Ceres

Investors and Environmentalists for Sustainable Prosperity

Climate Change and the Insurance Sector: from Risk to Opportunity

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Ceres – A Dynamic Network

- A **coalition** of 120-plus investors, environmental, and public interest groups
- A **network** of more than 70 companies representing diverse industries & businesses
- A **leader** in bringing companies together with their stakeholders in a constructive dialogue on sustainability issues
- **Initiator** of the Global Reporting Initiative (GRI) and the Investor Network on Climate Risk

A Selection of Ceres Companies

- American Airlines
- Bank of America
- Best Buy
- Citi
- Coca-Cola
- Dell Inc.
- Dunkin' Brands
- eBay
- Ford Motor Company
- Gap Inc.
- General Mills
- Jones Lang LaSalle
- Levi Strauss & Co.
- McDonald's Corp.
- National Grid
- Nike
- PepsiCo
- PG&E Corp.
- State Street Corp.
- Sun Microsystems
- Time Warner
- Virgin America

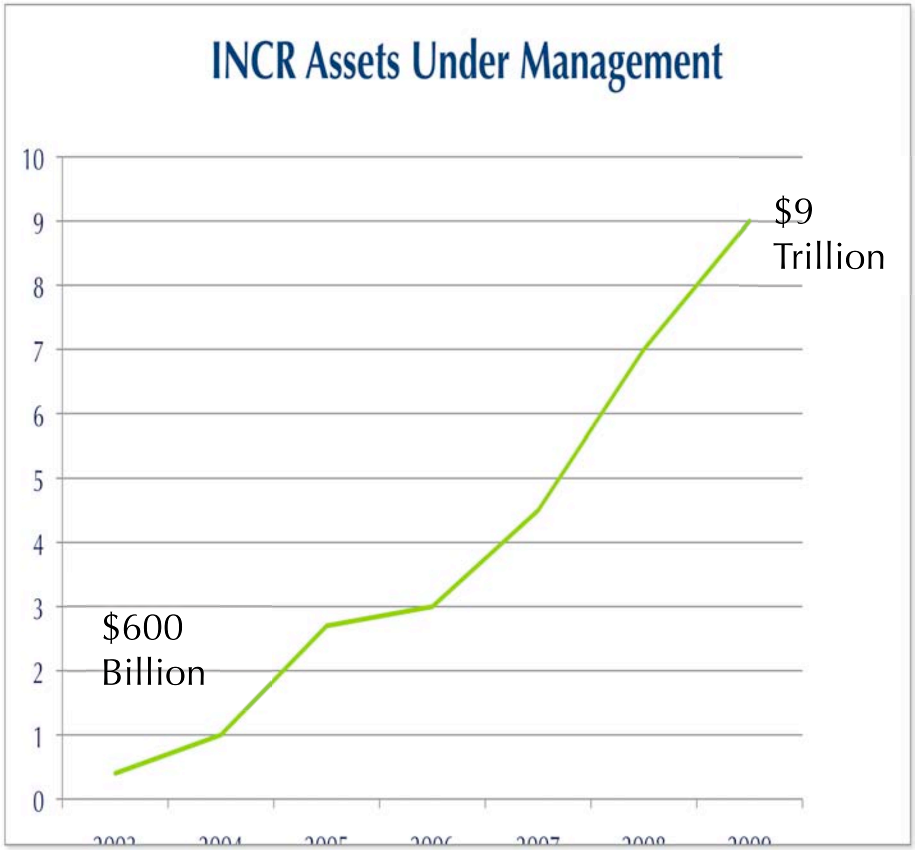
Investor Network on Climate Risk

- Investor Network on Climate Risk (INCR) now has 80 investors with ***over $9 trillion in assets***
- Acting on their ***fiduciary duty*** to **manage risks** and **capture the opportunities** (e.g. clean energy)
  - *"The way a company manages its carbon exposure could create or destroy shareholder value" (McKinsey Quarterly)*
  - *"Climate change is a topic that should be on the agenda of every Board of Directors" (Goldman Sachs)*
- Select members:
  - Blackrock
  - CalPERS
  - CalSTRS
  - Deutsche Asset Management
  - F&C Asset Management
  - New York State Comptroller
  - Prudential
  - State Street Global Advisors

INCR has grown rapidly

Some Key Members Include:

- CalPERS
- CalSTRS
- Florida State Board of Administration
- F&C Asset Management
- NYC Comptroller
- NY STRS
- Blackrock Financial
- Deutsche Asset Management
- Pennsylvania State Treasury
- North Carolina State Treasury
- TIAA CREF
- State Street Global Advisors



Climate change: a critical issue for insurers

"**The insurance industry must start actively adapting in response to greenhouse gas trends if it is to survive…** There could hardly be a debate of greater importance to the insurance industry."

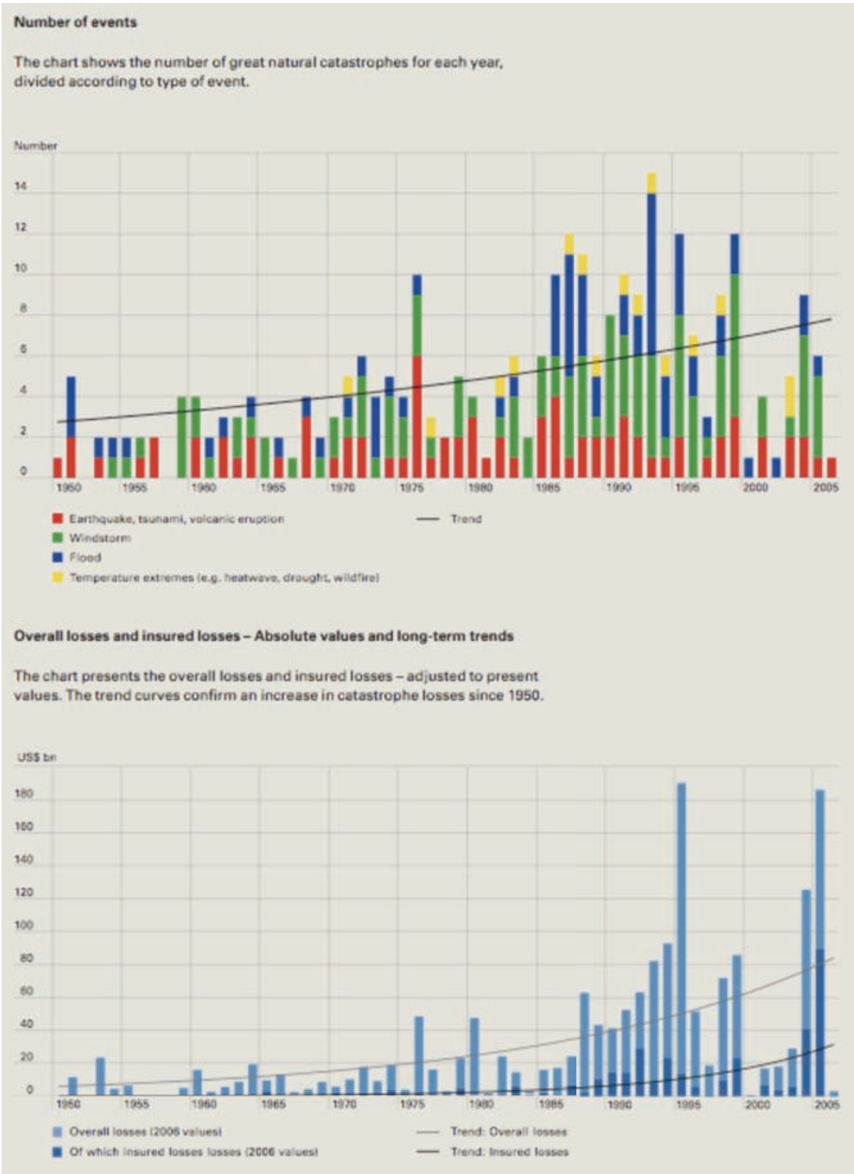
—Lloyd's, *Climate Change: Adapt or Bust*

Why should insurers be concerned?

Climate change has the potential to impact nearly every segment of the insurance industry, including:

- Property, crops and livestock
- Health and life
- Business interruption
- D&O
- Pollution liability
- Invested assets

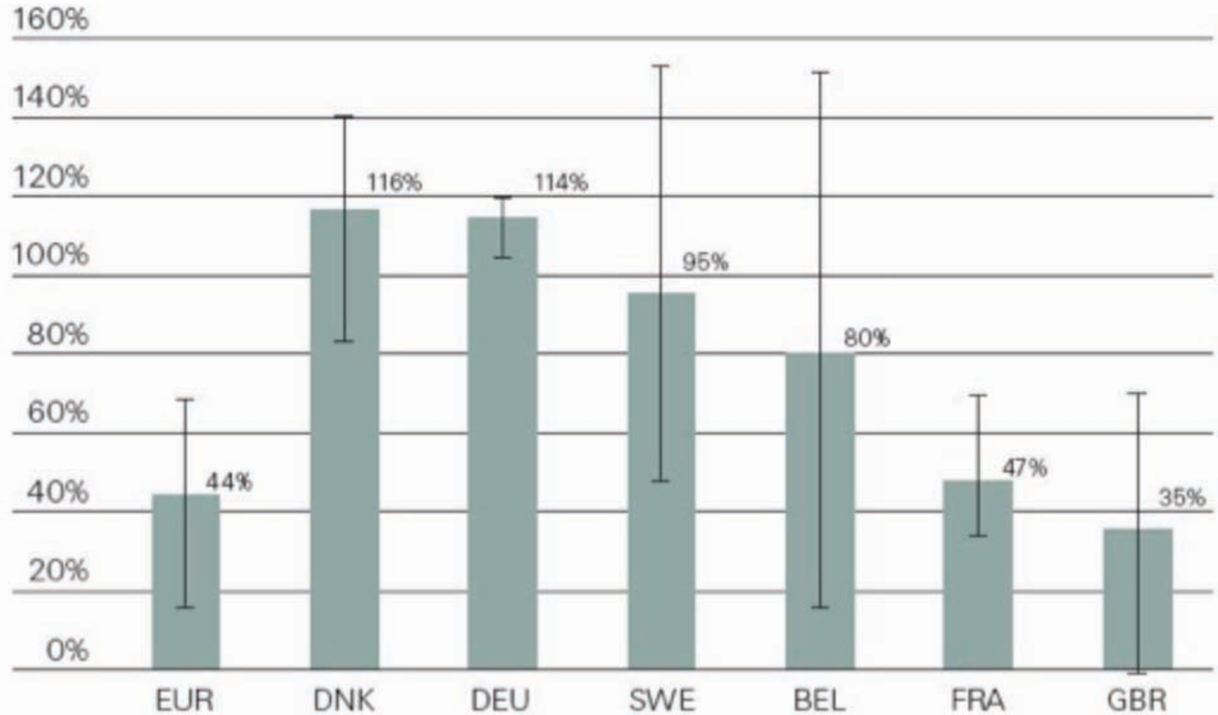
*With potential impacts on risk prediction/quantification; correlation; fortuitousness; and price, **climate change threatens insurability itself** in many areas. Investors and insurance regulators are increasingly concerned.*



While there is disagreement on whether climate change has impacted recent loss trends, Munich Re has concluded that *"the main driver of **future** loss developments will be climate change."*

According to UNEPFI, *"The pace of change in extreme weather events is already fast, and the scale of losses could reach $1 trillion in a single year by 2040."*

Swiss Re Outlook for Winter Storms under Climate Change



Increase in annual expected loss for Europe (EUR), Denmark (DNK), Germany (DEU), Sweden (SWE), Belgium (BEL), France (FRA) and the UK (GBR) over the period 1975 to 2085 (in %). The broad bars represent the mean value of the climatic models, and the error bars show the spread of the results from all models

Liability related to climate change is a significant and poorly understand issue for insurers

- CGL, including claims related to historic GHG emissions
- Product liability claims
- Environmental liability
- Professional liability, including D&O
- Political risk
- Pollution exclusion clauses not a panacea
  - Duty to defend
  - Historic liability
  - Potential insurer liability due to lack of disclosure

What should insurers do?

- **Analyze** potential impacts of climate change on your business, including modeling plausible scenarios
- **Engage** with clients, modelers, policymakers, regulators
- Utilize terms and conditions to **foster the right decisions** by customers
- Fulfill historic role in **loss prevention/mitigation**
- Examine impact of climate change on **invested assets**
- Examine potential for **new products** and services

-From Risk to Opportunity

From risk…

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—Lloyd’s, *Climate Change: Adapt or Bust*

…to opportunity

"Aside from the obvious risk of increased insured losses, the greatest peril comes in adopting the view that relegates climate change to a public relations and environmental issue that's best dealt with by delaying action, rather than taking the view of climate change as **a true business opportunity that demands action now**."

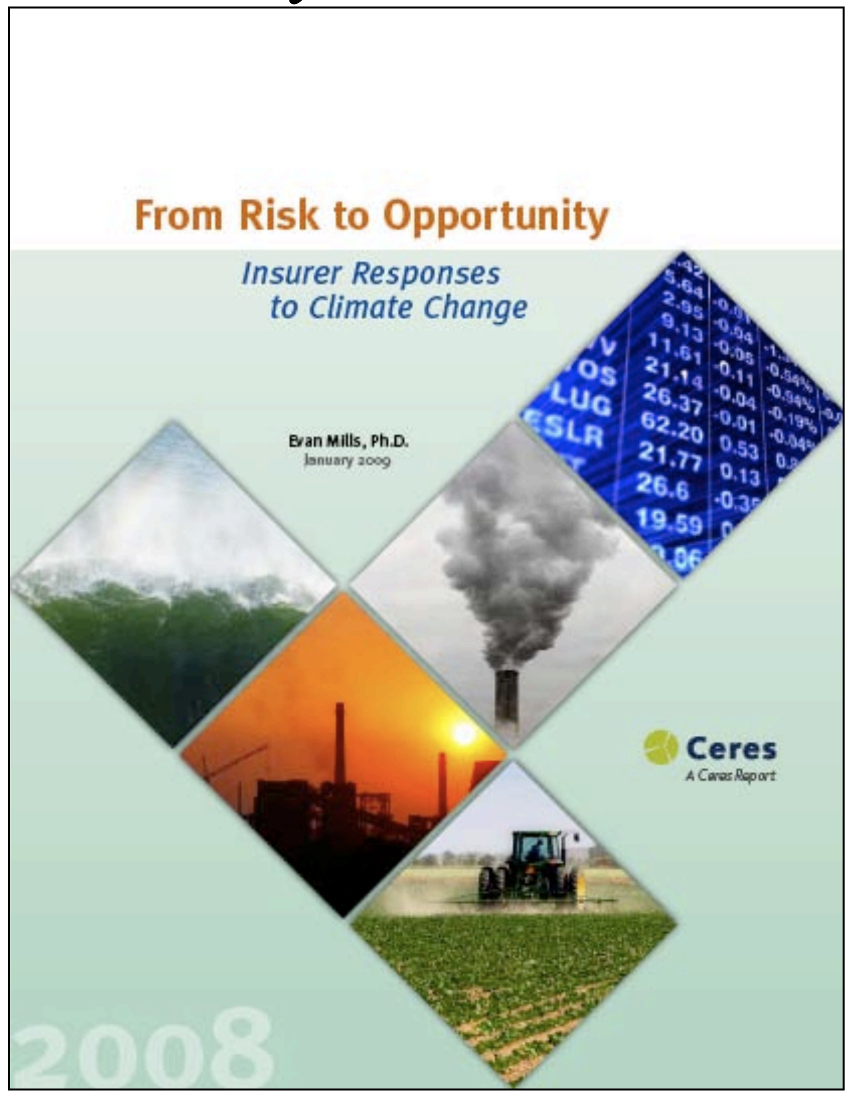
—Howard Mills, Deloitte & Touche

From Risk to Opportunity: 2008

643 examples from 246 entities in 29 countries ... and counting

~50% increase over previous report

Available at www.ceres.org



Key new findings in this year's report

- Increased number and sophistication of **green building** products
- Emergence of **liability** insurance products
- Diversification of auto and **transportation** offerings
- Increased focus on **renewables**
- Increased focus on correlation between sustainable practices and **reductions in risk**
- **More product lines and customer classes** being served
- Increased emphasis on climate **adaptation**
- Escalation of activity in **carbon markets**

The potential impact of new products and services is extremely high

The industry is well-positioned to:

- **Preserve insurability** by promoting loss prevention
- **Encourage reduced GHG emissions** from transport and building use, which together represent 2/3 of GHG emissions
- Encourage **increased investment in low- and no-carbon energy** by lowering cost of capital
- Improve efficiency of **global carbon markets**
- Inform the public **policy debate**

…all while reducing risk for insurers, growing revenue and preserving the long-term viability of the insurance mechanism.

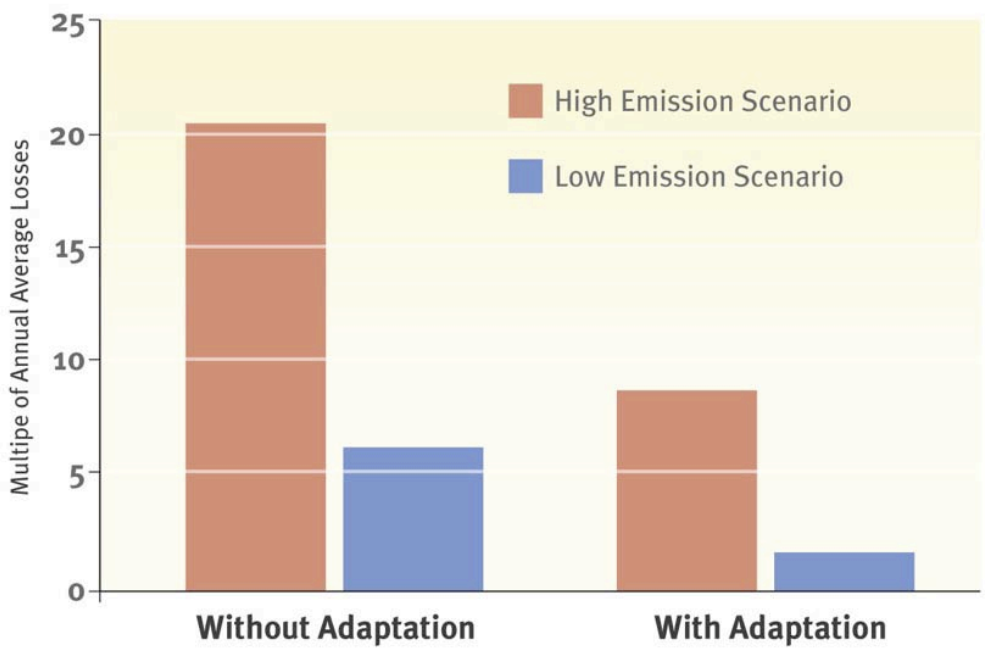
Risk = Hazard x Exposure x Vulnerability

A focus on creative loss prevention can both improve insurability and reduce GHG emissions

- Physical risk management
  - Better building codes and zoning
  - Fortified homes
  - Mitigation shown to be cost effective, yet industry spending is low
- Integrating energy efficiency and risk management
- Better management of forestry, agriculture and wetlands
- “Rebuilding Right” after losses
- Need for new and innovative partnerships
  - Ceres/Heinz Center joint project: “Resilient Coasts”

Promoting Loss Prevention: Land Use Planning

UK Urban Flood Losses under Climate Change



Public Policy as the Ultimate Solution

ClimateWise

40+ insurers under the ClimateWise umbrella recently called for a 40% cut in global GHG emissions by 2020.

The climate crisis poses a systemic risk to the global economy*…Climate change must be tackled now if insurers are to continue to play their fullest role in managing climate risk. …If governments fail to act today,* ***substantial markets may become uninsurable*** *tomorrow.”*

-ClimateWise statement, 22 October 2009

Aligning Terms & Conditions with Risk-reducing Behavior

Insurance discounts of up to 60% for low mileage:

- *GMAC*
- *Progressive*
- *Norwich Union*
- *Polis Direct*
- *Rheinland*
- *Versicherungen*
- *Aioi*
- *Axa*
- *Hollard*
- *Gerling*
- *Unigard*
- *Sompo* and *Tokio Marine & Nichido*

700,000 policies in Europe as of 2008; $700M revenues projected by 2010

GMAC PAYD discount schedule.

Miles/year	Discount offered
1 – 2,500 miles	40%
2,501 – 5,000	33%
5,001 – 7,500	28%
7,501 – 10,000	20%
10,001 – 12,500	11%
12,501 – 15,000	5%
15,001 – 99,999	0%

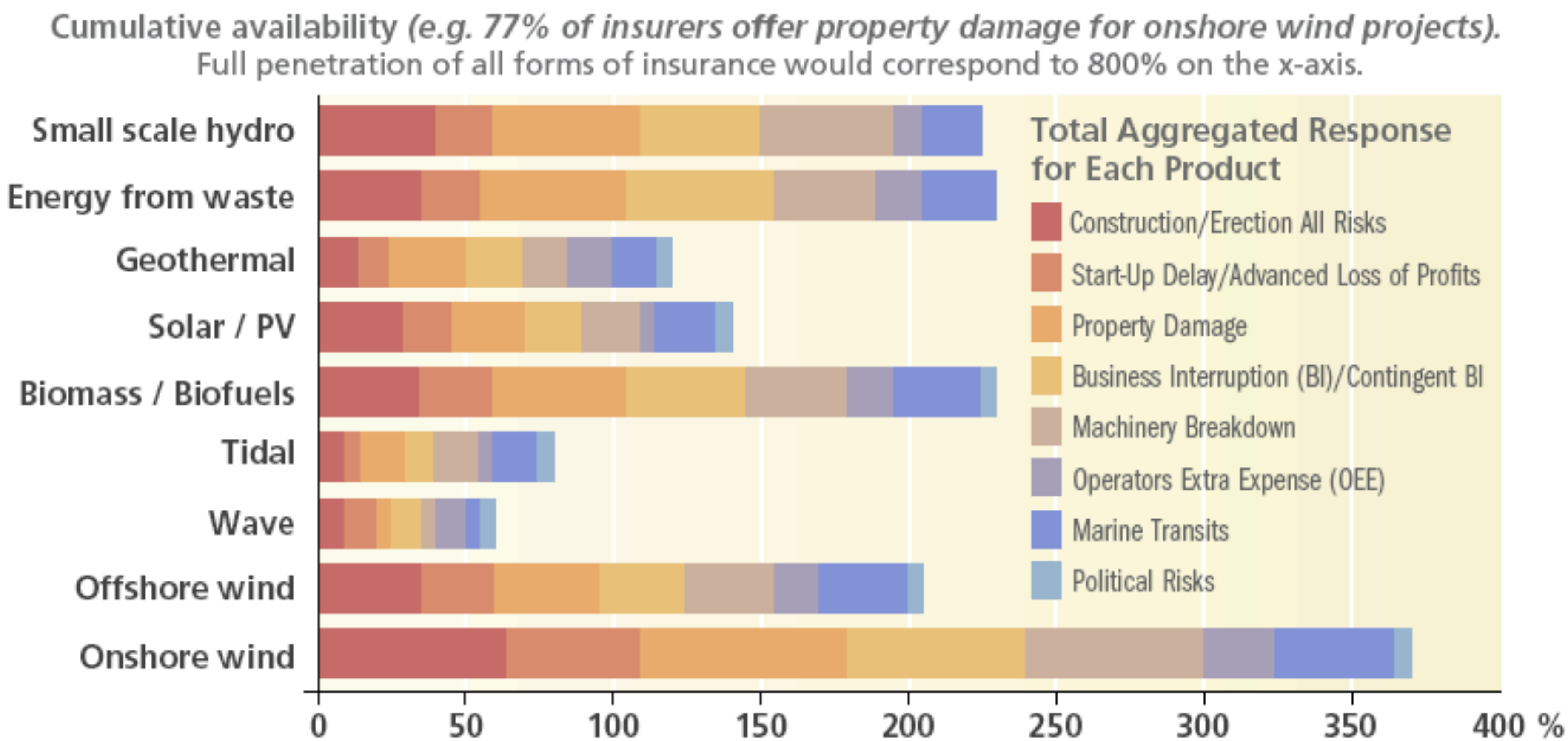
Encouraging GHG reductions while reducing risk: green buildings

- High impact
  - ~40% of GHG emissions are associated with building use
  - green building practices can reduce emissions by 50%+
- Loss prevention benefits of green buildings
  - improved indoor air quality
  - disaster resilience
- Large potential market: $140B in green building in US by 2013
- 39 products from 22 companies
- New idea: “retro-commissioning”

Facilitating investment in renewables: a major new market

- Many new risks that need to be insured
  Traditional physical risks, e.g.
    - -business interruption
    - -equipment breakdown
    - -property damage
- Performance risks that increase the cost of capital can be addressed via
    - -weather derivatives
    - -carbon credit guarantees

Availability of insurance products for renewable energy projects



Some insurers are beginning to examine their investments

ClimateWise

41 companies, including Ace, Allianz, AIG, Aviva, Axa , Lloyds, Munich Re, Swiss Re, RBS, Royal & Sun Alliance, XL, Zurich

Climatewise members have pledged to "incorporate climate change into our investment strategies" through the following strategies:

- Consider the implications of climate change for company performance and shareholder value, and incorporate this information into our **investment decision-making process**.
- Encourage appropriate **disclosure** on climate change from the companies in which we invest.
- Encourage improvements in the energy-efficiency and climate resilience of our investment **property** portfolio.
- **Communicate** our investment beliefs and strategy on climate change to our customers and shareholders.
- Share our assessment of the impacts of climate change with our **pension fund trustees**.

Challenges remain…

- Taking new products to scale
- Ability to secure reinsurance
- Risk diversification
- Lack of standardization in underwriting criteria and pricing
- Regulatory hurdles

…but all are surmountable.

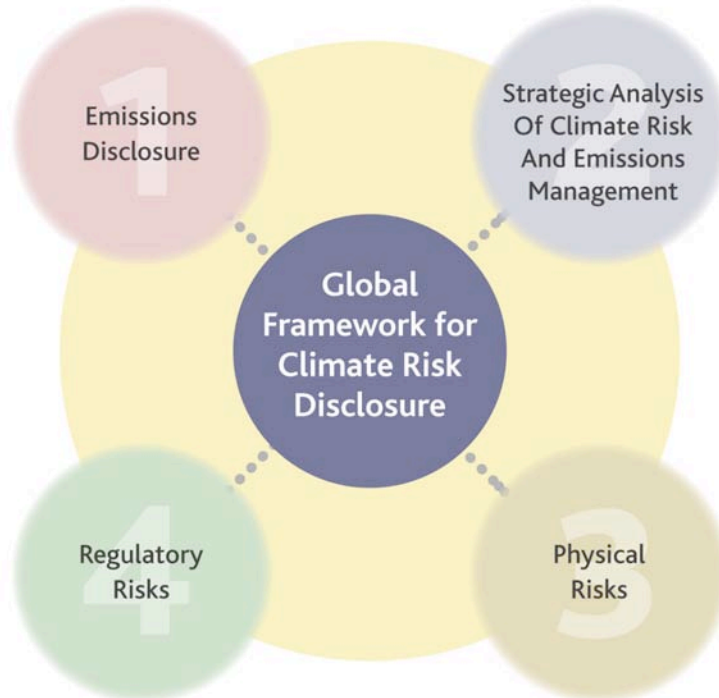
Investors believe that climate change is a material risk which needs to be disclosed

- Seek disclosure which is uniform, substantive, public and specific
  - Thinking and disclosure should be specific, even if disclosure request is not

- Uniform disclosure via multiple outlets:
  - Carbon Disclosure Project
  - SEC
  - NAIC

Global Framework for Climate Risk Disclosure

- INCR members developed the Global Framework for Climate Risk Disclosure to encourage corporate disclosure in SEC filings
- Companies disclose emissions, regulatory and physical risks, and emissions management



The SEC is moving toward mandating disclosure in 2010

Oct. 2nd Speech by Commissioner Walter

- "I believe that it is time for us to consider issuing interpretive guidance regarding [climate risk] disclosure."
- "Even without any further guidance, . . . " companies should consider whether they have disclosure obligations under existing rules.

Oct. 19th Interview with Walter

- SEC staff are preparing recommendations
- Two options are on the table: guidance and rulemaking

NAIC unanimously passed a climate disclosure survey in March

Two general areas of focus:

Climate Change **Impact Assessment**

- Geographic areas subject to rate increases or non-renewals
- Covered perils subject to future exclusions or limitations
- Solvency risk and capital requirements
- Investment risk
- Access to reinsurance
- Cat modeling
- Loss reserves

Climate Change **Mitigation Activities**

- Loss mitigation and prevention
  - Policies and products
  - Risk classification
- Invested assets

Where does disclosure go from here?

- Task Force has committed to **annual review** of responses
  - Outside parties/accounting firms also likely to review/rate
- Potential for questions to **evolve over time**
- **Guidance** document and/or model answers?
- **SEC** likely to act

“We'd be out of our minds if we wrote weather insurance on the opinion global warming would have no effect at all.”

-Warren Buffett

Thank you

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