

Price Unit
Economic Statistics, Statistics Sweden

Changes in the CPI as from 2021

Major changes in the production of the Consumer Price Index (CPI) as from 2021 are described below.

New transaction data and changed calculation for mobile phones, computers, and computer accessories

As from 2021, transaction data will be included as a part of the sample of 6416 Mobile phones, 7713 Computers, and 7719 Computer accessories. Other price data will continue to be collected as before, or via web scraping. The CPI will continue to be calculated using the same method as before. For the subset of the sample that includes transaction data, there will be some changes in the calculation:

- Products will be resampled every month based on the monthly data on sales volumes.
- The monthly price per product will be calculated as a quantity weighted arithmetic mean of the price.
- Fixed weights during the year will be applied to retailers and groups of brands.
- Separate index numbers will be calculated for the subgroups Desktop, Laptop and Tablet for the product group 7713 Computers, and Router, screen and gaming mouse for the product group 7719 Computer accessories.

Figures 1-3 show the results of test calculation based on historical data for the period 2018-2020. The differences between the published index and the new calculation are not statistically significant, and may be explained by a sampling error in the published series.

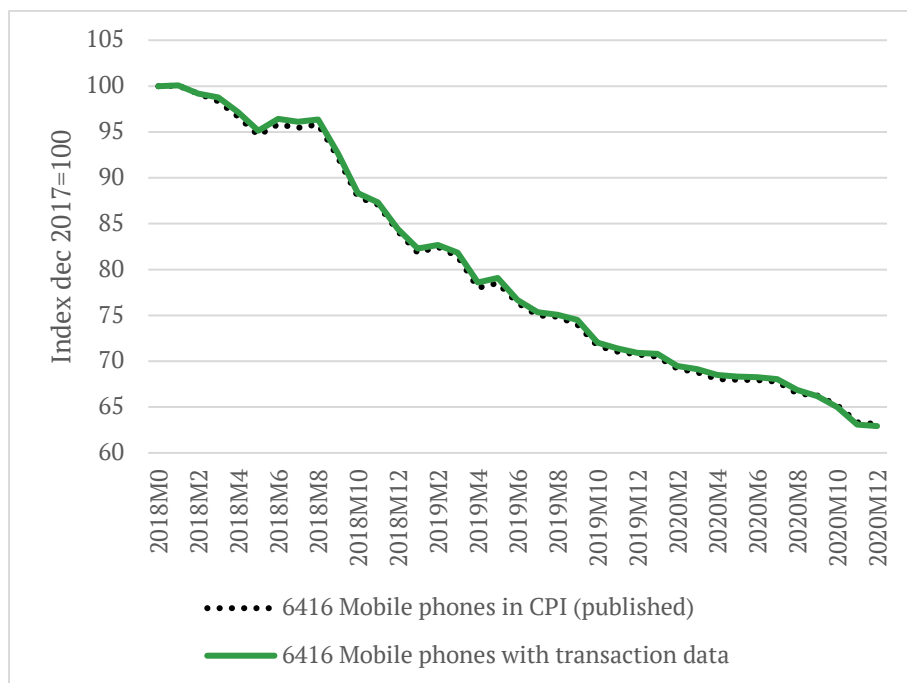


Figure 1. The price index for Mobile phones (6416) with transaction data and the published index.

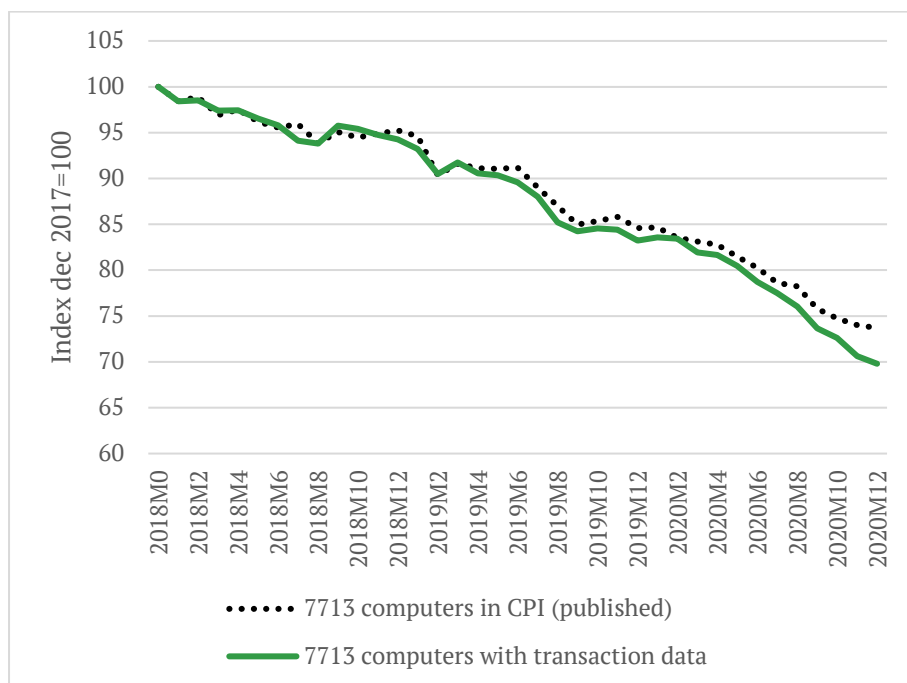


Figure 2. The price index for Computers (7713) with transaction data and the published index.

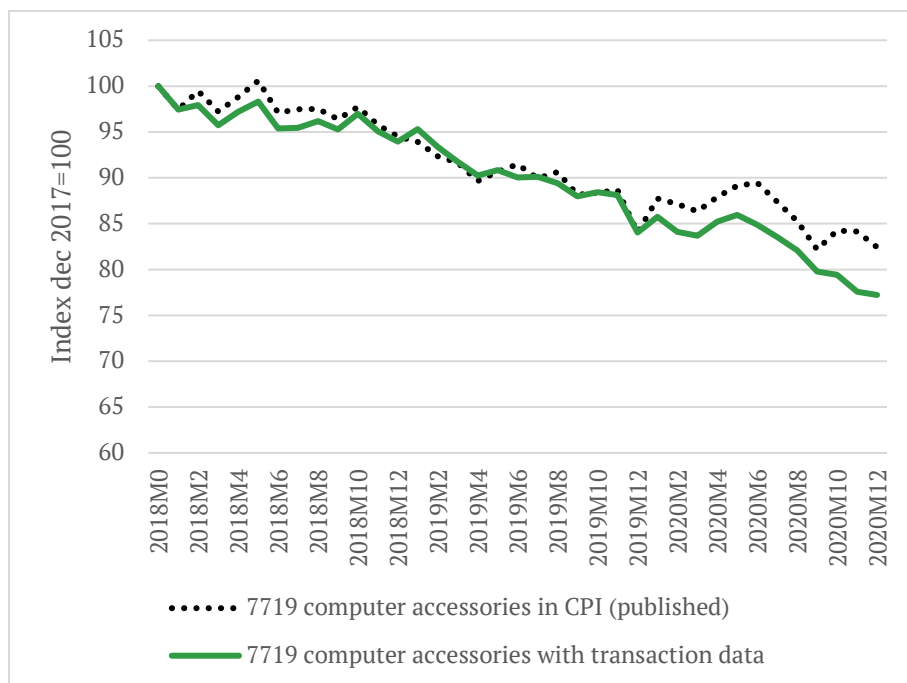


Figure 3. The price index for computer accessories (7719) with transaction data and the published index.

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New data and support to quality adjustments for home electronics and household equipment

As from 2021, transaction data will be included in subsets of samples in home electronics (in addition to mobile phones, computers and computer accessories) and household equipment. The product groups concerned are presented in Table 1. Price data for subsets of samples that are not covered in the new data will be collected using the same method as last year or via web scraping. Prior to 2021, price data was collected manually over the internet or in stores during a three-week period every month. For the subset of the sample that includes transaction data, there will be some changes in the calculation:

- The sample size will be increased.
- The monthly price will be calculated as a quantity weighted arithmetic average price over a three-week period.

For most of the product groups in Table 1, expert assessment is currently used to adjust any quality differences that may arise as products are replaced. As from 2021, hedonic methods will be added as a tool to support internal expert assessment for some of the product groups.

Table 1. Product groups with new data as of 2021

	COICOP	Product group
Depreciation	04	4602
Washing machines	05.3	5301
Dish washers	05.3	5302
Vacuum cleaners	05.3	5304
Refrigerators	05.3	5312
Microwave oven	05.3	5313
Coffee makers	05.3	5314
Kettles	05.3	5315
Equipment, fixed telephones	08.2	6410
Stereo equipment	09.1	7108
Television	09.1	7112
Home cinema	09.1	7117
Game consoles	09.3	7119
Earphones/headsets	09.1	7120
Digital cameras	09.1	7206
DVD movies	09.1	7307
Games for consoles and computers	09.3	7607

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Web scraped price data for furniture and household goods in particular

As from 2021, Statistics Sweden will introduce web scraped price data. In particular, web scraped price data will be collected on certain furniture and household goods (COICOP groups 4 and 5). The majority of these prices were previously collected manually over the internet. Some price data previously collected in stores will also be replaced by web scraped data. Other than a larger sample size, no methodological changes concerning survey design, collection period, or index construction formula will be introduced for the product groups concerned.

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Changes in the calculation of pharmaceuticals

As from survey year 2021, a number of methodological changes will be introduced concerning the product groups 9103 Pharmaceuticals and 7722 Pharmaceuticals for pets. These changes were made possible by extended data delivery from the Swedish eHealth Agency, with additional variables.

- For prescribed human medicines in the product group 9103 Pharmaceuticals, the price variable will be replaced by the price paid by the patient. In addition, a stratified price index will be calculated, in which transactions are allocated to a step in the high cost protection scheme¹. The previous price variable consisted of the price before subsidy reduction and an adjustment for subsidy changes was made at the index level. The new method is considered to provide improved accuracy.
- The calculation in both 9103 Pharmaceuticals and 7722 Pharmaceuticals for pets will follow quantity adjusted average prices of medically equivalent groups of pharmaceuticals. Within these groups, the brands may vary. The groups are defined by the combination of active substance (the most elementary ATC level²), strength, and dosage form. Previously,

¹ Transactions will be allocated to a certain step based on the variable "Ingående ackumulerad egensavgift" (accumulated patient expenditures in the last 12 months).

² ATC is a classification in which active substances in pharmaceuticals are allocated based on main indication, as well as therapeutic and chemical effects.

the calculation followed prices of specific item numbers. The main purpose of the change is to better capture price effects that arise due to shifts in market shares, for example between generics and branded drugs.

- As from 2021, average prices will be calculated by county, using a variable for the geographic location of each sales outlet. This is considered to give a better opportunity to capture the “pure” price change. Previously, there was no variable for outlets.
- As from 2021, the calculation of prescribed pharmaceuticals in the product group 7722 Pharmaceuticals for pets will only include transactions relating to pets. Previously, the calculation of prescribed pharmaceuticals to some extent included transactions relating to livestock production, zoo, and game keeping.

Experimental calculations based on historical data in the period January 2018 to July 2020 indicate that the methodological changes produce a somewhat more volatile index development. In years with substantial shifts from branded drugs to generics, the new method is expected to capture this better, and the discrepancy may then be larger than what is shown in the graphs.

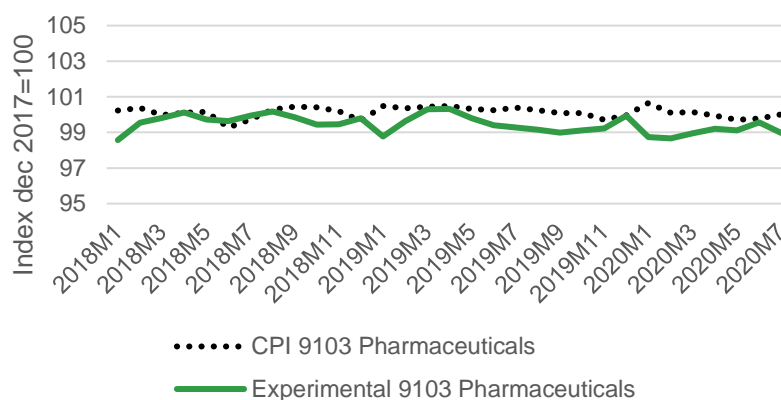


Figure 4. The price index for 9103 Pharmaceuticals with the new method applied and the published index.

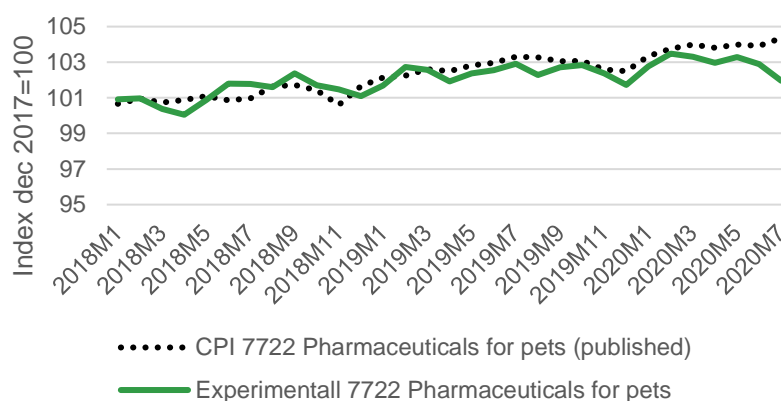


Figure 5. The price index for **7722 Pharmaceuticals for pets** with the new method applied and the published index.

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Adjusted weight calculation in 2021

Statistics Sweden updates, on an annual basis, the weights used to compile the CPI, CPIF, HICP and other measures of consumer side inflation. Ahead of 2021, Statistics Sweden will update the weights using an adjusted calculation method that takes into account shifts in consumption in 2020. More information:

[Adjusted compilation method for CPI, CPIF and HICP weights in 2021](#)

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Surveys introduced or discontinued as from 2021

New surveys

6227 Replacement of water pump
 6228 Car tire services
 9227 Body treatments

Discontinued surveys

6202 Replacement of exhaust system
6226 Replacement of steering linkage
7111 Video cameras
7115 DVD players
9320 Child safety seats (now included in survey 6218 Accessories for cars)
9552 Pizza (now included in survey 9554 Fast food)

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