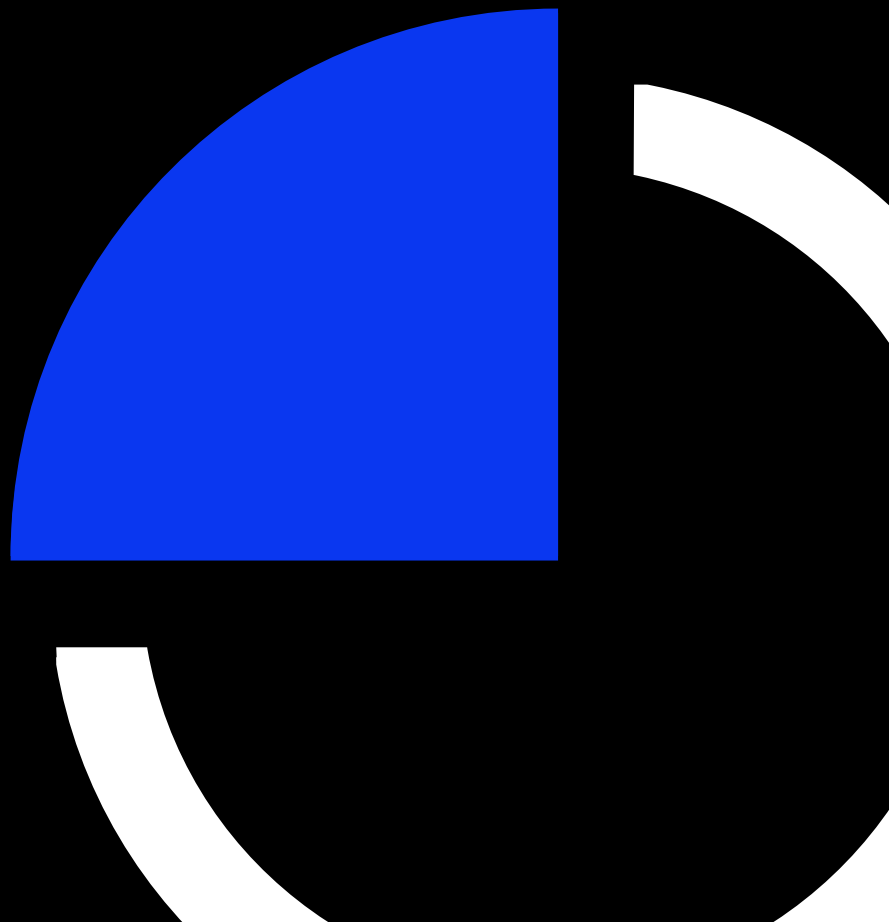


The Tradeshift Index of Global Trade Health

Q3
2022



A note to our readers

We first published the Index of Global Trade Health in July 2020 when most of the world was plunged into a pandemic-induced lockdown.

Since then, we've been charting how transaction volumes have recovered against our pre-pandemic forecasts.

With the world moving on from the pandemic and major new challenges to the global economy emerging, it is time for a change. Covid is now just one of a number of major factors impacting global trade. Attempting to plot recovery from just one event now seems less relevant.

To that end, we have decided to de-peg our analysis from the pandemic. While our core model for analysis remains the same, we will no longer show data cumulatively, but rather as a quarter-on-quarter comparison. More information on our model can be found on page: 24

Can US supply chains remain immune to trouble from abroad?

'The signs aren't looking good,' [says](#)¹ the WTO's Director General, Ngozi Okonjo-Iweala, one of a growing number of leading international figures who think the world could be headed into a recession. They may well be right. Data from our Q3 Trade Index shows the third successive quarter of declining momentum across global supply chains. The 5-point slowdown in total transaction volumes we saw in Q3 is by no means catastrophic, but the accelerated decline in order volumes since the beginning of the year presents a concerning pattern.

Europe's energy crisis is creating a very challenging environment for the region's supply chains. Transaction volumes mirrored the global picture, falling a further 5 points. Ordering activity fell more sharply, dropping by a further 9 points against the baseline. This follows a 13-point fall in the previous quarter

In the US, softening demand is not such a bad thing. Shipping costs are falling from previous highs and bottlenecks are easing. Even energy prices are beginning to taper off and that's taking the edge off inflation. Our latest data shows that US supply chain activity tracked just 2 points below the baseline, and has been hovering around that level since the beginning of the year.

The signs may not be good, but there are still a number of factors in play that could tip the balance either way. The situation in China is one of them. Our data indicates that supply chain activity in China tracked just one point below the expected range in Q3.

But the story of the past year has been of lockdown-fuelled unpredictability. The war in Ukraine is also weighing heavily on global trade. Beyond the human cost, the war will continue accelerating a new phase for globalisation built around trust, security, and sustainability.

Covid helped dispel the antiquated notion of the Supply Chain as a necessary, but unimportant backwater of the business. Subsequent events have merely reinforced that change in perspective. Every business should be looking at its supply chain in terms of a radical opportunity for competitive advantage. There are no shortcuts to this transition, but technology has a foundational role to play in helping forward-thinking supply chain leaders on that journey.

Companies like Danone (read the brilliant interview with Niels Boersema on page 18) are showing how digital connectivity can be used to embed visibility, agility, and collaborative partnership into the relationship between large organizations and their extended supply chains. Crucially, they also show how these measures need not come at the cost of strong ethical and sustainable principles.



¹ WTO Center, 28/09/22: World Trade Organization chief latest to warn a global recession is on the way

Key findings at a glance

1. Global trade activity suffered its third consecutive loss of quarterly momentum with transaction volume growth tracking at **5 points below** the expected range.
2. Orders are drying up at an accelerating rate. Order volume growth in Q3 was **9 points below** the expected range in Q3.
3. Manufacturing activity **dropped to 11 points** below the expected range. Retail supply chain activity **dropped 9 points** below the baseline in Q3, the slowest growth in 18 months.
4. Europe's energy crisis is hammering regional supply chains. Activity across the Eurozone **slowed by a further 6 points** in Q3. Momentum across UK supply chains **fell by a further 5 points** quarter-on-quarter.
5. US trade activity has continued to buck the wider global trend. Total transaction volumes tracked at just **2 points below** the expected level in Q3. Momentum is slowing but at a much gentler rate than elsewhere in the world.
6. Trade across Chinese supply chains appeared to stabilise. Transaction volume growth was only **1 point below** the baseline in Q3. But the overall picture in 2022 remains volatile.
7. Spending on technology remained relatively robust, with activity trending within the expected range in Q3. [Gartner²](#) sees IT spending holding steady at **3 per cent growth for 2022**.

2 Gartner.com 14/07/22: Gartner Forecasts Worldwide IT Spending to Grow 3% in 2022



Volatility snapshot

Quarterly growth in activity across the Tradeshift network indexed against historical trends

Fortune favours the US as energy crisis hits Europe's supply chains

Transaction volumes - quarter on quarter growth indexed against historical trends



Trade activity continued its slide in Q3, with global transactions falling by a further 5 points against the expected range. The latest loss of momentum means trade activity has now performed below the baseline for three successive quarters.

Supply chains in Europe are being hammered by rising energy costs triggered by the war in Ukraine. Trade activity in the Eurozone continued to lose momentum in Q3, dropping by a further 6 points compared to the expected range. In the UK, total activity tracked at 5 points below the expected level.

A different picture is emerging in the US where energy prices are beginning to taper. Momentum has certainly declined since the beginning of the year, but at a far less pronounced rate than in other regions. Supply chain activity tracked just 2 points below the baseline in Q3.

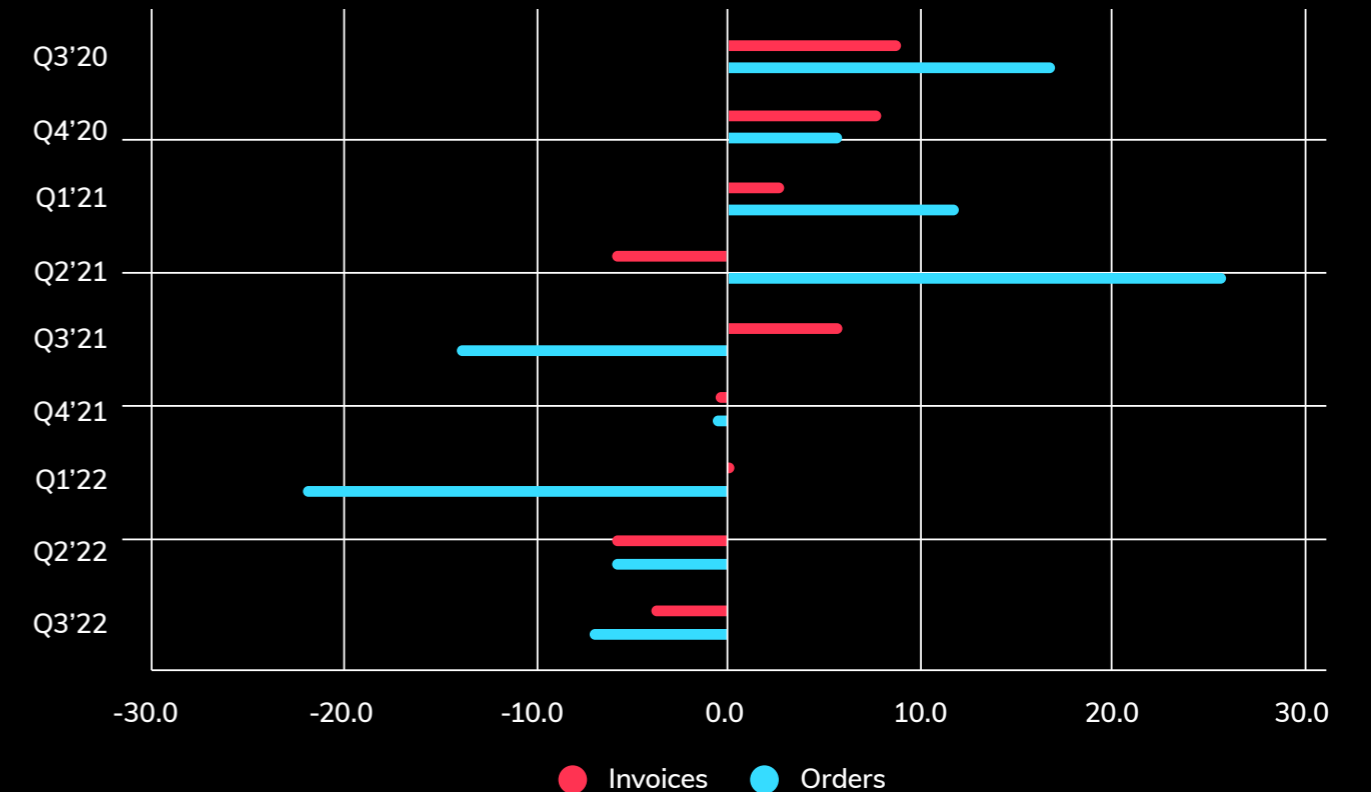
Demand certainly appears to have softened, but so too has some of the extreme volatility of the past two years. As bottlenecks ease and shipping costs fall, US supply chain operators must now hope domestic consumers keep spending.

In the middle of all of this is China, where the overall picture remains very volatile. Our data suggests transaction volumes grew at a relatively healthy rate in Q3, just 1 point below the expected range. The caveat is that this growth is coming from a low base, after a year of steeply declining momentum.

The next six months will be defined by three things: confidence in the US, Russia's aggression in Europe and China's evolving response to Covid.

Supplier cash flow under pressure as orders dry up

Invoice and order volumes - quarter on quarter comparison, indexed against historical trends



Global buying activity fell by another 7 points against the expected range in Q3 as the decline in ordering volumes cranked up another notch. Earlier falls can be attributed to settling demand after previous spikes. But the latest data points to a more general slowdown across global supply chains.

Supply chain bottlenecks no longer appear to be the biggest issue for supply chain operators. Certainly, the delta between order volumes and invoice traffic - a leading indicator of problems matching supply with demand - has largely closed.

The combination of rising costs and waning consumer confidence is pushing demand downwards. This view is supported by a slew of disappointing results from large corporates in sectors from retail to aerospace.

Smaller suppliers are likely to be hit hardest and fastest, particularly if large organizations once again start to delay supplier payments in order to protect cash flow. The resulting liquidity gap could trigger a wave of closures among key suppliers putting the integrity of entire supply chains in jeopardy.

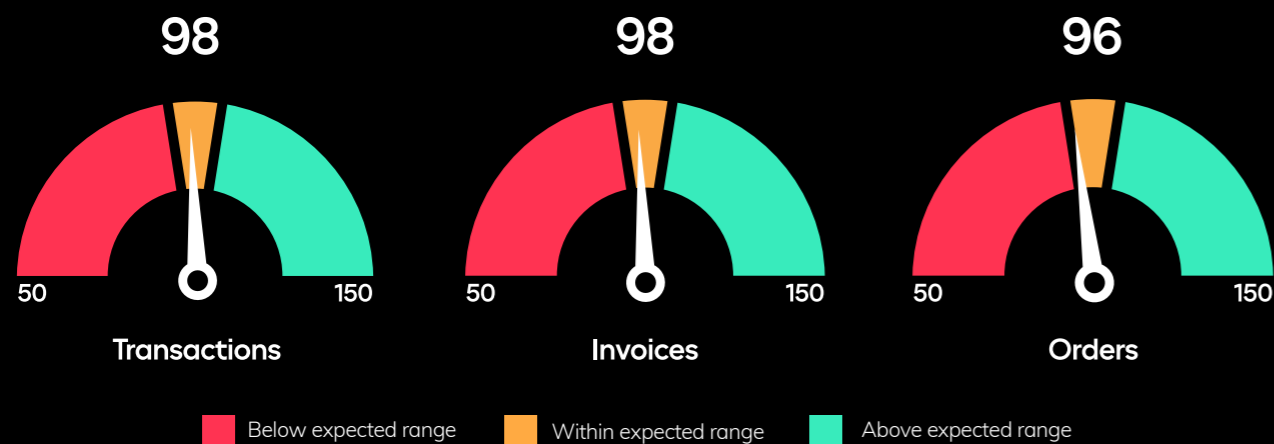


Q3 momentum deep-dive

Quarter-on-quarter performance
across key territories

US: Slow but steady

US trade activity - quarter on quarter index scores



Swing vs previous quarter:

+1 +1 +4

While much of the rest of the world appears to be struggling, domestic supply chains in the US are proving far more resilient to external pressures.

Recent data³ shows that consumer confidence rose at a higher-than-expected rate in September, fueling an uptick in purchasing of durable goods. Order volumes on the Tradeshift platform hovered just within the expected range in Q3, an improvement of 4 points compared to the previous quarter.

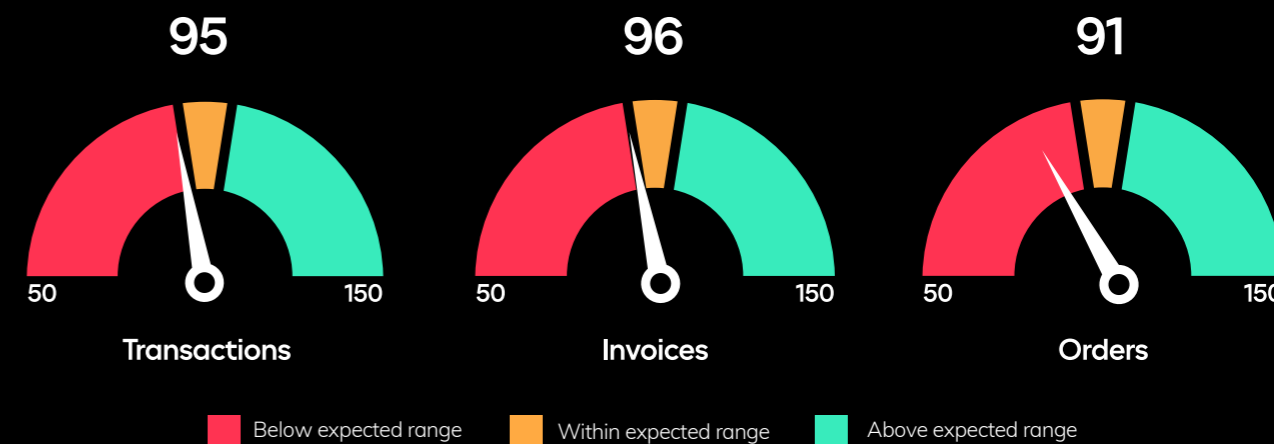
³ Ipsos 22/09/2022: US consumer confidence shows stability

A modest increase in invoicing momentum also suggests suppliers are having a far easier time dealing with new orders than a year ago when demand signals were far more volatile. Data from the Federal Reserve shows that capacity use across US industrial supply chains is now only slightly above the long-term average. As this figure declines, so does the risk of inflation.

The overall picture suggests solid, if unspectacular, momentum across US supply chains, and just a hint of a slightly improving outlook.

Eurozone: Winter is coming...

Eurozone trade activity - quarter on quarter index scores



Swing vs previous quarter:

0 +4 -4

Order volumes across the Eurozone are drying up at a fast rate since the pandemic as the energy crisis triggers the threat of factory closures and blackouts across the region.

Buying activity in the Eurozone tracked at 9 points below the baseline in Q3, not quite the 13-point fall we saw in Q2, but still a very significant loss of momentum.

According to Eurostat⁴, the European Commission's statistics office, factory output in the 19 countries that share the euro dropped 2.3 per cent in July from the previous month, its biggest fall since April 2020.

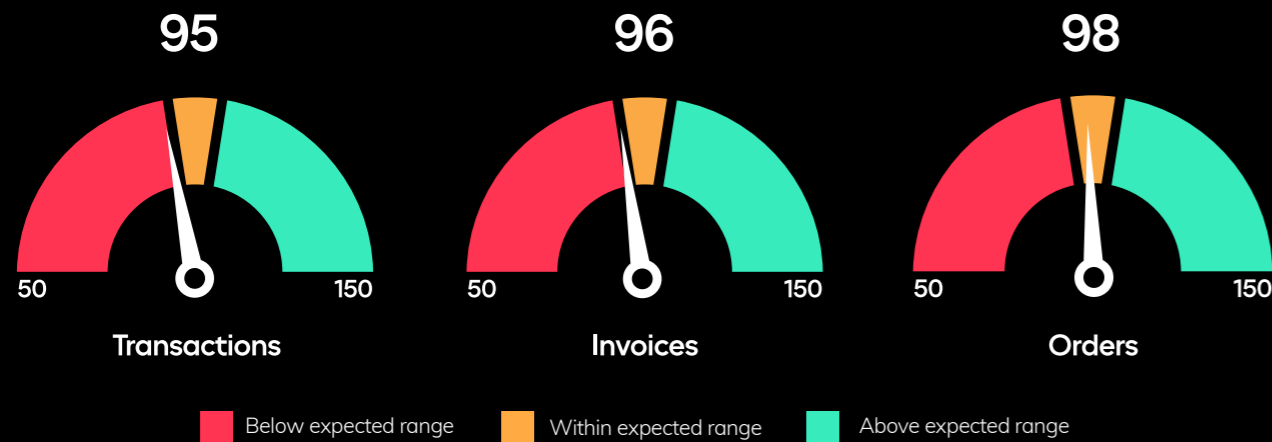
⁴ Eurostat 14/09/2022: Industrial production down by 2.3% in the euro area and by 1.6% in the EU

Our analysis shows invoice traffic gained a little more momentum in Q3 compared to the previous quarter. Overall growth remains low however; this is likely a result of suppliers having spare capacity to fulfil a declining number of orders.

With winter fast approaching, even the slightest uptick in energy demand anywhere in the world could push entire sectors of Europe's manufacturing industry to shut down entirely. Rocketing energy prices are also triggering a cost of living crisis across the continent that has seen consumers rein in spending significantly. A further deterioration in trade seems likely, if not yet entirely inevitable.

UK: A horizon littered with red flags

UK trade activity - quarter on quarter index scores



Swing vs previous quarter:

0 +2 +1

Taken at face value, the Q3 data from the UK is fairly robust. Order volumes are growing at only slightly below the baseline, and quarter-on-quarter momentum even improved slightly. Invoice traffic also edged out of the red zone in Q3.

This is slightly misleading, however. UK supply chains have had the worst recovery out of any region since the pandemic. So, in reality what we're seeing is average-to-low momentum, off already historic lows. Take the automotive sector for example. UK car production rose for its [third consecutive month in July](#)⁵, but overall output is still 46% below pre-pandemic levels.

⁵ Fleet News 29/09/22: UK car production volumes 45.9% down on pre-pandemic levels

Looking ahead, the UK finds itself in a growing mess, with not only the energy crisis to contend with, but also a tanking pound and collapsing confidence in the UK's economy. Industrial action at major UK ports is also threatening to derail supply chains in the run-up to Christmas.

According to the ONS, the UK has so far avoided slipping into recession. A weakening pound actually presents some rare good news for UK exporters. The irony is that post-Brexit trade barriers have made that process far more difficult. According to [HMRC data](#)⁶, up to a third of British exporters have given up trading with the EU entirely.

⁶ The New European 21/09/2022: Yes, a third of UK exporters to the EU really have given up over Brexit

Demand shock hits retail and manufacturing

Quarter-on-quarter transaction volumes - Index scores by sector

	T&L	Manufacturing	Retail	Tech
Q3'21	97	110	95	105
Q4'21	104	73	95	94
Q1'22	101	75	94	86
Q2'22	96	97	97	101
Q3'22	92	89	91	98

Legend: significantly below expectation (dark red), below expectation (light red), within expected range (orange), above expectation (light green), significantly above expectation (dark green)

In our Q2 Index, we highlighted softening demand across the transport and logistics (T&L) sector as a potential canary in the coal mine for a more general slowdown in demand in a variety of other sectors. Our Q3 Index shows a further softening across T&L, together with a significant drop in momentum across the manufacturing and retail sectors.

Activity across global manufacturing supply chains slipped back into the red zone in Q2, with momentum slipping by a further 8 points against the previous quarter. The data supports findings from [S&P Global's Purchasing Managers' Index](#)⁷ which identified a pronounced slowdown in manufacturing activity in September.

⁷ IHS Markit 04/10/2022: Global manufacturing PMI falls into contraction territory for first time since 2020 lockdowns

Retail supply chains followed a similar trajectory. Transaction volumes grew at their lowest rate in eighteen months after momentum slipped a further 6 points compared to the previous quarter.

Technology spending dipped slightly but appeared to buck the wider trend as transaction volume growth stayed largely within the expected range. [Gartner](#)⁸ sees IT spending holding steady at 3 per cent growth for 2022. Growth in cloud spending is set to hit 22.1 per cent in 2022 as businesses rush to digitize legacy processes.

⁸ Gartner.com 14/07/22: Gartner Forecasts Worldwide IT Spending to Grow 3% in 2022

What's next?

Perspectives on the road ahead

Supply chain has become the competitive advantage for every business



Niels Boersema is Supply Chain Integration Director at Danone,

responsible for the security of supply to Danone's factories primarily in Europe and North America. Niels took time to speak to us about how the past two years have shaped Danone's approach to risk mitigation in the supply chain, and the role technology plays in driving trust, transparency and agility.

How have recent events shaped Danone's thinking regarding how it manages operations, processes and relationships across the supply chain?

One area where we've accelerated is general risk management. We've had the right tools and processes in place for some time now, but they've obviously gained relevance in the current context. We don't want surprises, which means getting systems in place to give us a broad range of alerts, not just on the big topics but also on more minor and emerging issues. We know that some problems are not easy to mitigate. It takes time to find a backup supplier, for example. So we're looking a lot further out and taking a 12-18 month view versus a 3-6 month view.

Good data is one thing, but that information needs to be absorbed by the company and translated into concrete actions. We've built teams and refined systems so the correct information gets to the right people at the right time.

Can you give us some sense of the scale and complexity that an organisation like Danone manages in its supply chain?

Just the number of direct suppliers we're dealing with is comfortably in the thousands covering tens of thousands of materials we source. You can't manage that manually. You need some level of automation in place to manage those relationships, particularly at the risk mitigation level. It's worth mentioning that we're not just looking at the risk facing our direct suppliers. We're actively looking to understand risks deeper in the chain, the suppliers of our suppliers. You asked me what's changed over the past two years, one thing that's becoming more critical for procurement teams is to have a much more complete view of the supply chain in categories with multiple tiers. Often, we won't have a direct relationship connection to second or third-tier suppliers, so that's where we rely on technology to provide us with a view of those risks.

As technology opens new doors for risk management, does that mean the door will start to close on having teams of people in those roles?

Absolutely not. If I just look at my scope, we're using technology to secure supply rather than eke out efficiencies. We use Tradeshift, for example, to ensure we are always connected to our suppliers and can track order status in a way that any team member can see. We need to be able to coordinate on a regional or global level from a single source of truth.



From a compliance and control perspective, technology helps our teams follow the right processes, and when there are issues, it also gives them a rapid link to suppliers. That's critical in secure supply. At any given time of the day, there is complete transparency between us and our suppliers over the status of orders, contracts or forecasts. We're always looking to optimise, but that means optimising the access to information our people have at their fingertips to help keep our factories running.

To what extent do you feel the past couple of years triggered a change in the relationship between buyers and suppliers?

The need to build strategic relationships is essential. Building that kind of trust and understanding requires a lot of homework. For a business like ours, you can't expect to have strategic relationships with thousands of suppliers. You have to understand what's really critical to the business and the vital elements we need for that. We're prioritising investments that allow us to collaborate much more closely with key suppliers. That means more human interaction, but it also means technology that facilitates engagement and builds integration. Partnerships work when the agreements and the systems that govern them work for both parties.

One term we've heard a lot over the past couple of years is the 'bullwhip effect', where deviations in forecast cause problems with inventory through the supply chain. Can technology help to mitigate this?

Bullwhips tend to happen where there is a lack of trust in the supply chain. If you don't know what's going to happen, then you build stocks to secure yourself in case something does happen. The less you talk to each other in the chain, the more the bullwhip effect comes into play. If you break those walls and share information transparently, then there's less need for these inventories. We share forecasts and inventory with our suppliers through our connection with them on Tradeshift. We also translate that information into raw materials forecasts, which can be shared with our suppliers' suppliers. By applying Vendor Managed Inventory (VMI) across the chain, suppliers can optimise their production more effectively. This reduces the pressure to keep large amounts of stock in warehouses and keeps cash flowing faster through the chain.

Covid, Inflation, labour shortages; these are significant challenges. Is there much that businesses can do to mitigate against them, or do they simply have to accept them?

It comes down to agility. Agility means spotting problems early on and having a response ready to counteract a variety of scenarios. Take forecasting, for example. Even at the best of times, forecasting will never be 100% accurate. Instead, we need to focus on building agility into the system to take the right actions when deviations start to surface. For Danone, that might mean reprioritising the supplier base or removing mono-sourcing in certain categories. The outside world will be what it is; we can't really influence that.

The key is whether we can think of different scenarios, so we are better prepared and agile when something completely unexpected happens.

There's a lot of talk about the need to move away from just-in-time supply chains to cope with volatility. What's your take?

There are certainly examples where just in time doesn't make sense, such as when you're sourcing from another continent. For certain commodities where you might not have other options, it's sensible to build in buffer stocks and adopt a more 'just-in-case' approach. I don't think volatility has killed 'just-in-time' though. In a fast-moving world where cash is king, having products delivered too slowly just means stock standing still, and that's a waste. Again, the first word that comes to mind here is trust. When you have trust, transparency and technology supporting that through the supply chain, just in time can remain very effective, even in a period of volatility.

To what extent do considerations around ESG impact your approach to supply chain risk planning?

Sustainability and the circular economy are central to how we operate at Danone. Staying true to those principles can make life more difficult because the way we source is governed by a stringent set of criteria. It might be tempting for businesses to look at taking the easy way out, but for Danone, the focus is always on long-term impact versus short-term gain. We have a compass, and we stick to it.

What would you say to businesses that might be thinking about delaying digital transformation projects in their supply chain due to the deteriorating macroeconomic picture?

Supply chain is becoming the competitive advantage for any business. Managing risk and having the time to take action are critical. You need technology to achieve that. Otherwise, you will be slower, less agile and more in the dark.





Final Thoughts: Europe's energy crisis highlights the importance of supply chain sustainability

Governments that just a year ago unveiled bold net-zero targets are now scrambling to bring coal-fired power stations onto line. This winter, the conundrum is whether keeping the lights on should take precedence over pre-existing commitment to energy transition? Perhaps it should. But the energy crisis provides stark evidence of how quickly good intentions can fall at the altar of myopic policy and the lack of a realistic plan B.

There are broad and important lessons to be learned from the failure to retain necessary balance between access, sustainability and security across energy supply chains. Businesses in almost every sector found themselves in a very similar mess when the pandemic brought an end to the decades-long race to the bottom on cost.

Industry surveys⁹ conducted in mid-2020 suggested that environmental, social, and governance (ESG) topics slipped down companies' list of priorities during the pandemic. Faced with the prospect of rocketing inflation and a global recession, supply chain operators may now feel tempted to deprioritize sustainability in favour of access to the goods they need at a reduced cost. There are any number of reasons why this will end badly.

According to McKinsey¹⁰, strategic priorities for the supply chain prior to the pandemic were built around three pillars: service, quality, and cost & capital. The 'next normal' has added three additional pillars; resilience, agility, and sustainability. Separating these three pillars is a fool's errand, since they are underpinned by so many of the same principles:

9 McKinsey 14/06/2022: Future-proofing the supply chain

10 IBM 7/06/2022: Balancing sustainability and profitability

visibility across the supply chain, strong collaboration with trusted suppliers, sourcing diversification, and the ability to react quickly to fast-changing conditions. Deprioritizing sustainability weakens the foundations that enable supply chains to remain agile and resilient in the face of sudden shocks.

Throughout the pandemic brands with strong ESG credentials consistently outperformed businesses that see less of a priority in sustainability during the pan. CFOs still looking nervously at balance sheets must also acknowledge that ESG drives sales growth while reducing costs. Recent data suggests that 59% of consumers¹¹ have paid a premium for sustainably sourced products in the past 12 months. It has also been shown that businesses with strong ESG programs can drive down costs by between 5 and 10%¹² through a combination of waste reduction and lower energy costs across production and shipping.

If that isn't motivation enough to hold the line on sustainability commitments, a raft of new regulations, including the Lieferkettengesetz in Germany, will increasingly compel companies to provide information about the carbon footprints, biodiversity impacts, and working conditions of their suppliers.

Short-term thinking is what got us all into this mess. Long-term strategy that treats agility, sustainability and resilience as equal partners, is the only way to get us out of it. Regardless of where pressure originates, the fundamental question remains the same for supply chain operators, does the system mitigate the impact, or does it magnify it?

11 IBM 7/06/2022: Balancing sustainability and profitability

12 McKinsey 22/09/2021: Buying into a more sustainable value chain

About Tradeshift's Index of Global Trade Health

Purpose

Many of the world's largest buyers and their suppliers use Tradeshift's trade technology network to exchange digitized purchasing and invoicing information. The data these transactions yield provide us with a unique awareness of trading activity between businesses.

Tradeshift's Index of Global Trade Health analyzes anonymized data flowing across our platform to reveal a timely perspective of how external events are impacting business-to-business commerce around the world.

We acknowledge that there are limits to how accurately our view of what is happening on our network can reflect how complex global supply chains are reacting to a variety of external factors. What our data does provide is a useful snapshot that provides clues as to what might be happening to the global economy. The patterns we see in our data become more valuable as we combine them with other third-party data and expert insight, something which you will see us draw on throughout this report.

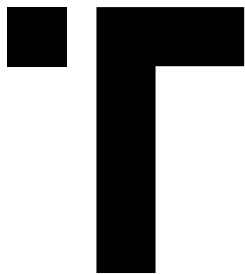
Methodology

The Index of Global Trade Health compares business-to-business transaction volumes (orders processed from buyers and invoices processed from suppliers) submitted via the Tradeshift platform against a 'baseline' we have created by analysing medium-term seasonal trends in the transaction data that flows across our platform.

A reading that meets the baseline indicates growth in line with expectations against historical trends. Readings greater than and below the baseline indicate above-trend and below-trend growth.

Looking at the data in this way helps give a sense of how volatile activity is across different sectors and geographies. For example, a sudden rise in orders might trigger orders to jump at a rate which exceeds what we would consider normal. By contrast, waning demand might trigger volatility in the opposite direction.

We consistently strive to improve and evolve the accuracy of our analysis. As a result it is possible that from time to time you may see small revisions to historical numbers reported in previous versions of the Index.



About Tradeshift

Tradeshift is a market leader in e-invoicing and accounts payable automation and an innovator in B2B marketplaces and providing access to supplier financing. Its cloud-based platform helps buyers and suppliers digitize invoice processing, automate accounts payable workflows and scale quickly. Headquartered in San Francisco, Tradeshift's vision is to connect every company in the world, creating economic opportunity for all. Today, the Tradeshift Network is home to a rapidly growing community of buyers and sellers operating in more than 190 countries. Find out more at: Tradeshift.com

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