REGIONAL SECTORAL

After 20 years of NAFTA, the balance for the Mexican automotive sector has been very positive

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Mexico's automotive industry has become a competitive platform for exports to the USA and the rest of the world. There are 20 assembly plants (eight more than there were ten years ago) with an annual production capacity of over 3.1 million units and a solid domestic and foreign supply chain

In this paper we analyse the extraordinary growth enjoyed by the Mexican automotive industry since the industry was restructured in the US in 2007. It is estimated that this could continue, at even greater rates, if there are positive impacts on investment (new assembly and supply chain plants) and employment. Backing this growth performance is the global trend of outsourcing production from developed countries to emerging markets. In the context of emerging economies, Mexico has become one of the most profitable export platforms in the world, with high quality at lower costs, from where the hegemony is disputed among NAFTA partners, particularly the US.

Global manufacturers prefer to assemble in emerging countries

The biggest automotive manufacturers in the world continue to invest in production plants in emerging markets (including Latin America, China, Malaysia and Southeast Asian markets) with the aim of reducing their production costs. The principal US manufacturers have created strategic alliances with European and Japanese manufacturers in order to compete.

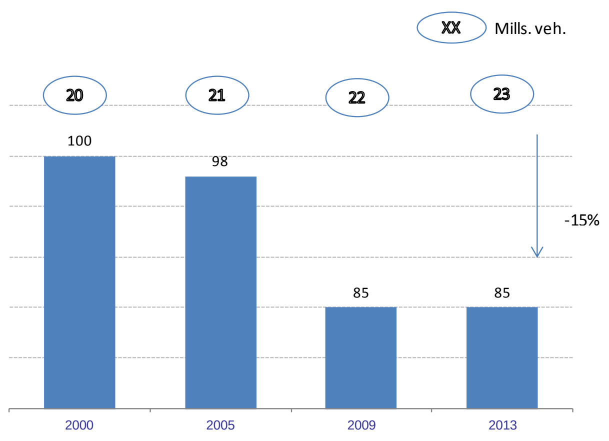
Table 1
Principal vehicle production countries: developed and emerging ('000s of units)

	2007	%, Share	2013	%, Share	Abs. diff. 13/07	% Chng, y/y 13/07
USA	11,292	15.4	11,046	12.6	-246	-2.2
Japan	11,484	15.7	9,630	11.0	-1,854	-16.1
Germany	5,820	8.0	5,718	6.5	-102	-1.7
Canada	2,571	3.5	2,380	2.7	-191	-7.4
France	3,169	4.3	1,740	2.0	-1,429	-45.1
Spain	2,777	3.8	2,163	2.5	-614	-22.1
United Kingdom	1,650	2.3	1,597	1.8	-53	-3.2
Italy	1,211	1.7	658	0.8	-553	-45.6
Developed	**39,974**	**54.6**	**34,933**	**39.9**	**-5,041**	**-12.6**
China	7,278	9.9	22,117	25.2	14,839	203.9
South Korea	3,840	5.2	4,521	5.2	681	17.7
India	2,016	2.8	3,881	4.4	1,865	92.5
Brazil	2,611	3.6	3,740	4.3	1,129	43.3
Mexico	2,022	2.8	3,052	3.5	1,030	51.0
Thailandia	1,287	1.8	2,533	2.9	1,245	96.7
Emerging	**19,054**	**26.0**	**39,845**	**45.5**	**20,790**	109.1
Other	14,162	19.3	12,868	14.7	**-1,293**	**-9.1**
Total	**73,190**	**100.0**	**87,646**	**100.0**	**14,456**	**19.8**

Source: BBVA Research with data from OICA

In developed economies, the general trend in production was downwards in 2008 and 2009 as a result of the economic recession, with a rise from 2010 onwards. In most of those economies, production is still below 2007 levels (see Table 1). In 2012, developed countries showed a degree of divergence: production in Europe continued to shrink while in other countries such as the US and Japan it went up.

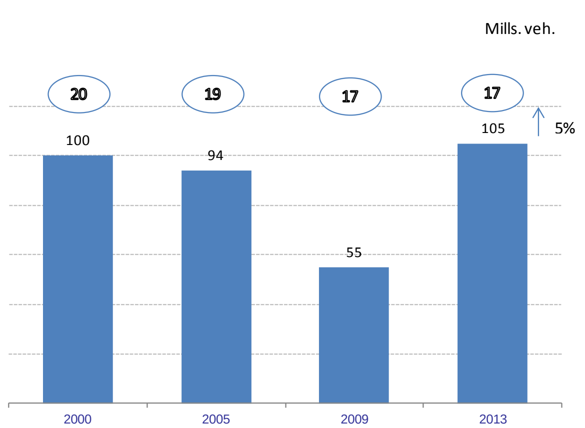
Figure 1
Adjustments to excess production capacity in Europe (% use of installed capacity, 2000 index =100)



Source: BBVA Research with data from HIS

Europe probably needs to make greater adjustments to get rid of its excess installed capacity (see Figure 1); Japan and Korea are in a similar situation, and reductions have begun there. Plant closures bring with them harsh challenges on the employment side, taking into account Europe's high and prolonged unemployment rates.

Figure 2
Production consolidation in North America (% use of installed capacity, 2000 index=100)



Source: BBVA Research with data from HIS

In North America, and even though the restructuring was painful, sales and earnings have recovered. Installed capacity occupation is at high levels, even higher than before the crisis (see Figure 2).

In emerging countries such as China, India and Brazil, production and sales have increased in the last six years due to demand from the growing middle class in these countries. China outperformed developed countries, among them the US and Japan, becoming the biggest producer of passenger vehicles, at over 22 million in 2013.

In Mexico, production is increasing apace; in six years it has grown by over 50%. Japanese and US manufacturers have increased their production capacity in Mexico because of its location, trade agreements and skilled labour force, particularly in the case of Japan because of the continued appreciation of the yen.

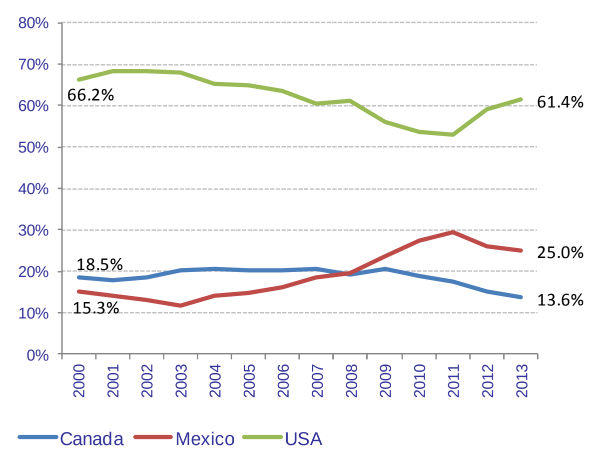
Geographical diversification on the part of automotive vehicle exporters will be a crucial part of their consolidation.

The main vehicle producers in emerging countries such as China, Korea, India, Brazil, Mexico and Thailand contributed with 45% to global production in 2013 vs. 26% in 2007 (see Table 1).

The industry which gained most from NAFTA in Mexico was the automotive sector

Car production capacity has grown continuously in Mexico since 2005, apart from a small setback resulting from the 2008-09 recession (see Figure 3). By contrast, between 2005 and 2013 the US and Canada's combined car manufacturing capacity fell by 12%. Bearing in mind these two opposing trends, it comes as no surprise that Mexico's share of all the small vehicles produced in North America was 25% in 2013, higher than Canada's share (13.6%). By comparison, in 1990 only 6% of all light vehicles produced in North America were made in Mexico.

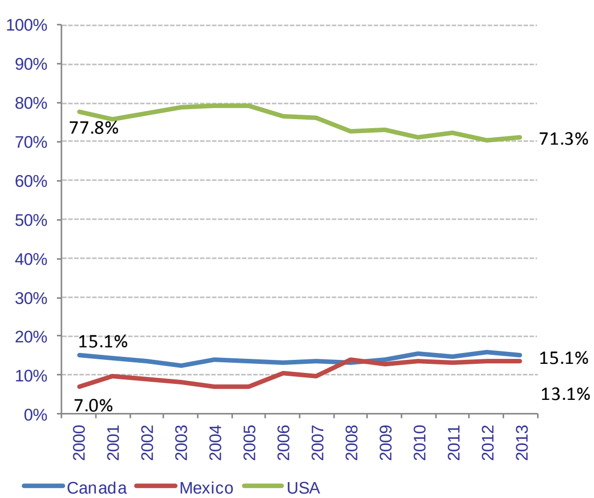
Figure 3
Regional production of light vehicles: NAFTA (% share, units)



Source: BBVA Research with data from Bloomberg

Mexico wins in heavy trucks too, rising from 7% in 2005 to 13.6% in 2013. Canada remains stable, but the US's contribution has fallen by over 6pp (see Figure 4).

Figure 4
Regional production of heavy vehicles: NAFTA (% share, units)



Source: BBVA Research with data from Bloomberg

Production relocation to emerging regions is driven by cost, economies of scale, productivity, availability of key parts and, of course, by global demand.

To take advantage of the growing population in emerging markets, equipment manufacturers will continue to move more of their production so as to be closer to their biggest source of new customers.

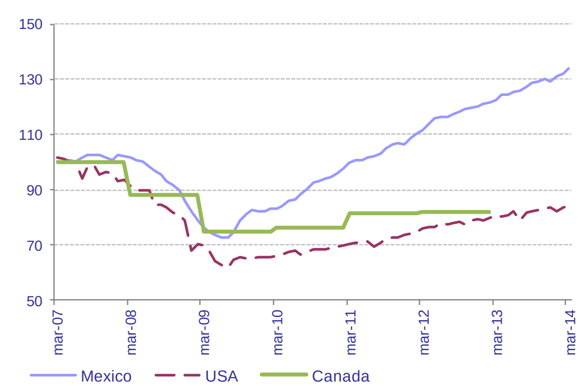
Table 2
Labour costs in manufacturing, 2012

Country	(US$/Hour)
Germany	45.79
France	39.81
USA/Canada	36.13
Japan	35.34
Italy	34.18
United Kingdom	31.23
Spain	26.83
South Korea	20.72
Brazil	11.20
Mexico	6.36

Source: BBVA Research with data from US BLS, International Labor Comparisons, August 2013

Mexico's lower labour costs are putting pressure on US production and, particularly, on Canada (see Table 2). Mexico has increased car manufacturing significantly and, with that, employment.

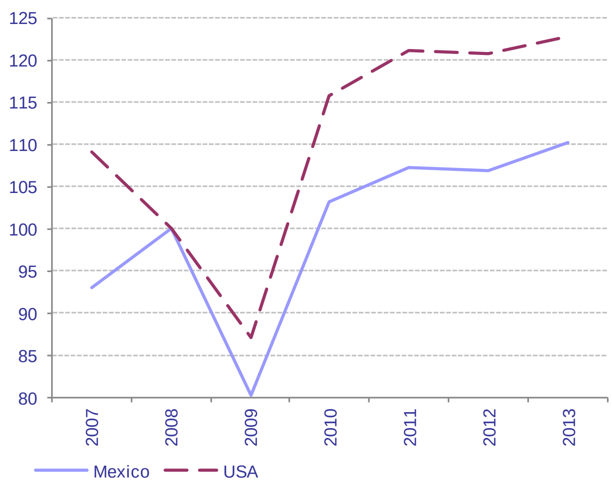
Figure 5
Personnel employed in the car industry, NAFTA (January 2014 index=100)



Source: BBVA Research with data from INEGI, BLS and Statistics Canada

Although more and more jobs are being automated in the automotive industry, Mexico succeeded in creating 303,000 jobs from the lowest point of the crisis (in June 2009 there were 360,000 people employed) to now (662,000 employees in March 2014). Over the same period, in the US only 220,000 jobs were created (rising from 631,000 to 850,000). In terms of the pre-crisis levels, Mexico has outperformed them by 34% while the US is still 15.6% below these levels. 40% of employment in the car industry in the free trade area is currently accounted for by Mexico (see Figure 5).

Figure 6
Labour productivity in light vehicles: Mexico vs. USA (2008 index=100)

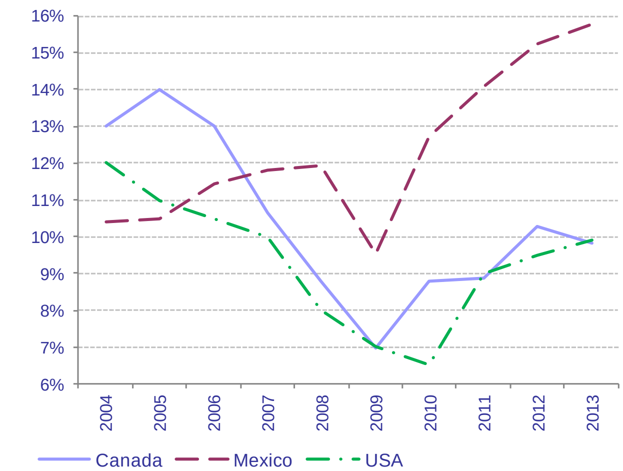


Source: BBVA Research with data from BLS and INEGI

Despite the progress made in employment in the car industry in Mexico, the wage gap is still considerable when compared with the USA and Canada. Progress made by Mexico in productivity will enable that gap to narrow in the medium term (see Figure 6).

In Mexico, the importance of the car industry has increased by more than 50% since the crisis and has nearly doubled since the beginning of the NAFTA. Production in the country's car industry (assembly and spare parts) has risen at an annual rate of nearly 6% since NAFTA came into force. Since the 2008-09 crisis, the automotive sector has grown by over 8% on an annual basis (see Figure 7).

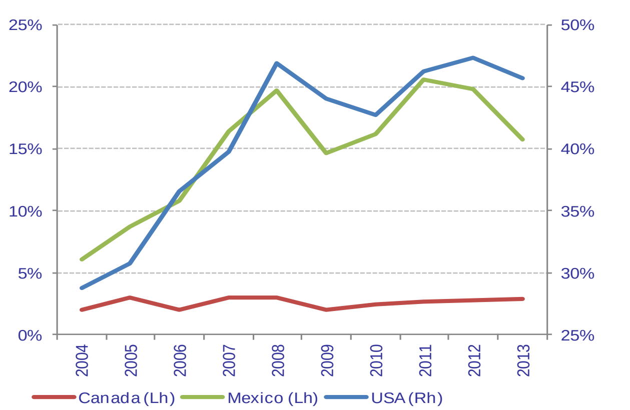
Figure 7
Importance of the car industry in manufacturing (% share)



Source: BBVA Research with data from SIAVI, ITC EUA

Mexico has also raised its contribution as a high export industry beyond the NAFTA area. The US remains the key destination for light vehicles, trucks and parts produced in Mexico. This has turned it into a low-cost production base from which it exports to all over the world. Over half of the cars produced in Mexico are sent to North America, but exports to other countries are growing, although at a slower rate than exports to the US.

Figure 8
Automotive industry exports to non-NAFTA countries (share % of total, USD)



Source: BBVA Research with data from SIAVI, ITC EUA

Mexican exports to the rest of the world represent between 15% and 20% of total car exports. This is in contrast with the Canadian car industry, which is strongly concentrated on the US market (see Figure 8).

According to WardsAuto forecasts, in the coming years Mexico will take over most of the additional car production capacity in North America projected for the area. In total, North America's car manufacturing capacity is forecast to increase by about 4.4% between 2013 and 2018. In Mexico, an increase of more than 25% in production capacity is foreseen, which could be feasible if we consider in-port production and the investments that might be made this year: by two South Korean firms and one German premium vehicle manufacturer.

Table 3
New automotive plants in Mexico

Location of plant	Maximum capacity (units)	Opeening date	Investment (mills. of dlls.)
Aguascalientes	600,000	2013	2,928
Salamanca Gto.	140,000	2014	1,250
Celaya Gto.	200,000	2014	650
San José Chiapa Pue.	150,000	2016	2,000

Source: BBVA Research using journalistic sources

Summary

Two decades have passed since the formation of one of the trade blocks with the biggest trade reach and global projection for each of its members, especially for Mexico. NAFTA has consolidated the automotive sector, and Mexico is the country which has benefited the most.

It is not just the lower labour costs which are driving up production; it is also the proximity to the US and the supply chain which both countries have developed, as well as the trade treaties.

The challenges for Mexico are to continue to raise its competitiveness in order to achieve higher market share in the US. This is feasible, in view of the new installed capacity which it is said may enter Mexico. Likewise, it will need to focus on achieving greater diversification.

We need to initiate a simple, transparent and user-friendly regulatory framework for investors, to adopt measures which facilitate the completion of red tape and efficiency in all productive processes. As long as Mexico makes it easier for domestic and foreign companies to operate, with simple requirements and few bureaucratic procedures, the likelihood of car and spare parts companies deciding to expand their operations in Mexico will increase.

The domestic and international supply chain for manufacturing premium vehicles involves a number of challenges (high technological standards, efficiency, design and safety) and ought to convince the outside world that quality can be supplied from Mexico.

We need to increase and nurture Mexico's market share in China. Up until 2013, vehicle exports to this country represented 66,000 units, equivalent to USD1.4bn (about 60% more than in 2012). In the first five months of 2014 exports to China grew at an annual rate of 40%.

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