

## 2. Sector and regional analysis

### 2.a Best-performing services

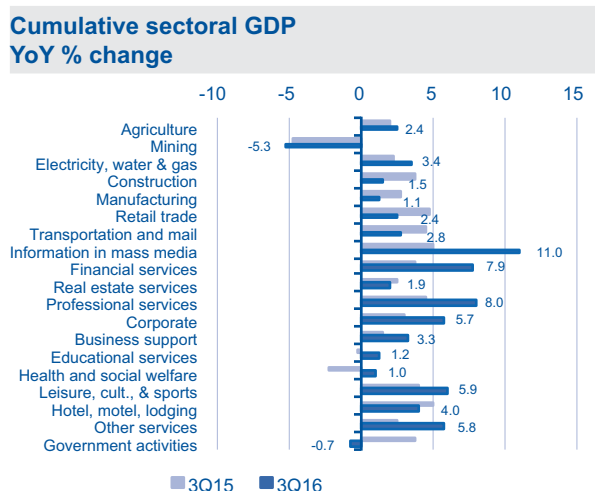
Until the third quarter of 2016, tertiary activities were more dynamic than the rest of the economy. Except for mining, all sectors continue to grow, although construction is on the border of negative and positive growth. Export sectors are already suffering the effect of lower international demand. In contrast, employment continues to grow, as does bank credit. The aggregate result is a slower deceleration in the sectors of greater weight.

#### Slowdown in key sectors, but credit is growing

**On average, bank credit is growing by more than 15% per sector**

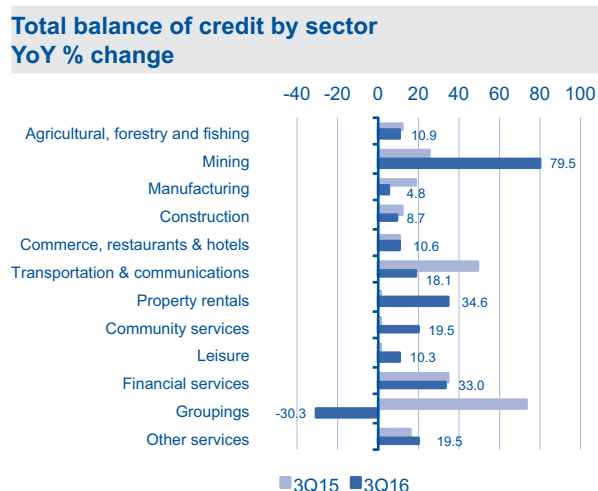
Five sectors account for 60% of Mexico's GDP, namely Manufacturing, Trade, Real Estate Services, Construction and Mining. All these sectors decelerated compared with the previous year, and mining activity fell even more steeply. The counterweight comes mainly from the service and agricultural sectors which are improving this year. The mass media information sector is accelerating thanks to the good performance of Telecommunications as a result of the reform in the sector and its application by the regulator; this is probably the reform that shows the most evident results. Another is the sector of financial and insurance services, in part because of a substantial increase in lending at higher rates than the growth of the economy. The credit balance in practically all sectors is growing on average at above 15%.

Figure 2a.1



Source: BBVA Research based on data from SCNM (National Accounts System) and INEGI (National Statistics and Geographical Institute)

Figure 2a.2



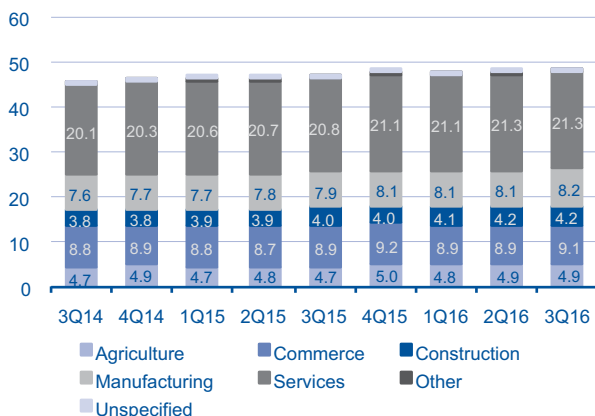
Source: BBVA Research based on Bank of Mexico data

Based on information from the National Survey of Occupation and Employment (ENOE), the number of paid employed persons progresses in all sectors, according to the classification of the INEGI survey. In Construction and Manufacturing, paid employment exceeds the national average, although the slowdown has affected both of them. The demand for labour in the agricultural sector maintains last year's uptrend, but only employs 5

million people. Even with these dynamics, the greatest number of workers are concentrated in Trade and Service occupations.

Figure 2a.3

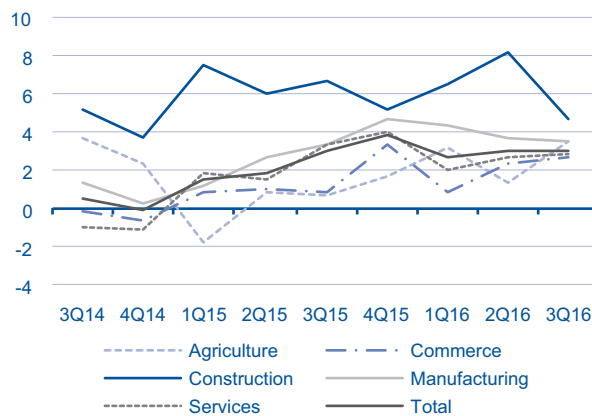
### Paid employment by industry Millions of workers



Source: BBVA Research based on data from ENOE, INEGI

Figure 2a.4

### Paid employment by industry YoY % change



Source: BBVA Research based on data from ENOE, INEGI

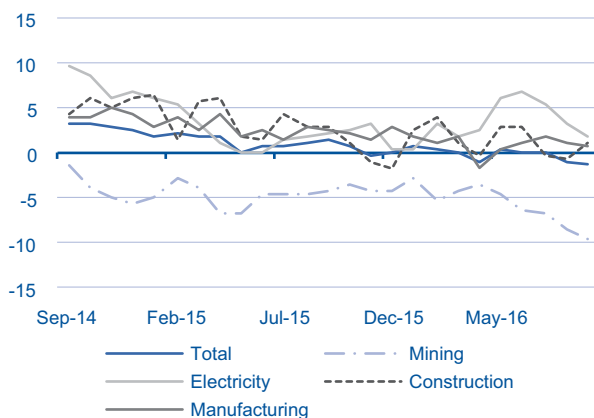
## Mass media information production prices decreased 4.5%

Of the five sectors with the highest contribution to the economy, industrial activity has slowed in three since last year. Overall, industrial activity has slowed since 2014, when growth rates were at around 3%, to around zero in 2016. Mining has performed negatively over the review period.

While the greatest and most recent effect is attributed to the production of

hydrocarbons, it is also true that other minerals have performed similarly. This is the case of metals and steel minerals, non-metallic minerals have decreased their production steadily throughout the year. Construction and Manufacturing have followed a similar path. With ups and downs both industries are exhibiting slower growth, Construction to a greater extent than Manufacturing. In the former, we attribute the slower pace of construction and the lack of progress of civil works to the continued cuts in infrastructure spending. In the case of manufacturing, we see that the demand for products in the international market is growing at a slower pace, largely explained by lower industrial activity in the United States, the main buyer of these exports. Moreover, an adjustment of consumption in the domestic market also affects the demand for manufactured goods traded within the country. On the other hand, industrial activity in electricity continues at high rates and with an uncharacteristic rebound trend half way through this year; however its lesser importance cannot compensate for the other components.

Figure 2a.5

**Industrial activity  
YoY % change**

Source: BBVA Research based on data from the INEGI

Table 2a.1

**National Producer Price Index  
% Change 3Q15 to 3Q16**

Nº	Code	Sector	Inflation
1	11	Farming	11.1
2	21	Mining	15.1
3	22	Electricity, water and gas	6.9
4	23	Construction	6.9
5	31-33	Manufacturing	8.0
6	48-49	Transport and postal services	3.3
7	51	Mass media	-4.5
8	53	Real estate services	2.8
9	54	Professional services	3.8
10	56	Business support	4.2
11	61	Educational services	4.3
12	62	Health and welfare	3.8
13	71	Leisure, culture and sport	3.5
14	72	Temporary accommodation	4.9
15	81	Other services	3.3

Source: BBVA Research based on data from the INEGI

The aforementioned lower activity in the mining sector may be related to the fact that it is where producer prices have increased most. From the third quarter of 2015 to that of 2016, producer prices in the Mining sector have increased by 15.1%, followed by the Agricultural sector, in which they grew by 11.1% in the same period. Other sectors with above-average increases in prices are Manufacturing with 8.0%, followed by Electricity and Construction with 6.9%. Only the sector of mass media information had deflationary prices of 4.5% in that period. The latter can be attributed to decreased rates of telecommunications services resulting from the reform and its implementation.<sup>1</sup> An increase in producer prices above the general inflation could indicate pressure on prices faced by consumers. The sectors facing this pressure most are primary and secondary activities.

## Manufacturing, the main export sector and most important in the economy

The manufacturing sector contributes just over 17% of total GDP in Mexico. It also accounts for 90% of the value of total exports. This activity employs over 8 million paid workers. Manufacturing is the most important economic activity in several states, serving either the domestic market or foreign sales.<sup>2</sup> It continues to be important, despite the aforementioned slowdown.

### Manufacturing accounts for 90% of exports

When comparing cumulated GDP for the third quarter of 2016 against the same period of 2015, we see that the manufacturing sector is growing at a rate of 1.2% against the 2.7% of the previous year. As mentioned, the slower growth has partly been caused by lower exports. The Mexican manufacturing cycle remains closely linked to the US manufacturing sector, which has also slowed. Part of the explanation is lower overall US exports, meaning that the US requires fewer goods manufactured in Mexico. Cumulative Mexican exports for the third quarter of 2016 decreased compared to the same period last year, and among them manufacturing accounts for 90% of the total. While a significant portion of manufactured goods are exported, the domestic market continues to impact on this type of production. For example, the food industry, beverages and various textile products depend on domestic consumer demand. In addition to this,

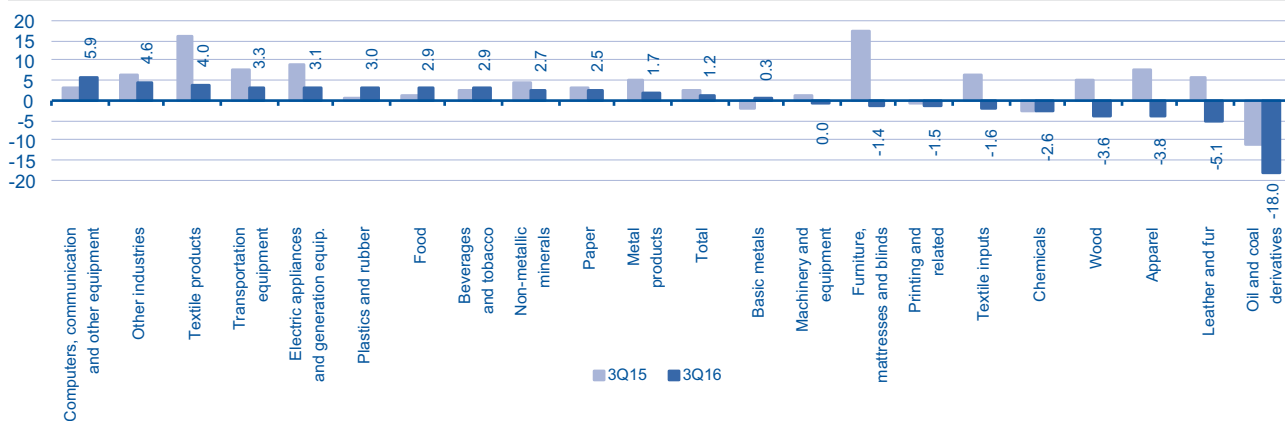
1: See "asymmetric regulation of telecommunications sector in Mexico," in this issue of *Mexico Regional Sectorial Outlook*. Second half 2016.

2: See "Some entities with high dependence on manufacturing exports," in this issue of *Mexico Regional Sectorial Outlook*. Second half 2016.

part of the production in sectors such as Mining, Construction and in Manufacturing itself require manufactured products from industries such as that of timber, petroleum products and coal, chemical, plastic and rubber products and non-metallic minerals and basic metal sectors. For example, fewer construction or infrastructure projects will reduce the demand for these articles.

Figure 2a.6

### Manufacturing Gross Domestic Product YoY % Change 3Q15 to 3Q16



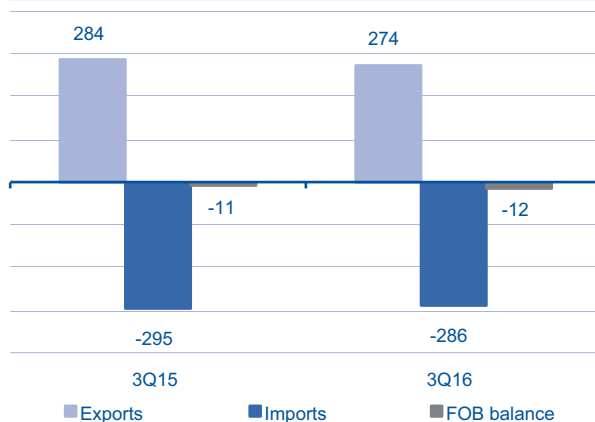
Source: BBVA Research based on data from the INEGI

The food manufacturing industry and transport equipment manufacturing account for nearly 40% of the sector's output. During the analysis period, both grew above the sector. First, we see the manufacture of computer and communications equipment is among the few activities that grew faster than the previous year. Out of the most important export industries, the latter, along with electrical equipment and transport equipment, continue to show above average results. Other industries that increased growth were the manufacture of plastic and rubber, going from 0.9% to 3.0% partly explained by the demand for auto parts; the food industry, which increased from 1.0% to 2.9% and beverages and tobacco which increased its rate from 2.4% to 2.9%. All in all, we estimate that 2016 will close with this trend.

Figure 2a.7

## Balance of trade

Billions of dollars

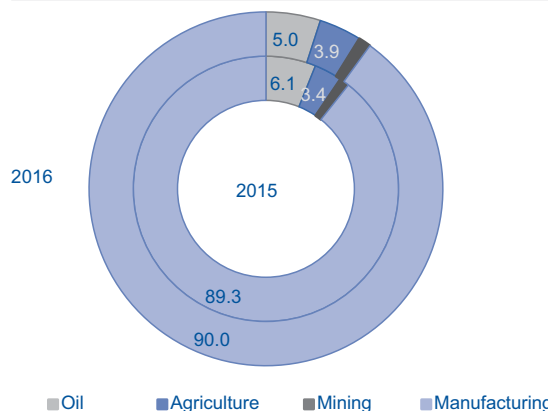


Source: BBVA Research based on data from the INEGI

Figure 2a.8

## Mexican exports

Share %



Source: BBVA Research based on data from the INEGI

In the short term, foreign trade will continue to influence the manufacturing sector a great deal. Lower global demand, mainly from the US market, could further slow manufacturing. Internationally earned income from such production may not be offset by other exports. This income would not be replaced even if oil prices recovered. However, the end of 2016 will be positive. Next year, Manufacturing could accelerate again thanks to a greater diversification of the production of transport equipment and textiles.

## Services above the secondary sector at the end of 2016

We believe that the good performance of the services sector will continue at year end and into 2017. Telecommunications and financial services will contribute most to the growth of the economy. This step could be maintained for the next year thanks to the investments planned for next year in both sectors. One characteristic of these types of services is the increased competition among its players. In the first case, it is a result of the 2014 reform and its implementation by the sector regulator. In the second, it is caused by the appetite of banks to gain greater market share and the entry of new players with credit and financing different from those offered by banks. The dynamics of some other services have also been positive, but slower. In contrast, sectors such as construction and mining could continue unfavourably as a result of budget cuts and low activity in hydrocarbons. If employment continues to grow, trade could recover as consumption increases; but also this depends on consumer confidence. If the domestic market strengthens, not only might trade improve but the manufacture of some products would be boosted.

## 2.b Sectoral outlook

Table 2b.1

**Mexico, Indicators and sectorial forecasts, production base 2008=100, sa**

	Annual % change											
	2014	2015	2016	2017	1Q15	2Q15	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16
<b>Total GDP</b>	2.3	2.6	1.8	2.2	2.8	2.6	2.7	2.5	2.3	1.5	2.0	1.5
Primary	4.4	1.6	2.0	-0.1	5.0	0.8	-0.2	0.7	-1.0	3.2	4.8	1.0
Secondary	2.7	1.0	0.0	1.5	1.9	0.8	1.1	0.1	1.4	-0.5	-0.9	0.1
Mining	-1.3	-4.5	-5.3	-2.8	-3.9	-6.2	-4.2	-3.5	-3.4	-4.7	-7.4	-5.6
Electricity, water, and supply of gas	8.2	2.3	3.4	4.5	5.0	0.3	1.8	2.0	1.2	5.7	3.4	3.3
Construction	1.9	2.6	1.4	2.6	4.8	3.1	3.2	-0.6	3.2	1.3	-0.1	1.1
Manufacturing	4.2	2.4	0.7	2.1	3.5	2.3	2.5	1.1	1.0	0.5	0.6	0.6
<b>Tertiary</b>	1.8	3.5	2.9	2.7	3.1	3.6	3.6	3.7	3.4	2.6	3.3	2.3
Retail trade	3.1	4.7	1.5	2.7	6.1	3.7	5.0	4.1	2.5	1.5	1.2	0.8
Transportation, mail and storage	3.1	4.3	2.4	2.1	4.4	4.0	5.0	4.0	1.8	2.3	2.7	2.9
Information in mass media	0.2	7.7	9.2	4.5	3.2	3.1	8.8	15.7	10.2	9.8	13.3	4.1
Insurance and financial services	-0.8	4.3	7.7	7.6	1.9	3.2	5.9	6.2	7.9	7.7	7.9	7.5
Real estate and leasing services	2.1	2.5	1.8	2.6	1.9	3.3	2.4	2.3	2.1	1.6	1.8	1.5
Prof., scientific, and technical serv.	1.3	4.5	7.1	0.9	3.3	7.2	3.5	4.2	6.8	6.8	11.9	3.0
Corporate and company leadership	7.1	3.3	6.0	3.4	-0.7	2.8	5.8	5.5	6.0	5.0	5.7	7.2
Business support serv.	-0.1	1.2	3.0	2.6	2.3	0.4	1.1	1.1	3.3	3.5	2.6	2.5
Educational services	0.1	0.0	1.1	0.4	-0.3	0.0	-0.5	0.8	0.9	1.5	1.4	0.7
Health and social welfare services	-0.6	-2.3	1.3	1.9	-1.7	-2.4	-3.0	-2.2	-1.0	1.7	2.3	2.2
Leisure and relaxation, cult., & sports serv.	-1.4	3.9	5.7	1.6	3.3	5.3	3.5	3.3	1.9	4.4	10.0	6.3
Hotel, motel, lodging & prep. of food & bev.	2.9	5.8	3.7	0.9	3.5	4.9	6.9	7.7	6.0	3.2	2.8	3.0
Other serv. except gov't activities	1.6	2.7	5.1	1.3	3.8	2.6	1.3	3.1	5.3	6.2	6.1	2.8
Government activities	1.9	2.7	-0.2	1.3	5.7	4.7	0.7	-0.3	-3.1	-0.6	1.7	1.2
	Share, %				Contribution to growth, pp							
	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017
<b>Total GDP</b>	100.0	100.0	100.0	100.0	2.3	2.6	1.8	2.2				
Primary	3.1	3.1	3.1	3.0	0.1	0.0	0.1	0.0				
Secondary	33.8	33.2	32.6	32.6	0.9	0.3	0.0	0.5				
Mining	7.3	6.8	6.3	6.0	-0.1	-0.3	-0.4	-0.2				
Electricity, water, and supply of gas	2.3	2.3	2.3	2.5	0.2	0.1	0.1	0.1				
Construction	7.3	7.3	7.3	7.4	0.1	0.2	0.1	0.2				
Manufacturing	16.8	16.8	16.6	16.7	0.7	0.4	0.1	0.4				
<b>Tertiary</b>	60.5	61.0	61.6	61.8	1.1	2.1	1.8	1.6				
Retail trade	15.4	15.7	15.7	15.8	0.5	0.7	0.2	0.4				
Transportation, mail and storage	5.8	5.9	5.9	5.8	0.2	0.3	0.1	0.1				
Information in mass media	3.3	3.5	3.7	3.8	0.0	0.3	0.3	0.2				
Insurance and financial services	4.5	4.6	4.8	4.9	0.0	0.2	0.4	0.4				
Real estate and leasing services	11.9	11.9	11.8	11.9	0.2	0.3	0.2	0.3				
Prof., scientific, and technical serv.	2.2	2.2	2.3	2.2	0.0	0.1	0.2	0.0				
Corporate and company leadership	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0				
Business support serv.	3.1	3.1	3.1	3.1	0.0	0.0	0.1	0.1				
Educational services	3.6	3.5	3.5	3.5	0.0	0.0	0.0	0.0				
Health and social welfare services	1.9	1.8	1.8	1.9	0.0	0.0	0.0	0.0				
Leisure and relaxation, cult., & sports serv.	0.4	0.4	0.5	0.4	0.0	0.0	0.0	0.0				
Hotel, motel, lodging & prep. of food & bev.	2.1	2.1	2.2	2.1	0.1	0.1	0.1	0.0				
Other serv. except gov't activities	2.0	2.0	2.1	2.1	0.0	0.1	0.1	0.0				
Government activities	3.6	3.6	3.5	3.5	0.1	0.1	0.0	0.0				

Note: forecasts appear in boldface. All figures are subject to review by the Institute.

sa: Seasonally adjusted; pp: Percentage points

Source: BBVA Research with INEGI data

Table 2b.2

**Mexico: Indicators and sectorial forecasts, manufacturing production base 2008=100, sa**

	Annual % change											
	2014	2015	2016	2017	1Q15	2Q15	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16
<b>Total</b>	4.2	2.4	<b>0.7</b>	<b>2.1</b>	3.5	2.3	2.5	1.1	1.0	0.5	0.6	<b>0.6</b>
Food	0.6	1.6	<b>2.1</b>	<b>1.2</b>	1.6	0.8	1.8	2.1	1.0	3.2	2.9	<b>1.5</b>
Beverages and tobacco	3.0	5.6	<b>4.9</b>	<b>3.2</b>	4.0	2.5	6.5	9.5	7.5	7.8	2.7	<b>2.0</b>
Textile inputs	-1.8	3.7	<b>0.0</b>	<b>0.5</b>	-1.9	6.3	7.1	3.5	1.7	-0.1	-1.7	<b>0.4</b>
Production of textile products	6.8	9.7	<b>4.1</b>	<b>6.4</b>	4.7	14.9	13.2	6.1	1.9	2.5	4.2	<b>7.5</b>
Apparel	-2.6	6.8	<b>-0.7</b>	<b>1.2</b>	-1.7	7.9	8.5	13.0	2.6	1.9	-3.8	<b>-3.1</b>
Leather and fur products	-1.7	2.0	<b>-2.3</b>	<b>-0.7</b>	0.4	5.6	-0.5	2.6	2.0	-0.8	-5.1	<b>-5.1</b>
Lumber industry	1.0	3.2	<b>-5.0</b>	<b>3.0</b>	6.9	5.0	0.8	0.3	-7.5	-5.8	-3.4	<b>-3.4</b>
Paper industry	3.1	3.7	<b>3.7</b>	<b>3.4</b>	5.1	3.3	4.8	1.9	3.6	5.0	2.6	<b>3.6</b>
Printing and related industry	-2.9	1.7	<b>-2.7</b>	<b>4.5</b>	3.5	-1.0	1.7	2.7	-4.2	-0.1	-1.3	<b>-5.0</b>
Oil products	-4.5	-7.4	<b>-8.9</b>	<b>-3.6</b>	-7.8	-11.3	-8.4	-1.7	1.0	-4.6	-18.2	<b>-13.5</b>
Chemicals	-1.3	-2.7	<b>-2.2</b>	<b>-0.5</b>	-3.6	-1.8	-3.2	-2.3	-1.6	-2.3	-2.8	<b>-2.2</b>
Plastic and rubber products	6.5	2.3	<b>3.3</b>	<b>3.2</b>	4.3	0.8	2.3	2.1	3.2	4.9	3.1	<b>2.0</b>
Non-metal mineral products	2.7	4.6	<b>3.2</b>	<b>2.2</b>	3.9	4.5	6.8	3.4	1.7	4.6	2.7	<b>3.9</b>
Basic metal products	8.5	-3.6	<b>0.8</b>	<b>1.9</b>	-6.6	-1.7	1.9	-7.6	-2.5	1.3	0.2	<b>4.3</b>
Metallic products	7.8	3.2	<b>2.4</b>	<b>0.8</b>	6.2	5.1	0.5	1.3	4.7	1.2	1.7	<b>1.8</b>
Machinery and equipment	1.6	0.1	<b>2.1</b>	<b>1.0</b>	0.9	1.0	-1.5	0.0	5.3	3.0	0.3	<b>-0.2</b>
Computers and electronics	11.0	6.2	<b>5.4</b>	<b>1.7</b>	12.6	3.7	4.7	4.4	6.1	8.5	5.7	<b>1.4</b>
Electrical equipment	8.8	5.8	<b>2.6</b>	<b>1.7</b>	7.0	8.9	4.8	2.8	2.4	2.7	3.2	<b>2.2</b>
Transportation and equipment	12.3	7.2	<b>-0.3</b>	<b>5.9</b>	11.2	7.6	5.6	4.6	-3.0	-2.1	3.4	<b>0.2</b>
Furniture and related products	-2.2	8.5	<b>0.5</b>	<b>2.7</b>	10.5	16.9	11.9	-3.9	-3.3	0.4	-1.0	<b>6.2</b>
Other manufacturing industry	6.4	4.7	<b>4.4</b>	<b>-0.7</b>	5.4	6.1	5.1	2.5	4.3	4.2	4.7	<b>4.3</b>

	Share, %				Contribution to growth, pp			
	2014	2015	2016	2017	2014	2015	2016	2017
<b>Total</b>	100.0	100.0	<b>100.0</b>	<b>100.0</b>	4.2	2.4	<b>0.7</b>	<b>2.1</b>
Food	21.0	20.9	<b>21.2</b>	<b>20.9</b>	0.1	0.3	<b>0.4</b>	<b>0.3</b>
Beverages and tobacco	5.0	5.1	<b>5.3</b>	<b>5.4</b>	0.2	0.3	<b>0.3</b>	<b>0.2</b>
Textile inputs	0.7	0.7	<b>0.7</b>	<b>0.7</b>	0.0	0.0	<b>0.0</b>	<b>0.0</b>
Production of textile products	0.6	0.6	<b>0.6</b>	<b>0.6</b>	0.0	0.1	<b>0.0</b>	<b>0.0</b>
Apparel	2.3	2.4	<b>2.4</b>	<b>2.4</b>	-0.1	0.2	<b>0.0</b>	<b>0.0</b>
Leather and fur products	0.8	0.8	<b>0.7</b>	<b>0.7</b>	0.0	0.0	<b>0.0</b>	<b>0.0</b>
Lumber industry	1.0	1.0	<b>0.9</b>	<b>0.9</b>	0.0	0.0	<b>0.0</b>	<b>0.0</b>
Paper industry	2.0	2.0	<b>2.1</b>	<b>2.1</b>	0.1	0.1	<b>0.1</b>	<b>0.1</b>
Printing and related industry	0.7	0.7	<b>0.6</b>	<b>0.6</b>	0.0	0.0	<b>0.0</b>	<b>0.0</b>
Oil products	3.4	3.0	<b>2.7</b>	<b>2.7</b>	-0.2	-0.2	<b>-0.3</b>	<b>-0.1</b>
Chemicals	11.1	10.5	<b>10.2</b>	<b>10.1</b>	-0.1	-0.3	<b>-0.2</b>	<b>-0.1</b>
Plastic and rubber products	3.0	3.0	<b>3.0</b>	<b>3.2</b>	0.2	0.1	<b>0.1</b>	<b>0.1</b>
Non-metal mineral products	4.9	5.0	<b>5.1</b>	<b>5.1</b>	0.1	0.2	<b>0.2</b>	<b>0.1</b>
Basic metal products	7.1	6.7	<b>6.7</b>	<b>6.7</b>	0.6	-0.3	<b>0.1</b>	<b>0.1</b>
Metallic products	3.3	3.3	<b>3.4</b>	<b>3.4</b>	0.2	0.1	<b>0.1</b>	<b>0.0</b>
Machinery and equipment	4.1	4.0	<b>4.0</b>	<b>4.1</b>	0.1	0.0	<b>0.1</b>	<b>0.0</b>
Computers and electronics	4.4	4.6	<b>4.8</b>	<b>4.8</b>	0.5	0.3	<b>0.2</b>	<b>0.1</b>
Electrical equipment	3.0	3.1	<b>3.1</b>	<b>3.1</b>	0.3	0.2	<b>0.1</b>	<b>0.1</b>
Transportation and equipment	18.3	19.2	<b>19.0</b>	<b>19.3</b>	2.1	1.3	<b>-0.1</b>	<b>1.1</b>
Furniture and related products	1.1	1.2	<b>1.2</b>	<b>1.2</b>	0.0	0.1	<b>0.0</b>	<b>0.0</b>
Other manufacturing industry	2.2	2.2	<b>2.3</b>	<b>2.2</b>	0.1	0.1	<b>0.1</b>	<b>0.0</b>

Note: forecasts appear in boldface. All figures are subject to review by the Institute.

sa: Seasonally-adjusted; pp: Percentage points

Source: BBVA Research with INEGI data

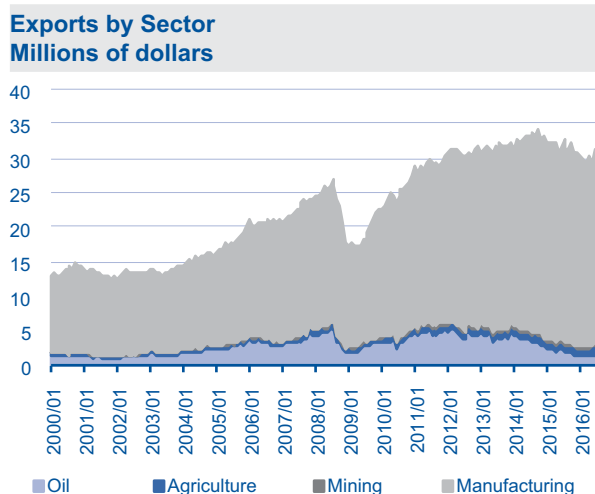


## 2.c Some entities with a high dependence on manufacturing exports

### Manufacturing exports: dynamics and determinants

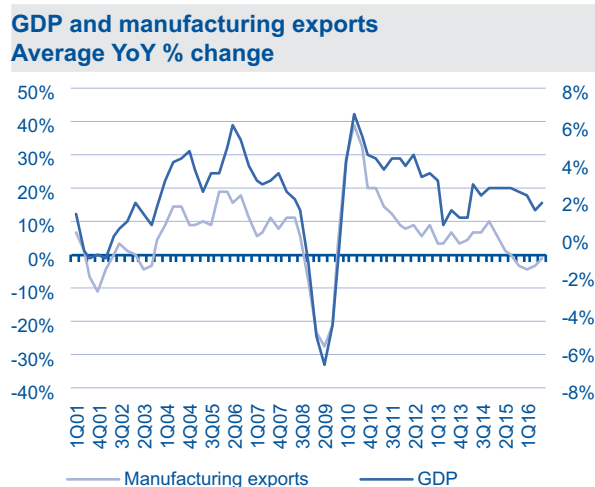
Mexico's manufacturing exports, which represent about 90% of the total, have been immersed in a sustained slowdown since 2011 and showed four consecutive quarters of negative growth to the third quarter of 2016. The manufacturing sector is one of the most important in the Mexican economy with a share of close to 17% of the national GDP and just over 8 million 400 thousand jobs, 16.3% of total employment in the third quarter of 2016. External demand is one of the main determinants to the dynamics of the sector; according to data from the Materials-Product Matrix of 2012 about 30% of manufacturing output is destined for the foreign market.

Figure 2c.1



Source: BBVA Research based on INEGI (national statistics institute) data

Figure 2c.2

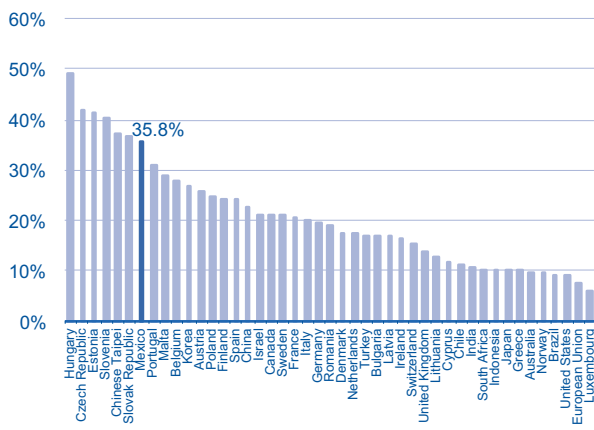


Source: BBVA Research based on INEGI (national statistics institute) data

The high dependence on the US market and that country's manufacturing cycle, the low diversification of export products (given the high specialization in production of light cars), and the high import content of exports are some of the structural elements that explain the performance of manufacturing exports. According to OECD data, more than 46% of the value of Mexico's manufacturing exports depends on manufactured imports. In the case of high and upper-middle technology manufacturing, such as computer equipment and information and communication technology, the import content exceeds 70% of the value of exports. Given these structural characteristics of the sector, elements such as the economic slowdown of the United States of America (USA), the change in car consumption patterns of US consumers and the high appreciation of the currency all reduce foreign demand for manufactured exports on which some of the states depend. Manufacturing exports will recover as the US economy grows, its global exports grow and the current game rules of international trade are maintained.

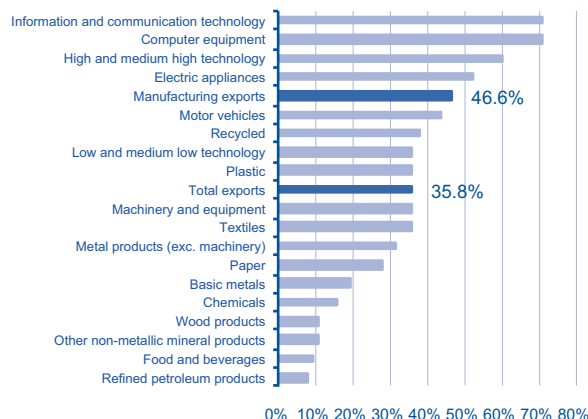


Figure 2c.3

**Content of manufactured imports in total exports, 2012  
(% of export value)**

Source: BBVA Research based on data from the OECD

Figure 2c.4

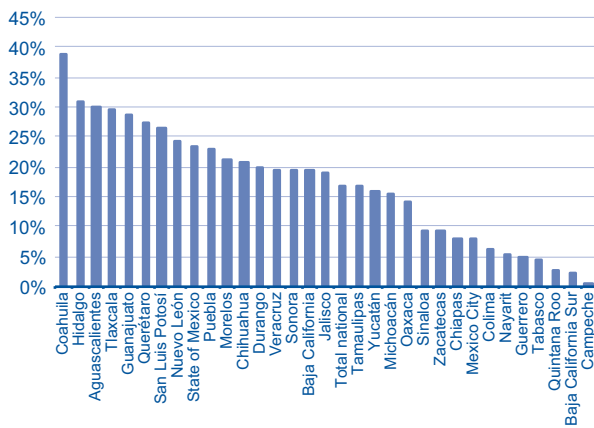
**Content of manufactured imports in manufactured exports, 2012  
(% of export value)**

Source: BBVA Research based on data from the OECD

## State dependence on manufacturing exports

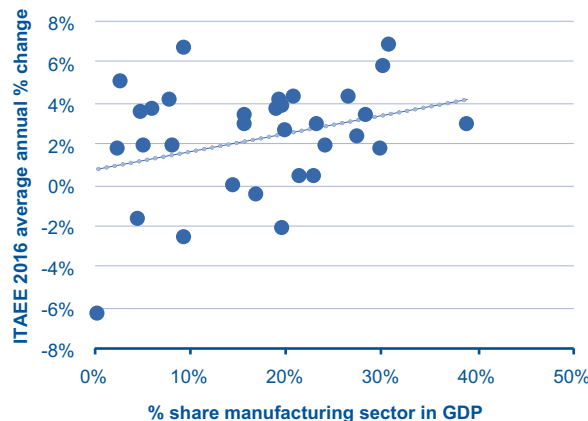
States with a high dependence on manufacturing such as Coahuila, Hidalgo and Aguascalientes whose share in the sector is greater than 30% of their GDP. Generally, there is a positive relationship between manufacturing and growth of states. Those states with a higher share of the manufacturing sector between 2010 and 2014 in their GDP show greater Quarterly State Economic Activity Indicator (ITAE) growth rates during the first half of 2016.

Figure 2c.5

**Manufacturing sector in the state GDP, 2014  
(Share %)**

Source: BBVA Research based on data from the INEGI

Figure 2c.6

**ITAE Growth 2016 vs. manufacturing GDP  
(Share 2010-14 % average & average YoY % change)**

Source: BBVA Research based on data from the INEGI

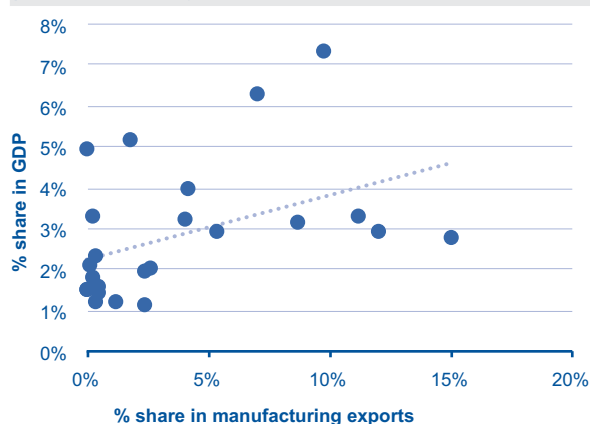
This relationship shows that a more dynamic manufacturing sector is positive for the economy of the states, but it is also evidence that those states most dependent on the sector will be more susceptible to changes in external demand, mainly from the US. Manufacturing exports are highly concentrated in a few companies, about 85% is concentrated in 10 of the country's states. The states of the border region (Chihuahua, Baja California, Coahuila, Nuevo Leon and Tamaulipas) account for about 60% of these exports.

Despite this concentration, states that generally contribute most to manufacturing exports are at the same time those that contribute most to the GDP. Thus, the dynamics of foreign demand not only affect the states that depend most on exports, but also the growth of the overall economy.

Another important element related to the growth potential of states in the long run is the ability to attract investment. During the first half of 2016, states that attracted greater flows of Foreign Direct Investment (FDI) are those with the greatest export potential; that is, those states with the largest share in total manufacturing exports.

Figure 2c.7

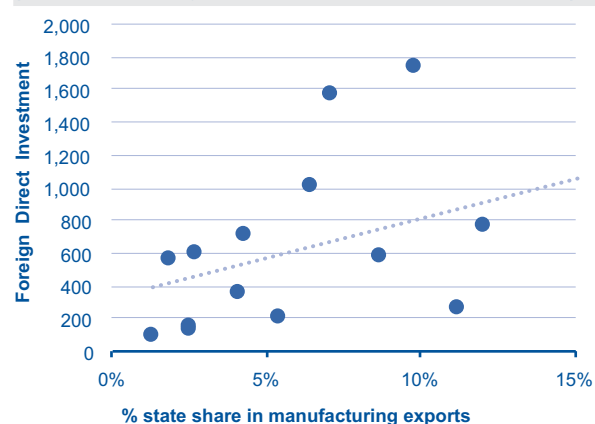
#### State share in manufacturing exports (Share % average 2010-14)



Source: BBVA Research based on data from the INEGI

Figure 2c.8

#### State share in manufacturing exports vs. FDI 2016 (Share % average 2010-14 and millions of dollars)

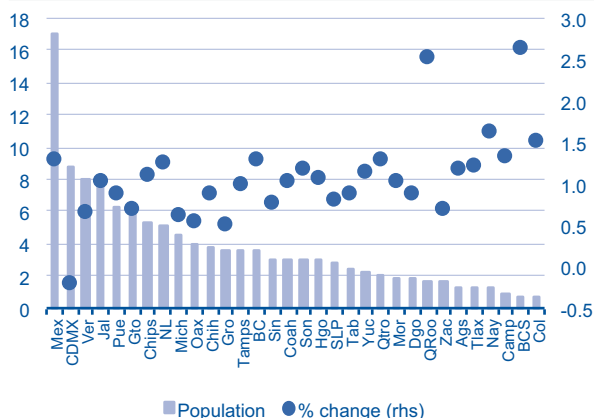


Source: BBVA Research based on data from the INEGI

## Population and employment

Until the third quarter of 2016, the State of Mexico had the largest population and number of paid employees, followed by Mexico City. In population, Veracruz and Jalisco rank third and fourth, but change positions when considering only paid workers. Their business activities position Guanajuato and Nuevo Leon higher in ranking the number of people in paid employment compared to their ranking by population. Thus, the largest markets from the perspective of population are the State of Mexico, Mexico City, Veracruz, Jalisco, Puebla, Guanajuato, Chiapas and Nuevo Leon which account for just over 50% of the total population. But, if we consider only paid workers, we would have to replace Chiapas with Michoacán to have 50% of this group of people in particular.

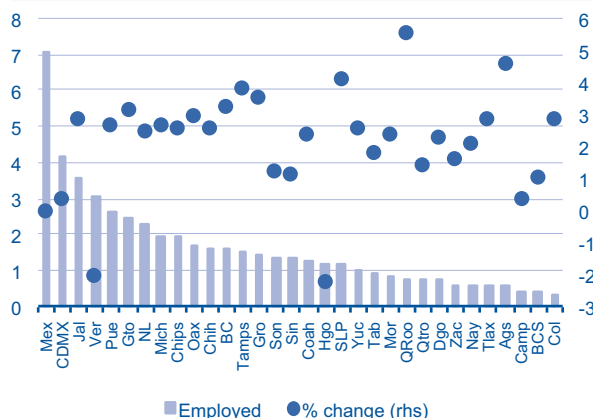
Figure 2c.9

**Average population during 2016**  
**Millions of workers and YoY % change**

Note: Average population from 1Q16 to 3Q16

Source: BBVA Research based on data from ENOE, INEGI

Figure 2c.10

**Average number of workers during 2016**  
**(Millions of workers and YoY % change)**

Note: Average paid workers from 1Q16 to 3Q16

Source: BBVA Research based on data from ENOE, INEGI

Mexico City has the lowest population growth rate. Recognizing that population dynamics are complex, some causes may be less space for housing and therefore the high price of living in this city. On the other hand, Baja California Sur and Quintana Roo are the states with the highest growth. In the first case, this may be because of a base effect, since it is the state with the next smallest population. On the other hand, Quintana Roo may be growing thanks to greater economic opportunity, as it also has the second highest growth in total paid employment. Only the states of Veracruz and Hidalgo show a decrease in the number of paid employees on average during the first three quarters of 2016.

## Growth outlook for the the states in 2016

According to BBVA Research estimates, most federal states will show weak growth during 2016 in line with the slowdown of the Mexican economy explained by factors such as the slowdown in manufacturing exports, rising public debt, falling oil prices, the exchange rate volatility associated with the US elections, among others. In 2015 total GDP grew by 2.5% and the states showing greatest dynamism were Queretaro, Guanajuato and Baja California, growing by over 6.4%. In contrast, the GDP of Tabasco, Guerrero, Chiapas and Campeche fell in 2015, other states such as Veracruz and Michoacan grew, but at rates close to zero.

Only 12 states grew more than in 2015 and of these only seven show a performance that exceeds the previous year's growth by at least one percentage point, according to the latest figures published by INEGI on state GDP growth. Chiapas and Guerrero could start growing at positive rates after the declines of the previous years. In contrast, it is expected that 20 states will grow in 2016 below 2015 levels, and 14 of them will perform less by more than one percentage point. Among these states Campeche and Tabasco could continue to decline sharply due to the effects of falling oil prices and depleting oil reserves on the area's mining activity. Veracruz would shift from limited growth to a fall in GDP in 2016, reflecting not only the effects of the oil industry, but also the public debt problems facing the state.

Table 2c.1

## PIB por entidad federativa

	2013	2014	2015	2016e	2013	2014	2015	2016e	2013	2014	2015	2016e
	Miles de millones de pesos de 2008				Var. % anual				Aportación al crecimiento, pp			
	13,119	13,404	13,743	13,986	1.4	2.2	2.5	1.8	1.4	2.2	2.5	1.8
<b>Total nacional</b>												
Aguascalientes	147	164	170	178	4.2	11.2	3.9	4.7	0.0	0.1	0.0	0.1
Baja California	382	383	409	424	0.3	0.2	7.0	3.6	0.0	0.0	0.2	0.1
Baja California Sur	100	98	103	102	2.5	-2.0	5.5	-1.6	0.0	0.0	0.0	0.0
Campeche	631	611	570	515	0.7	-3.2	-6.6	-9.8	0.0	-0.2	-0.3	-0.4
Coahuila	437	454	465	480	0.1	3.9	2.3	3.3	0.0	0.1	0.1	0.1
Colima	77	80	82	86	0.9	4.2	2.3	5.5	0.0	0.0	0.0	0.0
Chiapas	229	235	228	231	-1.0	2.6	-3.3	1.7	0.0	0.0	-0.1	0.0
Chihuahua	375	383	401	417	5.3	2.1	4.8	3.9	0.1	0.1	0.1	0.1
Ciudad de México	2,244	2,255	2,313	2,357	1.6	0.5	2.5	1.9	0.3	0.1	0.4	0.3
Durango	157	159	162	167	2.1	1.6	1.6	3.2	0.0	0.0	0.0	0.0
Guanajuato	522	556	591	614	3.5	6.5	6.4	3.8	0.1	0.3	0.3	0.2
Guerrero	187	197	197	206	0.3	5.8	-0.3	4.8	0.0	0.1	0.0	0.1
Hidalgo	209	216	224	234	1.9	3.3	3.9	4.4	0.0	0.1	0.1	0.1
Jalisco	822	850	890	901	1.9	3.4	4.7	1.2	0.1	0.2	0.3	0.1
México	1,192	1,208	1,231	1,255	1.1	1.3	1.9	2.0	0.1	0.1	0.2	0.2
Michoacán	300	318	318	324	2.0	6.0	0.2	1.8	0.0	0.1	0.0	0.0
Morelos	156	156	160	164	1.1	0.1	2.4	2.5	0.0	0.0	0.0	0.0
Nayarit	84	88	92	94	3.9	4.8	4.4	2.5	0.0	0.0	0.0	0.0
Nuevo León	962	999	1,042	1,091	1.4	3.9	4.3	4.7	0.1	0.3	0.3	0.4
Oaxaca	205	211	214	217	2.7	2.8	1.5	1.4	0.0	0.0	0.0	0.0
Puebla	421	426	435	439	-0.9	1.1	2.2	0.9	0.0	0.0	0.1	0.0
Quéretaro	271	293	315	329	3.4	8.0	7.7	4.5	0.1	0.2	0.2	0.1
Quintana Roo	206	213	223	233	4.3	3.5	4.7	4.4	0.1	0.1	0.1	0.1
San Luis Potosí	254	258	272	281	0.9	1.5	5.4	3.4	0.0	0.0	0.1	0.1
Sinaloa	269	277	291	304	1.6	2.9	5.0	4.6	0.0	0.1	0.1	0.1
Sonora	396	397	401	414	5.4	0.4	1.1	3.2	0.2	0.0	0.0	0.1
Tabasco	425	434	434	421	-2.0	2.2	-0.1	-2.9	-0.1	0.1	0.0	-0.1
Tamaulipas	402	414	423	421	0.5	2.9	2.2	-0.6	0.0	0.1	0.1	0.0
Tlaxcala	72	73	76	78	0.4	1.7	3.9	3.6	0.0	0.0	0.0	0.0
Veracruz	675	675	677	666	-0.3	0.1	0.2	-1.6	0.0	0.0	0.0	-0.1
Yucatán	190	196	204	209	0.8	3.1	4.0	2.8	0.0	0.0	0.1	0.0
Zacatecas	122	128	132	132	-1.2	5.1	3.4	0.1	0.0	0.0	0.0	0.0

e/ Estimado.

pp/ Puntos porcentuales.

Fuente: BBVA Research con datos de Inegi

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