A Nearshoring Manufacturing and De-Risking Global Supply Chains

Part 1: Background and Key Factors To Consider in Developing Manufacturing Strategy

Nearshoring and Global Supply Chains Background

In the last half of the 20th century, multinational corporations, both private and public, have branched out to far-flung locations hoping to develop largely untapped markets and reap the benefit of lower costs and the plethora of government subsidies and tax incentives. For several decades, low-cost country (LCC) manufacturing strategies proved to be crucial to staying competitive.

Today, the honeymoon is over, and the enthusiasm for many faraway low-cost country locations appears to be waning. Markets are saturated due to new competitors, costs have risen, and incentives have regionalized to less favorable rural regions. In addition, the Trump-imposed tariffs that Biden largely held in place, the COVID-19 pandemic and the geopolitical frictions have wreaked havoc on supply chains and have exposed the U.S. dependency on supplies, services and consumer goods from these countries. With the U.S. presidential election fast approaching, continued political rhetoric is increasingly populist and isolationist. The current trend toward increased U.S. protectionism is likely to spread beyond Southeast Asian countries. As one case in point, a new U.S. law went into effect in July 2024 that now imposes tariffs on goods coming from Mexico (with origin from China), threatening to penalize U.S. companies which hastened to nearshore manufacturing.

With the current geopolitical uncertainty as the backdrop, the landscape of global manufacturing is currently going through a critical and much needed reassessment. The concept of "de-risking" has emerged as a high priority to re-strategize the overall supply chain and reduce dependency on a single source. For U.S.-based companies, there is a high urgency to reshape their manufacturing and supply chain strategy to remain competitive. However, shifting the manufacturing footprint configurations results in major supply chain and operational consequences that cannot be easily undone. Companies choosing this route must prepare themselves for extensive and long-term consequences throughout their organization.

Manufacturing experts at Alvarez & Marsal have put together the following series of articles to share their knowledge and experience on this topic.

Part 1: Background and Key Factors To Consider in Developing Manufacturing and Supply Chain Strategy

Part 2: Nearshoring to Mexico: Operating Cost vs. the US

Part 3: Comparing Mexico and China for Locating Manufacturing Operations

Part 4: Transitioning Manufacturing Into Mexico

Part 5: Considering Alternative Asian Countries

1 Ana Swanson, "Biden Announces Tariffs on Chinese Metals Routed Through Mexico," The New York Times, July 10, 2024, https://www.nytimes.com/2024/07/10/us/politics/biden-steelchina-mexico.html.

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Background to Developing a Global Manufacturing and Supply Chain Strategy

There are several factors impacting the development of a global manufacturing and supply chain strategy, including:

Political Tensions: Rising political and economic tensions between many emerging countries and Western countries, particularly the U.S., have intensified concerns about supply chain disruptions due to trade wars, sanctions, political instability or tariff increases. As an example, Schneider Electric, a major electrical equipment manufacturer, is further diversifying its supply chain away from China in favor of Mexico. Schneider's President for Central America and Mexico cited the company's concerns about geopolitical tensions playing a role in the decision.² Other examples include:

- General Motors is reducing its manufacturing investment in China and is instead focusing on expanding production within the North America region, with avoiding increased tariffs as one of the main reasons.³
- Intel is pausing a \$15 billion investment in an Israeli chip plant in 2024. Specific reasons for the pause were stated to be business conditions, market dynamics and responsible capital management.⁴
- Various U.S. companies are delaying ~\$35 billion of planned investment in Mexico due to the uncertainty around the Mexican judicial reform and the U.S. presidential election.⁵

Intellectual Property (IP) Risks/Challenges: Issues surrounding IP risks in many developing counties have led companies to relocate sensitive production processes to protect their innovations. While some improvement in terms of global protection of IP has been achieved in recent years, concerns remain about enforcement and local implementation of pertinent laws. Consequently, many companies have become cautious about where to locate their operations. U.S. chip designers are nearshoring or moving some production back to the U.S. to safeguard their innovations. As an example, Apple has been diversifying its production base away from previous manufacturing locations, particularly for its iPhones, and has made significant investments in Vietnam and India to manufacture new models, thus diversifying the supply chain.⁶

Supply Chain Disruptions: The COVID-19 pandemic highlighted the risks of long supply chains. To shorten supply chains, many companies are pursuing either a reshoring or nearshoring strategy. By bringing production closer to end consumers, companies can reduce transportation costs and improve responsiveness to changing demands. For U.S. companies, Mexico is by far the most common nearshoring location due to its proximity and trade agreements with the U.S. This trend is likely to continue as companies seek to diversify their supply chains. On top of this, companies from other countries in Asia and, to a lesser degree, Europe, are joining this nearshoring trend. They are proactively leaving their home countries and regions to locate new facilities and distribution centers in Mexico, thus mitigating the effects of increasing tariffs, and to improve supply chain efficiency through geographical proximity to key target markets in the U.S. and Canada. As publicly reported in recent years, Chinese companies alone have recently accounted for significant number of the newly created industrial spaces in Monterrey, Saltillo, Mexico City, Tijuana, Ciudad Juárez and Guadalajara.⁷

- 4 "Intel Suspends Planned \$15 Billion Expansion of Southern Israel Chip Plant," The Times of Israel, June 11, 2024, https://www.timesofisrael.com/intel-suspends-planned-15-billion-expansion-of-southern-israel-chip-plant/.
- 5 Santiago Perez and Jose Cordoba, "Why Mexico's Looming Judiciary Overhaul Spooks U.S. Business," The Wall Street Journal, September 8, 2024, https://www.wsj.com/world/americas/why-mexicos-looming-judiciary-overhaul-spooks-u-s-business-b9ecf29a.

7 "Nearshoring in Mexico. In Three Years, Chinese Companies Multiply Their Occupancy Five-fold," SiiLA, August 22, 2023, https://siila.com/news/nearshoring-mexico-three-years-chinese-companies-multiply-occupancy-five-fold/6480/lang/en.

² Ana Swanson and Simon Romero, "For First Time in Two Decades, U.S. Buys More From Mexico Than China," The New York Times, February 7, 2024, https://www.nytimes.com/2024/02/07/business/economy/united-states-china-mexico-trade.html.

³ Joseph Szczesny, "GM Struggles to Navigate Red Ink in China," Wards 100, July 30, 2024, https://www.wardsauto.com/general-motors/gm-struggles-to-navigate-red-ink-in-china.

⁶ Rimjhim Singh, "After India and Vietnam, Apple Looks to Manufacture Products in Indonesia," Business Standard, April 19, 2024, https://www.business-standard.com/world-news/after-india-and-vietnam-apple-looks-to-manufacture-products-in-indonesia-124041900634_1.html.

Cost Increases in Traditional Low-Cost Countries: Many of the traditional "low-cost" countries are no longer really low-cost. With labor costs steadily rising and currency remaining strong compared to the U.S. dollar, what was once their key advantage is eroding quickly. Rising labor costs, along with other factors, are forcing many U.S. companies to pursue alternative manufacturing bases. Corporations like Dell has been diversifying its manufacturing base away from China in favor of Southeast Asian countries and Mexico to improve efficiency and reduce costs.⁸

As a prime example for increasing cost levels in developing countries, let's consider the example of China, as the major traditional contract manufacturing and outsourcing location in the world:

Labor Rate Developments – China Example:

Labor rates in China vary widely from one location to another. Minimum wages are set monthly by provinces and municipalities, with coastal areas typically paying higher rates compared to inland provinces due to a higher cost of living and a more developed economy. Wage rates can also vary within the province as well, often by more than 20 percent depending on the location within the same province. As shown below, as of mid 2024, Shanghai had the highest monthly minimum wage at CNY 2,690 (US\$370 per month), excluding any fringe benefits. At the lower end of the spectrum, inland provinces such as Heilongjiang had minimum monthly wage level at CNY 1,450 (US\$200 per month), half of Shanghai's minimum wage rates. Many Southeast Asian countries and a sizable portion of Mexico now have the low-wage advantage over much of China. The chart below shows the wide variation in minimum monthly wages for sample provinces and cities.



China Minimum Monthly Wage by Province/City Excluding Benefits (Aug. 2024; CNY)

Source: www.china-briefing.com/news/minimum-wages-china/

8 Betsy Atkins, "Manufacturing Moving Out Of China For Friendlier Shores," Forbes, August 7, 2023, https://www.forbes.com/sites/betsyatkins/2023/08/07/manufacturing-moving-out-of-china-for-friendlier-shores/

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Real Estate – China Example:

Despite recent talk of a slowdown, China's commercial and industrial real estate market is still seeing considerable growth. As the country continues to urbanize, demand for commercial and industrial real estate is expected to remain strong for the near future. In addition, the rise of e-commerce and logistics is also fueling the demand for industrial real estate, especially in coastal areas.

As with labor rates, the commercial and industrial real estate costs vary greatly from one province to another and within the same province. Real estate costs also fluctuate due to economic factors and government policies regarding infrastructure projects, special economic zones and development restrictions. Just as you would not want to build a manufacturing site for specific industries in New York City or Los Angeles, the two largest cities in China, Shanghai and Beijing, will often be too costly. The below chart compares the commercial and industrial rental cost per square meter for various locations within China.



China Real Estate Prices per Sq. Meter (2022; CNY)

The above are average commercial and industrial rental rates. Prices can vary greatly depending on location, condition of the property and proximity to infrastructure. It should be noted that listed prices versus actual transaction prices can differ significantly in China. Real estate website listings often do not reflect the final transaction values, and companies should consider them as a starting point for negotiation, not the definitive final price.

Additionally, China has seen increases in commercial and industrial rental rates over the last few years. Below is a chart comparing rental cost per square meter over time for various locations with a manufacturing presence within China.

8 Betsy Atkins, "Manufacturing Moving Out Of China For Friendlier Shores," Forbes, August 7, 2023, https://www.forbes.com/sites/betsyatkins/2023/08/07/manufacturing-moving-out-of-china-for-friendlier-shores/ In addition to analyzing fixed and variable costs, dealing with jurisdictions and time factors in getting established must be considered.

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China Real Estate Prices From 2018 to 2022 (CNY per Sq. Meter)



All the locations (other than Tianjin) have seen at least 15 percent increase from 2018 to 2022, with Shanghai, which has a significant heavy industrial and automotive manufacturing presence, outpacing other locations at a 50 percent increase.





Utilities – China Example:

Electricity rates in China have stayed relatively stable for the past several years and remain quite low at slightly below 10 U.S. cents per kWH. This is far lower than the commercial and industrial electric rates in Mexico and in line with the cost encountered in most of the U.S. states (with the exception of California and several states in the U.S. Northeast). Mexico's electric rate per kWH has surpassed the 20 cents mark while a vast majority of the U.S. states is around the 10 cents per kWH threshold. Below chart shows the trend as well as comparison against Mexico and the U.S.

23.6 25 **Mexico Electric Rate** 20 U.S. - California (highest state exc. AK and HI) 19.3 15 Cents 8.9 10 China Electric Rate U.S. - Oklahoma 5 (lowest state) 5.3 0 Jul '19 Jan '20 Jul '20 Jan '21 Jul '21 Jan '22 Jul '22 Jan '23 Jul '23 Source: Statista

China Electric Rate Trend 2019 to 2023 (US Cents per kWH)

While electricity costs are trending up in most areas of the world (especially in Europe), the relatively low price and stability Chinese companies have been enjoying is a notable competitive advantage for the country. Another factor to consider is the initial hookup and setup, which can take a long time when building a new factory or warehouse. This includes delays in physically connecting the site to the grid and lengthy delays in obtaining government approvals required to operate the facility. Working with well-informed and experienced real estate developers or moving into a well-established industrial park can mitigate this risk.

Key Factors To Consider in Developing Manufacturing and Supply Chain Strategies

Reconfiguring supply chains and moving away from well-established manufacturing locations is not without its challenges. The decision is difficult to reverse and hence should only be made after a comprehensive review of available options and their respective advantages and disadvantages. As a company embarks on this journey, the challenges they will face include:



Infrastructure Readiness: Fundamental infrastructure required for operation, such as available utility lines, ease of transportation and the local pool of qualified workforce need to be considered. Setting up manufacturing in alternative locations may result in higher initial and ongoing costs due to underdeveloped infrastructure in place.

00 888 **Workforce Availability:** Lack of skilled workforce or local competition for workforce may result in rising labor costs and constant investment in training due to high employee turnover rates.

The decision whether to move manufacturing and reconfigure supply chains must follow a comprehensive review of options factored with all known advantages and drawbacks.

Utility Costs: For many low-wage countries, the labor savings may be partially offset by higher utility expenses. This is crucial for manufacturing operations that consume significant amounts of energy.

Supplier Locations: Companies relocating manufacturing closer to the U.S. to reduce delivery lead time and inventory requirements should also consider their current key suppliers' footprint and distribution network. Overall impact on lead times and costs should be estimated, along with identification of potential alternative suppliers of key components and raw materials in developing manufacturing and supply chain strategies.



Customer Locations: Current customer base as well as future projected sources of revenue should be considered in setting long-term manufacturing strategies. This is especially important for U.S. companies with significant current or planned international presence.



Execution Disruption and Delays: Shifting manufacturing bases requires significant investments of time, resources and expertise to establish new production lines and supplier networks. As one example, obtaining required government approvals prior to operation can sometimes take longer than expected.



Potential Geopolitical Risks: While diversifying locations mitigates risk, no region or country is entirely immune to unforeseen political or economic disruptions. The current political climate also seems prone to sudden and sometimes drastic changes: Flexibility is crucial in developing the proper manufacturing and supply chain strategies.

In general, there is a definite trend toward a more diversified and geographically dispersed production landscape. Rising political and military tensions (e.g., Suez Canal), tensions between the major players and trends such as the rise of the BRICS countries will lead to disruptions in trade and supply chains, the emergence of new niche players, and a general state of constant flux. Businesses relying heavily on their global supply chains will continue to face higher costs due to tariffs or logistical challenges. To de-risk exposure, businesses should explore alternative locations and use diversification and nearshoring to protect their business and assets.

However, reconfiguring the manufacturing base is not a straightforward process. As laid out above, there are many factors to consider.

8 Betsy Atkins, "Manufacturing Moving Out Of China For Friendlier Shores," Forbes, August 7, 2023, https://www.forbes.com/sites/betsyatkins/2023/08/07/manufacturing-moving-out-of-china-for-friendlier-shores/



This article is the first in a series on this topic by Alvarez & Marsal's manufacturing and supply chain experts. Follow along with the rest of the Alvarez & Marsal's five-part series that aims to shed light on the "mystery" of the supply chain decoupling and diversification process. In subsequent articles, key factors U.S. based companies must take into consideration will be shared. The next article will look at Mexico and what it has to offer as a potential nearshoring alternative. Thereafter, we will compare the two major players in the field of contract manufacturing and offshoring, Mexico and China, looking at advantages, disadvantages and key considerations. In the last article of the series, we will discuss manufacturing in several alternative countries in Asia that we have identified.

At Alvarez & Marsal, our professionals have extensive experience in evaluating global supply chains, identifying risks and alternatives, quantifying costs and benefits, and implementing solutions.

Contact us to find out how we can assist you.



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