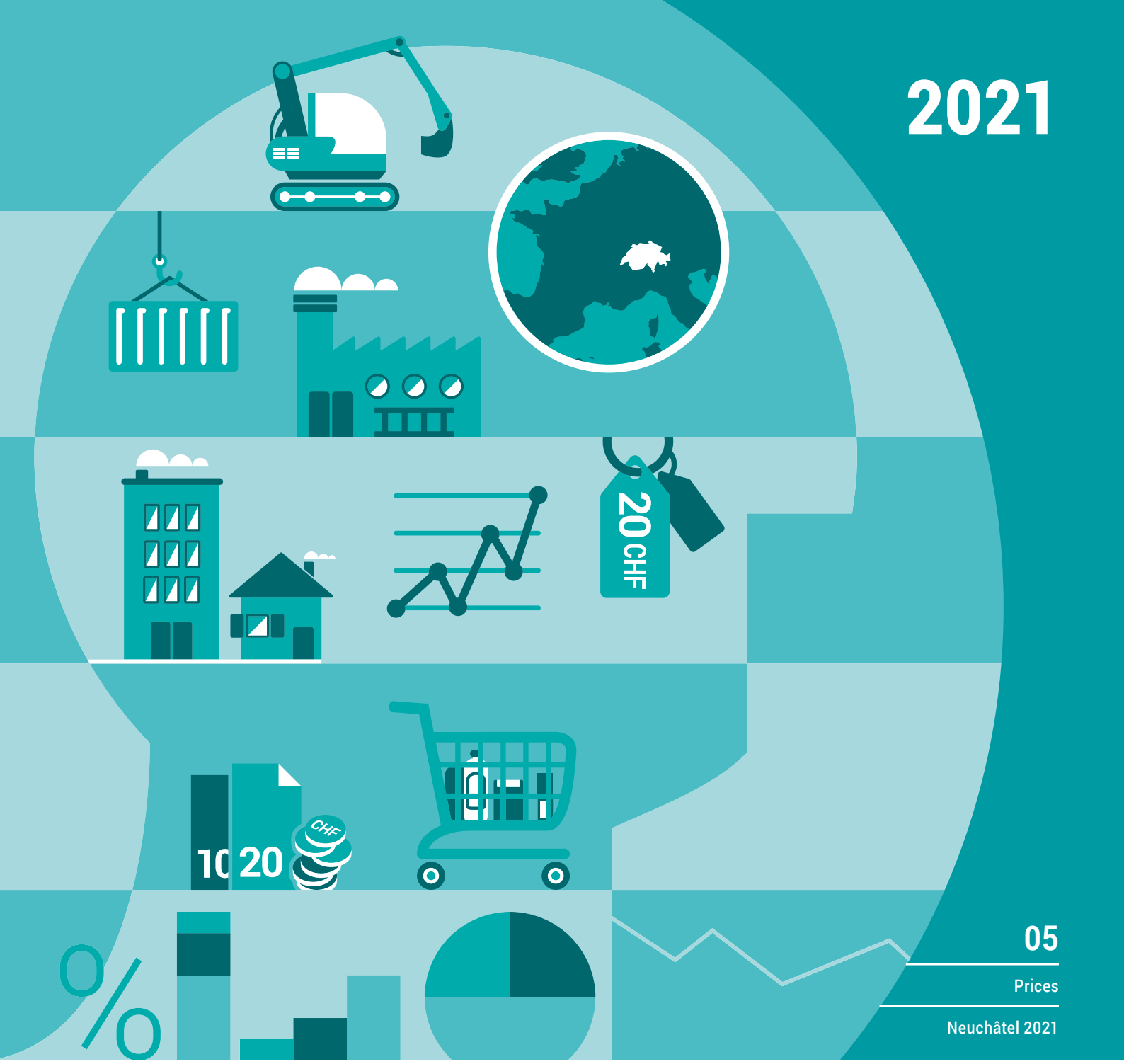

Producer and Import Price Index December 2020 = 100

Methodological bases

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Confédération suisse
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Neuchâtel 2020, 8 pages, FSO number: 387-2000

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Methodological bases

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Published by Federal Statistical Office (FSO)

Neuchâtel 2021

Published by: Federal Statistical Office (FSO)

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Editor: Mirko Huber, FSO

Contents: Producer and Import Price Index Revision Project Team, FSO

Series: Swiss Statistics

Topic: 05 Prices

Original text: French

Translation: FSO language services

Layout: DIAM Section, Prepress / Print

Graphics: DIAM Section, Prepress / Print

Online: www.statistics.admin.ch

Print: www.statistics.admin.ch
Federal Statistical Office, CH-2010 Neuchâtel,
order@bfs.admin.ch, tel. +41 58 463 60 60
Printed in Switzerland

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FSO number: 1198-2000

ISBN: 978-3-303-05771-1

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1 General information

1.1 Producer and import price system

1.1.1 Producer prices

The producer price statistics measures the price development of goods (products and services) produced and sold by businesses operating in Switzerland.

The Producer Price Index (PPI) specifically covers the following product groups: agriculture and forestry, quarrying, manufacturing industry, distribution of electricity and gas, collection, treatment and supply of water, sewerage, waste management and recycling. The construction industry is covered by the Construction Price Index (CoPI). Price indices are also calculated for several individual economic activities in the services sector, with additional services to be included in successive stages (see chapter 9).

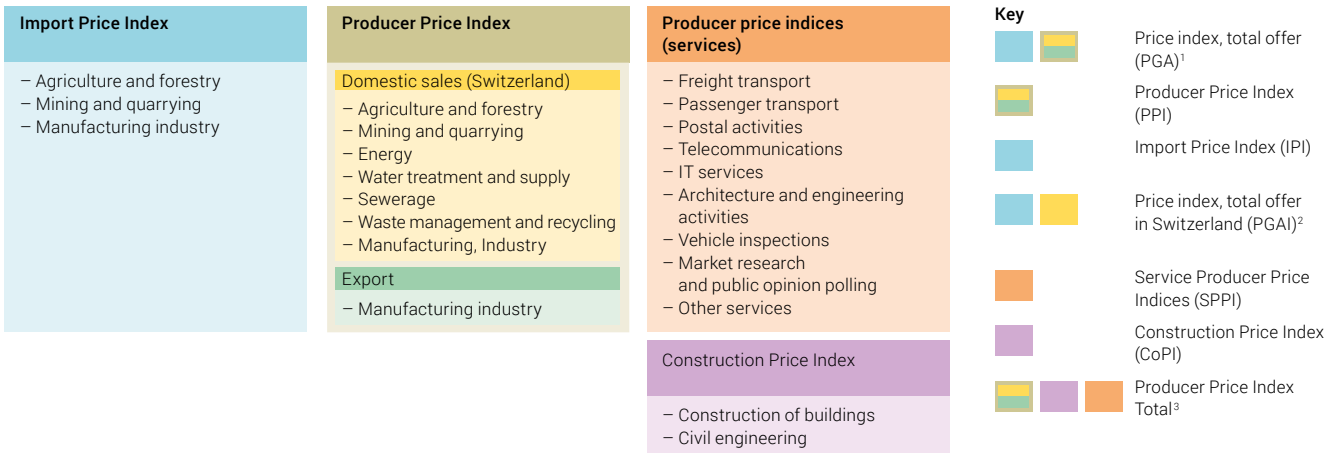
The sales area of the products covered by the Producer Price Index can be either in Switzerland or abroad (exports). Price information for the manufacturing industry is collected separately for each sales area.

Prices for the domestic market are recorded at the first marketing stage (ex-works) while export prices are recorded under fob ("free-on-board") terms (see Section 2.4). Goods in the PPI reach customers directly or through intermediaries. The index comprises intermediate, capital and consumer goods.

1.1.2 Import prices

The Import Price Index (IPI) measures trends in the prices of imported goods, which reach customers directly or through intermediaries. The prices recorded are those at the Swiss border minus customs duties. The index includes intermediate, capital and consumer goods in the areas of agriculture, mining and manufacturing industry.

The producer and import price system **G1**



1 price index, total offer (total domestic sales, exports and imported goods)
2 price index, total offer in Switzerland only (total domestic sales and imported goods)
3 in progress

Source: FSO – PPI

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1.1.3 Price indices for the total offer

The PPI and the IPI are combined into a price index for the total offer (PGA). When we exclusively take into account the domestic-sales products of the PPI survey, we obtain the price index for the total offer on the domestic market (PGAI). The different indices (excluding the construction sector) are usually grouped together under the "Producer and Import Price Index" (PPI / IPI). Graph G1 shows how the different indices are related to one another:

1.2 Price index since 1914

The PPI has been calculated combined with the IPI, since 1914. Until 1993, they were reported in a single index known as the "wholesale price index". Since then producer and import price indices have been compiled and calculated separately, then combined into price indices comprising the whole range of goods or "Total offer index".

To calculate extended series, new indices (December 2020=100) are chained with previous indices (December 2015=100). At higher aggregation levels, older indices (December 2010=100, May 2003=100, May 1993=100, 1963=100) are included in the chain. The chain for the Total offer index goes back even further to August 1939=100 and July 1914=100. When interpreting such long series, it is important to take into account that the chain's links differ from one another in various aspects (included product groups, weighting of product groups, different survey and calculation methods).

1.3 December 2020 PPI / IPI revision

After 2015, the PPI underwent a complete revision for the seventh time since its first introduction at the start of the 20th century. Since January 2021, it has been calculated using a new basis: December 2020=100.

A revision allows the statistics to be fully modernised, in particular to integrate improvements to the design and methodology as well as adapting the structure and weighting of standard baskets to market trends. Furthermore, it enables optimisation of production and dissemination processes to best meet users' needs while at the same time reducing the administrative burden on respondents.

The main objectives of the December 2020 revision were as follows:

- update the standard components, i.e. adapt the structure and weighting of the different standard baskets to market trends;
- update the weighting of businesses;
- expand the use of secondary data to lessen the burden on businesses;
- thoroughly review the sample in conjunction with recruiting efforts to fill gaps in the survey;
- focus on specific key industries to improve the index's quality, i.e.: pharmaceuticals, energy, water production and supply, sewerage and predominantly service-oriented industries;
- improve survey techniques, in particular developing an online survey (eSurvey);
- continue extension of surveys into the services sector;
- Publish methodological bases for service sector surveys.

1.4 Applications and users

The Producer and Import Price Index are used for the following purposes:

Economic indicator
Short-term economic indicator measuring inflation.

Deflator
Quantify deflation of price variations in nominal terms in Swiss national accounts as well as production and turnover statistics to identify real term macroeconomic trends.

Analysis
- Macroeconomic analysis;
- Industry analysis and comparisons;
- Product group analysis and comparisons.

Practical applications
- Indexing to adjust quotes, budgets and long-term contracts to price developments over time;
- Information about the price development of individual product groups.

Table 1 shows who uses the index, and for which purpose.

Key users of the Producer and Import Price Index **T1**

User requirements	User
General results	The public (press and other media, information centres); Swiss National Bank; public administrations
General and detailed results as short-term economic indicators and deflators	Federal Statistical Office (FSO): Swiss national accounts and production indices; EU statistical office (Eurostat); Organisation for Economic Cooperation and Development (OECD); International Monetary Fund (IMF)
General and/or detailed results for analysis	Economic research institutes; universities; banks; non-financial businesses; government agencies; Swiss National Bank
General and/or detailed results for indexing budget items, contractual figures, etc.	Businesses, particularly in the construction and machinery manufacturing industries; Federal Office for Buildings and Logistics (FOBL), including the Coordination Group for Construction and Property Services (KBOB); Federal Office of Transport (FOT); Federal Roads Office (FEDRO); etc.

Source: FSO – PPI

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1.5 Legal basis and data protection

The legal basis of the Producer and Import Price Index is the Federal Statistics Act of 9 October 1992. This includes the Ordinance of 30 June 1993 on the Organization of Federal Statistics and the Ordinance of 30 June 1993 on the Conduct of Federal Statistical Surveys, whose annexes list the collection of producer and import prices. Participation is mandatory for the businesses surveyed.

The Federal Statistical Office complies with the stringent data protection provisions set forth in the Federal Statistics Act and the Federal Act of 19 June 1992 on Data Protection. The information provided by respondents is handled confidentially and used exclusively for statistical purposes. The results published are average values that do not enable individual data providers to be identified.

1.6 International guidelines

Pursuant to the Bilateral Statistical Agreement with the EU and the contents of its Annex A, the Producer and Import Price Index must comply with the revised Regulation (EC) No 1165/98 concerning short-term statistics[1].

Compliance with this Regulation also covers the data requirements of other international organizations relevant to Swiss economic statistics (OECD, UN and IMF).

At European level, today the Council Regulation (EC) No 1165/98 is incorporated into the FRIBS (Framework Regulation Integrating Business Statistics). The FRIBS came into force on 1 January 2021 and it includes several regulations governing business statistics, expanding their content at the same time. In principle, a new European regulation in the area of statistics only becomes binding for Switzerland when it has been incorporated into the bilateral agreement's Appendix A. The PPI revision work was partly based on the FRIBS with the aim of ensuring the continuity of statistical cooperation with Eurostat and of acquiring the necessary experience to develop targeted adaptations and/or derogations for Switzerland.

[1] Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics (OJ L 162, 5.6.1998, p. 1)

2 Basic concepts and definitions

2.1 PPI and IPI, pure price indices

The PPI and IPI are based on a pure price index concept because only price developments are measured by the development of the index between two periods. Thus, the product (or the services package) compared between each survey period within the SPPIs must be strictly identical to ensure that price developments can be measured consistently. In practice, in the event of a change of assortment between two periods, the evaluation of the quality dimension is often very difficult, which makes it impossible to establish a direct link between the discontinued product and the newly introduced one.

2.2 Delineating the statistical scope of application and coverage

The scope of application is delineated by Swiss production (PPI) and imports (IPI) as set out by the national accounts. Thus, the PPI/IPI measure changes in the prices of goods and services produced and imported by businesses located in Switzerland.

The products covered in this document corresponds to the following sections of the General Classification of Economic Activities (NOGA):

- A: Agriculture and forestry;
- B: Mining and quarrying;
- C: Manufacturing;
- D: Energy;
- E: Water collection, treatment and supply, sewerage, waste management, recycling.

2.3 Statistical unit

In the scope of the PPI/IPI the notion of the "single output generating entity[1]" prevails as a statistical unit. In practice, it is nonetheless difficult to implement this notion, in particular due to a lack of information. In general, the notion of enterprise is used as an observation unit. We try to get as close as possible to the ideal statistical unit by identifying and separating activities of relevance to the index considered through specific questions in the survey questionnaires.

2.4 Relevant prices

In theory, the relevant prices are the prices effectively applied by the business producing the good or the service considered at the time of its sale (acquisition concept), taking into consideration discounts, as well as any other applicable surcharges, with VAT and tax always excluded. In practice, the situation is far more nuanced and it is often the case that base prices cannot be directly observed. In such cases, various alternative survey concepts can be used, deviating more or less from the basic price concept.

In the scope of the PPI, the prices of Swiss-produced products for the domestic market were recorded at the first marketing stage by the producer or at the factory (i.e. ex works)[2]. Ex-works prices exclude VAT and excise duties (e.g. for tobacco, alcohol and petroleum products).

Export prices surveyed are based by definition on net fob ("free-on-board")[3] sales prices, excluding VAT.

As far as imports are concerned, the CIF[4] price concept is applied. Prices are collected at the Swiss border less VAT, excise and customs duties[5].

[1] Related to the concept of "Local Kind of Activity Unit – LKAU" valid in the national accounts system.

[2] Exceptions are made in a few cases where wholesale prices are used. This occurs when the representativeness of the corresponding industry or product index cannot otherwise be guaranteed. Whenever possible, it is the purchase price that is collected from wholesale businesses as this corresponds in principle to the ex-works price once freight costs, excise duties and VAT have been deducted. In the rare instances in which purchase price data are not available either, wholesale sales prices are used instead.

[3] In accordance with Incoterms 2000/2010 from the International Chamber of Commerce (ICC). If fob prices are unavailable, we use ex-works prices or ddu prices (delivered, duty unpaid).

[4] acronym for Cost Insurance Freight

[5] Import price data are collected from importers. Minor differences are possible between the definition-based price and the actual price. This difference is small in the case of an importer who reports a carriage-paid price to the final destination instead of to the border. On the other hand, the difference is larger when an importing company is unwilling to divulge its import (i.e. purchase) prices and instead reports only its wholesale sales prices (resale prices). Experience, however, has shown that this is rarely the case. Only agricultural producer prices are still collected including product taxes and excluding product subsidies, in accordance with the previous model and EU requirements for agricultural price statistics.

In general, products' actual market prices (transaction prices)[6] are collected at the order stage[7]. Price reductions (discounts) are deducted. Foreign-currency prices are converted to Swiss francs at the exchange rate effective on the first business day of the survey reference period, which covers days one to eight of the survey month. This "early-in-the-month" survey reference period makes it possible to calculate and publish the reference month's results over the course of the following month.

[6] Only in exceptional circumstances is this rule not applied. In this case, an adequate approximation of the targeted "market price" is sought.

[7] The order price is often equal to the delivery price. Differences may occur for products with long production and delivery times, and where sales contracts include an inflation provision.

3 Standard basket

3.1 Definition

The basket comprises goods and services whose price development is measured by the Producer and Import Price Index. It must be as exhaustive as possible, as it is meant to represent the production and imports of the entire economy. The basket's composition is guided by two fundamental questions: which goods and services should be included and how are they to be weighted (relative weight) in relation to the entire basket?

3.2 NOGA, basic classification

The basic classification system used by the Producer and Import Price Index is the 2008 General Classification of Economic Activities ("Nomenclature générale des activités économiques", NOGA[1]) published by the FSO. The NOGA itself is based on the Statistical Classification of Economic Activities in the European Community (NACE, Rev. 2)[2].

The NOGA is used to classify not only economic activities but also products for the Producer and Import Price Index. Economic activities are first divided into subcategories down to the fourth level, known as "classes" (four-digit). up until this point, the NACE and NOGA are identical. The NOGA then adds a fifth level (six-digit), described as "types", which takes into account the specificities of the Swiss economy.

3.3 Detailed classifications

The NOGA fifth level is insufficient for weighting the various sub-classifications of the PPI / IPI. It is, however, possible to apply additional classifications. The approach is twofold. First we draw on the EU's Classification of Products by Activity ("Classification statistique des produits associée aux activités", CPA). The CPA is identical to the NACE (and by extension to the NOGA) up to the fourth level, but it also defines an additional fifth and sixth level. Then we adopt some of the product classifications commonly used by individual industries within Switzerland, resulting in sub-classifications that more closely reflect market reality.

NOGA structure **T 2**

Level	Identification	Description	Example	
1	1 capital letter	Section	C	Manufacturing
2	2 digits (2 positions)	Division	28	Manufacture of machinery and equipment n. e. c.
3	3 digits (3 positions)	Group	28.1	Manufacture of general-purpose machinery
4	4 digits (4 positions)	Class	28.14	Manufacture of other taps and valves
5	6 digits (5 positions in PPI / IPI)	Type	28.14.00	Manufacture of other taps and valves[1]

[1] Four- and six-digit identifiers are often identical. The Producer and Import Price Index breaks down level 28.14(.00) into 28.14.1 and so forth.

Source: FSO – PPI

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[1] Federal Statistical Office: NOGA 2008, General Classification of Economic Activities, Explanatory notes; Neuchâtel 2008

[2] Office for Official Publications of the European Communities: NACE Rev. 2; Statistical Classification of Economic Activities in the European Community, Luxembourg 2008

3.4 Additional sub-classifications

Results are also classified by their use and position in the supply chain. The following additional classification is used[3]:

- Agricultural and forestry products
- Intermediate goods
- Capital goods
- Durable consumer goods
- Non-durable consumer goods
- Energy products
- Sewerage, waste management, recycling

A further sub-classification is available by looking at core inflation, which excludes from calculations any product groups close to raw materials whose prices are subject to volatility[4] as well as administered prices[5].

[3] All of these categories, except the first, were taken from the EU. See Commission Regulation (EC) No 586/2001 of 26 March 2001 on implementing Council Regulation (EC) No 1165/98 concerning short-term statistics as regards the definition of main industrial groupings (OJ L 86, 27.3.2001, p. 11). The category "Agricultural and forestry products" was added because Switzerland includes this sector in its Producer and Import Price Index, which the EU does not.

[4] agricultural and forestry products, meat, fish and fishery products, raw materials for paper (wood and other pulp, recycled paper), energy products (crude petroleum, petroleum products, market price for electricity, gas), metals, semi-finished metal products, scrap material

[5] tariffs in the electricity sector, water supply, sewerage, waste management

4 Weighting of product groups

4.1 Weightings years 2017 and 2018

The weighting of the product groups is based on economic data from the years 2017 and 2018, which are used in their raw form for the calculations. Since the values have to serve as a reference for a five-year period, an average of the two years is used to ensure a more balanced weighting that mitigates short-term fluctuations within individual industries.

Depending on the source, data is not always available at the same time. For this reason, the choice of these two years ensures temporal consistency at all levels of weighting.

In contrast to weighting for the CPI, weighting for the PPI/IPI is not adjusting for price developments in order to make it correspond to the base period. The reference period for the new weighting, therefore, must be considered as the average for the two years 2017 and 2018 and not a precise month in a given year (or even a precise year taken as a whole). For the calculation, therefore, we mention the Young index (see chapter 7.3).

4.2 Selection of index positions

Generally, the previous structure is used as a basis to create new indices.

In principle, positions not yet represented and whose weight exceeds a minimum threshold set at the 4th level, are added to the index providing that price collection for these positions is possible. Conversely, positions whose weight lies below this same threshold are eliminated.

In practice, depending on the specifics of economic activities and different information mandates, these limits are determined empirically and may vary from one industry to another.

The addition and suppression of a certain number of positions may complicate the comparison of indices between the two revisions. In some cases, the connection to the older indices, enabling the creation of long time series, has to be undertaken at a higher level of aggregation.

4.3 Producer Price Index (PPI)

The main concern in establishing the weighting of the PPI is the need to determine two separate weightings: one for the partial index for the domestic market and one for the partial index for exports.

Up to the 4th level, in the absence of a specific source for the domestic market, a combination of data from the value-added statistics (German abbreviation WS) and the tariff positions from the foreign trade statistics was used (FTS).

La WS provides figures on the gross production value (GPV)[1], which are compatible with the concept of total PPI (Swiss production with sales on domestic market and/or for export). As far as the FTS is concerned, it provides specific values for exports. By subtracting the FTS from the WS, we aim to isolate the residual value, which can then be attributed to the PPI of the domestic market.

Based on different concepts, the WS and the FTS each have their own strengths and weaknesses for establishing the different partial weightings of the PPI.

The WS gives information on the GPV, a variable well-suited to the IPP weighting. On the other hand, by relying on the NOGA (and therefore on each business's main activity), it does not allow precise information to be obtained at product level (this is a disadvantage for businesses with one or more secondary activities). Furthermore, it is based on a sample survey aimed at obtaining representative results at the 2nd NOGA level (sections). The values obtained at the 4th level, therefore, must sometimes be treated with caution.

As far as the FTS is concerned, its advantage is to rely on a classification structured by products (which can be converted using a key to correspond to the NOGA, which is the classification used for the PPI). However, the values may contain purely commercial flows, which are not taken into account in the GPV as defined by the WS.

These main differences are sufficient explanation for the apparent contradictions between certain values in the two statistics. The value of exports in particular, has been observed to exceed the GPV significantly in certain industries.

Nevertheless, for most positions both the gross production values from the WS as well as those of exports from the FTS could be used to establish the weightings according to the standard procedure explained above.

[1] The GPV differs from total turnover only by changes in inventories.

For problematic cases, weighting was mainly based on the individual data from the FTS, amongst other sources, to define various hypotheses enabling reliable estimates to be obtained.

Once the monetary values are determined at the 4th level, we drew on statistics carried out by associations or businesses, in order to break them down at the lowest levels. Due to a lack of relevant information, the detailed weighting of certain groups had to be established on the basis of working hypotheses.

4.4 Import Price Index (IPI)

For the IPI the weights of product groups were determined up to the 4th level, based exclusively on the import values from the FTS. As for exports, we used a key to covert the FTS tariff positions to the NOGA and thus to the IPI classification.

Similarly to the IPP, the lower levels were determined on the basis of statistics conducted by associations or businesses. Working hypotheses were also used where relevant information was missing.

4.5 Results

Table 3 shows the different weighting variables used, as well as their sources. Table 4 details how the weights of different types of indices are distributed among the main groups. Table 5 shows the weighting of additional classifications. Detailed weighting tables are presented in the appendices.

Weighting variables and main sources by index type **T 3**

Index type	Weighting variable	Main source
Producer Price Index	Gross production value (GPV)	– Value-added statistics (WS) – Foreign-trade statistics (FTS) – Association and company statistics
Export subindex	Export value	– Foreign-trade statistics (FTS) – Association and company statistics
Domestic subindex	Difference between gross production value and export value	– Calculated difference – Association and company statistics
Import Price Index	Import value	– Foreign-trade statistics (FTS) – Association and company statistics

Source: FSO – PPI

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Product and weighting models of different price indices T4

NOGA	Description	Producer Price Index			Import Price Index	Total range price index	Total domestic range price index
		Total	Domestic sales	Export			
	Total	**100.0000**	**...[1]**	**...[1]**	**100.0000**	**100.0000**	**100.0000**
A	**Agricultural and forestry products**	**2.0714**	**...[1]**	**...[1]**	**1.8769**	**2.0092**	**3.1599**
01	Agricultural products	1.9556	...[1]	...[1]	1.8769	1.9304	3.0535
02	Forestry products	0.1158	...[1]	...[1]	...[1]	0.0788	0.1064
B	**Mining and quarrying products**	**0.5816**	**...[1]**	**...[1]**	**1.5903**	**0.9047**	**1.4357**
05	Coals	...[1]	...[1]	...[1]	0.0100	0.0032	0.0051
06	Petroleum and natural gas	...[1]	...[1]	...[1]	1.4128	0.4526	0.7207
08	Mining and quarrying, salt	0.5816	...[1]	...[1]	0.1675	0.4489	0.7099
C	**Manufactured products**	**92.7394**	**100.0000**	**100.0000**	**96.5328**	**93.955**	**90.8174**
10	Food products	8.8716	18.4885	3.2572	3.8578	7.2654	9.6545
11	Beverages	0.5242	1.3647	...[1]	1.0973	0.7077	1.1270
12	Tobacco products	0.3672	0.5447	0.2907	0.0917	0.2789	0.2732
13	Textiles	0.5293	0.6093	0.5433	1.1078	0.7146	0.8184
14	Wearing apparel	0.1314	0.3421	...[1]	3.9659	1.3597	2.1653
15	Leather and related products	0.2099	0.1087	0.3095	2.0147	0.7880	1.0730
16	Timber products	2.3191	5.6669	0.2616	1.1761	1.9529	2.9561
17	Paper and paper products	0.7403	1.2396	0.4861	1.4007	0.9520	1.2299
18	Printing, composition, binding	0.8670	2.0094	0.1749	...[1]	0.5893	0.8354
19	Petroleum products	0.7139	1.3959	0.3273	2.6323	1.3285	1.9231
20	Chemical products	6.7619	5.9940	8.2086	8.3448	7.2690	6.7490
21	Pharmaceutical products	23.0476	1.3900	41.4439	19.7791	22.0011	10.6672
22	Rubber and plastic products	2.2682	3.2042	1.9091	3.3334	2.6095	3.0326
23	Non-metallic mineral products	1.9258	4.1458	0.6131	1.6343	1.8323	2.5573
24	Basic metals, semi-finished metal products	1.5702	1.5615	1.7859	3.7956	2.2831	2.5856
25	Metal products	5.6900	11.1390	2.5972	3.7326	5.0630	6.5347
26	Computer, electronic and optical products	14.5092	15.2735	15.9078	9.1448	12.7906	11.0146
27	Electrical equipment	5.8293	8.4518	4.7540	4.9474	5.5468	6.0378
28	Machinery	9.6393	10.0718	10.6213	8.1482	9.1616	8.3439
29	Motor vehicles and motor vehicle parts	0.3039	0.3467	0.3144	8.0293	2.7787	4.2400
30	Other transport equipment	0.7337	0.4135	1.0582	2.8436	1.4096	1.6224
31	Furniture	0.6156	1.2288	0.2643	1.8310	1.0050	1.4449
32	Other products	3.1632	1.3453	4.8716	3.6244	3.3111	2.4081
33	Repair and installation of machinery and equipment	1.4076	3.6643	...[1]	...[1]	0.9566	1.5234
D/35	**Electricity and gas supply**	**3.2092**	**...[1]**	**...[1]**	**...[1]**	**2.1807**	**3.4726**
E	**Water collection, treatment and supply, sewerage, waste management, recycling**	**1.3984**	**...[1]**	**...[1]**	**...[1]**	**0.9504**	**1.1144**
36	Water collection, treatment and supply	0.1953	...[1]	...[1]	...[1]	0.1327	0.2113
37	Sewerage	0.2135	...[1]	...[1]	...[1]	0.1451	0.2310
38	Waste management, recycling	0.9896	...[1]	...[1]	...[1]	0.6726	0.6721

[1] data not collected for this item

Source: FSO – PPI

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Weighting models of additional classifications T5

Main groups	Weighting in %			
	Producer Price Index	Import Price Index	Price index, total offer	Price index, total offer in Switzerland
Product groups by use and position in supply chain				
Total	**100.0000**	**100.0000**	**100.0000**	**100.0000**
Agricultural and forestry products	2.0715	1.8769	2.0092	3.1600
Intermediate goods	28.0695	27.0753	27.7510	32.3691
Capital goods	27.5147	28.9669	27.9799	26.0605
Consumer goods	37.0231	38.0259	37.3443	31.1743
Consumer durables	1.9576	4.9830	2.9268	3.8883
Consumer non-durables	35.0655	33.0429	34.4175	27.2860
Energy	4.1181	4.0550	4.0979	6.3330
Sewerage, waste management, recycling	1.2031	...[1]	0.8177	0.9031
Core inflation				
Total	**100.0000**	**100.0000**	**100.0000**	**100.0000**
Core inflation	90.4465	89.4018	90.1118	85.8899
Other inflation	9.5535	10.5982	9.8882	14.1101

[1] data not collected for this item

Source: FSO – PPI

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5 Weighting of businesses and of individual price change announcements

5.1 Weighting of businesses

Until 2015, in order to weight the price series according to the economic importance of the reporting businesses, the number of full-time equivalents (FTE) was used as an indicator in the various indices (NOGA 10–33 only[1]). In the 2015 revision of the PPI / IPI, the method of weighting businesses was changed. Since then, the weighting method based on the number of FTEs is used only for the domestic producer price index. For import and export businesses, data from the Federal Customs Administration (FCA) are used, which are a more suitable source of information

5.1.1 Domestic PPI

The number of FTE was used as an indicator to weight the price series of the domestic PPI according to the economic importance of the surveyed businesses within the business areas for which they reported prices. Four size classes were defined as follows to weight prices:

- Class 1: … < 10 FTE
- Class 2: 10 FTE ≤ … < 50 FTE
- Class 3: 50 FTE ≤ … < 250 FTE
- Class 4: 250 FTE ≤ …

Business structure statistics (STATENT) served as the data source, and business units were weighted at the four-digit NOGA level. Shares were calculated based on 2017 and 2018 STATENT data, using an average of these two years.

When assigning price data to the classes above, the FTE of a company's business units were included if the unit's two-digit NOGA code matched the two-digit NOGA code of the item for which the prices were reported[2] If the NOGA codes differed, the price data were assigned to Class 1. Price series were assigned to classes on the basis of 2018 STATENT data, which were the most current data available in December 2020.

5.1.2 IPI and export PPI

Individual data provided by the Federal Customs Administration (FCA) are an excellent source of data for determining the weightings of import and export businesses. Averages weights for classes were calculated at the four-digit NOGA level based on data for 2017 and 2018[3].

Four size classes were established based on the total export or import values of units with a four-digit NOGA code. The classes were defined as follows:

- Class 1: … < 100,000 CHF
- Class 2: 100,000 CHF ≤ … < 1,000,000 CHF
- Class 3: 1,000,000 CHF ≤ … < 10,000,000 CHF
- Class 4: 10,000,000 CHF ≤ …

These thresholds are applied to all NOGA codes, with the exception of NOGA code 21, which was multiplied by a factor of 100 to account for the substantially higher values generated by each of these businesses.

Price data for a reported product are assigned to one of the above classes within its four-digit NOGA code, according to the relative size of the total export or import values of the reporting company. Price series were assigned to classes based on individual data provided by the FCA for 2017–2018.

5.2 Weighting of individual price announcements

As a rule, due to a lack of information, no weighting is applied at price level during the base aggregation (see chapter 7.1). However, for certain product groups, exceptions to this rule exist. For example, in the electricity sector, the importance of different businesses in terms of turnover is taken into account by applying multiplying factors at the level of individual price announcements.

[1] Other branches are not weighted at business level.

[2] This method was used for the domestic PPI because, as a business unit's FTE are listed under its main NOGA activity, it is impossible to identify any secondary activities or the resources required for such activities. Comparing NOGA codes at the two-digit level enables secondary activities related to the main activity to be taken into account. This in turn enables the assignment of reporting locations to a size class based on the number of FTE of their respective business units.

[3] These two years were chosen for consistency in the data used in company weighting of domestic PPI and in industry weighting.

6 Price survey system

6.1 Composition and selection of reporting entities

Reporting entities include
- Businesses and business units (by far the most important group);
- Associations and other economic organisations;
- Wholesale buyers such as large supermarkets and the federal administration.

Each reporting entity is classified by size according to the method described in Section 5.1. This allows price data to be weighted according to the economic importance of the reporting entities at intermediate aggregation levels.

Reporters are selected on the basis of a judgement sample of entities to ensure that price data of key products are collected from major manufacturers and importers. In addition, a certain number of representative medium and small size producers and importers should also be included in their respective categories.

Umbrella associations are occasionally contacted if more understanding is required on how an economic activity functions or is structured. The association can also help liaise with businesses refusing to take part in the survey by adopting the role of a mediator or guarantor.

6.2 Selection of products

The reporting entities select themselves the individual products for which they report prices. The following criteria must be applied:
- Turnover level;
- Consistency of the product, its quality and the sales context over a certain time period[1].

6.3 Changes in the product assortment

Businesses generally adapt their product assortment over time, which can lead to changes in product quality within individual index items. The following steps are applied to ensure that underlying price movements are tracked, comparing only the prices of qualitatively similar products over time:

If the price-determining characteristics of the new product are comparable to the previous product's features, the price series of the old product is extended with price data for the new product. If quality differs significantly between the old and the new products,
- the impact of the quality difference on the change in price is estimated and eliminated from calculations, or
- where price observations are available for both the previous and new products over the same survey period (overlapping surveys), the two price series are chained, or
- the product is included in calculations as a new product. The first time it is taken into account, the initial index is given the same value as the index of the whole product group to ensure that the approach remains index-neutral.

In practice, an explicit estimate of the influence of the change in quality is only undertaken for import prices of IT equipment by means of hedonic models (see chapter 8.10).

6.4 Foreign trade statistics as an additional data source

For certain product groups[2], average values[3] from FTS are used to estimate import price development. However, this requires that the tariff items in question be relatively homogeneous in their make-up.

Furthermore – focusing initially solely on export prices in the pharmaceutical sector – we rely on information contained in customs declarations, by using individual data from the FTS (see chapter 8.6).

[1] At least one to two years. The time period applied is relatively short for products in groups whose composition changes quickly.

[2] in particular in the agricultural, paper and paper articles sectors

[3] The average value of a tariff position for a given period (month or quarter) is calculated by dividing the value of imports by the imported quantity.

6.5 Periodicity and scope of the survey over time

The PPI / IPI is calculated once a month. However, prices are only collected monthly for those product groups whose prices are generally subject to sharp, short-term fluctuations, in particular agricultural products, petroleum products and steel. The remaining product groups are collected at staggered intervals of two, three or six months depending on their usual price behaviour[4]. This helps avoid any unnecessary burden upon businesses, limits their administrative load and restricts the scope of the survey. However, it also means that these product group indices are slower to reflect price changes. For those months in which no data are collected, prices from the previous period are carried forward.

6.6 Seasonal products

Some product groups – particularly agricultural and horticultural – undergo seasonal price and turnover fluctuations throughout the year. Individual prices are not corrected by seasonal factors, as the primary goal of the PPI / IPI is to give an account of monthly price developments regardless of whether they stem from seasonal or other factors.

6.7 Data collection methods

Price data is generally collected through a standard form that is sent by post or electronically. Special forms are used in certain industries, namely for agricultural and forestry products, builder's joinery / interior construction (as part of the Construction Price Index), some chemical and pharmaceutical products, electricity and gas (in conjunction with the national Consumer Price Index) and services (see chapter 9). An online survey has also been developed to digitalise the survey. This simplifies the processing of price information and makes it easier to respond for a large number of businesses taking part in the survey. Eventually we hope that the online survey will become standard practice. The online survey for the SPPI is currently being introduced.

6.8 Survey size

The PPI (excluding service prices) currently comprises some 11,300 prices reported by approximately 2,200 reporting entities. The IPI includes some 5,400 prices from approximately 1,300 reporting entities (see table T6). As explained above, the periodicity of data surveys varies by product group.

6.9 Time lags

Overall, the prices actually used to calculate the index of a given month, should correspond to this same month. However, in practice it is not always possible to assume that the information is so up to date. This is the case especially when the required data are not available from respondents within the deadline imposed by the monthly production of the index. Conversely, in some cases the production processes demand that some price information has to be considered at a later period than the reference period to which it corresponds. Lastly, there are also certain situations in which the price information required to calculate the index for a given month simply does not exist as such (for example in the case of average values across several months).

As the practice is to consider the most recently available information without any further processing, the sub-indices concerned therefore present time lags.

Number of reporting entities/individuals and price data[1] **T6**

Index type	Number of reporting entities	Number of reported prices	Average number of reported prices per reporting entity
Producer Price Index	2 200	11 300	5.1
Import Price Index	1 300	5 400	4.2

[1] as at December 2020

Source: FSO – PPI

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[4] In some cases also every four months. See survey plan in appendix 6.

7 Calculation methods

The Producer and Import Price Index is developed based on the principle of a three-level aggregation: the base aggregation for the reporting of individual prices, the intermediary aggregation for size classes and the upper-level aggregation for the entire index. These various steps are presented below.

7.1 Base aggregation: Jevons index

The base aggregation is performed at the lowest classification level using the Jevons formula. This involves first establishing base relations (elementary indices) before applying the formula. In other words, individual reported prices are converted into an elementary index, which is assigned a value of 100 points for the base month (December 2020). The second step is to aggregate the different base relations using the non-weighted geometric average:

$$(1) \quad I_h^t = \left[\prod_{j=1}^{z} \left(I_j^t \right) \right]^{\frac{1}{z}}$$

where

$$(2) \quad I_j^t = \frac{p_j^t}{p_j^{t_0}} \times 100$$

and where

I = calculated index
t = periode t (t_0 = base period (index = 100))
h = size class h of the reporting entity within index item i
p_j^t = individual price j for period t within size class h
z = number of individual prices j within size class h

The geometric average offers several advantages over the arithmetic average. For instance, it is less vulnerable to extreme values, which may occur in heterogeneous index items. It is also useful for linking price series chronologically (chaining). In addition, the geometric average is able to take into account the substitution effect at work in price developments caused when consumers switch to a comparable, cheaper product. Finally, its use within the PPI/SPPIs makes it possible to ensure compatibility with other price statistics (Consumer Price Index, Service Producer Price Indices, Construction Price Index) which use the same method.

7.2 Intermediate aggregation

The base aggregation sets the stage for indices by size class (see Section 5.1). The aggregation of these indices is calculated using a weighted arithmetic average that reflects the importance of the individual size classes within each index item. The result is a subindex for each index item:

$$(3) \quad I_i^t = \frac{\sum_{h=1}^{k} g_h I_h^t}{\sum_{h=1}^{k} g_h}$$

where

i = index item i
k = number of size classes within index item i
g_h = weighting of size class h within index item i

7.3 Upper-level aggregation: Young index

The aggregation of all index items into an overall index (the "final aggregation") is performed using the Young method. Sub-indices are assigned their respective weightings and aggregated using the arithmetic average. The Young method applies weightings from periods prior to the reference period[1]. In the case at hand, weightings are based on economic data from 2017 and 2018 (see Section 4).

The Young method also assumes that the standard basket and weighting will remain unchanged until the next full revision (direct Young price index). Current price statistics, however, apply an enlarged Young method which adequately takes into consideration the ongoing assortment changes in the different items in the standard basket (inclusion of new goods and services, removal of obsolete products; see chapter 6.3):

$$(4) \quad I^t = \sum_{b=1}^{n} \frac{q_b^r p_b^r \frac{p_b^t}{p_b^0} \times 100}{\sum_{b=1}^{n} q_b^r p_b^r} = \sum_{b=1}^{n} g_b^r I_b^t$$

where

b = good b, where b = 1 to n
I^t = index value in reporting month t
r = reference period for weightings (before the base period)
q_b^r = produced quantity of good b in the reference period for weightings
p_b^r = price of good b in the period of reference for weightings
p_b^0 = price of good b in the base month
p_b^t = price of good b in reporting month t
$q_b^r p_b^r$ = production value of good b in the reference period for weightings (quantity × price)
g_b^r = weighting of good b in the reference period for weightings
I_b^t = individual index of good b in reporting month t

where

$$(5) \quad g_b^r = \frac{q_b^r p_b^r}{\sum_{b=1}^{n} q_b^r p_b^r}$$

$$(6) \quad I_b^t = \frac{p_b^t}{p_b^0} \times 100$$

Drawing on the base and intermediate aggregations above (formulas (1) to (3)), formula (4) for the calculation of total Producer and import price indices is as follows:

$$(7) \quad I_{tot}^t = \sum_{i=1}^{n} g_i^r I_i^t$$

where

I_{tot}^t = total index in the reporting month
g_i^r = weighting of index item i in the reference period for weightings
I_i^t = index value of index item i in the reporting month
n = number of index items

As was the case for the revised Consumer Price Index, the revised Producer and Import Price Index has been rebased to 100 as of December 2020.

[1] We speak of a Laspeyres index if the reference period of the weighting corresponds to the base period. In general, we speak of a Lowe index if the reference period of the weighting differs from the base period (the reference period of the weighting is, for practical reasons, generally earlier than the base period). If the weighting (the production shares) is not adapted to price changes in order to make these correspond to the base period, we refer instead to the Young index. In this scope, the hypothesis is that the production value remains constant between the reference period of the weighting and the base period (the relative shares thus also remain constant). This hypothesis presupposes that, either the prices and the quantities do not change between the reference period of the weighting and the base period, or they change inversely and in the same proportion, so that the final production value does not change (substitution elasticity of 1).
The Young method is applied both to the SPPIs and the PPI / IPI. The CPI is based on the Lowe method given that the weighting (annual) is the subject of an adaptation to price change.
In practice, we speak of the Young method rather than the Young index because the formula suggested by A. Young (1812) is applied directly to price information while the upper aggregation, which is discussed here, is applied to partial indices, which are constructions that have already been subject to two aggregation steps.

Calculation levels of the Producer and Import Price Index T7

Level	Contains	Product group (example)	Result
6	Individual prices	Shower mixer tap, manufacturer or importer x, model Y	Individual index
–	Unweighted product groups (survey items)	Shower mixer taps	Base and intermediate aggregations as in levels 5 and 4, but used only for information purposes and not in subsequent calculations
5	Size class index within an index item	Wall fixtures produced or imported by businesses in a specific size class	Geometric average of individual indices (base aggregation, equations 1 and 2)
4	Lowest weighted product group (index item)	Wall fixtures (subgroup of sanitation fittings)	Arithmetic average of size-class indices, weighted by size class (intermediate aggregation, equation 3)
3 and 2	Aggregated product groups (Number of groups differ by industry)	Wall fixtures (as a subgroup of non-industry specific machines, which are themselves a subgroup of machines)	Arithmetic average of the indices of individual index items, weighted by product group (Young method, equation 7)
1	Total	Total result of all product groups	Same as levels 3 and 2 (equation 7)

Source: FSO – PPI

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8 Industry-specific solutions and innovations

8.1 Overview

Individual industries employ special survey solutions to accommodate their respective price-statistical and reporting particularities. Given the importance of prices within agricultural policy, the agricultural sector (Section 8.2) reports highly detailed information according to very specific price definitions. The situation is similar in the timber industry (Section 8.3). In the chemicals (chapter 8.5) and pharmaceuticals (chapter 8.6) industries, prices are collected in different ways depending on the stakeholders involved and the information available. Reporting entities for electricity (Section 8.7) and gas (Section 8.8) provide price information according to predefined consumption types. The data provided to track price developments in the construction industry (Section 8.9) are particularly fine-grained to meet the industry needs of detailed price series for indexation. The quality of price measurements for IT devices is adjusted via a hedonic model (Section 8.10).

With the 2020 revision, a number of new indices have been added, which were not previously surveyed. These include textile finishing (chapter 8.4), repair services (chapter 8.11), water supply and sewerage (chapter 8.12), as well as waste management and recycling (chapter 8.13).

8.2 Agriculture

The producer price index for agricultural products is established jointly by the FSO, Swiss Farmers union (SFU) and Federal Office for Agriculture (FOAG). The SFU collects prices for domestic products according to a special nomenclature compatible with the EU's agricultural statistics. According to EU practice, these prices include product taxes but exclude product subsidies. The SFU reports the average prices of relevant product groups to the FSO monthly. The Market Monitoring Section of the FOAG collects the prices of unprocessed milk. The FSO calculates the indices and posts detailed results online every month in the agricultural PPI data set ("Produzentenpreisindex Landwirtschaft").

The results are converted to NOGA 2008 before they are taken up in the PPI.

8.3 Timber industry

The producer price index for forestry products (sawlogs, industrial wood, fuelwood) is compiled in conjunction with the Swiss Forest Owners association (WVS). The producer price index for sawmill products (sawnwood) is based on prices collected by the Swiss wood-industry association "Holzindustrie Schweiz" (HIS). Prices for forestry and sawmill products are collected six times per year.

Prices are included in the producer price index according to the timetable in Table 8.

The FSO posts detailed results online in the PPI data sets for raw timber and sawnwood ("Produzentenpreisindex Rohholz" and "Produzentenpreisindex Schnittholz") (Only available in French and German).

Forestry and sawmill timetable **T 8**

Product group	Survey periods	Inclusion in Producer Price Index[1]
Forestry products	January – February	April
	March – April	June
	etc.	etc.
Sawmill products	January – February	April
	March – April	June
	etc.	etc.

[1] see overall survey timetable in Annex 6

Source: FSO – PPI

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8.4 Textiles

The index for textiles sold in Switzerland henceforth includes textile finishing. This industry, comparable to a service, usually invoices work according to the number of hours spent. To take this into account, new businesses were recruited using forms on which businesses entered the hourly wage for services such as bleaching, dyeing and printing of fabrics. Prices are collected on a quarterly basis, as the case for the rest of the textile industry.

8.5 Chemicals industry

Manufacturers of chemicals are divided into three categories of businesses. The first category is for SMEs (small and medium enterprises or businesses) which provide most price data used in the Producer Price Index (PPI). Their quarterly price reports cover the domestic and export prices of select high-selling products. The second category comprises large businesses that report product-level price changes occurring between two quarters, based predominantly on internal transfer prices. The term "transfer prices" here indicates that the majority of products are sold through foreign subsidiaries.

The third category also represents large businesses that report on changes to internal transfer prices between two quarters. Yet they differ from the second group in that they report the prices not of individual products but rather of main product groups, usually at the four-digit NOGA level. Price information is taken from these businesses in-house analyses of variances in turnover ("internal turnover variance analysis"), which measure the impact of multiple factors (changes in exchange rates, volumes and prices) on quarterly turnover.

Only SMEs currently participate in the quarterly price surveys of imported chemicals. As a result, the Import Price Index (IPI) for chemical products is derived exclusively from the prices reported for a selection of high-selling products, contrary to the PPI.

8.6 Pharmaceuticals industry

The approach adopted for basic pharmaceutical products is similar to that used for the chemicals industry. The three same groups of businesses are taken into account and the price indices are based on both the conventional collection of prices and on "in house" calculations of the price trends by the businesses of the industry. Eventually we plan to use data from the FTS to cover export prices, as is the case for pharmaceutical preparations (see next section).

For pharmaceutical preparations, a distinction is made between the three (sub-)indices: IPI, PPI (domestic market) and PPI (exports).

The IPI and the PPI (domestic market) rely on the same database, updated each month and covering domestic sales of medication. A calculation model is applied that compares the average prices of the quantities actually sold of active substances in a drug class with average prices corresponding to the previous month[1]. This procedure enables variations in concentrations of the active ingredient to be offset, as well as the size of packaging units, and to take into account price increases due to innovative products (changes in range of goods). The prices considered here are "ex-works" and "free-at-frontier" prices, exclusive of value added tax (VAT). The production site is not specifically mentioned in the data files, and, as an approximation, the site of the business's main office is used. In this way, we can distinguish between domestic and foreign sites of production and calculate two separate indices, an IPI and a Producer Price Index for domestic sales (domestic market PPI).

The PPI (exports) relies on two types of survey. While SMEs report the prices of a selection of high-turnover products each quarter, large businesses are covered by using data from their customs declarations. In a first step, the declarations are grouped together on the basis of product names identified from their accompanying descriptions and by country of destination. Next, the average values (by kg) are calculated at the level of each product and each quarter, to create price series. Lastly, the quality of these series is assessed statistically and the evolutions of the selected series are aggregated within an index. As with the IPI and PPI (domestic market) mentioned earlier, the ATC classification (WHO anatomical, therapeutical chemical classification) gives the index structure. A geometric aggregation is applied to the lowest level of the classification and these elementary aggregates are then aggregated arithmetically to result in the total index.

8.7 Electricity

Electricity price surveys are coordinated with the Swiss Consumer Price Index, with the exception of large end-consumers. It is based, for the household and small businesses sector, on the prices of selected electricity providers, which are surveyed by the Federal Electricity Commission (ElCom) as part of their regulatory duties. For the average volumes of consumption (100 MWh/year and more) as well as for large end-consumers (LEC) of more than 3 GWh/year, the FSO carries out its own annual survey of prices. Table 9 shows the different consumption types taken into account and their weightings.

Weightings were calculated based on a structural survey in autumn 2020.

[1] The calculation methodology follows here the procedure that has been used for years in the calculation of pharmaceutical preparations prices for the Swiss Consumer Price Index (see the description in the methodological bases of the CPI: Consumer Price Index, December 2015=100, Basis, FSO 2016, chapter 3.5).

Electricity consumption types T9

Consumption type	Consumption in kWh/year	Consumption in kWh/year (for market prices)	Description	Weighting in %
Total electricity				**100.0**
Households			Results taken from the national consumer price index, excluding VAT	42.1
Business, industry and service providers				57.9
Type I	8 000		Microbusiness	5.6
Type II	30 000		Small business	9.9
Type III	150 000	100 000 to 375 000	Medium-sized business	8.5
Type IV	500 000	375 000 to 1 000 000	Large business without own subtation, low voltage	5.1
Type V	500 000	375 000 to 1 000 000	Large business with own substation, high-voltage measurement	1.5
Type VI	1 500 000	1 000 000 to 3 000 000	Large business with own substation, high-voltage measurement	6.5
Type LEC 3–10		3 000 000 to 10 000 000	Large end-consumer with own substation, high-voltage measurement	6.3
Type LEC 10–20		10 000 000 to 20 000 000	Very large end-consumer with own substation, high-voltage measurement	3.6
Type LEC >20		> 20 000 000	Very large end-consumer with own substation, high-voltage measurement	10.9

Source: FSO – PPI, Association of Swiss Electricity Enterprises (VSE)

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Gas consumption types T10

Consumption type	Consumption in kWh/year	Description	Weighting in %
Total gas			**100.0**
Households Types II to V		Results taken from the national Consumer Price Index, excluding VAT	48.4
Business, industry and service providers			51.6
Type II to V	20 000 – 500 000		9.7
Type VI	500 000	can be switched off	9.3
Type VII	1 163 000	can be switched off	10.3
Type VIII	11 630 000	can be switched off	13.9
Type IX	116 300 000	can be switched off	6.2
Type X	250 000 000	can be switched off	2.2

Source: FSO – PPI

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The prices for consumption types I to II represent – as with gas prices – an exception in the Producer Price Index. They indicate the price per kWh of consumed energy charged to end-consumers based on their consumption profile, not ex works prices. The prices collected for these consumption types are determined as follows:

Annual base price

+ Annual capacity fee (depending on price plan)
+ A supply fee for energy provision as well as a supply fee for grid usage as determined by the volume defined in the consumption type (in some cases, a difference may be made between peak and off-peak prices as well as winter and summer prices)
+ Annual taxes and fees paid to municipalities as well as cost-covering remuneration for feed-in to the electricity grid for the defined energy volumes.

The sum of these charges is divided by the energy volume defined in the consumption profile, resulting in an average price per kWh calculated for the entire year.

Individual prices reported for a specific consumption type are weighted and aggregated by the size of the reporting electricity provider, resulting in an average price for that consumption type. With respect to the III to VII and LEC categories, the average prices per kWh actually charged to end-consumers within each category over the course of a particular calendar year are collected in February of the following year. Starting in 2016, (from 2016 to 2020 only LEC categories, from 2021 also categories II to VI) in order to collect more precise data on the prices actually paid, energy prices are collected on both the basis of regulated tariffs and as the average price charged under negotiated supply contracts (market prices).

The actual final price per consumption category is then calculated based on the sum of energy prices[2], average grid-usage fee and additional charges paid.

8.8 Gas

Gas price surveys are coordinated with the Consumer Price Index and carried out in writing, using a special form. Types II to V are collected for households. For small clients from craft and industry, an average price index for Types II to V is calculated in addition to this.

Table 10 shows the different consumption types taken into account and their weightings. Weightings were calculated on the basis of structural survey collected in autumn 2020.

As with electricity, the prices reported represent what is charged to end-consumers per kWh, according to their consumption profiles. As such, they are final prices, as opposed to the ex-works prices usually collected for the PPI. Prices collected for consumption types II to X are determined as follows:

Annual base price
+ Annual capacity fee (depending on price plan)
+ A supply fee for energy provision as determined by the volume defined in the consumption type, including a CO_2 tax (in some cases, a difference may be made between summer and winter prices).

The sum of these charges is divided by the energy volume defined in the consumption profile, resulting in an average price per kWh calculated for the entire year.

Contrary to electricity prices, the pipeline-usage fee for gas is not based on the actually consumed volume of energy. Rather, the usage fee is predominantly levied through the basic service fee, which is determined by the installed capacity.

As with electricity, individual prices reported for a specific consumption type are weighted and aggregated by the size of the reporting gas provider, resulting in an average price for that particular gas consumption type.

8.9 Construction materials

Detailed information on the price development of construction materials and other products directly or indirectly linked to the construction industry are very important for calculating the widespread inflation adjustments of contracts. The FSO therefore publishes a monthly report on price changes in the construction industry ("Preisänderungen im Bauwesen") in cooperation with the Coordination Group for Construction and Property Services (KBOB). This online publication contains a large number of relevant indices that represent weighted averages taken from the IPI and the domestic-sales portion of the PPI.

8.10 IT devices

For the categories of desktop PCs, notebooks, servers[3] and tablets, prices for the IPI are measured by examining the qualitative features of these short-lifecycle products through the hedonic model. Under this model, the reported price changes between different sales periods are corrected by a factor reflecting the changes in quality that occurred between these periods. This enables the adjustment of price development data for medium- to long-term qualitative changes in order to generate a sub-index based purely on real price changes (see Appendix 5 for details).

[2] Energy prices are composed of tariffs on the one hand and of market prices on the other, both being weighted according to their relative importance.

[3] The introduction of such a model for tablets had to be postponed due to difficulties in determining a specific model for this type of product.

8.11 Repairs

In the NOGA, the repairs sector is divided into machinery repairs and aircraft repairs, with a residual figure, while car repairs are allocated to the trade sector. This sector is important to the national economy but due to its "service" nature, has until now not been represented in the PPI, and is introduced in the index of goods for the domestic market. Prices are only collected for tractor and agricultural machinery repairs, aeroplane and helicopter repairs, locomotives and railway cars repairs.

On a form, the businesses contacted enter the usual number of hours spent on repairs in April and October. The survey is conducted twice a year, as is the case for the machinery industry.

8.12 Water supply and sewerage

The supply of water and sewerage, together with waste management, recycling and remediation activities constitute Section E of the NOGA: Until now, only the collection of waste paper and scrap metal recycling were included in the PPI. The supply of water and sewerage are henceforth included in the index of goods for the domestic market. These economic activities are actually of significant importance to the national economy and the "private businesses" group of clients accounts for a sizeable share of their turnover. As a reminder, household expenses for water supply and sewerage are already included in the Consumer Price Index (CPI). In the domestic market PPI, total turnover (B2AII) is divided between the client groups "businesses" (B2B) and "households" (B2C). For the B2C index, the figures are used again in the CPI. Index B2B comprises two sub-indices, the first of which shows the basic fee and the second the consumption fee. For sewerage, the data currently available do not allow the B2B index for the basic fee to be calculated for the whole of Switzerland. We assume, for reasons of simplicity, that this fee evolves in a similar way to the basic fee for water supply.

The B2B indices for water supply and sewerage rely on a sample of some 55 large and medium-size communal businesses, the majority of whom are also represented in the CPI. For the PPI, it is not possible to collect prices from the internet, as we do for the CPI. In most cases, we have to use conventional survey forms. For the basic fee, we make a distinction based on the size of the meter.

To carry out the weighting of businesses who report their prices to us, we consulted the water statistics from the Swiss Gas and Water Industry Association (SGWA), which shows data by municipality on the water supply to SMEs and large businesses. For the weighting of the "businesses" and "households" client groups and that of basic fee and consumption fee, we make rough estimates.

For the CPI and for the PPI, it appears sufficient to collect prices once a year in March.

8.13 Waste management and recycling

In the waste management and recycling sector, – as in water supply and sewerage, – the index is only established for the domestic market. The survey carried out until now concerned waste paper collection, gravel recycling and the scrap metal industry (recycling of scrap metal and waste from the metal-working industry). New surveys concern the collection of non-hazardous waste other than waste paper as well as the NOGA item "Waste treatment and disposal", which in the PPI includes the sub-positions "Waste disposal" and "dumps". However, we decided not to carry out a separate survey for waste disposal or dumps: as an indicator to determine production prices we use the price series established in the case of waste disposal for the CPI and in the case of dumps for the Construction Price Index.

The periodicity for these two positions is the same as the surveys from which the data stems. For waste disposal, prices are collected only once a year, in March. For dumps, the periodicity is six months, with surveys in June and December.

9 Inclusion of services in the index

9.1 Overview

For historical reasons, the Producer Price Index, which in Switzerland was developed from the wholesale price index, only related to goods until the turn of the century. The increasing importance of the services sector made it necessary to take it into account in the price statistics. The integration of service-type economic activities took place (and is still taking place) in stages and as far as possible in accordance with EU regulations governing short-term statistics (see chapter 1.6).

The methodological foundations for the SPPI, which is calculated for each economic activity separately and which is still being developed, are presented in detail in the publication "Services Producer Price Index (SPPI) – methodological foundations, Neuchâtel 2020".

Producer prices have been collected since 2001 in the rail and road freight sector. The services of engineering and architectural activities have been surveyed since 2002 as part of the statistics on construction prices. From 2007, the price statistics were gradually extended to other service sectors: market study and surveys, vehicle inspections, monitoring and security services, cleaning of buildings, air transport (passenger and cargo). These were followed in a later stage by telecommunications, IT services, passenger transport on lakes and rivers, postal services, public relations, business consultancy, temporary work, legal activities (lawyers, solicitors, and auditing), and the sale of advertising space. Just recently we were also able to establish trends in transport on the river Rhine, the hire of vehicles and building site machinery and caretaking services.

The price index is now preparing for the hotel sector, gardening services and health care. In other sectors, the price statistics are still at the project stage: attention is focused first of all on overland passenger transport (train, bus, and taxi), banks and private insurance. Conditions are gradually being created to produce representative indices for entire sections of the NOGA. In concrete terms, we intend to extend price statistics to the following eight NOGA sections: "trade", "transportation and storage", "accommodation and food service activities", "information and communication", "financial services and insurance activities", "professional, scientific and technical activities", "administrative and support service activities", "human health and social work activities". As soon as these indices have been created, we will work on building a total SPPI and on its incorporation into the PPI[1].

[1] The sections "public administration" and "teaching" are not yet adequately taken into account because the payment of services provided by these sections is not made at market prices.

9.2 Breakdown by user group

Services can be provided to different groups of users, i.e. for private businesses (business to business), for public administration (business to government), for private households (business to consumers) and for customers abroad (business to export). Ideally, a producer price index should cover all user groups (business to all) and indicate separate values for each of them[2].

9.3 Survey methods

New surveys are necessary to determine the prices of service supplied on Swiss territory to private businesses, public administrations and foreign customers. For services to households (B2C) we must first discover whether surveys already exist as part of the Swiss Consumer Price Index. If this is the case, the price series from this index will be incorporated in an appropriate form (deduction of VAT, use of another classification, etc.) into the Services Producer Price Index.

There are various ways of collecting producer prices in the services sector.[3] The main methodological approaches are

- the collection of prices for individual services or service packages that are sold regularly over a certain period of time with the same quality level = "Transaction prices / list prices";
- the collection of prices for the individual components of a service package = "Component pricing";
- the collection of virtual prices for artificial models of service packages = "Model pricing";
- the collection of prices for service packages subject to contracts lasting several years = "Contract pricing";
- the calculation of average values (business earnings for certain services divided by quantity sold = "unit values");
- the collection of proportion of charges (expressed as percentage of total value = "Percentage fee");
- the collection of fee and tariff rates, as agreed in contracts with external customers for different skill levels (e.g. hourly or daily rates) = "Charge-out rates".

[2] According to the EU Regulation on short-term statistics No 1158/2005, in the field of producer prices for services, only the compilation of "business to business" indices is compulsory. In this case, however, this definition also includes services to public administration.

[3] see OECD / Eurostat Methodological Guide for developing Producer Price Indices for Services: Provisional draft 19 September 2014, S. 27–69

The most adapted price collection method is decided upon together with specialists from the different industries. The most important criteria are the prevailing price mechanisms, the data situation, the statistical burden on the businesses, the survey burden on the FSO and international practice. However, the experience gained in Switzerland, as in other countries, has shown that certain compromises have to be made in defining the variables to be surveyed – at least in the initial phase. This means that in theory, the price statistics should also contain each and every discount, but the actual reductions for individual services are often unknown or closely guarded as business secret.

It is also unsatisfactory that the price reporting entities from some activities only report fee or tariff rates; this approach to price measuring completely ignores any changes in productivity or quality. This collection method leads to price trends being either over or underestimated. However, where there is no hope of collecting actual prices instead of fee or tariff rates, rough estimates of price trends can at least be attempted on the basis of such subsidiary information.

In most service activities, prices are collected only once per year. Surveys on freight transport by rail and road and on architectural and engineering activities are conducted twice-yearly. A monthly price statistics is established on the basis of internet surveys for telecommunications, freight air transport and passenger air transport.

With the exception of a few economic activities – engineering and architectural activities, hire of vehicles and building site machinery, solicitors – the weightings of the index and of price reporters in the services industries are usually updated once a year.

Producer price index for services (SPPI) T11

SPPI code	Description	Periodicity
Ongoing surveys		
49.2	Freight rail transport	twice-yearly
49.41	Freight transport by road	twice-yearly
50.3	Passenger transport on lakes and rivers	annually
50.4	Freight transport on lakes and rivers (Rhine shipping)	twice-yearly
51.1	Passenger air transport[1]	monthly
51.2	Freight air transport	monthly
53.1	Postal services: letters and newspapers[1]	annually
53.2	Postal services: parcel delivery[1]	annually
61	Telecommunication services[1]	monthly
62–63	Computer consultancy and information services	annually
69.10.1	Legal activities: lawyers offices	annually
69.10.2	Legal activities: notary	annually
69.2	Accounting, bookkeeping and auditing activities; tax consultancy	annually
70.21	Public relations and communication	annually
70.22	Business consultancy	annually
71.1	Architectural and engineering activities[2]	twice-yearly
71.20.1	Technical controls: vehicle inspection	annually
73.12	Sale of advertising spaces	annually
73.2	Market research and public opinion polling	annually
77.11	Car rental	monthly
77.32	Construction equipment and machinery rental	annually
78.2	Temporary employment	annually
80	Private security and investigation services	annually
81.1	Facilities support services	annually
81.2	Cleaning of buildings	annually
Surveys being prepared		
49.1	Public urban, suburban and interurban passenger transport[1]	not decided yet
49.32	Taxi passenger transport[1]	not decided yet
55.1	Hotels and similar accomodation[1]	monthly
81.3	Gardening and landscaping activities[2]	twice-yearly
86	Human health activities[1]	annually
Surveys planned in the mid-term		
55.2–55.9	Supplementary accom modation[1]	not decided yet
56	Restaurants[1]	not decided yet
75	Veterinary activities[1]	not decided yet
79.1	Travel agency and tour operator activities[1]	not decided yet
82.19.02	Copy shops	annually
82.2	Call centers	annually
82.91	Activities of collection agencies and credit bureaus	annually
Surveys planned in the long-term		
45–47	Wholesale and retail trade (incl. motor vehicles)[1]	not decided yet
64	Financial service[1]	not decided yet
65	Insurance services (incl. reinsurance)[1]	not decided yet
66	Activities auxiliary to financial services and insurance activities[1]	not decided yet

[1] coordination with the Consumer Price Index (see Chapter 9.3)
[2] coordination with the Construction Price Index

Source: FSO – PPI

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10 The Producer and Import Price Index in international comparison

10.1 Basic principles

International comparability of the Producer and Import Price Index results is guaranteed, as the methods used are largely coordinated with the EU regulations in this area[1]. Since the Bilateral Statistical Agreement came into force, Switzerland has been bound by these regulations.

10.2 Range of products

10.2.1 Producer Price Index

The Consumer Price Index largely covers the secondary sector economic activities mentioned in the EU Ordinance. Mining products, manufacturing, energy supply and water collection, treatment and supply, sewerage, waste management, recycling (NOGA Sections B, C, D and E). Only a negligible portion of the product groups are missing[2]. These were excluded either because of their small importance to the Swiss economy or because of the onerous methodological difficulties and effort involved in obtaining data. The gradual extension of the PPI to include services (see Chapter 9) also complies with the EU Ordinance. The extension of the Swiss Producer Price Index to include the agricultural and forestry sector (NOGA Section A), however, is not included in the EU Ordinance but is dealt with in a separate regulation.

10.2.2 Import Price Index

The Swiss Import Price Index largely covers the mining products and manufacturing areas (NOGA Sections B and C). Some product groups are not included either because of their small importance to the total of imports or because of the onerous methodological difficulties and effort involved in obtaining data[3]. The energy and water supply areas (NOGA Sections D and E) are also excluded from the Swiss Import Price Index, but are included in the EU Import Price Index. In contrast, the agricultural sector, not stipulated by the EU regulations for inclusion, is included in the Swiss Import Price Index.

10.3 Price indices for the domestic market and for export

According to the EU Ordinance, separate surveys and analyses for the domestic market and for export should be conducted for producer prices in the manufacturing area (NOGA Section C). Since the 2010 revision, the Swiss Producer Price Index has complied with this requirement. Indices established before this date rely merely on auxiliary constructs, based on different weighting systems for both the domestic market and for the export.

10.4 Inclusion of services

The gradual extension of the PPI to include services (see Chapter 9) is in line with the aims of the EU Ordinance concerning short-term statistics. Similar to most EU states, Switzerland has price indices covering nearly all the compulsory activities. However, price indices still have to be created for an array of economically important activities such as trade, banking and insurances. For this reason, for the time being it will still not be possible to present a total index for the whole service sector (SPPI-Service Producer Price Index).

[1] Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics (OJ L 162, 5.6.1998, p. 1). The individual variables are defined in more detail in a special by-law: Commission Regulation (EC) No 1503/2006 of 28 September 2006 implementing and amending Council Regulation (EC) No 1165/98 concerning short-term statistics as regards definitions of variables, list of variables and frequency of data compilation (OJ L 281, 12.10.2006, p. 15). Furthermore, provisions and recommendations are outlined in a methodology manual: Methodology of short-term business statistics, Interpretation and Guidelines, Edition 2006, Eurostat, Luxembourg 2006.

[2] These are, in particular, mining (in part) and publishing industries. These economic activities rely heavily on imports.

[3] in particular, diamonds, precious stones, precious metals, in part printing and publishing

10.5 Index types and calculation methods

The methods used for the Swiss Producer and Import Price Index, namely a direct Young price index for the final aggregation and a Jevons price index (the geometric average of the individual indices) at the base aggregation, are compatible with the methods used in the EU.

10.6 Classifications

The NOGA as a basic classification for the Swiss Producer and Import Price Index is identical to the NACE used by the EU, up until the fourth digit. The same applies to the additional classification of the Producer and Import Price Index by intended purpose and by degree of processing.

10.7 Weighting

The general recommendation of Eurostat is to carry out the weighting of the product groups with turnover. With the weighting of the Swiss Producer Price Index, based on the Value Added Statistics (WS), the gross production value is used, which generally differs only slightly from turnover. The weighting of the Export and Import Price indices in Switzerland is based on the FTS, in line with the EU approach.

10.8 Complete revision

In the EU complete revisions are carried out every 5 years, in years ending with nil or with five. As already decided between the past two complete revisions, the intention is to maintain this five-year rhythm.

10.9 Price definitions

10.9.1 Producer prices

The producer prices on the domestic market are recorded in the EU and in Switzerland as ex works prices excluding VAT and excise taxes but inclusive of discounts.

Export prices in Switzerland are recorded under fob ("free-on-board") terms, excluding VAT, which may not always coincide with the "at time of export" price requested by Eurostat.

Prices recorded in Switzerland always refer to the beginning of every survey month, whereas the EU prefers a reference day in the middle of the survey month or an average price calculated over the whole of the month.

10.9.2 Import prices

Import prices in both the EU and in Switzerland are also recorded exclusive of VAT, excise taxes and customs duty and inclusive of discounts. But Swiss Import Prices Index takes into account the price at the time of ordering and not, as usual in the EU, the price at the time of recording in the accounts.

Just as for producer prices, import prices in Switzerland also refer to the beginning of the survey month. For some relatively homogeneous product groups (see chapter 6.4), import prices are not collected from businesses but are taken from the FTS (averages). EU guidelines permit this procedure.

10.10 Periodicity

Just as in the EU, the Swiss Producer and Import Price Index is calculated monthly. Product groups with price fluctuations that are negligible in the short term are recorded at quarterly or twice-yearly. Producer prices are monthly recorded for agricultural products, some foodstuffs, coal, petrol, natural gas, petroleum products as well as metal and metal ores. The same principle applies to production prices for energy supply (electricity and gas), although generally price adjustments occur only once a year.

10.11 Seasonal adjustment

In Switzerland no seasonal adjustment is carried out for the Producer Price Index nor for the Import Price Index. However, if necessary, an additional analysis can be made using a statistical procedure to adjust data. According the EU both variations are possible (with or without seasonal adjustments).

10.12 Selection of reporting businesses

To guarantee representative samples, the EU recommends selection of reporting businesses either by means of a random sample or judgement selection. For practical reasons Switzerland uses judgement selection.

11 Publications and information

11.1 Publications

The results of the Producer and Import Price Index are published monthly in a press release and online.

In addition to the total index, various partial indices are also shown:

- Price indices for domestic sales and import;
- Price indices for individual economic activities and product groups;
- Price indices by intended purpose and degree of processing of products (agricultural and forestry products, intermediate materials, capital goods, consumer durables and non-durables, energy as well as sewerage, waste management and recycling);
- Price indices for core inflation (exclusion of product groups close to raw materials, whose prices are extremely volatile, as well as administered prices);
- Price indices for agriculture and timber industry;
- Price indices for construction materials (monthly publication "Preisänderungen im Bauwesen", in collaboration with the Coordination Group for Construction and Property Services (Koordinationskonferenz der Bau- und Liegenschaftsorgane der öffentlichen Bauherren – KBOB));
- Producer price indices for selected services.

The main results for the total and the above-mentioned partial indices are:

- the price index on the basis of December 2020=100 (and earlier bases);
- the percentage change rates in comparison with previous month;
- the percentage change rates in comparison with the same month of the previous year.

The FSO information can be found online at www.bfs.admin.ch. Information on "Producer and Import Prices" can be found directly under www.PPI.bfs.admin.ch. Numerous findings as well as further information on the topic of producer and import prices can be found here, for example:

- General explanatory documents (infographics, Leporello);
- Detailed reference documents (methodological bases of service indices);
- Detailed information on the weighting of different indices.

Many tables containing detailed results are also available on sub-pages dedicated to specific indices (total offer, production prices, etc.).

Results are also published in our Statistical Yearbook of Switzerland.

11.2 Information

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Appendix 1

Structure and weighting of price indices (December 2020=100)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
Total	**Total**	**100.0000**	**100.0000**	**100.0000**	**100.0000**
A	Agricultural and forestry products				
01	**Agricultural products**	**1.9556**	**1.8769**	**1.9304**	**3.0535**
01.1	Non-perennial crops	0.4850	0.7342	0.5649	0.8938
01.11	Cereals, leguminous crops, oil seeds	0.1193	0.2022	0.1459	0.2310
01.13	Vegetables, melons and potatoes	0.2592	0.3206	0.2789	0.4416
01.15	Unmanufactured tobacco	–[1]	0.0638	0.0204	0.0325
01.19	Other non-perennial crops	0.1065	0.1476	0.1197	0.1887
01.2	Perennial crops	0.1988	0.8857	0.4187	0.6586
01.21	Wine grapes and table grapes	0.1105	0.0431	0.0889	0.1416
01.22	Tropical and subtropical fruits	–[1]	0.1191	0.0381	0.0607
01.22.1	Bananas	–[1]	0.0622	–[1]	–[1]
01.22.2	Pineapples	–[1]	0.0156	–[1]	–[1]
01.22.3	Avocados	–[1]	0.0329	–[1]	–[1]
01.22.4	Date	–[1]	0.0084	–[1]	–[1]
01.23	Citrus fruits	–[1]	0.1180	0.0378	0.0602
01.23.1	Oranges	–[1]	0.0453	–[1]	–[1]
01.23.2	Mandarins	–[1]	0.0380	–[1]	–[1]
01.23.3	Lemons	–[1]	0.0294	–[1]	–[1]
01.23.4	Grapefruit	–[1]	0.0053	–[1]	–[1]
01.24	Pome fruits, stone fruits	0.0540	0.0821	0.0630	0.0998
01.24.1	Apricots	–[1]	0.0124	–[1]	–[1]
01.24.2	Peaches	–[1]	0.0112	–[1]	–[1]
01.24.3	Nectarines	–[1]	0.0192	–[1]	–[1]
01.24.4	Apples	–[1]	0.0158	–[1]	–[1]
01.24.5	Pears	–[1]	0.0093	–[1]	–[1]
01.24.6	Plums and sloes	–[1]	0.0066	–[1]	–[1]
01.24.7	Cherries	–[1]	0.0076	–[1]	–[1]
01.25	Other fruit and nuts	0.0256	0.0847	0.0445	0.0703
01.25.1	Berries and fruits	–[1]	0.0713	–[1]	–[1]
01.25.11	Kiwis	–[1]	0.0177	–[1]	–[1]
01.25.12	Raspberries	–[1]	0.0225	–[1]	–[1]
01.25.13	Strawberries	–[1]	0.0311	–[1]	–[1]
01.25.3	Other nuts (except peanuts)	–[1]	0.0134	–[1]	–[1]
01.27	Growing of beverage crops	0.0087	0.4203	0.1405	0.2166
01.27.1	Coffee	–[1]	0.3363	–[1]	–[1]
01.27.2	Tea leaves	–[1]	0.0105	–[1]	–[1]
01.27.3	Cocoa	–[1]	0.0735	–[1]	–[1]
01.28	Spices, unprocessed	–[1]	0.0184	0.0059	0.0094
01.3	Plant propagation products	0.0556	0.2104	0.1052	0.1651
01.4	Animals and animal products	1.2162	0.0466	0.8416	1.3360
01.41	Raw milk	0.5232	–[1]	0.3556	0.5662
01.42	Cattle for meat	0.2788	–[1]	0.1895	0.3010
01.45	Sheep	0.0150	–[1]	0.0102	0.0160
01.46	Pigs	0.2344	–[1]	0.1593	0.2537
01.47	Poultry	0.1593	–[1]	0.1163	0.1849

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
01.47.1	Chickens, turkeys	0.0871	–[1]	–[1]	–[1]
01.47.2	Eggs	0.0722	0.0249	–[1]	–[1]
01.49	Honey	0.0055	0.0217	0.0107	0.0142
02	**Forestry products**	**0.1158**	**–[1]**	**0.0788**	**0.1064**
02.2	Wood harvest	0.1158	–[1]	0.0788	0.1064
02.20.1	Raw wood	0.1158	–[1]	0.0788	0.1064
02.20.11	Timber, roundwood	0.0649	–[1]	0.0442	0.0515
02.20.111	Timber, roundwood: coniferous wood	0.0570	–[1]	0.0388	0.0469
02.20.112	Timber, roundwood: deciduous wood	0.0079	–[1]	0.0054	0.0046
02.20.12	Timber	0.0106	–[1]	0.0072	0.0114
02.20.13	Wood for energy	0.0403	–[1]	0.0274	0.0435
B	Mining and quarrying products				
05	**Coals**	**–[1]**	**0.0100**	**0.0032**	**0.0051**
06	**Petroleum and natural gas**	**–[1]**	**1.4128**	**0.4526**	**0.7207**
06.1	Petroleum	–[1]	0.7986	0.2558	0.4074
06.2	Natural gas	–[1]	0.6142	0.1968	0.3133
08	**Mining and quarrying, salt**	**0.5816**	**0.1675**	**0.4489**	**0.7099**
08.1	Stone, sand and gravel	0.5518	0.1675	0.4287	0.6789
08.11	Stone, unprocessed	0.0375	0.0160	0.0306	0.0466
08.12	Sand and gravel	0.5143	0.1515	0.3981	0.6323
08.12.1	Sand	0.1286	–[1]	–[1]	–[1]
08.12.2	Gravel	0.3857	–[1]	–[1]	–[1]
08.9	Other mining	0.0298	–[1]	0.0202	0.0310
08.93	Salt	0.0298	–[1]	0.0202	0.0310
C	Manufactured products				
10	**Food products**	**8.8716**	**3.8578**	**7.2654**	**9.6545**
10.1	Meat and meat products	1.9800	0.5286	1.5151	2.3585
10.11	Meat (excl. poultry)	0.7245	0.2920	0.5861	0.8790
10.11.1	Beef	0.2598	0.1451	0.2231	0.3552
10.11.2	Veal	0.1146	–[1]	0.0779	0.1240
10.11.3	Pork	0.2823	0.0222	0.1990	0.3169
10.11.4	Mutton, lamb	0.0178	0.0755	0.0363	0.0578
10.11.5	Horse meat	–[1]	0.0237	0.0076	0.0121
10.11.6	Rabbit meat	–[1]	0.0059	0.0019	0.0030
10.11.7	Game	–[1]	0.0196	0.0063	0.0100
10.11.9	Hides and skins	0.0500	–[1]	0.0340	–[1]
10.12	Poultry meat	0.0711	0.1212	0.0871	0.1388
10.13	Meat products	1.1844	0.1154	0.8419	1.3407
10.13.1	Beef and veal products	0.2825	–[1]	0.1920	0.3058
10.13.2	Products from pork meat (excl. sausages and terrines)	0.2057	0.0350	0.1510	0.2405
10.13.3	Charcuterie, terrines, sausages	0.6559	0.0804	0.4715	0.7508
10.13.31	Charcuterie, terrines	0.4272	–[1]	–[1]	–[1]
10.13.32	Sausages (cooked sausages)	0.2287	–[1]	–[1]	–[1]
10.13.4	Other meat products	0.0403	–[1]	0.0274	0.0436
10.2	Fish and fish products	–[1]	0.4069	0.1304	0.2076
10.3	Processed fruit and vegetables	0.2861	0.5328	0.3651	0.5814
10.31	Potato products	0.0972	–[1]	0.0661	0.1052
10.32	Fruit and vegetable juice	0.0744	0.0829	0.0771	0.1228

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
10.39	Other processing of fruit and vegetables	0.1145	0.4499	0.2219	0.3534
10.4	Animal and vegetable oils and fats	0.2217	0.3015	0.2473	0.3938
10.41	Oils and fats (without margarine)	0.2217	0.3015	0.2473	0.3938
10.5	Dairy products	1.8154	0.3366	1.3416	1.9086
10.51	Milk products (excl. ice cream)	1.7176	0.2976	1.2627	1.7829
10.51.1	Fresh dairy products	0.6645	–[1]	0.4518	0.7192
10.51.11	Milk	0.1720	–[1]	0.1169	0.1862
10.51.11.1	PAST Milk	0.0685	–[1]	0.0465	0.0741
10.51.11.2	UHT Milk	0.1035	–[1]	0.0704	0.1121
10.51.12	Cream	0.1956	–[1]	0.1330	0.2117
10.51.13	Yoghurt (excl. quark)	0.1300	–[1]	0.0884	0.1407
10.51.13.1	Natural yoghurt	0.0557	–[1]	0.0379	0.0603
10.51.13.2	Flavoured yoghurt	0.0743	–[1]	0.0505	0.0804
10.51.14	Butter	0.1669	–[1]	0.1135	0.1806
10.51.14.1	Premium butter	0.0631	–[1]	0.0429	0.0683
10.51.14.2	Cooking butter	0.0774	–[1]	0.0526	0.0837
10.51.14.3	Clarified butter	0.0264	–[1]	0.0180	0.0286
10.51.2	Cheese	0.6894	0.2553	0.5502	0.6662
10.51.21	Hard cheese	0.2331	0.0493	0.1742	0.1561
10.51.21.1	Gruyère	0.0777	–[1]	–[1]	–[1]
10.51.21.2	Emmental	0.0698	–[1]	–[1]	–[1]
10.51.21.9	Other hard cheese	0.0856	–[1]	–[1]	–[1]
10.51.22	Semi-hard cheese	0.2428	0.0553	0.1827	0.2274
10.51.22.1	Raclette	0.0727	–[1]	–[1]	–[1]
10.51.22.2	Appenzeller	0.0341	–[1]	–[1]	–[1]
10.51.22.3	Mountain and alp cheese	0.0231	–[1]	–[1]	–[1]
10.51.22.9	Other semi-hard cheeses	0.1129	–[1]	–[1]	–[1]
10.51.23	Soft cheese	0.0271	0.0482	0.0338	0.0500
10.51.24	Cream cheese	0.1080	0.0757	0.0976	0.1454
10.51.25	Processed cheese and ready-made fondue	0.0784	0.0268	0.0619	0.0873
10.51.3	Other milk processing	0.3637	0.0423	0.2607	0.3975
10.52	Ice cream	0.0978	0.0390	0.0789	0.1257
10.6	Starches and starch products	0.1360	0.2286	0.1655	0.2036
10.61	Grain mill products	0.1220	0.1344	0.1258	0.1404
10.61.1	Flours	0.0572	–[1]	0.0388	0.0619
10.61.11	White flour	0.0256	–[1]	0.0174	0.0277
10.61.12	Half White Flour	0.0182	–[1]	0.0123	0.0197
10.61.13	Half-half flour	0.0044	–[1]	0.0030	0.0047
10.61.14	Special flour	0.0090	–[1]	0.0061	0.0098
10.61.2	Rice	–[1]	0.0476	0.0152	0.0243
10.61.3	Other grain mill products	0.0648	0.0868	0.0718	0.0542
10.62	Starches and starch products	0.0140	0.0942	0.0397	0.0632
10.7	Bakery and farinaceous products	1.2719	0.3119	0.9643	1.4904
10.71	Manufacture of bread; manufacture of fresh pastry goods and cakes (excl. dry bakery products)	1.0422	0.1333	0.7510	1.1960
10.71.1	Bread	0.6616	0.0232	0.4571	0.7279
10.71.2	Pastries	0.3189	0.0792	0.2421	0.3856
10.71.3	Semi-finished products	0.0617	0.0309	0.0518	0.0825
10.72	Dry bakery products	0.2069	0.1358	0.1841	0.2479
10.73	Manufacture of macaroni, noodles, couscous and similar farinaceous products	0.0228	0.0428	0.0292	0.0465

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
10.8	Manufacture of other food products n.e.c.	2.8638	1.0565	2.2850	2.1107
10.81	Sugar	0.0790	0.0380	0.0659	0.1049
10.82	Production of confectionery and sugar confectionery (excl. dry bakery products)	0.6942	0.3416	0.5813	0.5857
10.82.1	Cocoa and chocolate products	0.5766	0.2809	0.4819	0.5041
10.82.2	Sugar confectionery	0.1176	0.0607	0.0994	0.0816
10.83	Processed tea and coffee	0.9533	0.1276	0.6888	0.3288
10.83.1	Coffee	0.8983	0.1066	0.6447	0.2586
10.83.2	Tea	0.0550	0.0210	0.0441	0.0702
10.84	Condiments and seasonings	0.0917	0.1188	0.1004	0.1179
10.85	Prepared meals and dishes	0.2092	0.2184	0.2122	0.1438
10.86	Dietetic and homogenized products	0.0863	–[1]	0.0586	0.0179
10.89	Manufacture of other food products n.e.c.	0.7501	0.2121	0.5778	0.8117
10.89.1	Soups and bouillons	0.1108	0.0101	0.0786	0.1062
10.89.9	Manufacture of other food products n.e.c.	0.6393	0.2020	0.4992	0.7055
10.9	Fodder	0.2967	0.1544	0.2511	0.3999
10.91	Prepared feeds for farm animals	0.2967	0.0451	0.2161	0.3441
10.91.1	Fodder for livestock	0.0858	–[1]	–[1]	–[1]
10.91.2	Pig fodder	0.1079	–[1]	–[1]	–[1]
10.91.3	Poultry fodder	0.0692	–[1]	–[1]	–[1]
10.91.4	Other fodder	0.0338	–[1]	–[1]	–[1]
10.92	Prepared pet foods	–[1]	0.1093	0.0350	0.0558
11	**Beverages**	**0.5242**	**1.0973**	**0.7077**	**1.1270**
11.01	Spirits	0.0420	0.1121	0.0644	0.1026
11.02	Wine frome grapes	0.2241	0.6960	0.3753	0.5976
11.02.1	Red wine	0.1016	0.4848	0.2244	0.3573
11.02.11	France	–[1]	0.1816	–[1]	–[1]
11.02.12	Italy	–[1]	0.1354	–[1]	–[1]
11.02.13	Spain	–[1]	0.0732	–[1]	–[1]
11.02.14	Other countries	–[1]	0.0946	–[1]	–[1]
11.02.2	White wine	0.1225	0.0896	0.1120	0.1783
11.02.3	Sparkling wine and other grape wines	–[1]	0.1216	0.0389	0.0620
11.05	Beer	0.1933	0.0751	0.1554	0.2475
11.05.1	Draft beer	0.0514	0.0125	0.0389	0.0620
11.05.2	Bottled beer	0.0955	0.0417	0.0783	0.1246
11.05.3	Canned beer	0.0464	0.0209	0.0382	0.0609
11.07	Soft drinks, natural mineral waters	0.0648	0.2141	0.1126	0.1793
11.07.1	Mineral water	0.0324	0.0522	0.0387	0.0617
11.07.2	Soft drinks	0.0324	0.1619	0.0739	0.1176
12	**Tobacco products**	**0.3672**	**0.0917**	**0.2789**	**0.2732**
13	**Textiles**	**0.5293**	**1.1078**	**0.7146**	**0.8184**
13.1	Yarns and fibres	–[1]	0.0569	0.0182	0.0290
13.2	Fabrics	0.1090	0.1893	0.1347	0.1195
13.3	Finishing of textiles	0.0590	–[1]	0.0401	0.0639
13.9	Other textiles	0.3613	0.8616	0.5216	0.6060
13.91	Knitted and crocheted fabrics	0.0214	–[1]	0.0146	–[1]
13.92	Made-up textile articles, except apparel	0.1831	0.5307	0.2944	0.4372
13.92.1	Household textiles	0.0518	0.1401	0.0801	0.1149
13.92.2	Bedding articles	0.0783	0.1917	0.1146	0.1635
13.92.3	Other made-up textile articles (except apparel)	0.0530	0.1989	0.0997	0.1588

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
13.93	Carpets	0.0364	0.1179	0.0625	0.0601
13.95	Non-wowens and articles made from non-wowens	–[1]	0.0958	0.0307	0.0489
13.96	Technical textiles	0.1204	0.1172	0.1194	0.0598
14	**Wearing apparel**	**0.1314**	**3.9659**	**1.3597**	**2.1653**
14.1	Wearing apparel	0.1314	3.3743	1.1702	1.8635
14.11	Leather clothes	–[1]	0.0586	0.0188	0.0299
14.12/13	Workwear/Other outerwear	0.1314	1.9043	0.6993	1.1136
14.14	Underwear	–[1]	0.8469	0.2713	0.4320
14.19	Other wearing apparel and accessories	–[1]	0.5645	0.1808	0.2880
14.3	Knitted and crocheted apparel	–[1]	0.5916	0.1895	0.3018
14.31	Knitted and crocheted hosiery	–[1]	0.0837	0.0268	0.0427
14.39	Other knitted and crocheted apparel	–[1]	0.5079	0.1627	0.2591
15	**Leather and related products**	**0.2099**	**2.0147**	**0.7880**	**1.0730**
15.1	Leather and related products	0.0865	0.8324	0.3254	0.4432
15.11	Leather	–[1]	0.0428	0.0137	0.0219
15.12	Leather and travel goods	0.0865	0.7896	0.3117	0.4213
15.2	Footwear	0.1234	1.1823	0.4626	0.6298
16	**Timber products**	**2.3191**	**1.1761**	**1.9529**	**2.9561**
16.1	Products of swamilling and planning	0.4206	–[1]	0.2858	0.4551
16.10.1	Sawmilling products	0.3731	–[1]	0.2535	0.4037
16.10.11	Sawn timber	0.3731	–[1]	0.2535	0.4037
16.10.111	Building materials	0.1754	–[1]	0.1191	0.1897
16.10.1111	Solid wood (previously construction timber)	0.0302	–[1]	0.0205	0.0327
16.10.1112	Slats	0.0368	–[1]	0.0250	0.0398
16.10.1113	Double slats	0.0395	–[1]	0.0268	0.0427
16.10.1114	Blades for glued laminated wood, N	0.0395	–[1]	0.0268	0.0427
16.10.1115	Blades for glued laminated wood, I	0.0294	–[1]	0.0200	0.0318
16.10.112	Auxiliary materials in wood	0.1302	–[1]	0.0885	0.1409
16.10.1121	Formwork square beams	0.0514	–[1]	0.0349	0.0556
16.10.1122	Formwork boards	0.0326	–[1]	0.0222	0.0353
16.10.1123	Scaffolding boards	0.0462	–[1]	0.0314	0.0500
16.10.113	Products of the packaging and pallet industry	0.0675	–[1]	0.0459	0.0731
16.10.1131	Boards for crates	0.0282	–[1]	0.0192	0.0305
16.10.1132	Packing square beams	0.0097	–[1]	0.0066	0.0105
16.10.1133	Boards for pallets	0.0177	–[1]	0.0120	0.0192
16.10.1134	Square beams for pallets	0.0119	–[1]	0.0081	0.0129
16.10.2	Wood planing products	0.0475	–[1]	0.0323	0.0514
16.2	Other products of wood	1.8985	1.1761	1.6671	2.5010
16.21	Parquet floors	0.1716	0.3263	0.2211	0.2185
16.21.1	Plywood panels	–[1]	0.0504	–[1]	0.0273
16.21.2	Wood-based panels	–[1]	0.1157	–[1]	0.0938
16.21.3	Fibreboard panels	–[1]	0.1287	–[1]	0.0813
16.21.4	Carpentry panels	–[1]	0.0315	–[1]	0.0161
16.22	Parquet floors	0.0627	0.1273	0.0834	0.1127
16.23	Builders' and interiors' joinery	1.6115	0.5122	1.2594	2.0055
16.23.1	Builders' joinery, windows and doors	0.4086	–[1]	–[1]	–[1]
16.23.11	Windows	0.1362	–[1]	–[1]	–[1]
16.23.12	Doors and windows of metal	0.2724	–[1]	–[1]	–[1]
16.23.2	Interior joinery	1.2029	–[1]	–[1]	–[1]

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
16.24	Wooden packages	0.0527	–[1]	0.0358	0.0570
16.29	Other woodenware and wickerwork	–[1]	0.2103	0.0674	0.1073
17	**Paper and paper products**	**0.7403**	**1.4007**	**0.9520**	**1.2299**
17.1	Pulp, paper and paperboard	0.1969	0.5802	0.3197	0.3655
17.11	Pulp	–[1]	0.0508	0.0163	0.0259
17.12	Paper and paperboard	0.1969	0.5294	0.3034	0.3396
17.2	Articles of paper	0.5434	0.8205	0.6323	0.8644
17.21	Containers of paper and paperboard, corrugated paper	0.3243	0.3605	0.3359	0.4642
17.21.1	Containers of paper	0.1231	0.1276	0.1246	0.1715
17.21.2	Packaging of paperboard	0.2012	0.2329	0.2113	0.2927
17.22	Household, and sanitary goods and of toilet requisites	0.0803	0.2965	0.1496	0.1870
17.23	Paper stationery	0.0452	0.0463	0.0456	0.0725
17.29	Other goods made of paper or paperboard	0.0936	0.1172	0.1012	0.1407
18	**Printing, composition, binding**	**0.8670**	**–[1]**	**0.5893**	**0.8354**
18.11	Printing newspapers	0.0484	–[1]	0.0329	0.0523
18.12	Other printed matter	0.6801	–[1]	0.4622	0.6630
18.12.1	Offset printing	0.5059	–[1]	0.3439	0.4746
18.12.2	Screen printing	0.0624	–[1]	0.0424	0.0675
18.12.3	Diazo and reproduction graphics	0.0229	–[1]	0.0155	0.0247
18.12.4	Other printing	0.0889	–[1]	0.0604	0.0962
18.13	Composition and reproduction	0.1190	–[1]	0.0809	0.0989
18.14	Bookbinding products	0.0195	–[1]	0.0133	0.0212
19	**Petroleum products**	**0.7139**	**2.6323**	**1.3285**	**1.9231**
19.20.1	Fuels	0.2870	1.7909	0.7689	1.2243
19.20.11	Gasoline	0.1324	0.5614	0.2699	0.4297
19.20.111	Unleaded 95	0.1191	0.4948	0.2395	0.3813
19.20.112	Unleaded 98	0.0133	0.0666	0.0304	0.0484
19.20.12	Diesel	0.1531	0.6445	0.3106	0.4945
19.20.13	Kerosene	0.0015	0.5850	0.1884	0.3001
19.20.2	Heating oil	0.2936	0.6315	0.4018	0.5565
19.20.21	Extra-light fuel oil	0.2166	0.6315	0.3495	0.5565
19.20.22	Heavy fuel oil	0.0770	–[1]	0.0523	–[1]
19.20.3	Lubricating oils	0.1333	0.1192	0.1288	0.0960
19.20.31	Engine oils	0.0353	0.0702	0.0464	0.0566
19.20.32	Vehicle transmission oils	0.0185	0.0111	0.0161	0.0089
19.20.33	Hydraulic fluids	0.0187	0.0166	0.0181	0.0134
19.20.34	Metalworking oils	0.0602	0.0189	0.0470	0.0152
19.20.35	Process oils	0.0006	0.0024	0.0012	0.0019
19.20.4	Pure bitumen	–[1]	0.0907	0.0290	0.0463
20	**Chemical products**	**6.7619**	**8.3448**	**7.2690**	**6.7490**
20.1	Basic chemicals, fertilisers, plastics in primary forms, etc.	3.7770	5.6594	4.3801	3.8078
20.11	Industrial gases	0.0033	–[1]	0.0022	0.0035
20.12	Dyes and pigments	0.2494	0.2618	0.2534	0.2727
20.13	Other inorganic products of the chemical industry	0.0235	0.3702	0.1346	0.1889
20.14	Other organic basic chemicals	2.8631	3.6934	3.1291	2.2933
20.15	Fertilizers and nitrogen products	–[1]	0.0658	0.0211	0.0336
20.16	Plastics in primary forms	0.6377	1.2280	0.8268	0.9953
20.16.1	Plastics in primary forms, except polyester resin	0.6238	1.1286	0.7855	0.9370
20.16.2	Polyester resin	0.0139	0.0994	0.0413	0.0583

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
20.17	Synthetic rubber in primary forms	–[1]	0.0402	0.0129	0.0205
20.2	Pesticides, insecticides, disinfectants	0.0676	0.0900	0.0748	0.0557
20.3	Paints, varnishes and similar coatings, printing ink and mastics	0.6348	0.3643	0.5481	0.5396
20.30.1	Paints and printing ink	0.3632	0.1073	0.2812	0.2567
20.30.2	Non-mineral surfacing preparations	0.0823	0.1188	0.0940	0.1141
20.30.3	Wood and industrial varnishes	0.1893	0.1382	0.1729	0.1688
20.4	Soaps, detergents, toilet preparations and perfumes	0.8078	0.8540	0.8225	0.8394
20.41	Soap and detergents, cleaning and polishing preparations	0.0556	0.2558	0.1197	0.1618
20.42	Perfumes and toilet preparations	0.7522	0.5982	0.7028	0.6776
20.5	Other chemical products	1.4435	1.3199	1.4040	1.4773
20.51	Pyrotechnic products	0.0093	0.0289	0.0156	0.0248
20.52	Glues	0.1012	0.0564	0.0869	0.0771
20.53	Essential oils	0.9759	0.2395	0.7400	0.6549
20.59	Other chemical products	0.3571	0.9951	0.5615	0.7205
20.6	Man-made fibres	0.0312	0.0572	0.0395	0.0292
21	**Pharmaceutical products**	**23.0476**	**19.7791**	**22.0011**	**10.6672**
21.1	Basic pharmaceutical products	2.9935	3.2557	3.0775	1.7337
21.2	Pharmaceutical preparations and other pharmaceutical products	20.0541	16.5234	18.9236	8.9335
22	**Manufacture of rubber and plastic products**	**2.2682**	**3.3334**	**2.6095**	**3.0326**
22.1	Rubber products	0.1408	0.7217	0.3269	0.4014
22.11	Tyres for vehicles	–[1]	0.3732	0.1196	0.1904
22.11.1	Rubber tyres for passenger cars and light utility vehicles	–[1]	0.3094	0.0992	0.1578
22.11.11	Summer tires for passenger cars and light commercial vehicles	–[1]	0.1547	0.0496	0.0789
22.11.12	Winter tires for passenger cars and light commercial vehicles	–[1]	0.1547	0.0496	0.0789
22.11.2	Rubber tyres for heavy utility vehicles	–[1]	0.0638	0.0204	0.0326
22.11.21	Summer tires for heavy commercial vehicles	–[1]	0.0319	0.0102	0.0163
22.11.22	Winter tires for heavy commercial vehicles	–[1]	0.0319	0.0102	0.0163
22.19	Other rubber products	0.1408	0.3485	0.2073	0.2110
22.2	Plastic products	2.1274	2.6117	2.2826	2.6312
22.21	Plastic plates, sheets, tubes and profiles	0.6101	0.9819	0.7292	0.7264
22.21.1	Plastic sheets	0.2694	0.3318	0.2894	0.2311
22.21.11	Plastic construction foil	0.1477	0.1659	0.1535	0.1263
22.21.12	Other plastic foils	0.1217	0.1659	0.1359	0.1048
22.21.2	Plastic panels	0.0636	0.3318	0.1495	0.1935
22.21.3	Plastics pipes	0.2207	0.2004	0.2142	0.1805
22.21.4	Plastic tubes	–[1]	0.0501	0.0160	0.0256
22.21.9	Other semi-finished plastic products	0.0564	0.0678	0.0601	0.0957
22.22	Plastic packing goods	0.5570	0.4844	0.5338	0.6385
22.23	Builders' ware of plastic	0.3442	0.3666	0.3514	0.5213
22.23.1	Geoplastics	–[1]	0.0917	0.0294	0.0468
22.23.2	Other builders' ware	0.3442	0.2749	0.3220	0.4745
22.29	Other plastic products	0.6161	0.7788	0.6682	0.7450
22.29.1	Technical plastic parts	0.0996	0.1596	0.1188	0.1376
22.29.2	Other finished plastic products	0.5165	0.6192	0.5494	0.6074
23	**Non-metallic mineral products**	**1.9258**	**1.6343**	**1.8323**	**2.5573**
23.1	Glass and glass products	0.3843	0.5556	0.4391	0.5493
23.11/12	Flat glass (processed and unprocessed)	0.2917	0.2338	0.2731	0.3561
23.13	Hollow glass	0.0624	0.1762	0.0988	0.1094
23.14	Glass fibres and non-woven products thereof	0.0302	0.0520	0.0372	0.0360

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
23.19	Other glass	–[1]	0.0936	0.0300	0.0478
23.2	Refractory ceramic materials and products	0.0095	–[1]	0.0064	0.0103
23.3	Clay building materials	0.0589	0.1765	0.0965	0.1537
23.31	Ceramic flags	–[1]	0.1765	0.0565	0.0900
23.32	Bricks, tiles and construction products, in baked clay	0.0589	–[1]	0.0400	0.0637
23.4	Other porcelain and ceramic products	0.1465	0.1960	0.1624	0.2026
23.41	Ceramic household and ornamental articles	0.0123	0.0710	0.0311	0.0496
23.42	Ceramic sanitary fixtures	0.0793	0.0458	0.0686	0.0948
23.43/44/49	Other porcelain and ceramic products	0.0549	0.0792	0.0627	0.0582
23.5	Cement, lime and plaster	0.1773	0.0627	0.1406	0.2239
23.51	Cement	0.1773	0.0627	0.1406	0.2239
23.6	Articles of concrete, cement and plaster	0.6664	0.2855	0.5444	0.8667
23.61	Articles of concrete	0.2362	0.1837	0.2194	0.3493
23.61.1	Civil engineering components	0.0554	–[1]	–[1]	–[1]
23.61.2	Building components	0.0660	–[1]	–[1]	–[1]
23.61.3	Landscaping products	0.1148	–[1]	–[1]	–[1]
23.62	Plaster products for construction purposes	0.0516	0.1018	0.0677	0.1077
23.63	Ready mixed concrete	0.3345	–[1]	0.2273	0.3620
23.64	Mortars	0.0184	–[1]	0.0125	0.0199
23.65	Fibre cement	0.0257	–[1]	0.0175	0.0278
23.7	Cutting, shaping and finishing of stone	0.1013	0.1298	0.1104	0.1758
23.9	Other non-metallic mineral products	0.3816	0.2282	0.3325	0.3750
23.91	Abrasive and non-metallic mineral products	0.1649	0.0892	0.1407	0.0697
23.99	Other non-metallic mineral products	0.2167	0.1390	0.1918	0.3053
23.99.1	Articles of asphalt and bitumen	0.1473	0.0904	0.1291	0.2054
23.99.11	Tar mixtures	0.1227	–[1]	0.0834	0.1327
23.99.111	Asphalt mixtures with normal asphalt	0.0809	–[1]	0.0550	0.0875
23.99.1111	Base layer	0.0631	–[1]	0.0429	0.0683
23.99.1112	Wear layer	0.0178	–[1]	0.0121	0.0192
23.99.112	Asphalt mixes with polymer asphalt	0.0418	–[1]	0.0284	0.0452
23.99.1121	Base layer	0.0191	–[1]	0.0130	0.0207
23.99.1122	Wear layer	0.0227	–[1]	0.0154	0.0245
23.99.12	Emulsions	0.0041	–[1]	0.0028	0.0044
23.99.13	Mastic asphalt	0.0055	–[1]	0.0037	0.0059
23.99.14	Bitumen strips	0.0150	0.0904	0.0392	0.0624
23.99.2	Rock wall panels	0.0694	0.0486	0.0627	0.0999
24	**Basic metals, semi-finished metal products**	**1.5702**	**3.7956**	**2.2831**	**2.5856**
24.1	Basic iron, steel	0.2543	1.1182	0.5310	0.6483
24.10.1	Basic iron	–[1]	0.0038	0.0012	0.0019
24.10.2	Long steel products	0.2260	0.1756	0.2098	0.1588
24.10.21	Rods of steel	0.2260	0.1011	0.1859	0.1208
24.10.22	Sections of steel	–[1]	0.0745	0.0239	0.0380
24.10.3	Flat steel products	–[1]	0.3871	0.1241	0.1975
24.10.31	Steel sheets	–[1]	0.3045	0.0976	0.1554
24.10.32	Other sheets	–[1]	0.0826	0.0265	0.0421
24.10.4	Reinforced rods (armoured steel)	0.0283	0.1787	0.0765	0.0998
24.10.5	Premium steel	–[1]	0.2660	0.0851	0.1357
24.10.51	Inox steel	–[1]	0.2420	0.0775	0.1235
24.10.511	Sheets	–[1]	0.1356	0.0434	0.0692

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
24.10.512	Bars	–[1]	0.1064	0.0341	0.0543
24.10.52	Premium construction steel	–[1]	0.0120	0.0038	0.0061
24.10.53	Tool steel	–[1]	0.0120	0.0038	0.0061
24.10.6	Other steel products	–[1]	0.1070	0.0343	0.0546
24.2	Tubes, pipes, hollow profiles and related fittings, of steel	0.2171	0.3488	0.2593	0.2237
24.3	Other iron and steel products	0.2728	0.4457	0.3282	0.3945
24.4	Non-ferrous metals	0.5687	1.8829	0.9897	1.0405
24.42	Aluminium	0.5511	1.1696	0.7492	0.6765
24.42.1	Raw aluminium	–[1]	0.4289	0.1374	0.2188
24.42.2	Semi-finished products of aluminium	0.4752	0.5690	0.5052	0.3591
24.42.21	Aluminium rolled products	0.3836	0.3705	0.3794	0.2446
24.42.22	Extruder products	0.0916	0.1985	0.1258	0.1145
24.42.3	Aluminium foil	0.0759	0.1717	0.1066	0.0986
24.43	Lead, zinc and tin	–[1]	0.0449	0.0144	0.0229
24.43.1	Lead	–[1]	0.0070	0.0022	0.0036
24.43.2	Zinc	–[1]	0.0214	0.0069	0.0109
24.43.3	Tin	–[1]	0.0165	0.0053	0.0084
24.44	Copper	0.0176	0.4852	0.1674	0.2476
24.44.1	Raw copper	–[1]	0.0205	0.0066	0.0105
24.44.2	Copper products	0.0176	0.4647	0.1608	0.2371
24.44.21	Copper wire	–[1]	0.1987	–[1]	0.1014
24.44.22	Copper sheets and bands	–[1]	0.1888	–[1]	0.0963
24.44.23	Copper pipes and bars	–[1]	0.0772	–[1]	0.0394
24.45	Other non-ferrous metals	–[1]	0.1832	0.0587	0.0935
24.5	Foundries	0.2573	–[1]	0.1749	0.2786
24.51	Casting of iron	0.1205	–[1]	0.0819	0.1305
24.53	Casting of light metals	0.1368	–[1]	0.0930	0.1481
25	**Metal products**	**5.6900**	**3.7326**	**5.0630**	**6.5347**
25.1	Steel and light metal frameworks	1.2899	0.9023	1.1657	1.6961
25.11	Metal and steel structures	–[1]	0.7467	–[1]	1.2269
25.11.1	Reinforced steel mesh and cages	–[1]	0.0136	–[1]	0.0890
25.11.2	Other metal and steel structures	–[1]	0.7331	–[1]	1.1379
25.12	Metal finishing elements	–[1]	0.1556	–[1]	0.4692
25.2	Metal tanks, containers, radiators and boilers	0.1220	0.1518	0.1316	0.1637
25.21	Central heating radiators and boilers	0.0881	0.0905	0.0889	0.0958
25.29	Tanks, reservoirs and containers of metal	0.0339	0.0613	0.0427	0.0679
25.5	Forging	0.2258	–[1]	0.1535	0.2444
25.6	Treatment and coating of metals	2.3414	–[1]	1.5913	2.5340
25.61	Treatment and coating of metals	0.4953	–[1]	0.3366	0.5360
25.62	Machining	1.8461	–[1]	1.2547	1.9980
25.7	Cutlery, tools, locks etc.	0.8983	1.0020	0.9316	0.7117
25.71	Cutlery	0.0799	0.0695	0.0766	0.0706
25.72	Locks and hinges	0.1570	0.2409	0.1839	0.2169
25.73	Tools	0.6614	0.6916	0.6711	0.4242
25.9	Other fabricated metal products	0.8126	1.6765	1.0893	1.1848
25.91/92	Metal containers and packaging	0.1812	0.1903	0.1841	0.2376
25.93	Wire products, chain and springs	0.2116	0.1601	0.1951	0.1260
25.94	Screws and rivets	0.1657	0.3156	0.2137	0.1957
25.99	Other fabricated metal products	0.2541	1.0105	0.4964	0.6255

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
26	**Computer, electronic and optical products**	**14.5092**	**9.1448**	**12.7906**	**11.0146**
26.1	Electronic components and boards	2.5950	0.7291	1.9973	2.7907
26.11	Electronic components	2.4707	0.6919	1.9009	2.6708
26.12	Electronic boards	0.1243	0.0372	0.0964	0.1199
26.2	Computers and peripheral equipment	0.2443	2.3555	0.9206	1.2545
26.20.1	Computer servers	–[1]	0.0953	–[1]	–[1]
26.20.2	Desktop computers	–[1]	0.3337	–[1]	–[1]
26.20.3	Mobile computers	–[1]	0.8540	–[1]	–[1]
26.20.4	Tablets	–[1]	0.1973	–[1]	–[1]
26.20.5	PC-Displays	–[1]	0.1302	–[1]	–[1]
26.20.6	PC printers and scanners	–[1]	0.1665	–[1]	–[1]
26.20.9	Other products of group 26.2	–[1]	0.5785	–[1]	–[1]
26.3	Communication equipment	0.2688	2.1558	0.8733	1.1580
26.4	Consumer electronics	0.0606	0.6139	0.2378	0.3131
26.5	Instruments and appliances for measuring and testing, watches and clocks	7.6144	2.1555	5.8656	1.9261
26.51	Instruments and appliances for measuring and testing	1.4583	1.2355	1.3870	0.7886
26.52	Watches	6.1561	0.9200	4.4786	1.1375
26.52.1	Hand and pocket watches	5.8020	0.4093	4.0744	0.8386
26.52.11	Low-range segment	0.2889	–[1]	–[1]	–[1]
26.52.12	Medium-range segment	0.3957	–[1]	–[1]	–[1]
26.52.13	High-end segment	1.3061	–[1]	–[1]	–[1]
26.52.14	Very high-end segment	3.8113	–[1]	–[1]	–[1]
26.52.9	Other watch and clock components	0.3541	0.5107	0.4042	0.2989
26.6	Irradiation, electromedical and electrotherapeutic equipment	3.2076	0.5597	2.3593	3.0384
26.7	Optical instruments and photographic equipment	0.5185	0.5753	0.5367	0.5338
27	**Electrical equipment**	**5.8293**	**4.9474**	**5.5468**	**6.0378**
27.1	Electric motors, generators and transformers, electricity distribution and control apparatus	2.1419	1.5417	1.9497	1.7675
27.11	Electric motors, generators and transformers	1.4070	0.6649	1.1693	1.2407
27.12	Electricity distribution and control apparatus	0.7349	0.8768	0.7804	0.5268
27.2	Batteries and accumulators	0.1710	0.2390	0.1928	0.2521
27.3	Wiring and wiring devices	1.8903	0.6583	1.4957	1.8406
27.31	Fibre optic cables	0.0487	0.0471	0.0482	0.0584
27.32	Other electronic and electric wires and cables	0.4119	0.2214	0.3509	0.4033
27.33	Wiring devices	1.4297	0.3898	1.0966	1.3789
27.4	Electric lighting equipment	0.1643	0.5316	0.2819	0.4016
27.5	Domestic appliances	0.5924	0.9073	0.6932	0.9306
27.51	Electric domestic appliances	0.5924	0.9073	0.6932	0.9306
27.51.1	Large appliances	0.0742	0.3647	0.1672	0.2505
27.51.2	Small appliances	0.5182	0.5426	0.5260	0.6801
27.9	Other electrical equipment	0.8694	1.0695	0.9335	0.8454
28	**Machinery**	**9.6393**	**8.1482**	**9.1616**	**8.3439**
28.1	General-purpose machinery	2.2770	2.0979	2.2197	1.6912
28.11	Engines and turbines	0.6658	0.5014	0.6131	0.3278
28.12	Fluid power equipment	0.1479	0.1499	0.1486	0.0925
28.13	Pumps and compressors	0.6072	0.5036	0.5740	0.4180
28.14	Taps and valves	0.2722	0.5068	0.3474	0.2917
28.15	Bearings, gears, gearing and driving elements	0.5839	0.4362	0.5366	0.5612
28.2	Other general-purpose machinery	2.8440	3.1139	2.9304	3.3700

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
28.21	Ovens, furnaces and furnace burners	0.0601	0.0899	0.0696	0.0732
28.22	Lifting and handling equipment	0.6043	0.7540	0.6522	0.7902
28.23	Office machinery (except computers and peripheral equipment)	0.0670	0.3833	0.1683	0.1955
28.24	Power-driven hand tools	0.2453	0.1681	0.2206	0.2903
28.25	Non-domestic cooling and ventilation equipment	0.3338	0.6653	0.4400	0.4939
28.29	Other general-purpose machinery	1.5335	1.0533	1.3797	1.5269
28.3	Agricultural and forestry machinery	0.0799	0.3618	0.1702	0.2396
28.30.1	Agricultural tractors	–[1]	0.1026	–[1]	–[1]
28.30.2	Other agricultural and forestry machinery	–[1]	0.2592	–[1]	–[1]
28.4	Metal forming machinery	1.5924	0.8029	1.3395	0.8618
28.9	Other special purpose machinery	2.8460	1.7717	2.5018	2.1813
28.91	Machinery for metallurgy	0.0745	–[1]	0.0506	0.0225
28.92	Machinery for construction	0.1154	0.4731	0.2300	0.2799
28.93	Machinery for food, beverage and tobacco processing	0.6345	0.1939	0.4933	0.4449
28.94	Machinery for textile and apparel production	0.4371	0.1501	0.3451	0.2958
28.95	Machinery for paper and paperboard production	0.2778	0.0594	0.2079	0.1651
28.96	Plastic and rubber machinery	0.4023	0.1606	0.3249	0.3253
28.99	Other special purpose machinery	0.9044	0.7346	0.8500	0.6478
28.99.1	Machines for the printing industry	0.4522	0.2761	0.3958	0.2774
28.99.2	Other special purpose machinery	0.4522	0.4585	0.4542	0.3704
29	**Motor vehicles and motor vehicle parts**	**0.3039**	**8.0293**	**2.7787**	**4.2400**
29.1	Motor vehicles and motor vehicle engines	–[1]	7.0573	2.2607	3.6000
29.10.1	Passenger cars and camper vans	–[1]	6.0880	1.9502	3.1056
29.10.2	Commercial vehicles	–[1]	0.9693	0.3105	0.4944
29.2	Bodies (coachwork) for motor vehicles and trailers	0.0928	0.2225	0.1344	0.2140
29.3	Other parts and accessories for motor vehicles	0.2111	0.7495	0.3836	0.4260
30	**Other transport equipment**	**0.7337**	**2.8436**	**1.4096**	**1.6224**
30.1	Building of ships and boats	–[1]	0.1923	0.0616	0.0981
30.12	Pleasure and sporting boats	–[1]	0.1923	0.0616	0.0981
30.3	Aircraft	0.5802	2.0902	1.0639	1.1290
30.9	Transport equipment n.e.c.	0.1535	0.5611	0.2841	0.3953
30.91	Motorcycles	0.0263	0.3367	0.1257	0.1717
30.92	Bicycles and vehicles for the disabled	0.1272	0.2244	0.1584	0.2236
31	**Furniture**	**0.6156**	**1.8310**	**1.0050**	**1.4449**
31.01	Office and shop furniture	0.1976	0.0843	0.1613	0.2430
31.02	Kitchen and bathroom furniture	0.1303	0.2025	0.1534	0.2443
31.03	Mattresses	0.0504	0.0986	0.0659	0.1049
31.09	Other furniture	0.2373	1.4456	0.6244	0.8527
32	**Other manufacturing**	**3.1632**	**3.6244**	**3.3111**	**2.4081**
32.1	Coins, jewellery and similar products	–[1]	0.4391	0.1407	0.2240
32.11	Coins	–[1]	0.4391	0.1407	0.2240
32.2	Musical instruments	0.0170	0.0553	0.0293	0.0466
32.3	Sports goods	0.0571	0.2664	0.1242	0.1977
32.4	Games and toys	0.0199	0.2718	0.1006	0.1602
32.5	Medical and dental instruments and supplies	2.8369	2.2264	2.6413	1.4891
32.50.1	Medical and dental instruments and supplies	1.3418	1.2560	1.3143	0.7859
32.50.2	Orthopaedic and prosthetic devices	1.2353	0.7529	1.0808	0.5178
32.50.3	Articles from dental laboratories	0.2034	0.0467	0.1532	0.0678
32.50.4	Spectacle lenses and frames and components	0.0564	0.1708	0.0930	0.1176

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (continued)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
32.9	Other manufacturing	0.2323	0.3654	0.2750	0.2905
32.91	Brooms and brushes	0.1599	0.0552	0.1264	0.0539
32.99	Other manufacturing	0.0724	0.3102	0.1486	0.2366
33	**Repair and installation of machinery and equipment**	**1.4076**	**–[1]**	**0.9566**	**1.5234**
33.1	Repair of fabricated metal products, machinery and equipment	1.4076	–[1]	0.9566	1.5234
33.12	Repair of machinery	0.7491	–[1]	0.5091	0.8107
33.16	Repair and maintenance of aircraft and spacecraft	0.6121	–[1]	0.4160	0.6625
33.17	Repair and maintenance of other transport equipment	0.0464	–[1]	0.0315	0.0502
D	Electricity and gas supply				
35	**Electricity and gas supply**	**3.2092**	**–[1]**	**2.1807**	**3.4726**
35.1	Electricity	2.4861	–[1]	1.6893	2.6904
35.10.1	Households	1.0472	–[1]	0.7117	1.1333
35.10.2	Trade, industry and services	1.4389	–[1]	0.9776	1.5571
35.10.21	Type I: 8 000 kWh	0.1383	–[1]	0.0940	0.1497
35.10.22	Type II: 30 000 kWh	0.2470	–[1]	0.1679	0.2673
35.10.23	Type III: 100 – 375 MWh	0.2126	–[1]	0.1444	0.2301
35.10.231	Type III: 100 – 375 MWh, Tariff	0.0370	–[1]	0.0251	0.0400
35.10.232	Type III: 100 – 375 MWh, Market price	0.0361	–[1]	0.0245	0.0391
35.10.233	Type III: 100 – 375 MWh, Network price	0.1395	–[1]	0.0948	0.1510
35.10.24	Type IV: 375 – 1 000 MWh, LV	0.1261	–[1]	0.0856	0.1364
35.10.241	Type IV: 375 – 1 000 MWh, LV, Tariff	0.0174	–[1]	0.0118	0.0188
35.10.242	Type IV: 375 – 1 000 MWh, LV, Market price	0.0258	–[1]	0.0175	0.0279
35.10.243	Type IV: 375 – 1 000 MWh, LV, Network price	0.0829	–[1]	0.0563	0.0897
35.10.25	Type V: 375 – 1 000 MWh, MV	0.0372	–[1]	0.0253	0.0403
35.10.251	Type V: 375 – 1 000 MWh, MV, Tariff	0.0023	–[1]	0.0016	0.0025
35.10.252	Type V: 375 – 1 000 MWh, MV, Market price	0.0146	–[1]	0.0099	0.0158
35.10.253	Type V: 375 – 1 000 MWh, MV, Network price	0.0203	–[1]	0.0138	0.0220
35.10.26	Type VI: 1 000 – 3 000 MWh	0.1612	–[1]	0.1096	0.1744
35.10.261	Type VI: 1 000 – 3 000 MWh, Tariff	0.0134	–[1]	0.0091	0.0145
35.10.262	Type VI: 1 000 – 3 000 MWh, Market price	0.0483	–[1]	0.0329	0.0523
35.10.263	Type VI: 1 000 – 3 000 MWh, Network price	0.0995	–[1]	0.0676	0.1076
35.10.27	Type LEC 3 – 10 GWh	0.1554	–[1]	0.1055	0.1682
35.10.271	Type LEC 3 – 10 GWh, Tariff	0.0105	–[1]	0.0071	0.0114
35.10.272	Type LEC 3 – 10 GWh, Market price	0.0617	–[1]	0.0419	0.0668
35.10.273	Type LEC 3 – 10 GWh, Network price	0.0832	–[1]	0.0565	0.0900
35.10.28	Type LEC 10 – 20 GWh	0.0906	–[1]	0.0615	0.0980
35.10.281	Type LEC 10 – 20 GWh, Tariff	0.0073	–[1]	0.0049	0.0079
35.10.282	Type LEC 10 – 20 GWh, Market price	0.0415	–[1]	0.0282	0.0449
35.10.283	Type LEC 10 – 20 GWh, Network price	0.0418	–[1]	0.0284	0.0452
35.10.29	Type LEC >=20 GWh	0.2705	–[1]	0.1838	0.2927
35.10.291	Type LEC >=20 GWh, Tariff	0.0090	–[1]	0.0061	0.0097
35.10.292	Type LEC >=20 GWh, Market price	0.1697	–[1]	0.1153	0.1837
35.10.293	Type LEC >=20 GWh, Network price	0.0918	–[1]	0.0624	0.0993
35.2	Gas	0.7231	–[1]	0.4914	0.7822
35.20.1	Households	0.3497	–[1]	0.2376	0.3784
35.20.2	Trade, industry and services	0.3734	–[1]	0.2538	0.4038
35.20.21	Types II–V (bis 500 000 kWh)	0.0704	–[1]	0.0479	0.0760
35.20.212	Type II: 20 000 kWh	0.0141	–[1]	0.0096	0.0152
35.20.213	Type III: 50 000 kWh	0.0141	–[1]	0.0096	0.0152

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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Structure and weighting of price indices (December 2020 = 100) (end)

Product code	Products	Weighting in %			
		IPP	IPI	IPOT	IPON
35.20.214	Type IV: 100 000 kWh	0.0141	–[1]	0.0096	0.0152
35.20.215	Type V: 500 000 kWh	0.0281	–[1]	0.0191	0.0304
35.20.26	Type VI: 500 000 kWh, AS	0.0669	–[1]	0.0455	0.0724
35.20.27	Type VII: 1.163 GWh, AS	0.0743	–[1]	0.0505	0.0804
35.20.28	Type VIII: 11.63 GWh, AS	0.1013	–[1]	0.0688	0.1096
35.20.29	Type IX: 116.3 GWh, AS	0.0446	–[1]	0.0303	0.0482
35.20.30	Type X: 250 GWh, AS	0.0159	–[1]	0.0108	0.0172
E	Water collection, treatment and supply, sewerage, waste management, recycling				
36	**Water collection, treatment and supply**	**0.1953**	**–[1]**	**0.1327**	**0.2113**
36.00.1	Households	0.1328	–[1]	0.0902	0.1437
36.00.2	Trade, industry and services	0.0625	–[1]	0.0425	0.0676
36.00.21	Base fee	0.0156	–[1]	0.0106	0.0169
36.00.22	Volume fee	0.0469	–[1]	0.0319	0.0507
37	**Sewerage**	**0.2135**	**–[1]**	**0.1451**	**0.2310**
37.00.1	Households	0.1452	–[1]	0.0987	0.1571
37.00.2	Trade, industry and services	0.0683	–[1]	0.0464	0.0739
37.00.21	Base fee	0.0171	–[1]	0.0116	0.0185
37.00.22	Volume fee	0.0512	–[1]	0.0348	0.0554
38	**Waste management, recycling**	**0.9896**	**–[1]**	**0.6726**	**0.6721**
38.1	Waste collection	0.1728	–[1]	0.1175	0.0662
38.11	Collection of non-hazardous waste	0.1728	–[1]	0.1175	0.0662
38.11.1	Waste paper	0.0245	–[1]	0.0167	0.0049
38.11.2	Collection of other non-hazardous waste	0.1483	–[1]	0.1008	0.0613
38.2	Waste treatment and disposal	0.3452	–[1]	0.2346	0.3732
38.21	Waste disposal	0.1726	–[1]	0.1173	0.1864
38.22	Landfills	0.1726	–[1]	0.1173	0.1868
38.3	Recycling	0.4716	–[1]	0.3205	0.2327
38.32	Recycling of sorted materials	0.4716	–[1]	0.3205	0.2327
38.32.1	Recycling gravel	0.0566	–[1]	0.0385	0.0612
38.32.2	Scrap	0.4150	–[1]	0.2820	0.1715
38.32.21	Ferrous scrap	0.3320	–[1]	0.2256	0.1372
38.32.22	Processing waste	0.0830	–[1]	0.0564	0.0343

[1] Position cannot be shown separately or is not included in the survey.

Source: FSO – PPI

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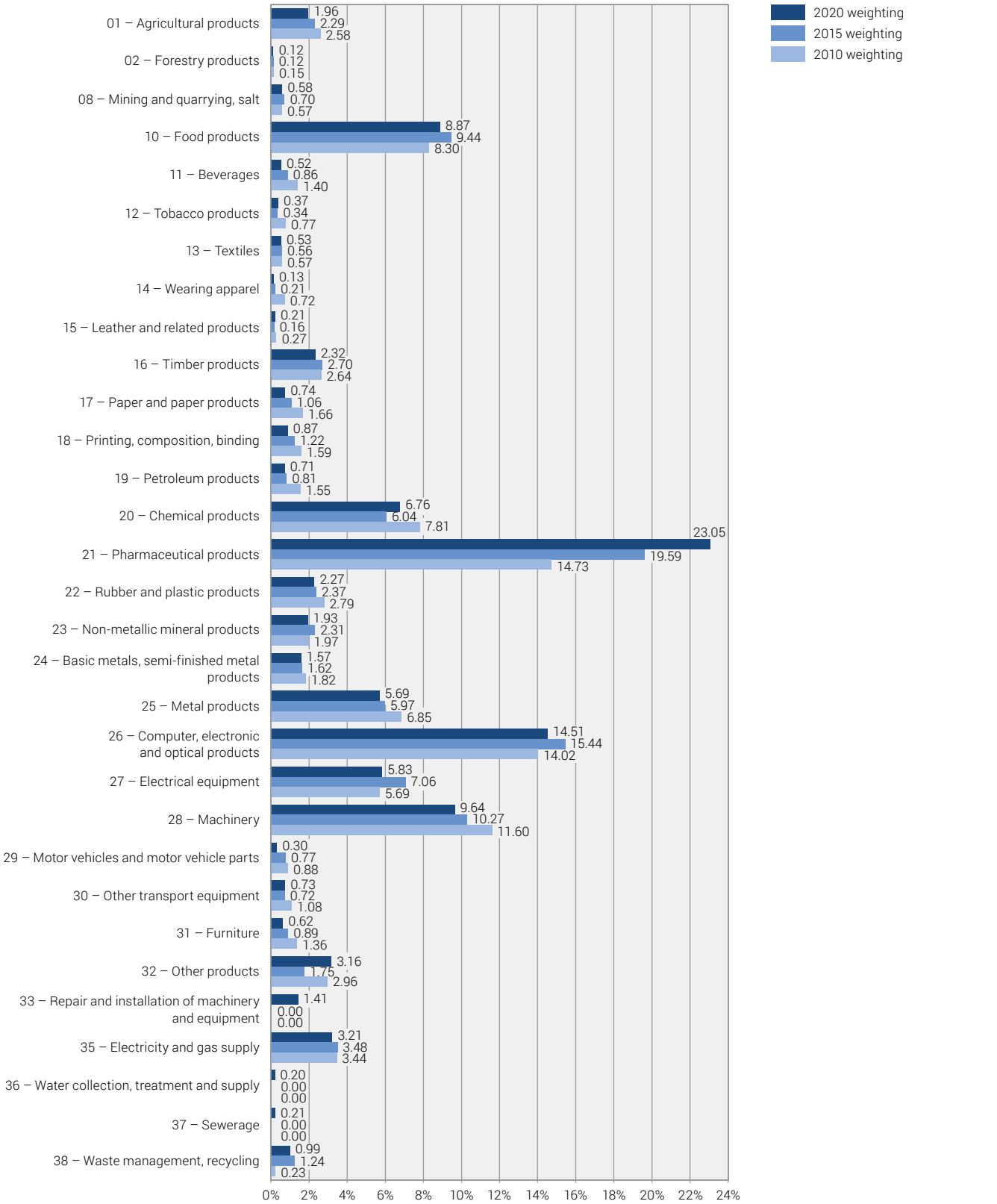
Appendix 2

Comparison between weighting values 2010, 2015 and 2020: Producer Price Index



Source: FSO – PPI

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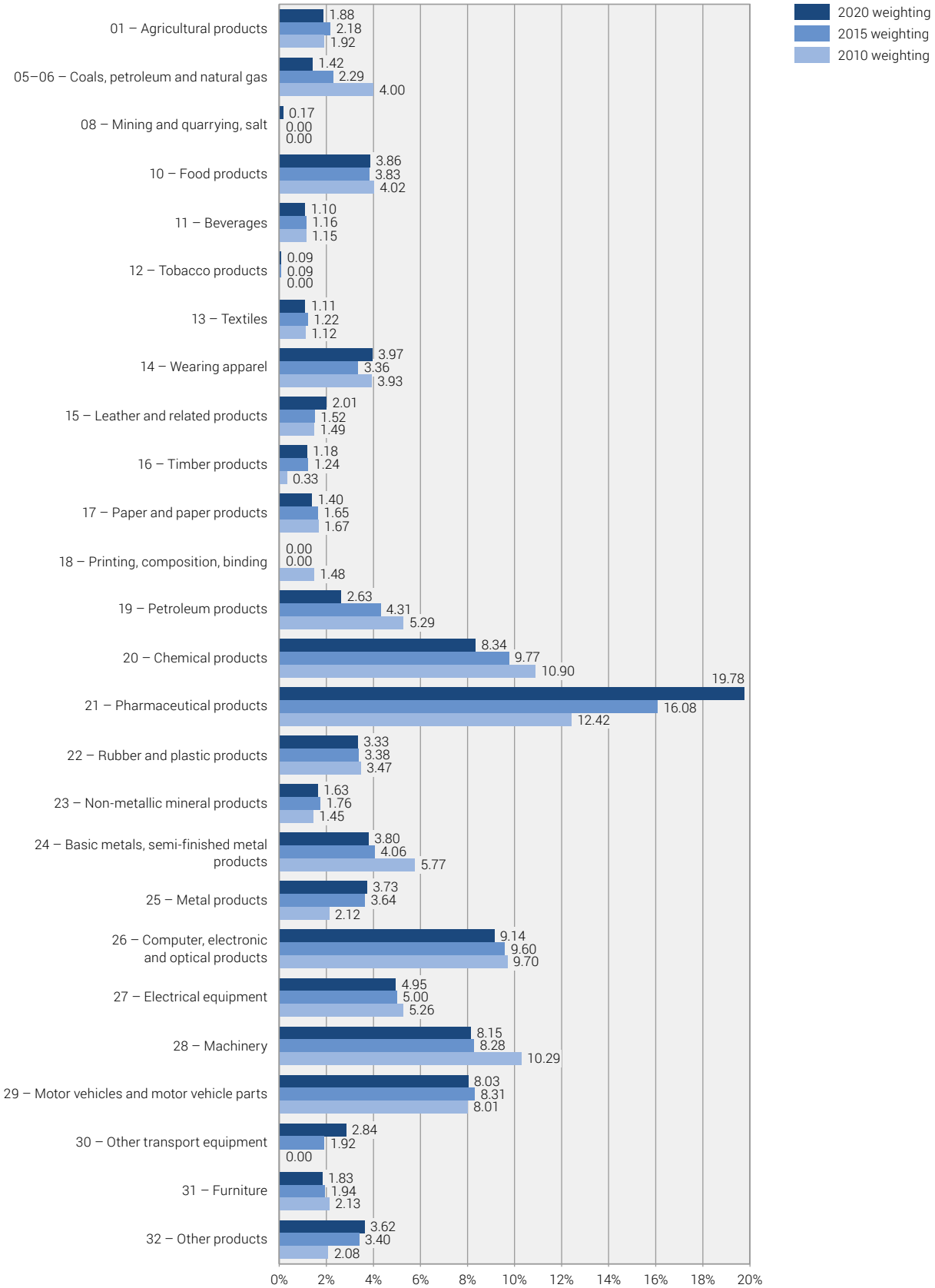
Comparison between weighting values 2010, 2015 and 2020: Import Price Index



Source: FSO – PPI

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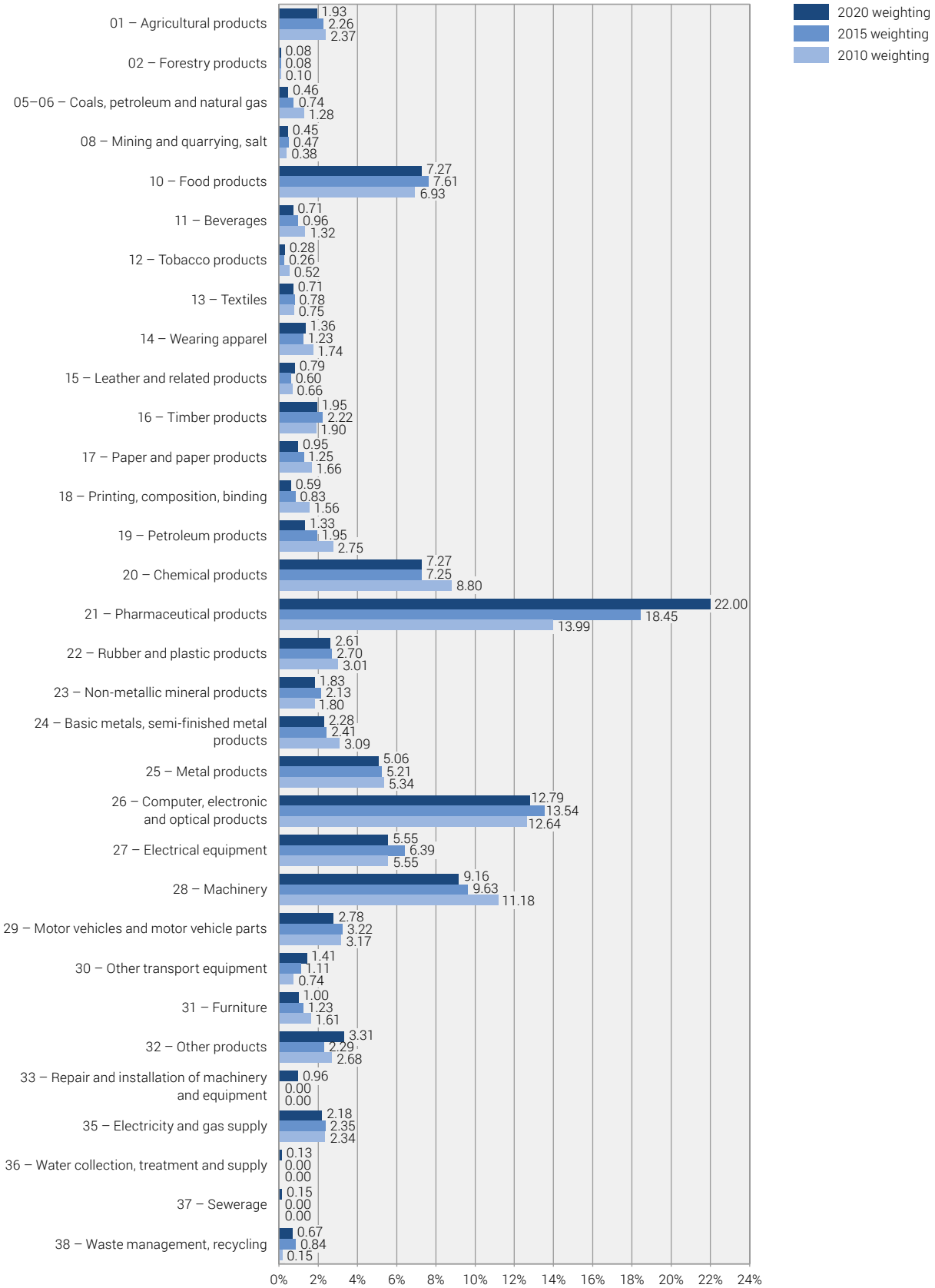
Comparison between weighting values 2010, 2015 and 2020: Total range price index



Source: FSO – PPI

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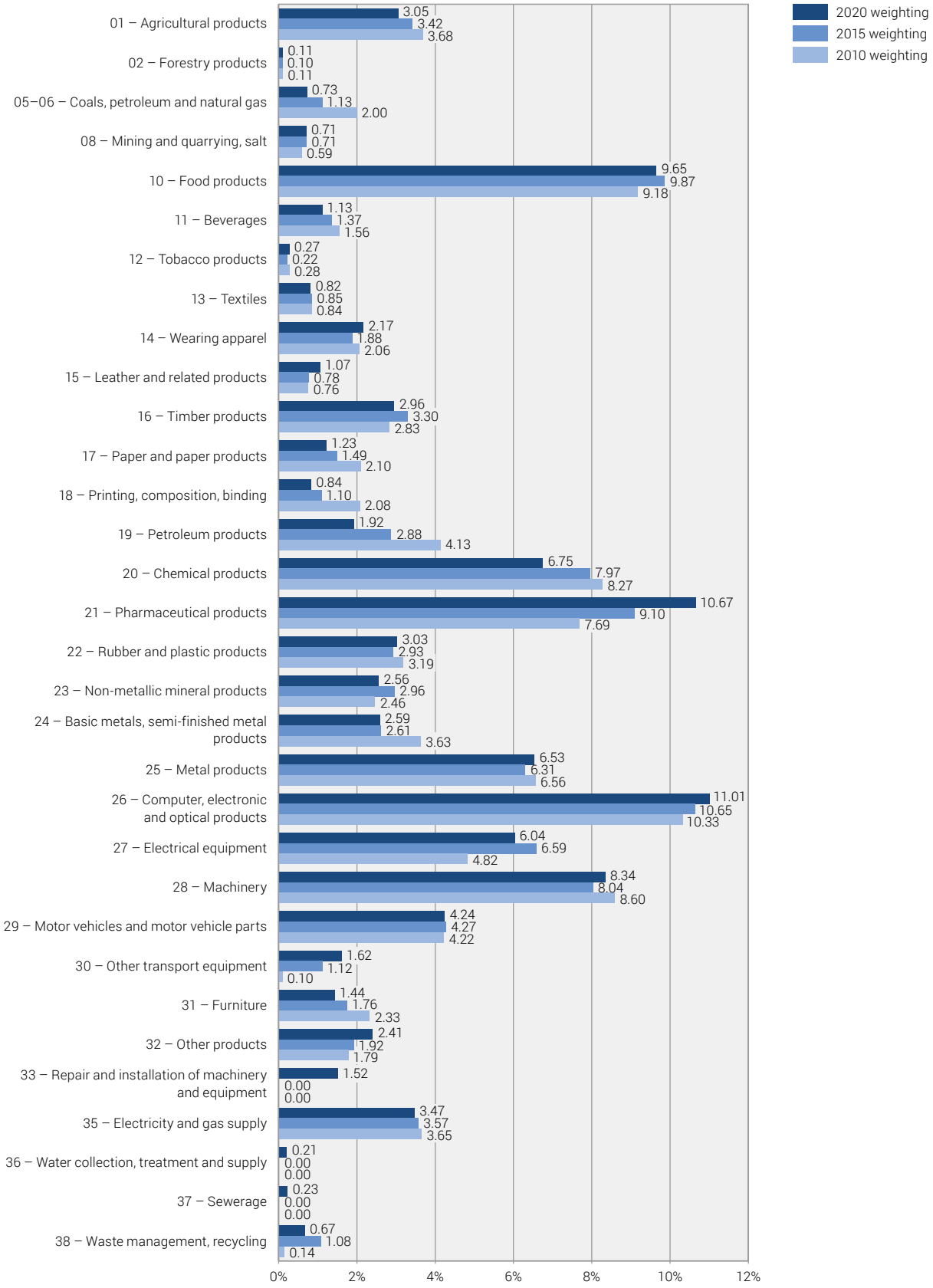
Comparison between weighting values 2010, 2015 and 2020: Total domestic range price index



Source: FSO – PPI

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Appendix 3

Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
10.11	Meat (excl. poultry)	P	13.9726	9.3536	22.2056	54.4682
		I	1.526	6.4286	27.9675	64.0779
		X	1.102	7.6876	29.3275	61.8829
10.12	Poultry meat	P	8.5378	16.6874	74.7748	
		I	2.1927	5.0631	41.2626	51.4816
10.13	Meat products	P	14.6085	24.1391	17.3319	43.9205
		I	4.1912	12.4193	53.1369	30.2526
10.20	Fish and fish products	I	1.4975	6.7928	22.2493	69.4604
10.31	Potato products	P	0.6798			99.3202
10.32	Fruit and vegetable juice	P	18.3634	26.7638	54.8728	
		I	4.095	11.7659	38.0624	46.0767
10.39	Other processing of fruit and vegetables	P	5.1982	17.031	77.7708	
		I	3.8167	11.7954	32.1058	52.2821
10.41	Oils and fats (without margarine)	P	10.2249	11.7326	78.0425	
		I	4.4703	9.1599	27.5891	58.7807
10.51	Milk products (excl. ice cream)	P	20.458	12.9279	13.4076	53.2065
		I	2.43	8.05	22.5256	66.9944
		X	0.4625	3.2946	21.733	74.5099
10.52	Ice cream	P	20.7284	12.6267		66.6449
		I	2.5561	16.3191	27.2885	53.8363
10.61	Grain mill products	P	19.0607	31.3301	49.6092	
		I	6.8232	17.5817	46.246	29.3491
		X	0.9549	1.818	18.0832	79.1439
10.62	Starches and starch products	P	3.6902	96.3098		
		I	6.3161	22.6081	46.1377	24.9381
10.71	Manufacture of bread; manufacture of fresh pastry goods and cakes (excl. dry bakery products)	P	14.1905	40.7204	24.3639	20.7252
		I	6.1663	16.744	44.5331	32.5566
10.72	Dry bakery products	P	6.7738	6.4721	50.016	36.7381
		I	5.7973	16.3155	32.9188	44.9684
		X	1.1779	8.5643	23.5658	66.692
10.73	Manufacture of macaroni, noodles, couscous and similar farinaceous products	P	39.7362	60.2638		
		I	8.0208	21.3623	44.2022	26.4147
10.81	Sugar	P		27.9863	72.0137	
		I	8.6752	22.4181	68.9067	
10.82	Production of confectionery and sugar confectionery (excl. dry bakery products)	P	4.3248	9.6388	27.2591	58.7773
		I	3.5998	8.1361	26.0233	62.2408
		X	0.3645	1.2212	7.2075	91.2068
10.83	Processed tea and coffee	P	6.3004	10.6485	7.2039	75.8472
		I	6.4052	12.3489	40.0843	41.1616
		X	0.0701	0.2808	1.5128	98.1363
10.84	Condiments and seasonings	P	14.9196	14.9812	70.0992	
		I	8.0503	20.8228	40.5943	30.5326
		X	0.9703	4.9029	37.9542	56.1726

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
10.85	Prepared meals and dishes	P	3.0738	2.7334	27.2299	66.9629
		I	5.8224	16.2039	50.1104	27.8633
		X	0.5267	2.2287	16.7192	80.5254
10.86	Dietetic and homogenized products	P	19.618	28.6711	51.7109	
		X	0.0658	0.3111		99.6231
10.89	Manufacture of other food products n.e.c.	P	8.6824	9.9836	25.9806	55.3534
		I	9.2348	20.5192	41.8646	28.3814
		X	1.2836	8.8219	42.4207	47.4738
10.91	Prepared feeds for farm animals	P	13.4679	25.5857	36.4485	24.4979
		I	10.1931	37.2655	52.5414	
10.92	Prepared pet foods	I	2.2568	9.6104	39.8115	48.3213
11.01	Spirits	P	38.6919	40.6815	20.6266	
		I	5.7708	11.1921	36.1022	46.9349
11.02	Wine frome grapes	P	28.6886	49.0461	22.2653	
		I	4.0063	11.0242	33.7902	51.1793
11.05	Beer	P	15.2826	15.2114	13.8173	55.6887
		I	6.9944	13.7474	38.5902	40.668
11.07	Soft drinks, natural mineral waters	P	4.3329	6.2272	21.4208	68.0191
		I	4.6224	13.5096	36.8787	44.9893
12.00	Tobacco products	P	0.4565	4.0928	9.8159	85.6348
		I	0.8246	3.3864	15.6296	80.1594
		X	0.1104	0.2797	1.1206	98.4893
13.10	Yarns and fibres	I	9.2578	19.7011	58.9801	12.061
13.20	Fabrics	P	1.6027	11.3012	22.6231	64.473
		I	9.8922	17.1988	32.1046	40.8044
		X	1.65	6.6556	28.6959	62.9985
13.30	Finishing of textiles	P	21.268	29.9197	48.8123	
13.91	Knitted and crocheted fabrics	X	2.4789	17.0889	30.1599	50.2723
13.92	Made-up textile articles, except apparel	P	38.8243	35.7781	25.3976	
		I	14.4663	22.6254	35.7585	27.1498
		X	13.6553	26.7055	59.6392	
13.93	Carpets	I	18.6257	25.9562	35.0841	20.334
		X	2.6583	4.0417	15.5404	77.7596
13.95	Non-wowens and articles made from non-wowens	I	14.3237	31.9094	53.7669	
13.96	Technical textiles	I	20.8673	29.846	35.2394	14.0473
		X	2.0107	7.5689	16.083	74.3374
14.11	Leather clothes	I	15.8602	26.8133	27.8775	29.449
14.12/13	Workwear/Other outerwear	P	39.4771	11.9543	13.5467	35.0219
		I	3.4822	8.9803	17.2431	70.2944
14.14	Underwear	I	5.8598	10.1891	24.5075	59.4436
14.19	Other wearing apparel and accessories	I	9.3282	16.8349	29.3434	44.4935
14.31	Knitted and crocheted hosiery	I	8.7194	12.7642	59.416	19.1004
14.39	Other knitted and crocheted apparel	I	8.1502	14.9278	28.4068	48.5152
15.11	Leather	I	7.4123	22.7948	69.7929	

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
15.12	Leather and travel goods	P	42.8432	30.3491	26.8077	
		I	6.6054	12.5526	25.2774	55.5646
		X	2.3177	6.3424	24.8182	66.5217
15.20	Footwear	P	5.0777	24.2007	22.1232	48.5984
		I	2.8681	7.5156	20.6891	68.9272
		X	1.4061	4.0131	13.5652	81.0156
16.10	Products of swamilling and planning	P	39.3744	40.2917	20.3339	
16.21	Parquet floors	P	2.8799	18.0925	28.5267	50.5009
		I	7.8424	16.4537	51.608	24.0959
		X	0.863	1.8959	4.1077	93.1334
16.22	Parquet floors	P	13.1605	23.627	63.2125	
		I	11.7088	21.678	41.8953	24.7179
		X	3.8995	1.5381		94.5624
16.23	Builders' and interiors' joinery	P	44.0043	41.281	11.8973	2.8174
		I	10.5937	21.6695	34.2198	33.517
16.24	Wooden packages	P	10.5816	38.0517	51.3667	
16.29	Other woodenware and wickerwork	I	20.1229	28.7883	41.1547	9.9341
17.11	Pulp	I	1.457	2.3586	36.9715	59.2129
17.12	Paper and paperboard	P	3.3266	19.0114	23.0394	54.6226
		I	4.3907	12.6578	30.6343	52.3172
		X	0.7074	1.9156	5.6199	91.7571
17.21	Containers of paper and paperboard, corrugated paper	P	2.9138	13.7974	41.1356	42.1532
		I	13.5103	28.304	41.9058	16.2799
		X	5.2233	8.7389	19.2692	66.7686
17.22	Household, and sanitary goods and of toilet requisites	P	1.3117	7.8894	50.166	40.6329
		I	4.6841	9.174	23.2469	62.895
		X	1.4647	4.1112	9.5243	84.8998
17.23	Paper stationery	P	7.8684	11.9441	80.1875	
		I	33.6899	33.6404	32.6697	
17.29	Other goods made of paper or paperboard	P	6.5506	34.926	26.1644	32.359
		I	22.9851	31.6319	38.7579	6.6251
		X	11.8848	23.4491	64.6661	
18.11	Printing newspapers	P	3.1397	12.1566	84.7037	
18.12	Other printed matter	P	26.2076	38.8243	30.8072	4.1609
		X	1.4200	5.8700	6.8300	85.8800
18.13	Composition and reproduction	P	35.4036	22.0788	27.678	14.8396
		X	1.4556	8.2123	11.156	79.1761
18.14	Bookbinding products	P	39.4004	26.7862	33.8134	
19.20	Petroleum products	P	1.0678	11.9245		87.0077
		I	0.3762	1.3227	5.0801	93.221
		X	0.5482	1.7486	6.3783	91.3249
20.11	Industrial gases	P	1.0654		19.5398	79.3948
20.12	Dyes and pigments	P	0.1264	51.1628	48.7108	
		I	4.0046	13.0636	28.4796	54.4522
		X	0.8521	1.8193	11.3668	85.9618

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
20.13	Other inorganic products of the chemical industry	I	4.175	15.0269	35.12	45.6781
		X	1.0175	4.2133	14.8092	79.96
20.14	Other organic basic chemicals	P	1.237	2.7711	10.0488	85.9431
		I	0.5685	2.1608	7.4025	89.8682
		X	0.0842	0.3896	1.9859	97.5403
20.15	Fertilizers and nitrogen products	I	9.6338	26.1053	32.6684	31.5925
20.16	Plastics in primary forms	P	5.5036	15.8849	29.9319	48.6796
		I	2.5736	9.2375	40.7327	47.4562
		X	0.7574	2.8545	9.6832	86.7049
20.17	Synthetic rubber in primary forms	I	5.3404	10.7933	68.6034	15.2629
20.20	Pesticides, insecticides, disinfectants	P	2.0161	8.426	19.6526	69.9053
		I	7.298	17.665	49.1223	25.9147
		X	0.6537	1.9553	15.7888	81.6022
20.30	Paints, varnishes and similar coatings, printing ink and mastics	P	2.3354	13.4885	36.4867	47.6894
		I	9.0476	19.8184	48.0209	23.1131
		X	0.6374	1.7827	8.3866	89.1933
20.41	Soap and detergents, cleaning and polishing preparations	P	9.5823	22.0514	27.3096	41.0567
		I	11.3503	22.3832	30.0216	36.2449
		X	3.8292	9.9657	40.5369	45.6682
20.42	Perfumes and toilet preparations	P	11.6692	15.974	30.2676	42.0892
		I	5.1548	11.6123	29.0468	54.1861
		X	0.6232	2.8383	11.638	84.9005
20.51	Pyrotechnic products	P	9.9459	4.629	85.4251	
		I	7.2617	17.4119	43.7677	31.5587
20.52	Glues	P	1.1862	25.1896	23.52	50.1042
		I	21.1778	27.2578	51.5644	
		X	1.3284	2.6907	9.3993	86.5816
20.53	Essential oils	P	1.563	4.1907	10.39	83.8563
		I	2.7256	6.672	18.1979	72.4045
		X	0.1502	0.5852	1.0876	98.177
20.59	Other chemical products	P	4.3076	12.4573	21.803	61.4321
		I	5.1387	15.6051	35.7408	43.5154
		X	1.4595	5.301	25.9089	67.3306
20.60	Man-made fibres	I	4.9727	19.8128	75.2145	
		X	0.9418	4.303	4.7689	89.9863
21.10[1]	Basic pharmaceutical products	P	0.5427	1.3481	13.2909	84.8183
		I	5.126	12.4133	15.0907	67.37
		X	1.0853	7.9774	29.6538	61.2835
21.20[1]	Pharmaceutical preparations and other pharmaceutical products	P	1.0139	3.3112	13.777	81.8979
		I	2.2045	6.1487	18.2256	73.4212
		X	0.5457	1.9042	8.1837	89.3664
22.11	Tyres for vehicles	I	2.2148	4.6498	23.168	69.9674

[1] For imports and exports the thresholds were multiplied by 100.

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
22.19	Other rubber products	P	7.7369	20.7032	39.4344	32.1255
		I	14.8344	27.6388	45.8401	11.6867
		X	5.4753	16.3379	32.0277	46.1591
22.21	Plastic plates, sheets, tubes and profiles	P	6.1078	20.6793	44.1288	29.0841
		I	8.4308	21.4578	41.4176	28.6938
		X	1.7024	4.3385	18.2772	75.6819
22.22	Plastic packing goods	P	3.0357	17.2283	52.554	27.182
		I	11.4983	26.7898	44.8423	16.8696
		X	2.8275	6.4043	21.2724	69.4958
22.23	Builders' ware of plastic	P	8.1524	17.6239	29.035	45.1887
		I	17.4095	28.5963	28.5021	25.4921
		X	5.7589	15.1707	30.7344	48.336
22.29	Other plastic products	P	8.5545	32.131	42.4777	16.8368
		I	15.7845	30.8335	38.6106	14.7714
		X	3.9216	12.151	34.6257	49.3017
23.11/12	Flat glass (processed and unprocessed)	P	3.2529	9.2963	49.2959	38.1549
		I	15.4058	25.076	27.811	31.7072
		X	3.2768	6.7396	14.283	75.7006
23.13	Hollow glass	P	7.227		92.773	
		I	11.6873	23.6745	37.3966	27.2416
		X	3.4037	4.7524	14.3827	77.4612
23.14	Glass fibres and non-woven products thereof	P	7.7553	28.0299	64.2148	
		I	14.1122	24.0013	31.1313	30.7552
		X	3.7071	10.1533	25.9975	60.1421
23.19	Other glass	I	19.7007	25.4157	18.2146	36.669
23.20	Refractory ceramic materials and products	P	51.0903	48.9097		
23.31	Ceramic flags	I	12.3318	20.713	39.5902	27.365
23.32	Bricks, tiles and construction products, in baked clay	P	5.9845	30.2483	63.7672	
23.41	Ceramic household and ornamental articles	P	92.9944	7.0056		
		I	25.5452	29.3204	34.7128	10.4216
23.42	Ceramic sanitary fixtures	P	10.0343	23.2773	17.44	49.2484
		I	14.5932	12.3124	48.9704	24.124
		X	1.2951	1.9089	13.9351	82.8609
23.43/44/49	Other porcelain and ceramic products	P	18.7124	14.6973	66.5903	
		I	17.2339	26.3423	46.7445	9.6793
23.51	Cement	P	1.0278	4.3811	26.6367	67.9544
		I	7.0627	31.0402	40.2942	21.6029
23.61	Articles of concrete	P	6.7406	27.4608	56.2889	9.5097
		I	15.4302	37.2613	37.7261	9.5824
23.62	Plaster products for construction purposes	P	1.4869	2.8666	95.6465	
		I	10.6908	21.0956	40.3967	27.8169
23.63	Ready mixed concrete	P	11.0867	45.5032	11.4025	32.0076
23.64	Mortars	P	10.4276	19.2074	70.365	

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
23.65	Fibre cement	P	1.2574	9.8205	12.2288	76.6933
23.70	Cutting, shaping and finishing of stone	P	42.1057	48.0773	9.817	
		I	19.2127	29.2209	38.0645	13.5019
23.91	Abrasive and non-metallic mineral products	P	2.1906	11.8058		86.0036
		I	15.0116	22.638	35.322	27.0284
		X	1.4822	3.4004	6.7605	88.3569
23.99	Other non-metallic mineral products	P	12.223	36.8192	50.9578	
		I	15.5486	32.193	52.2584	
24.10	Basic iron, steel	P	1.5123	5.4304	32.4472	60.6101
		I	1.9952	6.5103	22.1095	69.385
		X	1.6535	3.3452	10.3771	84.6242
24.20	Tubes, pipes, hollow profiles and related fittings, of steel	P	4.8625	18.5581	16.775	59.8044
		I	8.16	18.6092	27.485	45.7458
		X	1.7992	5.0715	14.575	78.5543
24.31 – 34	Other iron and steel products	P	1.9147	5.313	14.0642	78.7081
		I	4.4276	12.8237	49.5874	33.1613
		X	2.0992	10.588	87.3128	
24.42	Aluminium	P	3.4919	14.0325	20.0446	62.431
		I	3.3648	7.8929	17.3944	71.3479
		X	0.7578	1.8157	6.0018	91.4247
24.43	Lead, zinc and tin	I	5.8255	21.1756	35.5108	37.4881
24.44	Copper	I	3.1344	9.1942	27.9332	59.7382
		X	7.5203	18.3334	49.0115	25.1348
24.45	Other non-ferrous metals	I	5.2102	20.2695	50.0315	24.4888
24.51	Casting of iron	P	2.4718	14.2296	29.8009	53.4977
24.53	Casting of light metals	P	5.4868	19.5687	74.9445	
25.10	Steel and light metal frameworks	X	8.1400	18.0300	32.1900	41.6400
25.11	Metal and steel structures	P	23.2844	41.1833	30.6818	4.8505
		I	14.9196	30.8307	35.1981	19.0516
25.12	Metal finishing elements	P	21.7536	46.2697	17.8062	14.1705
		I	22.2983	31.2572	22.0589	24.3856
25.21	Central heating radiators and boilers	P	4.6268	31.7469	63.6263	
		I	6.1102	11.8132	47.7752	34.3014
		X	1.1386	3.8723	4.825	90.1641
25.29	Tanks, reservoirs and containers of metal	P	19.7145	25.437	54.8485	
		I	23.5152	41.14	35.3448	
25.50	Forging	P	4.2416	20.8734	67.2868	7.5982
25.61	Treatment and coating of metals	P	16.5737	43.1634	35.7861	4.4768
25.62	Machining	P	32.2118	39.2907	26.5324	1.9651
25.71	Cutlery	P	3.6911	2.6722	12.6804	80.9563
		I	15.7256	21.0724	37.3978	25.8042
		X	2.5129	4.4868	0.6805	92.3198
25.72	Locks and hinges	P	6.2846	8.7213	39.5813	45.4128
		I	11.9771	23.0623	39.5077	25.4529
		X	4.0704	10.9753	28.4474	56.5069

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
25.73	Tools	P	10.2587	24.5959	43.9444	21.201
		I	7.8006	18.1555	37.3848	36.6591
		X	1.6656	5.6917	24.1086	68.5341
25.91/92	Metal containers and packaging	P	4.5753	12.16	64.1417	19.123
		I	8.7418	16.5823	32.6494	42.0265
		X	3.5239	6.7143	19.9408	69.821
25.93	Wire products, chain and springs	P	3.7041	24.95	50.893	20.4529
		I	18.1988	32.2641	33.541	15.9961
		X	3.9586	10.0105	19.9859	66.045
25.94	Screws and rivets	P	1.452	8.3139	12.1902	78.0439
		I	9.4695	16.5437	29.3626	44.6242
		X	1.774	5.8209	20.0938	72.3113
25.99	Other fabricated metal products	P	12.9475	39.5152	47.5373	
		I	13.3854	28.6722	39.6814	18.261
		X	4.7399	15.5043	38.2759	41.4799
26.11	Electronic components	P	3.0119	9.35	26.9495	60.6886
		I	5.0244	13.0164	37.2631	44.6961
		X	1.679	6.2082	18.8165	73.2963
26.12	Electronic boards	P	14.8018	47.6802	37.518	
		I	12.9582	23.365	63.6768	
		X	1.6724	2.252	23.7001	72.3755
26.20	Computers and peripheral equipment	P	9.4707	26.2673	64.262	
		I	3.8722	8.2581	17.2988	70.5709
		X	6.9473	16.4477	34.4655	42.1395
26.30	Communication equipment	P	8.2325	22.3832	69.3843	
		I	3.0654	6.7725	15.0073	75.1548
		X	3.2248	9.8582	24.5089	62.4081
26.40	Consumer electronics	I	5.6011	12.4211	26.2677	55.7101
		X	6.5733	13.5887	34.9094	44.9286
26.51	Instruments and appliances for measuring and testing	P	4.5831	14.2768	29.7979	51.3422
		I	7.7046	20.3505	37.6069	34.338
		X	1.2161	4.97	16.4643	77.3496
26.52	Watches	P	3.1905	9.3411	21.1729	66.2955
		I	1.8947	6.1336	19.8767	72.095
		X	0.1023	0.621	2.6831	96.5936
26.60	Irradiation, electromedical and electrotherapeutic equipment	P	1.9523	8.2025	37.2799	52.5653
		I	3.2933	11.8083	22.9739	61.9245
		X	0.4033	1.5298	5.2558	92.8111
26.70	Optical instruments and photographic equipment	P	3.2565	19.2199	27.1241	50.3995
		I	6.8869	16.4881	27.5875	49.0375
		X	1.8673	5.0812	19.3194	73.7321
27.11	Electric motors, generators and transformers	P	1.5583	4.4245	19.6402	74.377
		I	6.9152	18.5575	39.7329	34.7944
		X	1.2678	4.3044	10.7913	83.6365

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
27.12	Electricity distribution and control apparatus	P	18.3467	36.381	45.2723	
		I	6.7417	16.5629	37.2637	39.4317
		X	1.2705	4.4172	15.3788	78.9335
27.20	Batteries and accumulators	P	4.4209	10.8799	84.6992	
		I	10.2265	22.1813	43.4368	24.1554
		X	3.5736	10.4207	35.8619	50.1438
27.31	Fibre optic cables	P	44.8174	55.1826		
		I	12.433	16.1359	41.496	29.9351
		X	4.466	11.104	38.1633	46.2667
27.32	Other electronic and electric wires and cables	P	2.3929	10.5174	17.2083	69.8814
		I	7.5151	16.1475	35.1764	41.161
		X	1.8944	4.779	5.4842	87.8424
27.33	Wiring devices	P		5.5134	37.1937	57.2929
		I	10.4099	21.2728	42.1037	26.2136
		X	1.7134	4.5725	13.764	79.9501
27.40	Electric lighting equipment	P	18.6244	38.16	22.5743	20.6413
		I	14.5371	22.7025	29.9228	32.8376
		X	9.2241	21.4425	31.8632	37.4702
27.51	Electric domestic appliances	P	1.7499	9.4477	15.1937	73.6087
		I	5.7342	9.8186	22.8736	61.5736
		X	2.182	5.7815	23.2154	68.8211
27.90	Other electrical equipment	P	8.4045	20.093	43.9113	27.5912
		I	8.6536	21.2031	45.7532	24.3901
		X	2.0206	7.7209	20.3796	69.8789
28.11	Engines and turbines	P	1.207	3.3283	20.132	75.3327
		I	1.929	6.4562	17.7562	73.8586
		X	0.3311	1.4539	6.1772	92.0378
28.12	Fluid power equipment	P	7.1799	54.9383	37.8818	
		I	11.2986	21.8383	47.3722	19.4909
		X	2.4311	9.5605	22.6064	65.402
28.13	Pumps and compressors	P	1.7014	11.6111	26.1465	60.541
		I	11.4135	23.8698	37.0557	27.661
		X	1.5857	4.4323	18.8294	75.1526
28.14	Taps and valves	P	2.3634	15.0196	44.518	38.099
		I	8.5498	18.7931	46.2154	26.4417
		X	1.1839	4.6376	23.6101	70.5684
28.15	Bearings, gears, gearing and driving elements	P	3.6584	16.6804	35.2247	44.4365
		I	7.3741	20.4305	38.9383	33.2571
		X	1.9935	7.5745	29.7794	60.6526
28.21	Ovens, furnaces and furnace burners	P	20.5444	44.5358	34.9198	
		I	15.3193	33.4387	36.5547	14.6873
		X	4.3542	14.6497	42.2637	38.7324

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (continued)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
28.22	Lifting and handling equipment	P	2.7914	13.6643	30.1372	53.4071
		I	8.3033	21.9374	31.8157	37.9436
		X	2.8282	7.9364	20.2966	68.9388
28.23	Office machinery (except computers and peripheral equipment)	I	4.8217	10.0058	25.3813	59.7912
		X	3.9629	9.5885	36.236	50.2126
28.24	Power-driven hand tools	P	2.3134	6.5854	13.7885	77.3127
		I	7.154	12.2895	31.2798	49.2767
		X	2.9378	7.7553	28.9854	60.3215
28.25	Non-domestic cooling and ventilation equipment	P	7.5621	29.0545	48.526	14.8574
		I	11.0829	25.9312	41.7445	21.2414
		X	3.1452	10.1468	34.9558	51.7522
28.29	Other general-purpose machinery	P	7.1976	22.7079	43.2472	26.8473
		I	9.4092	24.2627	39.2967	27.0314
		X	1.8631	6.4687	25.1731	66.4951
28.30	Agricultural and forestry machinery	P	20.2187	32.672	47.1093	
		I	8.5908	18.6141	31.9406	40.8545
		X	13.6378	18.9153	41.1589	26.288
28.40	Metal forming machinery	P	4.79	18.7	46.16	30.35
		I	12.42	35.39	40.42	11.77
		X	1.89	5.15	16.81	76.15
28.91	Machinery for metallurgy	P	20.6229	38.3264	41.0507	
		X	0.9704	3.5737	5.4026	90.0533
28.92	Machinery for construction	P	9.3316	27.3133	33.3895	29.9656
		I	6.9699	15.5159	26.3939	51.1203
		X	6.8378	14.3797	37.958	40.8245
28.93	Machinery for food, beverage and tobacco processing	P	2.5901	12.5163	24.4705	60.4231
		I	13.1798	26.6575	42.0138	18.1489
		X	0.7683	2.1168	9.383	87.7319
28.94	Machinery for textile and apparel production	P	1.6236	13.6438	43.0569	41.6757
		I	7.3636	16.8855	35.7569	39.994
		X	0.8816	3.5288	13.3764	82.2132
28.95	Machinery for paper and paperboard production	P	0.8844	3.1679	24.1621	71.7856
		I	10.698	29.2409	30.7235	29.3376
		X	0.6409	2.5239	12.346	84.4892
28.96	Plastic and rubber machinery	P	4.9757	14.1101	32.4507	48.4635
		I	8.7822	28.5895	44.8666	17.7617
		X	1.4001	5.3006	18.1077	75.1916
28.99	Other special purpose machinery	P	10.8457	25.7514	46.451	16.9519
		I	12.1137	32.8197	40.9883	14.0783
		X	1.5888	5.0569	17.2673	76.087
29.10	Motor vehicles and motor vehicle engines	I	0.9833	2.9259	6.5519	89.5389
29.20	Bodies (coachwork) for motor vehicles and trailers	P	13.6196	43.2496	18.8916	24.2392
		I	16.6952	33.3209	42.6227	7.3612
30.12	Pleasure and sporting boats	I	6.5742	25.1654	47.8605	20.3999

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Weighting of size classes of reporting entities for Producer and Import Price Index (Industry: NOGA 10 – 33) (end)

NOGA 4	Name	Index	Class 1 < 10 < 100 000	Class 2 < 50 < 1 m	Class 3 < 250 < 10 m	Class 4 ≥ 250 ≥ 10 m
30.30	Aircraft	P	1.1247	1.8767	10.2877	86.7109
		I	0.286	0.9832	5.3335	93.3973
		X	0.2883	1.3895	10.9023	87.4199
30.91	Motorcycles	I	3.8191	10.6435	27.7033	57.8341
		X	5.2157	10.6793	17.6353	66.4697
30.92	Bicycles and vehicles for the disabled	P	10.059	20.9658	68.9752	
		I	6.3351	15.8583	40.8706	36.936
		X	3.5246	5.0363	28.018	63.4211
31.01	Office and shop furniture	P	5.502	25.1266	69.3714	
		I	30.5654	32.9889	27.5293	8.9164
		X	8.0762	17.4349	34.5089	39.98
31.02	Kitchen and bathroom furniture	P	16.6018	43.6431	30.2132	9.5419
		I	14.1417	32.0085	20.3468	33.503
31.03	Mattresses	P	4.4707	35.3854	60.1439	
		I	10.3913	15.4624	46.5137	27.6326
31.09	Other furniture	P	28.3139	40.1414	31.5447	
		I	14.4389	21.8898	21.8439	41.8274
		X	7.018	11.8217	23.3511	57.8092
32.11	Coins	I	0.2409	1.5941	9.0499	89.1151
32.20	Musical instruments	P	67.1393	32.8607		
		I	11.8917	17.7608	30.0987	40.2488
32.30	Sports goods	P	21.3107	37.3052	41.3841	
		I	12.4798	22.903	39.2491	25.3681
32.40	Games and toys	P	49.9402	50.0598		
		I	8.7682	17.4336	32.0197	41.7785
32.50	Medical and dental instruments and supplies	P	22.6772	18.4103	21.1807	37.7318
		I	2.9308	7.4298	20.7145	68.9249
		X	0.3363	1.3673	5.7418	92.5546
32.91	Brooms and brushes	P	1.2534	21.1304	15.8855	61.7307
		I	23.9657	34.7204	41.3139	
		X	2.3953	5.8484	11.0118	80.7445
32.99	Other manufacturing	P	21.8343	19.7443	15.4327	42.9887
		I	16.464	27.7882	33.7107	22.0371
33.12	Repair of machinery	P	54.5535	24.4541	6.9745	14.0179
33.16	Repair and maintenance of aircraft and spacecraft	P	5.0683	4.3808	2.1788	88.3721
33.17	Repair and maintenance of other transport equipment	P	18.4087	10.0053	71.586	

Note: all figures are percentages P = PPI domestic I = IPI X = PPI Export

Source: FSO – PPI

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Appendix 4

Producer and Import Price Index calculation example

The following explanations and tables provide an overview of the various stages in calculating the Producer Price Index[1]. The rules for calculation also apply to the Import Price Index.

The hypothetical example shown illustrates the procedure. In the example, the basis of the index is December 2020 (index = 100) and the survey period April 2021. The weighting set for the basis period remains constant.

In the example, the following holds true:

I = calculated index
i = index position i, where i = 1, ..., 5
b = reporting point b within index position i
p_j^t = individual price j in the period t within the index position i, where j = 1, ..., 6
h = size class h within the index position i, where h = 1, 2, 3
g_h = size class weighting h
g_i = index position weighting i
t = period t, where $t = t_0$ (basis period (index = 100)), $t = t_e$ (survey period)

1. Composition of basic data

Individual prices and their structure in the index position 1[1]

Reporting points	Number of full-time equivalents of reporting point b	Size class h		Individual price p_j^t		
				December 2020 = t_0	...	April 2021 = t_e
Reporting point b_1	9	1	p_1^t	CHF 72.–	...	CHF 72.–
Reporting point b_2	5	1	p_2^t	CHF 88.–	...	CHF 85.–
			p_3^t	CHF 80.–	...	CHF 79.–
Reporting point b_3	40	2	p_4^t	CHF 75.–	...	CHF 77.–
Reporting point b_4	30	2	p_5^t	CHF 73.–	...	CHF 74.–
Reporting point b_5	100	3	p_6^t	CHF 84.–	...	CHF 86.–

[1] The basic data and the calculations up to and including intermediate aggregation are only shown in the example for index position 1.

Source: FSO – PPI

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[1] The calculation example shows the simplest real case where the index position coincides with a NOGA 2 position. In most cases a NOGA 2 position consists of several index positions.

Size classes and their weighting within the index position 1

Size class h	Limit for size class h in full-time equivalents (FTE)	Total FTE of size class h	Weighting g_h of size class h
1	< 10	1 500	$g_1 = \frac{1\,500}{12\,000} \times 100 = 12.50\%$
2	≥ 10 ; < 50	7 000	$g_2 = \frac{7\,000}{12\,000} \times 100 = 58.33\%$
3	≥ 50	3 500	$g_3 = \frac{3\,500}{12\,000} \times 100 = 29.17\%$

Source: FSO – PPI

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where

$$\sum_{h=1}^{3} g_h = 100\%$$

Weighting of index position

Index position i	Gross production value (GPV) in CHF	Weighting g_i of index position i
1	1 050 000	$g_1 = \frac{1\,050\,000}{2\,500\,000} \times 100 = 42\%$
2	375 000	$g_2 = \frac{375\,000}{2\,500\,000} \times 100 = 15\%$
3	600 000	$g_3 = \frac{600\,000}{2\,500\,000} \times 100 = 24\%$
4	125 000	$g_4 = \frac{125\,000}{2\,500\,000} \times 100 = 5\%$
5	350 000	$g_5 = \frac{350\,000}{2\,500\,000} \times 100 = 14\%$

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where

$$\sum_{i=1}^{5} g_i = 100\%$$

2. Calculation of individual indices for the index position 1

The first step is to calculate individual indices for the individual price data with the basis December 2020 (=100).

The individual index of the price pj for the period t is therefore:

$$I_j^t = \frac{p_j^t}{p_j^{t_0}} \times 100$$

Reporting points		Individual indices I_j^t		
		December 2020 = t_0	...	April 2021 = t_e
Reporting point b_1	p_1^t	100.0	...	$\frac{72}{72} \times 100 = 100.00$
Reporting point b_2	p_2^t	100.0	...	$\frac{85}{88} \times 100 = 96.59$
	p_3^t	100.0	...	$\frac{79}{80} \times 100 = 98.75$
Reporting point b_3	p_4^t	100.0	...	$\frac{77}{75} \times 100 = 102.67$
Reporting point b_4	p_5^t	100.0	...	$\frac{74}{73} \times 100 = 101.37$
Reporting point b_5	p_6^t	100.0	...	$\frac{86}{84} \times 100 = 102.38$

Source: FSO – PPI

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3. Basis aggregation

The next step in the index calculation is to carry out the basis aggregation. For each size class h the geometric mean of the relevant individual index I_j^t is calculated.

$$I_h^t = \left[\prod_{j=y}^{z} \left(\frac{p_j^t}{p_j^{t_0}} \right) \right]^{\frac{1}{z-y+1}}$$

where

for h = 1 applies y = 1 and z = 3
for h = 2 applies y = 4 and z = 5
for h = 3 applies y = z = 6

Size class	Basis aggregation I_h^t		
	December 2020 = t_0	...	April 2021 = t_e
1	$(100 \times 100 \times 100)^{1/3} = 100$		$(100 \times 96.59 \times 98.75)^{1/3} = 98.44$
2	$(100 \times 100)^{1/2} = 100$		$(102.67 \times 101.37)^{1/2} = 102.02$
3	$100^1 = 100$		$102.38^1 = 102.38$

Source: FSO – PPI

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4. Intermediate aggregation

In the intermediate aggregation, the indices from the basis aggregation are aggregated to the index position level by means of the weighted arithmetic mean.

$$I_i^t = \frac{\sum_{h=1}^{3} g_h I_h^t}{\sum_{h=1}^{3} g_h}$$

Index position	Intermediate aggregation I_i^t		
	December 2020 = t_0	...	April 2021 = t_e
1	$\frac{(12.50 \times 100) + (58.33 \times 100) + (29.17 \times 100)}{(12.50 + 58.33 + 29.17)} = 100$		$\frac{(12.50 \times 98.44) + (58.33 \times 102.02) + (29.17 \times 102.38)}{(12.50 + 58.33 + 29.17)} = 101.68$
2[1]	100.00		104.50
3[1]	100.00		105.10
4[1]	100.00		103.27
5[1]	100.00		98.73

[1] In the example, for the index positions 2 to 5, the calculations up to and including the intermediate aggregation are not shown.

Source: FSO – PPI

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5. Calculation of the total index

The final step in the calculation is to aggregate the indices I_i^t of each index position i according to the weighting g_i by using the Young formula. With this operation, the I_{tot}^t Producer and Import Price Index is obtained.

$$I_{tot}^t = \sum_{i=1}^{5} g_i I_i^t$$

Producer Price Index I_{tot}^t	
December 2020 = t_0	$\frac{(42 \times 100.00) + (15 \times 100.00) + (24 \times 100.00) + (5 \times 100.00) + (14 \times 100.00)}{100.00} = 100.00$
April 2021 = t_e	$\frac{(42 \times 101.68) + (15 \times 104.50) + (24 \times 105.10) + (5 \times 103.27) + (14 \times 98.73)}{100.00} = 102.59$

Source: FSO – PPI

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Appendix 5

Changes to product lines

1. Exclusion of old and inclusion of new products

Product A and product B are so different that they cannot be compared with one another. The price series of product A disappears from the market in February 2021 and at the same time the price series of product B starts running. As differences in price and quality are compensated for, these have no influence on the index. In February 2021 an initial index is allocated to product B. This index generally corresponds to the superordinated aggregate (in the present example an aggregate of 120 is assumed).

Product	**December 2020 (index=100)**	January 2021	February 2021
Price of A (old product)	**20**	25	–
Price of B (new product)	**–**	–	28
Price index of A	**100**	125	–
Price index of B	**–**	–	120

Source: FSO – PPI

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2. Replacement of a previous product by a new one

a) Comparable products

Product	**December 2020 (index=100)**	January 2021	February 2021
Price of A (old product)	**20**	25	–
Price of B (new product)	**–**	–	28
Price index of A, from February 2021 of B	**100**	125	140

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This technique is used when product B (replacement product) is practically identical to product A. In this case, product A is directly replaced by product B. The price series is continued. The price increase from January to February 2021 of CHF 3 is considered as inflation.

b) Difference in quality, price overlap

Product	**December 2020 (index=100)**	January 2021	February 2021
Price of A (old product)	**20**	25	–
Price of B (new product)	**–**	27	28
Price index of A, from February 2021 of B	**100**	125	129.6

Difference in quality

Price difference

Source: FSO – PPI

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Product B has the same function as product A but has additional features that increase or reduce its value. Article B is already available on the market in January 2021 at the price of CHF 27. As both articles exist concurrently on the market, the price difference in January 2021 reflects a difference in quality. The price increase from January to February 2021 of CHF 3 is divided into two parts: CHF 2 is considered as an improvement in quality and CHF 1 is considered as a price increase (chaining).

c) Difference in quality, estimate of quality and price components

Product	**December 2020 (index=100)**	January 2021	February 2021
Price of A (old product)	**20**	25 Difference in quality CHF 2.50	–
Price of B (new product)	**–**	– Price difference CHF 0.50	28
Price index of A, from February 2021 of B	**100**	125	127.3

Source: FSO – PPI

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Article B has additional features that justify a higher price. The value of the additional features is estimated at CHF 2.50. The price increase from January to February 2021 of CHF 3 is divided into two parts: CHF 2.50 is considered as an improvement in quality and CHF 0.50 is considered as a price increase.

3. Special solution: Hedonic model for IT devices (see chapter 8.10)

a) Distribution of observations across two periods

In period *t* the data set is divided into two domains: Domain B contains observations that were already included in the previous period (previous month). Domain C contains those observations that were included in the sample for the first time in the current period *t*. From the *t-1* period, only those observations that appeared exclusively in the previous month are allocated to domain A, whereas domain B is covered by observations from the next *t* period.

Distribution of the sample between two consecutive periods

	Observations exclusively contained in period *t-1*	Observations contained in period *t* and *t-1*	Observations exclusively contained in period *t*
Previous period	A	B	
Current period		B	C

Source: FSO – PPI

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b) Index of domain B

The calculation is based on a ratio of geometrical means and is limited to the observations of domain B. Changes in quality are regarded as negligible.

$$I_B^t = \frac{\tilde{x}_B^t}{\tilde{x}_B^{t-1}} \cdot 100 = \frac{\left[\prod_{i=1}^{n_B^t}(x_{iB}^t)\right]^{\frac{1}{n_B^t}}}{\left[\prod_{i=1}^{n_B^{t-1}}(x_{iB}^{t-1})\right]^{\frac{1}{n_B^{t-1}}}} \cdot 100$$

where

$\tilde{x}_B^t$	geometric mean of individual prices in domain B during period t
$x_B^t, i = 1, \ldots, n_B^t$	observations (individual prices) during period t in domain B
n_B^t	number of observations in domain B during period t
I_B^t	index of domain B in period t, in comparison with previous period

c) Index calculation for domain C/A

The estimated prices, which emerge from the hedonic model, allow a ratio to be made between the estimated average price of domain C with the estimated average price of domain A.

$$\hat{g}^t = \frac{\hat{x}_C^t}{\hat{x}_A^{t-1}} = \frac{\left[\prod_{i=1}^{n_C^t}(\hat{x}_{iC}^t)\right]^{\frac{1}{n_C^t}}}{\left[\prod_{i=1}^{n_A^{t-1}}(\hat{x}_{iA}^{t-1})\right]^{\frac{1}{n_A^{t-1}}}}$$

where

$\hat{g}^t$	the ratio between the average price adjusted for changes in quality in domain C in the period t with the quality change adjusted average price in domain A in the *t-1* period
$\hat{x}_C^t$	geometric mean of estimated prices in domain C during period t
$\hat{x}_A^{t-1}$	geometric mean of estimated prices in domain A during period *t-1*
$\hat{x}_{iC}^t$	estimated price of product i in domain C during period t
$\hat{x}_{iA}^{t-1}$	estimated price of product i in domain A during period *t-1*

This ratio reflects the part played by quality change in the actually measured change in the average prices between the two domains. It shows, therefore, how the qualitative features have changed in comparison with the previous period. This means that it is a corrective factor enabling quality changes between two periods to be eliminated from price measurement. Pure price changes between the two domains C and A (assuming constant quality features) can thus be measured as can an index on quality change between the two domains in periods t and *t-1*.

$$I_C^t = \frac{x_C^t}{x_A^{t-1} \cdot \hat{g}^t} \cdot 100 = \frac{\left[\prod_{i=1}^{n_C^t}(x_{iC}^t)\right]^{\frac{1}{n_C^t}}}{\left[\prod_{i=1}^{n_A^{t-1}}(x_{iA}^{t-1})\right]^{\frac{1}{n_A^{t-1}}} \cdot \hat{g}^t} \cdot 100$$

where

x_C^t	geometric mean of individual prices observed in domain C during period t
x_A^{t-1}	geometric mean of individual prices observed in domain A during period *t-1*
I_C^t	index of domain C in the period t, in comparison with domain A in period *t-1*

d) Index calculation for the current period

The index calculation for the current period is done using the weighted arithmetic mean of both sub-indices for domains B and C/A; the weighting is based on the number of observations per domain.

$$I^t = \frac{n_B}{n_B + n_C} \cdot I_B^t + \frac{n_B}{n_B + n_C} \cdot I_C^t$$

where

I^t	global index for period t
n_i	number of observations in domain i

e) Chaining

The chained index of period t is subsequently obtained through chaining of the unchained indices of the period t with the chained index of the previous period *t-1*:

$$I_k^t = \frac{I_k^{t-1} \cdot I^t}{100}$$

where

I_k^t	chained index during period t
I_k^{t-1}	chained index during the previous period *t-1*
I^t	unchained index during period t

Appendix 6

Producer and Import Price Index survey plan (December 2020 = 100)

		J	F	M	A	M	J	J	A	S	O	N	D
A	**Agricultural and forestry products**												
01	Agricultural products in narrow sense	x	x	x	x	x	x	x	x	x	x	x	x
01.19.1	Horticultural products			x			x			x			x
01.03	Plant propagation products			x						x			
02	Forestry products		x		x		x		x		x		x
B	**Mining and quarrying products**												
05	Coals	x	x	x	x	x	x	x	x	x	x	x	x
06	Petroleum, natural gas	x	x	x	x	x	x	x	x	x	x	x	x
08	Mining and quarrying, salt		x			x			x			x	
C	**Manufacturing**												
10	Food products			x			x			x			x
11	Beverages			x			x			x			x
12	Tobacco products			x			x			x			x
13	Textiles			x			x			x			x
14	Wearing apparel			x						x			
15	Leather and related products			x			x			x			x
16	Timber products												
16.10.1	Sawmilling products		x		x		x		x		x		x
16.23	Builders' joinery, windows and doors						x						x
16.xx	Manufacturing of wood, wood products		x			x			x			x	
17	Paper and paper products		x			x			x			x	
18	Printing		x			x			x			x	
19	Petroleum products	x	x	x	x	x	x	x	x	x	x	x	x
20	Chemical products		x			x			x			x	
21	Pharmaceuticals		x			x			x			x	
22	Rubber and plastic products		x			x			x			x	
23	Non-metallic mineral products		x			x			x			x	
24	Basic metals, semi-finished products	x	x	x	x	x	x	x	x	x	x	x	x
25	Metal products	x			x			x			x		
26	Computer, electronic and optical products	x			x			x			x		
27	Electrical equipment				x						x		
28	Machinery				x						x		
29	Motor vehicles and parts			x			x			x			x
30	Other transport equipment			x			x			x			x
31	Furniture	x			x			x			x		
32	Other manufacturing	x	x		x	x		x	x		x	x	
33	Repair and installation of machinery and equipment												
33.12	Repair of machinery				x						x		
33.16/17	Repair and maintenance of aircraft and spacecraft and other transport equipment			x						x			
D	**Electricity and gas supply**												
35	Electricity, gas, steam and air conditioning supply	x	x	x	x	x	x	x	x	x	x	x	x
E	**Water collection, treatment and supply, sewerage, waste management, recycling**												
36	Water collection, treatment and supply			x									
37	Sewerage			x									
38	Waste management, recycling												
38.11	Collection of non-hazardous waste		x			x			x			x	
38.21	Waste disposal			x									
38.22	Landfills					x						x	
38.3	Recycling	x	x	x	x	x	x	x	x	x	x	x	x

Note: A few product groups differ from the periodicity indicated.

Source: FSO – PPI

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This publication describes the methodological bases of the Producer and Import Price Index on the basis of December 2020.

The following are covered:

- the producer and import price index system
- the December 2020 revision
- the extension of the Producer Price Index to include services
- the baskets of goods, weighting and price definitions
- the calculation methods
- the price survey system (price definition, the selection of products and of reporting entities, the periodicity, the organisation and size of surveys, the data collection methods)

Online
www.statistics.admin.ch

Print
www.statistics.admin.ch
Federal Statistical Office
CH-2010 Neuchâtel
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tel. +41 58 463 60 60

FSO number
1198-2000

ISBN
978-3-303-05771-1

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