Your Supply Chain at Risk:

Why an effective Contingent Business Interruption (CBI) program is critical

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Executive summary

Supply chain resiliency is more critical to business profitability and reputation than ever before. Within the content of your CBI Program (also known as Contingent Time Element cover in the US), there are three key insights into supply chain resiliency you should consider:

- Know your key suppliers and customers, where they are based and an understanding of the profit/revenue exposure if they fail. This is a fundamental performance issue as much as it is a risk management issue.
- Remember that your supply chain can be disrupted by more than just physical events, and it's important to consider this in your overall resiliency strategy.
- To obtain the CBI insurance coverage you need for your key suppliers and customers at an appropriate price point, it is important to provide your insurers with the relevant information they require.

Key issues covered in this paper

- Protecting your supply chain is critical to your business performance
- Knowing the location and other risks of your key suppliers and the impact of their failure on your organization's performance is essential
- Both physical and non-physical events drive supply chain disruptions, and 85% of companies reported disruptions in 2011*
- Zurich has innovative tools to help you gather and report more specific risk information and supplier data so appropriate risk mitigation strategies can then be put in place
- Zurich offers not just physical insurance CBI coverage for supply chains but also non-physical coverage and the use of captives where appropriate

Supply chain disruption insights

The interconnectivity of today's global economy poses major financial and reputational risks to companies. Strategies such as outsourcing, offshoring and just-in-time sourcing can create corporate efficiencies, but they also increase vulnerabilities to supply chain disruptions and expose companies to global risks no matter where they are operating.

A recent study by the Business Continuity Institute has uncovered deep-rooted sources of supply chain failure. Respondents from various industries in 62 countries revealed that 85% of organizations reported at least one supply chain disruption over the last 12 months, and 50% of companies had more than one disruption. Approximately 40% of disruptions originated below the immediate Tier I suppliers. Many of these disruptions were also non-physical and outside a company's control, such as change in the government or regulatory environment, or financial insolvency at a supplier. It is not just suppliers that can create problems; it could be that your customer is not able to accept your service and hence your revenue is impacted. A number of companies suffered this in Thailand.

Beyond the immediate loss of revenue, these disruptions also resulted in long-term effects such as damage to reputation, shareholder concern and increased regulatory scrutiny. Both these short- and long-term effects underscore why it should be a high priority for risk managers to help develop a resilient program to protect the organization's supply chain from the impact of unpredictable events and potential coverage gaps. Zurich has worked with a number of experts in the field to better understand supply chain risk. These risk insights can be found on www.supplychainriskinsights.com.

*Business Continuity Institute (BCI) Survey, November 2011

Obtaining appropriate limits of Contingent Business Interruption coverage

Contingent Business Interruption (CBI) is covered as an extension to traditional property Business Interruption (BI) policies. While BI insurance can cover loss of income caused by direct damage to the insured's property, CBI can cover loss of income caused by direct physical damage at a supplier or customer location. These suppliers and customers can be named or unnamed, but this distinction could impact the limits being offered. (See sidebar at left, *Challenges of future CBI coverage,* for issues with obtaining CBI.)

Challenges of future CBI coverage

- More onus on companies to identify suppliers/customers and their locations in their chain
- Companies and insurers are becoming more aware of contingent exposures/ accumulations
- Increasing pressure to determine key suppliers and limit further unnamed/ unspecified CBI (in particular CAT perils)
- Increase in time element deductibles
- Limits and pricing are under far greater scrutiny
- Coverage increasingly based on quantification of potential exposure and recovery costs for critical suppliers
- Companies are recognizing that supplier disruption is not only caused by physical damage and seeking broader coverage

Any company considering CBI coverage for the first time, or entering into a renewal period with their BI/CBI coverage, should start planning early with their broker and insurer to gather the more defined and specific risk and supplier and customer data (including the minimum data set out in Appendix A). This can help ensure that the appropriate risk mitigation, coverage and limits can be put in place, including both requirements related to CBI and potentially a broader "all risk" supply chain insurance.

Deeper analysis of supply chain risks and CBI coverage needs

In today's complex global marketplace, many companies and their brokers are challenged to proactively address supply chain exposures and create a sustainable management solution for these risks. To assist these organizations and brokers, Zurich has developed a range of Supply Chain Risk Solutions and coverage to help organizations better address the complex and changing risk landscape.

Zurich can also deliver a risk assessment methodology that enables a move from a reactive to a proactive approach.* These Supply Chain Risk Solutions help identify and quantify broad supply chain risks for the purposes of helping implement effective risk mitigation and securing appropriate insurance coverage.

* These services are currently available to qualified customers subject to relevant international regulations based on teams working out of North America and Europe.

Complete supply chain solutions and coverage

Zurich is on the leading edge in delivering robust solutions coverage to customers and brokers that will help them navigate through the increasingly complex maze of global supply chain exposures:

- Supply Chain Risk Solutions
- Traditional Property Damage and Business Interruption Insurance, including Named and Unnamed Contingent Business Interruption
- Supply Chain Insurance
- Marine Insurance
- Trade Credit Insurance
- Political Risk Insurance
- Builder's Risk and Construction Insurance
- Captive/Alternative Risk for supply chain risks
- Strategic Risk and Resilience Management Solutions

Some of the benefits of using these solutions include:

- Helps protect profitability and shareholder value through possibly avoiding unnecessary supply chain disruptions
- Enables companies to understand some of the many factors that their supply chains are exposed to beyond physical risk
- Offers the opportunity to combine the risk assessment data with data from other systems for further analysis
- Facilitates an understanding of profit exposure at an individual supplier level and within a particular territory or product line
- Allows monitoring of key bottlenecks in the supply chain such as a particular port location or production site
- Enables companies to quantify and put into place the appropriate mitigation and recovery plans, including business continuity plans
- Supports supply chain decision making through enabling the risk in various countries to be compared
- Connects the type of supply chain exposure to the financial impact
- Helps reduce the costs of customers developing their own supply chain risk solutions through leveraging Zurich's solutions

Understand your exposures: Zurich's Supply Chain Risk Solutions

The purposes and benefits of Zurich's Supply Chain Risk Solutions can be divided into two main areas:

- Nature and types of supply chain exposures: Zurich's CBI Questionnaire Worksheet, Supply Chain Risk Assessment Tool, Supply Chain Disruption Database, Total Risk Profiling and Zurich Risk Room
- Structure of the supply chain and profit exposures: Business Interruption Modeling Tools and the Supply Chain Profit Accumulation Tool

Nature and type of supply chain exposures

CBI Questionnaire Worksheet

The first step in understanding CBI exposures is for a company to work with its suppliers and major customers in gathering the data to identify and quantify the key exposures in the value chain. Zurich has developed a sample CBI Questionnaire Worksheet that can be used to help in this. It can help a company and broker determine which suppliers or customers are most critical, what CBI limits are possible and appropriate, and whether supply chain insurance is needed to cover non-physical risks. (For summary details on the award-winning supply chain insurance, see page 8.)

Risk Assessment Tool

This assesses the sources and scale of supply chain risk for an organization's critical suppliers. This is a structured analysis of the key supply chain risks, which helps quantify disruption exposures, calculate recovery costs and identify mitigation actions. The tool assesses 25 areas of internal and external exposures to provide insights to help improve the due diligence and risk management process within the supply chain.

Our Supply Chain Risk Assessment Tool can:

- Deliver valuable input to understand your organization's exposures to a wide range of risks including financial, regulatory, political, geographical, transportation and contract risks
- Help ensure that Business Continuity Plans of critical suppliers and customers are assessed
- Help you understand the potential impact and the cost of recovery from disruptions to your critical suppliers
- Provide action plans to help reduce or transfer supply chain risks

Supply Chain Disruptions Database

Zurich has analyzed approximately 2,700 actual disruption events as of 2012 and can provide insights as to the causes of supply chain disruptions. This database shows that it is not just physical damage that causes these disruptions, but other factors such as transportation, IT outages, labor shortages, communication issues and more. This database can help organizations understand trends in prior disruptions to understand actual causes of business interruption, and determine the cost and nature of disruptions in a particular industry or location.

Total Risk Profiling (TRP)

This proven assessment methodology helps to identify the exposures, triggers, impact consequence and likely frequency of potential supply chain disruption scenarios. TRP can also help determine which suppliers/supplies or customers are most critical to an organization's ongoing business success. (See Appendix B for list of inclusion items on analysis.)

Zurich Risk Room (ZRR)

This proprietary analysis tool is designed to model country or region-specific risks and compare these risks to other countries or regions around the world. Multi-variety in nature, this tool allows model interactions of up to 60 variables within each country or region. By looking at the interaction of all of these variables, Zurich can provide our customers and brokers with a unique picture of how each region or country compares, including those most relevant to supply chain/BI exposures.

Structure of the supply chain and profit exposures

Business Interruption Modeling Tool

This tool deploys Zurich's proprietary modeling software to assess the financial effects of possible interruption scenarios and interdependencies that may threaten business continuity. It provides profit and loss exposure information for various disruptions in a single model to help improve data management and interpretation, especially when coupled with the Supply Chain Risk Assessment Tool. A company can use this model and alter the flow to see if future logistic plans will result in increased or decreased losses. The model can be kept and updated to reflect changing company operations or changes in a company's business model.

Supply Chain Profit Accumulation Model

This tool enables a company to understand its supply chain profit exposure in terms of a particular location, country or region, transportation node, supply or specific supplier. It helps address and quantify evident and hidden vulnerabilities that could significantly impact a company's business if an interruption were to occur.

Conclusion:
Balance cost-savings with supply chain risk management

An organization must strike a balance between cost-savings within its supply chain and the potential financial exposures from a disruption. The common mistake made by many organizations is focusing solely on finding the lowest procurement costs, without projecting what the total impact could be on revenue and reputation when risks are factored in. Once an organization has its comprehensive list of supply chain risk scenarios and develops a better understanding of potential disruption and recovery costs, it can start to ascribe a Total Cost of Ownership (TOC) to these risks. Too often, a company only evaluates its total costs after a traumatic event like the earthquake in Japan.

An organization that has identified, prioritized and managed its risks and costs proactively is one that is well on its way to a more financially sustainable future, helped to a great extent by the appropriate level of CBI coverage for physical risks and Supply Chain Insurance for non-physical exposures. (See sidebar at left, *Transferring risks to a captive*.) Organizations that deeply understand and better manage their risks can reduce the odds of being hit in profit and cash terms, as well as maintaining customer and shareholder relationships.

Transferring risks to a captive

Many organizations find that integrating the management of supply chain risks into a captive offers greater flexibility, savings and control over their cost of risk. Some of the benefits of using a captive include: access to reinsurance capacity, freeing up premium allocation, securitizing supply chain risks, and funding risks assessments. Using transparent and consistent reports that form the captive infrastructure can assist senior executives in having a better understanding about the strategic impact of supply chain disruptions.

Zurich's Supply Chain Insurance: "All risk" coverage

Zurich's "all risk" Supply Chain Insurance can cover named suppliers and supplies that are delayed or not delivered and can even cover the potentially significant financial impact of extra recovery expenses. Our broad solution differs from typical business interruption and contingent coverages, which only activate as a result of a specified physical incident. Zurich's tailored Supply Chain Insurance can fill coverage gaps and offers a pre-agreed claims process that improves transparency and settlement time.

	Supply Chain	Contingent BI	Marine & Marine BI	Trade Credit	Political Risk	Product Liability
Supplier insolvency	★			★		
Failure of fuel supply or utilities	★					
Communication system failure	★					
Transport failures or port blockage	★		★			
Raw materials or component delays	★					
Delays caused by supplier's supplier	★					
Supplier staff illness or strike	★					
Cyber risks, virus	★					
Denied access to supplier's premises	★					
Physical damage	★	★	★			
Political risk	★				★	
Expropriation	★				★	
Product quality/recall						★

How secure are your supply chains?

Visit www.supplychainriskinsights.com.
A portal to help you better understand the business risks of your changing world.

APPENDIX A:

Supply Chain Helpful Questions

- Do you know who your critical suppliers and customers are, and how much their failure would impact your company's profits?
- Have you fully mapped your critical supply chains upstream to the raw material level and downstream to the customer level?
- Have you integrated risk management processes into your supply chain management approaches?
- Do you have routine, timely systems for measuring the financial stability of critical suppliers?
- Do you understand your tier 1 production facilities and logistic hub exposures to natural catastrophes?
- Is supply chain risk management integrated into your enterprise risk management approach?
- Do you record the details of supply chain incidents and the actions you have put in place to avoid future incidents?
- Do your tier 1 suppliers have business continuity plans that have been tested in terms of their viability?
- Have you provided risk training to your supply chain management team?
- Is risk on the agenda at performance meetings with your strategic suppliers?
- Do you routinely use Total Cost of Ownership when making sourcing decisions?
- Do you accumulate the hidden costs associated with each supplier: travel costs, inventory carrying costs, warranty and rework costs, etc.?

APPENDIX B:

Total Risk Profile Analysis – Inclusion Items

Obtaining a picture of your company's Total Risk Profile should ideally include an analysis of exposures such as:

- *Risk of natural disasters:* Evaluating the potential foreign country and the locations of your production partners for the expected frequency and severity of natural disasters, such as hurricanes/cyclones, earthquakes, seasonal flooding and tsunami events and volcanoes.
- *Man-made and technological risks:* These include quality of electrical power, telephone and other utility systems; water, sanitation and transportation infrastructure; proximity to hazardous waste sites and nuclear power generation stations, etc.
- *Compliance risks:* These include the consequences of not meeting accounting, legal, tax, environmental and other regulatory requirements, as well as not complying with ethical standards associated with business practices.
- *Supply chain risks:* Protecting your profitability and reputation from breaks in your value chain is a major strategic advantage in the complex world of outsourcing, offshoring and just-in-time sourcing.
- *Insurance risks:* Either outsourcing and offshoring production will be concentrated in the areas of adequate coverage and limits for transit and contingent business income (CBI) from dependent premises. CBI can provide worldwide coverage for a manufacturer whose named or unnamed suppliers (depending upon policy terms and conditions) suffer a named property peril resulting in a supply chain disruption that causes a loss to the manufacturer's income from the disrupted production.
- *Political stability of country:* Consider factors such as the stability of the country and the region, trade policy challenges such as embargos, and excessive or changing regulatory statutes.
- *Economic stability of suppliers:* Risks from raw material dependencies, labor availability, as well as stability of the suppliers' suppliers.
- *Lost opportunities:* Potential lost orders, lost customers, and slow customer response times if supply chain is disrupted.
- *Product liability non-recovery cost:* Companies have limited to no recourse in their ability to collect economic and other damages for breach of contract or in legal suits or subrogation for product liability claims.
- *Quality risks:* These include the cost of resourcing parts or reworking products that do not conform to specifications or that need to be withdrawn from the market due to voluntary or forced recalls.
- *Intellectual property risks:* Trademark, copyright and patent infringements from counterfeiting and loss of shared knowledge or best practices.
- *Transportation risks:* Port strikes, piracy, mishandling and damage during shipment, and the cost of emergency air freight to obtain critical parts.
- *Reputation risks:* Damage to your company's brands and corporate reputation and the costs associated with brand and reputation restoration, including crisis management communications and public relations expenses.

APPENDIX C:

Minimum CBI underwriting requirements

Company Name (insured) ____________________

Identifier (e.g. DUNS No.) ____________________

NAIC / SIC Code ____________________

Location(s) referred to below ____________________

Address ____________ Number ________ Street ____________

City ____________________ District ____________

County ____________ State / Province ________ Postal / ZIP Code ________

Country ____________ ISO Country Code ____________________

Geocoded Latitude ____________ Geocoded Longitude ____________

Details required on each named customer/supplier for the insured: (It is important that the address is the made in/shipped from or shipped to address [not the Head Office location])

Supplier or Customer Name ____________________

Supplier or Customer DUNS (where available) ____________________

Type of Supplier or Customer ____________________

CBI Limit ____________________

Address ____________ Number ________ Street ____________

City ____________________ District ____________

County ____________ State / Province ________ Postal / ZIP Code ________

Country ____________ ISO Country Code ____________________

Geocoded Latitude ____________ Geocoded Longitude ____________

Zurich also welcomes further information around the nature of supplies/goods involved and, as indicated, we have tools to help in this analysis.

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