



REPORT

Tariff Mastery: How to Handle Trade Barriers and Minimize Risks

Introduction

Everyone in sourcing, procurement, and manufacturing has questions about tariffs. How will they affect the bottom line? How can I know which of my products will be impacted? How do I make the right decisions about my supply chain with the minimum amount of disruption and the best chance of future resilience?

The global tariff landscape has become increasingly complex and has significant economic implications. Recent tariff increases between major economies have **sent ripples through global markets, affecting the cost of everyday goods and creating challenges for businesses** navigating the evolving trade environment.

This escalation in trade tensions threatens to disrupt supply chains and could have far-reaching effects on the global economy. As these economic policies unfold, the world watches closely to see how they will shape the future of international trade.

In this guide, we will:

- ✓ **Outline tariff** challenges in greater detail, including their impact on the supply chain, labor force, and cost for both OEMs and suppliers
- ✓ **Deep dive into how aPriori can empower impacted manufacturers** as they navigate the tariff landscape
- ✓ **Provide strategies** to respond to and mitigate tariff risks for the short, near, and long term
- ✓ **Illustrate how manufacturers can better forecast** if profitability will be impacted by the new tariff policies
- ✓ **Tariff FAQs**



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Tariff Turbulence, Higher Stakes for Supply Chains

Manufacturers face a seismic shift in global trade dynamics. Global tariffs of varying degrees and the unpredictability of when and if they will be imposed threaten to upend supply chains worldwide.

Tariffs and the Domino Effect

Tariffs not only have an impact on our overall costs but can have a domino effect as well. Before we explore possible solutions, let's consider the tariff scenarios that can unsettle business:



The Financial Impact

Yes. A direct tax on imported goods can be a financial blow to many manufacturers, who then have to determine how to cut costs and whether those tariffs will be passed onto their customers.



A Coaster of Uncertainty

Trade policies can be volatile. It is why the right approach and digital solutions to plan, forecast, and remain agile are critical to mitigating the negative effects.



Supply Chain Scrambling

Tariffs can very quickly compromise your suppliers' ability to be competitive and meet your needs. Consequently, you're left scrambling to find new suppliers, leading to delays, renegotiations, and quality concerns.



Deer in the Headlights Syndrome

This unpredictable environment leaves one making decisions with more questions than answers. Do I stay the course? How can I remain profitable without passing tariffs onto customers? It can be an overwhelming feeling that leaves us paralyzed to make any decision at all.



Losing a Competitive Edge

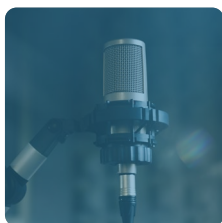
The time spent trying to mitigate tariffs and find new suppliers can impact your competitive edge. Not only in time that could be spent focusing on product development, but also in lost business opportunities and a market advantage to competitors who already have a larger supplier pool or more local sources.

Where does it leave manufacturers? Many must now consider whether they will continue to outsource and absorb higher tariff-influenced pricing for materials and other products or if they should weigh alternative options to retain margins.

For supply chain professionals, this is not just a challenge—it's **an opportunity to embrace advanced solutions and data-driven strategies**. Solutions like aPriori are poised to play a pivotal role, empowering teams to identify risks, explore alternatives, and make strategic decisions that minimize costs and disruptions.

How Tariffs Impact the Supply Chain

“As leaders, the big challenge for us is to really **understand the true cost of tariffs** not only from a monetary perspective but also from a social perspective and a perception perspective with our customers and our suppliers.”



[How](#) Will Tariffs Change Your Supply Chain?

Ron Crabtree, CEO, MetaOps



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Tariffs can profoundly influence a manufacturer's supply chain, leading many to consider nearshoring or reshoring. Theoretically, this makes sense. By bringing your operations back home, you will mitigate supply chain issues and avoid hefty tariffs. In reality, it is not so straightforward and can also come with drawbacks, including higher labor costs. Manufacturers may face more competition for suppliers and business since others may have a head start, and the supplier pool is likely to be smaller since there is little to no global reach.

Additionally, you need to know which of your suppliers are actually affected by each tariff. From there, can you extrapolate that and come up with a good model of impact? Could it put your operations out of business? Does it cut your profit margins by half a percent? After that, you have to figure out how to model it if you're going to make changes.



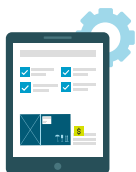
Two Questions for Procurement

- 1 Do we have the data to **model the impact** of tariffs?
- 2 Do we have **technology** to help us quickly make changes?

Lessening the Impact of Tariffs with aPriori

Sourcing and procurement teams must act fast to protect margins and ensure supply chain resilience. But how can you quickly assess the cost impact of tariffs and make data-driven supply chain decisions?

aPriori's digital manufacturing insights help you mitigate tariff risks, optimize supplier selection, and uncover cost-saving opportunities, enabling you to:



Get Granular

aPriori gives you an extremely detailed breakdown of your parts' and assemblies' true costs (materials, manufacturing processes, labor), while factoring in tariff rates.



Run What-If Scenarios

aPriori can remove the uncertainty of tariff impacts with the ability to run various tariff scenarios before they hit your bottom line.



Uncover Hidden Cost-Savings

aPriori's solutions can provide design recommendations to cut costs without sacrificing quality or performance. For example, if a tariff on a specific type of plastic is making things expensive, aPriori might suggest an alternative, locally sourced plastic, or a design change that requires less plastic overall.





The platform can also analyze different ways to manufacture your parts and the costs associated with each. This could help you find more cost-effective methods, maybe even shifting production to a region that isn't hit as hard by tariffs.



aPriori allows cost comparison of your parts with an expansive [manufacturing process](#) database to evaluate if your current suppliers are still competitive, even after factoring in tariffs. Clear cost breakdowns provide alternative supplier capabilities in regions with lower tariffs and enable you to weigh the potential benefits of domestic suppliers. Data-driven cost insights (specific tariff impacts of your current supplier costs) facilitate fact-based, effective negotiations.



Accurate cost modeling, including tariff implications, enables more informed “make vs buy” decisions, and could indicate that producing certain components in-house rather than outsourcing them is more feasible. Moreover, aPriori has global costing features that provide cost comparisons (tariffs, labor, materials, logistics) for producing parts around the world at scale, without a laborious, time-consuming process. It can help drive diversification of your supply chain to reduce tariff risks.



Bonus Benefits to Further Your Competitive Advantage

A holistic approach to tariffs will build greater resiliency in your supply chain and improve your bottom line. Here are a few more ways to achieve both:



Align sourcing strategies with your business goals and product-specific insights to make smarter trade-off decisions



Prioritize your response to take immediate action where it matters most and build near and long-term strategies for resilience



Analyze your product portfolio at a high level while diving into hidden cost drivers, manufacturability challenges, and carbon impact to improve decisions, negotiations, and speed to market



Change the design of the product or service to specify alternative materials that avoid supply zones impacted by tariffs



Design the product to reduce cost in different cost tradeoff areas, such as mass or assembly



Think about supply chain risk early in product design

We need to consider the implications of tariffs, both those imposed by the US and retaliatory tariffs imposed by other countries, early in product development. Design should factor in these particular supply points. If you create a design that can't be readily and easily resourced or sourced from a different part of the world, that's going to be a problem.



aPiori's Product Material Consumption Report identifies the amount of aluminum used across the company's product lines, highlighting the specific components that rely on it.

aPriori Helps Facilitate Suppliers' Double Duty Functions

Suppliers tend to have to pull double duty on both sourcing and securing business. Here is how we can help them:

Selecting the Most Profitable Work

aPriori helps manufacturers and suppliers assess the cost of current production components, uncover margin impacts and tariff risks, and identify opportunities to renegotiate contracts, adjust pricing, or improve production efficiency. With aPriori, they can:

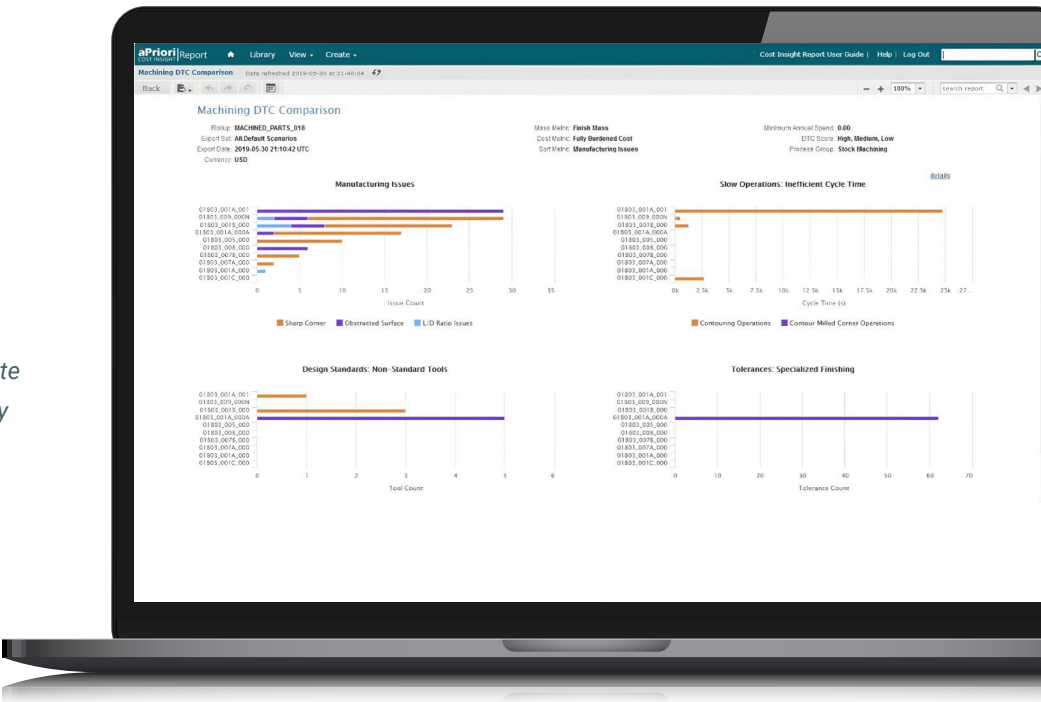
- **Respond to RFQs faster:** aPriori analyzes equipment, processes, and factory strengths to recommend the best production methods. It provides insights into costs, cycle times, capacity, and machine utilization, ensuring an efficient and cost-effective approach.
- **Optimize pricing strategy:** aPriori enables manufacturers and suppliers to compare pricing across different regions or regional facilities, allowing them to remain competitive while addressing demand.
- **Leverage digital factories for regional analysis:** Out-of-the-box regional Digital Factories help manufacturers and suppliers assess their competitiveness in the face of tariffs, ensuring strategic pricing and cost planning.

Capacity Planning: Maximizing Profitability

Proper capacity planning is essential to maintaining profitability in a fluctuating trade environment. aPriori provides data-driven insights that help manufacturers and suppliers:

- **Decide whether to produce in-house or outsource:** By analyzing capacity and part-specific requirements, manufacturers and suppliers can efficiently allocate resources, reduce delays, and protect profit margins.
- **Model financial impacts:** aPriori helps suppliers and manufacturers evaluate the effects of options like overtime or subcontracting, ensuring they meet tight deadlines while maintaining profitability. This flexibility minimizes financial trade-offs and enhances cash flow.

aPriori's dashboard reporting can demonstrate identified manufacturing issues and specialty equipment, tooling, or finishing.



Enhancing Collaboration Between Sales and Production Teams

Effective communication between sales and production teams is essential to managing capacity efficiently. aPriori supports collaboration by:

- ✓ Allowing sales/estimating teams to provide rough production estimates, enabling production teams to confirm capacity quickly.
- ✓ Helping teams forecast future capacity demands with greater accuracy, preventing bottlenecks and ensuring efficient resource allocation.

Justifying Capital Investments for Greater Efficiency

Manufacturers must strategically evaluate investments in equipment and technology to improve production efficiency. aPriori helps manufacturers:

- ✓ Assess the number of machines required to complete workloads on a weekly, monthly, or annual basis.
- ✓ Determine whether investing in new machines will increase efficiency and reduce production costs.
- ✓ Analyze the impact of cutting-edge technology on production capabilities, identifying whether new capital investments will speed up processes, reduce manual effort, or enhance material efficiency.

Watch our webinar replay to learn how to mitigate tariff impacts and make smarter, more cost-effective decisions.



How aPriori Empowers Sourcing and Procurement Teams

To navigate the complexities of the new tariff landscape, sourcing and procurement teams need granular insights into material usage, product cost structures, and alternative sourcing options.

Here’s a step-by-step example of how aPriori can help sourcing and procurement teams respond effectively:

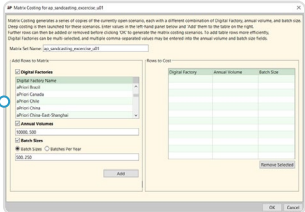
Step-By-Step Guide for Managing Tariff Implications

STEP 1

Identify Impacted Material/Components

Leverage aP Analytics (or other data source) to identify parts/materials produced in impacted regions

Simulate manufacture in all potential regions of manufacture



STEP 2

Quantify Material and Capacity Usage

Identify how much material consumption and manufacturing capacity are driven within product line

Compare price implications of alternate regions




STEP 3

Assess Impact on Products by Cost Category

Quickly understand the implications of tariff increases by category and threat to profitability

Prioritize reshoring efforts based on commercial impact



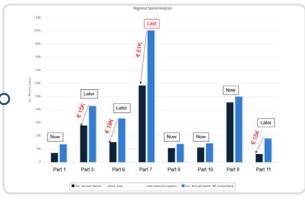
STEP 4

Estimate Cost of Mitigation Strategies

Design differently – identify alternate materials that lower tariff implications.

Move to alternate locations

Prioritize transfer of parts – rank materials/components to transfer based on economic impact and complexity of making a change in production



[Read](#) our blog for a deeper dive into navigating tariffs.

Implement the Three “R”s

In a rapidly changing global trade environment, manufacturers must act swiftly and strategically to mitigate risks posed by manufacturing tariffs, material availability, and supply chain disruptions. aPriori provides sourcing and supply chain teams with the following tools:

- **Identify and eliminate cost drivers** early in the design phase to avoid redesign and late-stage engineering change orders (ECOs) requirements
- **Collaborate with sourcing team members** to resource and renegotiate supplier costs on new and existing products and provide data-driven insights into the group’s largest cost-reduction opportunities

Today’s tariff challenges underscore the need for advanced tools like aPriori to future-proof supply chains and maintain a competitive edge.

Can You Predict How Your Profitability Will Be Impacted by New Material Tariff Policies?

When you’re importing an entire part or product, how can you understand the impact a material tariff has on the current purchase price? The tariff is added directly to your current purchase price. But what if the part is made in the USA? It might not be as straightforward.

For example, the part is made in the USA but uses imported steel or aluminum. In that case, the tariff will only impact the raw material cost, and to measure that impact, you need to know how much raw material each of your products uses.

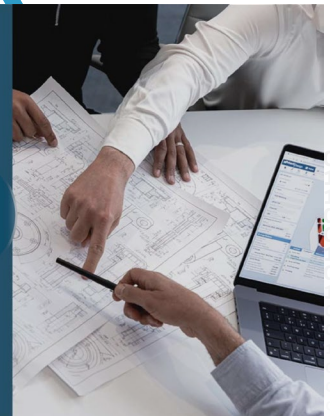
[Watch](#) this tutorial to determine how much raw material each of your products uses, so you can see how tariffs will impact your overall profitability.

[Discover](#) how TE Connectivity leveraged aPriori to mitigate risks, reduce costs, and improve supplier collaboration, leading to more agile supply chain management.

aPriori

Case Study

TE CONNECTIVITY
SUPPLIER
STRATEGIES
FOR MANAGING
COST RISKS



Navigating and Reducing the Impact of Tariffs – Your Questions Answered

The fluidity of tariffs can still leave some lingering questions. Below are some common concerns and how aPriori can help.



[Listen](#) to the full tariff podcast with the questions and answer session for greater detail and examples.



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Q: Why Use aPriori to Simulate the Cost of Tariffs in Real Time?

A: Tariffs can occur quickly, within days or even hours, and retaliation can occur just as fast. For many manufacturers, it can be difficult to acquire accurate information in a timely fashion to make informed decisions and act quickly. Solutions like aPriori enable them to gain critical insights into costs, including those that are directly impacted by tariffs. As a result, they are able to respond appropriately and fast, giving them an edge over the competition and achieving profitability over market erosion.

It is critical to understand precisely where your products are located and their respective costs. This enables manufacturers to understand where that risk is coming from and facilitate a pivot a little bit faster. There's also a high demand for the best-cost country or region. As a result, it may make suppliers more selective in the work that they're willing to take on and add to their capacity constraints, which leads to more demand and price increases.

Q: What Are Some Common Tariff Mitigation Levers?

A: Follow these six steps to get a handle on the true impact of tariffs on your organization:

Common Levers to Manage Tariff Implications



Evaluate risk buy to increase inventory



Optimize country of origin mix



Investigate manufacturing in house



Align manufacturing location with final product destination



Alternative source (Reshore)



Leverage free trade agreement countries

Q: How Can We Engage Suppliers to Drive Effective Cost Mitigation Strategies and Negotiate With Them Using a Should-Cost Analysis?

A: When dealing with tariffs, the best method for mitigating them is to facilitate win-win data driven discussion around the most optimal manufacturing process, material cost drivers, and labor costs. Essentially, it generates a benchmark of how your product should be made and at what cost. Then, you can take that to your supplier to have data-driven conversations and compare their internal production processes with the aPriori estimate. This transparency can reveal mutually beneficial opportunities to reduce manufacturing costs – lowering the overall cost without necessarily squeezing the supplier's margins. Leverage your aPriori-generated cost breakdowns to collaboratively brainstorm with suppliers on the most efficient routing, alternative processes within their capabilities, or design tweaks that could lower manufacturing costs for both of you. It's about finding win-win scenarios through data-backed insights.

Finding Certainty in Uncertainty

Life is full of uncertainties. Tariffs are no different. However, there is a difference in how you approach looming tariffs or the volatility that can come with them.

Solutions like aPriori empower manufacturers to take a proactive, data-driven approach to tariffs. Not only does it enable them to mitigate their impact, but it also builds greater agility and reaction time into their supply chains. Moreover, it fosters a greater cost-conscious culture across the organization and product development, in particular. Amid this unpredictability, manufacturers who leverage data-driven technologies gain a distinct advantage.

[Demo the software](#) that lets you mitigate the impact of tariffs on your supply chain.





Why aPriori?

aPriori provides unique AI-Powered Design & Sourcing Insights that unlock and identify new opportunities rapidly for reducing product cost & carbon footprint, optimizing manufacturing & supply chain risk, and improving design engineering & sourcing teams' productivity. According to Forrester, aPriori customers achieve a ~600% ROI within three years and payback within six months of adopting our Enterprise AI software.

Leading manufacturers use our automated Insights Platform to reduce time to market, meet sustainability targets, accelerate revenue growth, and increase profitability, all contributing to creating cash faster. To learn more about aPriori's cloud and on-premise solutions, visit www.apriori.com.

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