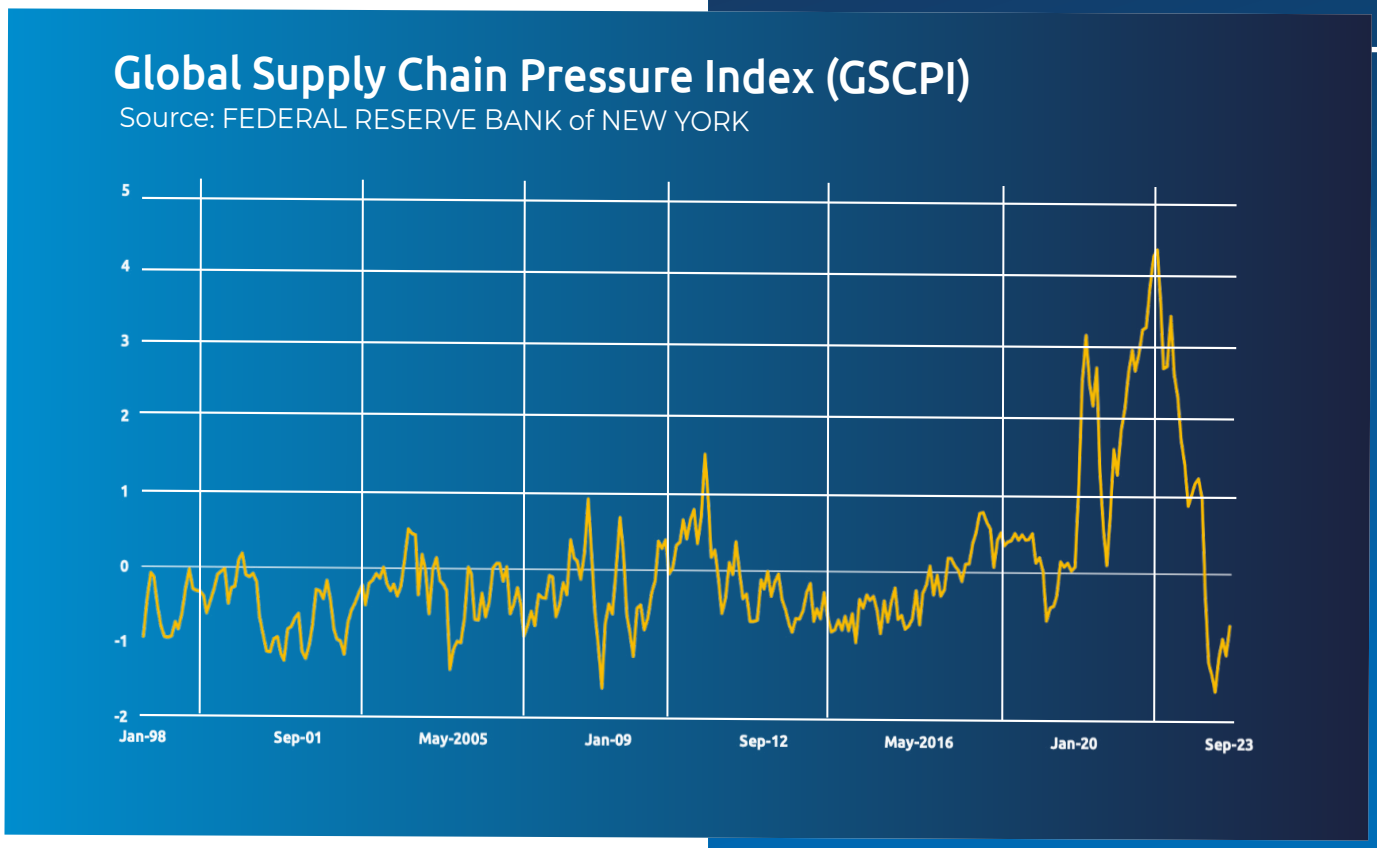
SHIPPEO

Building Antifragile Supply Chains with Visibility:

Why resilience is no longer enough

Introduction

In the not so distant past, supply chains were experiencing a level of pressure they had never experienced before. In the US, the Federal Reserve Bank of New York's famous **Global Supply Chain Pressure Index** showed clearly that pressure on supply chains was the highest in 30 years.



Supply chains face extreme volatility in the face of things like geopolitical tensions and cost of living crises, and it has become generally accepted today that supply chains will always be under some kind of pressure.

Now, whether the pressure is going up or down, it is not so much the pressure itself that is driving the stress in supply chains; all supply chain leaders know they need to be good at dealing with pressure. The real cause of the stress is volatility and with volatility comes uncertainty. It becomes very difficult to know in which direction things are going to evolve tomorrow when you are operating in uncertain times. You never know if you are out of the woods or just in the calm before the storm.

It is blindingly obvious to say that the best way to deal with uncertainty is to become as certain as you can be. In supply chain, this means being able to understand and manage demand fluctuations, supply disruptions, and market trends on a continual basis. Because the cadence between planning and execution has shrunk so much, having real-time information on the happenings in the supply chain are crucial for a supply chain leader.

Managing this is not manually possible and this is why supply chain leaders need to understand the fierce urgency of investing in digitalization and real-time technologies.

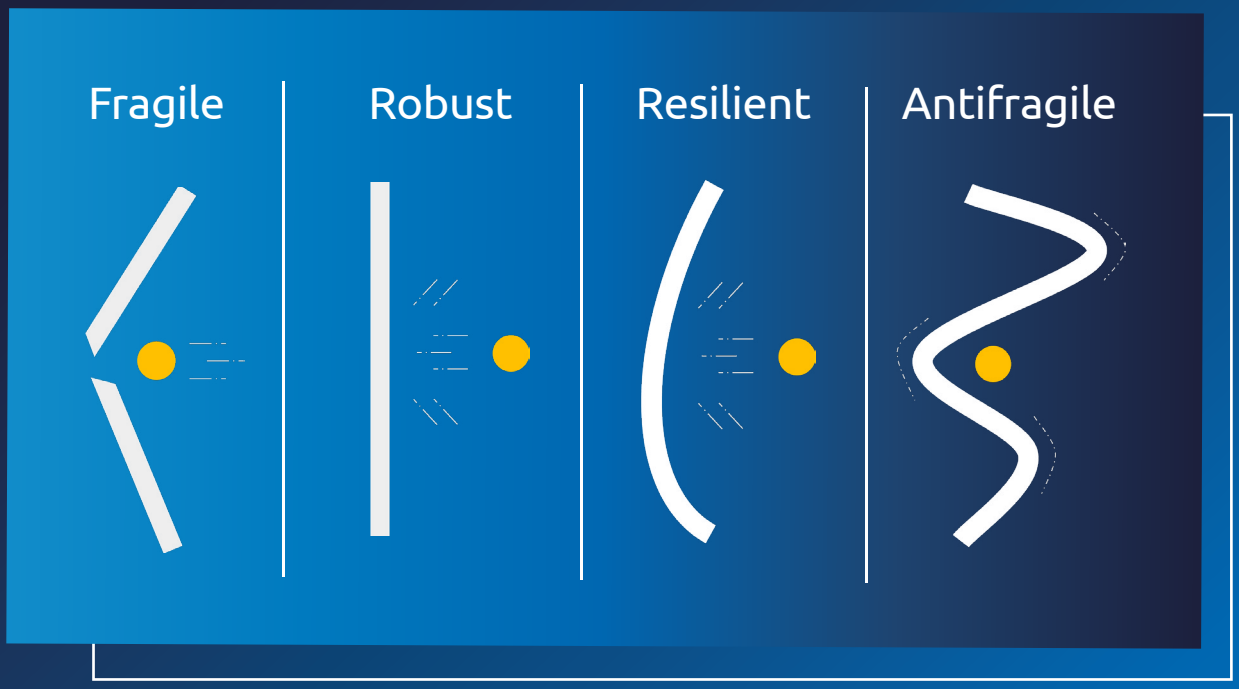
Such an investment to prepare for and weather the storms of tomorrow is not a question of if but rather when. The best time to invest and build resilience is before the next crisis hits – to use an analogy, you don't invest in anti hacking technology while you are being hacked – and given supply chain disruptions are unlikely to settle down, it needs to be now. This is the fierce urgency facing supply chain leaders today.

But is resilience enough?

While supply chain resilience has been a main focus in recent times, especially throughout the pandemic, we believe it does not go far enough. There is a step beyond resilience that organizations should be aspiring to achieve. It goes further than just protecting ourselves from a disruption to get back to the position we started from – the classic bend but not break scenario. It refers to a state where disruptions and uncertainty are embraced, one where supply chains thrive, strengthen, and ultimately land in a better position compared to where they started.

Such a framework comes from Nassim Nicholas Taleb, who in 2012 published the New York Times bestseller **'Antifragile: Things that gain from disorder',** and coined the term antifragility, which he defined as a property of systems that can increase their capacity to thrive as a result of shocks, attacks, failures, or any kind of volatility. As the old adage goes, antifragility embodies the spirit of 'what doesn't kill you makes you stronger'.

In the context of supply chains, all organizations fall into one of four potential categories, from fragile through to antifragile.



Fragile

Supply chains in this state lack the systems and processes to resist a disruption. As a result, their supply chains simply break when a disruption hits.

Robust

Organizations have implemented some systems and processes to help their supply chain to resist a disruption, but they are unable to or are not flexible enough to adapt to the disruption easily enough. Their survival may purely be down to luck or to manual processes within their organization, and they could end up in a worse position than they were when they started, especially if the manual processes don't scale.

Resilient

Resilient supply chains have the systems, processes and mindset to adapt to a disruption, allowing them to 'bend but not break' and return to the pre-disruption state. But they lack the ability to make structural changes in upstream processes to avoid disruptions from repeating.

Antifragile

A combination of advanced systems providing visibility into real-time operations at all times, dynamic processes and strategy allows a supply chain to thrive under uncertainty and disruptions, converting challenges into strengths and greater success. Such a supply chain is not only resilient but also learns and adapts upstream processes as well, thereby fixing both the immediate and the structural issues all in one go.

We firmly believe that this notion of antifragile supply chains will inspire supply chain leaders to think differently about building resilience. At Shippeo, we are building visibility solutions to help our customers foster antifragile and sustainable supply chains. By combining end-to-end high-quality visibility data with advanced systems, services and strategies, we believe supply chain management can become far more adaptive, and supply chains can increase their value as a competitive advantage.

What is required to achieve antifragility?

We believe that two key attributes are needed to enable antifragile supply chains:

1. High data quality

Your internal teams and ecosystem partners need to be able to rely upon your data in order to increase agility, responsiveness, and their knowledge of the impact any number of uncertainties could have. This high quality data is also the foundation that enables trust between an organization and its ecosystem to enable end-to-end decision alignment and process orchestration. As the old adage goes, 'what you can't see, you can't fix,' and high quality data allows you to see what is going on in the supply chain at all times.

2. A true system of engagement

Relying on a system of information won't suffice. Just knowing that something happened in real time, while useful, doesn't help. You have to be able to make a judgment on whether this disruption has a material impact or if it's merely an outlier: you must be able to convert this visibility data into actionable insights and probability calculations to fix the issue on hand urgently but also constantly evaluate what might happen in the future to better prepare for it.

In order to help organizations build antifragile strategies, Shippeo has adopted a two-prong strategy. We believe the combination helps customers get the greatest value from their digital supply chain investments.

A. Focus on network depth first, then breadth

Should visibility providers focus their investments on building a large visibility network as quickly as possible? Unfortunately this is usually at the expense of data quality.

It's important to work with Real-time Transportation Visibility providers who focus on building out their network quality with deep integrations, to facilitate the collection of richer, high quality visibility data. This is done by creating reliable integrations with carrier TMS in order to gain additional contextual data around every shipment.

For customers, this means they get so much more than live shipment locations on a map. The context is provided in the form of order information and status changes as shipments move from A to B. When paired with GPS location data from telematics devices or mobile apps, a more comprehensive and accurate view of movements is attained. As examples, data from Carrier TMS integrations makes it possible to book new delivery window slots, understand the nature of non-conforming deliveries and driver conditions such as accidents, adverse weather, or truck issues, changes of trailers in yards, trailer temperature changes, plus many others. Historical contextual data also feeds machine learning algorithms, which enables exceptionally high data quality and predictive ETAs essential for antifragile supply chains.

B. Build a system of engagement, not just information

When it comes to product strategy, should visibility data only remain in a system of information, showing dots on a map, or should this data be transformed into actionable insights which can be shared across your ecosystem, boosting collaboration and streamlining processes?

Thanks to advancements in data science and machine learning technology, and with the availability of highly accurate, complete and reliable visibility data, it's now possible to confidently automate transportation processes. This streamlines end-to-end transportation processes to reduce decision-making latency and improves operational efficiency with AI-enabled recommendations and collaborative workflows. Some large organizations with mission-critical supply chains are already benefiting from their first automated processes, including global automotive OEM Renault Group. This has the potential to bring enormous benefits to organizations and will be a core component to enable antifragile supply chains.

With uncertainty comes opportunity

Antifragile supply chains can help organizations make the best of bad situations they find themselves in by embracing uncertainty in a way that unlocks new opportunities.

This entails promoting a methodology centered on a new suite of best practices, including things like:

- Frequent experimentation with scenario planning
- Prediction of disruptive events and ability to manage them in real-time
- Learning system to ensure structural upstream processes are adjusted dynamically
- Process automation to enable dynamic decision making
- Stochastic demand and supply planning
- Flexible systems capable of adjusting to uncertainties

So what are the steps to build your antifragile supply chain?

1. **Define** what fragile, robust, resilient and antifragile states look like across your supply chain, so you can assess how well uncertainty is dealt with. This definition is not a 'one size fits all' and it needs to be relevant to your supply chain
2. **Get executive-level support** to champion antifragility as a key pillar of your supply chain strategy, and ensure wider teams understand the concept and benefits
3. **Work with your tech leaders** to plan how to leverage digital tools to increase supply chain antifragility
4. **Trust the ecosystem** within your supply chain to help you make dynamic decisions with digital tools
5. **Start your journey with real-time visibility.** Let the data from a visibility platform inform your end to end processes, take guesswork out to make the uncertain certain, and enable an antifragile supply chain

Helping companies build antifragile and sustainable supply chains

Our mission is to help our customers build their own antifragile supply chains, built solidly on a foundation of market-leading high quality data by combining our focus on deeper network integrations with a product roadmap towards the most collaborative, engaging and automated platform experience.

Since our company was founded in 2014, we have invested heavily to continually improve our data quality for customers. While Shippeo is doing part of the job, we rely on an ecosystem of partners to accelerate this transformation and unlock additional value from visibility. Whether we're talking about TMS, supply chain planning solutions, WMS, control towers, digital twins, or others, using visibility data to automate transportation processes can only be achieved in collaboration with the wider ecosystem, and we're thankful to have the support of **over 1000 integration partners** to date, with many more to come.

To learn more about how your organization can take advantage of end-to-end real-time visibility and Transportation Process Automation™ as part of your antifragile supply chain strategy, **get in touch with one of our experts today.**

TALK TO ONE OF OUR VISIBILITY EXPERTS TODAY

HUNDREDS OF SHIPPIANS ARE PRESENT IN CITIES ACROSS THE GLOBE.

Email contact@shippeo.com

Shippeo is a global leader in real-time multimodal transportation visibility, helping major shippers and logistics service providers operate more resilient, sustainable, and customer-centric supply chains. This is made possible with highly accurate real-time operational visibility and Transport Process Automation™ to streamline transportation processes, reduce latency and improve operational efficiency. Their Multimodal Visibility Network integrates with more than 1,000 TMS, telematics and ELD systems, enabling Shippeo's platform to provide instant access to real-time shipment tracking across all transport modes, in a single portal, through an intuitive user experience. A proprietary and industry-leading machine learning algorithm offers unmatched ETA accuracy, allowing supply chain companies to quickly anticipate problems, proactively alert customers, efficiently manage exceptions with collaborative workflows, and GHG emissions from supply chain transport. Hundreds of customers, including global brands like Ahold Delhaize, AkzoNobel, Amazon, Avery Dennison, Bosch Siemens Hausgeräte, Carrefour, Coca-Cola HBC, Jaguar Land Rover, Heineken, Kuehne+Nagel, L'Oréal, LVMH, Renault Group, Sabic, Saint-Gobain, Siemens Energy and XPO Logistics, trust Shippeo to track more than 46 million shipments per year across 130 countries.

Learn more at **www.shippeo.com**

SHIPPEO