

## How do business managers in industry perceive fluctuations in their competitiveness?

Business answers to the INSEE outlook surveys deliver information on how French industries assess their competitive position on different markets. The balance of opinion regarding competitiveness outside the European Union is correlated with the inverse of the real effective exchange rate. At an individual level, firms base their answers on criteria which go beyond their export activities.

Since 1997, the quarterly business tendency surveys have asked business managers in industry about recent developments in their competitive position in France and internationally, distinguishing between foreign markets within the European Union (EU) and markets elsewhere in the world.

The questions regarding competitiveness, like the majority of the questions contained in the business tendency surveys, have three possible answers, represented by arrows: “improved”, “remained unchanged” or “deteriorated” (see *Figure*). Balances of opinion are calculated on the basis of the answers to these qualitative questions: they correspond to the difference between the proportion of business reporting that their competitiveness has increased over the past three months and those reporting a deterioration in their competitiveness. These composite tendency indicators provide a quick, simple overview of short-term changes in competitiveness as perceived by companies in the industrial sector, indicative of recent trends and potential differences between markets.

Developments in the competitive positions reported by business managers in industry are relatively similar for the domestic market and the EU market (*Graph 1*). This alignment should be seen in the context of the growing integration of European markets in goods and services,

with the correlation between the two balances of opinion growing stronger over time. For foreign markets outside the European Union, the sentiment of business managers with regard to changes in their competitiveness reveals several distinct periods. In particular, the economic and financial crisis of 2008 followed by the sovereign debt crisis of 2012 had a greater effect on the perceived competitiveness of industrial firms in the European markets than it did in the extra-European markets: French businesses’ perceived competitive position within the European Union reached its lowest ebb at the end of 2009, while their competitive position outside the EU remained in 2009 superior to its lowest recorded point in early 2005. In the more recent period, the balance of opinion regarding competitiveness outside the European Union began to fall in 2017, a few quarters before the balance for the European market.

### The balances of opinion on competitiveness are correlated with export volumes

The notion of competitiveness used in this context does not necessarily distinguish between different types of competitiveness. Businesses are free to interpret the term as they see fit: price competitiveness, non-price competitiveness or capacity to cope with short-term fluctuations in demand.

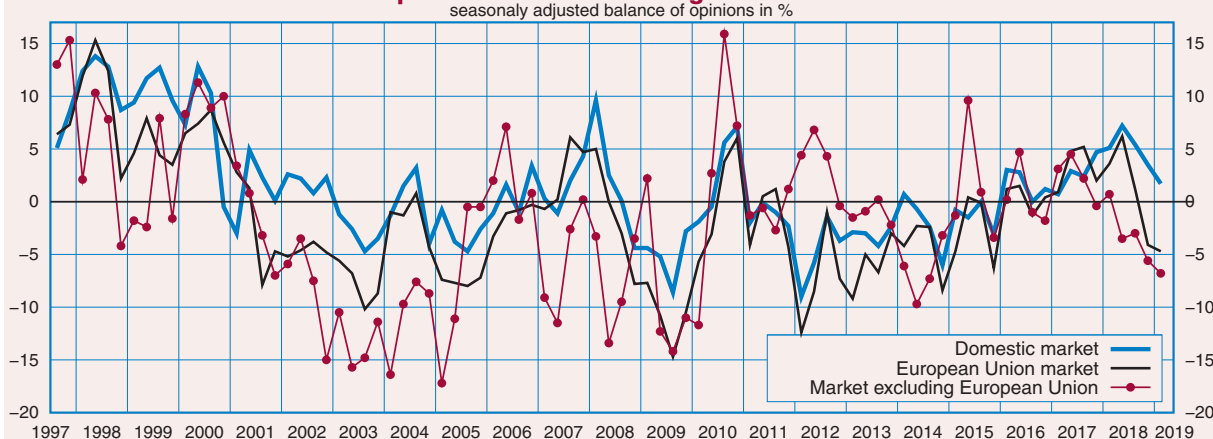
**Figure - Questions regarding competitiveness in the quarterly business tendency surveys**

#### YOUR COMPETITIVE POSITION

Variation over the past 3 months:			
a. On the domestic market	↗	↔	↘
b. On foreign markets within the European Union	↗	↔	↘
c. Outside the European Union	↗	↔	↘

Source: INSEE, questionnaire des enquêtes de conjoncture

**1 - Balances of opinion regarding competitiveness in France, in foreign markets within the European Union and in foreign markets outside the EU**



Source: INSEE, enquêtes de conjoncture

But the interpretation of the question by businesses responding to the surveys appears to be primarily based on their real export performances. The balances of opinion on competitive positions in foreign markets do indeed appear to be correlated with export volumes to these markets (Graph 2). Balances of opinion on competitive positions in foreign markets (intra- and extra-EU) in the manufacturing industry follow a similar trajectory to the year-on-year variations in export volumes of manufactured goods to the Eurozone and non-Eurozone markets. Nevertheless, there are periods in which the series diverge, particularly since 2016 as the trajectory of the balances of opinion has been less consistent with the development of export volumes.

## Perceived competitiveness with markets outside the European Union is influenced by exchange rates

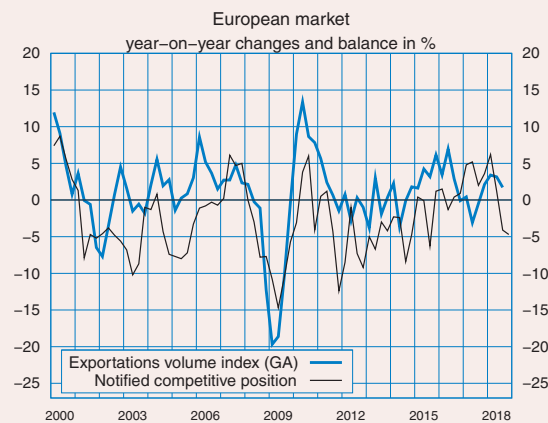
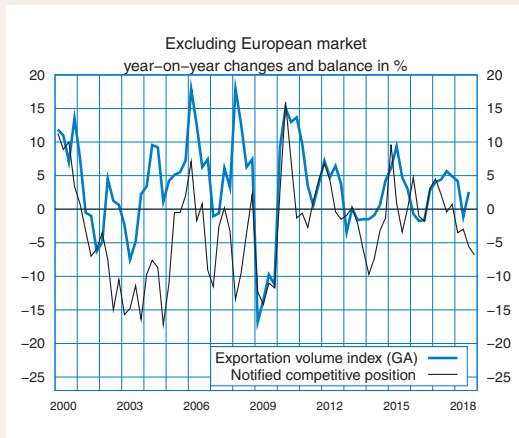
Within the European Union, the majority of transactions between French firms and partners in other countries are conducted within the Eurozone. Exports outside the European Union are subject to fluctuations in exchange rates, and the opinion of businesses as to their competitiveness on these markets is more sensitive to changes in exchange rates. When the Euro goes down,

French products become relatively cheaper and thus more competitive. Depreciation of the real effective exchange rate is generally reflected by an increase in the perceived competitiveness reported by businesses: the balance of their competitive position is thus negatively correlated with variations in the real effective exchange rate (Graph 3).

Between 2000 and 2003 in particular, the appreciation in the value of the Euro was reflected in a clear deterioration of the balance of opinion of business leaders in industry regarding their competitiveness outside the European Union. This period corresponds to the point at which European businesses began to be hampered by the appreciation of the Euro. Marc & Patier (2016) have shown that the exchange rate contributed as much as -8 points to the market share lost by France between 2000 and 2010.

In terms of individual branches, «other manufacturing industries» appear to be most sensitive to exchange rates, unlike the agrifood branch (Table 1) whose exports are based more on non-price competitiveness (see *Special Analysis report* p.53).

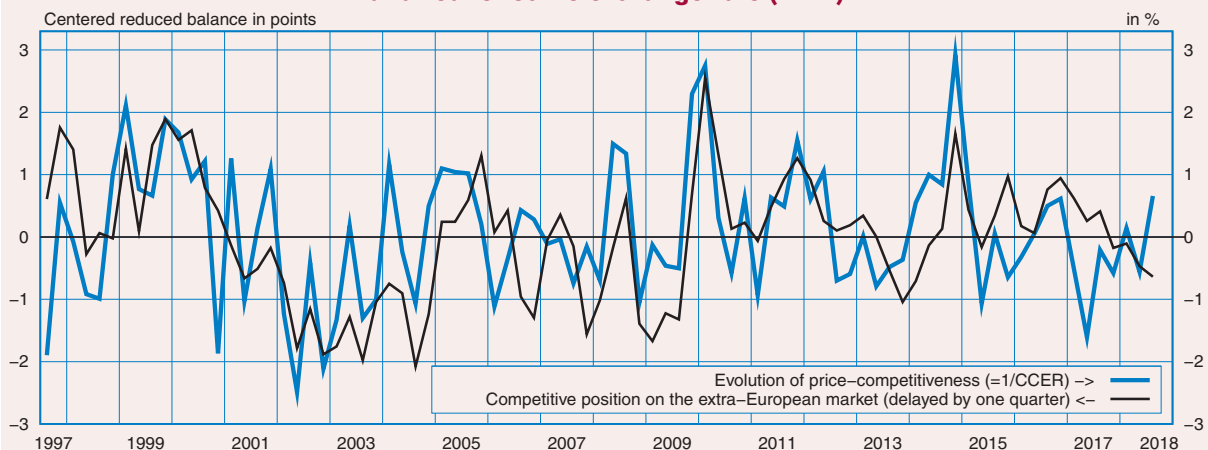
## 2 - Balances of opinion on competitiveness and exports (year-on-year exports, indicators)



The index

for volume of exports and manufactured goods is measured by the INSEE based on Customs data for the Eurozone and non-Eurozone

## 3 - Variations in the balance of opinion on competitive position outside the European Union and real effective exchange rate (REER)



Source: INSEE, enquête de conjoncture, et Direction générale du Trésor

## French developments

### Firms also base their answers on individual criteria which go beyond their export activities

While the balances of opinion are correlated with the macroeconomic factors which define international trade, the responses of businesses nonetheless involve a declarative dimension which is more closely connected with the state of their domestic activity than that of their international trade. At the individual level, the responses of business managers in industry regarding their competitiveness does seem to partly reflect the specific dynamics of their own companies, not simply their opinion regarding the competition they face on international markets.

According to Aubert & Leclair (2006), when responding to qualitative questions about their competitive position, business leaders devote at least as much attention to their level of productivity and total output as to their capacity to increase their market share at the expense of their competitors. Their answers might thus reveal more about developments in the general outlook than about actual changes to their own competitive positions. Analysis of individual data for the period 1998 to 2015 suggests that companies' recent results remain highly influential, for the different categories of international markets (within and outside the EU). As such, variations in total turnover, turnover from exports, output, headcount and wage costs are all very strongly correlated with fluctuations in the competitiveness as perceived by businesses, for both categories of international markets. Regardless of their export performances, and all other things being equal (particularly the values of the other explanatory variables given in *Table 2*), firms which have seen the strongest increase in turnover are more likely to report an improvement in their competitive position, whereas those whose wage costs have increased most will tend to report a deterioration in their competitive position.

As such, the improvement in competitiveness declared by businesses does not necessarily reflect their true export performances. This response pattern applies to both the European market and the extra-EU market. Nevertheless, the correlation between variations in turnover and perceived competitiveness is strongest for the European market. On the other hand, the correlation between changes in wage costs and perceived competitiveness is strongest for the extra-European market.

### Method

The analysis of the microeconomic factors determining the competitive position reported by businesses in the tendency surveys for industry is based on an ordered random effects model. The dataset covers the business tendency surveys for the period 1998-2015. The panel of firms considered only contains firms whose export turnover is not zero. The responses to the questions about competitive position have been transformed into annual scores ranging from -2 to +2. The individual qualitative responses to the business tendency surveys have also been supplemented with structural quantitative data taken from the business statistics.

### Bibliography

**Aubert P., Leclair M.** (2006) "Competitiveness in the Quarterly Business Tendency Survey in Industry", *Economie et statistique* n°395-396, p. 117-140

**Marc B., Patier B.** (2016) "Why have French exporters lost market share?", *Conjoncture in France*, Insee, December, P. 39-59 ■

Table 1

### Correlation between balances of opinion on variations in competitiveness with a one-quarter time lag, and variation in price-competitiveness

(Spearman correlation coefficient for the period 1998-2019 and (p-value))

competitiveness in the market	national	European	Extra-European
Manufacturing industry	-0.02 (0.84)	0.06 (0.57)	0.50 (0.00)
agrifood	-0.12 (0.26)	0.01 (0.95)	0.04 (0.75)
refined petroleum products	0.05 (0.67)	-0.03 (0.80)	0.16 (0.15)
capital goods	-0.04 (0.74)	0.05 (0.65)	0.25 (0.02)
transport equipment	-0.06 (0.59)	-0.01 (0.92)	0.40 (0.00)
other manufacturing industries	0.00 (0.99)	0.11 (0.32)	0.49 (0.00)

Note: the Spearman correlation coefficient is calculated using a rank of values rather than the values themselves, to obtain a robust measurement. The critical value is given in brackets. Price-competitiveness is measured by inverting the real effective exchange rate (REER).

How to read it: for «other manufacturing industries,» the correlation between the balance of opinion on changes in competitive positioning on the extra-European market and price-competitiveness is positive and significant.

Source: INSEE, Direction générale du Trésor

Table 2

### Changes in competitiveness on the European and extra-European markets.

Factors influencing competitive position	in the European market	in the extra-European market
total turnover	+0.68 ***	+0.56 ***
payroll	-0.16 ***	-0.23 ***
output	+0.20 ***	+0.24 ***

How to read it: estimate for an ordered multinomial logistical regression for the period 1998-2015

Dependent variable: annualised variation in competitiveness on the national market. The coefficients estimated for the four constant values are not reproduced in this table.

Source: INSEE, Enquête de conjoncture dans l'industrie, FARE, DADS 1998-2015