

Documentation of statistics for Producer and Import Price Index for Commodities 2023



1 Introduction

The statistics Producer and Import Price Index for Commodities show the price development of commodities in the first stage of transaction. The primary use is as deflators (converting nominal values to real values), but is also used as a business cycle indicator and for contract adjustments in the business sector. The index can be divided into Producer price index for commodities, Import price index for commodities and Price index for domestic commodities supply. The Price index for domestic supply of commodities can be traced back to 1876 and in the current form back to 1981. Producer Price Index for Commodities dates back to 2000 and Import Price Index for Commodities to 2005.

2 Statistical presentation

The Producer and Import Price Index for Commodities contains monthly indices of the price development of commodities in the first stage of turnover (business-to-business), i.e. typically sales from producer to wholesaler or retailer, for commodities produced by Denmark for the domestic market and export, or for commodities imported into Denmark. The statistics are divided by product and industry groups.

2.1 Data description

The total *Producer and Import Price index for commodities* contains price information on:

- 1. Commodities produced for domestic markets
- 2. Commodities produced for export
- 3. Imported commodities

The Producer Price Index for Commodities shows the total price development in the first stage of turnover for commodities produced in Denmark. It includes 1. and 2. above (domestic market + export). A number of sub-indices below show the price development within different industries and product groups.

Import price index for commodities sheds light on the total price development in the first stage of turnover for commodities imported into Denmark, ie. 1. above (import). A number of sub-indices below show the price development within different industries and product groups.

The Price index for domestic supply sheds light on the total price development in the first stage of turnover (business-to-business) for commodities used in Denmark. It includes 1. and 3 (domestic market + import). Below, a number of sub-indices are calculated, which show breakdowns of the total domestic supply of commodities by industry and product group.

The statistics cover all internationally traded commodities that enter or exit from Denmark's material resources by the commodities being exported or imported from Denmark's economic ownership. The statistics follow international guidelines for which transactions must be registered with regard to exports and imports of commodities.



2.2 Classification system

The Producer Price index for commodities, Import Price index for commodities and Price index for domestic supply are divided by industry and commodities.

Industry based indices follow <u>Danish Industrial Classifications 2007 (DB07)</u>. DB07 is a Danish version of the EU's common industry nomenclature, NACE rev.2.

Indices by industry: -Producer Price index for commodities (PRIS4015, PRIS4215) -Import Price index for commodities (PRIS4115) -The Total Producer and Import Price index (PRIS4315) -Price index for domestic supply (PRIS4615)

Commodity based indices follow the <u>Combined Nomenclature (CN)</u> and The Harmonized Commodity Description and Coding System (HS). HS is the international customs classification and developed by the World Customs Organization (WCO)(EU Member States, like many other countries, have used HS as a classification for customs tariff and foreign trade statistics since 1988).

HS is a 6-digit hierarchically structured commodity classification. CN is the EU classification for customs tariffs and foreign trade statistics. CN is based on and related to HS. Data for the total Producer and Import Price Index for Commodities is collected according to this commodity-divided structure.

Indices by commodities: -Price index for domestic supply (PRIS1115)

2.3 Sector coverage

The statistic is subject to the <u>European regulation (EU) nr. 1165/98</u> for short-term statistics. In concordance with the regulation the statistic is comprised of all imported and domestic produced commodities belonging to the industries B to E in the DB07 nomenclature. Additionally, prices are also gathered belonging to industry A for *The Price index for domestic supply*.

- A: Agriculture, forestry and fishing
- B: Mining and quarrying
- C: Manufacturing
- D: Electricity, gas, steam and air conditioning supply
- E: Water supply; sewerage, waste management and remediation activities

The Producer- and import price index for commodities is comprised of industry B to E.

The Price index for domestic supply is comprised of industry A to C.



2.4 Statistical concepts and definitions

Domestic price: The price of domestically produced goods and services, sold to the domestic market.

Export price: The price of domestically produced goods and services, sold to export.

Import price: The price of imported goods and services.

Real transaction price: The price of a good or service actually paid in the market. It represents the actual price paid, inclusive of any discounts, surcharges or rebates, for an individual transaction that can be observed repeatedly

Transfer pricing: The process whereby companies price intra-group transactions to ensure that they are traded on market-like terms. This is done in practice by pricing the transactions so that each part of the group's value chain receives a profit that is within the limits set by the authorities.

2.5 Statistical unit

Prices of commodities in the first stage of turnover.

2.6 Statistical population

Prices of commodities sold in the first stage of turnover from Danish companies in the domestic and export market, and prices of Danish companies' purchased imported commodities.

2.7 Reference area

Denmark.

2.8 Time coverage

The Producer Price Index for Commodities has been published since 2000. Import Price Index for Commodities has been published since 2005 onwards. The Price Index for Domestic Supply of Commodities has been published since 1981. The indices have not experienced any series breaks and are currently part of the suite of published indicators at Statistics Denmark.

2.9 Base period

2015=100

2.10 Unit of measure

Index and percentage changes.

2.11 Reference period

The statistics describe the price development for a given calendar month.



2.12 Frequency of dissemination

Monthly.

2.13 Legal acts and other agreements

The legal authority for data collection is provided by section 8, paragraph 1 of the <u>Act on Statistics</u> <u>Denmark</u>, cf. Executive Order no. 610 of 30 May 2018.

Producer and import price indices for commodities are covered by <u>Council Regulation (EC) No 1165/98</u> of 19 May 1998 on short-term statistics (OJ L 162 05.06 .98).

It is extended by <u>Council Regulation (EC) No 656/2007</u> of 15 June 2007 concerning short-term statistics (OJ L 155, 15.6.07) to include the main industry groups.

Subsequently, there have been various regulations that have further introduced new aspects, which are now being merged and replaced by <u>Regulation (EU) 2019/2152 of the European Parliament and of the Council</u> of 27 November 2019.

2.14 Cost and burden

The reporting burden for these statistics was calculated at DKK 1,148,000 in 2004. The burden was calculated on the basis of the AMVAB method. AMVAB is a method used to measure the administrative burdens for companies that are associated with having to comply with specific legal requirements. AMVAB is an abbreviation for Activity-Based Measurement of Companies' Administrative Burdens, and is the Danish version of the internationally recognized SCM method (Standard Cost Model). A new reporting burden calculation will be made if the number of reporters increases by 20 per cent. or if there are structural changes in reporting to the statistics, which entails a greater reporting burden.

2.15 Comment

For more information please have a look at subject page <u>Producer- and Import price index for commodities</u> or contact Statistics Denmark

3 Statistical processing

Approximately 6800 prices from selected producers and importers in Denmark. Of these, approximately 3600 price reports for calculation of Producer Price Index for Commodities, approximately 3200 for calculation of Import Price Index for Commodities and approximately 5200 price reports are used to calculate the Price Index for Domestic Supply. The prices are validated automatically in connection with the collection. Unusually large price developments are subsequently checked manually. The validated price developments are then aggregated in a hierarchical system, where they are given weight according to their significance to the overall price index.



3.1 Source data

Approximately 6800 prices are collected each month. Of these, approximately 3600 prices are used for calculating the *Producer Price Index for Commodities* and approximately 3200 for calculating the *Import Price Index for Commodities* and approximately 5200 prices to calculate the *Domestic Supply Price Index*.

These product groups are selected so that they cover a minimum of 70 percent of the total turnover value for the target population. Within each of these product groups, the largest companies are selected (top-down), based on revenue value. By selecting the largest companies within a given product group, it is assumed that as per basic market theory these larger companies, as price influencers, have both a large direct share or transactions but also an even larger indirect representativeness which helps to ensure a representative sample for the entire product group. Each of these companies is requested to select their most representative commodities, i.e. those products that most represent their sales and/or purchasing behavior within a given product group. In order to match the sales balances in the national accounts, only prices are collected from companies that have production or import value within the specific product groups.

Each selected company is determined by their legal entity registration. In Denmark's Statistics Business Statistical Register, the legal entities are determined by their CVR number. In cases where a company has multiple CVR numbers sharing the same activity these can be combined into one unit from which prices are collected, for example, franchises. The companies must, as far as possible, report the price in force on the 15th of the month. If no price information is available for the 15th of the month, an appropriate day earlier in the month or an average of the prices for the first 15 days of the month can be utilized. For industries or products with high variation within the month — an average price for the whole month is instead preferred.

Weights for aggregation purposes come from the National Accounts product balances for 2019, based on several internal primary sources (companies' purchases and sales, industry production and revenue, retail trade and foreign trade statistics etc). This covers the main part of all trading in the first turnover stage in Denmark, within the delimitation of the purpose of the statistics. Companies under a defined size are not included in the national accounts of the national accounts.

3.2 Frequency of data collection

Monthly.

3.3 Data collection

Prices are collected via a digital reporting form at Virk.dk.



3.4 Data validation

The first validation of price data happens when prices arrive at Statistics Denmark. Here they are validated automatically for specification changes and large movements. Prices movements that are greater than a predetermined threshold are automatically flagged and subsequently manually checked and accepted only if companies can confirm the change. When all prices are received, a list of all price changes is generated, as well as an overview of how these changes impact the indices. The last validation is a manual inspection of all calculated indices, where index movements over a longer period, and in different markets, are reviewed to ensure that any atypical developments are also investigated.

3.5 Data compilation

The Producer and Import Price Index for Commodities are calculated in a hierarchical system, where the prices collected are divided into a number of product groups based on the six-digit CN commodity nomenclature, so-called elementary aggregates (EAs). The EAs are the most detailed groups of commodities. Each period an average current period price is calculated and compared with the previous period using a geometric mean of matched observations. The aggregate price development is used to update the index level of the EA and corresponds to the total price development for a given six-digit CN group.

Subsequently, EAs are aggregated together using a Laspeyres-type index (weighted arithmetic mean), where the composition of the commodity basket remains fixed between reference period and current period. In a Laspeyres-type index the price reference period does not coincide with the weight reference period. The price reference period is the period you compare the current period's prices. The weight reference period is the period that the weights are from. Typically the weights reference period comes before the price reference period due to data availability constraints.

This calculation is explained in more detail in the publication Index Calculations in Statistics Denmark (<u>Indeksberegninger i Danmarks Statistik</u>).

Weights are assigned to every detailed group of commodities(EA) and used for weighting the base indices together for sub-indicies and for *the total Producer and Import Price index for commodities*. The weights, based on the National Accounts for 2019, is equal to the sum of the import values and the production values for the domestic market excl. VAT and excise duty. Where non-response is experienced for essential commodities, imputation is used in which the price development of known observations is used to represent missing observations (class mean imputation). In other cases, prices are considered unchanged (carry-forward method).

The monthly non-response rate is less than 1 percent and is not considered a significant source of error.

3.6 Adjustment

There are no corrections of data in addition to what has already been described in data validation and data processing.



4 Relevance

The Producer and Import price index for commodities serves as economic key figures, cyclical indicator, deflator and a contract regulations tool. The primary users of the statistics are the Danish National Accounts, business and stakeholders in the Danish economy. The statistics meet all the requirements of the EU in terms of industry coverage, aggregation level, frequency and publication date, etc.

4.1 User Needs

Producer and import price indexes for commodities are used in deflator purposes to take into account price changes in other economic agencies. It includes the fixed price calculations in the National Account statistics, which is part of the calculation of the real economic development in Denmark.

The indices also act as economic key figures and cyclical indicator used by public and private decision-makers for assessing the socio-economic development.

In addition, the index of business for contract regulations is used.

4.2 User Satisfaction

The primary user of these statistics is the Danish National Accounts. For this reason, the main purpose of the statistics is as a deflator for fixed price calculations. This main purpose means that certain transactions, e.g. transfer prices, are included which would not be otherwise included for a purely inflationary measure. There is regular dialogue with National Accounts, in relation to quality and user satisfaction.

There are also external decision makers who use the statistics for contract regulation, as well as to monitor the price developments in the published indices. Statistics Denmark is on a regular basis in contact with these users, and attempt to meet any requests to the extent which it is possible, keeping in mind that the primary purpose is for deflation.

Periodically Statistics Denmark holds a committee meeting with users of price indices. The committee meetings are held in cooperation with the consumer price indices, as well as statistics for purchasing power parities and price level indices. It should be noted, however, that the last meeting was held in 2015. You can see more information and contact the price index committee here. Members of the committee are: the Ministry of Finance the Ministry of Economic Affairs and the Interior; The Danish National Bank and the Danish Competition and Consumer Authority. Membership of the committee is updated on a needs basis.

4.3 Data completeness rate

The statistic is covered by requirements from the EU in terms of industry coverage, level of detail, frequency and release times. Statistics Denmark meets all these requirements. Some indices are not included in the population because the goods are of a special nature or because turnover is too low. Other sub-indices are included in the sample, but not published due to confidentiality reasons.



5 Accuracy and reliability

The prices covered by the data collection have a direct coverage of approximately 70 percent of total revenue in the Danish economy. Weights are based on the National Accounts product balances, which covers the main part of trading in the first stage of sales within the delimitation of the statistics. Sample units are selected on a purposive basis using a top-down approach. As a random sampling method is not being utilised a subsequent assessment of sampling error is not enabled.

Published statistics are considered final.

Producer and import price index for commodities are not considered to have an increased uncertainty due to COVID-19. Data collection has been largely not impacted as a result of the crisis and subsequent non-response levels have remained at their historically low levels.

5.1 Overall accuracy

Prices are collected for approximately 1100 groups of commodities covered by approximately 6800 price series. The samples for each commodity group are selected top-down to achieve as high turnover coverage as possible. Within each of these commodity groups the largest companies, measured on turnover, are selected. Each of those companies are asked to report the prices of their most representative commodities based upon revenue or the amount sold/import within the given commodity group. Therefore, it is assumed that the price developments in the samples expresses the price developments in the whole population.

The weight are based on the National accounts balances for 2019, which is based on multiple inhouse primary sources (Purchases and sales by enterprises, Production and turnover in manufacturing industries. Retail Trade and International Trade etc.). This covers most of all the trade in Denmark and it is assessed to been representative of the Danish economy.

5.2 Sampling error

A purposive (top-down) sampling technique is utilised focusing on businesses that represent the largest shares of transactions within a given stratum. This method is accepted in international guidelines but as this is not a random sampling technique and no sampling error metric can be estimated.



5.3 Non-sampling error

In the second quarter of 2020 Denmark experienced social restrictions due to Covid-19 shutdowns. In subsequent periods societal constraints were lifted and reinstated on a needs basis. Despite these times of shifting restrictions it has been possible to publish the producer and import price indices as per the planned schedule. The non-response experienced is largely unchanged in relation to comparable periods before the pandemic and the index is therefore not considered to have an increased uncertainty as a result of Covid-19.

As time goes by, some replacement of the commodities included in the calculations occurs. When new products enter and have a different quality than the commodities exiting normal quality change practices are applied. When replacing commodities, the new product is first included in the price calculation when two consecutive price observations are available for the product concerned. In cases where price changes only take place at the same time as quality changes, this can give rise to imbalances. Methods for handling quality changes are described in more detail in the IMF's manufacturer price index manufacturer price index (Practice). Statistics Denmark applies quality adjustments on a case-by-case basis and uses the best method that the data and provider contact enables.

A further general observation is that there may be cases where obsolete commodities stay too long in the sample and that new commodities are introduced too late. The companies are requested both continuously, but also systematically, approximately every two years, about reviewing the commodities that they report prices in relation to whether they are still representative of the company's general sales or imports. If this is not the case they are requested to replace obsolete commodities with new ones. Errors may also arise if a company reports a price for a wrong item. This is usually due to misunderstandings, for example, in connection with staff changes in the company reporting. In addition, errors can occur in connection with the registration of completed forms at Statistics Denmark. Such potential errors are both assessed via automated and manual means and are not considered to be a source of significant errors.

The price index is calculated as a *fixed commodities basket* index of the Laspeyres-type. This means that, in the calculation of the index, an unchanged composition of goods through time is assumed. In the real world, companies substitute between products for various reasons (e.g. changed relative prices, preferences or technology). This means that the calculated price development in the price index may lose representativeness over time where undetected commodity changes are taking place. This is attempted to be minimized by sample updates every five years, as well as companies being requested both continuously (monthly data validation) and systematically, approximately every two years, about reviewing the commodities that they report prices (the fixed commodities basket) in relation to whether they are still representative of the company's general sales or imports.

The monthly non-response is less than 1 per cent. It is therefore not considered to be a major source of error. If the non-response should take place for essential commodities, imputation is used where the non-response price development is imputed with the development of the elementary aggregate they belong (class mean imputation). In other cases, prices are considered unchanged (carry forward imputation is utilized).

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.



5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

Overall the indices of the *Producer-* and *Import Price Index of Services* is assessed to be of high quality and representative of the price development in the population, i.e. the price development of goods sold by Danish producers and of goods bought by Danish importers. This assessment relies on the data used for the index, which consists of 6800 prices distributed on approximately 1100 commodity codes which covers at least 70 pct. of the total revenue in the population. This together with the weights encompasses the main part of all Danish trade as well as the continuously monitoring of the quality of the sample.

There are large differences between the commodity- and industry groups that the *Producer and Import Price Index for commodities* covers. There is great variation in the number of companies from group to group. In some groups it is possible to cover a large amount of turnover with a small sample, whereas in others, it is difficult to cover a small amount of turnover even with a large sample. Hence it is not possible to determine a common quality benchmark across all groups, and the quality will vary more for more disaggregate indices.

A comprehensive quality assessment is therefore based on a combination of assessing turnover coverage, the number of companies and prices in the sample and the quality of the collected prices, including the pricing methods used. The quality of the statistic is being continually monitored and improvements are made where it is assessed that the quality can be levered. Conducting quality work therefore includes making replacements within- and increasing the sample with more respondents. Asking existing respondents to report more prices, or use better pricing methods to define and calculate prices.

Furthermore, the quality of this statistic can be assessed by to what extent the statistic is relevant, accurate and reliable, timely and punctual, comparable and accessible to the users. You can read how the index lives up to these goals in the sections with the corresponding headlines.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

Only final figures are published.



6 Timeliness and punctuality

The statistics are published on a monthly basis. The statistics for a given month are published on the 15th of the following month or the first business day thereafter. The statistics are usually published without delay in relation to the scheduled date.

6.1 Timeliness and time lag - final results

The statistics are published on a monthly basis. The statistics for a given month are published on the 15th of the following month or the first business day thereafter. Only final figures are published.

6.2 Punctuality

The statistics are published monthly without delay in relation to the scheduled release date. There has been exceptions to this in very rare occasions.

In connection with the five-year weight regulation and rebasing of the weight base and the base year from 2010 to 2015, the publication of the statistics for January 2019 was postponed from 15 February 2019 to 20 February 2019.

In connection with the inaurgral annual updating of weights, the publication for January 2020 was postponed from 17 February 2020 to 20 February 2020.

7 Comparability

Statistics Denmark has calculated variations of this statistic since 1876. The Producer and import price index for commodities can be found as an unbroken monthly time series from 2005 to today. The statistics have been prepared according to international standards and can therefore be compared to similar statistics from other European countries.

7.1 Comparability - geographical

The production of producer and import price indices is an obligation by all EU Member States under the guidelines set out in <u>Council Regulation (EC) No 1165/98</u> of 19 May 1998 on short term statistics.

The statistics can thus be compared internationally via <u>Eurostat</u>, where data from the various EU member states are available.

The statistics are internationally known by the abbreviation PPI and also produced outside the European Union.

7.2 Comparability over time

These statistics have been produced in its current form since 2000, but changes in the year of comparison, the base year and the industry classification have occurred during that period.

- From 2005 to 2008, 2000=100, weight year is 2000 and industry classification is DB03
- From 2009 to 2013, 2005=100, weight year is 2005 and industry classification is DB07
- From 2014 to 2018, 2010=100, weight year is 2010 and industry classification is DB07
- In 2019, 2005=100, weight year is 2015 and industry classification is DB07



- In 2020, 2015=100, weight year is 2016 and industry classification is DB07
- In 2021, 2015=100, weight year is 2017 and industry classification is DB07
- In 2022, 2015=100, weight year is 2018 and industry classification is DB07
- In 2023, 2015=100, weight year is 2019 and industry classification is DB07

To enable comparisons with earlier periods it is, in principle, possible to interlink old and new indices by comparing indices with new and old year of comparison for the same period

When comparing indices over a longer period of time it is important to note that weight changes and the continuous update to the sample interferes with the assumption of a fixed basket of goods, central to price index theory. Though these measures are taken to ensure the index better reflect the current turnover in the Danish economy.

The Price index for domestic supply have been produced in its current form as a monthly index since 1981, but have changed base and weight reference year during the period.

The Price index for domestic supply is also published as a yearly index in the StatBank, PRIS1900. Statistics Denmark have produced different version of the index since 1876, and first published the index in Statistisk & *arbog fra 1913 (tabel 61). The index has had different names through the years but became the Price index for domestic supply in 2003. The yearly index published in the StatBank is an index compiled from a series of indices from 1876 and up to today, and these indices have had different methodological changes through the years, which is something to note when using the index.

The Price index for domestic supply has had a number of changes from its inception until now. Immediately below is a structured overview of the changes to base year, weight reference year and commodity groupings: -Period: 1925-1934. Base year: 1913=100. Weight year: 1924. Commodity grouping: 11 Groups. -Period: 1935-1937. Base year: 1931=100. Weight year: 1934. Commodity grouping: 11 Groups. -Period: 1938-1956. Base year: 1935=100. Weight year: 1935. Commodity grouping: 11 Groups. -Period: 1957-1971. Base year: 1955=100. Weight year: 1954. Commodity grouping: SITC. -Period: 1971-1981. Base year: 1968=100. Weight year: 1966. Commodity grouping: BTN. -Period: 1982-1984. Base year: 1975=100. Weight year: 1975. Commodity grouping: CCCN. -Period: 1985-1993. Base year: 1980=100. Weight year: 1980. Commodity grouping: CCCN. -Period: 1994-2002. Base year: 1990=100. Weight year: 1990. Commodity grouping: HS. -Period: 2003-2004. Base year: 2000=100. Weight year: 1998. Commodity grouping: HS. -Period: 2005-2008. Base year: 2000=100. Weight year: 2000. Commodity grouping: HS. -Period: 2009-2013. Base year: 2005=100. Weight year: 2005. Commodity grouping: HS. -Period: 2014-2018. Base year: 2010=100. Weight year: 2010. Commodity grouping: HS. -Period: 2019. Base year: 2015=100. Weight year: 2015. Commodity grouping: HS. -Period: 2020. Base year: 2015=100. Weight year: 2016. Commodity grouping: HS. -Period: 2021. Base year: 2015=100. Weight year: 2017. Commodity grouping: HS. -Period: 2022. Base year: 2015=100. Weight year: 2018. Commodity grouping: HS. -Period: 2023. Base year: 2015=100. Weight year: 2019. Commodity grouping: HS.

The index was originally calculated on the base of the utilized prices for 38 significant commodities in the valuation calculations in the trade statistic, and further added weight after significance. Through the years the sample have been expanded upon and different methodologies, price definitions etc. have been introduced. Immediately below is an overview of these changes, but if you want to know more you can find a more detailed overview in a document on our subject page in the near future.

Overview of changes through the years: -1913: The index was published for the first time in Statistisk årbog 1913 for the years 1876, 1881, 1886, 1900, 1901, 1905, 1906, 1907, 1908, 1909, 1910, 1911 and 1912. -1914: The total index series from 1876-1913 is published for the first time in the Statistisk årbog 1914. As base year for the index the average of 1891-1900 is set to 100. -1925: The department of Statistics reorganizes the statistic from a yearly to a monthly index. -1936: Increased



price information and new groupings. -1957: The statistic changes name from The wholesale price number to The wholesale Price index, roughly translated from Danish. An English version of the index was not published at the time. -1963: The price definition changes from whole sale prices to producer prices. -1982: The raw material price index is included independently in the import table. -1985: New price information and weights. Price reference and base year are changed to 1980=100. -1994: The weights and price information are revised. Base year is changed to 1990=100 and the utilized nomenclature is changed to HS (Harmonized System). -2001: The data of price collection is change from the 25th to the 15th in the given month. -2003: The calculation methodology changes from a simple arithmetic average to a geometric average and the price definition is changed to transaction prices. The index changes name to The price index for domestic supply. -2004: The price definition for import prices is changed from sales price to purchase price. -2013: The overall statistic has a name change to The Producer- and Import price index for commodities. The price index for domestic supply continues to be produced under this new overall name for the statistic. The raw material price index is discontinued.

A lot of these cases constitute a structural break in the data. Furthermore, there a changes to nomenclatures, weights, the basket of goods, groupings, and collection methods. It is important to note all of these when utilizing the yearly Price index for domestic supply that is compiled by historical indices.

7.3 Coherence - cross domain

The statistics are related to the <u>Producer price index for services</u>, which, like <u>Producer and Import price index for commodities</u>, are used for fixed price calculations in the calculation of Denmark's national accounts.

The producer price indices for goods and services highlight the price development in the first turnover stage (business-to-business), as opposed to <u>Consumer price indices</u>, which highlight the price development of the goods and services included in household consumption.

The statistics are harmonized with the national accounts by virtue of the weights used, based on their product balances. The producer price indices are an integral part of the fixed price calculations in the national accounts, which allow the calculation of volume changes in the Danish economy.

7.4 Coherence - internal

Price indices by industry groups and commodity group are calculated on the basis of the same data.

The calculation of the price index is based on the price change for the individual product in the sample. Therefore the composition of products in a commodity group can have different quantities and units of quantity. For example if the price for a 500 gram steel bolt is increased by 4 percent and a 1 kg steel bolt is increased by 6 percent. the average price change is calculated to 5 percent. for the commodity, steel bolts.



8 Accessibility and clarity

The statistics are published monthly by Statistics Denmark via press release "Nyt fra Danmarks Statistik" (in Danish only) and specifically regard Producer and Import Price Index for Commodities.

In the StatBank, the statistics are published under the topic <u>Producer and Import Price Index for Commodities</u>.

For more information visit the subject page on **Business Prices**.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.2 Release calendar access

The Release Calender can be accessed on our English website: Release Calender.

8.4 News release

The statistics are published monthly by Statistics Denmark via press release "Nyt fra Danmarks Statistik" and specifically Producer and Import Price Index for Commodities.

8.5 Publications

These statistics also featured in the <u>Statistical Yearbook</u> until 2017. Internationally, the statistics also feature in the Eurostat publication <u>European Price Statistics - An Overview</u> (2008).



8.6 On-line database

These statistics are published in the Statbank under <u>Producer and Import Price Index for Commodities</u> in the following tables:

Producer price index for commodities

- PRIS4015: Producer price index for commodities (2015=100) by Industry (groups), market and unit
- <u>PRIS4215</u>: Producer price index for commodities (2015=100) by industry standard industrial groupings and unit

Import price index for commodities

• PRIS4115: Import price index for commodities (2015=100) by Industry (groups) and unit

Price index for domestic supply

- PRIS1115: Price index for Domestic Supply (2015=100) by commodity group and unit
- PRIS4615: Import price index for commodities (2015=100) by Industry (groups) and unit

Producer and import price index for commodities

• <u>PRIS4315</u>: Producer and import price index for commodities (2015=100) by Industry (groups), market and unit

8.7 Micro-data access

Researchers and other analytics from authorized research institutes, may apply for access to microdata through the <u>Division of Research service</u> (Danmarks Statistiks forskerordning) via. the researcher scheme. In addition, micro-data are available for departments, agencies and directorates through the ministry scheme.

Available price statistics information and micro-data; - electronic reports that date back to 2010 - micro-data in the form of elementary aggregates date back to 1993 for producer and import price indices for commoditites.

8.8 Other

The statistic is available in Eurostat's database.

8.9 Confidentiality - policy

Statistics Denmark's Data Confidentiality Policy (Datafotrolighedspolitik).

8.10 Confidentiality - data treatment

The statistics are published at a level of detail that ensures individual companies cannot be identified unless the information is otherwise publicly available. All companies participating in the study receive information on terms and conditions regarding the confidentiality of individual answers. As per the Data Confidentiality Policy (Datafortrolighedspolitik) there are two rules that this statistic follows for publication: - There must be a minimum of 3 reporting companies. - The two largest companies can at most represent 85 per cent of turnover.

If these rules cannot be met the impacted table cell(s) are considered confidential and are not published.

8.11 Documentation on methodology

These statistics follows the principle as stipulated in the <u>Eurostat Handbook on industrial producer price indices (PPI)</u> from 2012. In addition, guidance is taken from the IMF manual on PPI's, <u>Producer Price Index Manual: Theory and Practice</u> from 2004.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics is in the division of Prices and Consumption, Economic Statistics. The contact person is Nicklas Milton Elversøe, tel.: + 45 6115 3598, and e-mail: NEL@dst.dk.