Author Dirk Herrenpoth – Munich Re

Contingent business interruption losses – not everything grinds to a halt

In today's increasingly complex and interlinked global economy, even relatively minor disruptions can have huge consequences and bring entire areas of production to a standstill. Insurers then face substantial accumulation risks from contingent business interruption (CBI) losses. However, not all industries are affected to the same extent.

The value chain of manufacturing companies is subject to constant change. The need for companies to cut costs as a result of globalisation requires ever leaner and ever more flexible production processes. In order to minimise the amount of tied-up capital, companies reduce their stocks to a minimum and purchase primary and intermediate products ad hoc on the global market. The result has been the creation of interdependencies between companies in recent years. The downside to this is that production can soon come to a vir- tual standstill if essential components are not delivered on time. Even minor disruptions somewhere can cause considerable losses further downstream and perhaps far away.

From "just in time" to "just in sequence"

This problem is compounded by the fact that the number of suppliers for many products is falling (in extreme cases there may in fact be only one) as the number of end-product manufacturers increases due to the global outsourcing trend. The proliferation of high-performance IT systems has accelerated this development and has seen the "just in time" principle evolve into the "just in sequence" principle. The basis of this process is that the supplier delivers components not just in time and in the right amount but also in the right order (or sequence). Depending on the production system involved, the whole procedure can take anything from several days to as little as a few minutes.

This development poses a major challenge for insurers that cover CBI losses, as there are so many factors involved that can lead to a breakdown in production. Here are a just a few examples: wage disputes (strike), payment difficulties (insolvency) or loss events (fire, earthquake). As things stand, breakdowns in production from CBI losses are only covered if they result from events causing physical damage such as fire or earthquake.

Earthquake paralyses Japanese car industry

In mid-2007, an earthquake at Chuetsu in Japan showed just what can happen when production is disrupted. Riken Corporation, a company that supplies essential motor and transmission parts to the Japanese auto industry, experienced a total breakdown in production even though only a few machines had suffered minor damage. Not long after this, the production lines of all major Japanese car manufacturers stood idle. The loss in production amounted to some 120,000 vehicles. A team of hundreds of engineers needed a week to restore production at Riken. The effects of a fire in autumn 2007 at the Matsushita Battery Industrial Co. were felt far beyond the borders of Japan. The damage forced the company to cease production of lithium ion cells altogether. Batteries urgently needed by OEMs (original equipment manufacturers) for notebooks, mobile phones and digital cameras could not be delivered on

time. Several major international customers in telecommunications and camera production suffered CBI losses as a result. The overall insured CBI loss is estimated at several hundred million euros.

Conventional mechanisms of accumulation control inadequate

Individual CBI losses do not pose any significant problems for the insurance industry. They take on special significance when a supply failure forces a number of different customers to halt production. Such accumulation potential can reach enormous proportions. However, it is not just the dimension that makes these accumulations critical. Given the global division of labour and the dynamics involved in the world economy, these accumulations are highly intransparent and subject to a rapid process of change. The standard accumulation control mechanisms (such as for natural hazards) simply do not work here.