Global Economic Turmoil, Catastrophic Loss and Insurance: Implications for Risk Management in the Post-Crisis World

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Presentation Outline

- Is the World Becoming a Riskier Place?
  - Recent Events and Implications for the Global P/C (Re)Insurance Industry

- The Global Financial Crisis, Risk and the New World Order

- Global Economic and Trade Outlook

- The Unfortunate Nexus: Opportunity, Risk & Instability
  - Future growth is necessarily fraught with greater risk
  - Types, magnitude of risk inherent in future growth opportunities

- Reshuffling the Global Economic Deck
  - The Ascendancy of China
  - Foreign Direct Investment (FDI) and insurance exposure/demand

- P/C Insurance Financial Overview & Outlook

- Q&A
What in the World Is Going On?

Is the World Becoming a Riskier Place?

Are We Really Crawling Out of the Abyss or Falling Into a New One?
Uncertainty, Risk and Fear Abound

- Resurgent Terrorism Risk (e.g., Bin Laden Killing)
- Record Tornado Activity & Flooding in the US
- Japan, New Zealand, Haiti, Chile Earthquakes
- Political Upheaval in the Middle East
- Echoes of the Financial Crisis
- Housing Crisis
- US Debt and Budget Crisis
- Sovereign Debt & Currency Crises
- Inflation
- Runaway Energy & Commodity Prices
- Era of Fiscal Austerity
- Reshuffling the Global Economic Deck
- China Becomes #2 Economy in the World
- Nuclear Fears
- Manmade Disasters (e.g., Deepwater Horizon)

Are “Black Swans” everywhere or does it just seem that way?
Mississippi River Floods: A Threat to Navigation

Memphis (May 5, 2011)—with the swollen Mississippi flooding fields in Arkansas across the river. The river is normally ½ mile across but is now 3 miles wide in places.

Mississippi River just south of Memphis (May 5, 2011). TN is to the right, AR to the left. The was expected to crest on May at 48 ft., 14 ft. above flood stage and near the record of 47.8 ft. set in 1937.

Sources: Photos by Robert Hartwig, Insurance Information Institute, May 5, 2011.
Terrorism, Insurance and the Killing of Osama bin Laden

Is the World Less Risky and Do We Still Need the Terrorism Risk Insurance Program?
Bin Laden, Justice and the Future of Terrorism, Risk and Insurance

Bin Laden is Dead and Justice Is Served, But What Are the Implications for the P/C Insurance Industry?

Sources: Insurance Information Institute.
9/11 losses totaled $40.0 billion in 2010 dollars ($32.5 billion in 2001 dollars)

9/11 was the largest insured loss in global history until Hurricane Katrina in 2005

Sources: Insurance Information Institute research.

(1) Loss total does not include NYC March 2010 settlement of up to $657.5 million to compensate about 10,000 Ground Zero workers.
(2) Sum of segment totals may not equal overall total due to rounding. Adjusted to 2010 dollars using the Bureau of Labor Statistics (BLS) Inflation Calculator.
## Thwarted and Failed Terrorism Attempts Against the US in 2009 and 2010

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 8, 2010</td>
<td>Baltimore, MD</td>
<td>Attempted bombing of Armed Forces recruiting center by U.S. citizen Antonio Martinez, aka Muhammad Hussain</td>
</tr>
<tr>
<td>November 26, 2010</td>
<td>Portland, OR</td>
<td>Attempted bombing at Christmas tree lighting ceremony in downtown Portland by naturalized U.S. citizen Mohamed Osman Mohamud</td>
</tr>
<tr>
<td>October, 2010</td>
<td>Washington D.C.</td>
<td>Attempted plot to bomb D.C.-area metro stations</td>
</tr>
<tr>
<td>May 1, 2010</td>
<td>New York City, NY</td>
<td>Attempted SUV bombing in Times Square, New York City, by naturalized U.S. citizen Faisal Shahzad</td>
</tr>
<tr>
<td>December 25, 2009</td>
<td>Over Detroit, MI</td>
<td>Attempted bombing of Northwest Airlines passenger jet over Detroit by underwear bomber Umar Farouk Abdulmutallab</td>
</tr>
<tr>
<td>September, 2009</td>
<td>New York City, NY</td>
<td>U.S. resident Najibullah Zazi and others charged with conspiracy to use weapons of mass destruction in New York City</td>
</tr>
<tr>
<td>September, 2009</td>
<td>Springfield, IL</td>
<td>Attempted plot to detonate a vehicle bomb at the federal building in Springfield, IL</td>
</tr>
<tr>
<td>September, 2009</td>
<td>Dallas, TX</td>
<td>Attempted bombing of skyscraper in Dallas, TX</td>
</tr>
<tr>
<td>May, 2009</td>
<td>New York City, NY</td>
<td>Foiled plot to bomb Jewish synagogue and shoot down military planes in New York City</td>
</tr>
<tr>
<td>May, 2009</td>
<td>Various U.S. targets</td>
<td>Conviction of Liberty City six for conspiring to plan attacks on U.S. targets, including Sears Tower, Chicago</td>
</tr>
</tbody>
</table>

There Have Been Numerous Unsuccessful Attempts by Terrorists to Attack the US Over the Past 2 Years

Summary of Japan Earthquake & Impacts on US P/C Markets

The March 11 Quake & Other Major CATs Are Big Events, But Will They, Can They Impact US P/C Markets?
March 11 Earthquake Facts as of 4/21/2011

- Magnitude 9.0 earthquake struck Japan at 2:46PM local time (2:46AM Eastern) off northeast coast of Honshu, 80 miles east of Sendai.

- Quake is among the 5 strongest in recorded history and the strongest in the 140 years for which records have been kept in Japan.

- 12,000+ fatalities

- Economic loss: $100 - $300 bn

- Insured losses up to $45 bn

- Fukushima Nuclear Plant threat level raised to Category 7 on April 11 (highest, same as Chernobyl)

- Significant tsunami damage was recorded in Japan; relatively minor damage on the U.S. West Coast.
Insured Japan Earthquake Loss Estimates*

(Insured Losses, $ Billions)

Economic losses are likely to total in the $200-$300 billion range, meaning only a fraction of the loss is insured.

- **Eqecat**: $12 - $25 bn
- **RMS**: $21 - $34 bn
- **AIR Worldwide**: $25 - $35 bn
- **Towers Watson**: $20 - $45 bn

*As of April 21, 2011. Towers Watson estimate includes $3.0 (low) to $4.9 billion (high) in life insurance losses. RMS estimate includes insured life/health losses of $3 to $8 billion.

Sources: AIR Worldwide, Eqecat, RMS, Towers Perrin; Insurance Information Institute.
Recent Major Catastrophe Losses

(Insured Losses, $US Billions)

The March 2011 earthquake in Japan will become among the most expensive in world history in terms of insured losses (current leader is the 1994 Northridge earthquake with $22.5B in insured losses in 2010 dollars)

Insured Losses from Recent Major Catastrophe Events Exceed $55 Billion, an Estimated $53 Billion of that from Earthquakes

Sources: Insurance Council of Australia, Munich Re, AIR Worldwide; Insurance Information Institute.
Reinsurers’ share of major market losses was exceptionally high in 2010 and early 2011.

Source: Holborn; RAA.

* 2011 events are as of March 31 and are preliminary and may change as loss estimates are refined further.
Change in Reinsurer Capital, 2007-2010:Q3

Change in Reinsurer Capital

- 2007: $411B
- 2008: $342B (-17%)
- 2009: $402B (18%)
- Q3 2010: $470B (17%)

Source: Aon Benfield Analytics
Potential Impacts of Japan Quake & Other Major CATs on P/C (Re)Insurance Markets

Impacts Could Be Felt Well Beyond Japan
Nonlife (P/C) Insurance Market Impacts of Japan Earthquake

- Little/No Direct Impact for US Primary Insurance Markets
- Primary Insurance: Domestic Japanese Insurers Take Big Losses
- Few US/Foreign Insurers Had Direct Exposure to Japanese P/C Market
  - Low single-digit market share for a small number of companies
  - Not a capital event for any non-Japanese primary insurer
- Significant Absorption of Loss by Japanese Government
  - Residential earthquake damage
  - Nuclear-related property and liability damage
- Significant Impacts for Global Reinsurers
  - Property-Catastrophe covers on Commercial Lines
  - Business Interruption/Contingent Business Interruption
- Currently an Earnings Event for Global Reinsurers
  - Not a capital event: Global reinsurance markets entered 2011 with record capital
- Cost of Property/Cat Reinsurance Rising in Japan, New Zealand, Australia
  - Up for all; Magnitude of increase is sensitive to size of loss
- Reinsurance Coverage Remains Available in Affected Regions
- Marginal Impact of Cost of US Property-Cat Reinsurance
  - Market remains well capitalized and competitive
  - Elevated global cat activity could halt price declines for property/cat reinsurance
Summary of April 2011 Tornado Outbreak

2011 Will Be Among the Most Deadly and Expensive for Tornadoes in History
Summary of Recent Tornado Activity

- There Have Been 1,042 Tornadoes Through May 6 in the US
- At least 361 People Have Been Killed
- The April 27 Tornado Outbreak Killed at Least 342 People
  - Now the 2nd deadliest outbreak in US history (747 killed in March 1925 event)
  - States impacted: AR, TN, LA, MS, GA and especially AL
- Insured Losses Estimated at $2B to $5B (Eqecat); $3.7B - $5.5B (AIR)
- Economic Losses Likely in the $4 Bill to $10 Bill Range
- P/C Insurers (and their Reinsurers) Will Settle Tens of Thousands of Home, Business and Auto Claims
- There is Damage to Inland Port Facilities
- P/C Insurance Industry is Very Strong and Will Encounter No Difficulties in Paying these Claims
Number of Tornadoes and Related Deaths, 1990 – 2011*

Tornadoes have already claimed nearly 400 lives

Number of Tornadoes and Related Deaths, 1990 – 2011*

There were already 1,042 tornadoes in the US by May 6

*2011 is preliminary data through May 6.
There were 1483 tornadoes in the US in 2010, slightly above average. 2011 is shaping to be a deadlier version of 2008.

Source: NOAA

Annual average is based on preliminary LSRs, 2005-2009.
877 tornadoes had killed more than 400 people through late April, including at least 340 on April 26, the second deadliest tornado outbreak in US history.
Severe Wind Reports, January 1—April 29, 2011

There have been 7,136 severe wind reports through April 29; 5,280 of those (74%) were in April; There have also been 1,992 “Large Hail” reports.

Global Catastrophe Losses Have Interrupted Trade Flows

Ships, Ports Damaged
Increased claims paying capacity will be required on a global scale if current trends continue (as is expected).

Source: Geo Risks Research, NatCatSERVICE. © 2011 Munich Re
Natural Catastrophes, 2010
950 loss events

Insurance is a global business and claims paying ability is interconnected via reinsurance markets

- Natural catastrophes
- Selection of significant loss events (see table)

Geophysical events (earthquake, tsunami, volcanic activity)
Meteorological events (storm)

Hydrological events (flood, mass movement)
Climatological events (extreme temperature, drought, wildfire)

Source: Geo Risks Research, NatCatSERVICE
The Global Financial Crisis, Risk and the New World Economic Order

The Crisis Made Insurers’ Path to Growth More Challenging/Risky
The New World Order: A New Level of Risk for Business

- Best Growth Opportunities are No Longer in Low-Risk Markets (W. Europe, US/Canada, Japan)
- Growth Rates are 2-3 Times Higher in Developing World
  - Business investment will remain high, much of it in need of insurance
  - Investment conditions will remain challenging for decades
- Unemployment Rates Are Much Lower in Emerging Economies
  - Establishment of a middle class and a wealthy upper class
- Incomes Are Rising Faster in Emerging Economies
  - Fueling demand for goods and services
  - Foreign Direct Investment (FDI) and insurance exposure/demand
- Immature Institutions Raise Risk/Possible Systemic Risks
  - Legal system, financial markets, regulation, infrastructure issues
- Instability in Emerging Nations Will Remain High
  - Political instability; Corruption in some countries
  - Economic vulnerability (trade, xrt risk, credit risk, commodities, energy)
- Natural Hazard Risks Are Often Elevated w/Minimal Mitigation
World Economic Outlook: 2009-2012F

IMF says growth in emerging and developing economies will outpace advanced ones in 2011/12. The impact will be to accelerate the relative growth of insurance exposures outside the US, W. Europe and Japan.

Outlook uncertain: The world economy continues to recover from the global economics, but activity is reviving at different speeds in different parts of the world, according to the IMF. A clear set of “winners” has emerged with direct implications for all industries and their insurers.

Sources: IMF, World Economic Outlook, Apr. 2011; Insurance Information Institute.
Global trade in flows recovered sharply following the financial crisis, with both imports and exports rising sharply.

Sources: IMF, World Economic Outlook, Apr. 2011; Insurance Information Institute.
Raw materials prices doubled over the course of 2010. Some other commodity prices dropped during the year but ended 20-30% higher. The upward trend has continued into 2011.

*data are through Jan. 20, 2011
The global financial crisis created significant exchange-rate volatility in 2008-09 and 2010—when the world needed a “safe haven” currency. As global stability returns, the dollar is depreciating again.

*The Major Currency index is a weighted average of the foreign exchange values of the U.S. dollar against a subset of the currencies of a large group of major U.S. trading partners. The index weights, which change over time, are derived from U.S. export shares and from U.S. and foreign import shares. Sources: US Federal Reserve, Board of Governors; Insurance Information Institute.
Exchange Rate Indices*
Daily (Jan 1, 2010 = 100)

The US dollar has generally depreciated against other major currencies, as US monetary policy keeps yields on US assets artificially low.

*data are through Jan. 21, 2011
Real GDP Growth Forecasts for Advanced Economies: 2011 - 2012

Growth projections could slow for 2011 if supplies of middle-eastern oil (political disruption), developments involving sovereign debt (the PIGS or other countries) or Japanese exports (earthquake/tsunami effects) are worse than expected.

Sources: Blue Chip Economic Indicators (4/2011 issue); Insurance Information Institute.
Growth in emerging and developing economies will greatly outpace advanced country growth in 2011/12. This will accelerate the growth of insurance exposures in emerging markets relative to the U.S., W. Europe and Japan.

Sources: Blue Chip Economic Indicators (4/2011 issue); Insurance Information Institute.
Growth in industrialized Asian economies will greatly outpace much of the rest of the world in 2011/12. This will accelerate the growth of insurance exposures in emerging markets relative to the U.S., W. Europe and Japan.

Sources: Blue Chip Economic Indicators (4/2011 issue); Insurance Information Institute.
Emerging economies (led by China) are expected to grow by 6.5% in 2011 and 2012. Role of FDI in exposure growth key.

Advanced economies are expected to grow at a relative modest 2.5% in both 2011 and 2012.

World output is forecast to grow by 4.4% in 2011 and 4.5% in 2011, following growth of 3.0% in 2010 and a 0.6% drop in 2009.
Relative Shares of Global Output, Advanced vs. Developing Economies, 2009

Developing Economies: 47.1%
Advanced Economies: 52.9%

The gap is closing quickly. China became the world’s second largest economy in 2010 and before long the developing world’s share of GDP will exceed that of advanced economies.

Investment in machinery and equipment is running ahead of investment overall.

Emerging economy investment slumped in late 2010.

Advanced economies disinvested during recession, while investment in emerging economies was mostly positive.

Advanced investment is back to pre-crisis levels.
Global industrial production was down over 25% in early 2009, severely curtailing global trade, but growing at a 9% clip in late 2009.

Employment Growth in Advanced Economies

January 2007 through November 2010 (Percent Change; 3-month moving avg.)

The job losses in 2008/2009 were among the steepest in post-Depression history

Unemployment Rates in Advanced Economies Remain Much Higher than Among Emerging Economies

Persistently high unemployment is among the greatest obstacles to insurer exposure/demand growth (nonlife and life).

Unemployment Rates for Major Global Economies, 2009-2011F

Advanced Economies
Newly Industrialized Economies
Euro Zone
Asia
US

Unemployment in Advanced Economies is more than double that of Emerging Economies.

Consumers in Emerging and Developing Markets Are Increasingly Important to the Global Economy

Nonlife Real Premium Growth Rates by Region: 1999-2008 and 2009

Real Premium Growth Rates

Every emerging market region except Central and Eastern Europe experienced growth during the financial crisis.

Many emerging market economies continued to grow during the global financial crisis and continued to benefit from foreign direct investment.

Source: Swiss Re, sigma, No. 2/2010.
Although premium growth throughout the industrialized world was negative in 2009, its share of global nonlife premiums remained very high at nearly 86%—accounting for nearly $1.5 trillion in premiums.

The financial crisis and sluggish recovery in the major insurance markets will accelerate the expansion of the emerging market sector.

Sources: NAIC; Insurance Information Institute research.
The Unfortunate Nexus: Opportunity, Risk & Instability

Most of the Global Economy’s Future Gains Will be Fraught with Much Greater Risk and Uncertainty than in the Past—Insurance Is There to Help

Average: 1980-2009
Industrialized Countries: 3.9%
Emerging Markets: 9.2%
Overall Total: 4.2%

Nonlife premium growth in emerging markets has exceeded that of industrialized countries in 26 of the past 30 years, including the entirety of the global financial crisis.

Real growth rates

Source: Swiss Re, sigma, No. 2/2010.
Nonlife Real Premium Growth in 2009

Latin and South American markets performed relatively well during the global financial crisis in terms of growth. There was also growth in East and South Asia and well as Australia and New Zealand.

Source: Swiss Re, sigma, No. 2/2010.
Political Risk in 2010: Greatest Business Opportunities Are Often in Risky Nations

The fastest growing markets are generally also among the politically riskiest

Heightened risk has insurance implications

Source: Maplecroft
Economic Threats to Global Economy & (Re)Insurance Industries

At Least Eight to Monitor: Near-Term and Longer-Term Risks
Near-Term Issues with Potentially Adverse Impacts to Global Growth

- **Japan Earthquake: Effects of the March 11 Earthquake/Tsunami/ Nuclear Reactor Accident**
  - Lost final production
  - Disrupted supply chains
  - Lost Japanese consumption
  - Potential (modest) impact on GDP
  - Political spillover in Europe (e.g., Germany)

- **Political Unrest in the Middle East**
  - Higher energy prices
  - Military action
  - Elevated political uncertainty
  - Safety of property and employees abroad

Source: Insurance Information Institute.
Near-Term Issues with Potentially Adverse Impacts to Global Growth

- **Inflation Transmitted Globally**
  - China, Brazil and other countries
  - Soaring food, energy and other commodity prices
  - Oil prices and supply reliability

- **Tighter Monetary/Fiscal Policy/Austerity → Slower Growth?**
  - Europe, US

Source: Insurance Information Institute.
Political Risk in 2010: Greatest Business Opportunities Are Often in Risky Nations

The fastest growing markets are generally also among the politically riskiest.

Heightened risk has insurance implications.

Source: Maplecroft
Inflation is forecast to be around 2% across most major European economies. If so, interest rates will remain low, obscuring tight conditions in trade credit markets.
Inflation Rate Forecast for Other Important Countries, 2011-12F

% Change from Prior Year

<table>
<thead>
<tr>
<th>Country</th>
<th>2011F (%)</th>
<th>2012F (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>4.3%</td>
<td>3.7%</td>
</tr>
<tr>
<td>India</td>
<td>7.7%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Brazil</td>
<td>5.3%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Japan</td>
<td>-0.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Canada</td>
<td>2.2%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Russia</td>
<td>8.6%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

Source: Blue Chip Economic Indicators, March 2011 issue

Inflation is much higher in fast-growing economies such as Brazil, Russia, India, and China (the BRIC group). Inflation there can spread to advanced economies because the advanced countries import significantly from the BRICs.
Annual Inflation Rates, (CPI-U, %), 1990–2014F

The slack in the U.S. economy suggests that inflation should not heat up before 2012, but other forces (commodity prices, inflation in countries from which we import, etc.), plus U.S. debt burden, remain longer-run concerns.

Inflation peaked at 5.6% in August 2008 on high energy and commodity crisis. The recession and the collapse of the commodity bubble reduced inflationary pressures in 2009/10.

Higher energy, commodity and food prices are pushing up inflation in 2011, but not longer turn inflationary expectations.

U.S. P/C Insurance Claim Cost Drivers Grow Faster than even the Medical CPI Suggests

Price Changes in 2010

<table>
<thead>
<tr>
<th>Category</th>
<th>Price Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall CPI</td>
<td>1.6%</td>
</tr>
<tr>
<td>&quot;Core&quot; CPI</td>
<td>1.0%</td>
</tr>
<tr>
<td>Medical CPI</td>
<td>3.4%</td>
</tr>
<tr>
<td>Inpatient Hospital Services</td>
<td>8.8%</td>
</tr>
<tr>
<td>Outpatient Hospital Services</td>
<td>6.1%</td>
</tr>
<tr>
<td>Physicians' Services</td>
<td>3.3%</td>
</tr>
<tr>
<td>Prescription Drugs</td>
<td>4.3%</td>
</tr>
<tr>
<td>Medical Care Commodities</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Excludes Food and Energy

Healthcare costs are a major liability, med pay, and PIP claim cost driver. They are likely to grow faster than the CPI for the next few years, at least

Raw materials prices doubled over the course of 2010. Some other commodity prices dropped during the year but ended 20-30% higher. The upward trend has continued in to 2011.

Longer-Term Issues

- **Persistently Low Interest Rates/Int. Rate Policy**
  - Lower investment income, more pressure on u/w profit
  - Policy Dilemma: Stimulus/Low UnN or Price Stability

- **Currency Market Instability**
  - Exchange rate volatility
  - Future of the euro

- **Sovereign Bond Market Concerns**
  - Portugal, Greece, Ireland, Spain, etc.

- **Strong Capital Flows to Emerging/Developing Economies => Asset Price Bubbles?**

- **Regulatory Backlash/Developments**
  - Solvency II, Basel III
  - US Financial Services Reform (Dodd-Frank)

Source: Insurance Information Institute.
Internationally, Most Short-Term Interest Rates Are Generally Still Quite Low

<table>
<thead>
<tr>
<th>Central Bank</th>
<th>Current Interest Rate</th>
<th>Last Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of Canada</td>
<td>1.00%</td>
<td>Sept. 8, 2010</td>
</tr>
<tr>
<td>Bank of England</td>
<td>0.50%</td>
<td>March 5, 2009</td>
</tr>
<tr>
<td>Bank of Japan</td>
<td>0.10%</td>
<td>Dec 19, 2008</td>
</tr>
<tr>
<td>European Central Bank</td>
<td>1.00%</td>
<td>May 7, 2009</td>
</tr>
<tr>
<td>U.S. Federal Reserve</td>
<td>0.25%</td>
<td>Dec 16, 2008</td>
</tr>
<tr>
<td>The Reserve Bank of Australia</td>
<td>4.75%</td>
<td>Nov. 2, 2010</td>
</tr>
<tr>
<td>China</td>
<td>6.06%</td>
<td>Feb. 8, 2011</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td>0.50%</td>
<td>Dec 17, 2008</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>3.00%</td>
<td>March 10, 2011</td>
</tr>
<tr>
<td>Hungary</td>
<td>6.00%</td>
<td>Jan. 24, 2011</td>
</tr>
</tbody>
</table>

Interest rates remain generally low in much of the world, depressing insurer investment earnings. Some countries, including the U.S., are intentionally holding rates low.

Other countries are intentionally raising rates to fight inflation.
As these nations’ economies improve, and actions to keep interest rates low are ended, the yields on longer-term bonds are expected to rise. But persistent high rates of unemployment and excess capacity, plus central bank concerns about inflation, will likely keep them from rising more than one percentage point by mid-2012.

Source: Wells Fargo Economics Group, Global Chartbook, March 2011
PIGS Government Bond Spreads
(2-Year Yield Spreads over German Bunds) in 2010-2011*

For one day in 2010, it took nearly 18 percentage points more yield to lure an investor to a 2-Year Greek bond vs. a comparable German bond.

110-billion-Euro rescue package drove the Greece bond spread down below 700 bp…

…but the market isn’t convinced the rescue will work.


*data are through Jan. 21, 2011
The global financial crisis created significant exchange-rate volatility in 2008-09 and 2010—when the world needed a “safe haven” currency. As global stability returns, the dollar is depreciating again.

*The Major Currency index is a weighted average of the foreign exchange values of the U.S. dollar against a subset of the currencies of a large group of major U.S. trading partners. The index weights, which change over time, are derived from U.S. export shares and from U.S. and foreign import shares. Sources: US Federal Reserve, Board of Governors; Insurance Information Institute.
The US dollar has generally depreciated against other major currencies, as US monetary policy keeps yields on US assets artificially low.

*data are through Jan. 21, 2011

But Exchange-Rate Changes Generally Have Little Effect on U.S. Import Prices

- In theory, a change in the value of the dollar should raise or lower the cost of foreign goods, thereby reducing or increasing U.S. demand for imports.

- However, numerous economic studies have shown that when the dollar fluctuates against foreign currencies, U.S. import prices tend to show much less change. This can crimp profits.

- Using data for 1999 to 2008, a recent paper estimates exchange rate pass-through to U.S. import prices for aggregate U.S. imports (all imports excluding oil and consumer goods), and for prices of imports from Japan, the European Union (EU), Canada, the NIEs, and Latin America.
  - The exchange rate pass-through estimates were found to be low (0.47 for all imports excluding oil and 0.26 for consumer goods) over 4 quarters.
  - Estimates of bilateral exchange-rate pass-through range from 0.59 for Latin America (largely Mexico) to 0.0 for the NIEs (Taiwan, Singapore, South Korea, and Hong Kong).

Reshuffling the Global Economic Deck Through *Foreign Direct Investment*

The Global Financial Crisis Concentrates Growth Opportunities in Risky Places/Industry Groups
Foreign Direct Investments are defined as the net inflows of investment to acquire a lasting management interest (at least 10% of voting stock) in an enterprise operating in an economy other than that of the investor.


Most Growth Will Be in Parts of the World Where Foreign Direct Investment is High. FDI Flows Are Highly Volatile Meaning that New Income Streams for Businesses (and Insurers) Will Also Be Volatile

*Foreign Direct Investments are defined as the net inflows of investment to acquire a lasting management interest (at least 10% of voting stock) in an enterprise operating in an economy other than that of the investor.

Following the Money Trail: Foreign Direct Investment

Cuban communism: beginning of the end?
US employment goes from bad to worse
Dr Evil, the commodity speculator
Ireland under siege
Keith Richards, management guru

Buying up the world
The coming wave of Chinese takeovers

Global shoppers
Stock of outward foreign direct investment % of world total

- United States
- Britain
- China*
- Japan

Sources: UNCTAD; “Multinational Enterprises and the Global Economy” by J.H. Dunning
*Including Hong Kong and Macau
Following the Money Trail: Outward Foreign Direct Investment

The UK’s share of FDI peaked at 45% in 1914

The US’s share of FDI peaked at 50% in 1967

China’s share of FDI stood at 6% in 2009

Source: The Economist, Nov. 13-19, 2010
Crisis Driven Change in Outward Foreign Direct Investment by Region: Who’s Creating Global Insurance Exposure?

*Foreign Direct Investments are defined as the net inflows of investment to acquire a lasting management interest (at least 10% of voting stock) in an enterprise operating in an economy other than that of the investor. Outward FDI represents flow from investing country to rest of the world.


Growth in the global GDP (and insurable exposures) will increasingly be tied to the direction and magnitude of global flow of investment capital.
Despite the Crash in Foreign Direct Investment During the Global Financial Crisis, Chinese Investments Abroad Remain Near Record Levels. Implication: Growth Opportunities for Business (and their Insurers) May Not Be in China but In Chinese Investment Target Nations/Companies/Industries.

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Chinese banks are willing to loan heavily, despite global economic turmoil, to expand Chinese investment abroad. The health and investment policies of Chinese will take on an ever-greater impact in the ability to financial insurable exposures worldwide. Financial risk is an issue.

America’s industrial rise began 50-60 years before it became a global financial power in the 1920s. Will it take China that long? *Probably not.*

Chinese Banks’ Lending Activity Abroad Showed Little Impact from the Global Financial Crisis, but Eventually, Bank Crises Will Originate in China
Despite the Crash in Foreign Direct Investment During the Global Financial Crisis, Investments Abroad by Hong Kong Remain Near Record Levels

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**South Korea: Outward Foreign Direct Investment: 1980-2009**

Foreign Direct Investment from South Korea increased 437% from 2001 to 2009 (from $2.4 bill to $10.6 bill), but plunged 44% during the financial crisis.

The Global Financial Crisis Hit South Korean Foreign Direct Investment Abroad Harder than Was the Case in Several of Its Neighbors

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United States: *Outward* Foreign Direct Investment: 1980-2009*

Direct Investments Abroad by US Interests Were Hit Hard by the Global Financial Crisis

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P/C Insurance Industry
Financial Overview

Profit Recovery Continues
Early Stage Growth Begins
P/C Industry 2010 profits were $34.7B vs. $28.7B in 2009, due mainly to $5.7B in realized capital gains vs. -$7.9B in previous realized capital losses.

* ROE figures are GAAP; †Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 7.5% ROAS for 2010 and 7.4% for 2009.

Sources: A.M. Best, ISO, Insurance Information Institute
ROE: Property/Casualty Insurance, 1987–2010*

Sources: ISO, Fortune;
A 100 Combined Ratio Isn’t What It Once Was: Investment Impact on ROEs

A combined ratio of about 100 generated ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979

Combined Ratios Must Be Lower in Today’s Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2009 and 2010 figures are return on average statutory surplus. 2008, 2009 and 2010 figures exclude mortgage and financial guaranty insurers

Source: Insurance Information Institute from A.M. Best and ISO data.
Winds of Change or Moving Sideways?
Soft Market Persisted in 2010 but Growth Returned: More in 2011?

Net Written Premiums Fell 0.7% in 2007 (First Decline Since 1943) by 2.0% in 2008, and 4.2% in 2009, the First 3-Year Decline Since 1930-33.

NWP was up 0.9% in 2010 with forecast growth of 1.4% in 2011

Shaded areas denote “hard market” periods
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.
Finally! Back-to-back quarters of net written premium growth (vs. the same quarter, prior year)

Sources: ISO, Insurance Information Institute.
Rate and exposure are more favorable in personal lines, whereas a prolonged soft market and sluggish recovery from the recession weigh on commercial lines.

Sources: A.M. Best; Insurance Information Institute.
Cyclicality is Driven Primarily by the Industry’s Underwriting Cycle, Not the Economy
As Recently as 2001, Insurers Paid Out Nearly $1.16 for Every $1 in Earned Premiums

Heavy Use of Reinsurance Lowered Net Losses

Relatively Low CAT Losses, Reserve Releases

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Best Combined Ratio Since 1949 (87.6)

Cyclical Deterioration

Avg. CAT Losses, More Reserve Releases


Sources: A.M. Best, ISO.
Calendar Year Combined Ratios by Segment: 2008-2011F

Personal lines combined ratio is expected to remain stable in 2010 while commercial lines and reinsurance deteriorate.

Overall deterioration in 2011 underwriting performance is due to expected return to normal catastrophe activity along with deteriorating underwriting performance related to the prolonged commercial soft market.

Sources: A.M. Best, Insurance Information Institute.
Prior Yr. Reserve Development ($B)

Impact on Combined Ratio

Prior year reserve releases totaled $8.8 billion in the first half of 2010, up from $7.1 billion in the first half of 2009.

Reserve Releases Are Remained Strong in 2010 But Should Begin to Taper Off in 2011

Note: 2005 reserve development excludes a $6 billion loss portfolio transfer between American Re and Munich Re. Including this transaction, total prior year adverse development in 2005 was $7 billion. The data from 2000 and subsequent years excludes development from financial guaranty and mortgage insurance.

Sources: Barclay’s Capital; A.M. Best.
Expense Ratios Are Highly Cyclical and Contribute Deteriorating Underwriting Performance
Underwriting Expense Ratio*: Personal vs. Commercial Lines, 1990-2010E**

*Ratio of expenses incurred to net premiums written.
**2010 figures are estimates.
Source: A.M. Best; Insurance Information Institute.

Commercial lines expense ratios are highly cyclical
INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

*Does It Influence Underwriting or Cyclicality?*
Property/Casualty Insurance Industry
Investment Gain: 1994–2010

Investment gains recovered significantly in 2010 due to realized investment gains; The financial crisis caused investment gains to fall by 50% in 2008.

Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

* 2005 figure includes special one-time dividend of $3.2B.

Sources: ISO; Insurance Information Institute.
Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line*

Lower Investment Earnings Place a Greater Burden on Underwriting and Pricing Discipline

*Based on 2008 Invested Assets and Earned Premiums
**US domestic reinsurance only
Source: A.M. Best; Insurance Information Institute.
Financial Strength & Underwriting

Cyclical Pattern is P-C Impairment
History is Directly Tied to Underwriting, Reserving & Pricing
P/C Insurer Impairments, 1969–2010

The Number of Impairments Varies Significantly Over the P/C Insurance Cycle, With Peaks Occurring Well into Hard Markets

Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007

Historically, Deficient Loss Reserves and Inadequate Pricing Are By Far the Leading Cause of P-C Insurer Impairments. Investment and Catastrophe Losses Play a Much Smaller Role

- Deficient Loss Reserves/Inadequate Pricing: 40.3%
- Rapid Growth: 13.6%
- Alleged Fraud: 7.8%
- Catastrophe Losses: 7.8%
- Affiliate Impairment: 7.8%
- Investment Problems (Overstatement of Assets): 7.3%
- Misc.: 4.0%
- Sig. Change in Business: 3.6%
- Reinsurance Failure: 3.6%


Workers Comp and Pvt. Passenger Auto Account for Nearly Half of the Premium Volume of Impaired Insurers Over the Past Decade

Excess Capital is a Major Obstacle to a Market Turn; Capital Management Decisions Will Impact Market Direction
Policyholder Surplus, 2006:Q4–2010:Q4

($ Billions)

2007:Q3 Previous Surplus Peak

Surplus set a new record in 2010:Q4*

The Industry now has $1 of surplus for every $0.76 of NPW—the strongest claims-paying status in its history.

Quarterly Surplus Changes Since 2007:Q3 Peak

*Includes $22.5B of paid-in capital from a holding company parent for one insurer’s investment in a non-insurance business in early 2010.

Sources: ISO, A.M. Best.
Insurance Information Institute Online:

www.iii.org

Thank you for your time and your attention!

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