

# French service producer price indices (rebasings and reference year 2015)

Producing organisation : INSEE

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## Introduction

### Source of data

The service producer price indices are known as a result of the survey known as « Observation of Prices in Industry and Services ([OPISE](#)) », conducted by INSEE with a sample of about 2 000 companies which provide each quarter 20 000 “response series” as prices converted into “elementary series” under indices. This survey is part of the annual statistical survey programme of the official statistic services examined by the [CNIS](#) (*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

The services producer price indices respond to national, European, and even international needs. They are defined by the European regulation (CE) on short-term statistics [No 1165/98](#), on the 19th of May 1998, modified several times since then) for the services producer price indices, production sold to French companies (market called “BtoB” - see below, which actually include all legal entities established in France) and by the “STS package 2017” project for their extension to the services producer price indices, production sold on all markets (called “BtoAll”). The service producer price indices are also discussed internationally by the Voorburg group on service statistics, which depends on the UN, and guided by a methodological handbook coedited by Eurostat and OECD.

Five categories of indices have thus been defined, including three indices which are a partition of the first one:

<b>Short European heading</b>	<b>Complete heading</b>
<b>BtoAll</b>	Prices of services sold on all markets
<b>BtoB</b>	<u>Basic prices</u> of services sold to French businesses
	<u>Market prices</u> of services sold to French businesses
<b>BtoC</b>	Basic prices of services sold to households in France
<b>BtoE</b>	Prices of export services

In order to ensure the different uses according to the associated concepts and rules, the services producer price indices, production sold to French businesses (more exactly to legal entities established in France) are compiled in two variants ;

- **at basic prices**, according to the concepts of the national accounts, which inspire the European regulation on short-term statistics. The aggregate “BtoAll” is thus obtained by combination of the indices by markets at basic prices, “BtoB”, “BtoC” and “BtoE”;
- **at market prices** for contract escalation.

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

<b>At basic prices</b>	<b>At market prices</b>
Output prices of the activity (income of the producer) , double net price concept, for turnover	Purchaser's price of the product (cost for the acquisition on the market) ideally measured according to triple net concept
Excluding taxes on products and VAT	Including taxes on products and excluding VAT
Subsidies on products included	Subsidies on products deducted
Including intra-group transactions	Excluding intra-group transactions

The distinction between these two concepts is particularly clear in the case of publishing, programming and broadcasting services on the one hand, and advertising services on the other hand: the advertising revenues of newspapers, radio and TV channels are part of the producers' revenues of these media activities (excluding the commission or margin kept by the businesses of media representation services), and this commission or margin constitutes the producers' revenues of media representation services, while the sum of these revenues is considered by the advertiser as a unique total expense for the product "advertising spaces".

Except for this case and for taking into account taxes and subsidies on products, the separate calculation of these two variants is only conducted if the impact is really significant as they could be for intra-group transactions for instance.

The consumer price indices are naturally the main source for the basic prices for services sold to households in France. However, they are compiled and published including VAT and subsidies on products deducted, that is to say at "market prices". They are thus recompiled at "basic prices", if applicable, by being "fiscally adjusted".

Furthermore, because the consumer prices are computed by "basic headings" (articulated with the combined nomenclature [COICOP](#)) and not by "class of product" (the 4-digit level of the Classification des Produits Française - [CPF](#) – broadly equivalent to the CPA classification), it is necessary to build a correspondence table between these two concepts. Finally, the consumer price indices may include some imported services which are not produced in France. These few imperfections or conceptual differences between this source and the targeted definitions explain why the survey "Observation des Prix de l'Industrie et des Services" sometimes directly address the prices of some services sold to households

## **Statistical field and nomenclatures required**

In line with the recommendations from the French "Conseil National de l'Information Statistique" (CNIS) in May 2007 and the European project "STS package 2017", the field covered by the services producer price indices include the whole sections H, I, J, L, M and N of the CPF revision 2.1 (namely market services which are neither commercial nor financial) except for the following products:

- M70.1 : Services of head offices
- M72 : Scientific research and development services
- M75 : Veterinary services

But includes the following product :

- S95 : repair services of computers and personal and household goods

The choice of a coherent grouping of sections enables to compute indices at an aggregate level and even a price indice for the “total of services”, which is not possible if one takes account of the STS field only.

The extension of the “BtoB” market to all markets by identifying the “BtoC” market enabled to include the consumer price indices, which naturally already covered most of the field for this market. The branches and markets which are not tracked by the survey “Observation des Prix de l'Industrie et des Services” or by the consumer price indices are imputed (same branch but indicator of an other market, or same market indicator, but from an other branch), which is still the case for the majority of the export services producer price indices.

## Goals

**These indices allow:**

- **Economists to assess and analyse short-term trends**

Numerous public and private, French, European and global organizations use these price indices as short-term indicators and as advanced indicators of inflation (ECB, IMF, OECD, etc.). These indices enables a quarterly monitoring of prices, on different markets, at different stages of the production process. The aggregation of the Member States price indices enables to set a service producer price index (production sold to businesses, or on all markets) for the whole European Union;

- **National accountants to deflate production that comes from structural business statistics issue des statistiques structurelles d'entreprises** and as such to carry out the breakdown between development of the activity in volume (quantity, quality, structure effect) and development of prices (“price-volume sharing”). *In fine*, they can then track the evolution of Gross Domestic Product and aggregates (prices of services sold to French businesses correspond generally to Intermediate Consumption and Gross Fixed Capital Formation, prices of services sold to households in France to Final Consumption of households and exportations of services to exportations);our les besoins du calcul du Produit Intérieur Brut et de grands agrégats retraçant des volumes d'activité;

- **Companies and local collectivities to escalate contracts.**

Companies and business federations can use these indices to track the movements of selling prices or cost prices in their field, and evaluate their competitiveness. Businesses and local collectivities can also use these official indices, mainly the definitive data of the services producer price indices, production sold to the French companies at market prices to escalate contracts. It should be noted that INSEE takes no position on the choice of the most appropriate indices for this purpose, a decision which is the sole responsibility of the co-contracting parties.

## Technical characteristics

### Methodology

The calculation of the services producer price indices is harmonized on a global level, thanks to the discussions of the Voorburg group on service statistics, and to a [Methodological handbook on developing services producer price indices](#) co-edited by Eurostat and OECD (2005), which is currently being rewritten. The services producer price indices measure the raw price developments (not seasonally adjusted. "Response series" of absolute prices are immediately converted into "elementary series" under indices form, then aggregated into "indices series" according to an aggregation tree specific to each branch (a branch is a class of product, i.e. a

CPF4 level of the official classification). At last, price indices of each activity are combined in order to obtain aggregates.

## **Agrégation and reference**

Aggregates indices (CPA 4 digits and above) are chained Laspeyres indices, published now into reference 2015, i.e. these price indices averaged 100 in 2015. Price developments are weighted by annual National Accounts and structural business statistics figures, usually on year N-2. (ideally n-1, in practice too for years 2006 to 2011 compiled by backcasting). Producer Service price indices are considered as « definitive » for the N-1 when the weights of N-2 are used for the first time in calculations.

Indices of activities and lower levels, although compiled according to the same formulas, are Laspeyres indices which could be considered as base-fixed, because their weights are usually updated only during the renewal of the samples followed by the Opise survey for the activity concerned. According to the norm defined for the Opise survey, The companies, the sample transactions, and weights (turnovers or amounts of the company's imports for the products tracked) are updated every five years.

After taking account some consumer price indices (for « BtoC » markets), the French producer service prices computed from the OPISE survey cover about 93 % of the field in value for the services sold, according to the European convention of the STS regulation and about 82 % of the services sold on all markets (sections H to J, L to N and division 85 of the NACE nomenclature rev2.).

## **Information sources**

The operation brings together professional unions, businesses and INSEE. The companies surveyed are sampled, usually on a five-year rhythm, using the sampling from the Structural Annual Survey in services and transports.

Each selected company is contacted by an INSEE engineer-surveyor. During the interview, witness transactions ("response-series") are defined, chosen to be both representative of the business's price developments and easily accessible in order to limit -as far as possible- the statistical burden of the company. The questionnaire is therefore tailored individually to each company participating to the survey.

The data are then collected quarterly online or by post (in about 20 % of cases).

The information is regularly updated, either thanks to an interview with an engineer-surveyor (at least every five years) or thanks to the information directly given by the company (deletions and creations of response-series, transmissions of auxiliary data). The services producer price indices are calculated using about 20,000 quarterly price statements collected from about 2,000 companies within the framework of the compulsory survey "Observation of Business Services and Industry Prices" (OPISE). This survey is part of an annual program of public statistical service surveys analysed by the CNIS (National Council of Statistical Information) and published by decree in the Official Journal at the start of the year.

## **Survey frequency of s de l'opération**

Quarterly.

## **Dissemination**

The service price indices are disseminated on the last working day of the second month following the quarter under review (Q+60 days). The Publishing calendar is announced three months in advance. Except if specifically mentioned, the indices are provisional for a period of three months. Revisions integrate enterprises' late responses and changes of weights consecutive

to the continuous renewal of the indices. The quarterly “[Informations Rapides](#)” Services producer price indices provide the main results with some comments. All indices disseminated are present on the Macro-Economic database ( [Consulter les indices et séries chronologiques \(BDM\)](#) ». They are also redisseminated by Eurostat under the theme “Industry, trade and services”, group “Short-term business statistics (sts)”, sub-group “Trade and services (sts\_ts)”, domain “Service producer prices (SPPI) (sts\_os\_pp)”, available on its [web site](#).

## 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 reference 2010 to reference 2015

Time series of class level (4 digits code) or infra-levels have been re-referenced (application of a rule, so as to obtain 100 for annual average in year 2015). Some indices were retroplated.

Time series of aggregated levels are chained Laspeyres indices, with weights updated annually. The Nomenclature revisions (transition from the CPF Rev 2 to the Nomenclature Rev 2.1) have had a marginal effect on the revisions.

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" reference 2010, for which dissemination was stopped in February 2018. 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 reference 2010, generally on the third quarter of 2017). This table (in French) provides all the price indices concerned.

## For further information

- “The French producer price indices and business-service price indices”, Insee Méthodes No. 89. via [epsilon](#)