Producer price indices of French Industry - all markets (base 2015) - Main aggregates

Producing organisation: INSEE

Read the "Informations Rapides" related to this indicator.

Introduction

Source of data

Producer price indices (PPI) and import price indices are the results of the survey known as « Observation of Prices in Industry and SErvices (OPISE) », conducted by Insee with a sample of about 4,800 industrial companies which provide each month 30,000 prices. This survey is part of the annual statistical survey programme of the official statistic services examined by the <u>CNIS</u> (in French - Conseil National de l'Information Statistique – National Council for Statistical Information) and published by a ruling in the *Journal Officiel* at the start of the year.

Scope of indices

Four main price indicators:

1. The industrial producer price indices for the French market:

They measure the development of transaction prices of goods that come from French industrial activities and are sold on the French market. The measurement is made at "basic prices" and at "market prices" (see above);

- at **basic prices**, according to the concepts of the national accounts, which inspire the European regulation on short-term statistics;
- at **market prices** for contract indexations.

The following table sums up the conceptual differences between the two approaches:

At basic prices	At market prices
Output prices of the activity	Purchaser's price of the product
(income of the producer)	(cost of the first asquisition on the market)
	-
Excluding taxes on product, excluding VAT	Including taxes on products, excluding VAT
Subsidies on product included	Subsidies on products deduced
Including intra-group transactions	Excluding intra-group transactions

2. Industrial producer price indices for foreign markets:

They track the development of transaction prices (converted into euro, therefore including exchange effects) of goods from the French industry activities designed to be sold on foreign markets. Thus, what is concerned here is "exported production" rather than "exports" which also include re-exports or intermediations by traders (possibly from the same groups as the manufacturers). All exports are taken into account whether they are internal to groups or not. Foreign markets distinguish the euro area from the rest of the world;

3. The combination of the two indices above determines the **industrial producer price indices for all markets** (French market and foreign markets);

4. Import price indices of industrial products:

They track the development of transaction prices (converted into euro, therefore including the exchange effects) of industrial goods from foreign industrial companies sold on the French market. The measurement covers cost, insurance and freight (CIF) prices, which is to say that it is assessed at the French border exclusive of import taxes, in line with European regulation No <u>1165/98</u>. All imports are taken into account, whether they are internal to groups or not.

These four indices are completed in some activities by price indices of the « total price of supply of industrial products » which are the result of aggregating the industrial producer price indices for the French market at market prices and the import price indices. They track the prices of industrial products traded in France, wherever they may be produced.

Publication, Reviews and Updates

The producer price indices and the import price indices are disseminated on the last working day of the month following the month under review. The <u>publishing calendar</u> is announced four months in advance. Except specific mention, those price indices become definitive the fourth month of their publication, thus they could be revised three months in a row after their first dissemination. If an index considered to be definitive is exceptionally revised, an information (see <u>History of News</u>) is put on line on INSEE website and the value in question is annotated with an "r" code.

Regulations

Producer price and import price indices are ruled by the European regulation on short-term statistics (regulation (EC) said "STS" No <u>1165/98</u> of the council of the 19th May 1998, modified by the CE regulation No <u>1158/2005</u> of the council of the 6th July 2005). More specifically, they are associated with the variables below from the A annex "Industry" of this regulation:

- 310 Output prices
- 311 Output prices of the domestic market
- 312 Output prices of the non-domestic market
- 340 Import prices

These indices are partly inherited from the "wholesale prices indices" calculated in France since 1911, modified in 1977 under the name "industrial sales prices indices".

Statistical field covered and nomenclature used

In line with European regulations, the field of industry covered by the producer price indices includes sections B to E of the *CPA* revision 2 of 2008, except for the following products:

B07.21 - Uranium and thorium ore

C24.46 - Processed nuclear combustibles

C25.4 - Arms and munitions

C30.1 - Ships and boats

C30.3 - Aircraft and space engines

- C30.4 Military combat vehicles
- E37 Collection and treatment of used water, sewage sludge
- E38 Collection, treatment and elimination of waste and recuperation of materials
- E39 Pollution control and other waste management services

For import price indices of industrial products, the field is made up of sections B to D and excludes the following products:

- B07.21 Uranium and thorium ore
- B09 Support services for extraction industries
- C18 Printing and reproduction work
- C24.46 Processed nuclear combustibles
- C25.4 Arms and munitions
- C30.1 Ships and boats
- C30.3 Aircraft and space engines
- C30.4 Military combat vehicles
- C33 Repair and installation to machinery and equipment

The exclusion of these industrial products is only due to the lack of an appropriate sampling frame. For the calculation of the "total industry", all industrial activities are covered, whether or not covered by the STS regulation. The non-covered sectors are imputed.

Objectives

These indices allow:

- Economists to evaluate and analyze economic trends
 - Numerous public and private, French, European and global organizations use them as economic indicators (European Central Bank (ECB), International Monetary Fund (IMF), Organization for Economic Co-operation and Development (OECD), etc.). These indices enables a monthly monitoring of prices, on different markets, at different stages of the production process. The aggregation of Member States price indices enables an industrial producer price index to be established for the whole European Union. Additionally, import and producer price indices of non domestic markets allow the ECB to analyze flows inside and outside the euro area;
- National accountants in order to deflate production value that comes from structural business statistics and as such to carry out the breakdown between development of the activity in volume (quantity, quality, structure effect) and evolution of prices ("price-volume sharing"). *In fine*, they can then track the evolution of Gross Domestic Product and National Account aggregates in volume;
- · Companies and local communities for contract indexation

<u>Producer price indices at « market price » are among the most commonly used indices for contract indexation and, preferably, their definitive values</u>. The last three months values of these series are provisional and could be updated. Indices become definitive in the their fourth month of dissemination, unless a correction of major errors reported in the <u>News</u> of the <u>Services</u> section of the INSEE website. It also provides additional details on the use of production price indices for contractual indexation.

Technical characteristics

Methodology

The calculation of industrial producer price indices is harmonized within the European Union, and has led to the publication of a Handbook on industrial producer price indices (2012). Industrial price indices measure the raw price developments (not seasonal adjusted data). "Response series" of absolute prices are immediately converted into "elementary series" under indices form, in reference 2015, then aggregated into "indices series" according to an aggregation tree specific to each activity (CPA 4 digits). At last, price indices of each activity are combined in order to obtain aggregated indices.

Aggregation and reference

Aggregates indices (CPA 4 digits and above) in base 2015 are chained Laspeyres indices, put into reference 2015, i.e. the price developments are weighted by annual National Accounts results and structural business statistics figures in value for producer price indices and by the customs statistics on imports for import price indices. The weights are updated every year from the most recent available sources, usually on year N-2. Indices of activities and lower levels, although compiled according to the same formulas, are fixed-base Laspeyres indices, because their weights are usually updated only during the renewal of the samples followed by the Opise survey for the activity concerned. The companies, the sample transactions, and weights (turnovers or amounts of the company's imports for the products tracked) are then updated. The survey covers 93% of the field in value for each indicator (99% according to the European convention). The 7% left (1% according to the European convention) have been imputed by close activities or indicators.

Sources of Information

The operation brings together companies and INSEE. The companies surveyed are sampled, usually on a five-year rhythm, using sampling frames and information in the possession of INSEE:

- Annual Production Survey in the industry excluding food industry, at same time structural business statistics survey in industry and survey designed for Prodcom regulation;
- Structural Annual Survey in the food industry;
- Customs data by enterprises, mainly used for imports.

Each company selected is contacted by an INSEE interviewer. During the interview, witness transactions ("response-series") are selected to be both representative of the business's price developments and easily accessible in order to limit the administrative burden for the company. The questionnaire is therefore tailored individually to each company participating to the survey. The data are then collected monthly online or by mail (10% of the answers). The sample is regularly updated, whether through an INSEE interviewer or through the information directly given by the company (deletions and creations of response-series, transmissions of auxiliary data).

Statistical units

The statistical unit investigated is the legal unit of a company that produces the goods of the industrial activity in question.

Switch of series from base 2010 to base 2015

Time series of class level (4 digits code) or infra-levels have only been re-referenced between the two bases (application of a rule, so as to obtain 100 for annual average in year 2015).

Some indices were retropolated. Time series of aggregated levels differ mainly between the two bases because of sets of weightings. The Nomenclature revisions (transition from the CPF Rev 2 to the Nomenclature Rev 2.1) have had a marginal effect on the revisions.

Production Price Indices and Import Prices Indices in Industry are available on the Insee website under the heading "Retrieve indices and time series (BDM)".

In case of a rebasing of data, price indices that allow to pursue halted price indices are usually proposed, with the necessary links. This is the case for all Price Indices at "market-price" base 2010, for which dissemination was stopped at the end of 2017. For complete each of these price indices, new price indices are provided with statistical links between the halted prices indices and the new price indices (these links are calculated on the last definitive periode of the base 2010). This <u>table</u> (in French) provides all the price indices concerned.

For further information

• "<u>The French producer price indices and business-service price indices</u>", Insee Méthodes No. 89. via epsilon