# Monthly business survey (goods producing industries)

## Survey description

The INSEE Department of Short-Term Economic Analysis conducts a monthly business survey of industrial enterprises in the competitive sector. The scope of coverage includes :

- Manufacturing industrie, which contains:
  - Manufacture of food products and beverages
  - Manufacture of coke and refined petroleum products<sup>1</sup>
  - Electrical and electronic equipment; machine equipment
  - Manufacture of transport equipment
  - Other manufacturing
- Mining and quarrying<sup>1</sup>.

The survey sample comprises about 4,000 enterprises.

The method used is stratified sampling without replacement and with unequal probabilities. Each sample stratum corresponds to one activity sector in accordance with the French classification of activities (using the classification NAF rev.2 since April 2010). The individual responses for each primary stratum (A129 level) are aggregated after being weighted in accordance with structural constants. These are supplied annually by the enterprises themselves—as a rule, in the April quarterly survey.

Most of the monthly-survey questions concern the enterprise's products. Responses to these questions are weighted by the total product sales (turnover). The only questions to which this product-oriented approach is not applied are the ones regarding overall expectations, for which a simple, unweighted mean is used.

Except for overall expectations, the inter-strata aggregation relies on adjustment coefficients from external sources (National Accounts, Annual Enterprise Survey). These provide a structure resembling that of the total French goods-producing sector.

All questions are qualitative with a triple choice. The results are reported as balances of opinion, i.e., the differences between the percentage of "increase" or "above normal" responses and the percentage of "decrease" or "below normal" responses. This presentation improves clarity without notable information loss.

The series should be consistently interpreted with caution: changes in scores should always be treated as more significant that absolute score levels. If, however, analysts wish to qualify the level figures, they should always refer to the mean long-term value of a series in order to allow for business owners' habitual response behavior.

All series have been seasonality-tested. As a result, the published series display no residual seasonality. An initially non-seasonal series is shown as a seasonally-adjusted series with null coefficients.

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<sup>&</sup>lt;sup>1</sup> To comply with regulations on statistical confidentiality, the results for these sector are not published separately but are included in the agglomerated results.

#### Indicators

Each indicator is computed as the difference between the percentages of positive and negative responses.

•	Change in production
	Change in past three months: increase (+) no change decrease (-)
	Likely change in three months ahead: increase (+) no change decrease (-)
	Demand level
	Total (all sources): for the season, your order intake (or demand for your products) is currently above normal (+) normal below normal (-)
	International: for the season, your order intake (or demand for your products) is currently: above normal (+) normal below normal (-)
•	Finished-product inventories (stocks) (products ready for sale)
	For the season, your current inventories of finished products are:
	above normal (+) normal below normal (-)
•	Likely change in selling prices (net of taxes)
	Likely change in your selling prices in three months ahead: increase (+) no change decrease (-)
•	Expectations for total French goods-producing industries
	Industrial production volume: likely change in three months ahead: increase (+) no change decrease (-)
	Overall prices of industrial products: likely change in three months ahead:

#### Changes in the survey questionnaire

... increase (+)

To ensure complete harmonization of European business surveys, the monthly questionnaire for the French industrial survey has been slightly modified with effect from January 2004.

... no change ... decrease (-)

The main change concerns the question on the outlook for selling prices. The question is now worded identically in the monthly questionnaire and the quarterly questionnaire (January, April, July, and October). Until then, the question in the quarterly surveys was quantitative and the responses were converted into qualitative changes; in the monthly surveys, the question was qualitative. This difference in approach complicated the comparison between monthly and quarterly results.

Since January 2004, the question has been phrased as follows in the monthly and quarterly questionnaires:

Likely change in your selling prices (net of taxes) in three months ahead: 🗸 💢 🕏

The series on individual respondents' price outlook has thus been made consistent, in order to facilitate its interpretation.

The above-mentioned changes in the survey questionnaire will fully harmonize it with the harmonized European industrial-survey questionnaire. As approximately European thirty institutes producing business surveys have done the same, the results obtained will be more directly comparable.



#### **Business climate composite indicator**

Business climate composite indicators are established for the manufacturing industry as a whole and for all its sub-sectors defined by the levels "A17" and "A38" of the French aggregated classification of activities (NA 2008), excepted in the manufacture of coke and refined petroleum and in the manufacture of pharmaceuticals products. Each composite indicator summarizes opinion of business leaders on the sector concerned: the higher its value is, the more favourable the industrialists' opinion is. It is based on the factor analysis method. This technique enables us to sum up the different changes in several variables which have very correlated movements. The indicators describe, in a single variable, the common building block of the selected balances of opinion: past activity, personal production expectations, general production expectations, finished-goods inventory, global order books, export order books. Those indicators are normalized in order to have an average equals to 100 and a standard deviation equals

### **Turning point indicator**

The turning point indicator aims to detect as early as possible when the outlook manufacturing trend changes direction. This is a qualitative variable which is not directly observed. The indicator is presented in the form of a curve, retracing for each date the difference between the probability that the cyclical phase is favourable and the probability that is unfavourable. It therefore changes between +1 and -1: a point very close to +1 (or -1 respectively) indicates that activity is in a period of sharp acceleration (or sharp deceleration respectively). The moments when the indicator is close to 0 are considered to be stabilization phases, meaning a return from the growth rate in activity towards its long-term average. During these phases, the signals given out by businesses vary widely and do not therefore indicate any pronounced movement, either upwards or downwards. The indicator value for the last month may be revised the following month (input of responses received late) so it is necessary to wait for at least two consecutive months to be able to conclude that a large variation actually is a signal of significant cyclical change.

#### The surprise indicator in industry

The surprise indicator in industry is an indicator computed from the responses of business leaders to the questions on the recent and predicted output. It measures the difference between the responses to the question on the expected output from the survey of the month m-3, and the responses to the question on the past output from the survey of the month m. It aims at providing an indication of the short-term surprise that business leaders had on the recent months. For further information on the construction of this indicator, see "New advances in the use of INSEE's business tendency surveys to analyze the short-term economic outlook", Special analysis of *Conjoncture in France*, March 2015.

#### **Detailed documentation**

- The monthly business survey in industry: presentation and methodology
   http://www.insee.fr/en/methodes/default.asp?page=sources/sou-eng-conj-indus.htm
- Special Analysis: "New advances in the use of INSEE's business tendency surveys to analyse the short-term economic outlook", *Conjoncture in France*, Insee, March 2015

http://www.insee.fr/en/indicateurs/analys conj/archives/mars2015E d1.pdf

Special Analysis: "New sub-sector business climate indicators to improve economic outlook analysis", *Conjoncture in France*, Insee, June 2016

http://www.insee.fr/en/indicateurs/analys conj/archives/062016 d2E.pdf

