

# UIB GROUP

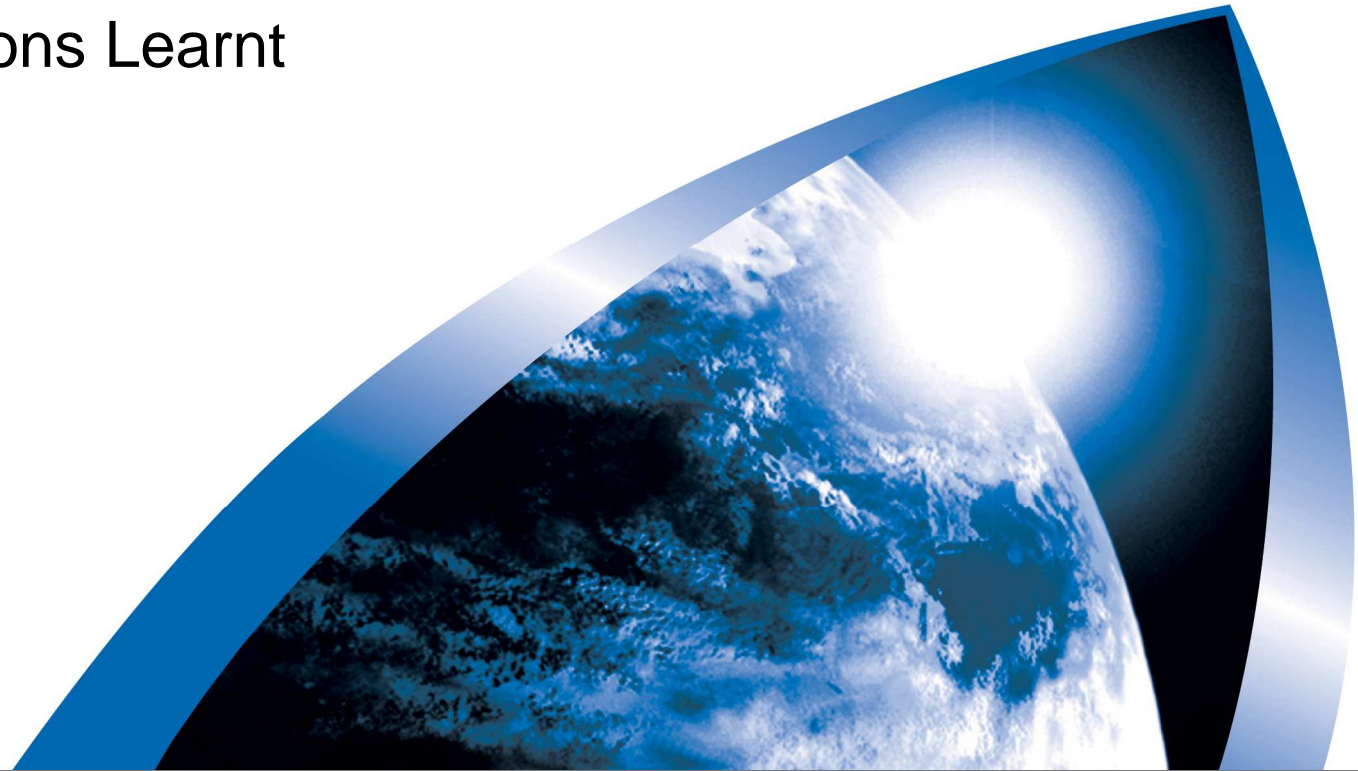


## Contingent Business Interruption Recent Lessons Learnt

April 2012



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# Agenda

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- What is CBI
- 2011 Catastrophe Claims
- Thailand floods
- Complex business networks
- Features of APPLE claim
- CBI uses and product-types
- Exposure measurement and Risk Control
- Market Reaction
- Lessons learned

# Contingent Business Interruption

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- “CBI” is an extension of the traditional “BI” covers
- BI standardised in 1939; CBI evolved as products have become more technically specialised and manufacturers less vertically integrated.
- Cover indemnifies the policyholder for a loss of profit which is not due to damage at its own facility, but rather due to damage at a customers’ or supplier’s property
- Coverage may be provided for
  - Damage, i.e. Fire & Natural Perils
  - Non-damage, i.e. Pandemics, Strikes, Insolvency

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# 2011 NAT CAT Losses (as at January 2012)

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- Total economic losses is estimated at approximately USD380bn
- Cost to global insurance industry about USD105bn
- The earthquakes in Japan and New Zealand alone caused almost two-thirds of these losses
- Worst year for CAT by value

# 2011 NAT CAT Losses

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## 2011 Major NAT CAT losses

Country	Event	Date	Insured Loss (USD mn)
Japan	Earthquake, Tsunami	11.03.2011	25,000 to 35,000
Thailand	Floods, Landslides	07-11.2011	15,000 to 20,000
New Zealand	Earthquake	22.02.2011	10,000 to 13,000
USA	Storms, Tornadoes	04.2011	7,000 to 7,500
USA, Caribbean	Hurricane Irene	08-09.2011	7,000 to 7,500

# Tohoku Earthquake

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- Earthquake with a magnitude of 9.0 thrust against Northern Japan's from its offshore epicentre near Tohoku triggering a powerful tsunami
- Total economic losses is estimated at approximately: USD210bn (Swiss Re) - USD300bn (Munich Re)
- Cost to global insurance industry about USD35bn (Swiss Re) – USD35bn to USD40bn (Munich Re)
- CBI element as yet unknown

# Tohoku Earthquake– Industry Estimations

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	Date	Loss estimation USD bn
EQECAT	March 2011	12 - 25
RMS	April 2011	21 - 34
EQECAT	May 2011	22 - 39
Swiss Re	January 2012	35
Munich Re	January 2012	35 – 40

# Thailand Floods

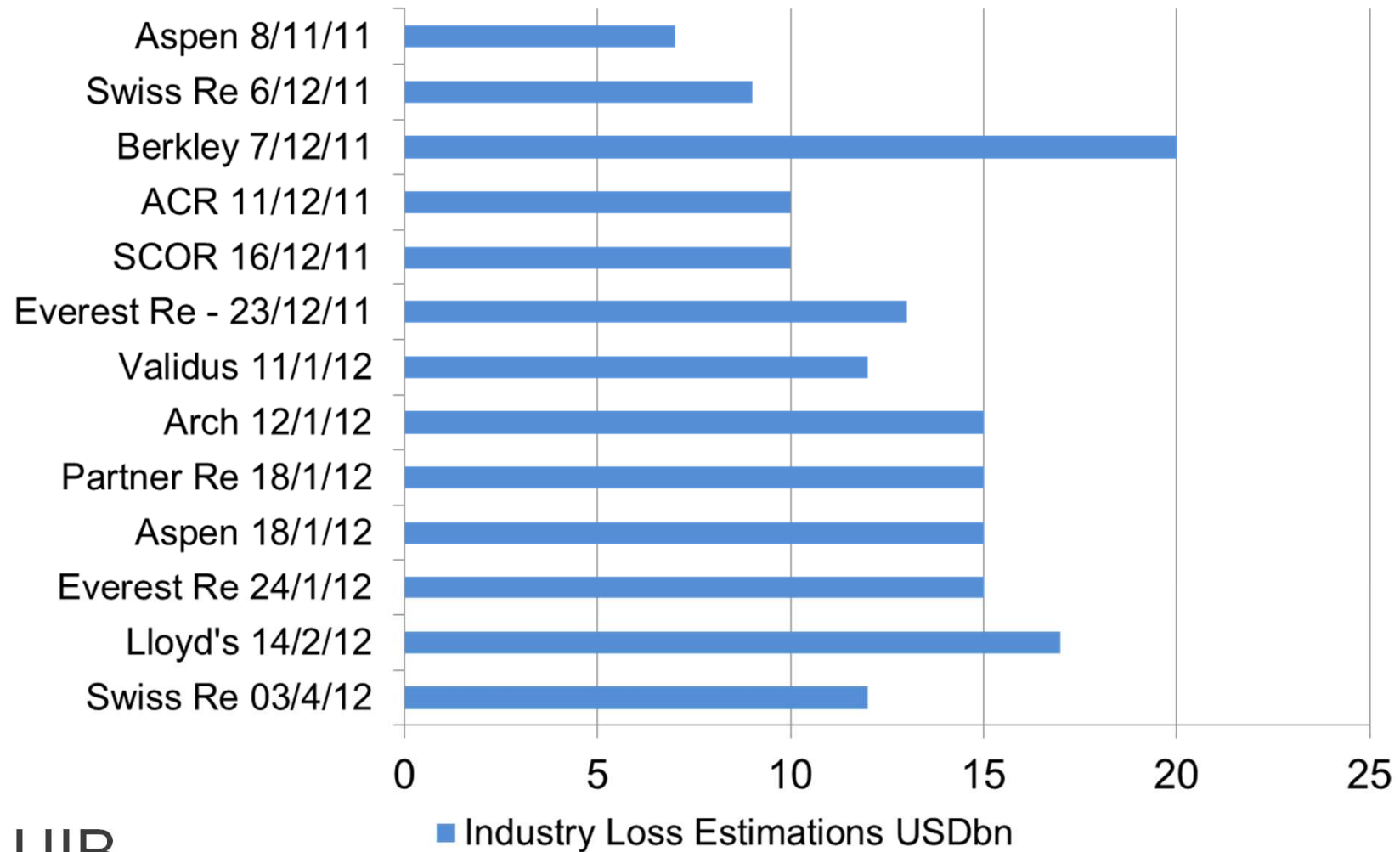
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- The costliest NAT CAT in Thailand's history
- Triggered by extreme rainfall which started in spring and peaked in the autumn, made worse by the infilling of drainage ditches through building development.
- Cost of insured losses about USD15bn
- Approximately 25% of the world's supply of components for computer hard drives was directly impacted by the floods
- Again, CBI element unknown



# Thailand Floods – Industry Estimations

(The Insurance Insider)



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## Thailand Floods – (Re)Insurers Loss Estimates

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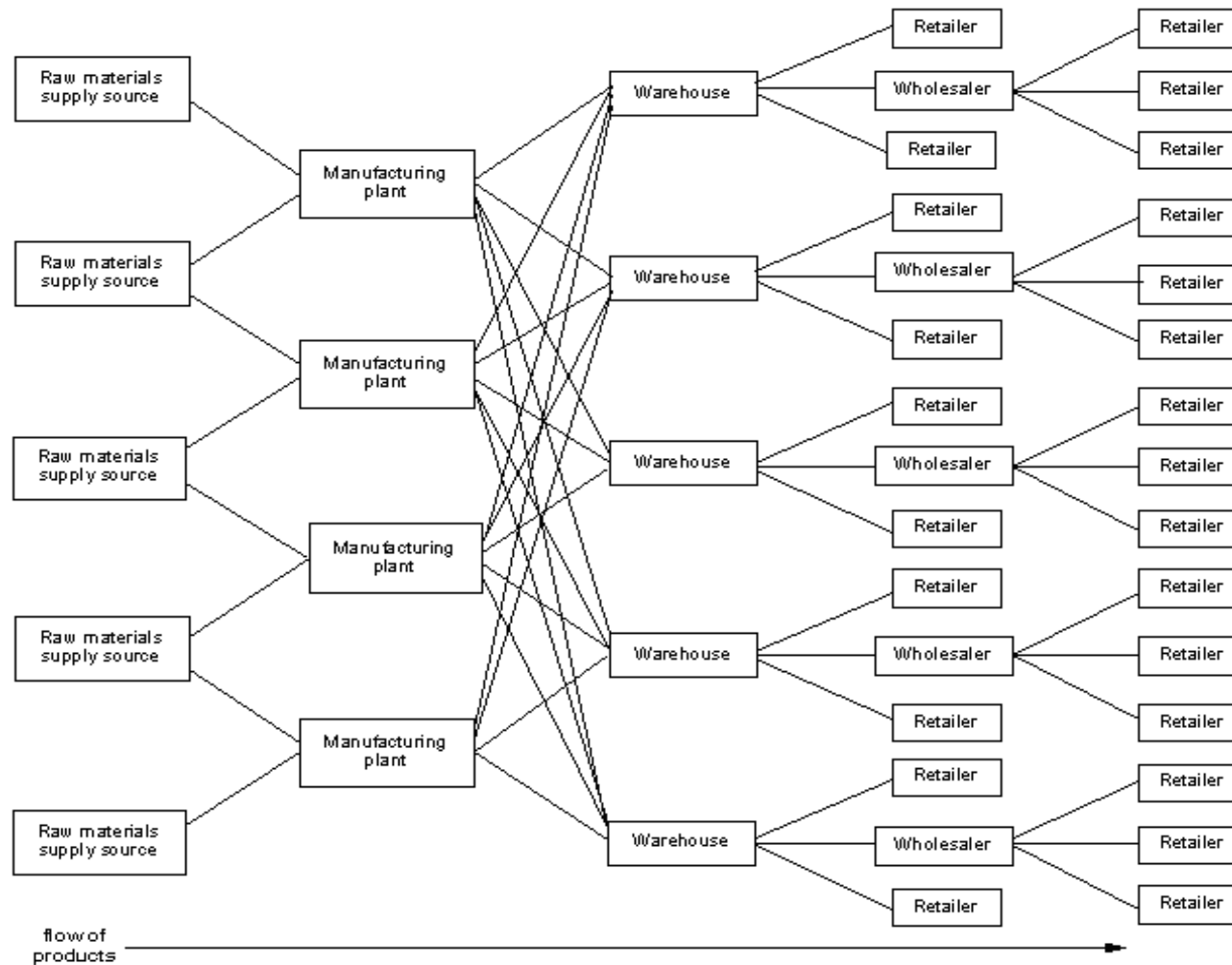
(Re)Insurer	Estimated Losses (USDmn)
MS & AD	3,780
NKSJ	3,390
Tokio Marine	2,610
Munich Re	670
Swiss Re	600
Zurich Financial Services	300
Partner Re	50 - 200
XL Group	135 - 185
Hannover Re	135
Everest Re	100 - 125

# Thailand Floods – Local Covers

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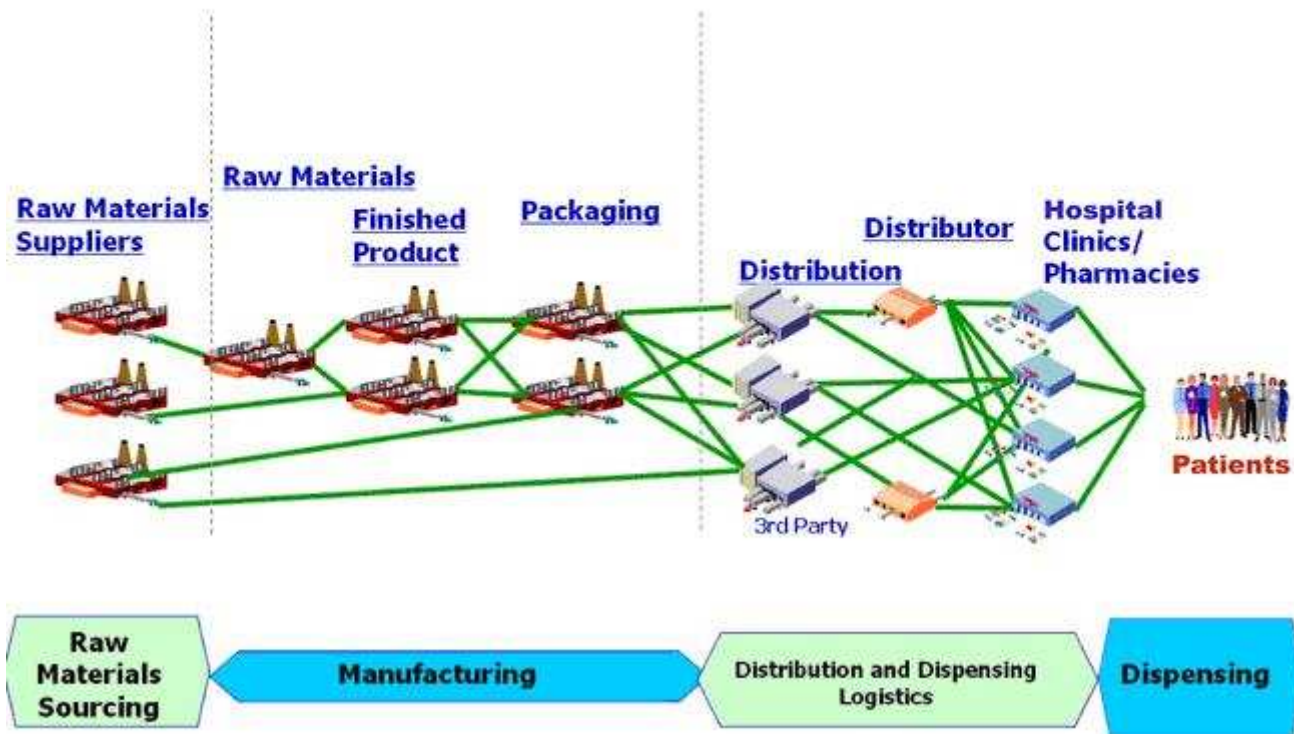
- Flood coverage for most industrial and large commercial companies was automatically included in the industrial all risk policies and with no sub-limits. Flood cover free of charge !!
- Loose controls on “normal” property CAT may explain the surprise impact of CBI ?

# Complex business networks



# Complex business networks

## Pharmaceutical Supply Chain

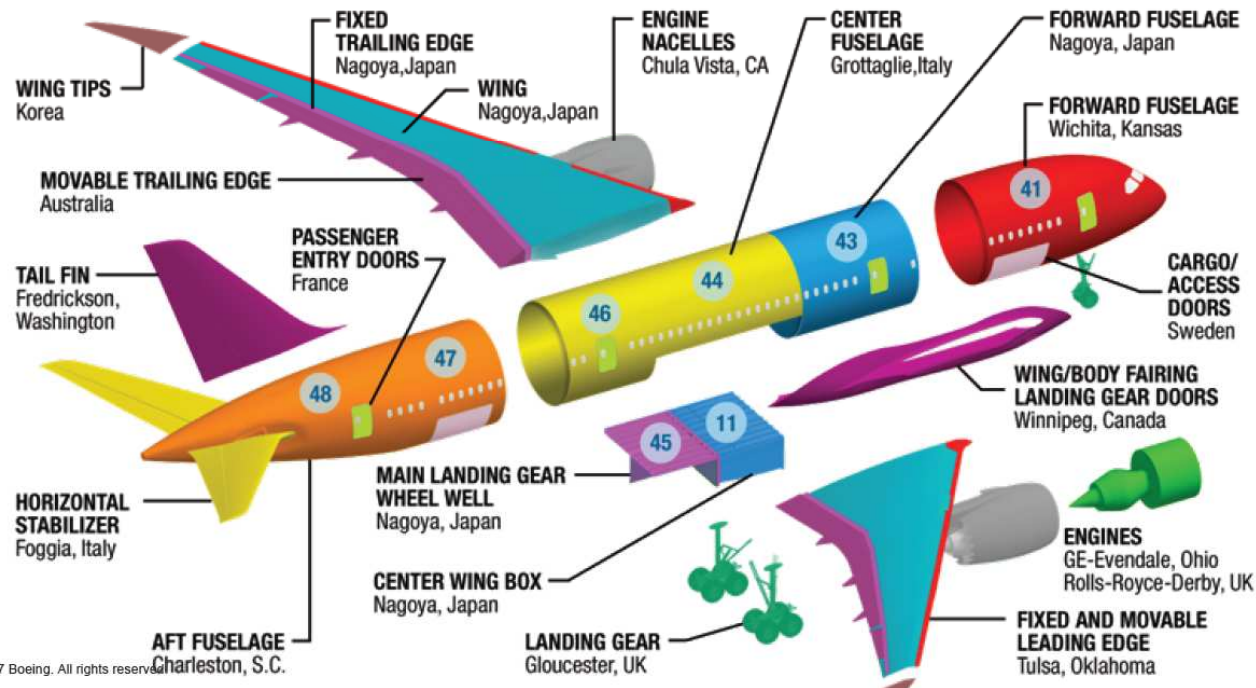


# Boeing investor conference 2009

## Partners Across The Globe Are Bringing The 787 Together

Annual Investor Conference | Boeing Commercial Airplanes

U.S.	CANADA	AUSTRALIA	JAPAN	KOREA	EUROPE
Boeing	Boeing	Boeing	Kawasaki	KAL-ASD	Messier-Dowty
Spirit	Messier-Dowty		Mitsubishi		Rolls-Royce
Vought			Fuji		Latecoere
GE					Alenia
Goodrich					Saab



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# “Apple Claim” following the Earthquake in Japan

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- iPad 2 was due in the market – five main components manufactured in Japan
- Three of them were very important: flash memory, the d-ram and the digital compass (main component)
- USD500mn initial claim, however:
  - The flash memory was alternatively sourced from Korea
  - The d-ram was alternatively sourced from USA
  - **The digital compass didn't come under CBI policy!**

# “Apple Claim” following the Earthquake in Japan

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The digital compass' manufacturer had to close its plant due to power shortages and the 20km evacuation zone around the failing Fukushima nuclear reactors



no direct damage to the supplier's facilities and coverage in respect of lack of access not purchased




## Situations in which CBI is widely used

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- Dependence on a single or few suppliers for materials



- Dependence on one or few manufacturers or suppliers for most its merchandise



- Dependence on one or few recipient businesses to purchase the bulk of the insured's products



- Reliance on a neighbouring business as business magnet, known as leader property

CBI covers the policyholder in each of these situations, the interruption in the insured's business caused by a peril specified in the policy causing physical damage or loss elsewhere.

The issue is non-diversity of supply and delivery chain.

Thanks to IRMI for information on this

# Current Solutions

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## Suppliers

- Cover interruption caused by insured damage at suppliers premises
- Key suppliers to be named

## Customers

- Cover interruption caused by insured damage at customers premises
- Main customers to be named

## Denial of access

- Damage and Non-Damage available, where no damage to own premises, but restricting access because of an incident

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# Specific to Thai experience – questions on climate change

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Improve loss data collection and analysis

- Analyze implications of climate change on underwriting, investments, and customers
- Engage in weather/climate research and modeling
- Create an industry-driven activity improving on the climate change insurance working group that was briefly active in the mid-1990s
- Promote loss prevention (e.g. building codes, preparedness)
- Develop new products, policy action and technical measures to achieve greenhouse-gas emissions reductions; can have direct collateral benefits for insurance core business
- Lead by example in reducing corporate climate footprint

# Information Requirements and Underwriting

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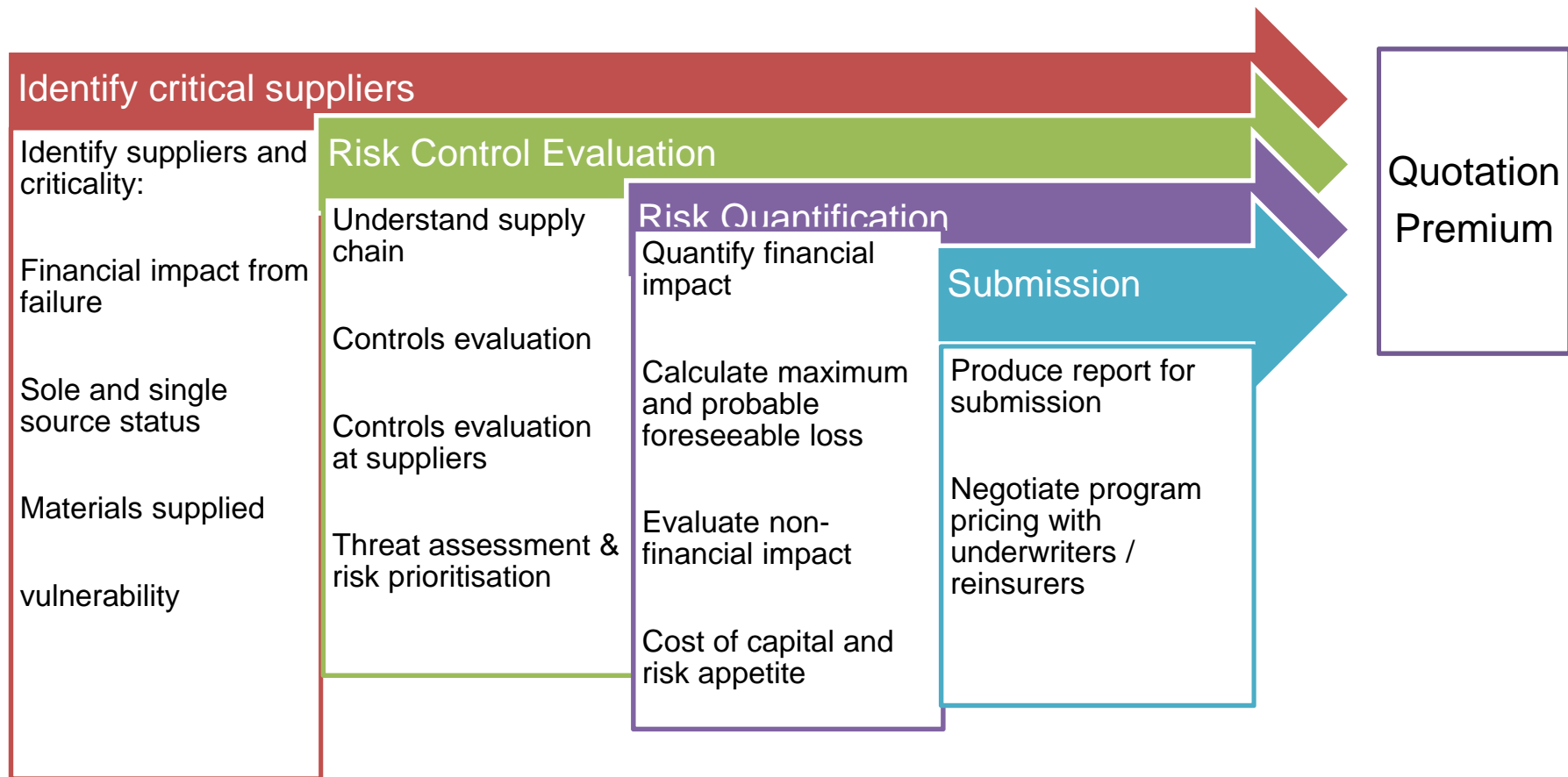
- Understand the supply chain. Supply chain mapping (accumulation of suppliers in a particular zone with exposure to events in common)
- Disciplines of property cat exposures must be extended to the whole set of third parties included within the scope of the CBI policy. Presents challenges to the level of detail generally pursued to date in rating CBI
- Risk control and underwriting (***all stakeholders manufacturers, insurers and reinsurers***):
  - Diversity of suppliers of key components
  - Limits :
    - Time - period to get business re-established (“*due diligence and dispatch*”)
    - Value – sub limits related expressed relative to equivalent property sums insured, but also measured relative to business profit P&L
  - Deductibles, :
    - Time (waiting period replace supplier) and value
    - Value - must be financially material, avoid moral hazard by policyholder. As a reinsurer, look-through to deductibles imposed by the client insurance company; look through to original rates, terms and conditions
- Calculation of the ultimate potential loss and range of possible outcomes:
  - Databases and simulation models have the (theoretical) capacity to capture very large sets of relationships. The number of interconnections across of whole portfolio is huge, and beyond the ability of many reinsurers (too costly, too complex and time consuming).

# Management of CAT exposure for CBI

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- Modelling not available for many emerging areas, Thailand seems to have been largely missed by many CAT models.
- Reinsurers may have been complacent on data quality standards, Thai flood is a wake-up call. Expect reinsurers to require much more detailed level information
- Need for more transparency of risk
- Re-evaluation of the scope of perils available for CBI
- The modelling question is beyond the current design features of the commercial CAT models.

# Joined-up risk evaluation



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# Market Reaction

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- Both the SCOR and Munich Re intimate that cat exposed CBI too complex to be included within property policies
- Munich Re suggesting that CBI be placed on a stand-alone basis
- Reinsurers keen to reduce their unknown exposures
- Underwriters to limit cover to named suppliers and locations
- Seeking comprehensive underwriting data in relation to supply chains
- The introduction of sub limits and increased deductibles to avoid negative surprises
- Inclusion of time deductibles (14 days)

# Lessons learned

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- It's a global village
- Production specialism has concentrated risk in relatively few hands for certain high-value products
- Financial incentives by governments to attract overseas investment has led to a concentration of risk
- Data quality standards must be extended from the primary focus of BI insurance to all parties covered under CBI
- Underwriting discipline and close collaboration with risk managers is the best way to share risk between insured and insurance industry so that extreme risks are better understood and informed underwriting / self insurance decision taken
- The potential data requirement of an actuarial evaluation is vast. The implementation of many CAT models needs to be extended to cover CBI



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# Thank You



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# Impact

Date	Agency	(Re)Insurer	Action
February 2012	S&P	Sompo Japan	Downgrade from A+ to A
February 2012	S&P	Sompo Japan / Mitsui Sumitomo / NipponKoa / AIOI Nissay Dowa	Downgrade from AA- to A+
January 2012	AM Best	Partner Re	Under review with negative implications
January 2012	Moody's	Everest Re	Affirms rating but changes its outlook from stable to negative
December 2011		Syndicate Argenta 1965 will stop writing new business in Asia	
December 2011	AM Best	Labuan Re	Under review with negative implications
December 2011	AM Best	Toa Re	Under review with negative implications
December 2011	S&P	Thai Re	Downgrade from A- to BBB+
November 2011	S&P	ACR Re	Under review with negative implications
November 2011		CCR Paris no longer accepting new Thailand, New Zealand and Australian business	
October 2011	S&P	Platinum	Downgrade from A to A-