Institutional Investor Summit on Climate Risk

May 10, 2005
United Nations Headquarters
New York City

Final Report

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Denise L. Nappier • *Treasurer, State of Connecticut*

Co-Hosts

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Foreword

Climate change is rapidly emerging as a significant environmental and economic challenge, which can only be expected to intensify as the worldwide demand for energy increases and the search for cleaner sources of energy expands. The ramifications of climate change extend to businesses in countless industries, their shareholders around the world, and the global economy.

The financial implications of global warming raise serious and substantive questions for fiduciaries concerned about the safety and soundness of all investments. While governments must respond promptly and effectively to the environmental threat, investors must be provided with sufficient information to adequately consider the risks to their portfolios. As a growing risk factor that could adversely affect individual and institutional investments, climate change cannot be ignored when analyzing corporate and investment risk profiles.

To consider this important issue, we convened the second Institutional Investor Summit at the United Nations on May 10, 2005. More than 400 institutional investors, fund managers, financial advisors, and other experts from fifteen countries and four continents participated. This meeting followed the very successful initial Summit of financial leaders concerned about climate change in November 2003, where ten institutional investors launched the Investor Network on Climate Risk (INCR) to promote better understanding of the risks of climate change among institutional investors. The group has grown dramatically, now including 45 members with assets of $2.7 trillion (more information is available at www.incr.com).

The 2005 Summit was an extraordinary meeting, with thoughtful engagement by leaders across the investment community. We also heard from experts in science, business, and government, and engaged in a conversation among peers about actions investors need to take to minimize the financial risks of climate change. For some it marked the continuation of an ongoing dialogue, for many others it was the beginning of an important education process.

In conjunction with the Summit, 28 leading U.S. and European institutional investors managing over $3 trillion in assets released a 10-point action plan on "Managing Climate Risk and Capturing the Opportunities." It calls on U.S. companies, Wall Street firms and the Securities and Exchange Commission to intensify efforts to provide investors with comprehensive analysis and disclosure about the financial risks presented by climate change. The group also pledged to invest $1 billion in prudent emerging business opportunities to tap into the new market of clean technologies.

The opportunities related to climate change are manifold. Newly developed clean technologies will be in increasing demand as regulatory and policy leaders respond to the need to reduce greenhouse gas emissions to mitigate the impact of climate change. As the world moves to restrain emissions and as energy markets shift, technologies that are already emerging include advanced vehicles, clean coal, energy efficiency, new biofuels, renewable electricity, and the smart electric power grid.

Summit Co-Chair Timothy Wirth, President, United Nations Foundation

Summit Co-Chair Denise Nappier, Treasurer, State of Connecticut

Summit Co-Host Mindy Lubber, President, Ceres

Summit Co-Host Amir Dossal, Executive Director, UN Fund for International Partnerships

As some of the physical impacts from climate change have become increasingly evident, there has been widespread regulatory action around the world to curb greenhouse gas emissions, which scientists agree are a major factor in global warming. The regulatory and physical effects of climate change will present both new obligations and opportunities for corporations, investors and governments. Those with fiduciary responsibilities have a particular duty to examine this issue and how it affects their obligation to beneficiaries.

The Institutional Investor Summit on Climate Risk would not have been possible without the dedication and commitment of dozens of people. We wish to extend our sincere thanks to United Nations Secretary-General Kofi Annan for his leadership and support, and it is worth recalling his encouraging words for the Summit—"As investors from four continents, and as leaders of the financial community, you are essential to our ability to slow down climate change and mitigate its worst effects." Hosting the meeting at UN Headquarters provided the right international perspective. We also appreciate the willingness of the Summit conveners to step forward and join us in leading the effort to educate others about this complex and critical issue. Finally, we thank staff members at the Connecticut Treasurer's Office, the United Nations Foundation, the United Nations Fund for International Partnerships, and Ceres for their hard work organizing this landmark meeting.

With the extraordinary success of the 2003 and 2005 Investor Summits, we have identified the challenges and opportunities that merit our attention as we move forward. We welcome your continued involvement and input in achieving progress in addressing the financial impact of climate change.

Timothy E. Wirth
President
United Nations Foundation
Co-Chair

Denise L. Nappier
Treasurer
State of Connecticut
Co-Chair

Mindy S. Lubber
President
Ceres
Co-Host

Amir A. Dossal
Executive Director
United Nations Fund for
International Partnerships
Co-Host

Executive Summary

More than 400 institutional investors, fund managers, financial advisors, and other experts from fifteen countries and four continents gathered at the United Nations on May 10, 2005 for the 2005 Institutional Investor Summit on Climate Risk. The participants engaged in peer-to-peer discussions with leading scientists, investors, and business leaders on how investors can minimize climate risk and maximize opportunities, especially from new clean energy technologies.

The Summit took place in the Economic and Social Council Chamber of the United Nations

Speakers who addressed the gathering included Harvard University Professor John Holdren, former Treasury Secretary Paul O'Neill, London Pensions Fund Authority Chief Executive Peter Scales, former Vice President Albert Gore, Jr., and Ceres President Mindy Lubber. Investor speakers included Connecticut Treasurer Denise Nappier, New York City Comptroller William Thompson, Jr., CalSTRS CEO Jack Ehnes, and California Controller Steve Westly.

United Nations speakers included UN Fund for International Partnerships Executive Director Amir Dossal, UN Foundation President Timothy Wirth, UN Environment Programme Executive Director Klaus Töpfer, and UN Foundation Chairman Ted Turner. Corporate and Wall Street speakers included Swiss Re Managing Director Richard Murray, Capital Group Executive Vice President Michael Johnston, Goldman Sachs Chief U.S. Portfolio Strategist Abby Joseph Cohen, and Cinergy CEO James Rogers.

Presenters noted that:

- Recent scientific developments show increased evidence that humans are disrupting the climate and climate change is causing adverse impacts on human beings and the global environment.
- For investors and firms, climate change poses both immense dangers to those who fail to act and immense opportunities to reduce risks while increasing profits. The best opportunities in the short term are in improving energy efficiency, but long term investment will be needed in technologies that produce energy using little or no fossil fuels.
- Businesses are reducing their climate risk and improving productivity by voluntarily reducing their emissions, although they need government to provide certainty by establishing mandatory emissions limits. Businesses are also disclosing important information to investors through sustainability reports and special climate risk reports, such as those published by electric power companies in 2004 and 2005.
- A growing number of investors are concerned about climate change. The number of investors participating in the Investor Network on Climate Risk (INCR) has quadrupled since the 2003 Institutional Investor Summit on Climate Risk, and the collective assets of INCR members increased from $600 billion to $2.7 trillion—an increase of 450 percent.
- Leading institutional investors have reason to be concerned about the impact of climate risk on their portfolios, and have been successful in urging companies to increase disclosure of climate risk by engaging the companies with an enduring shareholder campaign. Despite these successes, investors are still frustrated with the Securities and Exchange Commission, which has done little to mandate disclosure of climate risk, and with many companies which have not yet taken proactive steps to address climate risk.
- Investors face obstacles in addressing climate risk, including Wall Street's focus on short-term profits over building greater wealth over the long term, and a lack of substantial data from companies about the risks and opportunities they face.

In addition, 28 leading institutional investors from the United States and Europe, who manage over $3 trillion in assets, announced a ten-point action plan which calls on investors, leading financial institutions, businesses, and government to address climate risk and seize investment opportunities (see Appendix A and www.incr.com for more information). The plan represents the first time that American and European investors have cooperated on a comprehensive climate risk initiative.

The 2005 action plan, which builds on the 2003 plan signed by 14 investors, calls on U.S. companies, Wall Street firms and the Securities and Exchange Commission to intensify efforts to provide investors with comprehensive analysis and disclosure about the financial risks presented by climate change. The group also pledged to invest $1 billion in prudent business opportunities emerging from the drive to reduce greenhouse gas emissions.

The Institutional Investor Summit on Climate Risk was attended by financial, corporate and investor leaders (see Appendix E for a list of participating organizations). The Summit would not have been possible without the generous support of our United Nations sponsors, foundation sponsors, underwriters and contributors (please see inside back cover for a complete list of Summit sponsors).

The conference was organized by Ceres, co-chaired by Connecticut Treasurer Denise Nappier and United Nations Foundation President Timothy Wirth, and co-hosted by Ceres President Mindy Lubber and the United Nations Fund for International Partnerships Executive Director Amir Dossal. United Nations Secretary-General Kofi Annan addressed the Summit through a video message, and UNEP Executive Director Klaus Töpfer welcomed the group to the UN.

Summit Agenda

MAY 10, 2005

9:30 AM Welcoming Remarks (Economic & Social Council Chamber)
- **Amir A. Dossal**, *Executive Director, UN Fund for International Partnerships (Co-Host)*
- **Kofi Annan**, *Secretary-General, United Nations (via video)*
- **Denise L. Nappier**, *Treasurer, State of Connecticut (Co-Chair)*
- **Timothy E. Wirth**, *President, United Nations Foundation (Co-Chair)*

10:00 AM Climate Risk, New Technologies and Opportunities
- **John Holdren**, *Professor, Harvard University*

10:30 AM Turning Climate Risk into Opportunity
- **Paul O'Neill**, *Former Treasury Secretary and Former CEO, Alcoa*

11:00 AM Q&A / Discussion

12:00 PM Addressing Climate Risk and Opportunities: Pension Fund Perspectives

Denise L. Nappier, *Treasurer, State of Connecticut (Moderator)*
- **William C. Thompson, Jr.**, *Comptroller, City of New York*
- **Jack Ehnes**, *CEO, California State Teachers' Retirement System (CalSTRS)*
- **Peter Scales**, *Chair, Institutional Investors Group on Climate Change & Chief Executive, London Pensions Fund Authority*

12:30 PM Discussion

1:00 PM Luncheon (Delegates Dining Room, hosted by Swiss Re)
- *Luncheon Welcome:* **Richard H. Murray**, *Managing Director & Chief Claims Strategist, Swiss Re*
- *UN Welcome:* **Klaus Töpfer**, *Executive Director, United Nations Environment Programme*
- *Featured Speaker:* **Ted Turner**, *Chairman, United Nations Foundation*

2:30 PM Addressing Climate Risk and Opportunities: Investment Manager and Company Perspectives

Michael J. Johnston, *Executive Vice President, The Capital Group Companies (Moderator)*
- **Abby Joseph Cohen**, *Partner & Chief U.S. Portfolio Strategist, Goldman Sachs*
- **James Rogers**, *Chairman, President and CEO, Cinergy Corp.*

3:15 PM Climate Change: An Opportunity for Investor, Business and Government Leadership

Albert Gore, Jr., *Former Vice President and Chairman, Generation Investment Management*

3:45 PM Investor Action Plan to Manage Climate Risk and Capture the Opportunities
- **Steve Westly**, *Controller, State of California and Board Member, CalPERS/CalSTRS*

4:00 PM Discussion
- **Albert Gore, Jr.** *(Moderator)*

4:45 PM Conclusions and Next Steps
- **Timothy E. Wirth**, *President, United Nations Foundation*
- **Mindy S. Lubber**, *President, Ceres and Director, Investor Network on Climate Risk (Co-Host)*

Climate Risk, New Technologies and Opportunities

Dr. John Holdren, Professor, Harvard University

The Summit was launched with a warm welcome via video from Kofi Annan, Secretary-General of the United Nations, who encouraged investors to "point the way toward smart policies and breakthrough technologies for energy and transport." The Secretary-General proposed that, as leaders in the investment community, Summit participants had the opportunity to slow down climate change and mitigate its worst effects.

Harvard Professor John Holdren, one of the world's preeminent climate change scientists, kicked off the Summit by discussing:

- the problem of climate change
- what climate change means and the magnitude of the threat
- recent developments in climate change science
- finding the leverage for risk reduction
- recommendations for action

The Problem of Climate Change in a Nutshell

Dr. Holdren described climate change as the "most dangerous and most intractable of all the environmental problems caused by human activity."

It is the most dangerous because:

- global climate is the "envelope" in which all other environmental systems operate
- distortions in climate are likely to affect every dimension of human well-being

Climate change is the most intractable of environmental problems because:

- the main cause of climate change is the emission of carbon dioxide (CO_2) from the burning of fossil fuels
- 80% of civilization's energy is supplied by the burning of fossil fuels
- the energy technologies involved in the burning of fossil fuels represent a huge capital investment (about $12 trillion worldwide) that turns over very slowly (approximately once every 20–30 years)
- current policies by governments, firms, investors, and consumers are doing little to mitigate human-induced climate change and often exacerbate the problem

As damage from climate change becomes more apparent, governments, policy makers, and publics will seek damage-limiting options. While good management strategies exist at reasonable costs, it will take resolve, insight and initiative to get them deployed. Countries that are willing to deploy such strategies early will benefit; laggards will suffer.

Differences of merely a few degrees in global average surface temperature correspond to dramatic changes in climatic state. The difference in the global average surface temperature between an Ice Age and the current Interglacial Period is only about 5 degrees Centigrade.

Investors and money managers should concern themselves with climate change because embedded in the challenge of climate change are both:

- ***immense dangers*** for firms and investors who make bad choices (or no choices) about how to respond to the risks posed by climate change and are then held accountable in the marketplace, the boardroom, or the courts; and
- ***immense possibilities*** for firms and investors to turn challenge into opportunity, acting prudently and creatively to help society reduce the risks it faces from climate change… and making money doing so.

Recent Developments in Climate Change Science

Recent scientific developments show increased evidence of human disruption of climate and adverse impacts from climate change, including regional studies which indicate that regional impacts could be large, even when changes in global surface temperature are modest.

Strengthening Signs of Human Disruption of Climate

Recent studies of glaciers, bore holes, and corals indicate that the Earth is in its warmest period in more than 1000 years. In the 140-plus years of thermometer records of global temperatures, the 5 hottest years have occurred within the last 8 years. In fact, after 1998, the years 2001 through 2004 are the hottest years on record.

Additionally, modeling and statistical analysis of past climates have converged to produce a strengthened consensus that a doubling of the pre-industrial concentration of carbon dioxide would lead to an increase of global average temperatures of about 3°C. Evidence is strong that the atmosphere is headed for a doubling of CO_2 by 2050, and a tripling by 2100, resulting in large effects on the average surface temperature of the planet and thus on the climatic patterns upon which humans depend.

"The problem of disruption of global climate by human-produced greenhouse gases is coming to be understood as the most dangerous and most intractable of all of the environmental problems that are caused by human activity."

Professor John Holdren

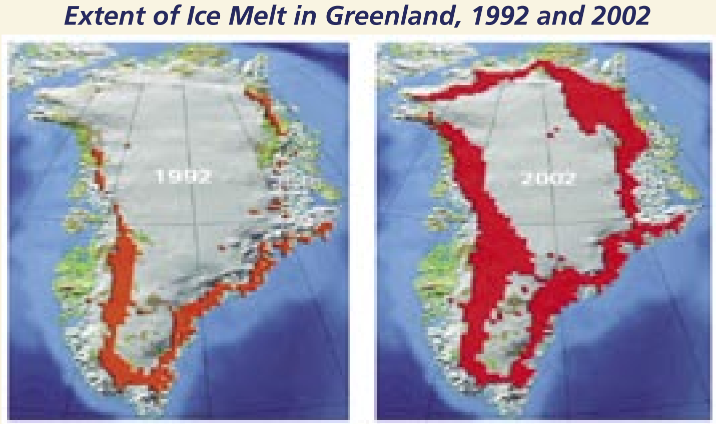
Growing Evidence of the Adverse Affects of Climate Change

Since the landmark 2001 *Third Assessment Report* by the Intergovernmental Panel on Climate Change, evidence has grown showing links between greenhouse gas-induced climate change and dangerous weather-related events. These include deadly heat waves, more intense storms, more frequent droughts and floods, and greater adverse impacts on agricultural productivity.

Professor Holdren discussed growing evidence of the link between anthropogenic climate change and catastrophic regional events. Examples of regional impacts include:

- ***National Assessment of Climate Change*** predicts that impacts on the U.S. include drying out in the Northwest, reduced summer soil moisture in the breadbasket, and large increases in the summer heat index in the Southeast.
- Chinese and Indian studies show disruptive monsoon changes, as well as loss of mountain glaciers that feed the great rivers in those countries, portending large increases in variability (flood and drought).

Extent of Ice Melt in Greenland, 1992 and 2002



Source: Arctic Climate Impact Assessment (2004)

- ***The Millennium Ecosystem Assessment*** showed wildfires have been increasing on all continents—particularly sharply in North America—and this trend is predicted to increase under even moderate further increases in global average surface temperature.
- The 8-Nation ***Arctic Climate Impact Assessment*** shows that over the past 30 years, the annual average sea-ice extent has decreased by about 8%, or nearly 1 million square kilometers. Sea-ice extent in summer has declined more dramatically than the annual average, with a loss of 15–20% of late-summer ice coverage. Additional declines of 10-50% in annual average sea-ice extent are projected by 2100.

Finding the Leverage for Climate Risk Reduction

To help investors work with companies to reduce the risks of climate change, Dr. Holdren outlined key leverage points:

1. Reduce CO_2 from the energy sector, which is both the most important and the most difficult goal to achieve
2. Create suitable CO_2 targets
3. Research and support technical and policy approaches for reducing CO_2 emissions and intensity

Reducing CO_2 from the Energy Sector is Both the Most Important and the Most Difficult Goal

Increasing concentrations of GHGs and black soot in the atmosphere are the dominant drivers of global climate change. CO_2 is already the most important of all greenhouse gases, accounting for about half of the total positive anthropogenic forcing in 2000, and fossil-fuel combustion is the dominant source of anthropogenic CO_2 emissions. Reducing CO_2 emissions will be difficult because fossil-fuel combustion provides almost 80% of civilization's energy and today's technologies do not lend themselves to capturing and sequestering CO_2.

Suitable CO_2 Targets

There is no formal consensus on determining suitable levels of CO_2 emissions. However, it is clear that significant impacts—including floods, droughts, wildfires, extinction, and melting ice—are already evident at about 0.8°C above pre-industrial global temperatures, and current GHG concentrations commit us to about 0.6°C more. Dr. Holdren explained that it once was thought that a two-fold increase in CO_2 resulting in an average global temperature change of about 3°C could be acceptable, but is now deemed dangerous, as exhibited by the gravity of various scenarios:

- A change in average global temperature of about 1.5°C will mean the extinction of coral reefs and polar bears
- A change in average global temperature of about 2°C will mean catastrophic melting of Greenland and Antarctic ice, resulting in multi-meter rises in sea level
- A change in average global temperature of about 2.5°C will sharply reduce crop yields worldwide

In order to maintain CO_2 increases of less than two-fold, assuming "business as usual" growth of population and prosperity:

- The world needs a 6-fold increase in carbon-free energy by 2050, and a 15-fold increase by 2100, if energy efficiency continues to improve at the long-term historical rate of 1% per year.
- Only by doubling the efficiency improvement rate to 2% per year can the world reduce carbon-free energy requirements in 2100 to approximately the level of fossil-fuel use in 2000.

Technical and Policy Approaches for Reducing CO_2 Emissions and Intensity

Dr. Holdren discussed numerous technical and policy approaches which exist for reducing CO_2 emissions. Technical solutions include switching from coal and oil to natural gas, increasing deployment of renewable and nuclear energy options, and increasing the efficiency of energy end-use in buildings, transportation, and industry.

Some available policy solutions include measures to affect choices among currently available technologies. Examples of those are correction of perverse incentives, financing subsidies for targeted options, performance and portfolio standards, emission cap and trade programs, and taxes on carbon or energy. Also, measures to improve the mix of available technologies are helpful, including encouraging research, development and deployment with tax policy and other policies, promoting niche and pre-commercial deployment, and international transfer of resulting technologies.

Moreover, governments could take other steps to reduce emissions in the future. They include:

- ***Reduce Energy Intensity of GDP*** — Energy efficiency has been improving for some time and could be accelerated. This opportunity offers the largest, cheapest, and fastest leverage for reducing carbon emissions.
- ***Reduce Carbon Intensity of the Energy Supply*** — This factor has also been falling, but more slowly than energy intensity of GDP. Reducing it entails changing the mix of fossil and non-fossil energy sources (most importantly, more renewables and/or nuclear) and the characteristics of fossil-fuel technologies (most importantly, with carbon capture and sequestration).
- ***Reduce Population Growth*** — A smaller global population is important for numerous reasons beyond climate change, and can be achieved by measures that are attractive in their own right (e.g., education, opportunity, health care, and reproductive rights for women).

> ***"Immense possibilities exist for firms and investors to turn challenge into opportunity, acting prudently and creatively to help society reduce the risks that it faces from climate change."***
>
> **John Holdren**

Recommendations

Dr. Holdren emphasized that there is no quick fix for the problem of climate change, and that recommendations must be multi-faceted. He made four recommendations:

1. In the United States, ***impose a carbon emissions cap, implemented through tradable permits and declining over time***, to promote low- and no-carbon choices from the current energy-technology menu and increased private-sector innovation to improve the menu of choices over time.

2. Increase ***U.S. government investments*** in energy-technology innovation. This includes:
   - R&D and early deployment of low- and no-carbon energy-supply technologies and advances that increase energy-end-use efficiency (a doubling of investments or more)
   - International cooperation on energy technology innovation (tripling or more)

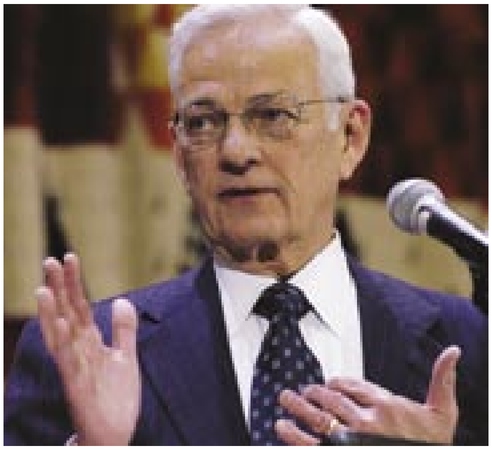
3. Sharply increase U.S. efforts—and U.S. support for international efforts—on ***adaptation to climate change***.

4. Return to the United Nations Framework for Climate Change process and help devise an adequate, affordable, and equitable ***global framework*** for reducing climate-change risks.

Professor Holdren described the recommendations of the National Commission on Energy Policy (NCEP), a bipartisan effort which included the CEO of a major oil company, a vice president of Ford Motor Company, the chairman of the board of Consumers Union, a former head of the Central Intelligence Agency, and a deputy secretary of energy under Ronald Reagan. The NCEP reached unanimous agreement on a set of recommendations relating to climate change, which are similar to Dr. Holdren's recommendations.

The Commission's report can be found at http://www.energycommission.org. Dr. Holdren's presentation and remarks by Summit speakers are available at http://www.incr.com.

Turning Climate Risk into Opportunity



Paul O'Neill, Former Treasury Secretary and Former CEO, Alcoa

Former United States Treasury Secretary Paul O'Neill followed Professor Holdren's presentation with a discussion of private sector opportunities in climate change, using his experience as CEO and Chairman of Alcoa as an example. In the 1990's both Dupont and Alcoa voluntarily sought to reduce or eliminate their emissions of two potent greenhouse gases: perfluorocarbons (PFCs) and sulfur hexafluoride (SF6). Alcoa's PFC emissions decreased from 17 million metric tons in 1990 to 3 million metric tons today. Likewise the firm reduced its SF6 emissions from 2.2 million metric tons to zero. This kind of improved efficiency and productivity has bottom-line economic value, in addition to the environmental justification.

Secretary O'Neill, an investor himself, stated that profits need not be sacrificed for altruism. If investors expect and demand excellence from companies, and invest in companies that achieve broad excellence, the returns will be substantial. He urged investors to be less concerned with financial numbers, and more concerned with the activities that result in the numbers.

Discussing the 2003 Alcoa sustainability report, Secretary O'Neill described the company's progress on environmental issues such as emissions and waste reductions, as well as other non-financial measures like worker safety and employee diversity, as proxies for the overall strength and quality of the organization.

Secretary O'Neill urged investors to push companies to produce sustainability reports. Because transparency is a key starting point to increasing efficiency and productivity, sustainability reports should give grounding facts followed up with policies and plans of action for reduction. Measurement and disclosure are powerful drivers for improvement: i.e., what gets measured gets managed. For example, in 1995 Alcoa set a target to reduce their greenhouse gas emissions by 25% by the year 2010, and by 2004, they had achieved a 28% reduction. The company has not stopped there, and their goal for GHG emissions is zero.

Secretary O'Neill said that certain issues—such as climate change mitigation and population control—need not be mired in the "conventional political process," where substance can be lost to advocacy.

"We are so far away from achieving a real productivity potential, in terms of getting more value out of the energy that we consume, that there's a huge opportunity."
Paul O'Neill

DISCUSSION: THE ROLE OF GOVERNMENT, COMPANIES, AND INVESTORS

Participants concluded the morning session with a strong sentiment that climate change science is convincing, the physical risks to businesses and societies are growing, and the financial risks to investors are significant. Likewise, these same risks equal economic opportunities for companies and investors who are willing to lead on energy efficiency, new technologies, and increased productivity.

The Role of Government

Several investors expressed frustration with the Securities and Exchange Commission on the issue of disclosure of climate risk. Many investors feel that the SEC inactivity on climate risk provides a barrier to productive discussions with corporate management. Investors argued that current and future carbon regulations at the international, national, regional, and state levels pose real, economic risks to companies—especially those in high-emitting sectors—that must be disclosed in the material risk section of 10-K reports.

Some participants argued that it is the SEC's job to ensure that investors have all the information they need to make prudent investment decisions. Secretary O'Neill, on the other hand, argued that government mandates for action by companies politicizes a subject that should be fact-based. He emphasized that fact-based measurement and reporting of sustainability measures provides real data that investors and managers can use both to assess risk and to assess opportunities.

The Role of Companies

Companies have two primary roles in climate change reduction: 1) manage risks associated with climate change, and 2) capitalize on opportunities.

With regard to risk management, investors agreed that "what gets measured gets managed" and "action will follow disclosure," so sustainability reporting is a critical first step in mitigating climate risk. However, there is a lack of standardization in climate reporting. Currently, several frameworks exist that companies should utilize for reporting: the Global Reporting Initiative, the Carbon Disclosure Project, and the Greenhouse Gas Protocol Initiative. Investors also discussed the new Climate Risk Disclosure Initiative (CRDI) announced by Ceres and the UN Environment Programme at the Summit. CRDI is designed to build in existing disclosure efforts by creating a generally-accepted global standard for climate risk disclosure.

Companies can also advance technologies and practices that lead to lower or no carbon emissions in the future. Throughout the day, Summit participants mentioned General Electric's new Ecomagination initiative, a commitment to invest $1.5 billion annually in research and development of cleaner technologies. The company also hopes to double its revenues from environmental technologies, and reduce its own GHG emissions by 1% (equal to an intensity reduction of 30%). GE expects this initiative to have significant economic benefits as the world continues to seek out more carbon-neutral alternatives.

"Action will follow increased disclosure as more people have a fact-based understanding of where they are and how much opportunity they have for improvement."

Paul O'Neill

In response to a question by Joseph Mackey, Chair of the Vermont State Teachers Retirement System, Dr. Holdren explained that nuclear power currently produces one-sixth of the world's electricity supply, and does so with zero CO_2 emissions. In order to double the nuclear power supply in this century, a time when electricity demand is expected to grow five-fold, there would have to be a ten-fold increase in nuclear power plants, from 350 nuclear reactors today to 3500 by the end of the century. Whether investors, governments, and publics will allow this to occur depends greatly on the trust in our ability to handle two critical issues: the risk of nuclear proliferation and the handling of radioactive waste.

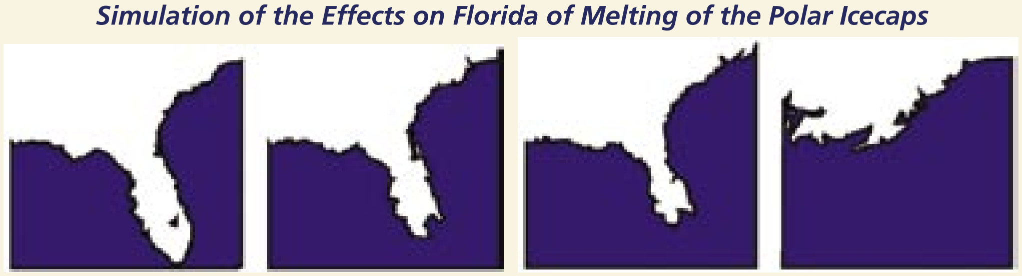
The Role of Investors

Investors agreed that they must take the following actions on climate risk, and their money managers must do the same:

- Request and push companies to conduct climate risk assessments
- Demand that companies publish sustainability reports with clear, detailed facts about their performance
- Engage with companies on climate risk

Additionally, building public support is useful. Graphics such as the simulation of the potential effects of massive melting of polar icecaps on Florida, from Professor Holdren's presentation (see image below), help dramatize the real impact of this warming.

Simulation of the Effects on Florida of Melting of the Polar Icecaps



Modern Florida | *Florida without the Greenland Ice Sheet* | *Florida without the West Antarctic and Greenland Ice Sheets* | *Florida without the West Antarctic, Greenland, and East Antarctic Ice Sheets*

Source: Richard B. Alley, University of Pennsylvania

Addressing Climate Risk and Opportunities: Pension Fund Perspectives


William C. Thompson, Jr., Comptroller, City of New York

Denise Nappier, Connecticut State Treasurer, introduced three panelists to discuss the institutional investor perspective on climate risk: William Thompson, Jr., Comptroller of the City of New York; Jack Ehnes, CEO of the California State Teachers' Retirement System (CalSTRS); and Peter Scales, Chair of the Institutional Investors Group on Climate Change (IIGCC) and CEO of the London Pensions Fund Authority.

Since the 2003 Institutional Investor Summit on Climate Risk, pension funds have been highly active in pushing companies to measure and disclose climate risk. For example:

- The State of Connecticut led the way by working with American Electric Power to produce a first-of-its-kind climate risk report. The report discloses information to shareholders about the company's emissions, investments in clean technologies, positions on the science of climate change and policy to address the problem, financial analysis of regulatory scenarios, and their strategic analysis and plan for addressing the problem. Cinergy, Southern, and TXU have also produced such reports, and FirstEnergy, Progress Energy, and DTE Energy plan to do so this year.
- Ford Motor Company agreed to publish a climate risk report this year, thanks to leadership from investors including Sisters of St. Dominic of Caldwell, New Jersey, Trillium Asset Management, the State of Connecticut, CalPERS, the Interfaith Center on Corporate Responsibility, and Ceres. The report will examine the business implications of reducing greenhouse gas emissions from the motor vehicles made by Ford as well as the facilities that produce them.

The panel recommended that pension funds and other institutional investors take the issue of climate change seriously. The panel discussed: (1) why pension funds are concerned about climate risk, and (2) actions they are taking, including future plans.

Why Investors Care about Climate Risk

The panel said that there were several reasons why institutional investors should be concerned about climate risk:

1. Comptroller Thompson noted that climate change is an enormous problem, as shown by Dr. Holdren's presentation and a 2003 Pentagon report that deemed global warming to be a potentially major threat to U.S. national security in the twenty-first century.

2. Climate change will have an impact on the value of investments, and—according to Comptroller Thompson—could cost U.S. public companies billions of dollars, ranging from unexpected drops in earnings due to fines and clean-up costs following the violation of environmental laws, to increased costs due to changes in environmental regulation, to greater than expected costs due to understated or undisclosed liabilities.

3. There is growing consensus that carbon emissions controls will be implemented in the United States. The question is not if this will happen, but when, and in what form those controls will take place.

4. Companies and therefore investors cannot fully evaluate the impact of carbon controls, because the exact form of the regulations depends on policy decisions that have not yet been made.

5. The longer companies wait to evaluate the impact of climate change policies, according to Scales, the greater the risk of making capital investment decisions that may not provide the expected long-term financial returns to investors.

Results Achieved Since the 2003 Investor Summit

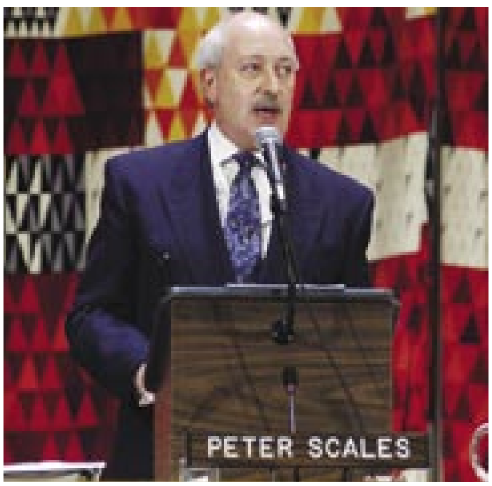
In November 2003, major pension funds and other leading institutional investors held the first Institutional Investor Summit on Climate Risk at United Nations Headquarters in New York City. At the meeting's conclusion, ten leading institutional investors issued a 10-point "Call for Action" demanding tough new steps by corporations, Wall Street firms and the U.S. Securities and Exchange Commission to increase corporate disclosure of climate risk to businesses and investors. Participants announced the creation of the Investor Network on Climate Risk (INCR) to promote better understanding of climate risk and opportunities among institutional investors and to coordinate implementation of the 10-point action plan. Since the Summit, investors have:

- Met or exceeded objectives for 6 of the 10 Call for Action items.
- Quadrupled the number of investors participating in the Investor Network on Climate Risk (INCR) and increased by 450 percent—from $600 billion to $2.7 trillion—the collective assets of INCR members.
- Changed their own policies on climate change, including $450 million of new direct investments in clean technologies.
- Leveraged their clout as shareholders to persuade more than a dozen Fortune 500 companies in sectors with significant greenhouse gas emissions to publicly disclose their climate risk and take steps to mitigate the risk.
- Filed a record number of climate change shareholder resolutions with North American companies and received record high voting support—as high as 37 percent—for those resolutions.
- Quadrupled the number of investors participating in the Carbon Disclosure Project.
- Pressed the Securities and Exchange Commission for improved corporate disclosure on climate risk
- Urged Wall Street investment managers to improve their research and integration of climate risk issues in their financial analysis of companies and industry sectors.

Against this backdrop of success, investors convened the 2005 Institutional Investor Summit on Climate Risk at the United Nations. The Summit took place as the severity of global warming and its potential financial consequences have become clearer than ever. Among the new developments:

- On February 16, 2005, following ratification by the Russian government, the Kyoto Protocol took effect. The international treaty mandates that dozens of participating industrialized countries, including all of Europe, Japan and Canada, cut emissions of carbon dioxide and other global warming pollutants. The treaty is a market signal to companies worldwide that climate change regulations are real and will become more prevalent in the coming years.
- Swiss Re, the world's second largest reinsurance company, announced that it received a record $49 billion in insurance claims from damage caused by hurricanes, typhoons and other natural disasters in 2004. The company attributed the high number of windstorms, including 13 hurricanes in the U.S. alone, to above-average sea-surface temperatures and the high year-round average temperatures of the last decade.
- Throughout 2004 and 2005, business publications including the *Financial Times*, *Wall Street Journal*, *Business Week*, *Fortune* and *McKinsey Quarterly* published prominent articles about climate risk and the need to develop prudent investment and corporate response strategies and solutions.
- In July 2004, eight state attorneys general and New York City filed the first-ever climate change lawsuit against five of the nation's largest electric power generating companies to require them to reduce their carbon dioxide emissions.
- In 2005, investor intervention and persuasion contributed to the decisions by several large companies—Anadarko Petroleum, Apache, Chevron, Cinergy, DTE Energy, Duke, First Energy, Ford Motor, GE, JPMorgan Chase, and Progress Energy—to make new commitments such as supporting mandatory limits on greenhouse gases, voluntarily reducing their emissions, or disclosing climate risk information to investors.
- In January 2005, the European Union Greenhouse Gas Emission Trading Scheme (EU ETS) commenced operation as the largest multi-country, multi-sector emission trading scheme worldwide.
- Australians are in the process of forming an institutional investor network examining climate risk.
- Dozens of U.S. states—as well as two multi-state regions—are implementing or considering GHG regulations.

Jack Ehnes, CEO, California State Teachers' Retirement System (CalSTRS)



Peter Scales, Chair, Institutional Investors Group on Climate Change & Chief Executive, London Pensions Fund Authority

How Investors are Addressing Climate Risk, and Plans for Future Actions

Investors have already taken these actions:

1. Asked for increased corporate disclosure of climate risk to investors from corporate boards and the Securities and Exchange Commission.

2. Asked for increased analysis of corporate climate risk by Wall Street firms.

3. Filed, co-filed, and supported shareholder resolutions pushing for new corporate disclosure of climate risk information to investors. Comptroller Thompson and Mr. Ehnes discussed the importance of their pension funds' roles in these efforts, and urged other pension fund executives to consider getting involved. Companies which received resolutions included Allergan, Anadarko Petroleum, Analog Devices, Apache, Avery Dennison, Centex, Chevron, Corning, Dominion Resources, Dow Chemical, ExxonMobil, FirstEnergy, Ford Motor Company, General Motors, Health Care Property, JPMorgan Chase, Lennar, Liberty Property Trust, Newell Rubbermaid, Progress Energy, Ryland Group, Simon Property Group, Tesoro, Unocal, Vintage Petroleum, Wachovia, Wells Fargo, and XTO Energy.

4. Increased institutional investor interest in climate change through the Investor Network on Climate Risk (INCR), as described by Comptroller Thompson. The total assets represented by INCR have risen from $600 billion in 2003 to $2.7 trillion in 2005—a 450% increase.

5. Increased institutional investor interest in climate change through the Institutional Investors Group on Climate Change (IIGCC), as described by Scales. IIGCC is a London-based forum for collaboration between pension funds and other institutional investors on issues related to climate change.

6. Invested in high-efficiency real estate. According to Innovest Strategic Value Advisors, real estate firms with above-average energy management performance achieve superior stock market and financial performance compared to those firms with below-average energy management performance. Jack Ehnes provided an example of how CalSTRS is engaging in this effort.

7. Created environmental investing initiatives to demand corporate environmental disclosure, target private investment in environmental technologies, invest in stocks of environmentally responsible companies, and reduce energy consumption in real estate portfolios. For example, Ehnes described the CalPERS and CalSTRS commitment of $3 billion to their Green Wave environmental investment initiative, introduced in February of 2004.

The panel discussed how investors should go beyond current efforts on climate change and:

1. Expand climate risk disclosure from corporations and boost capital for the next generation of clean technologies.

2. Continue to educate themselves as well as the public on clean energy technologies and invest in those technologies wherever possible.

3. Increase education of pension fund boards, and corporate CEOs and boards, on the relationship of climate change to their fiduciary duties.

4. Bridge the gap between asset managers and asset owners, both in the U.S. and in the UK.

5. Continue to build institutional investor collaborations both nationally and internationally.

Climate Change Risk and Opportunity

During lunch, United Nations Environment Programme (UNEP) Director Klaus Töpfer and Ted Turner, Chairman of the United Nations Foundation, addressed Summit participants, following an introduction by Richard Murray, Managing Director & Chief Claims Strategist at Swiss Re. They reviewed the substantial financial risks from climate change and challenged investors to press for significant changes in how the world uses and produces energy.

Dr. Klaus Töpfer, Executive Director, United Nations Environment Programme

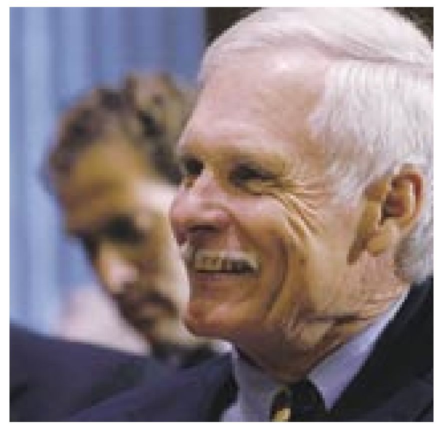
The Insurance Industry Perspective

Murray explained that the insurance industry is feeling the results of weather-related damage from climate change, which is significant and rising:

- In 1970, the average annual insured wind storm loss worldwide was about $2 billion.
- By 1985, it had risen to $5 billion.
- By 2000, the cost had jumped to $15 billion.
- By 2004, it was $45 billion.

Climate risk is present in:

- property portfolios
- business interruption costs
- mortality statistics due to disease migration
- other new forms of liability being brought into the climate risk arena



Ted Turner, Chairman, United Nations Foundation

Murray also explained that while insurance companies are facing enormous claims related to changes in weather patterns, climate-induced weather extremes have devastating effects for the people of developing countries, who are often uninsured. For example:

- Hurricane Ivan destroyed 5 years of GNP development in Grenada, and was not insured.
- 2004 saw $45 billion in insured losses compared to $140 billion in non-insured losses, according to Töpfer.

UN and Investor Collaboration on Climate Change

Töpfer announced three joint initiatives between investors and the United Nations. First, Ceres and UNEP announced a new Climate Risk Disclosure Initiative to create a global standard for climate risk disclosure. Second, UNEP is developing Principles for Responsible Investment to align the long-term goals of sustainable development with the obligations of institutional investors. Finally, Ceres and UNEP are establishing a new international forum for collaboration and information sharing by institutional investors on climate risk.

Following up on Murray's and Töpfer's discussions, Ted Turner laid out best case and worst case scenarios for investors. If we allow ourselves to do very little or nothing about climate change, we face a worse case scenario in which climate change and changing weather patterns not only hurt the insurance business, but crops fail, mass starvation occurs, and major droughts occur.

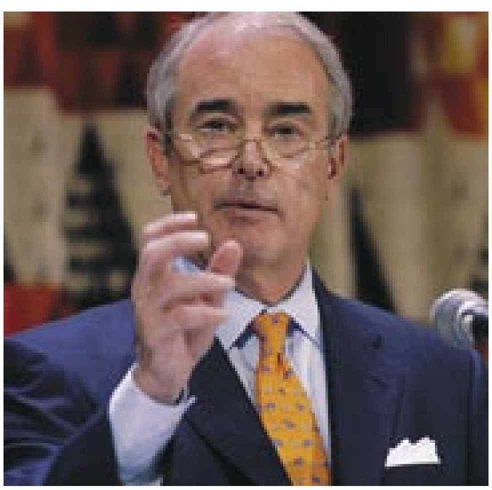
Richard H. Murray, Managing Director & Chief Claims Strategist, Swiss Re

Under the best case scenario, climate change will create opportunities including the research and design of fuel efficient cars, and research into clean power, because of potentially rapid transitions from dirty to cleaner forms of power generation. The path forward is probably somewhere between these worst and best case scenarios.

Addressing Climate Risk and Opportunities: Investment Manager and Company Perspectives

Abby Joseph Cohen, Partner & Chief U.S. Portfolio Strategist, Goldman Sachs

Michael J. Johnston, Executive Vice President, The Capital Group Companies



James Rogers, Chairman, President and CEO, Cinergy Corp.

Michael Johnston, Executive Vice President of the Capital Group, introduced two panelists to discuss climate risk and opportunities from the perspectives of investment managers and companies: Abby Joseph Cohen, Partner and Chief U.S. Portfolio Strategist for Goldman Sachs, and James Rogers, Chairman and President of the Cinergy Corporation.

Obstacles

Cohen described some of the challenges to encouraging all companies to move in the right direction with regard to climate change:

1. Short-term thinking prevails over long-term thinking on Wall Street. The profitability of a company and earnings projections are short-term factors, while climate risk is perceived as a mid- to long-term issue. The question becomes, "How do we redirect our instructions to our portfolio managers so that they understand that we're not looking for the short term movements, but really the long term movements?"

2. Data on climate risk must be quantitative, reliable, and accurate. Also, if companies do not provide information on long-term liabilities, then there is no way for quantitative investment approaches to reflect long-term risk.

3. Qualitative input is also critical. However, reflecting qualitative data in the investment process is difficult when investors, boards, and CEOs are not discussing questions of long-term sustainability that may not be quantifiable at this time.

Opportunities

While there are significant obstacles to companies doing "the right thing," Rogers stated that there are opportunities now for good companies to put a stake in the ground on the issue of climate change. Leading companies:

- engage with their stakeholders, including investors, community leaders, employees, and customers, acknowledging that sometimes there are competing demands from these groups
- are involved in public policy
- set CO_2 emission reduction goals (e.g., Cinergy has committed to a 5% reduction by 2010)
- measure and disclose climate risk to shareholders
- invest in renewables, as well as in intermediary steps such as converting old, dirty coal plants to gas or to coal gasification
- encourage efficiency and conservation
- create a company culture with top management devoted to climate risk mitigation (e.g., Rogers attended the Summit one day after the announcement of the Cinergy/Duke merger, sending a clear signal about the importance of climate risk)

Opportunities Related to Climate Change

ADVANCED VEHICLES:

New gasoline-electric hybrid cars demonstrate that emissions and gasoline consumption can be reduced while maintaining affordability, comfort, and safety.

CLEAN COAL:

New technologies can gasify coal, capture its emissions, and bury them underground, thus maintaining use of an abundant and cost-effective fuel supply for countries such as China, India, and the United States while dramatically reducing coal's high emissions.

ENERGY EFFICIENCY:

Inefficient lights and appliances cost consumers money and increase pollution. If every household converted five lights to more efficient bulbs, Americans would save $6 billion and reduce emissions equivalent to the output of 21 power plants.

NEW FUELS:

Plants can be turned into new transportation fuels that reduce dependence on oil, curb emissions, and create new economic opportunities in agriculture.

RENEWABLE ELECTRICITY:

Electricity produced from renewable sources, such as solar and wind, could produce 20% of America's electricity by 2020 and reduce greenhouse gas emissions. Producing just 10% of electricity from renewable sources could save consumers $13 billion, according to the Department of Energy's Energy Information Administration.

SMART ELECTRIC GRID:

The 2003 blackout in the eastern U.S. demonstrated that today's electricity grid is inefficient and unreliable. Power outages and disruptions cost businesses $50–$100 billion each year. Rewiring the grid with advanced computer controls would allow power to be distributed more efficiently and safely—all while reducing emissions.

Source: Ceres (included in Summit participants' binders)

Investor, Business, and Government Leadership

Albert Gore, Jr., Former Vice President and Chairman, Generation Investment Management

Former Vice President Al Gore launched a discussion on the importance of investor, business, and government leadership on climate change. The two primary methods for solving society's problems are governmental policy and market mechanisms. Due to a severe vacuum created by governmental policy failings, market mechanisms—specifically businesses and investors—must step forward to deal with climate change.

This policy vacuum was partly filled when the Kyoto Protocol took effect earlier this year. Signatory countries are now beginning to create frameworks for monetizing the value of carbon. Gore described the approach of EU companies to carbon emissions as, "Monetize them; trade them; reduce them."

There are two primary problems when trying to deal with climate risk in the market:

(1) short-termism, and (2) the challenge of integrating environmental and climate change information into an analysis of a company. Both were themes throughout the Summit, and Vice President Gore elaborated on them in detail.

Short-termism

Gore urged investors to challenge the structure of the investment decision-making process, in order to solve the problem of short-termism. He said, "We, humanity, are managing our relationship to planet earth as if it were a business in liquidation." As proof, he noted:

- The average mutual fund turns over its entire portfolio every 10 months, despite the fact that much of a company's wealth is built over many years.
- More than 80% of businesses would be willing to cut R&D spending in order to meet quarterly numbers, even if they believed the cuts were destroying long-term value.

"Investors must make the structural changes to actually invest over the longer term, and make the changes necessary to fully integrate sustainability value into equity analysis."

Albert Gore, Jr.

The Challenge of Integrating Climate Change and Sustainability Information into a Firm's Valuation

Vice President Gore used the analogy of ultraviolet versus infrared light to urge investors to take a broader view when examining the true value of a company. The human eye can only see a very small slice of the true spectrum of light; likewise, a company's 10-K and other public documents provide only a sliver of insight into a company's true value. Both qualitative and quantitative sustainability information have great value when assessing a company's worth.

Recommendations for Investors

Vice President Gore urged investors to "make the structural changes to actually invest over the longer term, and that they make the changes necessary to fully, not just rhetorically, integrate sustainability values into equity analysis."

Despite great challenges, the Vice President expressed optimism that we are near a tipping point on climate change, both nationally and globally.

Investor Action Plan

Steve Westly, Controller of the State of California, presented the INCR ten-point action plan, endorsed earlier in the day by 28 major institutional investors with combined assets of over $3 trillion. The plan builds on the success of the first INCR action plan, introduced by 14 investors in November 2003. The 2005 action plan calls for companies, Wall Street firms and the Securities and Exchange Commission to intensify efforts to provide investors with comprehensive analysis and disclosure about the financial risks and opportunities of climate change. The group also pledged to invest $1 billion in prudent business opportunities emerging from the drive to reduce greenhouse gas emissions.

Highlighting the far-reaching impacts that climate change will have on the world economy, the endorsing investors said that while an increasing number of companies, fund managers and members of the investment community are tackling this issue, many are not, and the imperative for broader action is acute.

Appendix A includes the full list of signers and text of the Call for Action.

Steve Westly, Controller, State of California and Board Member, CalPERS/CalSTRS

Next Steps

Investors concluded the Summit with a sense of renewed vigor. UN Foundation President Timothy Wirth and Ceres President Mindy Lubber inspired investors to continue to be engaged and proactive on climate risk and opportunities in their portfolios. To do so, investors can do one or more of the following:

- Commit to implementing the INCR 10-Point Action Plan—see Appendix A for details
- Build international collaboration on climate change—see Appendix B for details
- Assess, disclose, and seek solutions to climate risk and opportunities—see Appendix C for details
- Join the Investor Network on Climate Risk (INCR)—see Appendix D for details—which provides a forum for dialogue and a framework for collaborative action

Investors Announce the Call for Action on Climate Risk and Opportunities

For more information on these efforts or the Summit, please contact Christopher Fox, Ceres Director of Investor Programs, at 617-247-0700 x15 or fox@ceres.org.

This Summit Report and other Summit materials are available at the Investor Network on Climate Risk website (www.incr.com).

Acknowledgments

This report was commissioned by Ceres, a non-profit coalition of investment funds and environmental groups that directs the Investor Network on Climate Risk (INCR). It was written by David Gardiner and Miranda Anderson of David Gardiner & Associates, and edited by Jim Coburn of Ceres. Many Ceres staff members provided valuable comments on the report and assistance on the Summit: Dan Bakal, Tim Brennan, Pat Daniel, Peyton Fleming, Chris Fox, Jen Green, Rachel Harold, Andrew Logan, Mindy Lubber, Bob Massie, Natasha Scotnicki, Ariane van Buren, and Tim Woodall. The Summit would not have been possible without the hard work of the staffs of the United Nations Foundation, the United Nations Fund for International Partnerships, the Connecticut State Treasurer's Office, and other Summit partners.

Appendix A

A New Call for Action: Managing Climate Risk and Capturing the Opportunities, May 10, 2005

SIGNERS

State Treasurers:

Phil Angelides, *Treasurer, State of California*
Randall Edwards, *Treasurer, State of Oregon*
Nancy Kopp, *Treasurer, State of Maryland*
David Lemoine, *Treasurer, State of Maine*
Denise Nappier, *Treasurer, State of Connecticut*
Jeb Spaulding, *Treasurer, State of Vermont*
Robert Vigil, *Treasurer, State of New Mexico*

State and City Comptrollers:

Alan G. Hevesi, *Comptroller, State of New York*
William C. Thompson, Jr., *Comptroller, New York City*
Steve Westly, *Controller, State of California*

Public Pension Funds:

Jack Ehnes, *CEO, California State Teachers' Retirement System (CalSTRS)*
Rob Feckner, *President, California Public Employees' Retirement System (CalPERS)*
George M. Philip, *Executive Director, New York State Teachers' Retirement System*
Edward Smith, *Chairman, Illinois State Board of Investment*

Labor Pension Funds:

Steve Abrecht, *Executive Director, National Industry Pension Fund, Service Employees International Union (SEIU)*
William J. Boarman, *Chairman of the Board of Trustees, CWA/ITU Negotiated Pension Plan*
R. Thomas Buffenbarger, *President, International Association of Machinists*
M. Benny Hernandez, *Administrator, Sheetmetal Workers Pension Fund*
C. Thomas Keegel, *General Secretary Treasurer, International Brotherhood of Teamsters; Trustee, Teamsters Affiliates Pension Plan*
Gerald McEntee, *President, American Federation of State, County and Municipal Employees (AFSCME)*
Bruce Raynor, *President, UNITE HERE*

Foundations:

Stephen B. Heintz, *President, Rockefeller Brothers Fund*
Lance E. Lindblom, *President and CEO, The Nathan Cummings Foundation*

Religious Institutional Investors:

William Somplatsky-Jarman, *Presbyterian Church (USA)*
The General Board of Pension and Health Benefits of the United Methodist Church

European Investor Supporters of the Call for Action:

Sir Graeme Davies, *Chairman, Universities Superannuation Scheme*
Neil Newton, *Chair, London Pensions Fund Authority*
Peter Scales, *Chief Executive, London Pensions Fund Authority*

Background

In November 2003, in the midst of the first Institutional Investor Summit on Climate Risk, leading investors launched a new effort to address the financial risks and investment opportunities posed by climate change. The Investor Network on Climate Risk (INCR), inaugurated by ten institutional investors,* announced a ten-point action plan, and began to educate other investors about climate risk.

Today we are reporting on the status of the action items included in the first action plan and announcing the next steps we intend to take on this issue.

During the past 18 months, investors have advocated and achieved increased corporate disclosure of climate risk, encouraged investment company consideration of climate risk in investment decision-making, and witnessed new government policies to set global warming emission standards that create certainty and level the playing field among all companies.

While substantial progress has been made, too few investors are seriously addressing the risks and opportunities posed by climate change, and most investment managers lack expertise in climate change or the capacity to assess its risks to portfolios. While some companies have begun to treat climate change as a fundamental strategic issue, many more are not disclosing their climate risk or plans to address it, creating uncertainty for investors and difficulty assessing the true longer-term value of our portfolios.

We are more firmly convinced than ever that climate change presents a material risk to investment portfolios, especially as policies to limit emissions, such as the Kyoto Protocol and various state initiatives, take hold. Indeed, prudence, common sense, fiduciary responsibility, and legal duty compel us to examine the financial ramifications of climate risk with care, and where appropriate, to act.

As fiduciaries of hundreds of billions of dollars of fund assets, we are compelled to renew previous efforts and take additional steps to respond to the challenges and opportunities presented by climate risk. It is our intention to use the knowledge we have gained, in the absence of clear policy, to encourage disclosure that will better enable us to measure our risks as shareholders due to climate change.

Managing Climate Risk and Capturing the Opportunities: A Renewed Call for Action

Recognizing that climate change embodies risks and opportunities of a significant magnitude for investors and our economy, and represents one of the greatest challenges facing our planet, we are compelled to seek improved approaches in responding to the fiscal ramifications of climate risk for institutional investors, fund managers and financial advisors, companies, and others. Therefore, we call on each of these sectors to respond, affirmatively and definitively, and state our intention to move forward to implement this essential agenda.

Institutional investors

1. Call to Action: Invest capital, individually or collectively, in companies developing and deploying clean technologies, which we believe will enhance and sustain the long-term viability of corporate assets and shareholder value.

Our Commitment: Our collective goal in the next year is to seek to deploy $1 billion of capital to achieve attractive investment returns over the long term and help catalyze adoption of clean technology in the broader marketplace, while at the same time adhering to the fiduciary standards that govern our overall actions.

* Phil Angelides, Treasurer, State of California; Randall Edwards, Treasurer, State of Oregon; Dale McCormick, Treasurer, State of Maine; Denise Nappier, Treasurer, State of Connecticut; Jeb Spaulding, Treasurer, State of Vermont; Robert Vigil, Treasurer, State of New Mexico; Alan Hevesi, Comptroller, State of New York; William Thompson, Comptroller, New York City; Steve Abrecht, Executive Director, National Industry Pension Fund, Service Employees International Union (SEIU); and William J. Boarman, Chairman of the Board of Trustees, CWA/ITU Negotiated Pension Plan.

2. Call to Action: Support for and success of appropriate shareholder resolutions and company engagement to improve corporate disclosure and governance on climate risk.

Our Commitment: We will develop through the Investor Network on Climate Risk (INCR) a model climate risk policy for institutional investors. This policy will specifically address shareholder resolutions, proxy voting, and corporate dialogue on climate risk. We will share the policy with other institutional investors and with fund managers.

3. Call to Action: Adopt a reliable and generally accepted global standard for disclosure of climate risk.

Our Commitment: We pledge to work with investors around the world to develop such a standard.

4. Call to Action: Promote information sharing among the growing number of institutional investors and organizations around the world concerned about climate risk.

Our Commitment: We will build a new forum for international investor collaboration on climate risk.

Fund managers and financial advisors

5. Call to Action: Improve capacity to assess climate risk.

Our Commitment: We will require and validate that relevant investment managers, seeking to manage our fund assets, describe the resources, expertise and process that they use to assess the risks associated with climate change.

6. Call to Action: Improve mutual fund engagement in addressing climate risk.

Our Commitment: INCR will publish an annual scorecard showcasing how mutual funds vote on climate change shareholder resolutions.

Companies

7. Call to Action: All publicly-held companies in the auto, electric power, and oil and gas sectors should follow the lead of some companies and report within a year how likely scenarios for climate change, future greenhouse gas limits, and dwindling access to inexpensive energy will affect their businesses and competitiveness, and to identify steps they are taking to reduce those financial impacts and seize new emerging market opportunities.

Our Commitment: We will engage with these companies to consider and address climate risk.

8. Call to Action: Renew dialogue between investors and all companies that have already disclosed their climate risk to focus on steps that investors and companies can take to address this risk.

Our Commitment: We will engage with companies, recognize leaders, and promote best practices.

9. Call to Action: Help investors assess climate risk.

Our Commitment: Through INCR, we will produce the "Corporate Governance Score Card on Climate Risk", an annual corporate governance scorecard of 100 large emitters of greenhouse gases. We will distribute this scorecard throughout the investor community by the end of 2005. This report will inform them of the efforts that companies and their boards of directors are taking to consider and address climate risk.

Government

10. Call to Action: The Securities and Exchange Commission (SEC) to require that companies disclose the risk associated with climate change as part of their securities filings.

Our Commitment: We will work with the SEC to disclose climate risk.

Appendix B

A Proposed Framework for International Investor Collaboration on Addressing the Financial Risks and Opportunities Posed by Climate Change

Background

The United Nations Environment Programme (UNEP) and Ceres are cooperating with the United Nations Fund for International Partnerships, the United Nations Foundation, and other partners to host an Institutional Investor Summit on Climate Risk at the United Nations on May 10, 2005. This meeting follows the first Investor Summit held on November 21, 2003. At that meeting, major pension funds and other institutional investors—trustees of over USD 1 trillion in pension funds and asset managers of more than USD 2 trillion—met for the first time to consider the financial risks to portfolios posed by climate change. It provided a forum for those with responsibility for endowments and pension funds to exchange views as peers, to consider the implications of climate risk for long-term asset allocation, and to share best practices.

Along with the risks are the many opportunities to be realized in responding to climate change. More than USD 16 trillion will be needed in world energy investments over the next 25 years, according to some estimates. Markets trading greenhouse gas emissions could be worth USD 2 trillion a year by 2012, while financing needs for clean energy could reach USD 1.9 trillion by 2020.

2005 Summit Initiatives

Ceres and UNEP will work together, and in consultation with the appropriate partners, to broaden international investor collaboration following the Institutional Investor Summit on Climate Risk at UN Headquarters on May 10, 2005. Investors and the UN will work together on three priorities:

1. Launch a New Climate Risk Disclosure Initiative (CRDI). This will be aimed at enhancing corporations' climate risk disclosure, in collaboration with and building upon existing efforts on disclosure of risks and opportunities from climate change. CRDI will address the inadequacy of the information investors now receive about climate risk exposures to guide their investment decisions. The effort will focus on disclosure of corporate emissions, climate actions, scenario analysis, strategic analysis, and plans to address climate risks and opportunities.

2. Develop Principles for Responsible Investment (PRI). UNEP is developing Principles for Responsible Investment to define the basis for a new type of responsible capital that will align the long-term goals of sustainable development with the obligations of institutional investors, especially pension funds. Ceres will work with UNEP to engage U.S. investors in this effort to address climate risk and other environmental, social and governance issues that are likely to have material, long-term impact on investments.

3. Establish a New Forum for International Investor Cooperation in Addressing Climate Risk. This forum will promote collaboration and information sharing among investors internationally about actions to address the financial risks and investment opportunities posed by climate change. This will serve investors' need to have a global venue for news updates, discussion, and coordination.

Ceres and UNEP bring unique assets to this partnership. Ceres serves as the Secretariat to the Investor Network on Climate Risk, the leading U.S. investor organization devoted to raising climate risk awareness among institutional investors. It now includes 45 participating members with $2.7 trillion in assets. UNEP has developed a global partnership with the financial sector, the UNEP Finance Initiative (UNEP FI). UNEP FI includes more than 200 participating institutions, including banks, insurers, and fund managers. These partners work with UNEP to understand the impacts of environmental and social considerations on financial performance.

Appendix C

*10 Key Steps for Investor Action on Climate Risk**

ASSESSMENT

Expert Advice

Find experts to raise awareness, assess climate risks, and convey fiduciary duties to plan beneficiaries, investment consultants, fund managers and portfolio companies.

Risk Assessment

Assess physical and policy risks of climate change in evaluations of companies, industry sectors, investment portfolios and property holdings.

Networking with Others

Join the Investor Network on Climate Risk and engage with others to promote climate risk assessments, greenhouse gas emissions disclosure and responsible public policy.

DISCLOSURE

Public Statement

Declare that climate change poses fiduciary and financial risks to be addressed through research, corporate engagement and long-term investment strategies.

Public Disclosure

State methods to assess and address climate risk in plan documents and require companies to identify material risks of climate change in securities filings.

Emissions Accounting

Ask companies to disclose emissions based on the Greenhouse Gas Protocol, and to account for GHG emissions from products and property holdings.

Stakeholder Dialogue

Adopt proxy voting guidelines to urge corporate action on climate change, and maintain an active dialogue with beneficiaries, fund managers and companies.

SOLUTIONS

Investment Strategy

Match long-term objectives with reduced climate risk exposure to optimize investment returns, and engage fund managers and companies to adopt best practices.

Clean Energy

Direct investment capital into emerging clean energy technologies and promote energy efficient products and building practices.

Government Action

Support government actions to promote investor certainty, including mandatory policies to achieve absolute reductions in greenhouse gas emissions.

*Excerpted from the Investor Guide to Climate Risk: Action Plan and Resource for Plan Sponsors, Fund Managers and Corporations (July 2004). Available online at www.incr.com.

Appendix D

Investor Network on Climate Risk
www.incr.com

Purpose:

The purpose of the Investor Network on Climate Risk (INCR) is to promote better understanding of the financial risks and investment opportunities posed by climate change. INCR supports further analysis of climate risk, and coordinates engagement of its members with companies and policy makers. It aims to provide a forum in which its members can combine their knowledge of this complex issue and develop prudent responses.

INCR Working Groups:

- Global Warming Shareholder Campaign
- Engagement with Vendors/Fund Managers
- SEC and Disclosure
- Electric Power-Investor Dialogue
- Investment in Clean Technologies
- Auto Initiative

An Invitation:

INCR is open to investors and financial institutions that are interested in learning about climate risk. Membership includes:

- Access to expertise on climate risk
- Contact with a network of institutional investors committed to addressing climate risk
- Invitation to activities to increase understanding of climate risk, including conferences, briefings, and meetings
- Reports such as the Investor Guide to Climate Risk and Questions and Answers for Investors on Climate Risk
- Publicity from INCR activities and accomplishments

Ceres, the Boston-based investor coalition, serves as the Secretariat for INCR.

For more information, please contact Chris Fox at Ceres at fox@ceres.org or 617-247-0700 ext. 15.

INCR Secretariat Staff:

- Mindy Lubber, Ceres President and INCR Director (lubber@ceres.org)
- Chris Fox, Ceres Director of Investor Programs (fox@ceres.org)
- Ariane van Buren, Ceres Senior Manager, Investor Outreach (vanburen@ceres.org)
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- Rachel Harold, Ceres Investor Programs Fellow (harold@ceres.org)

The Investor Network on Climate Risk is a project of Ceres.

Ceres *Investors and environmentalists for sustainable prosperity*

Appendix E

Participating Organizations

ABP Investments US, Inc.
Acuity Investment Management Inc.
AFL-CIO Office of Investment
AFSCME
AIG Altaris Health Partners
AIG Capital Partners
AIG Environment
AIG Global Investment Group
Alignment Capital Group, LLC
AllianceBernstein Institutional Investment Management
American Council on Renewable Energy
American International Group, Inc.
Analysis Group
Ariel Capital Management, Inc.
Arnold & Porter
AXA
Bank of America
Bank of New York
Barclays Global Investors
BatteryMarch Financial
Bear, Stearns & Co., Inc.
BlackRock, Inc.
Blue Moon Fund
BNP Paribas Asset Management
British Columbia Investment Management Corporation
British Consulate-General, Boston
British Consulate-General, New York
British Embassy, Washington
California Climate Action Registry
CalPERS
Calpine Corporation
CalSTRS
Calvert Group
Canada Pension Plan Investment Board
Canadian Institute of Chartered Accountants
Capital Group Companies, Inc.
Capital Guardian Trust Company
Carbon Disclosure Project
Catholic Healthcare West
Center for the Development of Social Finance
Center for the Study of Fiduciary Capitalism
Ceres
CFA Centre for Financial Market Integrity
Christian Brothers Investment Services
Cinergy Corporation
Citigroup Asset Management
City of New York Comptroller's Office
City of New York Department of Finance
City of New York Employees' Retirement System
Civil Society Institute
Clean Air-Cool Planet
Clean Energy Group
Climate Change Capital
Climate Change Legal Foundation
Columbia Management Group
Columbia University
Conscious Capital
Co-op America
CoreRatings
Corporate Library
Council of Institutional Investors
CRA RogersCasey
Credential Financial Inc.
Credit Suisse First Boston
CWA-ITU Negotiated Pension Plan
Davis Global Advisors, Inc.
Deutsche Asset Management
Development Bank of the Philippines
District of Columbia Retirement Board
DNV Certification, Inc.
Domini Social Investments LLC
Doris Duke Charitable Foundation
Energy Foundation
Energy Future Coalition
Environmental Defense
Ethical Corporation
Evangelical Lutheran Church in America
Expansion Capital Partners
F&C Asset Management
Fair Trade Foundation
Fidelity Investments
Fiduciary Trust Company International
Financial Control Systems Incorporated
Fitch Ratings, Inc.
Friends of the Earth – USA
FTSE
GarMark Partners, LP
Generation Foundation
Generation Investment Management LLP
Gifford Park Associates
Global Exchange for Social Investment
Global Reporting Initiative
GMO Renewable Resources, LLC
Goldman Sachs Asset Management
Goldman, Sachs & Co.
Grantham, Mayo & Van Otterloo
Harvard University
Harvard University Medical School
Harvard University, Kennedy School of Government
Heinrich Boell Foundation
Henry P. Kendall Foundation
HSBC
HSBC-US
Innovest Strategic Value Advisors
Institutional Investors Group on Climate Change
Institutional Shareholder Services
Insurance Australia Group
Interfaith Center for Corporate Responsibility
International Brotherhood of Teamsters
Investor Responsibility Research Center
Jantzi Research Inc.
JP Morgan Chase
KLD Research & Analytics, Inc.
KLP Asset Management
Kynikos Associates
Lazard Asset Management
Lehman Brothers
Lens Governance Advisors, P.A.
Light Green Advisors
Local Authority Pension Fund Forum
Lombard Odier Darier Hentsch & Cie – Banquiers prives
Marsh USA
McKinsey & Company
Mellon Financial Corporation
Mercer Investment Consulting, Inc.
Merrill Lynch & Co.
MFS
MIT
Morgan Stanley
Morgan Stanley Investment Management
Nathan Cummings Foundation
National Center for Atmospheric Research

Participating Organizations (cont.)

National Environmental Trust
National Round Table on the Environment and the Economy
Natsource LLC
Natural Resources Defense Council
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New York Community Trust
NIKKO Global Asset Management
Oak Foundation
Ontario Municipal Employees Retirement System
Ontario Public Service Employees Union Pension Trust
Optima Fund Management
Orbis Energy Advisors Inc.
Oregon State Treasury
Pension Boards – United Church of Christ
Permanent Mission of Finland to the United Nations
Permanent Mission of the Federal Republic of Germany
Permanent Mission of the Russian Federation to the United Nations
Pew Center on Global Climate Change
Pew Charitable Trusts
PIMCO
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Province of St. Joseph, Capuchin Order
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Putnam Investments
Ramius Capital Group
RBC Financial Group
Redefining Progress
Reinsurance Association of America
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Rockefeller Brothers Fund
Rockefeller Family Fund
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Scotia Capital
Second Swedish National Pension Fund
Securities Industry Association
SEIU Pension Fund
Service Employees International Union
Sheet Metal Workers' Local Unions & Councils Pension Fund
Sierra Club
Social Investment Forum
Social Investment Organization
Standard & Poors
Stanford University, Stanford Management Company
State of California Controller's Office
State of California Treasurer's Office
State of Connecticut Investment Advisory Council
State of Connecticut Treasurer's Office
State of Iowa Treasurer's Office
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State Street Corporation, Public Funds Division
State Street Global Advisors
Sustainable Endowments Institute
Swiss Re
Swiss Re Financial Services Corp.
TCW Asset Management
The Climate Group
Travelers Investment Management Company
Trillium Asset Management Corporation
Tri-State Coalition for Responsible Investment
Trucost Plc
Trust Company of the West
Tufts University, Global Development and Environment Institute
Turner Enterprises, Inc.
Turner Foundation, Inc.
U.S. Environmental Protection Agency
UBS Global Asset Management
UBS Investment Bank
UNIDO
United Kingdom Department for Environment, Food, and Rural Affairs
United Kingdom Mission to the United Nations
United Methodist Church General Board of Pensions
United Nations
United Nations Conference on Trade and Development
United Nations Department of Economic and Social Affairs
United Nations Development Programme
United Nations Economic Commission for Europe
United Nations Environment Programme
United Nations Environment Programme Finance Initiative
United Nations Foundation
United Nations Fund for International Partnerships
United Nations Global Compact
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Universities Superannuation Scheme
V. Kann Rasmussen Foundation
Vulcan Inc.
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