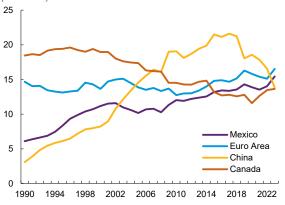
Online Annex 2. Relocation of Global Value Chains: The Role of Mexico1

Since the introduction of NAFTA in 1992, Mexico has benefited from its favorable access to US markets allowing Mexico to steadily increase its share of US imports (Online Annex Figure 2.1). Given Mexico's relative cost competitiveness, productivity, and established logistics networks, this has continued even in the face of intensified geoeconomic fragmentation.

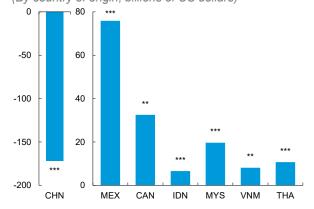
The introduction of US tariffs on Chinese products in 2018–19, the aftermath of the pandemic, and Russia's invasion of Ukraine, as well as rising costs of Chinese labor and higher trans-Pacific shipping costs have contributed to important relocation of supply chains across the globe. While US imports from China have declined substantially since 2018, the share in US imports from Mexico and other trading partners, including countries in Southeast Asia, have increased over the same period. A difference-in-difference analysis (Arizala, Mineyama, and Tuesta, forthcoming) using six-digit product level trade data (building on Wang and Hannan, 2023) shows that Mexico and other US partners have increased their exports to the United States by more in those industries that were affected by the 2018-19 tariffs on Chinese products (Online Annex Figure 2.2). In the case of Mexico, the estimated impact (around US\$75 billion) accounts for around 45 percent of total increase in Mexico's exports to the United States during 2017–23. Mexico's imports of intermediate goods that are inputs to those products affected by the 2018-19 tariffs have also increased, although by smaller amounts, originating from various other emerging market economies, including in Asia (Online Annex Figure 2.3). This suggests that Mexican firms are increasingly part of global value chains connected to the United States. Over the same period, Mexico's imports of intermediate goods from China increased by only a fraction of the increase of Mexico's exports to the United States, suggesting that final products exported from Mexico to the United States contain significant valued added (Online Annex Figure 2.4). Importantly, Mexico's imports of final goods (consumption and capital) from China, as a share of total imports have increased, reflecting changing patterns in Mexico's domestic demand (for instance, for cars and smartphones) and the increase in machinery investment to increase productive capacity.

Online Annex Figure 2.1. Share of US Imports (Percent)



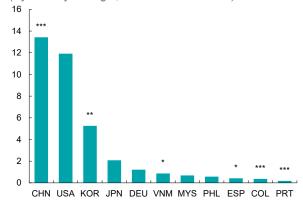
Sources: Haver Analytics; and IMF staff calculations

Online Annex Figure 2.2. Estimated Impact of US Tariff on US Imports, 2017–23 (By country of origin; billions of US dollars)



Source: IMF staff calculations. Note: *** p<0.01, ** p<0.05, * p<0.1.

Online Annex Figure 2.3. Estimated Impact of US Tariff on Mexico's Imports, 2017–23 (By country of origin; billions of US dollars)

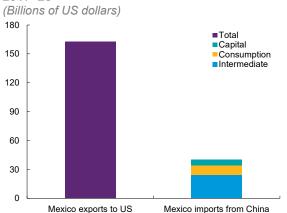


Source: IMF staff calculations. Note: *** p<0.01, ** p<0.05, * p<0.1.

¹ Prepared by Francisco Arizala, Tomohide Mineyama, and Hugo Tuesta.

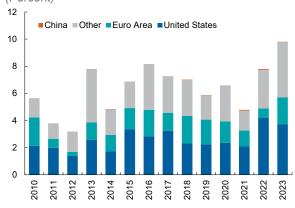
Increased export penetration by Mexico in the US market has been accompanied by an increase in Mexico's share in total FDI to emerging market economies, which has predominantly been concentrated in the north and in the manufacturing (auto and electronics) sector, suggesting increased interest from firms to invest in Mexico to supply to the US market (Online Annex Figure 2.5). The empirical analysis also shows that FDI to Mexico increased in those sectors that were exposed to tariff changes. While Mexico is increasingly attracting interest from investors across the globe, as shown by elevated amounts of FDI announcements, FDI has continued to come predominantly from the United States (around 40 percent) and other advanced economies (around 40 percent).





Sources: INEGI; UN Comtrade; and IMF staff calculations.

Online Annex Figure 2.5. Mexico: FDI Share within Emerging Markets by Country of Origin (Percent)



Sources: Haver Analytics, IMF-CDIS, and IMF staff calculations. Note: Emerging markets include Brazil, Chile, Colombia, China, India, Indonesia, Mexico, Peru, Philippines, Poland, Romania, Russia, South Africa, Thailand, Türkiye, Vietnam.

Overall, these findings suggest that a range of factors—including cost competitiveness, proximity, integration into North American market, and various trade measures—have allowed Mexico to deepen its participation in global value chains, particularly for goods destined to the United States. As part of this expanded role in supply chains, Mexico has also increased its imports of a range of inputs from a broad range of countries. FDI into Mexico has been instrumental in supporting this increasing share of Mexico in US imports, with much of that FDI coming from the United States itself.

References

Arizala, Francisco, Tomohide Mineyama, and Hugo Tuesta. Forthcoming. "Relocation of Global Value Chains: The Role of Mexico." IMF Working Paper, International Monetary Fund, Washington, DC.

Wang, Mengqi and Swarnali Hannan. 2023. "Trade Diversion Effects from Global Tensions—Higher Than We Think." IMF Working Paper 2023/234, International Monetary Fund, Washington, DC