

Supplier Development

Top 10 actions to undertake now

Negative headwinds in global political and economic markets, compounded with uncertain or declining growth prospects and a rising onshoring campaign of US manufacturing, present a major challenge to North American manufacturers. Supply chains are reimagining themselves in response to the recent US-China-Mexico trade tariffs and are looking for answers to develop long-term solutions. This paper examines key actions being taken to improve supplier development and collaboration in US manufacturing.



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Current supply headwinds

Several factors are driving manufacturers today to rethink their current supply chains and their approach to procured products and services. Tariffs, high market volatility, a looming global economic slow-down, the realignment of NAFTA and North American trade, political unrest and US reshoring campaigns have driven companies to work creatively to ameliorate the risks associated with these challenges.

Although the US economy recently finished one of the best years of a multi-year expansion, with growth at a moderate 2.6%, financial markets continue to be highly turbulent with significant uncertainty over trade. In Oil & Gas markets, there is considerable political unrest in Iran and the broader Persian Gulf, as well as deteriorating conditions in Venezuela. In high technology and communications, a 2019 U.S. Commerce Department measure designed to hinder Huawei from buying key components, will make it more difficult for American and European telecom-manufacturers to procure supplies. Concerns over Brexit have also created a great deal of uncertainty. Residents in the UK are stockpiling consumer goods as Brexit signals a UK exit from the EU, according to the DailyMail (April 8, 2019).

As of end of May 2019, the US has imposed tariffs on US\$250B worth of Chinese imports with an additional US\$325B planned. China responded with tariffs on US\$110B worth of US imports with other additional measures. Beginning in June of 2019, the US has also announced a 5% tariff on all Mexican goods, with plans to increase them to 25% as a visible measure to halt illegal immigration.

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With the failure to reach a trade deal after several rounds of negotiations, trade tensions are becoming a longer-term issue that companies need to address, according to the Wall Street Journal (May 28, 2019). US economic growth slowed from a previously expected 3.2% to 3% in Q1, 2019 in part due to US-China trade tensions.

According to Bloomberg (May 27, 2019), "If tariffs expand to cover all U.S.-China trade, and markets slump in response, global GDP will take a \$600 billion hit in 2021, the year of peak impact.". The following three scenarios are present the potential impact (figure 1):

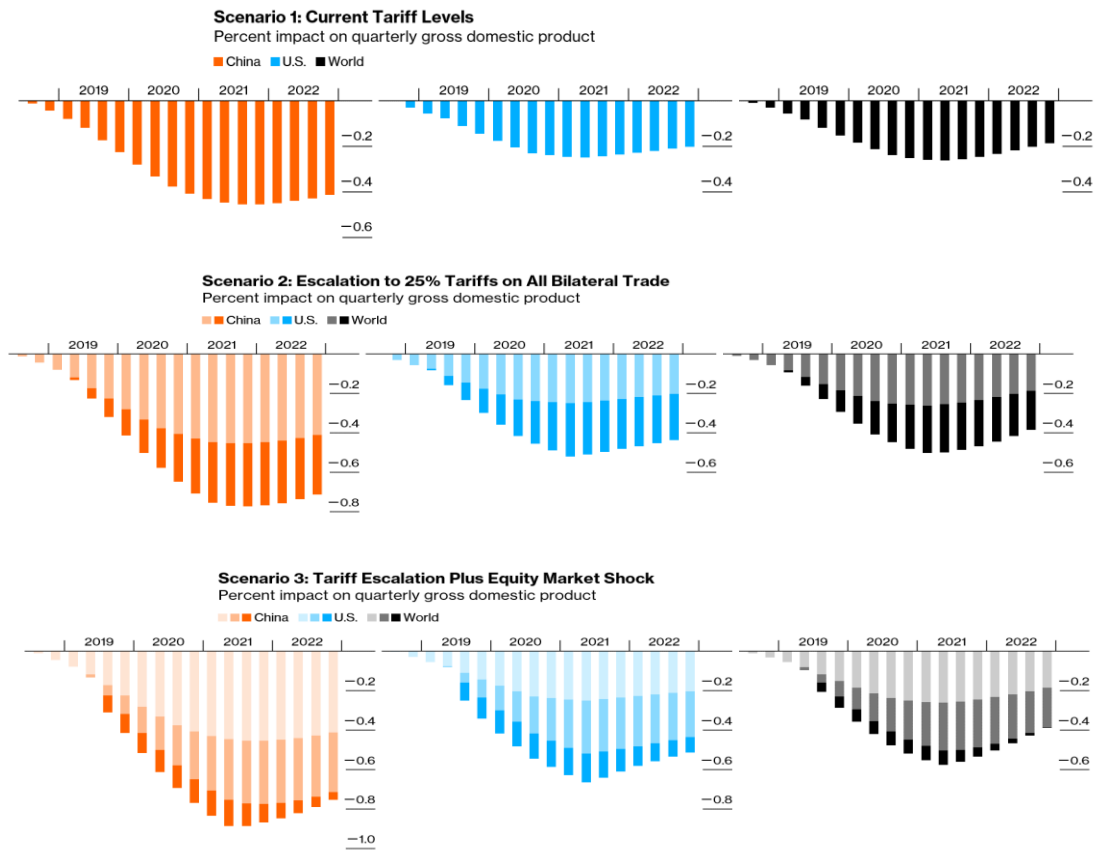


Figure 1. Source Bloomberg May 27, 2019.

The main industries to be impacted by the tariff escalation are automotive (Mexico tariff schedule), electronics and computers, electronic equipment and components, machinery and other manufactured goods (figure 2).

The realignment of NAFTA and North American trade also has created the need to reexamine the manufacturing footprint and extended supply chain for most companies. Within the current political climate, there is also a drive toward repatriation or onshoring of US-based manufacturing. As early as 2013, according to the Financial Times, American companies were increasingly "reshoring" manufacturing operations from China to the US, according to a survey

of executives. The change reflects China’s ebbing competitive advantage as a low-cost manufacturing center after years of rapid wage inflation.

U.S. and China trade standoff: What’s at stake

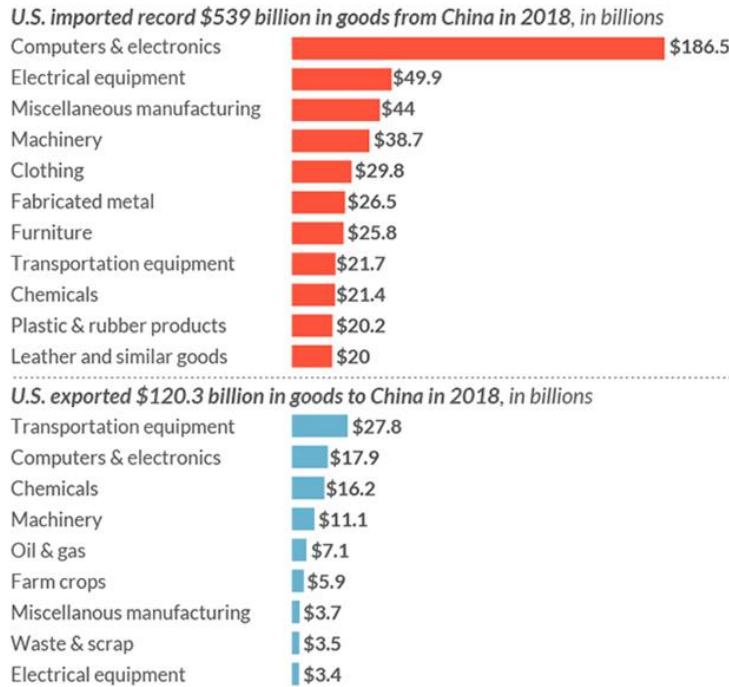


Figure 2. Source MarketWatch.com, May 14, 2019 (based on US Census data).

In the last 3 years companies like Amgen, Foxconn Technology Group, Toyota & Mazda, Precigen, Volvo and Saab amongst others, have built or expanded manufacturing facilities in the US, in addition to augmenting their supply base to support these facilities. According to IndustryNet (May 20, 2019), other companies like Waymo, a subsidiary of Alphabet, have chosen a previously shuttered American Axle & Manufacturing Holdings plant to integrate production of its driverless car technology. Reshoring and foreign job announcements (FDI) surged in 2017 to add over 170,000 U.S. manufacturing jobs. This is strong evidence that work can be successfully brought back, however the US’s skilled workforce supply is not yet ready to support a much higher rate of increase, according to Industry Week (April 13, 2018). The indirect impact is clear for the supply of these new North American facilities: the production capacity and the associated skilled labor force is currently supply limited, potentially causing significant disruption in the near future.

[See *Addressing skilled worker shortages and the growing talent gap*, by X/Celerant, May 2019]

Large manufacturers have established their supply chains over the past 30 plus years and reconfiguring new supply chains in North America remains a financial and physical burden that requires a high level of scrutiny and consideration due to the complexity of the implications.

According to NAM Manufacturer's outlook survey (March 5, 2019), infrastructure, increased raw material costs, trade uncertainties and growing transportation and logistics costs remain a concern and pose a negative impact on most companies' business plans and financial outlooks. As a result, companies are being faced with the decision of either developing new suppliers, evaluating and developing new markets and products, changing their manufacturing and supply footprint, or some type of hybrid of the above as uncertainty continues.

In addition to external threats, the complexity of asset and product design has grown significantly causing challenges for the pre-existing manufacturing centers and supply bases to adopt. In the past several years, several failures have occurred in transportation (aviation, rail, auto), pharmaceuticals, chemicals and Oil & Gas industries. By expanding to a more North American centered supplier base, common issues with quality and certifications will be compounded with the tight manufacturing and labor resource market.

The net effect of the external and internal threats requires supply chains to work more collaboratively with engineering/ R&D and manufacturing, to ensure robust and holistic solutions are developed that minimize their risk exposure.

So, what are companies doing now to mitigate the multitude of challenges?

Actions to take

The top 10 recommended actions companies are taking now are listed below, arranged by their timing, feasibility and impact:

Preparation and assessment

1. Compare current categories and suppliers with long-term business plan objectives
2. Risk review: Conduct assessment and risk review of current product complexity, growth plans, political risks and tariffs to the supplier base
3. Supplier rating and cost assessment: Refresh rating system and conduct supplier evaluations. Identify key risks and gaps with components and other bills of materials
4. Develop sourcing and supply mitigation plan and framework options

Execution

5. Group A actions: reclassify parts or identify engineering changes that modify classification of tariff categories
6. Group B actions: evaluate advance purchase opportunities with suppliers
7. Group C actions: evaluate manufacturing footprint change within the supplier network
8. Group D actions: evaluate and streamline specifications to optimize product design & cost
9. Group E actions: support supplier development efforts to match growing needs
10. Group F actions: evaluate new, local suppliers or vertical integration/ insourcing and overall manufacturing footprint rationalization

Most organizations are working on several items in the list, but fewer are developing holistic strategies to combat the growing issue.

Breaking down the top 10 actions in a bit more detail:

1. Compare current categories and suppliers with long-term business plan objectives.
 - ❖ Evaluation of current supply base with the future business strategy, product development and technology development plans.
 - ❖ This also requires examination of future consumer preferences, growth markets, external technology developments and emerging global centers of excellence.
2. Risk review: Conduct assessment and risk review of current product complexity, growth plans, political risks and tariffs to the current supplier base.
 - ❖ This includes risk evaluation of anticipated raw material costs including tariffs and duties, as well as related logistics and labor costs to manufacture.
 - ❖ Adaptations to new technologies and components may also trigger heightened risks within the current supplier base.
3. Supplier rating and cost assessment: Refresh rating system and conduct supplier evaluations. Identify key risks and gaps with components and other bills of materials for all current suppliers.
 - ❖ Evaluation of suppliers with focus on potential, future business changes, including: potential volume & product changes, OTIF delivery, quality, cost reduction, financial stability, new technology adaptation, and handling of design change control.
 - ❖ Define future risks and current performance gaps with the targeted supply base related to both current and anticipated manufacturing requirements.
4. Develop sourcing and supply mitigation plan framework options
 - ❖ Prioritize risks based on volume, opportunity or strategic importance to meet current and future business requirements.
 - ❖ Establish a cross-functional team to determine actions to remedy the high-risk categories, including specific metrics for improvement, cost and potential benefit sharing guidelines and clear roles and responsibilities for both organizations.

Based on the above preparation and assessment steps, there are typically six action groupings. Each action grouping has differing levels of impact and timelines to execute, in addition to variable degrees of effort required:

5. Group A actions: reclassify parts or identify engineering changes that modify classification of tariff categories, or submit exclusion requests
 - ❖ For tariff risks, reevaluation of components may identify incorrectly classified items, or potential other classification changes to reduce the overall economic impact.
 - ❖ This action is generally lower effort and can generate significant short-term mitigation.
 - ❖ Other options may include exclusion requests for specific tariff categories.

6. Group B actions: evaluate advance purchase opportunities with suppliers
 - ❖ As a short-term measure, advance purchasing materials may delay subsequent tariff impacts.
 - ❖ It is recommended to include this activity with other longer-term measures to manage the uncertainty of future regulatory component cost changes.
7. Group C actions: evaluate manufacturing footprint change within the supplier network
 - ❖ For suppliers with multiple manufacturing facilities, there may be an opportunity to work collaboratively to build-up capability in other geographic locations to change the country of manufactured origin, mitigating tariff or other negative tax effects.
 - ❖ This effort may require additional mutual supplier development capability depending of the vendor's ability to transfer manufacturing capability to other facilities.
8. Group D actions: evaluate and streamline specifications to optimize product design & cost
 - ❖ In many cases, product specifications may be overdesigned for the specific supplier product or application. By evaluating true fit for purpose needs and specifications, it may allow the supplier to simplify the tooling and costs for specific products.
 - ❖ This action will require a higher effort and involvement with engineering and/ or R&D groups to assess feasibility in streamlining of product specs.
9. Group E actions: support supplier development efforts to match growing needs
 - ❖ Based on the risks related to performance, cost improvement or rapid growth needs, supplier development will support the short- and longer-term strategic business needs.
 - ❖ This effort will require several buyer-supplier site visits. For quality, cost or performance issues, diagnostic visits and a dedicated support program will be required. For rapid growth needs, supplier selection and qualification visits will be needed to support the execution plans based on the previously defined risk evaluation.
 - ❖ This action will require a higher level of effort, dedicating internal/ external consultants, engineers and technical support staff to assist with the suppliers' specific business problems (rapid growth, hiring, training, engineering, etc.). It will also generate higher degrees of trust and adaptability of the chosen suppliers in support of future demands.
10. Group F actions: evaluate new, local suppliers or vertical integration/ insourcing and overall manufacturing footprint rationalization
 - ❖ When the above action groups are not sufficient to remedy current challenges, a focused initiative to evaluate new suppliers or potential insourcing will be required.
 - ❖ To augment new facilities or supplier changes, an evaluation of the overall manufacturing and supply chain footprint may also be required to ensure an optimized warehousing and logistics structure for the enterprise.
 - ❖ Leveraging the predefined growth and performance requirements, the evaluation should be made to ensure cost and profitability targets for the business.

Figure 3 shows a rough illustration of the impact and effort required for the various action groups:

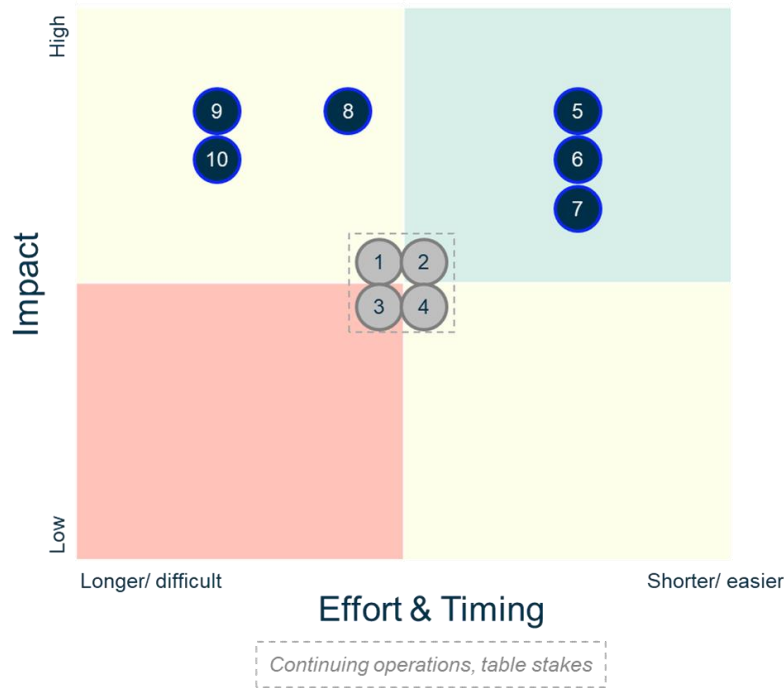


Figure 3. Matrix of impact vs effort/ timing of supplier development actions.

Learnings and critical success factors

When building a supplier development capability, there are some key learnings worth evaluating to ensure the program works equitably with the targeted suppliers:

- ❖ Build trust by keeping the supplier information confidential and consider using a dedicated interface person or persons, minimizing legal involvement when feasible.
- ❖ Maintain focus by building a clear improvement or growth roadmap tied to the specific objectives originally developed – manage change control very deliberately to avoid derailing the joint team efforts.
- ❖ Keep the improvements specific and as simple as possible, drawing on resources from both organizations, including training and routine follow-up when and where required.
- ❖ Avoid lack of supplier commitment by showing them their ratings and perceived gaps, demonstrating executive level commitment, and tying the business relationship (e.g. growth incentives, repeat business options, costing, etc.) with specific performance improvements or growth plans.

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