



# Sectorial Observatory

July 6, 2009

## Job losses in 2009: How many and where?

In the first five months of this year, 309,000 posts in formal employment were lost in the country and 696,000 since the peak in October 2008.<sup>1</sup> The fall in employment is undoubtedly one of the greatest worries in the present recession: How many could be lost in total? In which businesses and regions? By reviewing previous recessions, sensitivities to GDP fluctuations, as well as structure and distribution, this article looks at the risks to employment and quantifies the possible impact by business, sector and region. This allows for an itemized assessment on the possible evolution in the country.

### An overview of recent history

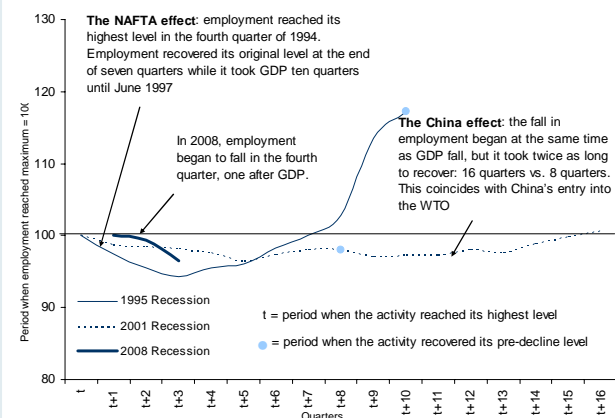
Will the fall in employment be similar on a sector and regional level this time to that seen in the 1995 and 2001 recessions? Around 555,000 jobs were lost in the first and just over 300,000 in the second. However, each had unique features, as does this one. For example, in the nineties' recession, employment reached its highest level, as did business, in the fourth quarter of 1994. Employment recovered to pre-crisis levels at the end of seven quarters (September 1996) while it took GDP ten quarters to reach the same level (June 1997).

International trade and, specifically, China's entry into the WTO were key factors to employment evolution during the 2001 recession, with the recover period taking longer that time around. In this way, while the economy took two years to recover pre-fall levels, employment took four years to reach the same rates.

While keeping due proportion for differences in the causes and conditions of the economy then and now, the present employment cycle could be said to have more in common with 1995 than 2001. As corrections have been major from the start, perhaps a recovery may also be a little quicker, at least when compared with 2001. Mexico's position in the US market in terms of its main export products and the boost to competitiveness from the recent depreciation of the peso (see the articles on the manufacturing sector and the automotive industry) may be ingredients aiding recovery.

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### How did employment react in the last recessions? (maximum employment levels and quarters required for recovery)



### Employment Income Elasticity (1999-2008)

	Contr. %	Elasticity in GDP	Var. % annual Sep-08
Total	100.0	1.0	1.6
Manufacturers	27.6	1.5	-3.4
Construction	10.0	1.5	-0.1
Transp. and communic.	5.6	0.9	3.0
Home, personal and B2B serv	24.6	0.8	5.8
Rest. and hot. trade	20.8	0.7	3.9
Utilities	1.2	0.7	4.2
Mining	0.7	0.6	17.8
Social and community service	6.9	0.4	2.0

Source: BBVA Bancomer with IMSS data

<sup>1</sup> However, starting from October is perhaps not the best thing since employment is known to contract at the end of every year. That is, there is a marked seasonality in the months of November and December.

## Industry and services – two different stories

The evolution of employment over the present decade shows major differences when industry and services are assessed differently. The former anticipates and reacts more than proportionally to falls in production and its recovery has been less vigorous. In turn, services have shown positive growth rates throughout the present decade, surpassing GDP pace in most instances. This means, industrial employment is relatively sensitive to changes in business levels while employment in services is, at least in the last decade, hardly sensitive in relative terms – the first is elastic to revenue and the second has been inelastic.

The elasticity analysis results are maintained by breaking down the business as per the main sectors: manufacturing and construction, the two relevant industrial activities in terms of production value and employment, show relatively high elasticity rates (higher than one) while services show a consistently low elasticity (below one).

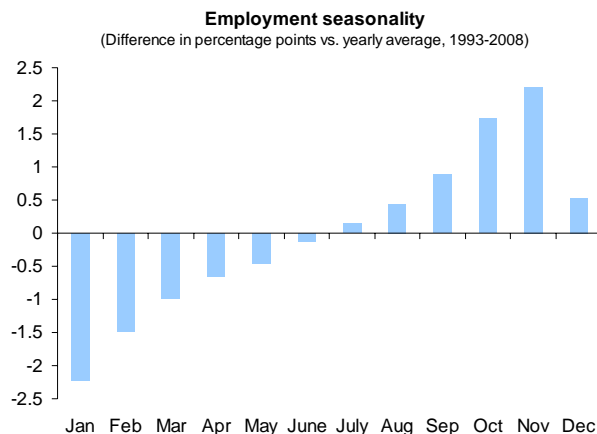
## Seasonality

Although highly accentuated, statistical effects have also had a major influence on the contraction in employment in the present downturn. Typically, most job creation occurs in the third and fourth quarters. December is traditionally a month for limited job creation; in fact it is almost always negative. Equally, in the first months of the year (especially January and February) net job creation is limited. Obviously, this does not mean job losses associated to the recession are not important,<sup>2</sup> but it helps to have a better perspective on the problem. More importantly, bearing in mind seasonality helps when quantifying the potential job losses throughout the year.

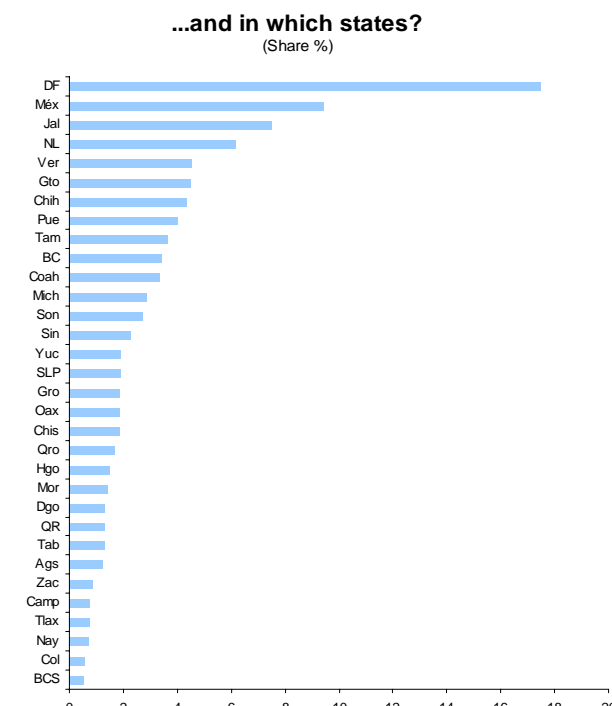
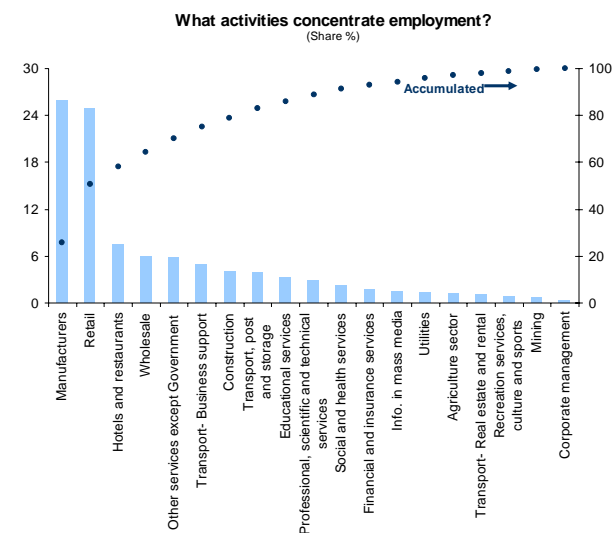
## Employment distribution: major concentration

Where is job creation concentrated in the country? One in every three social security registered workers in the formal sector is located in the Federal District and State of Mexico. Adding Jalisco and Nuevo León, we get a figure of 50%. With Veracruz, Guanajuato, Chihuahua, Puebla, Tamaulipas, Baja California and Coahuila, with shares between 4 and 6% each, the figure reaches 85%. The common denominator in most cases is the presence of a relatively important assembly manufacturing base and/or a major automotive sector anchor. The exceptions are the Federal District, whose contribution comes mainly from services (the contribution to the national total being nearly 30%) and Veracruz, where most petrochemical and oil refining production is based. This shows the high level of manufacturing business concentration in Mexico: for the 21 institutions not part of this group, employment participation of only 15% is considerably lower to their weight in population terms at 40%.

<sup>2</sup> In the US, the loss of employment resources in the first two months of the year was 1.3 million, nine times above Mexico.



Source: BBVA Bancomer with IMSS data



By business sectors, employment concentration is also marked. According to formal insurance figures from the IMSS (Mexican Institute of Social Security) trade (wholesale and retail) represents around 30% of formal employment. Manufacturers add 25%, B2B services and services other than government business add 12%, hotels and restaurants 8% and construction 5%. This means, four out of every five formal jobs created in the country are concentrated in four large activities.

### A look at manufacturers

Looked in greater detail, manufacturers also show major concentration. Figures from the INEGI (National Institute of Statistics and Geography) Monthly Industrial Survey for the 21 business sub-branches considered in accordance with the NAICS classification show that 86% of production value and around 75% of employment are concentrated in just nine. Four of these sub-branches, transport equipment, chemicals, drinks and electrical machines and equipment, are relatively elastic to revenue, while the other five, food, basic metals, non-metal minerals, rubber and plastics and metal products, are relatively inelastic.

### Then, how many jobs could be lost?

Combining information relating to employment structure and its regional and sector distribution, employment sensitivity to production changes as well as seasonality are counted in a reference framework to estimate the potential impact on employment in the present recession.

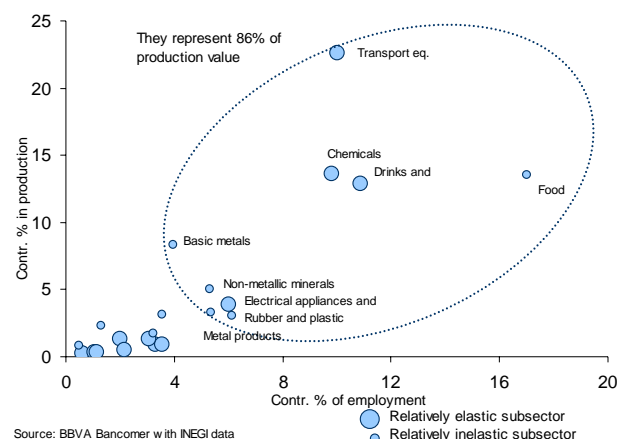
May figures show job losses in the formal sector at around 3.9% in annual terms, although with major differences between sectors (e.g. community and social services, involving the government, with growth over 3%, while manufacturers show a loss of 11%) and states (Chihuahua being the most dramatic example with a loss of almost 14% and Chiapas, on the other hand, with an increase of 4%). The impact of swine flu was clear: in Baja California Sur and Quintana Roo, contraction of around 10% per year is comparable to that seen in states on the border.

As per our estimates, for the whole of 2009 employment contraction may be around 5.1% equating to around 700,000 jobs. Most of this loss will have taken place in the first semester, both due to seasonality factors and the expectation of moderately more favorable conditions towards the end of the year.

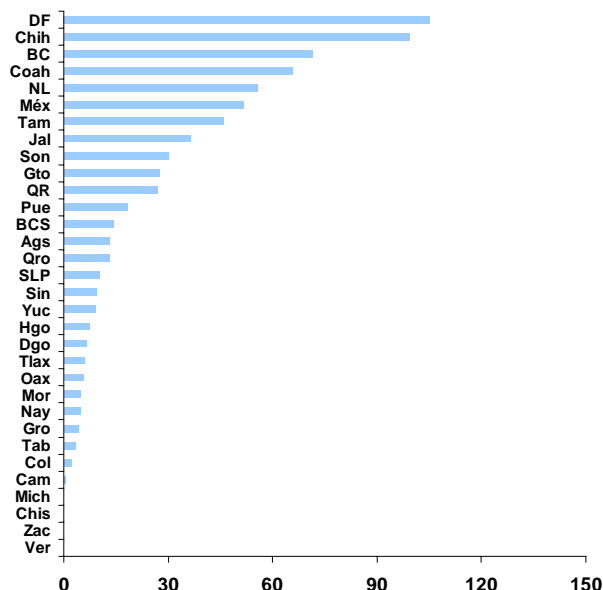
In accordance with estimates, manufactures could contribute with around 205,000 to net job losses, construction with 85,000, commerce with 150,000, services with 220,000 and other activities (primary sector, mining and electricity, gas and water generation) contributing the remaining 40,000.

Regionally, the Federal District and Chihuahua will be the states where job losses will be more pronounced with around 100,000 losses in both states. The list continues with Baja California, Coahuila and Nuevo León, Mexico State and Tamaulipas, Jalisco and Sonora. This means, the most affected states will be those on the border and those with higher industrial and economic development (Federal District, Mexico State and Jalisco). Three out of every four jobs lost on a national level this year will be concentrated in this set of states.

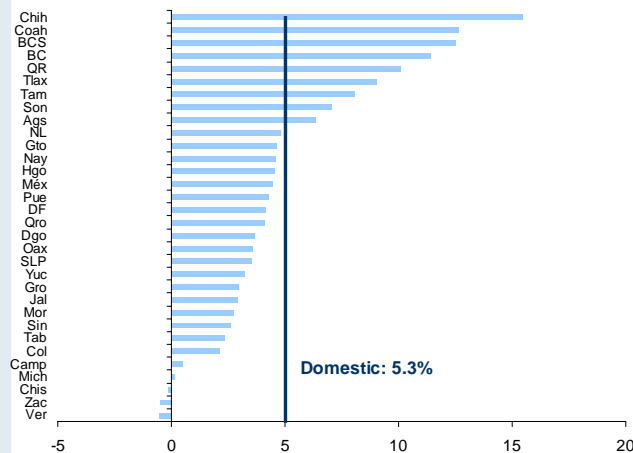
**The most vulnerable manufacturing activities**  
(Relative participation and employment elasticity in production, 2001-2008)



**Where will job losses be concentrated in 2009?**  
(Thousands)



**In relative terms, where will the greatest impact be?**  
(Expected formal job losses in 2009, %)



Measured in relative terms, the border states appear once again in first place (Chihuahua, Coahuila and Baja California, Tamaulipas and Sonora), but also the major tourist states of Baja California Sur and Quintana Roo. Campeche, Michoacán, Oaxaca, Zacatecas and Veracruz appear at the end of the list which, due to their limited industrial sector and a certain boost received from infrastructure work (shown in the growth of the mining, construction and electricity, gas and water generation industries), have hardly seen the recession impact on their employment levels.

## Conclusions

It is undoubtedly a difficult year but not particularly different than what has been seen in other recession periods for the Mexican economy. With three recessions in 15 years from the start of the NAFTA era, two due to external shocks, the external sector has been a determining factor in the size of the contraction and also a boosting factor in coming out of it. This time will be no different and, if the US economy starts to show signs of improvement towards the end of 2009 or in the first semester of 2010, the recovery of employment in Mexico may follow a similar path to that in 1995, with a major fall but a slightly clearer recovery, at least compared with other recessions. In any case, employment projections are consistent with those in business, showing that most of the fall will be concentrated, as has been the case until now, in the states and sectors most exposed to the US economy, with the border and some industrial and tourist areas standing out. The south and southeast will see a relatively lower impact.

## References

Cuadra, Gabriel (2008). "*Hechos estilizados del ciclo económico en México*". Documento de investigación 14-2008.

Sarabia, Arturo (2009). "*Efectos del Ciclo Económico en EE.UU. sobre la Producción y el Empleo en México*", Documento de Trabajo, SDE 456, CIDE.