

A photograph of an industrial facility, likely a refinery or chemical plant, featuring large, shiny, metallic pipes and machinery. The scene is brightly lit, creating strong highlights and shadows. The pipes are arranged in a complex network, with some running horizontally and others vertically. In the lower right, there are blue-handled valves and a perforated metal panel. The overall atmosphere is one of a busy, modern industrial environment.

CHUBB®

The Spectre of Disruption

Supply chain risk and
what you need to know

Part two

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Introduction



In the second of our two-part report series, we explore how businesses can get ahead in a volatile global landscape by building resilience in their supply chains through robust risk mitigation. As the world economy enters a new era, no longer driven by globalisation, organisations need to be as prepared as possible for the unknown. The strategies outlined here will enable risk and supply chain managers to ask the right questions.



Part two



Supply chain disruption: how to mitigate the risks

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What you don't know about your supply chain can hurt you”

Nick Wildgoose, Board Member of the Supply Chain Risk Leadership Council

Understanding where risk lies

Supply chains are complex, multi-tiered and unique to each individual business. With hundreds or often thousands of moving parts, they are notoriously difficult to monitor. But as Nick Wildgoose, a supply chain expert who advises leading companies, warns: “What you don't know about your supply chain can hurt you.”

Having a detailed understanding of your supply chain, and identifying where all the risks lie, is fundamental to effective risk management strategies. This can be an expensive and time-consuming process, which involves mapping the full supply chain and all business processes. To protect their organisation, a company must first understand what makes it vulnerable. All organisations should have a formal, written business continuity plan (BCP), which is comprehensive and quick to implement or adapt, in order to minimise operational downtime and loss.

Xavier Pazmino, Regional VP Marine, Chubb Latin America, advises businesses to focus on long-term strategies – not just manage immediate risk. “Companies need to weigh up the pros and cons of just-in-time (JIT) versus just-in-case, and strategies such as reshoring and

nearshoring,” he says. Scenario planning is critical, he adds, urging companies to “develop resiliency culture in-house”.

One example of how businesses can pivot is by investing in building additional warehouse capacity and returning to local production for certain products. Many companies are already heavily investing in local warehousing and production – in America alone the market size of new private sector warehouse construction rose by more than US\$7 billion in 2021, according to Statista. While there is a big upfront build cost for warehousing, the aim is to create shorter supply chains. “Increasing storage capacity should ensure delivery commitments,” says Peter Kelderman, Marine Risk Management Leader, Chubb Europe.

While it is not possible for a BCP to foresee every risk, companies can minimise exposure if they can answer these questions with as much detail as possible:

- Do you have a developed contingency plan?
- For how long could you cope without supply of your key products/ component parts?



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Ask a supplier how much slack they have in their system to help with unforeseen circumstances”

John Venneman, Marine Risk Management Specialist, Chubb North America

- How many links are there in your supply chain and what is the geographic reach?
- Do your existing suppliers have spare capacity at other manufacturing/ assembly sites?
- Have you already sourced alternative suppliers to mitigate any business interruption?
- Are your suppliers located in natural catastrophe-prone areas?
- Do you carry out periodic spot checks on critical inventory?
- Have the component parts/products that you source ever been subject to a global shortage?
- Are you dependent on certain key raw materials, such as lithium or rare earth elements?

Multi-tier supply chains

Any chain is only as strong at its weakest link, particularly in multi-tiered supply

chains, and each supplier will have its own risks and vulnerabilities. It is crucial that companies understand who supplies their direct suppliers to minimise exposure to risk, urges Wildgoose.

In his experience, 40-50% of supply chain failures take place not because of problems with first-tier suppliers, who are commonly monitored, but when suppliers lower down the chain cause mishaps.

With 20% of products making 80% of annual profitability for many companies, a comprehensive picture of an entire multi-tier supply chain may feel impossible, according to Wildgoose. “Companies will think they cannot deal with it all,” he explains. “That is why you should start with your most profitable product or service and look to protect that from a revenue and profitability point of view.”

Local knowledge

With supply chains scattered across diverse locations, any link can become vulnerable under the right set of circumstances. Having a partner with good local knowledge in each region will help companies respond to disruptions and emergencies.

“We always sit down with clients and discuss triggers for risk, by region and by locality,” says Sivakumaran Divakaran, Head of Transportation Risk Management, Chubb APAC.

“When we can bring local knowledge to bear to help with issues, or potential issues, this gives clients further insight into risks at every level of their supply chain.”

However, problems can arise very quickly and there often isn't time to research an answer – you need to know it, notes John Venneman, Marine Risk Management Specialist, Chubb North America.

One example where Chubb's local knowledge proved invaluable was in the safe handling and storage of large, valuable machinery arriving in the US. The cargo was due to come into port in the City Docks area of Houston, but staff shortages meant this was going to be a problem. “There was also a hurricane about 10 days out and if this equipment had been damaged by the weather, there would have been a lot of money lost and it would not have been easy to produce again,” explains Venneman.

Venneman identified that warehouses where Chubb would normally plan to put cargo to ride out heavy storms were already filled to the brim. The client was alerted and Chubb worked with local surveyor contacts to find alternative weather-proof spots where the cargo could be safely stored to ride out the storms while it awaited its vessel.

“There were no buildings big enough in the Houston area to accommodate the size of our cargo, so we ended up finding a yard big enough to stage the machinery on its trailer,” he explains. “We then built a fortress around it with large timber crane mats to protect the unit from flying debris, should the pending hurricane come in contact with the cargo.”

He adds: “We were able to work with the client to do that and our local knowledge meant we were able to do it quickly. If not, it could have resulted in a US\$200 million claim.”

While these challenges were solved by Chubb's local US Transportation Risk Management (TRM), this example involved a European client – highlighting the strength of Chubb's international TRM network.



Top takeaways for appropriate risk management

Supply chain expert Nick Wildgoose, also a former CFO and procurement director, has been working in the supply chain business area for 14 years. Here are his key tips for building a robust risk management framework:



Prioritise top management sponsorship – you need the mandate and business case to come from the top. Return on investment models can be drawn up for supply chain risk, where you look at efficiencies around understanding all the risk data you need to gather, but also for avoiding or reducing the means of disruptions. It is on nearly every CEO's agenda, yet have the objectives, assumptions and constraints of your business resilience strategy been accepted by your board/top management?



Establish a risk management team with sufficient resources – this could be five to 10 people for large industrial companies, or it might be just one or two people. The return on investment will include a greater understanding of the value and financial impact of risk.



Do not underestimate the failure of a significant supplier to your most profitable products (and remember this might not be your highest spend) – this is the classic business impact analysis. Companies need to identify their most profitable product or service and examine the suppliers they depend on. Risk management efforts often forget about suppliers providing a small widget, for example, but to their most profitable product.



Ensure you have joined-up thinking to overcome the silos involved in supply chain management. Even in a midsize company it's quite often unclear who really manages the risk. With so many people involved in the supply chain – from finance through to procurement – are they lined up? Top management sponsorship will ensure better consistency here.



Incorporate clear, integrated risk reporting metrics and KPIs – risk metrics, such as value at risk and time to recovery, should be embedded in your overall assessment of supplies, not just cost, quality and delivery. This will better protect your business when suppliers are failing or if they go bust.



Use appropriate data technology – too many companies are still relying on spreadsheets to run their supply chains. Even if you are only trying to monitor 10 critical supplies and products around the globe, how can you do this efficiently? Companies are dealing with a multitude of risks, including sanction exposures and environmental, social and governance (ESG) exposures. Harnessing technology and data solutions can help businesses to really understand the risk within their supply chains. With capability solutions constantly evolving, businesses can benefit from software that maps supply chains, for example, including all reports and key locations – monitoring a chain in nearly real-time. The use of the big data resources can even start to expose relevant aspects of your multi-tier supply chain – so even if a supplier doesn't tell you directly where they get their goods from, you can begin to build up a picture from these other data sources, such as transit records, news and social media data.



“It is not easy to mitigate this risk, especially for a company with limited resources and multiple suppliers,” suggests Sivakumaran Divakaran, Head of Transportation Risk Management, Chubb Asia-Pacific. “This is why the processes required to be in place to identify risks and their mitigating measures need to be agile, adaptable and subject to constant review.”

Alongside diligent vetting, periodic checks, visits and audits are vital to ensure suppliers are complying with your company’s BCP requirements. “Synchronising or mirroring relevant parts of both your own and your suppliers’ BCP can help, especially in aligning objectives and ensuring these are continuously met and understood by all,” says Divakaran.

Venneman recommends asking a supplier how much slack they have in their system to help with unforeseen circumstances. “If they keep two months’ worth of finished goods on hand, no problem,” he explains. “If it is two hours, we have an issue. I would also ask about their alternative suppliers for parts with a high burn rate.”

Additionally, identifying second- and third-tier suppliers is becoming ever more crucial in a landscape where regulation is increasing globally that makes companies responsible for the actions lower down their supply chains. Whether you are a large multinational or a mid-size company, businesses are being held more to account for their supply chains and penalties are rising, says Wildgoose.

Increasing legislation, including the UK’s Modern Slavery Act and the German Supply Chain Due Diligence Act (due to come into force in January 2023), means that companies are being compelled to take reasonable steps to understand who the suppliers are in their multi-tier chain and the potential exposures to child labour and poor labour practices.

Tracking solutions

One of the problems Transportation Risk Management (TRM) departments face is the difficulty in getting real-time data on shipping containers because there is no standard tracking system. There are 1.6 million containers moving around the world, according to Peter Kelderman, Marine Risk Management Leader, Chubb Europe. These are all fitted with different devices that container companies favour.

Such diverse tracking systems mean it can be challenging for a ship supplier to focus on the one that provides the type of information they need. It is the job of TRM departments to give the best available advice on the most suitable system for their transport.

Chubb conducted an experiment in the US across the FedEx and UPS systems, by putting Apple AirTag collars into the packages. “We tracked them and discovered we could find these packages and their contents anywhere, right down to what area of a warehouse they were in,” says John Venneman, Marine Risk Management Specialist, Chubb North America.

“With that kind of knowledge, we were able to count all the ways to submit a bid to cover every eventuality, should something go wrong. For instance, if you have a piece of kit in a package worth US\$1 million, what happens if the label gets torn off? No one can find it. But with the AirTag we could and that allowed us to track every part of the package’s journey and build risk into the contract for our clients.”

Despite the success of the AirTag, Kelderman stresses there is no single solution for all companies. “It is our duty to find the right thing for each client,” he notes. “It is going to become more commonplace that carriers put tracking devices into their containers – companies will all come under great pressure to do so, but they will probably all use something different, choosing technology that suits their business model.

“Our job is to evaluate each system and carrier. We cannot say that every system is going to work the same way, so everything will be fine; the risks of each system must be assessed.”



40-50% of supply chains are failing because of suppliers lower down the chain



Next steps

While there is no one-size-fits-all solution, these are some additional measures and potential problems risk and supply chain managers should look at:

- Increase inventories and check that they have been declared properly
- Account for longer repair times
- Set limits for cover
- Analyse your current strategy to identify weaknesses and untapped opportunities; consider the strengths of your competition
- Adapt to new purchase patterns (including e-commerce and last- and first-mile delivery)
- Ensure you are using the right incoterms/know your incoterms
- Work with insurance brokers and carriers who can help facilitate better understanding and provide alternative options



Wildgoose adds: “If you understand better who is in multi-tier critical supply chains, that transparency to stop disruptions also helps you comply with such legislation, as you can show you have identified your suppliers and made reasonable endeavours to check there is no child labour or bad working conditions.”

Robust supply chain transparency is also a fundamental driver to address the threats from climate risk. “You need that transparency in your supply chain to really understand where your carbon footprint is,” says Wildgoose, who notes that typically around 80-90% of an organisation’s emissions can come from outside their direct operations (Scope 3 emissions).

The UN says companies are starting to recognise the importance of getting

to grips with Scope 3 (supply chain) emissions but actions need to be scaled up to aid the path to net zero. Wildgoose believes: “Very few companies are really starting to tackle this yet, given the other current challenges they are facing.”

Avoiding delays

While supply chain disruptions are nothing new, the current vulnerabilities have forced companies to shift their focus from cost reduction and productivity enhancement to business continuity, by building resiliency and flexibility into their supply chain.

From a Transportation Risk Management (TRM) perspective, this is about supporting clients in finding solutions and working with them to avoid any disruption in the supply chain, says Kelderman.



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We are working with the underwriter to manage risk right from the beginning of the supply chain; we are not just working on claims. It is vital that we get ahead of risks for our clients”

Peter Kelderman, Marine Risk Management Leader, Chubb Europe

For example, when the Russia-Ukraine war started, Chubb worked on a project to find safe, alternative routes to drive to Kazakhstan, instead of driving through these two countries. He notes: “Regions that are fragile need constant monitoring to ensure the supply chain remains stable.”

Supporting businesses to avoid interruptions is only one element of what companies can expect. “It is important to point out that at Chubb, the TRM department is part of the underwriting process,” says Kelderman. “We are working with the underwriter to manage risk right from the beginning of the supply chain. It is vital that we get ahead of risks for our clients.”

This means considering all aspects from production through to final delivery, which includes warehouses and packaging to shipping and logistics contracts. “This is the strength of our own worldwide TRM team,” Kelderman explains. “We are based in all import trading and production regions, so we can react quickly and find solutions for our clients and brokers, but also for our own underwriters.”

Conclusion

As Kelderman says, so much is changing and the risk management process is never finished: “You are always working on it – making a permanent change until the next change.” Untangling the complex web of multi-tier supply chains makes risk management even trickier, but the price of staying competitive requires out-of-the-box thinking. Be agile, adaptable and get ahead of changing conditions, not just through constant inspections and audits, but by regularly preparing and testing alternative scenarios. Think wargaming and the impact of losing a supplier, rather than focusing on profitability and margins.

“No matter a company’s size, you might rely on something as small as a specialist screw or fastener to get your product out,” notes Wildgoose. “That element might be made by a small company, in France, Asia or anywhere. What will you do if the supplier fails?”

If you only remember one question to ask yourself, make it that one.

Six key questions companies should ask themselves:

1 Have you established appropriate capabilities to assess supply chain exposures (either through internal resource or engaging a professional specialist)?

2 Does your business resilience strategy include review of your supply chain beyond tier 1 (i.e. direct) suppliers? For example, tiers 2 and 3 suppliers, utility supplies and/or market conditions.

3 Has an analysis been conducted to identify supply chain risk accumulations? This may include geographic/NatCat exposures, cyber incidents, transportation restrictions, public health, regulatory or political risks.

4 Has your organisation implemented a Business Continuity Management system to a recognised standard (e.g., ISO 22301 or BCI Good Practice Guidelines)?

5 Have you created a suitable budget to support business resilience measures (such as inventory stockpiling, alternative suppliers, utility back-up capability, business continuity plan development and maintenance)?

6 Are you confident the effectiveness of your supply chain resilience strategy can be demonstrated (e.g. via desktop or real-life exercises, real-time inventory management data, monitoring Service Level Agreements for effectiveness or proven back-up systems)?

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