MACROECONOMIC ANALYSIS

What is the US trade deficit with Mexico really saying?

Arnulfo Rodríguez / Carlos Serrano

NAFTA has encouraged the formation of regional value chains that bring economic benefits to both producers and consumers in the North America region. Nevertheless, a protectionist movement in the US is blaming NAFTA for the deindustrialization process that has affected several states, especially in the so-called Rust Belt. Such process has been accompanied by net job losses, which we believe are mainly explained by China's entry into WTO in late 2001, and the considerable progress of both information technologies and automation of advanced manufacturing production. As far as NAFTA is concerned, it has helped US manufacturing firms become more productive. Nowadays, this boost to productivity is reflected on US manufacturing production close to an all-time high despite employment in this sector near a record low. Breaking the aforementioned regional value chains will not bring the lost jobs back. By looking into state trade data for the US, we find that Mexico is more important to US states as a destination country for their exports than as an origin country of their imports. The same data revealed that Michigan and California accounted for 87.4% of the US trade deficit with Mexico of USD 58.4 billion in 2015. Both states have large- and medium-sized cars as their top two import products without a nearly commensurate level of their exports. Moreover, imports of heavy vehicles and auto parts are quite significant in Michigan. Global value chains and Mexico's competitiveness in the automotive industry explain why the trade deficits of Michigan and California with Mexico should not come as a surprise. Finally, since US imports of vehicles and auto parts from Mexico contain a significant share of US inputs, such trade deficits do not reflect the true nature of the trade relationship between Mexico and the US.

NAFTA has brought economic benefits to both producers and consumers in the North America region

The new US administration wants to renegotiate NAFTA by arguing that Mexico gets most of the economic benefits at the expense of the US from their bilateral trade. To make such a point US federal government officials highlight the US trade deficit with Mexico of around USD 60 billion. Nevertheless, such view of the welfare consequences derived from international trade is very narrow because other relevant factors should be taken into account when fully assessing the overall benefits and costs of free trade agreements among countries.

It is worth mentioning that macroeconomic imbalances underlie the US trade defict with the world. Such deficit occurs because total saving in the US is less than investment. This a basic concept learned in a principles of macroeconomics class! Therefore, affecting the trade relationship with Mexico will only result in higher deficits with other countries.

In a globalized economy, many production processes are vertically integrated across nations and such global value chains not only do help companies increase both efficiency gains and profits, but they also make it possible for consumers to have more diversity of goods and services at lower costs to choose from than would otherwise be the case. Moreover, global value chains in the North America region have made its exports of manufactured goods more competitive than comparable exports coming from other world regions. Without NAFTA, it would be hard to imagine the existence of both such value chains and the aforementioned benefits to companies and consumers in the North America region.

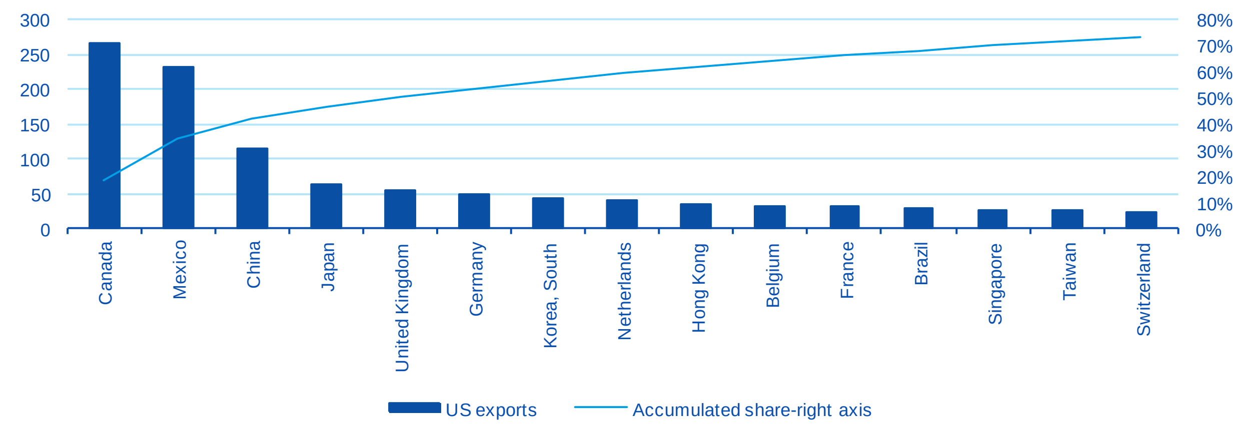
By allowing the free flow of goods and services across the North America region, NAFTA simultaneously stimulates foreign direct investment not only from regional companies but also from European and Asian firms. This, in turn, positively feeds back on trade flows by facilitating intra-firm commerce as well as the development of industrial clusters. Naturally, in the North America region there has been and there will always be sovereign and sub-sovereign competition to attract such investment.

China's entry into the WTO, information technologies and automation of advanced manufacturing probably explain to a great extent the deindustrialization process in the Rust Belt

NAFTA has been a mutually beneficial treaty to both Mexico and the US in terms of bilateral trade flows and jobs created on each side of the border. There is no question about it. Trade has increased sixfold since NAFTA came into effect. Not only has NAFTA benefited the US through global value chains, but it has also rendered Mexico an important destination for US exports. Mexico is the second largest destination for US goods, only after Canada. Mexico imports more US goods than Japan, Germany, the UK and South Korea combined (Figure 1). Nevertheless, a protectionist movement in the US is blaming NAFTA for the deindustrialization process that has affected several states, especially in the so-called Rust Belt.

Figure 1

Top destination countries for US exports (Billions of USD and %)



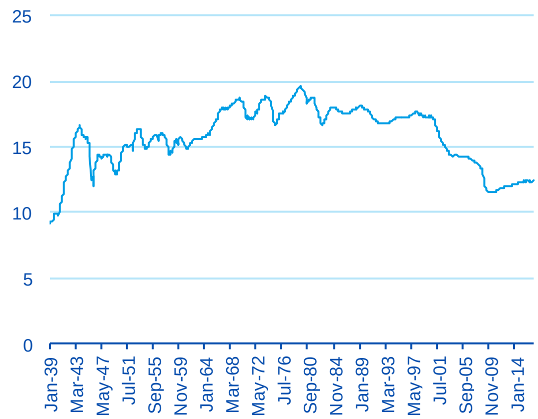
Source: BBVA Research with US Census Bureau data.

The partisans of protectionism point out Mexico as the destination country of the jobs lost in the US manufacturing sector. Nothing further away from the truth! The aforementioned deindustrialization was in large part due to China's entry into WTO in late 2001, and the great progress of both information technologies and automation of advanced manufacturing production. Moreover, the process of job destruction in the US manufacturing sector had begun long before NAFTA was signed (Figure 2).[1] Nowadays, this boost to productivity is reflected on US manufacturing production close to an all-time high despite employment in this sector near a record low (Figure 3). Higher productivity, and not free trade, is at play here. At present, knowledge of electrical engineering, computation or robotics is a must-have skill to land a job in the US manufacturing sector.[2]

[1] Muro, M. (2017). "It's the Jobs, Stupid." MIT Technology Review. Vol. 120 No. 1 January/February 2017.
[2] Newman, K.S. and Winston, H. (2017). "Make America Make Again: Training Workers for the New Economy." Foreign Affairs, January/February 2017.

Figure 2

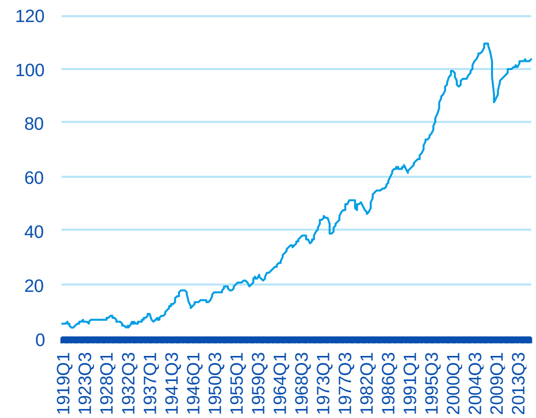
Employment in the US manufacturing sector (Millions of persons, s.a.)



Source: BBVA Research with BLS data

Figure 3

US manufacturing production (Index 2012 = 100, s.a.)



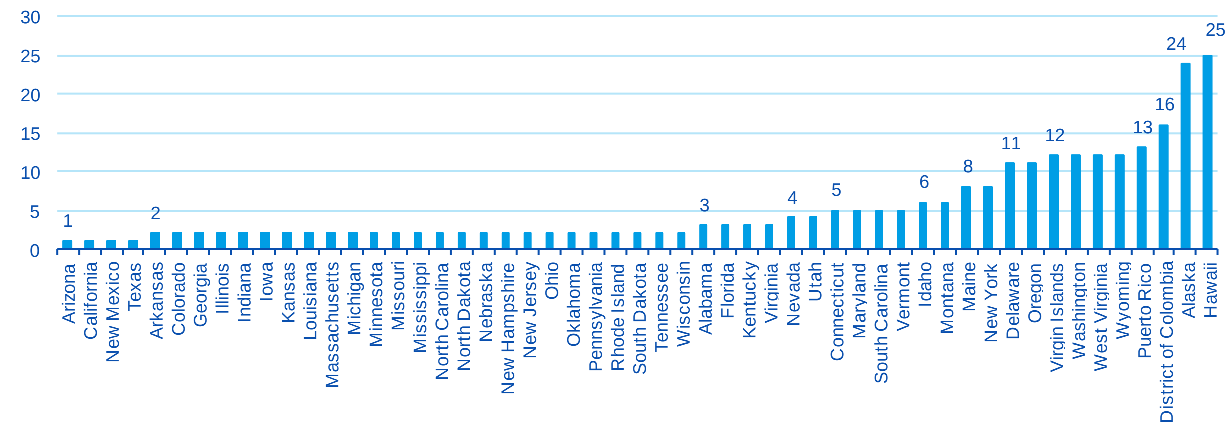
Source: BBVA Research with Federal Reserve data

Mexico is a top destination for the exports from many US states as well as a key supplier of their imports

Not only has NAFTA helped Mexico become the third trading partner of the US, but it has also increased the relevance of Mexico to many US states' economies. State trade data from the US Census Bureau for 2015 reveals that Mexico is the number one destination country for the exports from California, Arizona, New Mexico and Texas. Moreover, Mexico ranks second as the destination country for the exports from 25 US states (Figure 4).

Figure 4

Mexico's rankings in each US state as a destination country for its exports in 2015

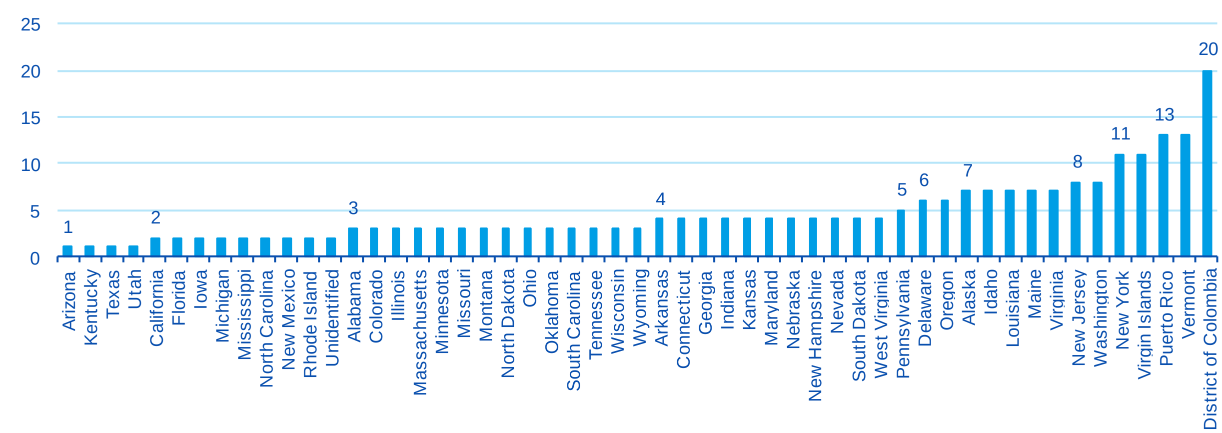


Source: BBVA Research with US Census Bureau data.

To a great extent due to NAFTA, Mexico has also become a key country supplier of goods to a large number of US states. According the aforementioned data, Mexico is the country with the highest imports share in Arizona, Texas, Kentucky and Utah. Furthermore, Mexico ranks second and third as the origin country of the imports to 8 and 14 US states, respectively (Figure 5).

Figure 5

Mexico's rankings in each US state as an origin country of its imports in 2015



Source: BBVA Research with US Census Bureau data.

Mexico is more important to US states as a destination country for their exports than as an origin country of their imports

As we stated before, assessing the welfare consequences of international trade from bilateral trade balances is narrow-minded. We just showed that the Mexican economy is quite relevant to many US states either as a recipient of their exports or as a sender of their imports. Arguably, ascertaining that Mexico gets most of the benefits from the bilateral trade with the US would be possible if Mexico were more important as a sender of imports to the US states than as a recipient of exports from the US states. Is that the case?

We obtained a weighted average of the Mexico's rankings in the US states as a destination country for their exports and as an origin country of their imports. We defined the weights either as the share of a state's exports to Mexico in the total US exports to Mexico or as the share of a state's imports from Mexico in the total US imports from Mexico.

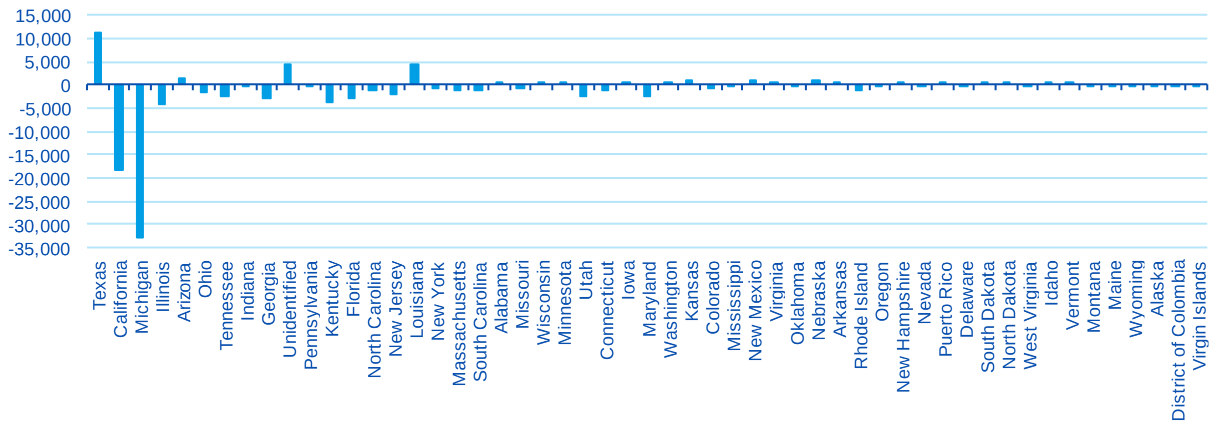
Our main results indicate that Mexico, as a sender of imports to the US states and as a recipient of exports from the US states, has a weighted average ranking of 2.3 and 1.8, respectively. Consequently, Mexico is more important to US states as a destination country for their exports than as an origin country of their imports. This is clearly not an indication that Mexico gets most of the benefits from the bilateral trade with the US.

Michigan and California accounted for 87.4% of the total US trade deficit with Mexico in 2015

Looking into state trade data from the source mentioned above can help us pin down the US states that are mainly responsible for most of the US trade deficit with Mexico. As can be seen from Figures 6 and 7, Michigan and California registered a trade deficit with Mexico of USD 32.7 billion and USD 18.2 billion, respectively. These deficits accounted for 56.1% and 31.3% of the total US trade deficit with Mexico in 2015 of USD 58.4 billion, respectively.

Figure 6

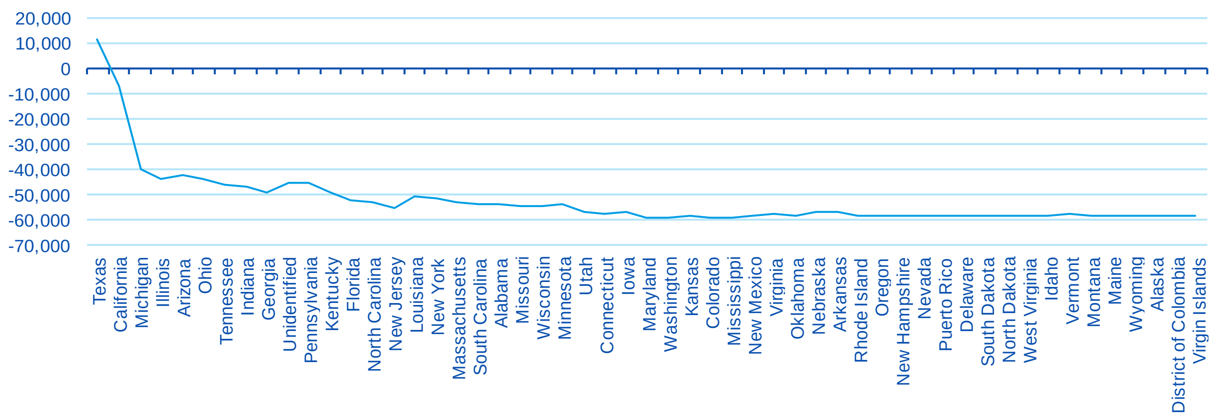
Trade balance of US states with Mexico in 2015
(Millions of USD)



Source: BBVA Research with US Census Bureau data.

Figure 7

Accumulation of the US trade balance by state in 2015
(Millions of USD)



Source: BBVA Research with US Census Bureau data.

Digging into the trade data reveals that both states have large- and medium-sized cars as their top two import products without a nearly commensurate level of their exports (Table 1). Motor vehicles for the transport of goods and crude oil are the third import product in Michigan and California, respectively. Although not shown in the table, it is also worth mentioning that imports of auto parts and laptops are quite significant for Michigan and California, respectively.

The production processes of the top import products mentioned above –with the exception of crude oil- are part of global value chains. Given that the automotive industry in Mexico has become quite competitive in recent years, the significant trade deficits of Michigan and California with Mexico should not come as a surprise. It is important to point out that Mexico has specialized in the production of small- and medium-sized cars as well as in the manufacturing of heavy vehicles and auto parts. The large-sized cars trade deficit of both states is probably better explained by the imports of such vehicles originated in Canada.

Table 1

Main import products of Michigan and California in 2015

(Millions of USD)	Michigan			California		
	Products	Imports	Exports	Products	Imports	Exports
	Large-sized cars	20,477	3,083	Medium-sized cars	38,976	1,806
	Medium-sized cars	16,406	1,198	Large-sized cars	16,171	1,490
	Heavy vehicles	10,420	3,990	Crude oil and oils	18,239	2,987

Source: BBVA Research with US Census Bureau data

Conclusions

The relevance of Mexico to the US economy is probably better understood by looking into state trade data. Not only has NAFTA helped Mexico become the third trading partner of the US, but it has also increased the relevance of Mexico to many US states' economies either as a destination country for their exports or as origin country of their imports. State trade data from the US Census Bureau for 2015 reveals that Mexico is the number one destination country for the exports from California, Arizona, New Mexico and Texas. Regarding imports of US states originated abroad, Mexico is the most important country supplier to Arizona, Texas, Kentucky and Utah.

By calculating and comparing the weighted averages of the Mexico's rankings in the US states as a destination country for their exports and as an origin country of their imports, we find that Mexico is more important to US states as a customer than as a supplier. This is clearly not an indication that Mexico gets most of the benefits from the bilateral trade with the US.

Last but not least, the trade deficits of Michigan and California with Mexico accounted for 87.4% of the US trade deficit with its southern neighbor of USD 58.4 billion in 2015. Both states have large- and medium-sized cars as their top two import products without a nearly commensurate level of their exports. Moreover, imports of heavy vehicles and auto parts are quite significant in Michigan. Global value chains and Mexico's competitiveness in the automotive industry explain why the trade deficits of Michigan and California with Mexico should not come as a surprise. Since US automotive imports from Mexico cointain a very large fraction of US components, such trade deficits do not reflect the true nature of the trade relationship between Mexico and the US.