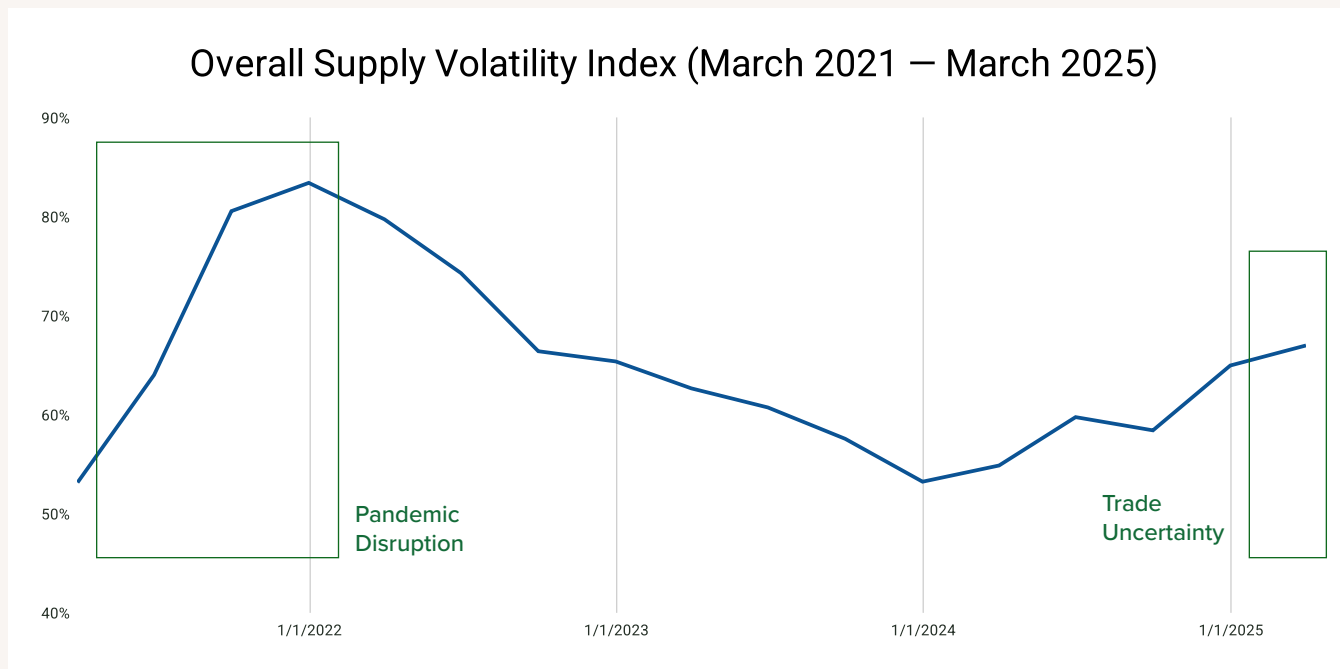


Q1 2025 SUPPLY VOLATILITY INDEX

OVERVIEW

The Supply Volatility Index, built on SourceDay's proprietary data (see *Methodology*), measures volatility across the supply chain using key drivers like on-time delivery (OTD), on-time in full (OTIF), purchase order (PO) changes. It helps manufacturers and distributors spot early signs of instability and make more informed operational decisions.



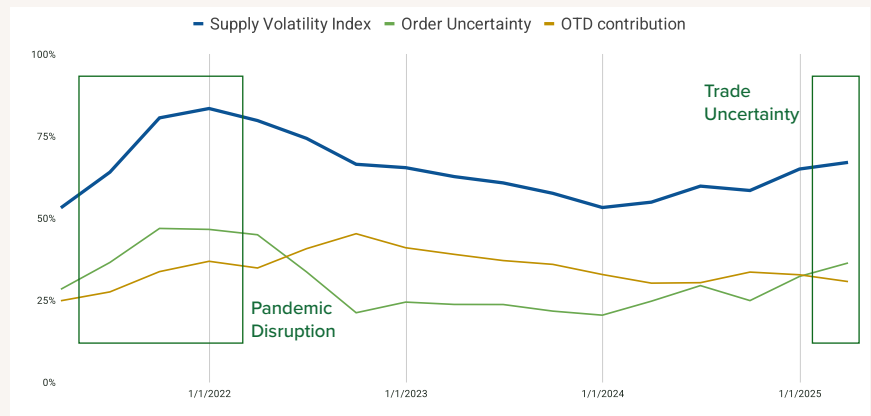
Key Observations

Supply volatility has sharply increased to its highest level since 2022 after a 22% year-over-year increase. This is the most significant signal of supply chain disruption since the COVID-19 pandemic, a time marked by material and labor shortages and price inflation. Volatility in Q1 2025 is primarily driven by increased uncertainty in demand, shown by a 6% increase in PO changes. Driving this uncertainty in demand is the threat of price increases due to tariffs, as price risk increased 36% in Q1.

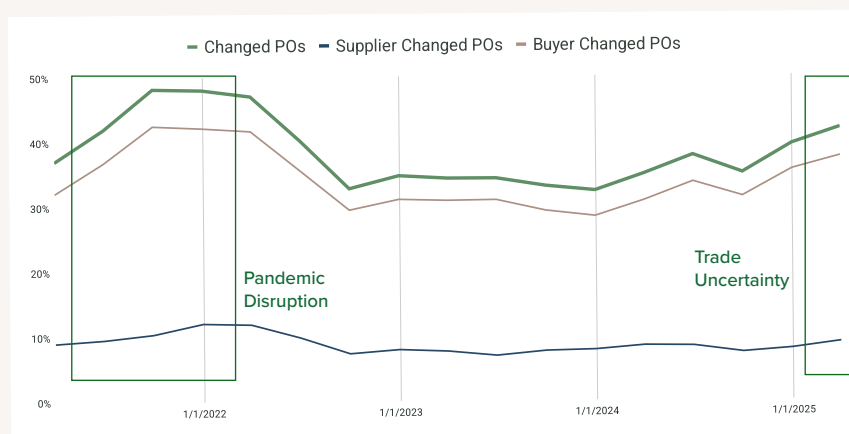
The increase in volatility predates the impact of tariffs announced on April 2—in fact, both on-time delivery and price levels were stable through most of Q1. Instead, they are driven by demand uncertainty as organizations seek to stockpile inventory, realign supplier networks, and anticipate upcoming restrictions. That same demand uncertainty was a leading indicator of material shortages and price inflation during the pandemic. **Given these trends, volatility is likely to continue accelerating as price risks, sourcing shifts, and regulatory uncertainty unfold throughout 2025.**

FACTORS DRIVING VOLATILITY

Order uncertainty is a leading indicator of both on-time delivery and price risk, as procurement orgs signal their uncertainty quickly. On-time delivery and price risk issues are more persistent and typically appear later in a disruption cycle. In 2021, order uncertainty spiked before on-time delivery and price risk peaked. Order uncertainty also abated more quickly, while inflation and supply chain shortages persisted into 2023.



The rise in volatility over the last quarter and year has come entirely from increased order uncertainty, rather than a decline in on-time delivery performance. This follows a similar pattern to 2021, when purchase orders were rapidly changing to prepare for supply shortages and price increases. If this pattern holds true, expect price increases, supply shortages, and on-time delivery failures to increase over the coming months.



The increased order uncertainty is almost entirely coming from the demand side: from buyer-changed orders. This signals that the uncertainty is less due to ability to deliver parts, and more due to unpredictable demand and sourcing.

In particular, manufacturers requested significantly more changes in Q4 and Q1 in preparation for tariffs and regulatory uncertainty.

These largely consisted of move-ins (requesting more parts to arrive sooner), so as to stockpile low-priced inventory at a known price.

TARIFFS AND PRICE RISK



Price risk is emerging as a key source of volatility. SourceDay-detected price risk spiked to 12% after the largest 2 month jump since the high inflation period of 2022. SourceDay's price risks are highly correlated with Consumer Price Index (CPI), but are visible in real time, making it a strong leading indicator for inflation expectations for manufacturers.

Note that this jump in price risk occurred in the last month of Q1, and April performance data is not fully reflected in Q1 Volatility Index. This indicates that price risks will continue to drive volatility up in the coming months.

CONCLUSIONS & STRATEGIC RECOMMENDATIONS

The most significant supply volatility of the past five years occurred in Q2 2021, with a near secondary resurgence underway in Q1 2025. While the underlying drivers are different, the pattern of leading indicator behavior is familiar. Organizations that act now—particularly around buyer-side change discipline and supplier engagement strategy—will be best positioned to contain volatility in the months ahead.

- **Plan for Persistent Elevated Volatility:** Volatility remains elevated relative to pre-pandemic levels despite recovery.
- **Monitor Leading Metrics:** Emphasize tracking Buyer Changed PO Line Percentage and Supplier Engagement for early warnings.
- **Invest in Real-Time Visibility:** Track engagement & response times with dashboards
- **Supplier Collaboration:** Strengthening responsiveness reduces disruption risk.
- **Enhanced Demand Forecasting:** Reducing buyer-initiated changes stabilizes operations.
- **Flexibility & Technology:** Digital transformation and diversified sourcing build

Future Outlook

While we are nowhere near pandemic level supply chain disruptions, many of the same leading indicators that spiked in 2021 are now flashing red (demand uncertainty, manufacturers moving orders in, price volatility). SourceDay will pay close attention to these and other predictive metrics as increased volatility in the short term is highly likely. Organizations that invest in collaborative supplier strategies, supplier price risk visibility, and technological investments remain crucial for effectively managing future supply chain disruptions.

METHODOLOGY

An analysis of supply chain volatility from the pre-pandemic period through post-pandemic recovery (Q1 2021–Q1 2025) identified critical drivers impacting manufacturing and distribution stability. Principal Component Analysis (PCA) highlights that primary volatility factors include On-Time Delivery (OTD), On-Time In-Full (OTIF) rates, purchase order (PO) changes, and supplier engagement metrics.

The Supply Volatility Index uses SourceDay’s proprietary dataset across the purchase order (PO) Lifecycle to provide manufacturers and distributors with insights into critical supply chain volatility factors. The dataset contains insights from SourceDay’s network of more than 101,000 suppliers, tracking 100 million annual PO updates, 5 million mastered items, 75 million supplier messages, and \$70 billion in direct materials spending. The data in this report reflects activity between January 2021 and March 2025.

Supply Volatility Drivers

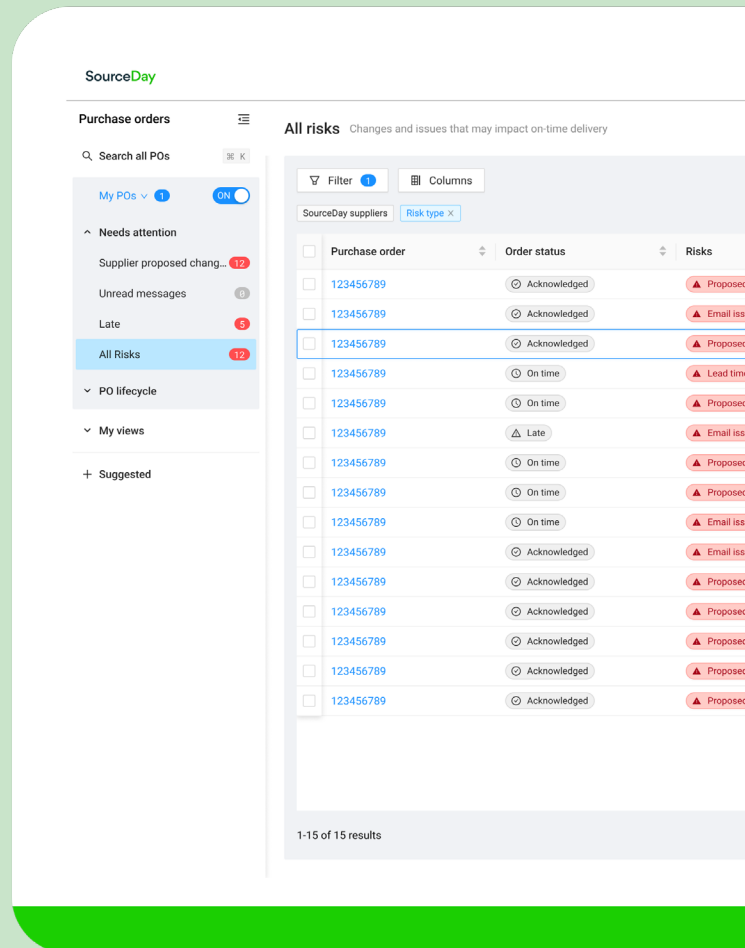
- | | |
|--------------------------------|--|
| 1. On-Time Delivery (OTD) Rate | 5. Supplier Changed PO Line Percentage |
| 2. On-Time-In-Full (OTIF) Rate | 6. Buyer Changed PO Line Percentage |
| 3. Changed PO Lines | 7. Price Risk |
| 4. Changes Per PO Line Average | |

High volatility closely correlates with global disruptions such as pandemic-driven shocks, logistics bottlenecks, inflationary pressures, and geopolitical tensions.

ABOUT SOURCEDAY

SourceDay is a cloud-based direct procurement risk management platform used by manufacturers to streamline buyer-supplier engagement and collaboration. By automating purchase order workflows and syncing with your ERP, SourceDay helps you eliminate on-time delivery risk, increase supplier reliability, reduce labor and inventory costs, and operate with 100% accurate PO data; and with AI and machine learning, it predicts and addresses potential issues before they happen.

With over 101,000 suppliers using our system worldwide, SourceDay strengthens supply chains with visibility, transparency, and improved relationships.



Take control of supply chain risks
Before they become business disruptions.

