-proof their procurement systems against climate change.

The process of measuring emissions is central to emissions management and reduction. As regulatory frameworks develop to mandate emission reductions, CDP's role will expand. We will continue to work with corporations, policymakers and information users to produce practical and robust results that complement the development of mandatory reporting rules.

In order to continue to provide the global hub for carbon reporting, CDP is currently undergoing a significant systems upgrade designed to improve data comparability, facilitate benchmarking services and ultimately deliver data that is appropriate for investment analysis and regulatory submissions. In countries like the US and UK, where mandatory carbon reporting is on the horizon, CDP's systems will help companies prepare for such requirements and will eventually integrate with existing national registries to enable corporations to disclose more detailed and standardized data. Climate change is a global problem, which requires a global solution and by bridging the gaps between national governments and international businesses across the globe, CDP will help to connect the national and international climate change ecosystem.

³ http://unfccc.int/essential_background/feeling_the_heat/items/2905.php

⁴ HSBC Global Research. "A Climate for Recovery: The colour of stimulus goes green," February 25, 2009.

Fig. D: Key trends snapshot⁵

This table outlines some of the key findings from CDP 2009 by geography and industry data-set.⁶

Sample: Geography/ number of companies	% of sample answering CDP 2009	% of sample answering CDP6 (2008) ⁷	% of responders with Board level responsibility for climate change	% of responders seeing regulatory risks	% of responders seeing regulatory opportunities	% of responders seeing physical risk	% of responders seeing physical opportunities	% of responders disclosing Scope 1 emissions	% of responders disclosing Scope 2 emissions	% of responders externally verifying emissions disclosures	% of responders engaged/considering participation in emissions trading	% of responders with an emissions reduction/energy reduction plan	% of responders engaging with policy makers on climate change
Asia-ex JICK 100 ⁸	31	[35]	76	55	76	66	55	66	69	31	17	59	62
Australia 200	52	48	80	79	81	82	56	81	83	46	50	67	73
Brazil 80	76	[83]	49	61	73	73	53	61	55	22	25	61	49
Canada 200	49	55	70	57	68	56	46	81	76	27	34	49	61
Central and Eastern Europe 100	8	-	75	50	50	75	25	75	25	75	50	100	50
China 100	10	5	56	67	78	67	44	22	22	22	11	67	44
Europe 300	82	-	85	80	90	75	63	91	85	77	58	89	79
France 120	58	63	77	69	84	66	61	79	77	63	47	81	66
Germany 200	51	55	65	58	70	44	47	63	57	45	33	63	55
Global 500	81	77	80	78	84	78	63	85	80	63	54	80	74
Global Electric Utility 250	49	52	71	79	84	75	62	81	50	61	57	60	77
Global Transport 100	67	58	84	81	84	79	50	79	68	50	43	72	74
India 200	18	19	52	14	66	62	48	48	48	17	17	55	38
Ireland 40	33	-	71	71	71	64	43	71	50	50	43	57	43
Italy 60	35	[46]	52	67	86	67	48	81	62	71	33	67	57
Japan 500	37	[72]	85	87	83	80	64	77	72	33	90	49	49
Korea 100	50	[32]	61	67	76	69	57	55	55	33	35	63	55
Latin America 50	50	[52]	58	79	79	58	47	79	68	37	26	47	58
Netherlands 50	62	52	97	74	90	65	61	90	90	58	42	81	71
New Zealand 50	52	50	65	69	77	69	65	58	54	35	27	58	54
Nordic 200	65	[58]	77	76	81	63	54	83	77	46	33	78	59
Portugal 20	38	-	75	88	75	88	63	100	88	88	25	63	75
Russia 50	13	-	33	0	33	33	33	33	33	0	33	33	33
South Africa 100	68	58	86	73	86	89	68	83	86	38	33	68	65
Spain 85	41	[71]	80	66	77	63	54	91	83	86	34	80	74
Switzerland 100	56	57	74	44	72	48	48	72	67	35	19	65	43
UK FTSE 100	95	90	83	89	91	83	66	98	95	73	77	88	79
UK FTSE 250	57	58	79	78	76	72	53	81	80	36	43	61	49
US S&P 500	66	64	68	70	77	70	52	77	74	41	31	65	61

5 The numbers in this table are based on the total respondents on July 10, 2009. They may therefore vary from numbers in the rest of the report which are based on the number of companies who responded on time (e.g. June 30th for Global 500).

6 In some cases, the number of responses analyzed is slightly less than the number answering CDP 2009 due to takeovers, mergers and acquisitions.

7 Percentages in square brackets reflect a different sized sample in 2008, e.g.: in 2008 we wrote to 75 companies in Brazil, not 80; and in Japan we wrote to 150 companies in 2008, not 500. A dash (-) shows that sample was not in CDP6 (2008).

8 Asia excluding Japan, India, China and Korea.

Highlights in carbon regulation and outlook for Copenhagen

2009 has witnessed significant progress in the global approach to climate change. The Obama administration has introduced a new era in climate change policy in the US and, as a result, a global deal in Copenhagen this December appears more tangible. China, so integral to the success of Copenhagen, is set to meet ambitious renewable energy and energy efficiency targets and hosts some of the world's largest renewable energy companies. Brazil entered the new year with a new National Plan on Climate Change and national governments in industrialized countries including Japan and Australia are introducing new legislation to reduce emissions.

While the July G8 meeting agreed to prevent global temperatures rising beyond 2° Celsius (3°-4° Fahrenheit) against pre-industrial levels, and agreed on aims to cut greenhouse gas emissions by between 50 and 80% by mid-century they disappointed many by ducking the issue of medium term targets. Although the multilateral architecture still needs work, there is much to report on at a regional level.

In Europe, the Energy and Climate Change package was approved in December 2008, which sets out the policy framework and accompanying measures to reduce emissions through the continuation (and expansion) of the EU Emissions Trading Scheme (EU ETS); targets for non-ETS sectors and new targets for the promotion of renewable energy.

In the US, the Obama administration moved early to set out its ambitions around climate change mitigation: "We will harness the sun and the winds and the soil to fuel our cars and run our factories."⁹

The Waxman-Markey bill was finally put before the House of Representatives in June and passed by a narrow margin. The proposed legislation would commit the US to reduce greenhouse gas emissions by 17% below 2005 levels by 2020 through a cap-and-trade

system beginning in 2012. The bill will pass through various Senate Committees where amendments will be debated, before being put to a vote; most likely in October.

In Australia, further work has progressed on the detail of the Carbon Pollution Reduction Scheme (CPRS) despite political challenges over possible competitive impacts in the face of the economic downturn. The Scheme, which would cover around 75% of total Australian emissions, is due to face a key vote later this year.

Given the multinational nature of many companies, the evolution of these policies is likely to have significant implications on strategic direction and operations and many of the world's largest companies want to seize early mover advantage.

Of course, the role of government is crucial in providing the regulatory frameworks. But investors and businesses will also play an essential role by driving capital flows towards the technologies which will allow economies to flourish and innovation to thrive as we transition to a low-carbon economy.

Already these same investors and businesses are being directly affected by climate change. Many companies report to CDP the material impacts of climate change on their operations, through increased flooding, water shortage, spread of disease and changing local weather patterns. Within the public sector, cities reporting through CDP also explain how they are planning to adapt to changes in weather patterns such as extreme heat and extreme precipitation.

Investors, policymakers, procurement directors and other stakeholders need to build up the necessary comparable datasets in order to monitor and analyze changes; both in terms of the response to mitigation measures (such as carbon regulation) and adaptation policies and programs. Integral to the success of the deal in Copenhagen will be the availability of this accurate reported data: if businesses don't measure current emissions now, it will be impossible for them to manage and reduce them in the future. This is where CDP's role is crucial.

Progress on reporting standards

While CDP has set the tone on matters of disclosure over the years and, for the first time this year, is now widening its approach to encompass performance, there are other valuable and complementary initiatives underway to address the clear requirement for the creation of a global carbon measurement and reporting system.

While the financial accounting system has taken several hundred years to develop, carbon accounting is in its infancy. In order to achieve a coherent global system CDP is leading the work of the Climate Disclosure Standards Board (CDSB), working with **Deloitte, Ernst & Young, KPMG and PricewaterhouseCoopers** to develop robust accounting standards to enable carbon reporting through annual financial reports. CDP and CDSB will also work with the World Economic Forum to advise the G20 group of nations on climate change accounting in 2010.

The CDP process demonstrates that corporations can lead the way in taking action that can be Measured, Reported & Verified (MRV). It also shows how international companies can reduce their emissions across the entirety of their operations on a global basis, even when subject to a range of different regulatory requirements. As more and more countries introduce climate change regulation, the CDP system supports companies by bridging the gap between international business and national reporting requirements and helps reduce the reporting burden on companies.

The CDP Global Forum is part of the inaugural Climate Week NYC, when business leaders, heads of state and the world's major investors congregate in New York to prepare for negotiations at COP15. An agreement there will be a vital step towards success, but it is just as important to look beyond Copenhagen and to build the global systems required to combat dangerous climate change. CDP remains focused on and dedicated to this work and thanks all of the organizations that work with us to help realize this goal.

⁹ Obama inauguration speech, January 21, 2009.

“Seizing the clean economy with Clean Energy Technologies”

By Senator John F. Kerry

The way America uses energy can either be the keystone of twenty-first century job creation, or a millstone that holds back our entire economy. The choice is ours.

The businesses who have contributed to the Carbon Disclosure Project aren't just toeing the line — they are leading the charge. By publicly disclosing so much information about their carbon emissions, they are going above and beyond what the law requires to help policymakers and businesses understand the road ahead.

The truth is, for too long, while many of America's corporate leaders moved forward, Washington stood still. That's over now. The stimulus represented the biggest investment in clean energy in American history. The House of Representatives has passed climate legislation, and Senator Boxer and I are writing a Senate companion that will give businesses the certainty they need to plan for the future. Internationally, we are making real strides in advance of December's make-or-break climate talks in Copenhagen.

Even in Washington, people are beginning to understand that addressing climate change by developing clean energy pathways won't be a brake on economic growth in the years ahead — it will be the engine.

Of course, some will argue that in tough economic times, we cannot afford to act. But the fact is that, if we do this right, we will not only enjoy significant long-term economic benefits — but the short-term costs will be small. According to a 2007 McKinsey & Company study, nearly 40% of the

emissions cuts we need to stave off catastrophic climate change can be achieved at “negative” marginal costs. In other words, these small changes will yield a massive return on our investment. This will save us money.

Beyond energy efficiency, we have the opportunity to become leaders in wind, solar, and entirely new professions and industries. When a nation like ours puts its creative genius and entrepreneurial skills on the line — and backs up the bet with money to meet the challenge and set our innovators loose — the rewards can be tremendous.

America has innovated on a massive scale before. We were the engine of the IT Revolution, which created a \$1 trillion new economy, with about 1.5 billion users worldwide. The energy economy is even larger: a \$6 trillion market, with 4 billion users worldwide. The opportunities for an energy innovation revolution could dwarf any other sector that we can imagine. We tend to think into the future linearly, when in reality, innovation often happens exponentially.

When California passed a law requiring 20% of the state's electricity be generated by clean, renewable sources, investments in clean technologies flourished. But when California took the next step and passed legislation requiring an 80% cut in CO₂ emissions by 2050 — that's when these investments went through the roof. An already high 20% growth rate in clean technology investments shot up to 98%. This isn't hype — these are real products that will bring real profits.

This year's responses to the Carbon Disclosure Project show a consensus among disclosing companies that taking stock of GHG emissions and carrying out reduction schemes have become central, bottom-line business priorities. Simply put, for leading disclosers, climate change is no longer just an environmental issue, but increasingly has significant operational, financial, strategic, reputational, and practical implications.

The question is not whether the 21st century economy will be the green economy. It has to become one and will. The question is whether the United States will reap the rewards of leading the charge, and whether we will act in time to prevent a catastrophe.

We have a tremendous opportunity to create millions of new jobs here at home, a chance to help spark a global recovery that brings clean growth to the developing world and lasting benefits to all of us. It's up to us to seize it.

2

The S&P 500 Carbon Disclosure Leadership Index

The businesses who have contributed to the Carbon Disclosure Project aren't just toeing the line — they are leading the charge. By publicly disclosing so much information about their carbon emissions, they are going above and beyond what the law requires to help policymakers and businesses understand the road ahead.

Senator John F. Kerry

The Carbon Disclosure Leadership Index (CDLI) includes the companies with the highest scores and provides a valuable perspective on the range and quality of responses to CDP's questionnaire. This year's CDLI includes the top-scoring 10% of the S&P 500: 50 companies in total.

All companies that responded to CDP in 2009 have been scored on the quality of their disclosures by using a standardized, transparent methodology; see www.cdproject.net. The Carbon Disclosure Leadership Index (CDLI) includes the companies with the highest scores and provides a valuable perspective on the range and quality of responses to CDP's questionnaire. In contrast to CDP 2008, this year's CDLI makes no distinction between companies in carbon-intensive sectors or non-carbon-intensive sectors.

This year's CDLI includes the top-scoring 10% of the S&P 500: 50 companies in total. In order to aid comparison between companies, the CDLI table also includes information on the three emission Scopes and carbon intensity (relative to \$million revenue) to provide a fuller picture of the emissions profile of each of the leaders.

The relevance and meaning of the CDLI can be summarized as follows:

- It is based entirely on the disclosure information provided in companies' CDP responses;
- It suggests good internal data management and understanding of the issues climate change presents to companies' businesses;
- It does not consider other efforts undertaken by companies to provide carbon or wider sustainability disclosure such as corporate responsibility reporting or climate statements in annual reports or through meetings and engagement with stakeholders and policymakers; and,
- It is not a complete metric of a company's performance in relation to climate change management, as it does not currently make any judgment over absolute levels of emissions, emission reduction achievements or carbon intensity.

An introduction to this year's CDLI

Combined table for 2009 — what this means and why it has changed

The CDLI continues to be based on disclosure, and companies are ranked by their disclosure scores alone. Although a section on performance scores¹⁰ was included in this year's CDLI methodology, they were not taken into account in compiling the CDLI for this year. However, performance scores are likely to become integrated into CDLI scoring in the near future.

Eligibility for inclusion in the CDLI in 2009 depended on the following conditions being satisfied:

- The company must score in the highest 10% of companies overall (across all industries);
- The response must be publicly available; and,
- The response must have been submitted using CDP's Online Response System.

The single table, combining those industries previously split and defined as carbon-intensive and non-carbon-intensive,¹¹ follows CDP's transition to a parity-of-sectors approach for 2009. The rationale behind the transition is that as the wide-ranging implications of climate change become clearer for companies and as all sectors develop a response, there is a less clear distinction between disclosure expectations of companies in different sectors. Hence, during CDP 2009, questions were scored on the same basis for all companies and all sectors.

¹⁰ The performance score is a CDP pilot initiative to assess actions taken by companies to manage their response and reduce their contribution to, climate change. This performance score is separate and distinct from the disclosure score and has no current impact on the CDLI. See Chapter 3 for a complete discussion of this pilot.

¹¹ CDP 2008 distinguished between disclosure expectations of companies in different sectors, in particular between those classified as carbon-intensive and non-carbon-intensive.

Fig. E: Carbon Disclosure Leadership Index by sectors

Sector	Company	CDLI Score	Intensity*	Scope 1	Scope 2**	Scope 3***
Consumer Discretionary	Carnival	87	703	10,248	51	19
	News Corporation	75	19	109	528	178
	Stanley Works	75	48	51	162	533
	Limited Brands	74	38	32	353	255
Consumer Staples	Wal-Mart Stores	89	56	5,566	15,501	–
	Dean Foods	87	132	884	766	188
	Colgate-Palmolive	77	46	272	430	88
	H.J. Heinz	75	86	525	339	–
Energy	Chevron	88	267	62,979	5,216	382,000
	Spectra Energy	88	2,175	9,614	1,422	4
	Hess	86	274	10,715	574	78,038
	Anadarko Petroleum	79	610	8,284	641	–
	Transocean	79	170	2,148	5	1,804
Financials	Comerica	91	18	14	56	26
	Simon Property Group	86	189	26	690	3
	Hartford Financial Services	81	13	34	88	16
	Allstate	79	7	34	179	57
	Bank of New York Mellon	78	13	10	204	28
	Franklin Resources	77	5	10	21	6
	JPMorgan Chase	74	9	70	883	129
Health Care	Allergan	85	24	46	59	33
	Schering-Plough	85	54	447	557	32
	Biogen Idec	83	24	49	47	4
	Johnson & Johnson	83	21	357	971	370
	Bristol-Myers Squibb	75	40	378	454	56
	Pfizer	75	42	1,018	1,001	121
Industrials	Boeing	87	28	575	1,104	280
	Burlington Northern Santa Fe	85	844	14,890	323	28
	Eaton	85	55	122	726	–
	United Parcel Service	82	257	12,149	1,105	2,357
Information Technology	Cisco Systems	88	15	52	547	198
	Hewlett-Packard	86	21	304	2,146	5,927
	Advanced Micro Devices	82	76	85	355	394
	EMC	82	25	36	336	61
	Intel	78	93	1,000	2,500	43,670
	Autodesk	77	10	2	20	25
	IBM	77	29	580	2,381	–
	LSI	76	34	8	84	7
Materials	Praxair	83	1,244	3,696	9,733	265
	PPG Industries	81	394	4,443	1,806	19
	E.I. du Pont de Nemours	80	437	9,337	4,003	78
	Air Products & Chemicals	74	2,036	12,900	8,900	–
Utilities	PG&E	88	235	1,904	1,536	22,569
	Public Service Enterprise Group	88	1,962	24,288	1,851	42,593
	Pepeco Holdings	87	284	2,959	80	1
	Xcel Energy	85	5,598	62,650	59	27
	DTE Energy	84	4,528	41,800	445	–
	FPL Group	82	2,813	46,008	159	15
	Consolidated Edison	79	351	4,212	558	–
	Entergy	78	3,734	33,187	15,704	–

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

** Only Scope 2 grid average data is included here. See Appendix 1 for data on Scope 2 contractual arrangements.

*** 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.

Companies that are new to the CDLI this year are marked in red.

Furthermore, this year's scoring methodology took into account that some questions apply to all companies, whereas the applicability of other questions depends on the responding company's individual business circumstances. The CDLI scoring methodology should therefore not penalize companies that are unable to respond to a question if it is not relevant to their businesses.

The transition to parity of sectors in CDP 2009 means that some companies in non-carbon-intensive sectors may have received a lower overall score (in absolute terms) than they did in CDP 2008, notwithstanding that the quality of their response may have improved or remained the same. This is because the total available score against which the companies in non-carbon-intensive sectors have been assessed in CDP 2009 is greater than the total available score that was available for comprehensive questions in CDP 2008.

However, it is important to note that although absolute scores may differ, this should not affect companies' relative performance within their respective sectors. Those CDLI companies classified as non-carbon-intensive in 2008, which also feature in this year's CDLI, have seen an average score decrease of 10.7 points, or minus 11.7%. For the responding S&P 500 population overall, the sectors classed as non-carbon-intensive in 2008¹² and those equivalent sectors in 2009¹³ have seen an average fall in scores of 7.8 points, or minus 13.5%.

CDLI highlights and trends

This year's average score for all respondents was 53.2 compared with an average score of 81.7 for the top 10% in the Carbon Disclosure Leadership Index.

Utilities and Information Technology best represented in 2009 CDLI

With eight respondents each (16% each of the CDLI) and average CDLI scores of 84 and 81, respectively, Utilities and Information Technology have the greatest number of respondents in this year's Carbon Disclosure Leadership Index. With a history of disclosing emissions, it is not surprising that the Utilities sector is well represented, with **PG&E** (88), **Public Service Enterprise Group** (88) and **Pepco Holdings** (87) in the CDLI. Information Technology — represented by **Cisco Systems** (88), **Hewlett-Packard** (86) and **Advanced Micro Devices** (82), among others — also had an impressive showing as a leading sector. Respondents in this sector provided robust disclosure on cutting energy consumption, a commonly noted industry challenge.

Financials are not far behind

Financials followed closely, with an impressive total of seven respondents (14%) in the CDLI and an average score of 81, demonstrating continued strength in climate change disclosure and reflecting the sector's awareness of the impacts that climate-change-related regulation and other risks have on clients and the companies in which they invest. The top-ranked respondent on the CDLI this year was **Comerica**, with a score of 91.

CDLI new arrivals

As mentioned, the respondents included in the CDLI are those with scores in the top 50, or top 10%, of the S&P 500 companies. Each year there are new respondents making it onto the index. In 2009, ten respondents were new to the CDLI. These new companies are highlighted in red on the CDLI table.

List of non-responders

The number of non-respondents to CDP out of the S&P 500 decreased to 168 (34%). Non-responding companies have therefore become increasingly visible. The table below lists the 10 largest non-responders of 2009 by market capitalization as of June 18, 2009.¹⁴

Fig. F: Largest non-respondents by market capitalization

Sector	Company Name
Consumer Staples	Philip Morris International
Consumer Staples	CVS Caremark
Consumer Discretionary	Comcast
Consumer Discretionary	Amazon.com
Industrials	Lockheed Martin
Consumer Discretionary	DIRECTV Group
Consumer Staples	Archer Daniels Midland
Health Care	Covidien
Industrials	Caterpillar
Industrials	General Dynamics

¹² Non-carbon-intensive sectors in CDP 2008: Financial Services; Hospitality, Leisure and Business Services; Retail & Consumer; and Technology, Media and Telecommunications.

¹³ Equivalent non-carbon-intensive sectors in CDP 2009: Consumer Discretionary, Consumer Staples, Financials, Information Technology, and Telecommunications.

¹⁴ Based on data retrieved from Bloomberg.

3

CDP performance scores

The CDP 2009 scoring methodology included, for the first time, separate scores for performance. This performance score is a pilot initiative to assess the impact of climate change actions/activities and is distinct from the CDP questionnaire's Section 3 (which queries respondents on how they track their performance to stated goals and objectives). Whereas historically, scores have reflected the quality of disclosure, performance scores assess actions taken by companies to respond to, and reduce their contribution to, climate change. This helps provide investors with insight into the extent to which companies are preparing to compete in a low-carbon economy.

Certain questions in the CDP questionnaire were identified as being eligible for performance points. For example, where a company reports that it has a GHG emissions and/or energy reduction plan in place,¹⁵ two performance points were awarded to acknowledge this as an indication of good performance in the management of emissions reductions — rather than one point awarded for disclosure whether the answer was that they have a plan or do not.

Performance-related questions are integrated throughout the questionnaire. Each section of the questionnaire provides respondents with an opportunity to demonstrate good performance.

It is important to note that because performance scores are being piloted, they had no impact on the CDLI score. Individual respondent performance scores were not made public in the CDP 2009 reports. Performance scores are aggregated and discussed both on an aggregated respondent basis and in a sector breakdown. The performance score system is integrated throughout

the questionnaire. Each section of the questionnaire can therefore indicate good performance — action to mitigate climate change — in a variety of ways.

Strong performers take considered and effective action to manage risks and be agile to seize new opportunities

Performance points were awarded when respondents demonstrated that they had taken action to manage their perceived risks (physical, regulatory, or other) or maximize their perceived opportunities. Examples include designing business continuity plans, implementing regulation and policy monitoring teams, and introducing new products or services to capitalize on changes in consumer demand as a consequence of climate change.

As may be expected, a respondent that scores high on disclosure most often scores high on performance. There is an underlying bias, since companies cannot gain performance points if they do not disclose the information. Monitoring and managing impact increase the likelihood of understanding where a company can take action and the best way to do so. Average sector performance scores ranged from 37 to 58.

The reason for its introduction: Use by investors and policymakers

Introduction of performance scores in 2009 is an important step toward recognizing respondents' progress in addressing climate change through action, as well as scoring the respondents on their disclosure quality. The performance score aims to be a useful benchmarking tool for CDP signatories to evaluate how prepared their portfolio companies are to remain profitable in a low-carbon economy.

This performance score is a pilot initiative to assess the impact of climate change actions/activities and is distinct from the CDP questionnaire's Section 3 (which queries respondents on how they track their performance to stated goals and objectives). Whereas historically, scores have reflected the quality of disclosure, performance scores assess actions taken by companies to respond to, and reduce their contribution to, climate change.

¹⁵ This refers to Question 23.1.

The standard of disclosure over the past seven years since the first companies reported to CDP in 2003 has increased dramatically, which is a great credit to those companies that have participated in the initiative.

Performance scores serve to present a fuller picture to investors and policymakers of corporate commitment to mitigating the effects of climate change.

Fig. G: Top performance scoring companies in CDP 2009

Sector	Company
Consumer Discretionary	Best Buy
Consumer Discretionary	News Corporation
Energy	Transocean
Industrials	Boeing
Industrials	United Technologies Corporation
Information Technology	Cisco Systems
Information Technology	Dell
Information Technology	EMC
Information Technology	Hewlett-Packard
Materials	E.I. du Pont de Nemours
Materials	PPG Industries
Utilities	Consolidated Edison
Utilities	Exelon
Utilities	Peppco Holdings

The standard of disclosure over the past seven years since the first companies reported to CDP in 2003 has increased dramatically, which is a great credit to those companies that have participated in the initiative. This increase also reflects greater activity by companies in mitigating climate change, and it is for this level of this effort that CDP endeavors to measure and give recognition. Performance scores serve to present a fuller picture to investors and policymakers of corporate commitment to mitigating the effects of climate change.

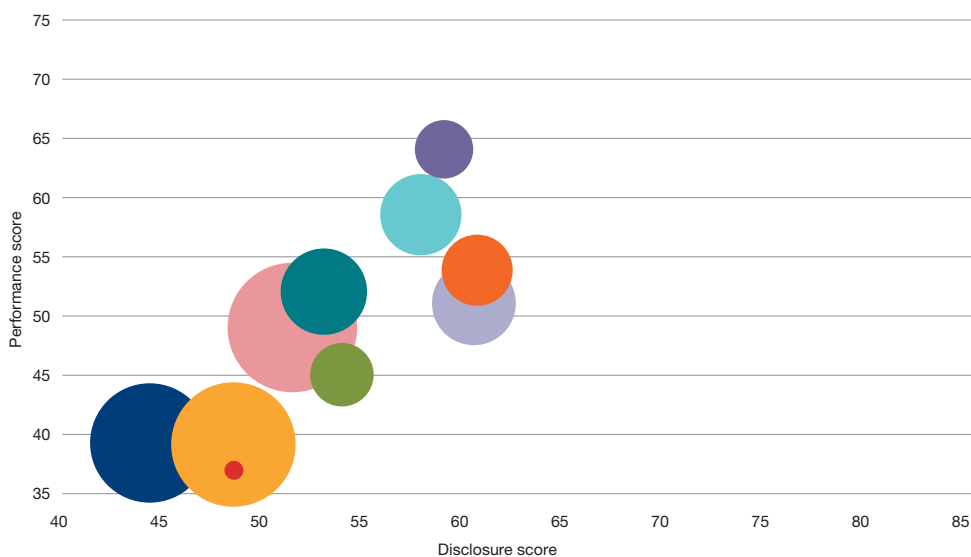
Materials sector captures top performance, suggesting maturing climate change strategies

The Materials sector received a performance score of 64 from 23 respondents — the highest average score of any sector — and also scored a relatively high average CDLI score of 80 with the inclusion of four respondents (8%). The sharp increase in the sector's emission reduction target disclosure rates — combined with its impressive performance score — strongly suggests a fast-maturing approach to GHG reporting and emissions reduction activity, independent of the stringent regulations that govern other sectors such as Utilities.

Consumer Staples performs well; Utilities close third mirroring high CDLI scores

The Consumer Staples sector received a performance score of 58 from 32 respondents and also scored a relatively high average CDLI score of 82 with the inclusion of four respondents (8%). Utilities, with an average performance score of 54 from 28 respondents is consistent with a strong average CDLI score of 84, and the highest number of respondents on the CDLI 16% (8). This sector scored well in both scoring systems, reflecting not only a demonstrated capacity for thorough and detailed disclosure but also the implementation of climate change strategies and actions. Additionally, Utility sector respondents operate in an industry that has the most mature climate change regulations and standards, which incentivize utilities to establish emission targets. Finally, numerous utilities provided detailed descriptions of emissions-cutting actions connected to diversifying into low-carbon energy generation, which help raise their performance scores.

Fig. H: Performance scores versus disclosure scores for all sectors in the S&P 500



■ Consumer Discretionary ■ Consumer Staples ■ Energy ■ Financials ■ Health Care
 ■ Industrials ■ Information Technology ■ Materials ■ Telecommunications ■ Utilities

Sizes of bubbles are based on number of respondents.

Incorporating performance into CDP 2009 has been a positive step; it has provided distinction between observing and rewarding good reporting versus positive action to mitigate climate change.

Current limitations

All companies that responded to CDP 2009 — irrespective of their industry, geography and level of emissions — were scored against the performance questions by using one common scoring methodology. It is important, however, to make a number of caveats in this regard.

The methodology for performance scores does not currently flex to account for a company’s area of business and situation in the same way as the methodology for disclosure does. In addition, performance scores are awarded only when the underlying disclosure is provided by the respondent. No additional research or analysis is undertaken independent of the company responses. There is, therefore, an inherent link between performance scores and disclosure scores. However, that link is consistent across companies, and so the focus of interest is on how sectors perform relative to one another. Also, it is sensible to suggest that the more companies monitor and manage

their impact, the more they are likely to understand where they can take action and the best way in which to do it — and hence “perform” to a higher standard.

Evolution of performance scoring

Incorporating performance into CDP 2009 has been a positive step; it has provided distinction between observing and rewarding good reporting versus positive action to mitigate climate change. The exercise has highlighted that a performance score may be a valuable additional component of report analysis and of the CDLI league table in the future. It would provide guidance and incentives for respondents to take positive action and also highlight to the CDP signatories where this is being done; that is, risks are being managed, and opportunities maximized. The degree to which performance scoring is integrated into the CDLI score and the timeline for this are yet to be determined, and stakeholders will be informed of developments in this area.

Fig. I: A diversity of perspectives: Views on key climate change issues across Industries

Sector	Outlook 1	Outlook 2
Industrials Is your company exposed to regulatory risks related to climate change? (Question 1.1)	<p><i>“We consider our company to be exposed to regulatory risks...[including] emissions compliance costs associated with a downstream approach to [GHG] reductions...CSXT [CSX Transportation] has programs in place to reduce fuel consumption and greenhouse gas emissions while still meeting the freight transportation demands of the nation.”</i></p> <p>CSX</p>	<p><i>“BNSF does not currently view the company to be exposed to regulatory risks posed by climate change because...we believe that rail continues to be in a competitive position when compared to other transport modes. Specifically, rail transport of freight has significantly lower GHG emissions when compared with other modes of land transportation...BNSF envisions US regulations eventually resulting in the development of a system to comprehensively report GHG emissions.”</i></p> <p>Burlington Northern Santa Fe</p>
Industrials Is your company exposed to physical risks from climate change? (Question 2.1)	<p><i>“The predicted consequences of climate change include extreme weather events, such as storms, droughts, floods and the health effects of increased pest infestations...Our business activities and the well-being of our employees could be significantly affected, depending on location and local conditions...UTC also requires key suppliers to develop and document risk mitigation plans, to ensure business continuity in the event of an emergency.”</i></p> <p>United Technologies Corporation</p>	<p><i>“As a company not directly dependent on large quantities of natural resources, nor with facilities located in higher-risk areas, ITT expects minimal direct specific exposure to the physical risks of climate change. However, like most other global companies of its size and scale, ITT may be affected in the event of significant disruptions to global supply chains as a result of climate change.”</i></p> <p>ITT</p>
Energy Is your company exposed to physical risks from climate change? (Question 2.1)	<p><i>“We do not believe climate change poses an imminent physical risk to our assets. We understand the issue of climate change has prompted ongoing discussions among scientists and others concerning potential impacts on weather, sea level and habitat...Obviously, these issues are complex, and our early findings are further complicated by a growing magnitude of variables as we gain knowledge of our discoveries. Based on the uncertainty of the available science and the actual impact of climate change, we are not in a position to make an accurate assessment of physical risk pertaining to our company.”</i></p> <p>Devon Energy</p>	<p><i>“The 2005 hurricane season in the Gulf of Mexico demonstrated the potential damage and business impact that severe weather can have on the oil and natural gas industry...These extreme weather events, particularly hurricanes, have the ability to shut down operations and halt oil and natural gas production from affected areas. This not only impacts Anadarko’s revenue stream, but also the flow of natural gas and crude oil to marketers and refiners of fuels for heating, transportation, and electricity.”</i></p> <p>Anadarko Petroleum</p>
Consumer Discretionary Do regulatory requirements on climate change present opportunities for your company? (Question 4.1)	<p><i>“Voluntary initiatives by our customers in certain segments (Cities, Universities and States with climate commitments) have already resulted in increased demand for the large number of environmentally preferable products in our assortment, notably Energy Efficient technology, lighting and recycled papers...Opportunities have increased in the past 12 months.”</i></p> <p>Office Depot</p>	<p><i>“Due to the fact that Limited Brands will not likely be impacted directly by any proposed legislation, we do not anticipate any opportunities to be gained as a result of the regulatory requirements. And, because the retail sector as a whole is unlikely to be impacted directly by current proposed legislation, there are likely to be no opportunities presented or realized by any of our competitors.”</i></p> <p>Limited Brands</p>

4

Climate change economy: Strategies for recovery and competitiveness

With government commitment and consumer preference as primary drivers, corporate America is actively pursuing strategies and investments to adapt to a new economic reality. Indeed, mitigating GHG emissions is a national priority, as the raft of legislative initiatives make clear (see Figure J). Collectively, these forces support the green shoots of a new climate change economy, as clearly demonstrated in this year's CDP responses.

Comerica is an example of a respondent poised to take advantage of incentives embedded in the federal stimulus package, noting that *"Climate-change-related opportunities are already beginning to emerge in all of our major US markets...Many of the opportunities we see emerging...are related to energy-efficiency, renewable energy, and green buildings...The funding provided for such projects in the 2009 federal stimulus package, make these opportunities far more tangible and less theoretical than they were one year ago."* In addition, there is an awareness that Wall Street is watching, as demonstrated by **Juniper Networks**. *"Companies perceived as part of the [climate change] solution will be rewarded in the stock market versus those perceived to be in risky positions in addressing the challenges."*

Efforts to achieve emission goals accelerated. **United Parcel Service** is investing in alternative fuel and hybrid technology, while **American Express** disclosed *"initiatives to reduce energy and water consumption...expanding our capabilities to maximize free cooling programs at one US data center."*

Plugging in: Economic activity around renewable energy

Respondents are looking to strategically incorporate more efficient forms of electricity generation and distribution. National Renewable Portfolio Standards could serve to support those efforts in

the way state renewable portfolio standards and bioethanol production mandates have influenced energy strategies. **FPL Group**, North America's largest generator of wind-powered electricity and operator of the world's largest solar facility, sees renewable and advanced efficiencies as *"the best near-term solutions to the challenges faced in reducing greenhouse gases. A renewable electricity standard would provide additional value to FPL Group's nearly \$10 billion investment made over the past decade in its wind and solar energy business."*

Respondents are also engaging by piggybacking on the growth in wind, solar and biofuels. **Corning** is *"exploring how we can leverage our flat glass for solar energy applications."* **IBM** cited offerings in hardware and software systems aimed at, among other areas, *"smart electricity grids"* and *"intelligent transport"* technology. **Progressive** took another approach by incentivizing innovation through its \$10 million challenge to produce the first car that gets more than 100 miles per gallon. **Boeing** *"has extensively researched and tested the development of advanced 2nd generation biofuels."*

Innovative alliances

Climate initiatives unite sectors in innovative ways. Utilities described ventures with automakers to build infrastructures that increase the viability of electric vehicles — and with software companies and electronics companies to build out smart grids. **Progress Energy** backed Advanced Transportation Energy at North Carolina State University to develop *"technologies that will facilitate the advancement of plug-in vehicles."* **Weyerhaeuser**, a timber company, and **Chevron** formed Catchlight Energy in 2008 to *"research and develop*

The IT industry is responsible for 2% of the world's GHG emissions. However, we have the potential to help reduce significantly the other 98% of emissions...The greatest potential is seen in smart vehicles and transport and e-commerce, but substantial savings are also estimated in sectors ranging from buildings to energy supply.

Hewlett-Packard

Climate initiatives unite sectors in innovative ways. Utilities described ventures with automakers to build infrastructures that increase the viability of electric vehicles — and with software companies and electronics companies to build out smart grids.

Changes in the regulatory environment, consumer attitudes and the technology landscape yield new opportunities for investment in companies and industries that serve a role in mitigating or addressing climate change, or [for] those companies that are most effective in managing their operations and navigating the evolving regulatory environment. Likewise, careful analysis of sectors and companies not prepared for climate change may help mitigate risk in our portfolio holdings.

Franklin Resources

Fig. J: Climate change policy heats up

Date	Policy update
December 19, 2007	President Bush signs the Energy Independence and Security Act of 2007 into law. It includes a suite of new energy standards, including raising the corporate average fuel economy to 35 miles per gallon for cars, trucks and sport-utility vehicles and raising the renewable fuel standard to 36 billion gallons by 2022, including 21 billion gallons of advanced biofuels such as cellulosic ethanol.
February 17, 2009	President Obama signs the American Recovery and Reinvestment Act, which includes \$83 billion in tax credit/grant provisions for clean technology and energy efficiency industries promoting a green economy.
March 17, 2009	The National Association of Insurance Commissioners adopts a mandatory disclosure standard, requiring all insurance companies with annual premiums of more than \$500 million to complete an Insurer Climate Risk Disclosure Survey annually, with an initial reporting deadline of May 1, 2010.
April 10, 2009	The US Environmental Protection Agency (EPA) proposes national mandatory greenhouse gas reporting rule under authority of the Clean Air Act, affecting some 13,000 facilities emitting at least 25,000 metric tons of CO ₂ equivalent per year. Under the proposal, initial reports would be submitted to the EPA in 2011 for the 2010 year.
April 24, 2009	Proposed rule for the Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act is published in the <i>Federal Register</i> , proposing to find that six greenhouse gases “threaten the public health and welfare of future generations” and that four greenhouse gases “contribute to the threat of climate changes.”
May 26, 2009	The US EPA publishes ‘Regulation of Fuels and Fuel Additives: Changes to the Renewable Fuel Standard Program’ in the <i>Federal Register</i> , proposing rules to carry out the Security Act of 2007 by establishing a new program, RFS2, including all transportation fuels.
June 26, 2009	The US House of Representatives passes the American Clean Energy and Security Act (by a 219-212 vote), including proposing a national cap-and-trade system requiring companies to purchase permits to emit greenhouse gases, and also sets a goal to cut US greenhouse gases by 17% from a 2005 baseline by 2020 and by 83% by mid century. It also mandates that 15% of the nation’s electricity be generated by renewable sources by 2020.
July 10, 2009	At G8 summit, leaders agreed to commit to prevent global temperatures from rising beyond 2° Celsius (or 3° to 4° Fahrenheit) against preindustrial levels and agreed on aims to cut their greenhouse gas emissions by 50% and 80% by mid century.

technology for converting cellulose-based biomass into economical, low-carbon fuels.”

Customer preferences drive climate change economy

Consumers, clients and employees alike increasingly encourage emissions strategies. *“The population is increasingly educated, aware, and concerned about climate issues. With customers beginning to make purchasing decisions with environmental concerns in mind, it will be helpful to be seen as a positive environmental actor,”* noted **Biogen Idec**. **Sara Lee** is *“evaluating ways to add certain [carbon] footprint details to select packaging. Likewise, consumers are becoming more vocal in their packaging preferences.”* **Bemis Company** noted a growing interest in sustainable

packaging, helping drive alternatives to glass and metal packaging.

Climate concerns are beginning to influence supply chain operations and vendor relations. *“Clients want to do business with environmentally responsible companies, and this objective generally includes seeking suppliers that are addressing climate change in their operations and providing energy efficient products, services and solutions,”* according to **IBM**. Emissions data may weigh in on the purchasing process. *“Some of our key customers such as Wal-Mart...have begun requesting information from their vendors on climate change programs and GHG emissions. This data is used by Wal-Mart...to make product buying decisions,”* said **Allergan**, citing the *“potential financial risk.”*

Is your business prepared to monetize carbon?

By Liz Logan and Matt Arnold, *US Sustainability and Climate Change*, PricewaterhouseCoopers

Each year, voluntary reporting to the Carbon Disclosure Project reveals how steadily climate change issues are reaching the C-suite. Many companies comply with environmental regulations, promote energy efficiency or work to substantiate the eco-friendly positioning of their brands, but more are beginning to assess long-term strategic objectives, as the prospects increase for comprehensive climate change legislation in the United States.

A federal system to cap greenhouse gas emissions undoubtedly would affect the US economy, although the impact would vary by industry, region and company. To determine how climate change could affect its business, each company must look at the nature and size of the existing and future regulatory impact and its reliance on environmental performance as a component of its business strategy. Both assessments require a fundamental understanding of greenhouse gas emissions.

Because the risks related to greenhouse gases are increasing and a price would be set for emissions under a cap-and-trade system, many companies are asking how they can do more to understand the risks and take advantage of the opportunities. Overall, they want to increase their knowledge of which facilities and processes have the highest intensity or the largest volume of emissions and use that information to make management decisions. In general, the objectives are to monetize the value of saved emissions and to prepare to meet the new reporting and disclosure standards expected amid growing investor concerns.

To meet these objectives, industry leaders are starting to move away from complex, point-in-time spreadsheets and databases toward smart systems, which can identify important fluctuations in emissions levels as the business flexes and changes. With new and agile Web-enabled tools, managers are

beginning to see how they can improve the quality of their environmental reporting and present more meaningful information to the C-suite. With more efficient methods to collect emissions data, senior managers will be better equipped to implement value-seeking activities — from finding ways to drive down energy and supplier costs to smarter tax planning and allowance trading, to corporate valuations.

The second objective — preparing for more rigorous reporting and disclosure standards — is a reflection of the legislative and regulatory activity at the federal, regional and state levels. Many US businesses are already subject to regulation of greenhouse gas emissions at the state or regional level, and many investors are considering the risks of investing in companies that either are participating in a cap-and-trade system or may be subject to future legislation.

In May, the Climate Disclosure Standards Board¹⁶ (CDSB) announced proposals to include climate change data in companies' financial reporting, with the view that "this cannot happen fast enough if the world is moving towards a low-carbon economy."¹⁷ At the same time, the US Securities and Exchange Commission (SEC) has indicated it will review existing environmental disclosure requirements as early as this year to determine if more specific guidance for disclosure is needed.¹⁸

The level of preparedness an organization should achieve to monetize carbon depends on the nature and size of the future regulatory impact on the business and how much the business strategy relies on environmental performance. This strategic assessment ultimately drives the company to produce the quality information that management and investors demand. With efforts in Congress to regulate greenhouse gas emissions, more businesses are taking this step to ensure they are prepared.

Because the risks related to greenhouse gases are increasing and a price would be set for emissions under a cap-and-trade system, many companies are asking how they can do more to understand the risks and take advantage of the opportunities.

¹⁶ CDP provides the secretariat for CDSB. The CDSB is a consortium of business and environmental organizations focused on the development of a global framework to facilitate the corporate disclosure of climate-change-related data in mainstream reports. See www.cdsb-global.org.

¹⁷ The Carbon Disclosure Standards Board, press release, "Groundbreaking proposals unveiled for the inclusion of climate change in annual reports" (May 25, 2009).

¹⁸ SEC Chairwoman Mary Schapiro, "House Financial Services Subcommittee Hearing with SEC Chair Schapiro," www.CSPAN.org (accessed July 14, 2009).

5

Carbon reduction targets gain traction

[Corning] focuses on reduction of energy intensity...by improving energy efficiency in our processes, raising awareness of energy use and sharing best practices across Corning globally.

Corning

Clearly, the target bar for emissions reduction is being raised, with commitments of 1% to 1.5% per annum no longer indicators of “leadership.” The upward trend in annualized targets — especially in the higher range — indicates more ambitious long-term planning across all sectors.

Far more companies reported adoption of emissions reduction targets this year, and notably, more revealed they are setting aggressive annualized targets. The marked shift toward the setting of targets and disclosure of that information opens a window for investors, employees and other stakeholders to glimpse plans for managing emissions-linked risks at some of America’s largest companies.

Disclosure of emissions targets jumps precipitously

The number reporting emissions reduction targets rose sharply in 2009 — from 32% (102) last year to 52% (169), a 66% leap. The significance of that shift transcends mere cost-cutting expectations; the disclosures reveal that emissions strategies are clearly moving from a nice-to-have to a need-to-do.

Consumer Staples leads sectors in setting targets

Across all sectors, Consumer Staples captured the highest percentage of respondents reporting emissions reduction targets, at 72% (23), up from 38% (11), a predictable trend for this consumer-facing sector. Materials followed closely at 65% (15), disclosing emissions targets, from 55% (12) last year, supporting the view that focus and attention on emissions reporting from suppliers continue to rise.

Annualized targets more aggressive in 2009

This year, the number of companies with annualized reduction targets greater than 5% grew from 1% (4) of respondents to 9% (30) (see Figure K). Clearly, the target bar for emissions reduction is being raised, with commitments of 1% to 1.5% per annum no longer indicators of “leadership.” The upward trend in annualized targets — especially in the higher range — indicates more ambitious long-term planning across all sectors.

Fig. K: Number of companies by reduction targets

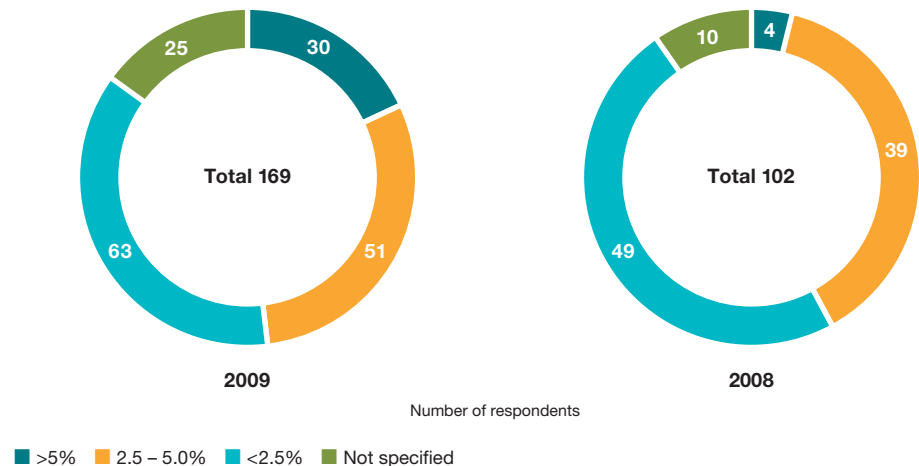
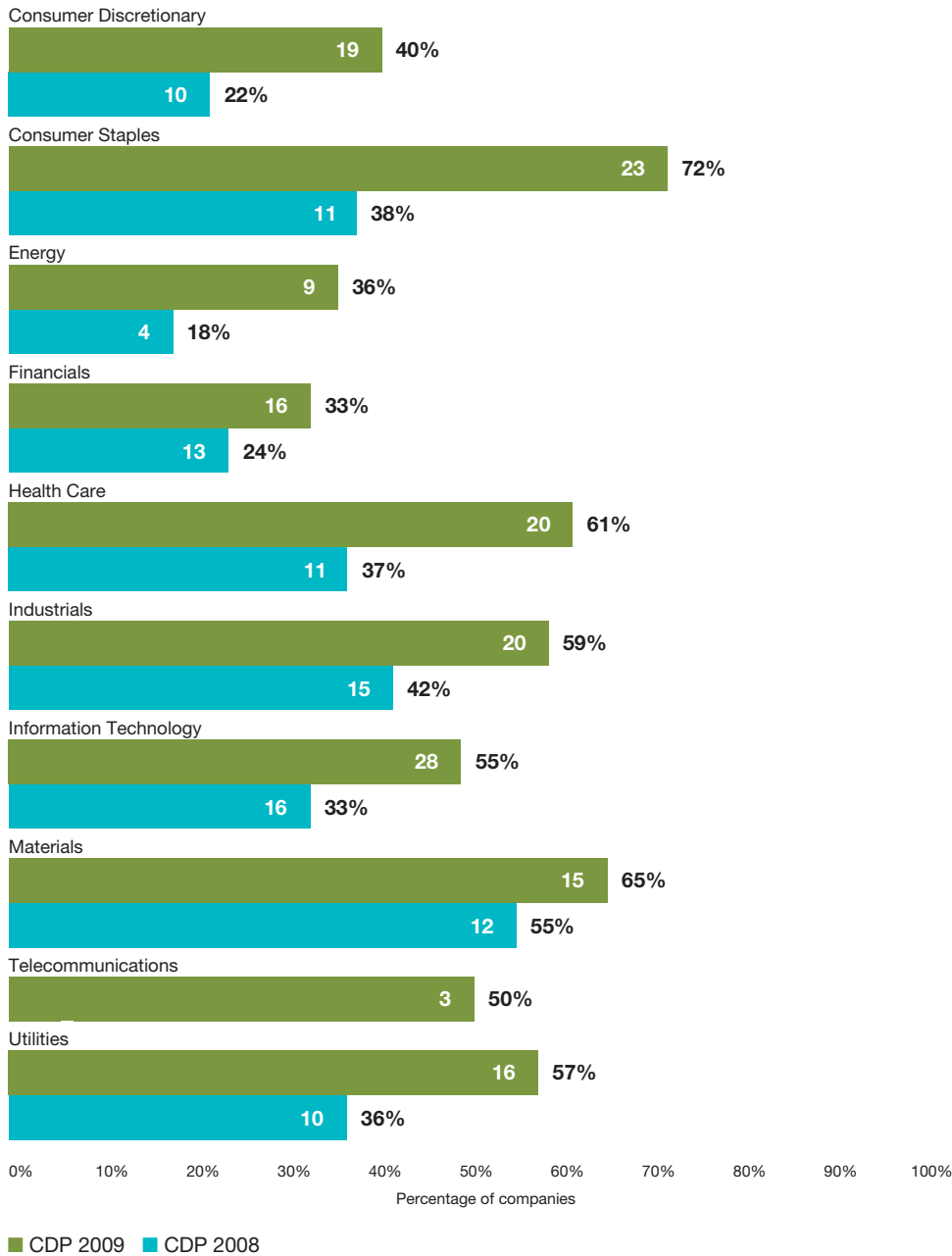


Fig. L: Percentage of companies with emissions reduction targets



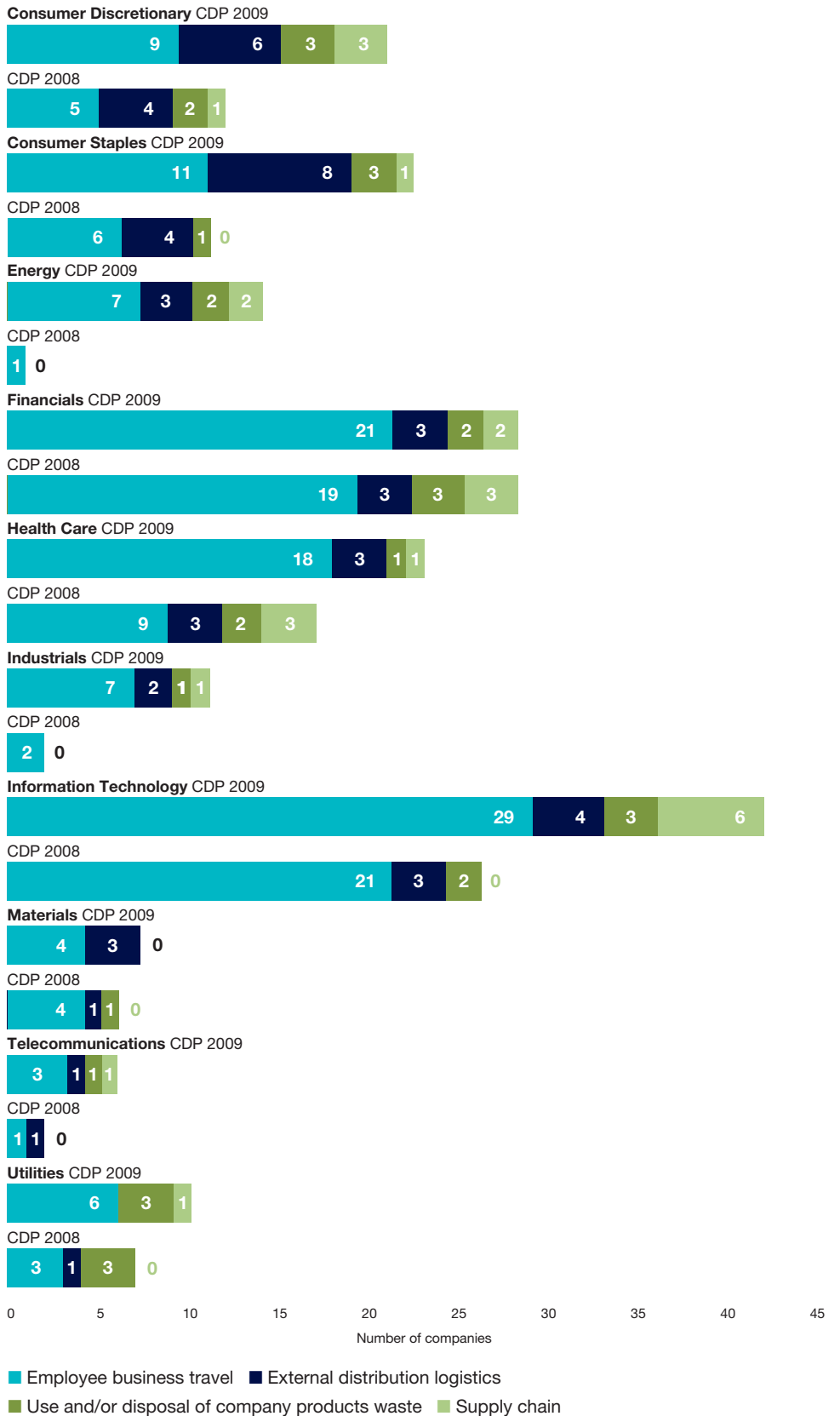
Union Pacific is committed to seeking reduced emissions through its practices and company-wide training, including voluntary agreements with federal, state and local governments. These efforts include a commitment to technological improvements, acquisition of newer locomotives, a commitment to rebuild older locomotives, company-wide training regarding fuel conservation, idle control program, maintenance of equipment, smoke inspection program and stewardship outreach to employees.

Union Pacific

Marked increases in disclosed Scope 3 emissions were noted this year, particularly in non-carbon-intensive sectors such as Information Technology and Financials.

The debate continues among respondents and their stakeholders over the merits and drawbacks of tracking and reporting their “downstream” emissions from use and disposal of their products and services.

Fig. M: Type of Scope 3 emissions tracked by sector



Steep rise in Scope 3 emissions disclosure

Respondents demonstrated concerted efforts to track Scope 3 emissions, which are more challenging to capture than Scope 1 and Scope 2 emissions. Marked increases in disclosed Scope 3 emissions were noted this year, particularly in non-carbon-intensive sectors such as Information Technology and Financials. In addition, the range of Scope 3 emissions tracked was broadened beyond employee business travel — the easiest to measure and most commonly reported Scope 3 emissions source.

The success of CDP's Supply Chain project is evidenced by the participation of over 600 responding suppliers, which through their disclosures demonstrated their commitment to emissions reporting. The debate continues among respondents and their stakeholders over the merits and drawbacks of tracking and reporting their "downstream" emissions from use and disposal of their products and services. Some respondents recognized that the bulk of energy use and corresponding carbon emissions results from use of their product, while others are unwilling to publicly disclose emissions from downstream energy use because of the inherent uncertainty around estimates.

In 2009, Information Technology remained the leading sector in reporting Scope 3 emissions, with 57% (29) of respondents, up from 48% (23) last year.

Google's Scope 3 data included "employee commuting, business travel, data center construction and manufacturing of our servers."

Cisco Systems disclosed targets on employee air travel: "reduce Scope 1, 2 and business air travel Scope 3 GHG emissions by 25% absolute by CY2012." Additionally, more respondents reported on Scope 3 external distribution logistics.

The Energy sector saw 36% (9) of respondents tracking emissions across all three Scope sources, up from 4.5% (1) last year. This suggests that within the past year, respondents in this sector integrated Scope 3 emissions reporting

— and disclosure — in their climate change policies and procedures, as the sector prepares for continued GHG legislation through 2009 and beyond.

Harmonization continues around WRI Reporting Protocol

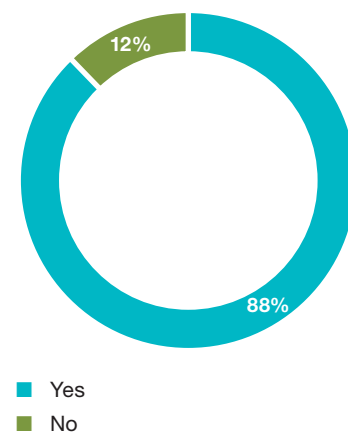
The World Resources Institute (WRI)/World Business Council on Sustainable Development (WBCSD) GHG Protocol remains the most common reporting methodology. The number of respondents using the WRI/WBCSD GHG Protocol increased to 88% (252) of companies this year from 73% (204) last year. Some respondents use multiple methodologies to track emissions — for example, leveraging the US EPA Climate Leaders program or the California Action Registry — above and beyond the WRI/WBCSD GHG Protocol. For others, tracking is already incorporated into existing requirements, such as the Clean Air Act. In the US, **Duke Energy's** coal-fired generating units are equipped with continuous emissions monitors that meet EPA requirements. **Exxon Mobil** uses guidance provided in the *Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil and Gas Industry* (American Petroleum Institute), among others.

Carbon trading with an eye on Europe

In the US, the EPA, through its proposed mandatory GHG rule, would create, in effect, a national carbon inventory. Meanwhile, business leaders, Congress and the Obama administration are deliberating on a framework for a cap-and-trade system. Additionally, European regulatory efforts continue to influence US company reporting: In 2009, 55 respondents (17%) reported they participate in the EU ETS, up from 30 (10%) last year. As each iteration of the EU ETS includes more entities — it's now working on phase III — more US companies with operations in Europe will likely be required to participate.

The number of respondents using the WRI/WBCSD GHG Protocol increased to 88% (252) of companies this year from 73% (204) last year.

Fig. N: Percentage of companies using WRI/WBCSD GHG Protocol



6

Governance: Climate change and C-suite strategy

We believe global climate change will likely have a significant long term financial impact on the capital markets... Enhanced transparency on environmental externalities as well as climate regulation may allow portfolio managers to uncover investment opportunities, as well as identify companies with poor positioning relative to their peers.

State Street

Our strategy to address climate change is comprehensive, including the involvement of our Emerging Issues Group, internal Risk Committee and Risk Committee of the board along with all business areas throughout the company.

Travelers Companies

A number of factors, including new organizational structures and employee incentives, are helping to integrate climate change goals into US business strategy. *“A sure sign that environmental sustainability is gaining traction in the business world is the increased inclusion of ‘green’ in corporate planning, requests for proposals...and other transactions. In fact, language about environmental compliance is starting to appear in some contracts and — for the first time — in Service Level Agreements...between [Information Technology] providers and their clients,”* reported **Hewlett-Packard**.

Respondents from more carbon-intensive sectors had the highest percentages of Board or executive-level responsibility for climate change, with 91% (21) of Materials and 86% (24) of Utilities. The less carbon-intensive sectors such as Financials and Information Technology had the lowest percentages of respondents indicating any executive-level responsibilities, with only 61% (31) of Information Technology respondents and 53% (26) of Financials.

More respondents award climate change progress

There was a notable increase in respondents reporting incentive structures to reward climate change progress, from 30% (93) last year to 35% (115) in 2009. **PepsiCo**, noted it has begun “operationalizing” climate change policy, preparing Quarterly Performance Scorecards for senior executives that *“reflect leading indicators of GHG emissions.”*

Programs varied from impacting annual and long-term bonuses (**Capital One Financial**) to offering company-wide recognition achievement awards for reducing GHG emissions (**Monsanto**), to directly affecting the compensation of employees with specific climate-change-

related objectives (**Air Products & Chemicals**). **Google** reported: *“We provide incentives for employees to make choices that have a better overall climate impact, primarily around transportation and commuting, food and beverage packaging waste, and composting... Employees in eligible offices who bike, walk, pogo-stick, unicycle, or otherwise self-power to work can earn points that translate into a donation from Google to their charity of choice.”*

Intel offered this example of climate goals tethered to performance: *“In 2009, a portion of each employee’s variable pay will be based on meeting key conservation and greenhouse gas reduction goals. In addition, managers who have responsibility for the major climate change goals such as PFC [perfluorocompound] reductions or energy efficiency are held accountable for their performance to those goals.”* **Alcoa**, too, incentivizes climate change progress: *“Alcoa business unit’s leaders have various incentive mechanisms in place to reward both managers and associates for meeting key non-financial indicators such as EHS [environment, health and safety] and energy performance targets.”*

Shaping public policy

Respondents are deepening their involvement in public policy as regulatory activity heats up. Nearly all sectors had more respondents reporting some level of participation, reflecting an urgency — and expediency — on the part of companies to work closely with legislators and regulators in shaping climate change policies. Utilities had the highest percentage participating in public policy discussions, with 100% (28), of all respondents. Information Technology had the highest number of respondents involved in policy discussions, with 61% (31), of all respondents, up from 51% (24) last year.

7

Navigating risks, seizing opportunities

Respondents sent a strong message in 2009: they are jockeying for competitive advantages — while mitigating risks — in anticipation of costs attached to greenhouse gases. Regulatory, physical and other risks were highly detailed and multifaceted, ranging from drought affecting tomato yields to potential litigation. Yet while future costs remain uncertain, there is a clear trend toward identifying opportunities in energy-saving products and services. In such a fast-changing market, companies are grappling with making the right moves at the right time. Across all sectors, more respondents saw business opportunities emerging from climate change — 86% (281) — than risks 82% (269).

Regulatory risks and opportunities

Utilities, Financials, Information Technology and Consumer Discretionary were the most vocal about regulatory risks. A central concern was ensuring risk management processes are appropriately attuned to pending regulation. Much of the regulatory risk described by respondents involves potential costs, investments or often both. Some respondents indicated costs may be material or likely to impact customers.

In July 2009, the SEC Commissioner stated that climate change disclosure reporting rules for corporations are under consideration. The agency was taking “another very serious look at the [climate change] disclosure system in this area.”¹⁹ A disclosure system would likely obligate companies to report the effects of GHG output on their financial condition.

Energy, Utilities: Compliance costs potentially significant

Utilities, particularly those with coal-fired plants, cited a host of operational cost concerns related to compliance.

Constellation Energy Group listed concerns for electricity generators as “increased costs in emissions allowances, installation of emissions control equipment, fuel switching, development of new technologies and curtailment of permanent retirement of existing generation assets in order to comply with regulations.” **Progress Energy** cautioned that switching from fossil-fuel-based sources may distort natural gas markets. **Apache** anticipates regulatory actions may narrow some business margins: “Our analysis of GHG regulatory proposals suggests that all will result in higher operating costs for our core business,” adding, “...it seems prudent to anticipate some narrowing of margins, especially for globally traded commodities such as oil and gas.”

Manufacturing: Competitive concerns, opportunities from tougher building codes

Carbon-intensive producers underscored far-reaching risks to their businesses.

United States Steel noted: “Any international, national, state or regional policy that would suggest that US Steel or any integrated steel producer reduce CO₂ FPEs (fixed process emissions) would reduce the viability of the steel sector in the United States and worldwide.” Yet the company reported the drive toward energy efficiencies will “increase the need for high performance steels” and cited opportunities in high-strength steels used to reduce vehicle weight, steel pipe and tubing needed for alternative fuel distribution and CO₂ transportation.

In the rapidly changing carbon regulatory environment, over the last 12 months our view is that even in the United States, regulatory ‘risk’ has become a reality.

Citigroup

¹⁹ E&E Publishing. “SEC Turnaround Sparks Sudden Look at Climate Disclosure,” July 12, 2009.

As a changing climate weighs more heavily on supply chains, particularly in food and agricultural businesses, companies and developing and investing in solutions to counter physical risks.

Respondents from both the Consumer Staples and Consumer Discretionary sectors both caution that regulation costs may ultimately pass to consumers.

United Technologies Corporation

also cited potential benefits. *“New building codes that demand higher energy efficiencies, or greenhouse gas emission reductions, are set to boost customer demand for highly efficient products. We are determined to provide those products.”*

Information Technology: Manufacturing risks, smart grid opportunities

Respondents see demand for Information Technology products and solutions that help companies manage their carbon risk exposure. **EMC** *“believes there are substantial business opportunities to provide equipment, solutions, services and software to companies affected by and seeking to protect themselves from climate related business risks.”* **Syantec** concurred: *“With energy costs in a typical data center doubling every five years, there is a growing demand for software and systems that can reduce the need for electricity and make more efficient use of existing resources.”* **Cisco Systems** pointed out opportunities in remote collaboration tools, data center virtualization, and smart grid solutions, stating: *“it is likely that more opportunity will be realized as regulations are finalized in major markets as the post-Kyoto negotiations are completed.”*

Information Technology companies cited risks within component manufacturing and assembly; opportunities included broadband and other innovations that act as the “connective tissue” critical to climate change initiatives. **National Semiconductor** said global emissions caps could *“impose significant costs and require major changes to semiconductor fabrication processes.”* Likewise, **Texas Instruments** cited similar risks of restrictions or even bans on the process chemicals used in Information Technology manufacturing.

Sourcing supply chain risks, carbon-related marketing opportunities

Retailers fall across two sectors — Consumer Staples and Consumer Discretionary — and respondents from both cautioned that costs may ultimately pass to consumers, since regulations could impact the *“cost and/or location of sourcing our products, which could reduce our profitability, increase costs to consumers, or both,”* said **J.C. Penney**. Still, **Wal-Mart Stores** noted, *“...potential opportunities exist, under a well designed cap-and-trade system, to use the financial value of carbon to ‘roll back’ the price of low-carbon products. Such a mechanism would create and encourage meaningful technology adoption by addressing the first cost premium often associated with these products.”*

Physical risks and opportunities

As a changing climate weighs more heavily on supply chains, particularly in food and agricultural businesses, companies are developing and investing in solutions to counter physical risks.

Utilities and Energy: Stormy weather

The threat of higher temperatures and extreme weather patterns has respondents guarding against potential damage and “hardening” their facilities. **Consolidated Edison** — as New York’s primary electricity provider — is strengthening systems to withstand possible intensifying weather. *“Although the full extent of potential weather-related impacts and sea level rise associated with climate change remains uncertain, Con Edison is beginning to plan for weather-related contingencies,”* adding that the company is purchasing *“submersible transformers for use in areas that are most susceptible to flooding during hurricanes and nor’easters.”*

Food and agriculture: Supply chain risks, longer growing seasons

Respondents in this sector cited risks to crop yields and water scarcity stemming from severe weather patterns.

H.J. Heinz, which uses 2.5 million tons of tomatoes each year, instituted drip irrigation, yet noted *“when drought reduces the availability of water, Heinz is at risk despite our focus on sustainable agricultural practices.”* **ConAgra Foods**, too, reported the *“greatest physical risk from climate change remains in our supply chain.”*

Bio refinery demand for corn and soybeans may further pressure the traditional food supply chain. Yet the food companies also reported they may benefit from rising temperatures in parts of the world where growing seasons may lengthen.

Higher temperatures: Potential to influence vaccine demand, create mineral extraction opportunity

Health Care companies noted that changing weather patterns may increase the need for medications and vaccines, including those that target tropical disease and pandemics.

Natural resources companies may find remote regions more accessible. **Newmont Mining** reported that as the Arctic Ocean sea ice melts, “a vast store of mineral wealth becomes more available for extraction.” **Alcoa** cited a partnership with Iceland to receive electricity for its new aluminum smelter from hydroelectricity based on melting glacier flows.

Physical climate change risks: Raising insurance premiums

“Simply put, increased weather related risks could lead to higher rates and limited coverage,” said **American International Group** indicating that changing weather patterns could potentially force insurance companies to cancel coverage, ultimately impacting the bottom line and growth prospects. **Chubb** notes several new product and service opportunities that respond to

“customers’ increased environmental awareness and desires to limit climate change,” including increased coverage offered to customers in some states who *“rebuild after a covered loss with environmentally-friendly materials and energy-efficient systems.”*

Other risks and opportunities

Eco-friendly demand fosters product development

Respondents noted consumer demand for environmentally-friendly products as a driver of new market opportunities.

KB Home said, *“growing consumer interest in reducing individual or household carbon footprints”* led to *“increasing the range of environmentally friendly products and interior design options we make available to our home buyers in large part to address this consumer interest.”* **Bemis Company**, as a producer of light, flexible packaging, saw a competitive advantage over producers of glass or metal cans. **Clorox** cited *“enhanced opportunity”* in its sustainable product lines.

Financials report tailoring products and services for environmentally aware customers. **Chubb** conducts around 600 infrared scans a year checking customers’ homes for energy leaks. **American Express** reports programs for customers with *“green’ interests,”* including a travel reporting program that measures environmental impacts.

Allstate said it *“continues to examine actuarial data to identify any situations where lower emissions and lower risk may converge.”* The insurer invested in bonds for solar energy, wind power and biomass.

Some respondents detailed new, climate-related applications for existing products, or even by-products. **IBM’s** “Big Green Initiative” applies existing technologies to water innovations. **Molson Coors Brewing** produced 1.7 million gallons of fuel-grade ethanol in the US from waste beer and other liquids.

The threat of higher temperatures and extreme weather patterns has respondents guarding against potential damage and “hardening” their facilities.

Changing weather patterns could also potentially force insurance companies to cancel coverage, ultimately impacting their bottom line and growth prospects.

8

A global perspective: Industry snapshot

Bank of America cited expected upcoming regulatory changes globally, including Japan's plans for a cap-and-trade system, new carbon emission constraints in Australia and Canada, as well as possible climate change regulation in emerging markets such as Brazil, Russia, India, China and South Africa: "In Europe, the regulatory framework post-2012 is being debated, and topics such as the increase in the amount of Clean Development Mechanism (CDM) that will be allowed in the event that there is not a broader acceptable international agreement on climate change to replace the Kyoto Protocol, and the potential creation of a market for trading renewable energy certificates, all represent regulatory risks and opportunities."

The big picture: Global trends

In this section, we take a look at responses across the S&P 500, FTSE 350 and Global 500. More detailed analysis for each industry is available for free in the Industry Snapshots at www.cdproject.net. With this global lens, we see certain overarching climate change messages and actions emerge across these geographies despite different levels of maturity and implementation of regulation and market forces. Clearly, trends toward a consistent climate change policy are in motion, as investors — and companies — build strategies to adapt to this fast-changing global regulatory landscape.

Some of the more commonly cited sector issues are described as follows.

Global industry response

S&P 500 versus global scorecard: comparing trends by sector

Figure O shows that while the US is clearly moving in the right direction, respondents across sectors appear to be playing catch-up with other geographies in the maturity of their emissions disclosure and reporting. As the red shading indicates, almost without exception US companies lag across the majority of disclosure areas.

Response rates

The leaders

It is no surprise that Utilities had the highest response rate globally — 88% (59) — consistent with the trend observed in the S&P 500. Consumer Staples followed, with 85% (71), in part due to reputational, customer-facing pressures to carry out climate change policies, as well as current and emerging regulation, such as the EPA proposal in the US and the Department of Environment, Food & Rural Affairs emerging regulations in the UK.

The laggards

Globally, the Energy sector had a relatively low response rate of 62% (57), suggesting a wait-and-see approach with regard to climate change legislation and regulations. However, this may simply reflect a reluctance to share its climate change plans, viewed as competitive data the respondents prefer not to disclose. The Health Care sector's relatively low global response rate of 63% (51) supports the notion that this sector is currently less impacted than others by carbon regulations.

Interestingly, a global view of the Financials sector reveals one of the lowest response rates, at 66% (176), perhaps reflecting lack of regulatory pressure to track its own carbon footprint. In the S&P 500, the sectors demonstrating low response rates were Health Care 60% (33), Industrials 60% (35) and Consumer Discretionary 59% (47).

Sectors eye regulatory risks

Across most sectors, respondents consistently reported regulatory risks — more than both physical risks (such as extreme weather) and other risks. This may be due to the quickened pace of more stringent and imminent GHG regulations. The Financials sector included the most companies citing all categories of risk. Respondents in this sector are particularly attuned to the risks and regulatory environments facing their diverse and global client bases. Industrials expressed concerns that regulatory risks might negatively impact its margins — from rising energy costs or additional compliance and record-keeping costs — to a drop in exports when competing with countries not subject to the same regulatory challenges.

Fig. O: Global response scorecard by sector

CDP sector		Disclose emissions reduction targets	Disclose forecasts	Disclose GHG emissions	Publicly available	Report on GHG emissions in annual corporate reporting	Responded	Verify emissions
Consumer Discretionary	S&P 500	40%	26%	68%	62%	79%	59%	30%
	Global	54%	42%	82%	69%	84%	66%	43%
Consumer Staples	S&P 500	72%	66%	91%	91%	91%	76%	44%
	Global	73%	64%	94%	83%	92%	85%	56%
Energy	S&P 500	36%	36%	88%	76%	80%	64%	44%
	Global	47%	44%	87%	75%	85%	62%	56%
Financials	S&P 500	33%	33%	63%	63%	63%	61%	31%
	Global	48%	44%	76%	71%	78%	66%	49%
Health Care	S&P 500	61%	45%	88%	82%	70%	60%	27%
	Global	67%	53%	88%	80%	80%	63%	39%
Industrials	S&P 500	59%	41%	74%	76%	79%	60%	32%
	Global	55%	44%	84%	72%	87%	67%	44%
Information Technology	S&P 500	55%	41%	78%	78%	61%	72%	49%
	Global	57%	50%	84%	78%	70%	69%	50%
Materials	S&P 500	65%	52%	91%	87%	91%	79%	57%
	Global	73%	52%	93%	86%	95%	76%	66%
Telecommunications	S&P 500	50%	50%	83%	83%	67%	67%	17%
	Global	71%	50%	96%	89%	86%	67%	54%
Utilities	S&P 500	57%	75%	93%	96%	100%	88%	68%
	Global	71%	71%	95%	95%	100%	88%	79%

Red Areas where the S&P 500 companies lagged the global population of companies who responded to CDP 2009 for that sector

Green Areas where the S&P 500 companies exceeded the global population of companies who responded to CDP 2009 for that sector

Sharp rise in disclosure of emissions reduction targets: Consumer Staples, Materials and Telecommunications lead all sectors

The year 2009 saw a profound increase in emissions targets set by companies across all sectors globally, as they ramp up efforts to cut energy costs and position themselves for increasingly challenging carbon standards. Consumer Staples at 73% (48) up from 56% (34) last year, had the highest percentage disclosing emissions reduction targets, likely driven by the importance of brand and reputation in this sector and by demand for climate change policies from consumers. Materials was another impressive gainer in setting emissions reduction targets, with 73% (41) disclosing established

targets up from 58% (32) last year. Not surprising, companies in this sector, which include construction materials, metals and mining, and paper products are carbon-intensive, and these targets may well increase in lockstep with a rise in cost containment measures.

Emerging sector trends

Industrials brace for climate change challenges

Heavy GHG emitters such as cement, steel, aluminum and automotive companies face exposure to increasingly stringent emissions regulations globally. The debate persists on whether manufacturers in regulated regions can remain competitive with companies in countries not subject to the same constraints (e.g., China and India).

Utilities and Energy: The push for a diversified fuel and energy mix

Governments across the globe continue to enact mandates to increase biofuels production and renewable and alternative electricity generation. In response, oil and gas companies and utilities are diversifying their fuel asset portfolios and actively seeking new strategies as part of a global rebranding to “energy” companies. **Endbridge** also described the benefits of diversification: “With the recent announcement of the *Green Ontario Energy Act in Ontario, designed to promote the generation of electricity from renewable sources, Endbridge is in a key position to become a major player under this Act.*” Several oil and gas majors cited carbon capture and storage (CCS) as a key diversifying technology.

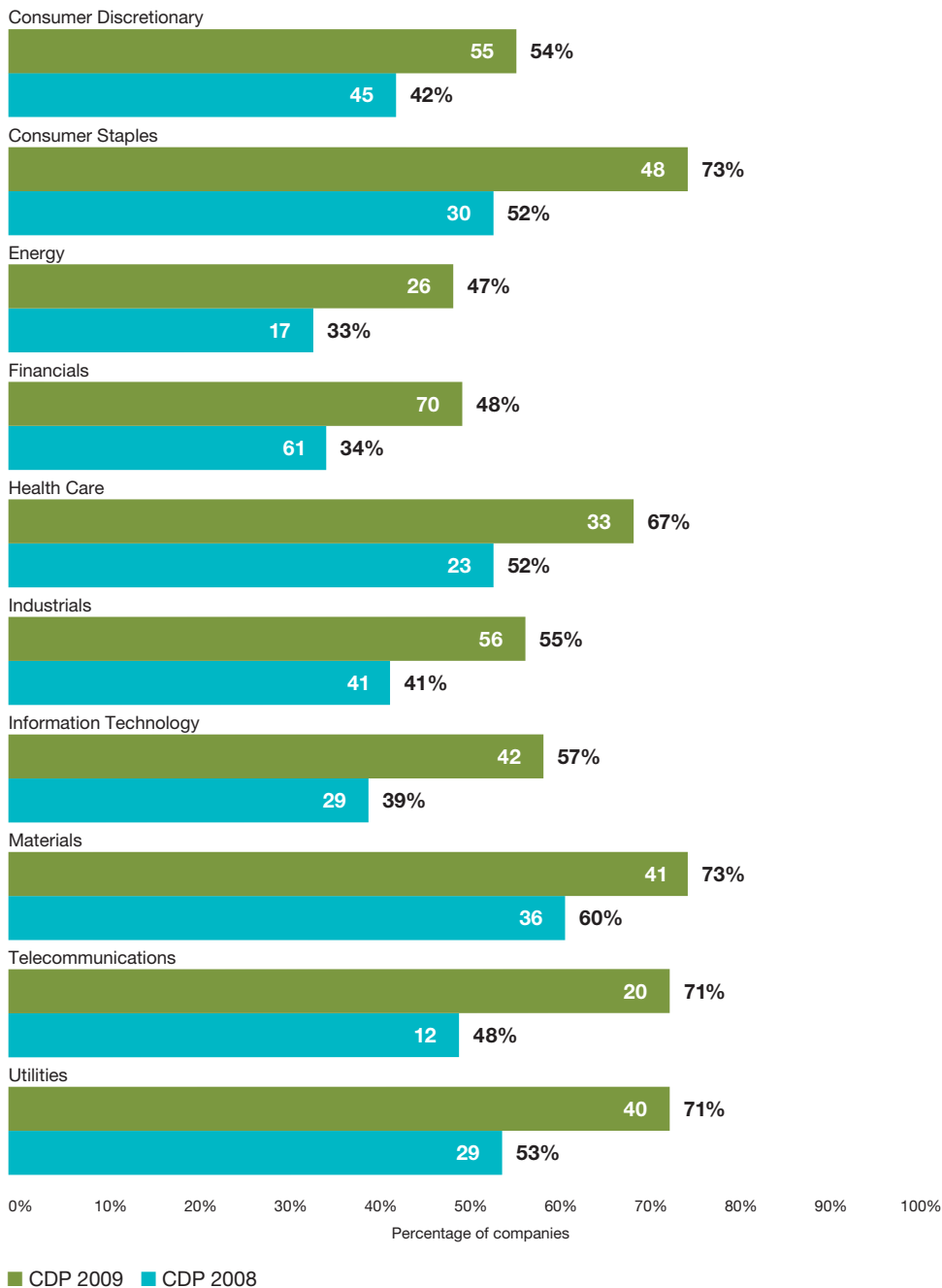
Royal Dutch Shell noted that “CCS is one of the critical technologies needed to buy time in the race to prevent emissions from rising too far, too fast.”

The role of Information Technology: Building the smart grid, boosting energy efficiencies

Information Technology respondents sent a compelling message about their role in growing the new climate change economy — from building out the smart grid to helping companies increase efficiency with data servers, to teleconferencing capabilities. “EMC helps our customers reduce GHG emissions in two ways: by delivering more energy-efficient Information Technology solutions directly into our customers’ data centers; and by the significant role Information Technology plays in enabling an energy efficient information economy.”

The depth and quality of the CDP responses from the world’s largest companies are a measure of shareholder and corporate engagement on the issue of climate change. Climate change is becoming an increasingly important issue for the majority of large businesses, and companies are keen to share information on their carbon performance and climate risks and opportunities with investors and other stakeholders. The corporate sector has a crucial role to play in addressing climate change, through investment and innovation. CDP 2009 has demonstrated clearly that the world’s largest companies are preparing for this challenge.

Fig. P: Percentage of companies with emission reduction targets



9

Appendix

Key:

- AQ:** Answered questionnaire
- AQ(L):** Answered questionnaire late
- IN:** Provided information
- DP:** Declined to participate
- NP:** Answered questionnaire but response not made publicly available
- NR:** No response
- Company not in S&P 500 sample in that year
- x:** Yes

Fig. Q: Summary table in alphabetical order*

Sector	Company	2009	2008	CDLI Score	Non-public	Intensity ¹	Total Emissions ²	Scope 1	Scope 2 Grid Average	Scope 2 Contract Arrangements ³	Scope 3 ⁴	Business Travel	Logistics and Distribution	Use & Disposal of Products & Services	Supply Chain	Other
Industrials	3M	AQ	AQ	60		269	6,790,000	5,130,000	1,660,000							
Health Care	Abbott Laboratories	AQ	AQ	65		55	1,619,500	842,103	777,397		64,312	x				
Consumer Discretionary	Abercrombie & Fitch	NR	NR													
Information Technology	Adobe Systems	AQ	AQ	60		5	19,567	3,241	16,326		17,221	x				
Information Technology	Advanced Micro Devices	AQ	AQ	82		76	439,503	84,719	394,166		394,166†	x	x		x	
Utilities	AES	AQ	AQ	15		0	84	84								
Health Care	Aetna	AQ	AQ	60		3	81,691	18,706	62,985							
Financials	Affiliated Computer Services	NR	NR													
Financials	Aflac	AQ	AQ	62		2	32,656	6,225	26,431							
Information Technology	Agilent Technologies	AQ	AQ	62		22	124,318	14,134	110,184		35,000	x				
Materials	Air Products & Chemicals	AQ	AQ	74		2,141	21,200,000	12,300,000	8,900,000	*						
Materials	AK Steel Holding	NR	-													
Information Technology	Akamai Technologies	NR	DP													
Materials	Alcoa	AQ	AQ	63		2,175	58,521,999	29,933,645	28,588,354							
Utilities	Allegheny Energy	AQ	AQ	51		11,993	40,606,754	40,606,754								
Materials	Allegheny Technologies	AQ	AQ	11	NP											

* 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.

Carbon Disclosure Project

Sector	Company	2009	2008	CDLI Score	Nonpublic	Intensity ¹	Total Emissions ²	Scope 1	Scope 2 Grid Average	Scope 2 Contract Arrangements ³	Scope 3 ⁴	Business Travel	Logistics and Distribution	Use & Disposal of Products & Services	Supply Chain	Other
Health Care	Allergan	AQ	AQ	85		24	104,210	45,643	58,567		32,548	x				
Financials	Allstate	AQ	AQ	79		7	212,467	33,575	178,892		57,071	x	x			
Information Technology	Altera	IN	AQ													
Consumer Staples	Altria Group	AQ	AQ	55		45	713,474	398,232	315,242		34,675	x				
Consumer Discretionary	Amazon.com	NR	DP													
Utilities	Ameren	AQ	AQ	63		8,688	68,102,804	68,102,804								
Financials	American Capital	NR	DP													
Utilities	American Electric Power	AQ	AQ	52		10,347	149,415,000	149,415,000								
Financials	American Express	AQ	AQ	57		7	238,413	26,887	211,526		64,324	x				
Financials	American International Group	AQ	AQ	11												
Telecommunications	American Tower	AQ	DP	70		122	193,896	431	193,465		8,335	x				
Financials	Ameriprise Financial	AQ	DP	16												
Health Care	AmerisourceBergen	NR	AQ													
Health Care	Amgen	AQ	AQ	63	NP											
Information Technology	Amphenol	NR	-													
Energy	Anadarko Petroleum	AQ	AQ	79		610	8,925,871	8,284,413	641,458							
Information Technology	Analog Devices	AQ	DP	44	NP											
Financials	Aon	AQ	AQ	6	NP											
Energy	Apache	AQ	AQ	72		806	9,939,352	9,099,776	839,576							
Financials	Apartment Investment and Management	DP	DP													
Consumer Discretionary	Apollo Group	DP	NR													
Information Technology	Apple Inc.	AQ	AQ	73		4	135,324	22,633	112,691	*	9,912,394	x	x	x	x	
Information Technology	Applied Materials	AQ	AQ	57		25	199,944	30,897	169,047		45,206	x				
Consumer Staples	Archer Daniels Midland	NR	DP													
Financials	Assurant	AQ	NR	38	NP											
Telecommunications	AT&T	AQ	AQ	47		5	580,755	129,985	450,770							
Information Technology	Autodesk	AQ	AQ	77		10	22,067	2,272	19,795		25,115	x				
Information Technology	Automatic Data Processing	AQ	DP	32		4	36,312	15,849	20,463							
Consumer Discretionary	AutoNation	NR	DP													
Consumer Discretionary	AutoZone	NR	NR													
Financials	AvalonBay Communities	DP	NR													
Industrials	Avery Dennison	AQ	AQ	34												
Consumer Staples	Avon Products	AQ	AQ	51		13	140,972	35,941	105,031							
Energy	Baker Hughes	AQ	AQ	57		36	422,000	200,000	222,000		113,000	x				
Materials	Ball	AQ	AQ	50		199	1,508,225	388,845	1,119,380							
Financials	Bank of America	AQ	AQ(L)	73		13	1,483,431	121,549	1,361,882	*	156,587	x				
Financials	Bank of New York Mellon	AQ	AQ	78		13	213,985	9,550	204,435	*	28,166	x				
Health Care	Barr Pharmaceuticals	NR	IN													
Health Care	Baxter International	AQ	AQ	69		59	726,428	256,828	469,600	*	1,531,000	x	x	x	x	x
Financials	BB&T	AQ	AQ	61		9	92,444	2,134	90,310							
Health Care	Becton, Dickinson and Co.	AQ	AQ	45		68	490,003	68,896	421,107							
Consumer Discretionary	Bed Bath & Beyond	AQ	AQ	25	NP											

Sector	Company	2009	2008	CDLI Score	Non-public	Intensity ¹	Total Emissions ²	Scope 1	Scope 2 Grid Average	Scope 2 Contract Arrangements ³	Scope 3 ⁴	Business Travel	Logistics and Distribution	Use & Disposal of Products & Services	Supply Chain	Other
Materials	Bemis Company	AQ	AQ	60		176	664,394	157,262	507,132							
Consumer Discretionary	Best Buy	AQ	AQ	54	NP											
Consumer Discretionary	Big Lots	AQ	AQ	30		99	460,886		460,886							
Health Care	Biogen Idec	AQ	AQ	83		24	96,897	49,459	47,438		4,234†	x				x
Energy	BJ Services	AQ	DP	39	NP											
Consumer Discretionary	Black & Decker	AQ	AQ	50		37	223,226	38,449	184,777							
Information Technology	BMC Software	NR	AQ													
Industrials	Boeing	AQ	AQ	87		28	1,679,000	575,000	1,104,000	*	280,140	x				x
Financials	Boston Properties	NR	NR													
Health Care	Boston Scientific	AQ	AQ	45		22	178,500	28,500	150,000							
Health Care	Bristol-Myers Squibb	AQ	AQ	75		40	832,135	377,825	454,310		55,686	x				
Information Technology	Broadcom	AQ	DP	48		6	27,057	2,162	24,895		875	x				
Consumer Staples	Brown-Forman	AQ	AQ	69		71	184,566	111,125	73,441		4,767	x				
Industrials	Burlington Northern Santa Fe	AQ	AQ	85		844	15,213,194	14,889,927	323,267		27,715	x	x			
Information Technology	CA	AQ	AQ	69		21	88,621	3,828	84,793	*	16,109	x				
Materials	Cabot	AQ	-	69		4,670	4,402,000	4,040,000	362,000							
Energy	Cameron International	NR	-													
Consumer Staples	Campbell Soup	AQ	DP	63		112	899,537	499,149	400,388							
Financials	Capital One Financial	AQ	AQ	54		11	198,797	13,260	185,537	*						
Health Care	Cardinal Health	AQ	DP	49		3	314,864	90,528	224,336		25,011	x				
Consumer Discretionary	Carnival	AQ	AQ	87		703	10,298,265	10,247,517	50,748	144	19,150		x	x	x	
Industrials	Caterpillar	IN	AQ													
Financials	CB Richard Ellis Group	AQ	AQ	53	NP											
Consumer Discretionary	CBS	AQ	AQ	21	NP											
Health Care	Celgene	AQ	DP	64		6	13,689	4,331	9,358							
Utilities	CenterPoint Energy	AQ	AQ	45												
Consumer Discretionary	Centex	IN	IN													
Telecommunications	CenturyTel	NR	NR													
Health Care	Cephalon	DP	-													
Materials	CF Industries Holdings	NR	-													
Industrials	C.H. Robinson Worldwide	AQ	AQ	34	NP											
Financials	Charles Schwab	AQ	AQ	3	NP											
Energy	Chesapeake Energy	IN	IN													
Energy	Chevron	AQ	AQ	88		267	68,195,321	62,978,970	5,216,351	*	382,000,000			x		x
Financials	Chubb	AQ	AQ	30												
Information Technology	Ciena	DP	DP													
Health Care	CIGNA	AQ	AQ	43	NP											
Financials	Cincinnati Financial	AQ	NR	26	NP											
Industrials	Cintas	NR	NR													
Information Technology	Cisco Systems	AQ	AQ	88		15	598,382	51,620	546,762	307,143	197,951	x				
Financials	CIT Group	DP	NR													
Financials	Citigroup	AQ	AQ	70		13	1,371,954	40,990	1,330,964		146,019	x				x
Information Technology	Citrix Systems	NR	AQ													
Consumer Staples	Clorox	AQ	AQ	69		80	422,632	98,244	324,388							
Financials	CME Group	AQ	NR	14	NP											
Utilities	CMS Energy	AQ	AQ	43		3,322	22,659,483	22,659,483								

Sector	Company	2009	2008	CDLI Score	Non-public	Intensity ¹	Total Emissions ²	Scope 1	Scope 2 Grid Average	Scope 2 Contract Arrangements ³	Scope 3 ⁴	Business Travel	Logistics and Distribution	Use & Disposal of Products & Services	Supply Chain	Other
Consumer Discretionary	Coach	DP	DP													
Consumer Staples	Coca-Cola	AQ	AQ	70		162	5,160,436	1,951,041	3,209,395		59,000†	x				x
Consumer Staples	Coca-Cola Enterprises	AQ	AQ	56		70	1,532,967	967,410	565,557		4,578,069	x	x	x		
Information Technology	Cognizant Technology Solutions	AQ	NR	53		52	146,574	22,981	123,593		35,964	x				
Consumer Staples	Colgate-Palmolive	AQ	AQ	77		46	701,591	271,599	429,992	*	87,572	x	x			
Consumer Discretionary	Comcast	IN	IN													
Financials	Comerica	AQ	AQ	91		18	69,208	13,614	55,594		26,052	x			x	
Information Technology	Compuware	AQ	AQ	7	NP											
Consumer Staples	Conagra Foods	AQ	AQ	73		194	2,254,356	1,163,215	1,091,141		546,135		x			
Energy	ConocoPhillips	AQ	AQ	52	NP											
Energy	CONSOL Energy	NR	DP													
Utilities	Consolidated Edison	AQ	AQ	79		351	4,769,429	4,211,511	557,918		†					x
Consumer Staples	Constellation Brands	AQ	IN	72		65	244,883	151,114	93,769		298,151	x	x	x		
Utilities	Constellation Energy Group	AQ	AQ	59		952	18,875,860	17,900,347	975,513		5,694	x				
Information Technology	Convergys	DP	AQ													
Industrials	Cooper Industries ⁵	AQ(L)	NR													
Information Technology	Corning	AQ	AQ	57		212	1,262,281	329,629	932,652	*						
Consumer Staples	Costco Wholesale	AQ	AQ	17	NP											
Health Care	Coventry Health Care	NR	NR													
Health Care	Covidien	NR	DP													
Health Care	C.R. Bard	DP	AQ													
Information Technology	CSC	NR	NR													
Industrials	CSX	AQ	AQ	68		570	6,419,342	6,046,277	373,065	*						
Industrials	Cummins	AQ	AQ	61		58	834,193	387,421	446,772							
Consumer Staples	CVS Caremark	NR	NR													
Consumer Staples	D.R. Horton	NR	NR													
Industrials	Danaher	AQ	AQ	24	NP											
Consumer Discretionary	Darden Restaurants	AQ	AQ	69		162	1,075,223	324,835	750,388	*	6,226	x				
Health Care	DaVita	NR	-													
Consumer Staples	Dean Foods	AQ	AQ	87		132	1,650,053	884,448	765,605		187,757†	x	x			
Industrials	Deere	AQ	AQ	66		56	1,578,558	511,976	1,066,582							
Information Technology	Dell	AQ	AQ	66		7	406,252	30,780	375,472	313,837	93,382	x				
Health Care	DENTSPLY International	NR	-													
Financials	Developers Diversified Realty	NR	NR													
Energy	Devon Energy	AQ	AQ	47		271	4,170,000	3,680,000	490,000							
Consumer Discretionary	DIRECTV Group	NR	DP													
Financials	Discover Financial Services	IN	IN													
Utilities	Dominion Resources	AQ	AQ	67		3,303	53,798,568	53,798,568		*						
Industrials	Dover	DP	NR													
Materials	Dow Chemical	AQ	AQ	63		614	35,299,000	27,773,000	7,526,000		5,020,000	x	x			
Consumer Staples	Dr Pepper Snapple Group	NR	-													
Utilities	DTE Energy	AQ	AQ	84		4,528	42,245,000	41,800,000	445,000	*						
Utilities	Duke Energy	AQ	AQ	64		7,482	98,811,000	98,811,000								

Sector	Company	2009	2008	CDLI Score	Non-public	Intensity ¹	Total Emissions ²	Scope 1	Scope 2 Grid Average	Scope 2 Contract Arrangements ³	Scope 3 ⁴	Business Travel	Logistics and Distribution	Use & Disposal of Products & Services	Supply Chain	Other
Industrials	Dun & Bradstreet	NR	-													
Utilities	Dynegy	NR	AQ													
Financials	E*TRADE FINANCIAL	NR	NR													
Materials	E.I. du Pont de Nemours	AQ	AQ	80		437	13,339,560	9,336,753	4,002,807	*	74,957	x				
Materials	Eastman Chemical	AQ	AQ	46												
Consumer Discretionary	Eastman Kodak	AQ	AQ	50	NP											
Industrials	Eaton	AQ	AQ	85		55	848,000	122,000	726,000	*						
Information Technology	eBay	AQ	AQ	59		14	116,618	6,210	110,408		10,198	x				
Materials	Ecolab	AQ	AQ	59		31	189,431	134,089	55,342	*						
Utilities	Edison International	AQ	AQ	39	NP											
Energy	EI Paso	AQ	AQ	61		2,778	14,897,502	13,939,795	957,707							
Information Technology	Electronic Arts	NR	NR													
Health Care	Eli Lilly	AQ	AQ	53		98	1,991,946	599,536	1,392,410		95,202 [†]	x	x			x
Telecommunications	Embarq	DP	AQ													
Information Technology	EMC	AQ	AQ	82		25	371,620	35,850	335,770		60,500	x				
Industrials	Emerson Electric	AQ	AQ	21		24	603,723	603,723								
Energy	Enesco International	NR	DP													
Utilities	Entergy	AQ	AQ	78		3,734	48,891,292	33,186,984	15,704,308	*						
Energy	EOG Resources	AQ	AQ	41		25	159,119		159,119							
Industrials	Equifax	NR	AQ													
Financials	Equity Residential	NR	NR													
Consumer Staples	Estée Lauder	AQ	DP	73		16	128,000	36,600	91,400	76,452	40,800	x		x		
Utilities	Exelon	AQ	AQ	71		512	9,664,883	9,431,588	233,295		10,234	x				x
Consumer Discretionary	Expedia	NR	NR													
Industrials	Expeditors International of Washington	NR	NR													
Health Care	Express Scripts	NR	DP													
Energy	Exxon Mobil	AQ	AQ	62		341	145,000,000	131,000,000	14,000,000	*						
Consumer Discretionary	Family Dollar Stores	DP	DP													
Industrials	Fastenal	NR	-													
Financials	Federated Investors	NR	DP													
Industrials	FedEx Corporation	AQ	AQ	59		395	14,983,506	14,983,506								
Financials	Fidelity National Information Services	AQ	DP	13	NP											
Financials	Fifth Third Bancorp	AQ	AQ	62	NP											
Financials	First Horizon National	NR	NR													
Utilities	FirstEnergy	AQ	AQ	65		3,587	48,877,547	48,877,547								
Information Technology	Fiserv	AQ	AQ	17	NP											
Industrials	Flowserve	NR	-													
Industrials	Fluor	IN	DP													
Consumer Discretionary	Ford Motor	AQ	AQ	51	NP											
Health Care	Forest Laboratories	AQ	AQ	52	NP											
Consumer Discretionary	Fortune Brands	NR	IN													
Utilities	FPL Group	AQ	AQ	82		2,813	46,166,488	46,007,608	158,880	*	14,987	x				
Financials	Franklin Resources	AQ	AQ	77		5	30,967	9,616	21,351		5,511	x				
Materials	Freeport-McMoRan Copper & Gold	AQ	AQ	59		539	9,586,200	5,108,000	4,478,200							
Telecommunications	Frontier Communications	NR	-													

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Consumer Discretionary	GameStop	NR	NR													
Consumer Discretionary	Gannett	NR	DP													
Consumer Discretionary	Gap	AQ	AQ	25						*						
Industrials	General Dynamics	IN	IN													
Industrials	General Electric	AQ	AQ	58	NP											
Consumer Staples	General Mills	AQ	AQ	63		79	1,077,057	283,275	793,782	*	16,369	x				
Consumer Discretionary	General Motors	AQ	AQ	48		669	99,700,000	24,300,000	75,400,000							
Consumer Discretionary	Genuine Parts	DP	NR													
Financials	Genworth Financial	AQ	AQ	62		2	17,084	220	16,864		6,224	x				
Health Care	Genzyme	AQ	AQ	57	NP											
Health Care	Gilead Sciences	AQ	AQ	74	NP											
Financials	Goldman Sachs	AQ	AQ	54	NP											
Industrials	Goodrich	NR	NR													
Consumer Discretionary	Goodyear Tire & Rubber	NR	AQ													
Information Technology	Google	AQ	AQ	53												
Consumer Discretionary	H&R Block	AQ	AQ	19	NP											
Energy	Halliburton	AQ	AQ	57		208	3,798,400	3,618,200	180,200		75	x				
Consumer Discretionary	Harley-Davidson	NR	NR													
Consumer Discretionary	Harman International Industries	NR	NR													
Information Technology	Harris	NR	-													
Financials	Hartford Financial Services	AQ	AQ	81		13	122,333	34,238	88,095	*	16,255†	x				
Consumer Discretionary	Hasbro	DP	NR													
Financials	HCP	NR	-													
Consumer Staples	H.J. Heinz	AQ	AQ	75		86	863,132	524,606	338,526	*						
Consumer Staples	The Hershey Company	AQ	DP	64		71	366,847	126,991	239,856							
Energy	Hess	AQ	AQ	86		274	11,288,872	10,714,780	574,092		78,037,693	x	x	x	x	
Information Technology	Hewlett-Packard	AQ	AQ	86		21	2,449,378	303,844	2,145,534	2,094,321	5,926,506	x	x	x	x	
Consumer Discretionary	Home Depot	AQ	AQ	11	NP											
Industrials	Honeywell International	AQ	AQ	7												
Health Care	Hospira	AQ	NR	53	NP											
Financials	Host Hotels & Resorts	DP	NR													
Financials	Hudson City Bancorp	IN	IN													
Health Care	Humana	AQ	AQ	69		5	137,218	12,238	124,980	*	18,200	x				
Financials	Huntington Bancshares	AQ	AQ	1												
Industrials	Illinois Tool Works	AQ	AQ	59	NP											
Health Care	IMS Health	NR	DP													
Industrials	Ingersoll-Rand	AQ	AQ	50		44	577,864	148,446	429,418							
Utilities	Integrus Energy Group	NR	AQ													
Information Technology	Intel	AQ	AQ	78		93	3,500,000	1,000,000	2,500,000	1,800,000	43,670,000	x	x	x	x	
Financials	IntercontinentalExchange	NR	DP													
Information Technology	IBM	AQ	AQ	77		29	2,961,791	580,344	2,381,447	2,214,000						
Materials	International Flavors & Fragrances	AQ	NR	56	NP											
Consumer Discretionary	International Game Technology	NR	NR													

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Materials	International Paper	AQ	AQ	57		641	15,916,055	10,961,781	4,954,274		2,000,000	x				
Consumer Discretionary	Interpublic Group of Companies	AQ	AQ	36	NP											
Information Technology	Intuit	AQ	AQ	23		14	41,525	6,840	34,685		30,088	x			x	
Health Care	Intuitive Surgical	NR	-													
Financials	Invesco	NR	-													
Industrials	ITT	AQ	AQ	67		26	302,609	85,156	217,453	*	21,509	x				
Information Technology	Jabil Circuit	AQ	NR	66		38	488,145	23,811	464,334		16,021	x				
Industrials	Jacobs Engineering Group	NR	NR													
Financials	Janus Capital Group	AQ	AQ	32	NP											
Consumer Discretionary	J.C. Penney	AQ	AQ	52		61	1,216,850	103,850	1,113,000		7,251	x				
Information Technology	JDS Uniphase	AQ	AQ	43		39	59,797	8,376	51,421		5,466	x				
Consumer Staples	J.M. Smucker	IN	-													
Health Care	Johnson & Johnson	AQ	AQ	83		21	1,327,272	356,729	970,543	*	369,673	x				
Consumer Discretionary	Johnson Controls	AQ	AQ	69		45	1,714,631	458,324	1,256,307	*	72,813	x				
Consumer Discretionary	Jones Apparel Group	NR	NR													
Financials	JPMorgan Chase	AQ	AQ	74		9	952,646	69,709	882,937		129,251	x				
Information Technology	Juniper Networks	AQ	AQ	66		16	55,655	3,592	52,063		19,045	x				
Consumer Discretionary	KB Home	AQ	AQ	58		14	42,204	0	42,204	*						
Consumer Staples	Kellogg Company	AQ	AQ	45		105	1,339,949	602,131	737,818							
Financials	KeyCorp	DP	NR													
Consumer Staples	Kimberly-Clark	AQ	AQ	64		309	5,994,424	2,682,694	3,311,730		693,211	x	x			
Financials	Kimco Realty	NR	NR													
Health Care	King Pharmaceuticals	NR	NR													
Information Technology	KLA-Tencor	DP	NR													
Consumer Discretionary	Kohl's	AQ	AQ	68		50	816,144	27,156	788,988	*	182,154		x			
Consumer Staples	Kraft Foods	AQ	AQ	68		61	2,581,279	1,339,442	1,241,837		1,032,810	x	x			
Consumer Staples	Kroger	AQ	AQ	18	NP											
Industrials	L-3 Communications Holdings	DP	NR													
Health Care	Laboratory Corporation of America	NR	NR													
Financials	Legg Mason	AQ	AQ	37						*						
Consumer Discretionary	Leggett & Platt	AQ	DP	42	NP											
Consumer Discretionary	Lennar	DP	DP													
Financials	Leucadia National	DP	NR													
Information Technology	Lexmark International	AQ	AQ	53		43	196,454	19,353	177,101		10,916	x				
Health Care	Life Technologies	AQ	-	67		55	89,102	38,592	50,510	*						
Consumer Discretionary	Limited Brands	AQ	AQ	74		38	385,008	31,631	353,377		254,767	x	x			
Financials	Lincoln National	NR	NR													
Information Technology	Linear Technology	NR	NR													
Industrials	Lockheed Martin	IN	DP													
Consumer Discretionary	Loews	NR	DP													
Consumer Staples	Lorillard	NR	-													
Consumer Discretionary	Lowe's	AQ	NR	57	NP											
Information Technology	LSI	AQ	AQ	76		34	91,651	7,623	84,028		7,491	x				
Consumer Discretionary	Macy's	AQ	AQ	14	NP											

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Industrials	Manitowoc	DP	NR													
Energy	Marathon Oil	AQ	AQ	59		259	18,640,000	14,010,000	4,630,000	*	8,000	x				
Consumer Discretionary	Marriott International	AQ	AQ	44		217	2,800,122	568,938	2,231,184							
Financials	Marsh & McLennan	AQ	AQ(L)	32	NP											
Financials	Marshall & Ilsley	AQ	AQ(L)	19	NP											
Industrials	Masco	AQ	AQ	53		68	657,454	289,170	368,284							
Energy	Massey Energy	NR	-													
Information Technology	MasterCard	AQ	-	51	NP											
Consumer Discretionary	Mattel	AQ	AQ	30		39	233,494	21,155	212,339							
Financials	MBIA	NR	AQ													
Consumer Staples	McCormick & Company	AQ	AQ	61		19	60,469	11,997	48,472							
Consumer Discretionary	McDonald's	AQ	AQ	38	NP											
Consumer Discretionary	McGraw-Hill	AQ	AQ	36		16	99,331	13,967	85,364							
Health Care	McKesson	AQ	AQ	37							32,892	x				
Materials	MeadWestvaco	AQ	AQ	62		426	2,827,865	2,120,126	707,739							
Health Care	Medco Health Solutions	AQ	AQ	68		1	69,914	3,230	66,684							
Health Care	Medtronic	AQ	AQ	58		18	249,335	25,229	224,106							
Information Technology	MEMC Electronic Materials	NR	NR													
Health Care	Merck & Co.	AQ	AQ	71		50	1,187,582	663,506	524,076	*	60,595	x				
Consumer Discretionary	Meredith	AQ	AQ	0												
Financials	Merrill Lynch (see Bank of America)	AQ	AQ													
Financials	MetLife	AQ	NR	57	NP											
Information Technology	Microchip Technology	NR	NR													
Information Technology	Micron Technology	AQ	DP	17		314	1,836,563	779,055	1,057,508							
Information Technology	Microsoft	AQ	AQ	70		14	845,925	46,066	799,859	*	347,738 [†]	x		x	x	
Health Care	Millipore	AQ	AQ	57		91	145,398	100,976	44,422							
Information Technology	Molex	AQ	AQ	33						*						
Consumer Staples	Molson Coors Brewing	AQ	AQ	73		234	1,118,636	680,831	437,805							
Materials	Monsanto	AQ	AQ	49		183	2,081,000	1,287,000	794,000							
Industrials	Monster Worldwide	NR	NR													
Financials	Moody's	AQ	AQ(L)	23	NP											
Financials	Morgan Stanley	AQ	AQ	54		6	350,024	7,609	342,415		71,711	x				
Information Technology	Motorola	AQ	AQ	52		18	531,661	38,768	492,893		136,866	x				
Financials	MT&T Bank	AQ	AQ	74	NP											
Energy	Murphy Oil	DP	DP													
Health Care	Mylan	NR	NR													
Energy	Nabors Industries	NR	DP													
Financials	NASDAQ OMX Group	NR	-													
Financials	National City	DP	AQ													
Energy	National-Oilwell Varco	NR	NR													
Information Technology	National Semiconductor	AQ	NR	55		181	340,884	168,495	172,389							
Information Technology	NetApp	AQ	AQ(L)	23												
Consumer Discretionary	New York Times	AQ	AQ	17	NP											
Consumer Discretionary	Newell Rubbermaid	NR	AQ													

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Materials	Newmont Mining	AQ	AQ	70		859	5,325,543	4,138,189	1,187,354	268,947						
Consumer Discretionary	News Corporation	AQ	AQ	75		19	637,274	108,931	528,343		177,650	x			x	x
Utilities	Nicor	NR	DP													
Consumer Discretionary	NIKE	AQ	AQ	41		6	109,284		109,284		1,526,404	x	x		x	
Utilities	NiSource	AQ	AQ	50		3,303	29,314,067	29,054,546	259,521		2,459,491			x		
Energy	Noble Corporation	NR	DP													
Energy	Noble Energy	AQ	NR	21		669	2,493,869	2,493,869								
Consumer Discretionary	Nordstrom	AQ	NR	22	NP											
Industrials	Norfolk Southern	AQ	AQ	11												
Financials	Northern Trust	AQ	AQ	50		14	74,936	7,759	67,177		10,483	x				
Industrials	Northrop Grumman	AQ	AQ	42												
Information Technology	Novell	NR	NR													
Information Technology	Novellus Systems	AQ	AQ	56	NP											
Materials	Nucor	DP	NR													
Information Technology	NVIDIA	AQ	AQ	34		6	23,296	1,318	21,978		4,379	x				
Financials	NYSE Euronext	NR	NR													
Energy	Occidental Petroleum	AQ	AQ	41		665	16,100,000	10,100,000	6,000,000							
Consumer Discretionary	Office Depot	AQ	AQ	55		33	485,600	96,300	389,300		49,000		x			
Consumer Discretionary	Omnicom Group	AQ	AQ	49		15	198,227	52,651	145,576		154,007	x				
Information Technology	Oracle	AQ	AQ	35												
Industrials	PACCAR	DP	DP													
Materials	Pactiv	NR	DP													
Industrials	Pall	AQ	AQ	59		61	156,779	44,147	112,632							
Industrials	Parker-Hannifin	AQ	AQ	48	NP											
Health Care	Patterson Companies	NR	NR													
Information Technology	Paychex	NR	NR													
Energy	Peabody Energy	NR	IN													
Financials	People's United Financial	NR	-													
Utilities	Pepco Holdings	AQ	AQ	87		284	3,038,868	2,959,112	79,756		1,488	x				
Consumer Staples	Pepsi Bottling Group	AQ	AQ	68		52	717,020	447,547	269,473		59,238		x			
Consumer Staples	PepsiCo	AQ	AQ	63		98	4,252,973	2,878,433	1,374,540		263,300				x	x
Health Care	PerkinElmer	AQ	AQ	44		32	61,747	20,723	41,024		8,461	x				
Health Care	Pfizer	AQ	AQ	75		42	2,018,769	1,017,810	1,000,959		120,820	x				
Utilities	PG&E	AQ	AQ	88		235	3,439,406	1,903,901	1,535,505		22,569,017			x		
Consumer Staples	Philip Morris International	NR	-													
Utilities	Pinnacle West Capital	AQ	AQ	51		4,844	16,310,917	16,290,019	20,898							
Energy	Pioneer Natural Resources	NR	-													
Industrials	Pitney Bowes	AQ	AQ	50		16	97,242	23,126	74,116							
Financials	Plum Creek Timber	AQ	AQ	67		107	173,407	42,276	131,131	2,000	89,256	x	x			
Financials	PNC Financial Services	DP	AQ(L)													
Consumer Discretionary	Polo Ralph Lauren	DP	NR													
Materials	PPG Industries	AQ	AQ	81		394	6,248,264	4,442,743	1,805,521		19,281	x				
Utilities	PPL	NR	AQ													
Materials	Praxair	AQ	AQ	83		1,244	13,428,346	3,695,830	9,732,516	*	265,292	x	x			
Industrials	Precision Castparts	NR	IN													

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Financials	Principal Financial Group	IN	IN													
Consumer Staples	Procter & Gamble	AQ	AQ	55		76	6,384,000	2,782,000	3,602,000							
Utilities	Progress Energy	AQ	AQ	67		5,445	49,918,840	49,918,840								
Financials	Progressive	AQ	AQ	56		19	237,688	146,873	90,815							
Financials	ProLogis	AQ	AQ	70		2	9,731	1,283	8,448		6,563	x				
Financials	Prudential Financial	AQ	AQ	64		3	95,456	7,176	88,280		15,730	x				
Utilities	Public Service Enterprise Group	AQ	AQ	88		1,962	26,138,959	24,287,856	1,851,103	*	42,593,087	x		x	x	
Financials	Public Storage	DP	DP													
Consumer Discretionary	Pulte Homes	AQ	NR	31												
Information Technology	QLogic	AQ	DP	44	NP											
Information Technology	Qualcomm	AQ	AQ	48		8	90,616	43,922	46,694							
Health Care	Quest Diagnostics	IN	IN													
Utilities	Questar	AQ	AQ	56		776	2,690,222	2,571,101	119,121							
Telecommunications	Qwest Communications International	AQ	AQ	58		102	1,372,627	168,467	1,204,160		9,324	x	x			
Industrials	R.R. Donnelley & Sons	NR	DP													
Consumer Discretionary	RadioShack	NR	NR													
Energy	Range Resources	AQ	AQ	12	NP											
Industrials	Raytheon	AQ	AQ	48		27	617,445	117,112	500,333							
Financials	Regions Financial	NR	NR													
Industrials	Republic Services	NR	-													
Consumer Staples	Reynolds American	AQ	AQ	59		39	349,377	144,979	204,398	*						
Industrials	Robert Half International	IN	IN													
Industrials	Rockwell Automation	AQ	AQ	64		17	96,150	9,980	86,170		17,870	x				
Industrials	Rockwell Collins	AQ	AQ(L)	61		28	132,231	12,764	119,467							
Materials	Rohm and Haas	AQ	AQ	39	NP											
Energy	Rowan Companies	AQ	AQ	21												
Industrials	Ryder System	AQ	AQ	61		109	675,216	565,488	109,728							
Consumer Staples	Safeway	IN	IN													
Information Technology	salesforce.com	NR	-													
Information Technology	SanDisk	DP	DP													
Consumer Staples	Sara Lee	AQ	AQ	61		71	940,350	341,057	599,293							
Health Care	Schering-Plough	AQ	AQ	85		54	1,004,144	446,987	557,157		32,416	x				
Energy	Schlumberger	AQ	AQ	64		70	1,890,000	1,500,000	390,000	*	1,332,000	x	x		x	
Consumer Discretionary	Scripps Networks Interactive	NR	-													
Materials	Sealed Air	AQ	AQ	58		155	751,346	258,456	492,890							
Consumer Discretionary	Sears Holdings	AQ	NR	53		95	4,818,277	218,679	4,599,598							
Utilities	Sempra Energy	AQ	NR	41		971	10,441,679	9,906,141	535,538							
Consumer Discretionary	Sherwin-Williams	AQ	AQ	57		77	615,848	286,293	329,555							
Materials	Sigma-Aldrich	AQ	AQ	36		76	168,031	37,831	130,200							
Financials	Simon Property Group	AQ	AQ	86		189	715,982	26,068	689,914	*	2,876	x				x
Financials	SLM	DP	NR													
Energy	Smith International	AQ	AQ	40	NP											
Consumer Discretionary	Snap-on	AQ	DP	12	NP											
Utilities	Southern	AQ	AQ	48		8,241	141,137,000	141,137,000								

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Industrials	Southwest Airlines	IN	DP													
Energy	Southwestern Energy	NR	-													
Financials	Sovereign Bancorp (See Banco Santander)	AQ	-													
Energy	Spectra Energy	AQ	AQ	88		2,175	11,035,854	9,614,164	1,421,690		4,419	x				
Telecommunication	Sprint Nextel	AQ	AQ	57		58	2,083,274	68,057	2,015,217		37,307	x				
Health Care	St. Jude Medical	DP	DP													
Consumer Discretionary	Stanley Works	AQ	AQ	75		48	212,936	50,746	162,190		533,119	x	x	x		
Consumer Discretionary	Staples	AQ	AQ	60		20	396,600	62,400	334,200							
Consumer Discretionary	Starbucks	AQ	AQ	48		88	913,000	228,250	684,750							
Consumer Discretionary	Starwood Hotels & Resorts Worldwide	AQ	AQ	52	NP											
Financials	State Street	AQ	AQ	63		9	120,000	5,000	115,000	90,000	13,500	x				
Industrials	Stericycle	DP	-													
Health Care	Stryker	IN	NR													
Information Technology	Sun Microsystems	AQ	AQ	55		17	241,702	9,670	232,032		81,926	x				
Energy	Sunoco	NR	NR													
Financials	SunTrust Banks	AQ	AQ(L)	29												
Consumer Staples	SUPERVALU	AQ	NR	32	NP											
Information Technology	Symantec	AQ	AQ	52		28	163,243	0	163,243	*	54,000	x				
Consumer Staples	Sysco	IN	AQ													
Financials	T. Rowe Price Group	AQ	AQ	69	NP											
Consumer Discretionary	Target	AQ	AQ	48		46	2,938,374	243,440	2,694,934							
Utilities	TECO Energy	AQ	IN	70		4,077	13,762,234	13,762,234								
Information Technology	Tellabs	AQ	AQ	48	NP											
Health Care	Tenet Healthcare	NR	DP													
Information Technology	Teradata	AQ	AQ	38	NP											
Information Technology	Teradyne	AQ	AQ	53		22	24,208	2,468	21,740		8,398	x				
Energy	Tesoro	NR	DP													
Information Technology	Texas Instruments	AQ	AQ	56												
Industrials	Textron	AQ	AQ	32	NP											
Health Care	Thermo Fisher Scientific	AQ	AQ	50												
Consumer Discretionary	Tiffany & Co.	AQ	AQ	50	NP											
Consumer Discretionary	Time Warner	AQ	AQ	41		9	428,833	39,244	389,589		57,363	x				
Materials	Titanium Metals	DP	DP													
Consumer Discretionary	TJX Companies	IN	IN													
Financials	Torchmark	NR	NR													
Information Technology	Total System Services	AQ	AQ	22	NP											
Energy	Transocean	AQ	AQ	79		170	2,152,970	2,148,208	4,762		1,803,735	x	x			
Financials	Travelers Companies	AQ	AQ	57		4	94,623	41,841	52,782							
Information Technology	Tyco Electronics	AQ	AQ	31												
Industrials	Tyco International	AQ	AQ	55	NP											
Consumer Staples	Tyson Foods	NR	DP													
Financials	U.S. Bancorp	AQ	AQ	59		20	384,143	35,809	348,334		22,107	x				
Industrials	Union Pacific	AQ	AQ	39												
Industrials	United Parcel Service	AQ	AQ	82		257	13,254,000	12,148,866	1,105,134		2,357,467	x	x	x		
Materials	United States Steel	AQ	AQ	67		2,081	49,427,981	45,086,791	4,341,190							

Carbon Disclosure Project

Sector	Company	2009	2008	CDLI Score	Non-public	Intensity ¹	Total Emissions ²	Scope 1	Scope 2 Grid Average	Scope 2 Contract Arrangements ³	Scope 3 ⁴	Business Travel	Logistics and Distribution	Use & Disposal of Products & Services	Supply Chain	Other
Industrials	United Technologies Corporation	AQ	AQ	70		35	2,081,907	968,080	1,113,827	*	76,028	x				
Health Care	UnitedHealth Group	AQ	AQ	33												
Financials	Unum Group	AQ	AQ	56		4	40,121	10,394	29,727							
Consumer Staples	UST (See Altria) ⁶	AQ	NR													
Consumer Discretionary	V.F. Corporation	DP	DP													
Energy	Valero Energy	AQ	NR	51	NP											
Health Care	Varian Medical Systems	NR	NR													
Information Technology	Verisign	NR	NR													
Telecommunications	Verizon Communications	AQ	AQ	41		64	6,270,714	527,802	5,742,912							
Consumer Discretionary	Viacom	AQ	AQ	14	NP											
Financials	Vornado Realty Trust	NR	AQ													
Materials	Vulcan Materials	IN	NR													
Industrials	W. W. Grainger	AQ	AQ	42	NP											
Financials	Wachovia	AQ	AQ													
Consumer Staples	Wal-Mart Stores	AQ	AQ	89		56	21,066,956	5,566,006	15,500,950	3,563						
Consumer Staples	Walgreens	AQ	AQ	46		37	2,180,000	268,000	1,912,000							
Consumer Discretionary	Walt Disney	AQ	AQ	46		44	1,649,042	566,042	1,083,000							
Consumer Discretionary	Washington Post	IN	NR													
Industrials	Waste Management	AQ	AQ	60												
Health Care	Waters	IN	IN													
Health Care	Watson Pharmaceuticals	NR	NR													
Energy	Weatherford International	AQ	NR	56	NP											
Health Care	WellPoint	AQ	DP	71		3	181,100	8,539	172,561		100,962	x				
Financials	Wells Fargo & Company (See Wachovia)	AQ	AQ	17												
Information Technology	Western Union	DP	NR													
Materials	Weyerhaeuser	AQ	AQ	56		376	3,017,352	1,700,061	1,317,291							
Consumer Discretionary	Whirlpool	AQ	AQ	55		46	866,334	259,193	607,141	*	133,000,000			x		
Consumer Staples	Whole Foods Market	AQ	AQ	30												
Energy	Williams Companies	AQ	AQ	36		1,449	17,900,000	16,900,000	1,000,000							
Telecommunications	Windstream	AQ	AQ	16	NP											
Utilities	Wisconsin Energy	AQ	-	31												
Health Care	Wyeth	AQ	AQ	57		50	1,144,236	567,580	576,656							
Consumer Discretionary	Wyndham Worldwide	IN	AQ													
Consumer Discretionary	Wynn Resorts	DP	-													
Utilities	Xcel Energy	AQ	AQ	85		5,598	62,709,863	62,650,466	59,397		27,375	x				
Information Technology	Xerox	AQ	AQ	59		23	408,862	154,493	254,369							
Information Technology	Xilinx	AQ	AQ	47	NP											
Financials	XL Capital	AQ	AQ	10	NP											
Energy	XTO Energy	AQ	AQ	35		725	5,575,267	4,922,450	652,817							
Information Technology	Yahoo!	AQ	AQ	22	NP											
Consumer Discretionary	Yum! Brands	IN	NR													
Health Care	Zimmer Holdings	AQ	AQ	45												
Financials	Zions Bancorporation	AQ	AQ	29	NP											

- 1 Scopes 1 and 2 emissions totals divided by annual US\$ million revenues, based on revenue figures retrieved from the Bloomberg database as of June 18, 2009.
- 2 Scope 1 and Scope 2 grid average reported emissions.
- 3 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 response.
- 4 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 †) the company did provide data for non-transfer emissions under 13.5 and CDP advises you to look at their full response for details of these emissions.
- 5 A few companies also submitted amended responses after the analysis cut-off date; these and other late responses, if public, appear on the CDP web site. As of this publishing date, this included Cooper Industries."
- 6 UST was acquired by Altria on January 6, 2009. For the purposes of this analysis, UST submitted a separate survey.

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