An AIG Perspective on Climate Change

3rd President's Forum For Meeting Coastal Challenges –

Global Change: The Status of Science and Implications for Coastal Louisiana

How the Insurance Industry is Responding to Climate Change

Baton Rouge – March 20, 2007

What Is the Appropriate Role of Insurers?

- **"The insurance sector is a lightning rod, serving as global integrator of impacts across all sectors of the economy, and messenger of these impacts through the terms and price signals it projects to its customers"** **(P.V. Vellinga et al – Climate Changed 2001: Impacts, Adaptation and Vulnerability)**

- **"Insurers are well positioned to participate in public-private initiatives to monitor loss trends, improve catastrophe modeling, *address the causes of climate change*, and prepare for and adapt to the impacts."** **(Evan Mills – Insurance in a Climate of Change)**

Climate Change: The Long Term Phenomenon v. Weather: The Short Term Event – Where Do They Intersect?

- **"The scientific proof of this connection has yet to be established but there is no doubt about the plausibility and enormity of this supposition. Business and politics must therefore expect the catastrophe situation to continue deteriorating and must accept the costs of effective adjustment and prevention strategies."** **(Gerhard Berz – Munich Re, Weather Catastrophes and Climate Change)**

Climate Change: The Long Term Phenomenon v. Weather: The Short Term Event – Where Do They Intersect?

- **Hurricanes Are Weather Events Arising from Short Term Conditions**
- **Some of the Factors Used to Predict the Probability of Hurricanes Are Directly Linked to the Observed Effects of Climate Change**

What Is the Appropriate Role of Insurers?

- **The Most Prominent Role Is to Underwrite the Risk of Loss Arising from Wind and, for Certain Business Segments, Flood.**

- **Our Primary Objective Is to Minimize Our Customer's Risk of Financial Ruin.**

- **Our Secondary Objective Is to Promote General Economic Recovery.**

How Do We Underwrite Weather Related Risk?

- **Physical Factors**
  - Construction (Building Codes)
  - Barriers – Natural and Man-Made
  - Proximity to Hazard
- **Portfolio Management**
  - Limitation of Aggregate Accumulations by Zone
  - Zones – Determined by Location of Properties Available to Insure or Insured

How Do We Price Weather Related Risk?

- **Risk Based Pricing**
  - Frequency – How Many Events During a Specified Time Period
  - Severity – Probable Size of Events
- **Modeling of Portfolio Risk**
  - The Science
  - The Assumptions
  - The Footprint

Top 10 Most Costly Hurricanes (U.S.)

Insured Loss -- $ 2004 (except Katrina)

Katrina	2005	$40.0
Andrew	1992	$20.9
Charley	2004	$7.5
Ivan	2004	$7.1
Hugo	1989	$6.4
Wilma	2005	$6.1
Rita	2005	$4.7
Frances	2004	$4.6
Jeanne	2004	$3.7
Georges	1998	$3.4

If the Same Storms Hit Today

Top 10 Most Costly Hurricanes in U.S. History (per Model)

Miami	1926	$80 Bn
Andrew	1992	$42 Bn
Katrina	2005	$41 Bn
Long Island	1938	$35 Bn
Betsy	1965	$34 Bn
Galveston	1900	$33 Bn
Okeechobee, FL	1928	$33 Bn
Donna	1960	$26 Bn
Ft. Lauderdale	1947	$24 Bn
Homestead, FL	1945	$20 Bn

What Is the Appropriate Role of Insurers?

- **When We Look Beyond Our Historical Objectives, Our Role Becomes Much Less Clearly Defined.**
- **How Can Insurance Underwriters Address the *Causes of Climate Change*?**
- **How Do We Differentiate Between the Role of Government and the Role of the Insurance Sector?**

What Is the Appropriate Role of Insurers?

- **Many of the Causes Of Climate Change Are Not Insured Events Under Traditional Insurance Contracts Or Are Not Insurable.**
- **Many of the Opportunities to Address These Causes Are Best Addressed By a Portfolio of Financial Products.**
- **Through the Management Of Their Investment Portfolios Insurers Can Support Worthwhile Commercial Projects.**

Who Should Bear the Liability for Climate Change?

- **It Is a Global Issue.**
- **The Responsibility Should be Shared by Everyone on a Practical Basis.**
- **The U.S. Legal System Is the Least Efficient Mechanism for Determination of Climate Policy.**