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"Made in Mexico" gains further traction with nearshoring

In the past few years, Covid-19 and geopolitical tensions have fueled significant, ongoing disruptions to supply chains worldwide. To counter these challenges, multinational companies have increasingly been "nearshoring" their operations — that is, outsourcing business processes to a nearby country — to help cut costs, boost efficiencies and minimize the impact of possible exogenous shocks. The following analysis focuses on why we believe Mexico is well-suited to elevate its prominence as a leading nearshoring destination, possibly to China's detriment. This reflects the continuing resilience of the Mexican economy and has potential implications for portfolio construction in our emerging markets debt strategies.

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SUPPLY CHAINS SUFFERED THROUGH COVID

In addition to taking a devastating human toll, the Covid pandemic wreaked havoc on global supply chains. Businesses might not have anticipated disruption on such a wide scale, but over the prior decade they'd certainly seen examples of damage inflicted by unexpected crises: volcanic eruptions in Iceland that severely hampered European air travel in 2010; Japan's devastating earthquake and tsunami, along with an epic flood in Thailand, in 2011; and hurricanes Harvey, Irma and Maria, which ravaged Texas, Florida, the U.S. Virgin Islands and Puerto Rico in 2017.

Despite enduring these upheavals, many companies failed to take meaningful steps to protect their supply chains before Covid hit. A 2023 survey released by global professional services firm Ernst & Young showed that just 2% of 200 senior-level supply chain executives described their respective companies as fully prepared to withstand the pandemic's impact.[1] Supply chains were further upended by Russia's invasion of Ukraine in February 2022. Besides creating a humanitarian crisis, the war caused shortages in wheat, corn and sunflower products, fertilizers, chemicals and commodities.

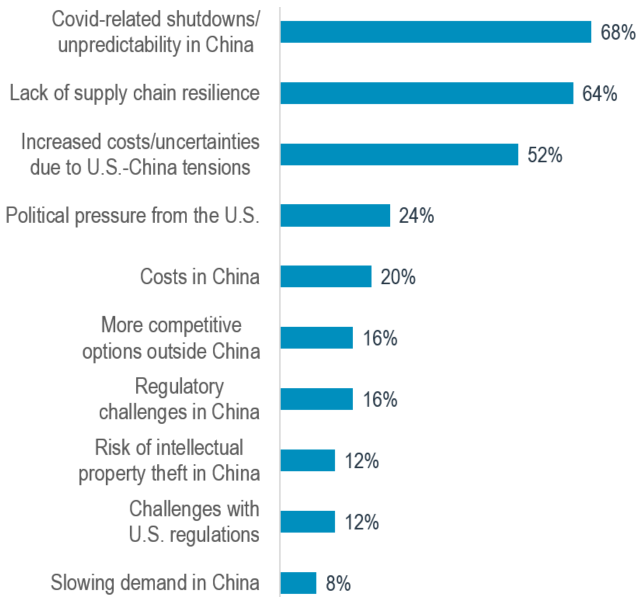
The dual fallout from the virus and military hostilities eventually prompted firms to reexamine their dependence on other countries — especially geopolitical adversaries — in their production processes.

Business leaders can hope they're not faced with future supply chain collapses, but according to the old adage, "Hope is not a strategy." The McKinsey Global Institute calculates that, across industries, firms are likely to encounter supply chain disruptions lasting at least one month every 3.7 years.[2] Enter nearshoring, a strategy in which companies outsource aspects of their operations to a nearby country rather than a more distant one — thereby limiting the potential scope of supply chain interruptions.

CHINA: A LESS DESIRABLE TRADING PARTNER

Although trade between the U.S. and China remains substantial, large multinational companies, many of which are U.S.-headquartered, have been moving supply chains away from China for a number of reasons (Figure 1). Covid-driven lockdowns, which stopped or delayed the flow of raw materials and finished goods, have played a major role in this phenomenon. But Beijing's regulatory policies and processes — often perceived as opaque, bureaucratic or even draconian on a wide range of issues — have also put U.S. firms on edge.

Figure 1. Why U.S. companies are shifting supply chains out of China



Source: US-China Business Council, 2022 Member Survey

These concerns about China are likely to lead to greater regionalization of supply chains, rather than fully bringing production onshore, given the potential cost savings offered by nearshoring.

Importantly, the desire to diversify supply chains away from China has received bipartisan Congressional support, most notably in the CHIPS and Science Act of 2022, signed into law by President Biden last summer. This legislation will provide more than $50 billion in funding for semiconductor research, development and manufacturing. While American scientists invented the semiconductor shortly after World War II, the U.S. now produces only about 10 percent of the world's chip supply and none of the most advanced chips.[3]

WHY MEXICO OVER CHINA?

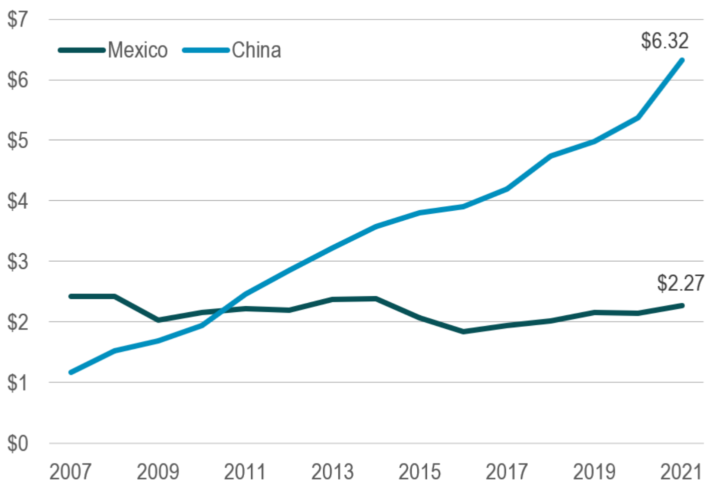
Broadly, the Mexican economy has demonstrated impressive resilience in recent years. Its GDP per capita increased 10.4% in 2022 compared to 2021, and 16.1% in 2021 compared to 2020 (a sharp rebound from that year's Covid-driven decline).[4] GDP growth and other economic indicators have remained strong in 2023, with employment and exports rising, while inflation has cooled.[5] In contrast, China's economy has lost momentum after an initial pickup when the government's zero-Covid policies ended in late 2022. Headwinds include a property downturn, disinflation and deflation concerns, surging unemployment among young adults and weakening exports.[6]

Beyond a generally more favorable economic landscape, Mexico offers key advantages specific to nearshoring. For U.S. businesses, moving operations into Mexico can be attractive for many reasons:

- **Ease of transport.** The U.S./Mexico border is 2,000 miles long, with 47 active points of entry into the U.S. by ground transportation and flights to major U.S. cities from more than 100 Mexican airports. Additionally, in March 2023, U.S. regulators approved a merger creating the first railway linking main cities and ports in the U.S., Mexico and Canada. Thanks to this proximity and variety of connections, Mexican exports can often reach their intended U.S. location within a day or two. By comparison, Chinese ships require two to three weeks to reach American ports. Lastly, communication snags due to time differences should be minimized, as Mexican facilities are no more than three hours ahead or behind U.S.-based companies.
- **Substantial cost savings.** Compared to China, Mexican electricity costs are about 4% lower, the average price of natural gas is 60% lower and lease rates for industrial buildings are also 60% lower.[7] And as shown in Figure 2, manufacturing wages in Mexico have remained flat, while those in China have risen steadily in recent years. These higher pay rates are due in part to fewer people entering the Chinese workforce — a byproduct of the country's "one child" policy, which lasted from 1980 to 2016.

Figure 2. Labor costs are lower in Mexico

Average manufacturing wages, $/hour



Source: Haver Analytics

- **A young, skilled workforce.** China's one-child policy has also led to an unfavorable demographic shift that has spilled over into its labor market. The average age of Chinese workers was 38.4 years in 2022, versus 29.3 years in Mexico (as of 2021).[8] An aging employee pool can lead to slower economic growth over time as fewer workers become available to replace those retiring.

  Within the Mexican state of Jalisco, the capital city of Guadalajara has earned a reputation as another Silicon Valley, reflecting both the youth of its workforce (average age of 25) and an ability to attract major technology companies and venture capital firms.

  All told, Mexico's labor force helps fuel the country's manufacturing growth: over 130,000 engineers graduate in Mexico annually, making the country a hotbed of technology talent.[9]

- **Intellectual property protection.** According to the U.S. Committee of Foreign Affairs, the theft of American intellectual property (IP) is a "principal irritant" in the U.S.-China trade relationship. U.S. officials estimate that China appropriates up to $600 billion of American IP annually, and, in a 2019 CNBC survey, nearly one-third of chief financial officers polled indicated that their respective companies had been victims of IP theft at the hands of China over the prior 10 years.[10] In contrast, Mexico has enacted significant legislative reforms to implement its IP commitments under the United States-Mexico-Canada Agreement (USMCA), the free trade compact between the U.S., Mexico and Canada that replaced NAFTA in July 2020.

- **Open trade with less tension.** The U.S./China relationship is fraught, exemplified by episodes like the downing of an alleged Chinese spy balloon over U.S. skies in February 2023, frequent saber-rattling in the South China Sea and ongoing U.S. concerns about a potential Chinese invasion of Taiwan. Mexico's ties with the U.S., however, are free of such geopolitical wrangling.

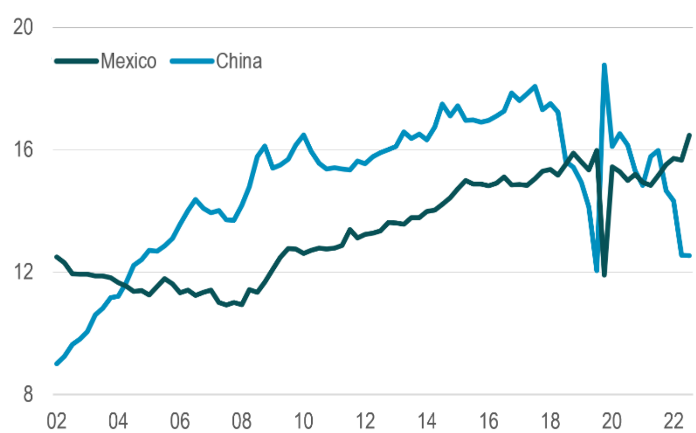
  Moreover, Mexico is one of the most open countries in the world for international trade, benefiting from 14 free trade agreements with 50 countries.[11] The USMCA, in particular, has helped transform Mexico's economy into one driven by manufacturing and exporting.

POTENTIAL AREAS OF EXPORT GROWTH FOR MEXICO

Due in large part to nearshoring's advantages, Mexico is now the largest U.S. trading partner. Its share of manufacturing trade with the U.S. has grown, while China's has shrunk, as shown in Figure 3 below.

Figure 3. Mexico has widened its lead over China

Share of total U.S. manufacturing trade (%), 2002-2022



Sources: Census Bureau, Federal Reserve Bank of Dallas

Looking ahead, trade estimates from J.P. Morgan imply that an increase of three to seven percentage points in Mexico’s share of U.S. imports (from 14% in 2022 to 17%-21% in 2028) would translate to a 1.2 to 2.6 percentage point jump in Mexican GDP per year over that time frame. In our view, Mexico is particularly well-positioned to boost shipments in autos, industrial machinery and lower-value electronics, three sectors in which it already has a strong foothold. Other sectors with growth potential include computers, telecommunications equipment, household appliances, toys and semiconductors.

MINDING THE MEXICAN HEADWINDS

While we’re constructive on Mexico’s economic prospects and its ability to become a major nearshoring destination, we’re also mindful of several hurdles the country must overcome to achieve that goal, such as:

- **Energy entanglements.** The U.S., Canada and Mexico are at odds regarding Mexico’s alleged breach of the USMCA by favoring its state-owned energy enterprises — Pemex and Comisión Federal de Electricidad (CFE) — over U.S.- and Canadian-built energy and power producers. President Andrés Manuel López Obrador has made protecting Pemex and CFE from competition a priority of his administration, introducing legislation and making regulatory changes designed to strengthen them. Dispute resolution talks have begun, but if the parties are unable to settle their differences, a USMCA arbitration panel can be called in to adjudicate. If Mexico loses the case and subsequently fails to take corrective action, the U.S. and Canada could impose retaliatory tariffs on Mexican goods.

  Furthermore, foreign direct investment in Mexico may lag unless the country amps up its domestic energy supply. For example, even though Mexico remains heavily reliant on liquid natural gas imports for power generation, President López Obrador’s regulatory and legislative moves have led to postponements of power development projects.

- **Lack of “greenery.”** López Obrador has been criticized for failing to take the steps necessary to meet Mexico’s goal under the Paris Agreement to achieve a 35% reduction in greenhouse gas emissions by 2030, or generate 35% of its power from clean sources by 2024, as mandated under the country’s own 2012 General Law of Climate Change. (In 2021, less than 30% of Mexico’s power came from non-fossil sources.[12])

  Rapid growth in renewable energy deployment in Mexico could increase energy access, reduce costs to consumers and improve the reliability and resilience of Mexico’s power system. These upgrades are needed to encourage companies to relocate operations to Mexico, as investors have increased their scrutiny of climate policy engagement.

  Specifically, we believe reform at CFE is necessary to fully capitalize on Mexico’s nearshoring opportunity. CFE has struggled with profitability and high debt levels, both of which have limited it from expanding capacity and investing in transmission infrastructure. Such expansion would help create jobs, boost GDP, reduce the frequency and duration of power losses, and realize decarbonization benefits. Additionally, the government could help improve CFE’s balance sheet through direct cash payments and tariffs on private-sector consumption of electricity, among other methods.

  The government and CFE also need to consider issues associated with the overabundance of solar power during peak hours of the day and reduced supply later in the day, when demand for energy remains high but solar generation drops off. That’s when conventional power plants (such as natural gas-fired plants) must quickly ramp up electricity production to meet consumer demand.

> *Mexico is well-positioned to boost shipments in autos, industrial machinery and lower-value electronics, three sectors in which it already has a strong foothold.*

To meet the additional demand for clean energy, we estimate Mexico will need to add power sources capable of generating between 35 and 40 gigawatts (GW) over the next decade, at a cost in the $36 billion-$42 billion range. (As a frame of reference, one GW can power 750,000 homes for one year.) Morgan Stanley anticipates that for every 1% of GDP growth, Mexico needs 1.1-1.2 GW of additional installed capacity to avoid outages in 2025 and beyond. In order to guarantee a sufficient and consistent supply of power, Mexico would require 13 GW of incremental installed capacity over a five-year period that would cost $14 billion, or an average cost to build of $1.1 million/MW. This increase in supply is mostly needed in Mexico's mid-North region and in Baja California, where key manufacturing hubs are located.

- **Legal/governance issues.** According to Rice University's Baker Institute for Public Policy, Mexico ranks poorly on issues like corruption, transparency, judicial system effectiveness, human rights and due process.

THE NEED TO "EQUALIZE" MEXICO

The country also faces socioeconomic challenges. northern Mexico has been the primary beneficiary of the country's strong trade linkages with the U.S. and Canada. Meanwhile, southern Mexico has been left behind economically, leaving the states in that region more prone to gang- and drug-related activities. In our view, for Mexico to fully capitalize on nearshoring, the government needs to enact reforms designed to ensure the South's participation in the phenomenon, which would help reduce crime and improve security.

NEARSHORING TREND OFFERS INVESTMENT OPPORTUNITIES

Nuveen is a leader in emerging markets debt investing, having launched a dedicated EM debt team in 1997. As of 30 June 2023, we managed $13.2 billion in EM fixed income assets, part of our $551 billion fixed income platform. Our expertise spans the EM debt spectrum, including hard currency sovereigns and corporates, local currencies and frontier markets. We also manage $20 billion in strategies with an impact/ESG focus.

Mexican assets, particularly sovereign bonds, have been an important component of our EM portfolios. Continued gains in nearshoring would boost economic growth in Mexico while reducing the country's reliance on remittance flows (i.e., money sent to Mexico from outside countries) as a source of revenue. This would potentially lower sovereign bond yields and reduce country risk. The independence of Mexico's central bank, Banxico, and its adherence to traditional monetary policy, support our constructive outlook for the country.

Backed by our strong EM research team, we've identified industries in Mexico that appear poised to capitalize on the nearshoring phenomenon. As we see it, three with notable potential are:

- **Banks.** Overall, traditional Mexican banks, as opposed to non-bank financial institutions, or NBFIs — which lack full banking licenses and are unable to accept deposits — are well-capitalized and have taken steps to increase capital to comply with Mexico's regulatory standards, the most rigorous in Latin America. Loan growth should rise as multinational corporations looking to nearshore will need funding for hiring, office space and manufacturing facilities.

  A number of large Mexican banks enjoy particularly high levels of capital, strong cost/income ratios and average returns on equity that exceed those of their Mexican peers and large cap U.S. banks. We remain wary of investing in NBFIs and specialty finance companies in Mexico given their funding and liquidity challenges, although these challenges are unlikely to affect the broader Mexican banking system.

- **Cement manufacturers.** Given our expectation for increased demand for Mexican-made autos, machinery and electronics, we believe the Mexican cement sector will benefit from the building of industrial parks. (Industrial parks consist of land designed to promote industrial activities through integration with transportation facilities and other supportive infrastructure.) According to Morgan Stanley, Mexico will need around 13 million square meters of new industrial real estate inventory over the next five years. Against that backdrop, we're focused on several cement manufacturers, particularly those headquartered in northern

Mexico. Falling rents in that part of the country have made it a hot spot for building warehouses and manufacturing facilities.

- **Auto parts.** Carmakers such as Ford, Audi, GM, BMW and Mercedes have already established manufacturing facilities in Mexico to produce electric vehicles (EVs). Meanwhile, Tesla has announced plans to open a “gigafactory” in 2024 to build its next-generation models. Mexico’s standing as an EV hub should bolster demand for auto parts. Companies that produce higher-margin EV components such as specialized battery housings — as opposed to traditional internal combustion engine parts — have particular appeal.

> *Nearshoring offers attractive investment opportunities for experienced EM debt investors.*

CONCLUSION

Nearshoring: a compelling trend

In response to Covid-driven supply chain entanglements and geopolitical tensions, U.S. companies have been moving manufacturing facilities out of China and into Mexico. Businesses have taken advantage of Mexico’s close proximity to the U.S., lower costs and young, skilled workforce, among other advantages. It’s no surprise, then, that “Made in Mexico” has become far more common stateside: Mexico is now the largest U.S. manufacturing trading partner, and its lead over China has grown.

This nearshoring trend offers attractive investment opportunities for experienced EM debt investors like Nuveen. In particular, we believe select Mexican banks, cement manufacturers and auto parts suppliers are especially worth considering.

For more information, please visit us at nuveen.com.

End notes:

1 Ernst & Young, "How Covid-19 impacted supply chains and what comes next," 6 January 2023.
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4 World Bank via MacroTrends.
5 Jesus Cañas, Diego Morales-Burnett and Ana Pranger, "Mexico's economic momentum continues in second quarter," Federal Reserve Bank of Dallas, 9 August 2023.
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9 *Forbes*, "Mexico is Flooded With Top Software Development Talent," 13 April 2022.
10 *The Hill*, "Congress should investigate Chinese IP theft," 23 February 2023; Ivemsa website, "Intellectual property in Mexico: What you need to know."
11 The Brookings Institution, "Mexico at the crossroads: The golden opportunity of nearshoring and energy policy as its Achilles' heel under USMCA," 28 February 2023.
12 U.S. Department of Energy, April 2022.

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