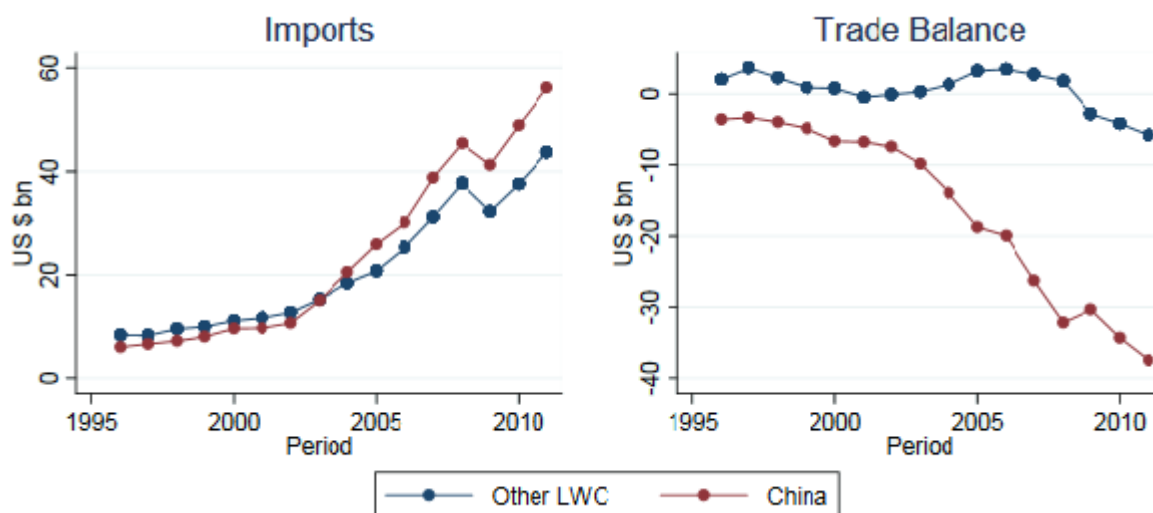


Competition from China: how does it affect local employment and wages?

By [Clément Malgouyres](#)

This blog post summarises a study covering the 1995-2007 period focusing on the local effects of Chinese import competition on the French labour market: the competition displaced jobs in the manufacturing sector; it also placed downward pressure on average hourly wages, and modified the wage distribution, with limited impacts on the lowest wages, probably as a result of the lower limit set by the statutory minimum wage.

Chart 1. Trade in goods between France and China and other low-cost countries



See [Malgouyres \(2016\)](#) for a full list of countries considered to be "low-cost". Source: Comtrade.

Chart 1 shows the high growth rate of Chinese imports (left-hand chart) and the substantial bilateral deficit in France's balance of trade (right-hand chart, exports minus import of goods). Although these changes may well have benefited consumers, they are also likely to have affected local employment and wages, which is the purpose of this blog post.

Mapping exposure to increased Chinese imports from 2001 to 2007

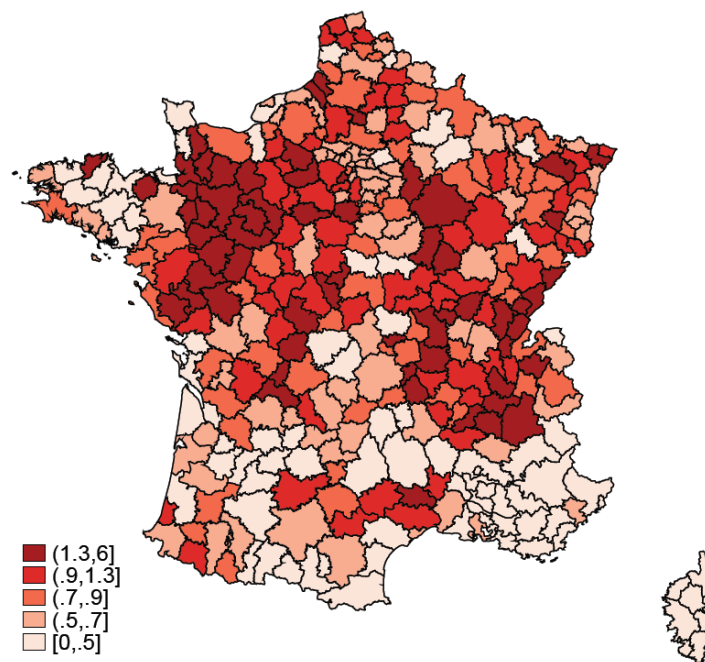
Here, we estimate the effect of the huge surge in Chinese import competition on jobs and wage inequalities at the local level (employment zones). We exploit two facts:

- the existence of significant differences in manufacturing specialisation in different employment zones in France (an employment zone is a geographical area within which most of the labour force lives and works);
- the heterogeneous progress of Chinese productivity and exports across industries within the manufacturing sector.

As a result, a given employment zone will be affected differently from another by increased Chinese competition depending on its own initial specialisation.

We calculate an index of exposure to Chinese import competition by taking into account the initial sectoral composition of the manufacturing sector at the local level and the sectoral composition of Chinese imports on a national scale. The index captures the value of imports per worker facing each of the 348 employment zones. It varies depending on (i) the initial share of the manufacturing sector and (ii) the local specialisation within the manufacturing sector, which can correspond to the production of goods that are more or less confronted by Chinese import competition. Chart 2 shows the change in the share of this index attributable solely to specialisation in the manufacturing sector during the 2001-2007 period for the whole of metropolitan France. We find that the changes are very heterogeneous between employment zones, linked to differences in specialisation.

Chart 2. Exposure to increased Chinese import competition (2001-2007) within the manufacturing sector

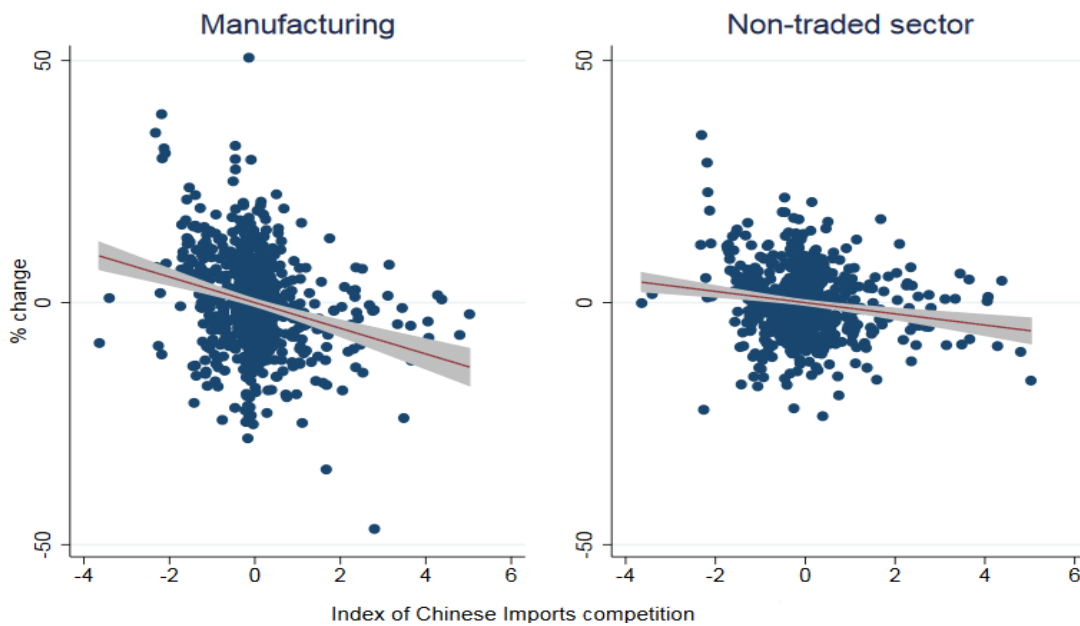


The employment zones are classified into five categories by shades of red, with zones where Chinese competition was most intense between 2001 and 2007 represented by the deepest red (max [1.3, 6] = USD 1,300 to USD 6,000 per job in the manufacturing sector). Source: DADS, Comtrade, see [Malgouyres \(2016\)](#).

Significant effects on local employment

Chart 3 shows the relationship between local employment growth (y-axis) and changes in the index of exposure to Chinese import competition (x-axis) for the 1995-2007 period. We find a strong negative relationship in regard to manufacturing sector employment (left-hand chart). We also find a negative, albeit weaker, relationship outside of manufacturing – this sector includes market services and construction (right-hand chart).

Chart 3. Relationship between local employment and Chinese import competition (1995-2007)



Each dot represents an employment zone for a given period (1995-2001 and 2001-2007). Variables are expressed in deviation from the period average. The non-manufacturing sector excludes public and parapublic-sector employment. Source: DADS, Comtrade, see [Malgouyres \(2016\)](#).

The econometric analysis confirms the negative relationship illustrated in Chart 3. A simple quantification exercise suggests that 13% of the decline in manufacturing employment in France between 2001 and 2007 is due to the surge in Chinese import competition.

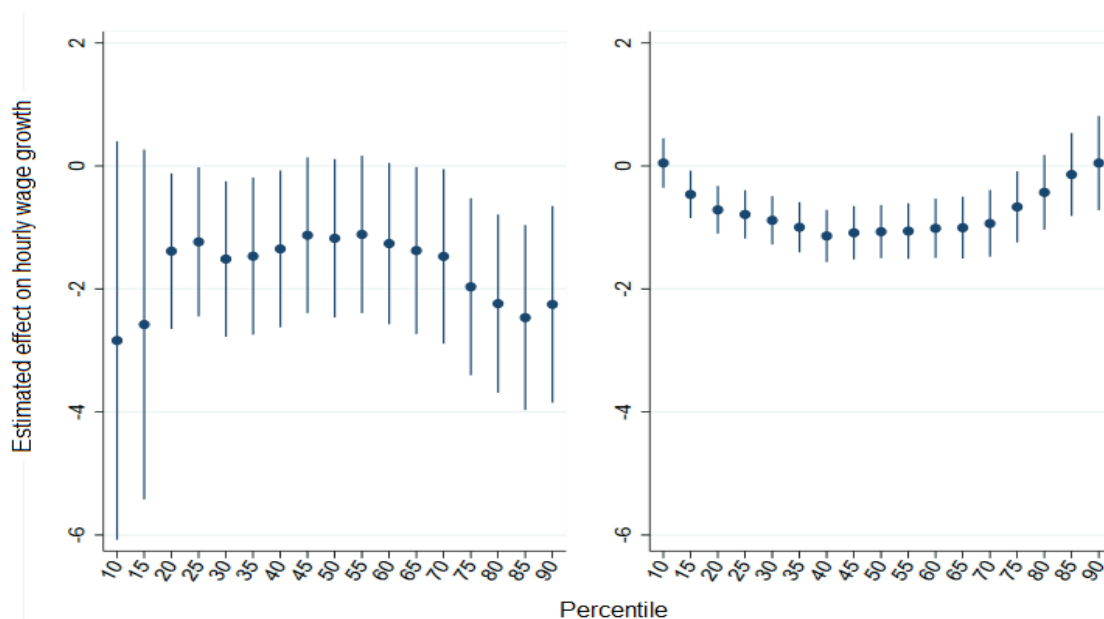
The effects in regard to the non-manufacturing sector are less pronounced but nonetheless significant, suggesting the existence of substantial local multiplier effects. Indeed, the results imply that a 10% decline in manufacturing employment (full-time equivalent) caused by Chinese competition results in a 3% reduction in local non-manufacturing employment.

The negative effects differ depending on the wages

Over and above the effects on employment, Chinese competition also affects wages to differing degrees depending on their position in the wage distribution, and thus modifies wage dispersion. Chart 4 shows the estimated impact on the hourly wage for different distribution percentiles. We observe an average negative impact in both sectors.

This effect is relatively uniform along the wage distribution in the manufacturing sector. However, its estimation is imprecise at the bottom and middle of the distribution. In the non-traded sector, the shock has not significantly increased the ratio between the 9th and 1st decile – a common measure of inequalities. Nevertheless, we find that the negative impact is more pronounced on the median wage than on the top and bottom of the distribution. Compression in the lower tail of the distribution would appear to be due to the influence of the minimum wage at the bottom of the wage distribution.

Chart 4. The impact of Chinese competition along the wage distribution



Each dot represents the estimated impact on growth of the percentile shown on the x-axis over six years. For example, at the 20th percentile (the wage level at which 20% of employees in an employment zone earn a lower wage and 80% are paid a higher wage) the impact represents a reduction of 1.4 percentage points in the manufacturing sector and 0.7 percentage point in the non-traded sector (vertical line: 95% confidence interval). Source: DADS, Comtrade, see [Malgouyres \(2016\)](#).

Consumer gains still to quantify

The negative direct impact on local employment and wages does not mean that France has not benefited from trade with China. An overall assessment of the impact of trade with China and other emerging countries on aggregate welfare in France would require the measurement of gains to consumers. In general, these tend to be assessed as being relatively more favourable to low-income households (see for example [Fajgelbaum and Khandelwal, 2016](#)). It would also be advisable to include firms that use imported intermediate goods – and whose productivity gains also benefit consumers. Lastly, other general equilibrium effects relating to trade integration with China and likely to encourage employment in other sectors and communities have not been taken into consideration in this blog post. Nevertheless, given the substantial local multiplier effects and the limited sectoral and spatial mobility of the workforce, these results highlight that the negative estimated impacts are likely to be lasting in the most affected employment zones.