

# From farm to fork: Rethinking food and drink supply chains

Part 1: Executive summary





# 01 Executive summary

## Spotlight on supply chains

Businesses have always relied on suppliers to get their products and services from producers to customers. But in the last six decades – the era of globalisation – these supply chains have grown in size, volume and complexity. In tandem the associated risks have also increased.

The food and drink industry has been a key proponent of this global connectedness. The resulting supply chains have enabled businesses to provide cheaper, more efficient services to their customers by hedging the risk of food supply issues and global price fluctuations. However, reliance on the global trading system has also come at a cost. Complex supply chains have increased vulnerability to both natural perils (adverse weather) and manmade shocks (cyber-attacks or market volatility), allowing risks to transfer between organisations, sectors and continents. The effect can be seen in recent global price rises for basic food items, triggering protests in countries like Argentina, Indonesia and Greece<sup>1</sup>. Supply chain risks are the manifestation of those knock-on impacts - both the individual impacts on a business in the chain, and the ripple effects seen across the whole system.

As the world population continues to grow from 7.7 billion people in 2021 to an estimated 8.5 billion in 2030<sup>2</sup>, food and drink supply chains will play an essential role in facilitating global progress and building societal resilience. The sector's sensitivity to changes in natural climate cycles and weather patterns also places it at the heart of global efforts to build sustainability into our economic systems. A resilient and thriving food and drink industry is therefore key to the world's economic recovery and prosperity in the wake of successive global shocks.

## Supply chain risks: a proven threat

The complexity of global supply chains – alongside the absence of high-quality data for the sector – makes it difficult to ascertain the potential costs of supply chain risks, which can vary between events and industries. While the Thai floods of 2011 provided an indicator of the vast potential impacts, less visible events can be equally costly: fires in a producer's factory; suppliers with two degrees of separation facing liquidation; or construction delays in a supplier's new premises. However, unlike the direct impacts of natural disasters, the effects of supply chain shocks are not confined to a geographical region. The global nature of the food and drink industry means their impacts are felt much further afield.

More recently, the conflict in Ukraine has exposed fragilities in supply chains and identified the need for global economies to diversify. As outlined in our report, [Ukraine: A conflict that changed the world](#), Ukraine and Russia are significant exporters of raw food ingredients such as wheat: so in the short term, nations reliant on exports from these two countries are seeking alternative suppliers, for instance in North Africa and South America. The impacts of the conflict on global food supplies may also be exacerbated by droughts (especially in the Americas), leading to insufficient ingredients and materials being produced. The compounded effects of the conflict and drought have led a number of food and drink organisations to invest in new supply chain risk management tools, alongside procedural changes to help their businesses adapt.

<sup>1</sup> <https://graphics.reuters.com/UKRAINE-CRISIS/FOOD/zivqkgomjvx/>

<sup>2</sup> 'World Population Prospects 2019: Data Booklet', <https://population.un.org/wpp/>

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## Mounting an effective response

In our fast-paced business environment, risk managers are increasingly finding the window for responding to supply chain disruption has been shortened. COVID-19 and the conflict in Ukraine demonstrated how quickly risks can spiral; and how immediately businesses must adapt to contain the damage. Trusted partnerships with the insurance industry have therefore become more important, enabling business to react quickly while building proactive resilience across their chains. Entirely eliminating the potential risks will never be possible, but with increasingly sophisticated modelling and insurance solutions available, the ability to analyse outcomes and mitigate impacts is also expanding.

This report explores three key areas for action to increase awareness, availability and uptake of supply chain insurance in the food and drink industry and beyond:

### 1. Product innovation opportunities

As this report makes clear, there is significant scope for increased collaboration between the food and drink industry and insurers as part of the financial services ecosystem. A number of solutions are already available; however these are not often well understood by customers. Extensive conversations and data can be required for underwriters to sufficiently understand the underlying risk.

There is an opportunity to develop new targeted supply chain insurance solutions to address existing protection gaps in the food and drink industry. These gaps include:

- The loss of Tier 2 suppliers (and potentially further along the supply chain)
- Shortfalls in the yield or quality of crops due to extreme weather
- The disruption caused by notifiable pests and diseases, for example avian influenza
- The impact of transit delays on perishable goods
- Price volatility of commodities such as fertilisers or grain; or in energy and fuel costs
- Reputational damage, as scrutiny of ESG responsibilities across the supply chain increases

### 2. Enhancing supply chain data

Access to quality, timely and usable data on supply chains has been a longstanding barrier for both businesses and insurers, but that is changing. Recent supply chain disruption has led to more companies investing in their risk management efforts - such as resource-planning software, business continuity planning, and deeper conversations with their own suppliers. As a result, more food and drink businesses than ever are now using technology to help map and manage their supply chains. At the same time, the quality of accompanying data is improving.

Reliable, granular data underpins underwriters' ability to accurately quote for a risk. Insurers can therefore draw on improvements in industry practices to assist their own product innovation efforts – whether that's designing new products, or enhancing existing offerings. Clear guidance from insurers can also highlight what data is needed for different products and where the burden of information on customers can be reduced. Looking further ahead, partnerships with technology providers responding to operational efficiencies, alongside market tools such as risk management and supply chain diagnostics could support a more efficient translation and transmission of this data.



### 3. Increasing communication to move the dial

The food and drink businesses feeding into this research have called for a deeper partnership with their insurers, and Lloyd's will work across the industry to find opportunities to respond to this challenge, including the recent announcement of an Innovation Forum to support the commercialisation of new solutions that address customer needs emerging from the conflict in Ukraine, including the disruption to food and drink supply chains. At the same time, through our leadership of the Sustainable Markets Initiative Insurance Task Force, we will explore the adaptability of current crop insurance models to the emerging economies that underpin global food security.

Collaboration across the industry is already helping mitigate global supply pressures and market volatility: as seen in July's agreement securing the recovery of grain from Ukraine's ports, facilitated by Turkey and the United Nations and backed by Lloyd's insurers. The deal demonstrated the ability of industry to support societal objectives, in this case the easing of market volatility and supply pressures in the midst of difficult global economic conditions. This collaboration between businesses, insurers and policymakers – alongside the analysis and mitigation of emerging threats – will be essential to build societal resilience in the face of uncertainty.

#### Resilience through knowledge

This report – a collaborative effort between Lloyd's Futureset and WTW – aims to highlight the supply chain challenges facing the food and drink industry in order to boost the resilience of our global systems and societies. Over the past four months, we have surveyed and interviewed over 275 risk, supply chain, and insurance practitioners. These perspectives have provided real-life, practical insights into the challenges that companies across the food and drink industry are facing as a result of the highly interconnected world we live in and a historic – though evolving – reliance on just-in-time business models. In addition to these interviews, we have combined proprietary data and reports with a range of thought leadership and third-party analysis to develop insights that can help build common understanding between the industry and insurers to build resilience into our ever-more uncertain and complex world.

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Supply chain cover does exist today, but it can often be complex to underwrite and costly to buy. Additionally, these products will need significant development to support supply chain resilience against future systemic risks. Having affordable and accessible product and service solutions will be key to instilling confidence in businesses when facing the future. As an industry we need to develop a wider range of solutions that can fulfil this growing need, but to do this we will need the data to understand the complex supply chain networks that exist and the risks to which they are exposed. I see this as a great opportunity for our industry to work with all stakeholders, businesses, and governments around the world, to develop a greater level of certainty on supply chain resilience amid a world filled with challenges.

John Ludlow, Former Airmic CEO, Lloyd's Futureset supply chain masterclass, March 2021<sup>3</sup>

<sup>3</sup> <https://www.airmic.com/news/guest-stories/airmic-ceo-speaks-systemic-risks-global-supply-chains>

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