Managing Economic Uncertainty in Supply Chains



Executive summary

Economic uncertainty has become an inescapable reality for retail supply chain leaders. Rapid tariff fluctuations, trade policy shifts, changing consumer sentiment, geopolitical impacts, discretionary spending declines and inflation concerns create a landscape of unprecedented volatility for supply chain managers. With consumers actively adjusting their buying habits to meet the uncertainty of the moment, the pressure on retailers to adapt quickly has never been greater.

Key takeaways

- Consumer behavior is changing rapidly in response to economic pressures, with significant shifts toward private label products, essential purchases and even secondhand markets.
- The ability to react quickly to the ups and downs of economic uncertainty, whether tariff rates, consumer preferences or supply disruptions, will be the biggest differentiator of successful supply chains.
- Siloed supply chain operations that lack end-to-end visibility are particularly vulnerable because they struggle to support the rapid, detailed and collaborative adaptations needed to overcome economic turbulence.
- Companies with connected, AIenhanced supply chain platforms can transform economic uncertainty into competitive advantage by achieving greater cost optimization.



Yet despite these challenges, it's still possible for retail supply chain leaders to achieve success in this environment by being the ones who react faster, winning customers and building resilience. Having the right supply chain technologies in place is key to this success because they allow you to manage your inventory more intelligently, giving you the ability to see demand in real time, change plans accordingly, and execute those plans as quickly and effectively as possible to optimize costs.

Determining the right pricing strategy and ensuring the ability to execute intelligently and in a granular fashion across channels will be critical, attracting customers with the right price point and maintaining margins at a time when costs are rising.

Recommendations:

- Achieve agility with unified planning that allows decisions to be made and executed in hours, not weeks
- Use granular, real-time demand data across locations and regions to inform your strategy for inventory and pricing
- Build organizational capabilities that foster cooperation, truly working on the same problem with the same information to the same goal
- Develop working practices that utilize technology effectively to transform economic uncertainty into opportunity









Economic uncertainty in the supply chain context

Current trends

In today's retail environment, the impact of economic uncertainty is evident across multiple fronts. Inflation has driven up costs throughout the supply chain, from raw materials to transportation and labor. Meanwhile, recent—and ever-evolving tariff changes have created additional complexity, forcing retailers to reconsider sourcing strategies and pricing models.

To be specific: recent economic data shows that inflation has hit certain retail sectors particularly hard. Food prices have risen 31% since 2019, while energy costs have increased by 3.3% in just the past year alone. The shipping industry itself has

seen dramatic increases in costs since early 2023. According to Statista, rates hit a low point of \$1,342 for a 40-foot container in October 2023 but have since skyrocketed to over \$5,900 by July 2024, a staggering 340% increase in less than a year.

Recent research from the University of Michigan shows that uncertainty around economic policies has significantly impacted consumer sentiment, with direct implications for purchasing behaviors across retail sectors. As consumers tighten their belts and become more price-conscious, retailers face the challenge of adapting their assortments, pricing strategies and supply chain operations to these rapidly evolving conditions.



Economic uncertainty in the supply chain context (cont.)

Historical perspective

Economic uncertainty is not new to retail supply chains. Previous inflationary periods, particularly those characterized by "stagflation," offer valuable insights for current strategies.

Stagflation occurs when an economy experiences the simultaneous conditions of slow economic growth, high unemployment and rising prices. Unlike typical recessions where prices might fall as demand weakens, stagflation presents the worst of both worlds—higher costs alongside reduced consumer spending power. During the stagflation of the 1970s, retailers that maintained flexibility in their supply chains and responded quickly to changing consumer preferences emerged

strongest. The oil embargoes of 1973-74 created severe supply shocks, driving energy prices up while economic growth stalled.

Similarly, following the 2008 financial crisis, several emerging economies experienced periods of stagflation as currency devaluations led to higher import costs alongside sluggish growth. And more recently, the post-pandemic economy of 2021-22 showed stagflationary tendencies when supply chain disruptions combined with labor shortages to create inflationary pressures despite uneven recovery in certain sectors. Today's uncertain economic landscape presents unique challenges that supply chain leaders must adapt to quickly in order to succeed.







What's behind today's supply chain challenges

Economic uncertainty manifests in multiple challenges that require immediate attention from retail supply chain leaders. Understanding these key pressure points is essential for developing effective responses that can transform potential disruptions into competitive advantages. The following challenges represent the most critical areas where retailers must focus their attention and resources to maintain resilience during economic turbulence.

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What's behind today's supply chain challenges (cont.)

Shifts in consumer spending patterns

Different patterns of change emerge across retail. Prices are rising, and consumer sensitivity to price is also increasing, but that has different impacts for different verticals. Consumers may refocus their shopping patterns onto essentials like groceries, reducing discretionary spending on softlines, hardlines and eating out. They may do less "onestop shopping" and visit multiple retailers on a trip to get the best value for money, meaning that even big-box stores which span categories aren't immune to increased competition.

Within a category, spending patterns change too. For example in grocery, consumers are likely to shop less frequently, purchase in bulk more often, use more coupons and make fewer impulse purchases. Consumers are also "trading down," replacing more expensive brands or options with cheaper alternatives like private labels, which tend to be

As discretionary spending declines, retailers must profitability while still appearing price-competitive adjust their assortment, inventory and pricing to value-conscious shoppers. strategies accordingly. For example, grocery At the same time, utilizing promotions to drive retailers might see shifts toward private label shopper store traffic and win business is critical. and value products, while softlines (apparel) may Selecting the right items to promote and clearly experience more dramatic reductions in overall defining and measuring the objectives that the spending, and hardlines might face delayed promotion is designed to achieve are critical. For purchases for bigger-ticket items. example, as a grocery chain, running a promotion on beer is more likely to drive additional foot traffic These shifts create a pricing dilemma for retailers. While rising costs pressure margins, consumers and in-store spending than a promotion on tea, overall become increasingly price-sensitive, making where the main effect would be to cannibalize sales it challenging to pass along increases. Leading from within the tea category. Retailers will need retailers are using intelligent and adaptive tools to intelligently balance the traffic-driving value of promotions with their margin impacts and find ways to manage their promotions and pricing. They identify precisely which products serve as price to make pricing across their assortment work in perception drivers for consumers and then work to tandem with leading promotions to protect margins. maintain competitive pricing on these items, while

beneficiaries of price sensitivity rising. However, this isn't a straightforward jump from the top of a category to the bottom. Typically consumers move their spending downwards in bands, from a premium brand to a mid-market option, rather than going immediately from premium to value brands. There are also likely to be categories where consumers hold greater brand loyalty, where trading down is less likely to occur. A customer might refuse to change their coffee brand of choice even if the price rises relative to private label alternatives. In softlines, recent data shows consumers spending 10% of their clothing budgets on used clothing in the past six months, representing a significant shift toward platforms like Poshmark and ThredUp. These secondhand marketplaces are among the few retail segments reporting positive forecasts in the carefully adjusting margins elsewhere. This datacurrent climate. driven approach allows retailers to protect overall



THESE LEADERS SEE THE EXPLICIT BENEFITS OF AI IN BETTER/FASTER **DECISION-MAKING**









What's behind today's supply chain challenges (cont.)

Rising costs throughout the supply chain

Inflation has driven up costs at every stage of the supply chain. From raw materials and manufacturing to transportation and labor, these increased expenses squeeze margins and force difficult decisions about whether to absorb costs or pass them to consumers through price increases.

Volatility in pricing and forecasting

Economic uncertainty makes traditional forecasting models less reliable. Consumer behavior has become less predictable, and historical data

may no longer serve as an accurate guide for future demand. This volatility creates significant challenges for inventory planning, pricing strategy and promotional activities.

Supplier reliability concerns

As economic pressures extend to suppliers and manufacturers, retailers face increased risk of disruptions. From financial instability to production challenges, supplier issues can quickly cascade through the supply chain, leading to out-of-stock situations and disappointed customers.









The impacts of economic uncertainty on supply chains

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Beyond the immediate challenges, economic uncertainty creates ripple effects throughout retail operations that fundamentally alter how supply chains must function. By examining these systemic impacts, retailers can develop more holistic approaches that address not just symptoms but underlying vulnerabilities. The following areas illustrate how economic uncertainty reshapes the retail landscape and demands new operational paradigms.









The impacts of economic uncertainty on supply chains (cont.)

Cost management and budgeting

The rising costs of procurement, coupled with higher transportation and logistics expenses, have forced retailers to rethink budgeting approaches. Traditional annual budgeting cycles are proving insufficient in rapidly changing economic environments, with many retailers now moving toward more frequent budget reviews and adjustments.

Successful retailers are better able to understand where costs are increasing in their supply chains and take steps to adapt, finding ways to reduce the impact of increased costs and making efficiency gains which help to offset higher baseline costs. Pricing and promotion management is critical to protecting margins and maximizing the value of inventory, offsetting increased costs by reducing waste and marking down intelligently and profitably.

Inventory management

Changing consumer behaviors in response to economic pressures have created significant

inventory management challenges. Retailers are seeing demand shift quickly between categories and price points, leading to potential misalignments between stocked inventory and customer preferences.

Additionally, higher capital costs mean that excess inventory is more expensive to finance than before. At the same time, the cost of shifting inventory between locations has increased due to higher transportation expenses, making inventory optimization even more critical.

The retailers best positioned to manage these challenges are those with systems that can detect demand changes at the granular level (e.g., storeby-store or by area code), adjusting inventory quickly to get the right amount of product close to the customer, whether that's online or in a store. This allows for faster turns, minimizes stockouts and excess inventory situations, and reduces transportation costs.



The impacts of economic uncertainty on supply chains (cont.)

Supplier and vendor relationships

Economic uncertainty has introduced new tension points in supplier and vendor relationships. Negotiations have become more complex as both retailers and suppliers struggle with margin pressures and cost increases.

Additionally, some suppliers face their own financial stability challenges, potentially leading to fulfillment issues or even business failures that could disrupt retail operations. Leading retailers are taking a more proactive approach to supplier relationship management, working collaboratively to ensure continuity of supply while finding mutually beneficial cost-control measures. Cooperating more closely on a single technological layer across the network allows retailers, their suppliers and their trading partners to overcome disruptions and improve end-to-end performance.

That means not just hitting metrics like on-time-infull (OTIF) rates, but reducing overall transportation time, cutting out lead time inflation, reducing safety stock and achieving a more reliable and costeffective network.

Operational efficiency

With margins under pressure from multiple directions, retailers are placing renewed emphasis on operational efficiency. This includes streamlining processes, reducing waste and optimizing labor utilization.

Many retailers are discovering that economic uncertainty is exposing inefficiencies that were previously tolerable in more favorable conditions. Those with the technological capabilities to identify and address these inefficiencies quickly are gaining competitive advantage despite challenging market conditions.





How technology enables supply chain resilience

The retailers that will thrive through economic uncertainty are those leveraging technology to optimize costs, manage inventory intelligently, collaborate more closely with suppliers and partners, and react faster to the changing landscape.

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Key capabilities:

Cost optimization Closer collaboration

Smarter inventory ۲ ۲ ۲

Reaction speed \geq

Those capabilities are unlocked by key technical enablers:

Unified data models for end-to-end visibility

One of the most significant technological advances for retailers facing economic uncertainty is the development of unified data models that connect all aspects of the supply chain. Rather than operating with different systems for demand planning, category management and space planning—each requiring manual data transfers and transformations—leading retailers are implementing information between systems. solutions built on a common data foundation.

This unified approach means that when information is updated in one part of the system, it's immediately available to all other components. In an environment where consumer behavior is changing rapidly, this seamless data flow eliminates delays in the decision-making process and reduces the risk of errors that can occur when manually transferring

Advanced analytics and Al

AI and machine learning deliver significant value during economic uncertainty by optimizing operations in ways that weren't previously possible:

- Route planning and logistics optimization that reduces fuel consumption and transportation costs
- Dynamic pricing models that adjust in real time adapt to new conditions, making them particularly to market conditions

- Anomaly detection that identifies unusual patterns that might indicate emerging risks
- Demand sensing that captures early signals of changing consumer preferences

Most importantly, unlike traditional systems that rely on historical patterns, AI systems can quickly valuable during periods of disruption.

Supplier connection and collaboration

Connecting to trading partners on a single network reduces costs across the supply chain while enhancing visibility and responsiveness. Rather than simply collaborating through traditional meetings and information exchanges, this technology enables true cooperation—where all parties work from the same data and can see the impacts of their decisions in real time.

The distinction between collaboration and cooperation is important. In supply chain contexts, collaboration often involves manual processes like weekly meetings or check-ins—all attempts

to overcome the limitations of siloed information. Cooperation, by contrast, means working together seamlessly on a common platform with shared data, eliminating the need for these manual coordination efforts and allowing teams to work together far more effectively. That means collaboratively planning, executing, synchronizing and automating in real time. With a digital supply chain network in place, retailers see current and predicted disruption threats as well as recommended actions to mitigate against them, ensuring excellent execution and maximal efficiency in times of uncertainty and change.

Automation and robotics

Labor represents one of the largest variable costs in ensuring consistent operations even when labor retail supply chains, and economic uncertainty often markets are unstable. brings staffing challenges through wage inflation or availability shortages. So as economic uncertainty drives cost pressures and labor challenges, automation and robotics technologies offer powerful opportunities to streamline operations and build resilience, which leads to lower costs and higher customer satisfaction. More specifically, robotics solutions in distribution centers can help retailers maintain productivity with fewer workers,

Beyond their immediate efficiency benefits, automation and robotics technologies also provide greater adaptability to demand fluctuations. Automated systems can scale operations up or down more flexibly than traditional manual processes, allowing retailers to respond more effectively to the volatile demand patterns that characterize periods of economic uncertainty.

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The competitive advantages of transformed supply chains

When retailers implement end-to-end supply chain solutions, they gain distinct competitive advantages that are particularly valuable during economic uncertainty.

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The competitive advantages of transformed supply chains (cont.)

Sensing and responding to demand shifts

With integrated systems that provide visibility across the entire supply chain, retailers can detect and respond to demand changes as they happen. Unlike traditional operations that might update forecasts weekly or monthly, transformed supply chains can adjust continuously.

For example, when grocery consumers rapidly shift toward private label products in response to economic pressures, retailers with advanced systems can quickly adjust planograms and inventory levels to meet this changing demand potentially in days rather than the weeks or months required with traditional processes.

Cross-functional alignment

Economic uncertainty amplifies the negative impacts of siloed operations. When teams operate from different data sources and with limited visibility into other functions, the organization's ability to respond cohesively to challenges is severely compromised.

Transformed supply chains ensure all teams work from a common data foundation, with visibility into how their decisions affect other functions. Instead of planning teams working in isolation from inventory management, or pricing teams making decisions without visibility into supply constraints, all functions can see the complete picture and make aligned decisions that support overall business objectives.

Evidence-based decision-making

In uncertain economic conditions, the complexity and pace of change demand datadriven approaches that can process more variables and detect more patterns than human analysis alone can manage.

Advanced analytics transform vast amounts of data into actionable insights, helping retailers understand not just what is happening but why, and what actions will likely produce the best outcomes. Rather than simply noting declining sales in a category, these capabilities can identify the specific factors driving the change—whether price sensitivity, competition or broader economic trends—and recommend precisely targeted interventions.

Operational agility and efficiency

Transformed supply chains are fundamentally more agile and efficient, enabling retailers to:

- Anticipate disruptions before they impact operations
- Adjust quickly to changing market conditions
- Reallocate resources more effectively
- Optimize inventory levels across the network
- Reduce waste and unnecessary costs

These capabilities are always valuable, but during economic uncertainty, they become essential competitive differentiators that separate thriving retailers from those merely surviving.

Case study: data-driven demand forecasting at dm

A leading European retailer, dm, faced significant challenges in predicting demand accurately during times of economic fluctuation. With rapid shifts in consumer purchasing patterns, their traditional forecasting methods were proving inadequate. The company needed to improve staff planning efficiency, ensure product availability and optimize their entire supply chain to navigate market uncertainty.

Challenges

- Providing valid predictions for industry partners despite uncertainty
- Creating precise sales forecasts, even for exceptional cases like holidays or vacations
- Improving cooperation between manufacturers and distribution centers to ensure product availability
- Balancing short-term demand for goods in stores against long delivery times from industry partners
- Avoiding overstaffing and understaffing, which could impact both costs and customer experience

Solution

dm implemented Blue Yonder's demand forecasting solution to transform their operations with data-driven decision-making.

The system was configured to:

- 1. Analyze 10 years of historical daily sales data at the individual store level
- 2. Factor in adjustable parameters including store hours and external data such as local market days or holidays in neighboring states

- 3. Create SKU-level demand predictions for distribution centers covering a 52-week horizon
- 4. Incorporate seasonal trends by analyzing 2.5 years of historical data for each distribution center

The platform's ability to detect and account for seasonality proved particularly valuable—for instance, recognizing that 90% of perfume and candle sales were generated in December and adjusting inventory planning accordingly.

* BlueYonder

Results

The implementation delivered significant benefits across multiple dimensions:

- Precise staff planning with exact sales predictions: Managers could confidently schedule the right number of employees based on accurate forecasts, avoiding both costly overstaffing and service-damaging understaffing.
- Optimized workflows: With better predictions, work could be planned more efficiently, improving both employee and customer satisfaction.
- Enhanced industry partner planning: Blue Yonder delivered precise demand forecasts for distribution centers six months ahead, increasing security for industry partner planning and ordering.

- Improved inventory management: The solution met demands for product availability while simultaneously reducing overstock situations.
- Optimized delivery times and logistics: Both in-house distribution and manufacturer logistics became more efficient.

This case demonstrates how implementing advanced forecasting solutions can help retailers not just weather economic uncertainty, but actually improve operations during challenging times. By leveraging historical data alongside external factors, retailers can make betterinformed decisions despite the unpredictable nature of today's economic environment.

MANAGING DIRECTOR OF IT dm

Blue Yonder's forecasting software was the only solution capable of intelligently forecasting the sales per store on a daily basis and the only one to consider external data as additional parameters.

Conclusion: how to survive and thrive—through economic uncertainty

Economic uncertainty presents significant challenges for retail supply chains but also creates opportunities for those with the right capabilities. The retailers that will thrive in this environment share several common characteristics:

- Real-time visibility into demand patterns and supply chain operations
- 2. Rapid responsiveness to changing conditions, with the ability to adjust plans and execution quickly
- **3. End-to-end integration** that breaks down silos and enables coordinated action
- 4. Intelligent recommendations and autonomous actions achieve strategic goals and head off disruptions fast
- 5. Automated execution enhances efficiency and reduces costs while maintaining customer experiences

By implementing comprehensive supply chain solutions, retailers can not only withstand economic uncertainty but actually gain competitive advantage through it. While others struggle to adapt, technologically advanced retailers can respond faster, serve customers better and operate more efficiently, turning potential crises into opportunity.

The path forward isn't about simply weathering the storm of economic uncertainty but learning to navigate skillfully through it. With the right technologies and approaches, retailers can achieve this navigation, emerging stronger and more competitive when conditions eventually stabilize.

For more information about how retailers are transforming their supply chains to thrive in uncertain economic conditions, visit blueyonder.com to explore additional case studies and resources.

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Learn how Blue Yonder can help you navigate economic uncertainty at blueyonder.com

Blue Yonder is the world leader in end-to-end digital supply chain transformation. With a unified, AI-driven platform and multi-tier network, Blue Yonder empowers businesses to operate sustainably, scale profitably, and delight their customers — all at machine speed. A pioneer in applying AI solutions to the most complicated supply chain challenges, Blue Yonder's modern innovations and unmatched industry expertise help more than 3,000 retailers, manufacturers, and logistics service providers confidently navigate supply chain complexity and disruption.

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