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## **Climate-Proofing the Balance Sheet of an Insurer/Reinsurer**

**Speech to the Pre-Conference Luncheon of the Canadian Reinsurance Conference  
Hosted by ParkRe  
April 11, 2007**

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Many of you are well aware that the phrase “carbon-neutral” was chosen as the New Oxford English Dictionary word of 2006. This is a sign of the times.

For insurers and reinsurers, to say that climate change is relevant to your business is an understatement – it is of the utmost strategic importance – to both sides of your balance sheet.

On the liabilities side, climate change needs to be considered in terms of expected losses that could arise due to flooding, hurricanes, property damage, even health etc.

But, where do we see increased exposure? Not only where you might think... Bob Watson, Chairman of the Intergovernmental Panel on Climate Change in a presentation in 2000 to the UN Framework Convention on Climate Change provided a good list:

### **Climate Change’s impact will be widespread**

- Water Resources: Climate change could exacerbate water stress in arid and semi-arid areas, and most regions will experience an increase in floods;
- Agricultural Productivity and Food Security: Agricultural productivity is projected to decrease in many countries in the tropics and sub-tropics;
- Natural Ecosystems :
  - Biological systems have already been affected by changes in climate during the last several decades;

- the structure and functioning of ecological systems and decrease biological diversity;
  - Forests are vulnerable to projected changes in climate;
  - Coral reefs are threatened by increases in temperature;
- Human Health: Human health is sensitive to changes in climate because of its impact, in particular, on changes in food security, water supply and quality, and the functioning and range of ecological systems.
  - Sea Level Rise: Sea-level rise is projected to have negative impacts on human settlements, tourism, freshwater supplies, fisheries, exposed infrastructure, agricultural lands and wetlands, causing loss of land, economic losses and the displacement of tens of millions of people:

It explains that climate change isn't just global warming—not just rising seas, stronger hurricanes, bigger storm surges. It also means more, and more frequent, extreme climate events, changing precipitation patterns, accelerating desertification, changes in flora and fauna—notably disease vectors such as mosquitoes spending more time closer to the poles. As a result, we are likely to see the world change in ways that are difficult to anticipate: Climate change will force people to emigrate not only from in low-lying island states such as Kiribati and the Maldives but also in areas exposed to increasingly chronic drought. Migration (of humans as well as animals) will bring shifts in property values, and possible civil unrest over ownership of increasingly scarce water resources.

The liability side is the insurers' area of expertise and many actuaries are spending loads of time thinking about and analyzing the impact of climate change. This is clear from Allstate's recent decision to stop writing homeowners' insurance policies in New York City and Westchester, as well as the more expected coastal areas.

### **Reducing losses through higher standards**

The insurance industry has used its leverage to limit construction in vulnerable floodplains and other unsuitable locations, and to mandate improvements in safety through improved building codes (fire protection is a notable example). They can expand this expertise to other areas of climate risk exposure and promote building codes that encourage water savings and energy efficiency. They can also upstream this leverage by working with local jurisdictions to ensure that their zoning, land use regulations and building codes also support prudent management, which in the long run will limit insurers' losses.

### **Implications**

This implies the need for substantially larger reserves—against catastrophic losses and other unpredictable losses.

Lord Levene of Lloyds suggested that the industry should reserve against the possibility of 2 Katrina-like events in a single year, when he spoke at the National Press Club in DC in January.

He also said that a public-private partnership would be required for this. New approaches such as PPPs need to be developed, for example, to fund a reserve against catastrophic risk, in a situation where public opinion (and insurance commissioners) would not accept a purely private buildup of reserves for this purpose.

### **Opportunities for new business for the liabilities side**

However, there are new business lines and opportunities that are to be explored.

- Coverage of uninsured: World Bank Caribbean Catastrophic facility which is pooling risk for nations that currently don't have coverage.
- Weather derivatives
- Carbon delivery guarantees, now developed by AIG and the World Bank's IFC.

But these new business lines have inherent risks, as the budding weather derivatives business is showing, due to the difficulty of performing actuarial analysis where the future is likely to be different than the past in unpredictable ways.

This brings us to the other side of the balance sheet.... the asset side.

### **Investments**

Insurers need to climate-proof the investment side of their balance sheets – investments that will need to increase to fund both the increased contingent liabilities and the new business lines noted above.

Where insurers need to focus some attention is the asset side as socially responsible investors. For example, the Climate Disclosure Project, an initiative of 284 of the largest institutional investors with some \$41 trillion of assets under management, now in its fifth year has requested the world's top 2,400 publicly listed companies to disclose their climate impact.

Yes, it's good to support socially responsible investment, but that doesn't protect your balance sheet from climate change. At least as important is to promote sustainable investment. The insurance industry has a critical role to play in this area, not only in protecting its own reserves, but promoting practices that will slow down climate change, as well as being investors in climate-related technologies.

Insurers' investment portfolio may be exposed to climate risk as the companies they invest in face performance issues related to (a) the cost of doing carbon-intensive business and (b) direct exposure to climate risk (even

if they are insured). Insurers need to take a close look at the carbon exposure of their investee companies and instruments.

The insurance industry has been at the forefront of sounding the alarm on climate change because insurers have such a great stake in the results. It can now lead the charge on investments that will truly make a difference in slowing climate change and promoting practices that will reduce its impact.

### **Slowing climate change**

Investment in climate-friendly technologies has been slow, largely because most investors focus on the short term. Energy efficiency, renewables, clean coal, sequestration, methane capture and other technologies have high upfront costs and low operating costs—smart long-term investments but not attractive for short-sighted investors who seek returns on a 3-year timeframe.

Some jurisdictions offer tax advantages, for example, for energy-efficient equipment/appliances, but they have been on-again, off-again and haven't worked their way into building practices on a large scale—again, homebuilders want to keep upfront costs low even though high-efficiency appliances and HVAC are cheaper in the long term.

More promising may be the mandates from a growing number of municipalities to use green building practices. [Insurers, with their long-term horizon, are natural investors for the leaders in this segment, whose market will be growing substantially in the next decade as more and more jurisdictions sign on.

### **Adaptation**

It is up to the insurance industry to reward those who use other sustainable practices, not only through coverage decisions, but also through their investments.

The industry can use its leverage based on the huge resources it manages on its own account. It can multiply its impact by using its credibility in the financial sector to spread the word to the broader investment community (pension funds, other institutional investors).

Ultimately, the insurance industry must lead the charge and take up the cause, as the “buck stops with you”.