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Supply chain resilience – a key underwriting metric for risk-takers

*ITFA's **Silja Calac** interviews AIG's Global Head of Trade Finance, **Marilyn Blattner-Hoyle**, on why supply chain resilience matters, and how we as risk-takers can act on it.*

Introduction:

Silja: AIG hosted a webinar in November that focused on risk, resilience and rebalancing in global value chains (link to listen at bottom of this interview). The event, which featured an all-female panel of experts, included speakers Susan Lund, Partner, McKinsey Global Institute; Joanna Konings, Senior Economist, Trade Analysis, ING; with AIG's Marilyn Blattner-Hoyle, Global Head of Trade Finance as moderator. It was a fascinating and timely discussion, and I thought our ITFA members needed to have access to this thought leadership. On 4 January 2021, I interviewed Marilyn to dig deeper for ITFA.

Interview:

Silja: Marilyn, at the beginning of the webinar, you shared some startling introductory statistics from the McKinsey Global Institute research report titled "Risk, resilience, and rebalancing in global value chains" dated August 6, 2020 (referred to herein as "the Report" - click to read full report). These two really stuck in my mind: "Disruptions lasting a month or longer now occur every 3.7 years on average" and "Companies can expect to lose more than 40% of a year's profits every decade on average" due to these issues. The webinar slides said the NPV of expected losses over a 10-year period was 42% annual EBITDA. That is serious. Although the report and the AIG webinar were primarily focussed on corporate impacts, it has much wider relevance for our ITFA community too.

Resilience risks we need to evaluate not ignore:

Marilyn: Yes, Silja, I couldn't agree more. The topic of supply chain resilience has never been more relevant to us as corporates, but also to financial institutions as risk takers. The pandemic has highlighted the fragility of global value chains, transforming how corporates and financial institutions need to think. Yes, corporates need to think about how they manage the goods and services that make up their value chains as well as transport and sales processes under shocks. But financial institutions also need to think about supply chain resilience when evaluating the risk profiles of obligors and transactions. A global supply chain reconfiguration is being driven by protectionist reflexes growing around the world, coupled with the intense shock and fallout of supply chain disruptions. This creates risks we need to evaluate not ignore, but also great opportunities to support resilient companies who will succeed in the turmoil.

Types of supply chain shocks:

Silja: To better understand what you mean, what are the shocks themselves that are causing these big impacts?

Marilyn: The report, as well as Susan on the webinar, summarised these well into 4 key areas and they are exceedingly diverse. First you have **force majeure**, so think geophysical events like earthquakes, landslides, tsunamis and volcanos. And acute climate events like hurricanes, as well as chronic climate events like drought and wildfires. And of course, pandemics. But even beyond the virus, second you have **geopolitical**, so financial crisis, trade wars and military conflict. Then you have **malicious actors** like cyber-attacks, terrorism. And fourth, **idiosyncratic risks** like supplier bankruptcies, logistical disruptions and industrial accidents. The report also splits these into unanticipated catastrophes, foreseeable catastrophes, unanticipated business disruptions and foreseeable disruptions at Exhibit E1 on Page 5. So as you can see, there will not be a one size fits all approach to solving these, but awareness is the first key step.

Real shocks to remember:

Marilyn: And on awareness, did you even know about Tropical Storm Nock-ten until the webinar? I didn't! And yet it knocked out a quarter of the world's hard drive supply due to swamped factories in Thailand! And even for events we remember, like the 2011 major earthquake and tsunami in Japan, that shut down factories that produce electronic components for cars, halting assembly lines worldwide. The same event also knocked out the world's top producer of advanced silicon wafers, on which semiconductor companies rely. And then in 2017, we remember of course Hurricane Harvey heavily impacted the largest US oil refineries and petrochemical plants, but the knock-on effect created shortages of key plastics and resins for a range of industries. It gives you a whole new outlook on hurricanes. In insurance companies, we normally worry about hurricanes for property damage etc., but what about for corporate insolvencies due to supply chain disruptions?

Practical tips for underwriting around resilience:

Silja: I agree, we have to shift our mindsets to really think about how the viability of a corporate paying back their loans or supply chain finance facility, can actually be impacted by all of these shocks. Severely. But what do we do next?

Marilyn: First, we have to make supply chain resilience a key component of our underwriting assessments. Banks, insurance companies and other risk-takers can due diligence a corporate's supply chain resilience planning and lessons learned. As well as the relevant industry's resilience. The report states that "in a McKinsey survey of supply chain executives conducted in May 2020, an overwhelming 93 percent reported that they plan to take steps to make their supply chains more resilient, including building in redundancy across suppliers, nearshoring, reducing the number of unique parts and regionalizing their supply chains". We can look for these actions in annual reports. We can ask about steps taken in buyer visits. We can use tools like Bloomberg's supply chain analysis tool ({SPLC <GO>} on your Bloomberg screen) to see the key suppliers and key customers of our obligors. For us to pick the resilience companies, can lead to picking the winning companies. Those that can survive and even thrive in disruption. This goes beyond pure review of financials and forecasts.

Silja: That is practical – using that simple Bloomberg tool to check the supply chain. A corporate with fewer suppliers and customers may be less resilient so you have to dig more.

Marilyn: Yes, I am a big fan – it just helped last month identify that a certain obligor has just two key customers, one of which was another obligor, so we needed to view these as heavily correlated aggregations in a sense. But then we looked further into the width of the supply chain (who did those customers trade with, and who did those suppliers buy raw materials from) and also their resilience measures. Hence the resilience question was key and in fact the resilience strength allowed us to do the deal.

Real corporate resilience success stories:

Silja: Do you have some concrete examples of what makes a company resilient?

Marilyn: Yes, the webinar covered retail with a global footwear manufacturer, auto a global auto manufacturer, electronics with the semiconductor industry. Susan talked about how with semiconductors, while the US designs the advanced chips, they are mostly manufactured in South Korea and Taiwan and 95% in Asia. So as an example, a major semiconductor manufacturing company recognised this geographic concentration as being a supply chain risk for a multitude of potential shock reasons. Their way to build resilience was to build a $10m manufacturing plant for semiconductors in Arizona in the US. As Susan pointed out as her elevator pitch in the webinar, “resilience is not a cost” when you are talking about the costs of disruptions.

Global Footwear Company’s supply chain transparency and flexibility:

Marilyn: Susan’s footwear case study in the webinar was all about supply chain transparency and resulting flexibility which has been of huge value during recent supply chain disruptions. The company has previously invested heavily in its Chinese manufacturing to understand where products are, where inventory is and how everything flows with all their contract manufacturers. Their digitised supply chain gives visibility to act quickly. So disruptions happened recently, and the company saw their bricks and mortar sites would be shut down, they quickly diverted to e-commerce distribution sites. They also used their consumer app to sell to the Chinese market bypassing retailers. This info was then used to focus their marketing and sales campaigns on the products they had, rather than the new products they expected to come out after Chinese new year which no longer could be produced. Revenue fell much less in 1st quarter 2020 comparing to other international competitors in China. Nimbleness paid off in pandemic. Transparency is often the first step in supply chain resilience.

Global auto manufacturer’s regionalisation and simplification:

Marilyn: On the auto case study, Susan described how the global auto manufacturer, often credited with inventing the concept of lean manufacturing, updated its approach after the impacts of the tsunami in Japan in 2011 we mentioned earlier, which resulted in all of the company’s domestic operations being shut down for nearly two months, and production in the US being down 30% due to shortage of parts produced in Japan. They looked at their global footprint and further regionalised supply chains to ensure Europe and US could continue if Japan had more weather events. They took other resilience-building steps too. They modularised car designs with more shared components across vehicle types. They required some suppliers to hold more of their key components. In 2016, another earthquake hit in Japan and global production was only down for two weeks. Joanna shared that auto companies across the board are looking at regionalisation as a key tactic to create a predictable flow of parts. But again there is not a one size fits all solution. Susan shared an example where not regionalisation but rather diversity of supplier location was key. One auto company was transporting parts from Poland to Germany for production, but with certain recent supply chain disruptions, this wasn’t possible, but shipping from China was ok as the ships were on the water. There was another transparency case in auto where they found that parts were going from Mexico to Wuhan then back to Mexico for final adjustments, so they re-thought that. What this shows is that for financial institutions to assess supply chain resilience of their clients, a wider understanding of what creates resilience is key. A checklist won’t work.

Digitisation of supply chain management:

Silja: So does this mean digitisation of supply chain is a critical next step for corporates, and what should financial institutions expect that if they cannot have a tick box approach?

Marilyn: Definitely digitisation of supply chain management and use of that data will be critical for corporates in building supply chain resilience. But as discussed on the webinar, we also have to be realistic about what is possible. Smaller companies may not have the resources to build such end to end automated analytics at initial stages, but they can draw up a deep supplier map and really know their supply chains inside and out. Digitization can help with many areas of resilience so where possible, it is ideal. And it will help with being able to give evidence of supply chain resilience to financial institutions too.

Exposed value chains:

Silja: Another stat from the webinar was that $4.4 trillion in global trade flows through the five most exposed value chains. That is about 25% of global goods traded. So what are these exposed value chains?

Marilyn: Yes, that surprised me too. The Report says that the most exposed industries from their research in order by Most exposed was 1st communications equipment then apparel then petroleum products then 4th transportation equipment and 5th was mining. There is a nice chart on pages 5-7 of the Report, but this quote therein really says it all: "*Overall, value chains that are heavily traded relative to their output are more exposed than those with lower trade intensity. Some of these include value chains that are the most sought after by countries: communication equipment, computers and electronics, and semiconductors and components. These value chains have the further distinction of being high value and relatively concentrated, underscoring potential risks for the global economy. Heavily traded labor-intensive value chains, such as apparel, are highly exposed to pandemic risk, heat stress (because of their reliance on labor), and flood risk. In contrast, the value chains including glass and cement, food and beverage, rubber and plastics, and fabricated metals have much lower exposure to shocks; these are among the least traded and most regionally oriented value chains. All in all, the five value chains most exposed to our assessed set of six shocks collectively represent $4.4 trillion in annual exports, or roughly a quarter of global goods trade (led by petroleum products, ranked third overall, with $2.4 trillion in exports). The five least exposed value chains account for $2.6 trillion in exports. Of the five most exposed value chains, apparel accounts for the largest share of employment, with at least 25 million jobs globally, according to the International Labor Organization.*"

Actions for banks and other risk takers to consider:

Silja: So what can our ITFA members do in order to act on this thought leadership we are discussing in their day to day businesses?

Marilyn: Well for example, banks and other financiers when submitting requests for insurance, can think about sharing their brief synopsis of why they think a company, an industry, a structure is resilient to the key shocks. Financiers can lead these due diligence discussions about supply chain resilience with their clients. Just like financial institutions have driven focus on compliance like AML and sanctions (rightly so) now supply chain resilience can be a core focus.

Positive measures list and ideas:

Silja: We talked before about how there cannot be a checklist. But what are some measures that a financial institution might look out for as positive actions to build resilience?

Marilyn: there are many different actions which the Report goes into detail on, and some positive resiliency actions for one company might make another company less resilient. So there is not perfect answer. But there was a useful list of measures in the webinar including:

1. Dual sourcing
2. More inventory of critical products
3. Near-shoring of suppliers
4. Regionalisation
5. SKU rationalisation
6. Higher safety stock
7. Back-up production sites
8. Near-shoring of production

And the Report talks about strengthening supply chain risk management and transparency. For example, asking corporates to do stress testing similar to what the banks do to determine if their balance sheets could withstand a severe recession. Mapping your supply chain in detail, going deep into the tiers – so picking up the Mexico-

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Wuhan-Mexico situation. Using the full potential of digital to monitor, connect, and collaborate across the supply chain diversifying supplier networks – as we saw above with footwear company. Building alternatives in transport and logistics systems. Strengthening critical suppliers – maybe with supply chain finance programs for example. Simplify product design and increase inventory and safety stocks as we saw with the auto example. And of course build supplier financial health and evaluating insurance coverage is key. Trade Credit insurance for suppliers can be a critical and beneficial tool.

Elevator pitch on resilience:

Silja: so to wrap up, what does this all come down to?

Marilyn: My elevator pitch on all this is simply **supply chain resilience must be a key underwriting metric**. Given the substantial financial impacts and frequency of shocks, profitable companies will have to be resilient companies and as risk takers, we need to delve into this more.

Webinar and report link and where to find more info:

Silja: how do we learn more?

Marilyn: if anyone wants to dig deeper on supply chain resilience, I cannot recommend the Report enough. It is full of juicy insights and real practical advice that is written for a corporate, but can widen the perspectives of a financial institution or other risk taker. You can download the Report in full (112 pages) or just the executive summary (28 pages) at the following link clicking the download button at top right for full report. “Risk, resilience, and rebalancing in global value chains” dated August 6, 2020. Furthermore, you can watch back the one hour webinar that AIG hosted in November and hear Joanna and Susan for yourselves at this link: **WATCH RECORDING** and Download here the presentation from the webinar. ***Recording password: Webinar2020***. You can reach out to me, Marilyn on Marilyn.Blattner-Hoyle@aig.com to discuss further too.

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