

65
عاماً
YEARS



الهيئة العامة للإحصاء
General Authority for Statistics

Consumer Price Index

Frequently Asked Questions and Answers

Consumer Price Index - FAQs

1. How is the Consumer Price Index (CPI) calculated?

The CPI is calculated through the periodic collection of prices for a specific basket of goods and services that represent household expenditure. Data is gathered from various outlets across geographical regions. The index is computed by measuring price movements using the geometric Laspeyres formula, which relies on average prices and relative weights assigned to each item in the basket based on household spending patterns.

2. Has the methodology for calculating the Consumer Price Index (CPI) changed compared to what was published previously, and what has changed?

The methodology for calculating the weights of the consumer basket has been updated to comply with the latest international standards, based on the IMF's Consumer Price Index Manual. The update included improvements in data collection methods, expansion of the basket of goods and services, and revision of the relative weights of the consumer basket based on recent data from the latest Household Income and Expenditure Survey (HIES), as well as supplementary sources such as Household Final Consumption Expenditure (HFCE) and administrative records. The chain-linking methodology was also applied to update relative weights annually, ensuring more accurate and flexible adaptation to actual changes in consumption patterns.

3. What is the frequency of publication of the Consumer Price Index (CPI)?

The CPI will be published monthly, ensuring the regular provision of updated data to support individuals, businesses, and policymakers in monitoring economic changes and making informed decisions accordingly.

4. What are the key updates introduced to the Consumer Price Index (CPI) ?

Based on international best practices and according to the IMF's Consumer Price Index Manual, the main updates focus on:

- Expanding the basket to cover new items, categories, and sections of goods and services.
- Updating relative weights based on current expenditure patterns.
- Improving data collection methods using modern technologies.
- Revising geographical coverage and updating the sampling frame to increase the number of outlets.
- Diversifying data sources, including centralized collection from various entities, administrative data (e.g., "Ejar" platform for rental prices), in addition to field surveys.
- Adopting the COICOP2018 classification, with mapping to the previous COICOP1999 version.
- Adding new levels of consumption categories.
- Annual update of weights through the chain-linking methodology to reflect the latest economic changes.

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5. How are the goods and services included in the Consumer Price Index (CPI) basket selected?

The goods and services included in the CPI basket are selected based on a comprehensive field survey of household income and expenditure. This process involves analyzing spending patterns and the allocation of household budgets across various consumption items. The selection focuses on goods and services that form a fundamental part of household consumption and fulfill daily needs, while considering the diversity of lifestyles among different population groups. The basket is reviewed and updated periodically to reflect economic and social changes, such as the introduction of new goods and services or shifts in the significance of certain items due to changes in consumer preferences and consumption patterns. Items with very limited expenditure or impact are excluded to ensure a realistic and accurate representation of the local market. Furthermore, the selected goods and services must be priceable and available in various retail outlets across all geographic regions, ensuring comprehensive coverage of the Kingdom and equitable representation of all social and economic segment

6. How were the relative weights for goods and services determined?

Weights are based on the share of spending on each item relative to total household income and expenditure, using data from the 2023 Household Income and Expenditure Survey (HIES) and Household Final Consumption Expenditure (HFCE) from national accounts. These weights are reviewed and updated annually to reflect price changes and ensure the index accurately represents spending patterns.

The updated CPI basket includes 582 items, up from 490 previously, covering items with a relative importance of 0.001% or more. Weights were calculated by dividing the expenditure on each item by total expenditure across all 13 administrative regions of Saudi Arabia, and further adjusted at the city level using the 2022 population census data.

7. What methodology is used for reviewing and updating items and weights periodically?

Previously, reviews were conducted at least every five years, based on HIES data to ensure that they reflect the current economic reality. Under the new methodology, and in line with international best practices and the IMF Consumer Price Index Manual, weights and items are updated annually using the annual results of HFCE from national accounts, through the chain-linking approach.

8. Why did the relative importance of some categories change compared to the previous methodology?

The changes in relative importance reflect actual shifts in the spending patterns of Saudi households, based on the latest Household Income and Expenditure Survey and the annual results of Household Final Consumption Expenditure from national accounts. These sources take into account the impact of economic and social developments, such as changes in spending priorities and the adoption of new consumption habits.

In addition, the latest update included the adoption of the 2018 COICOP classification, which introduced a new section and redistributed several items across different categories. This reclassification helped adjust the relative weights to better reflect the current economic reality.

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Furthermore, the inclusion of new items and changes in the relative importance of some existing ones led to noticeable differences when compared to previous updates.

9. What are the official data sources used for calculating the Consumer Price Index (CPI)?

A comprehensive set of data sources and statistics is utilized to ensure accuracy and completeness in the calculation process. These sources include:

- **Household Income and Expenditure Survey (HIES):** Employed to identify consumption patterns and determine the relative weights of goods and services within the consumer basket.
- **Centralized data collection:** Data are systematically collected from various governmental and non-governmental entities to aggregate extensive information on prices of goods and services.
- **Administrative records:** Including data from platforms such as "Ejar," which provide detailed information on rental prices, thereby enhancing the precision of rent-related components.
- **Household Final Consumption Expenditure (HFCE):** Represents the aggregate household spending on goods and services, extracted from supply and use tables in the national accounts.
- **Field price surveys:** Conducted to capture actual market prices of goods and services across different regions, ensuring accurate geographic representation.

10. How is the optimal distribution of retail outlet samples and their geographical representation ensured?

To ensure the optimal distribution of retail outlet samples so that they represent all regions of the Kingdom, a rigorous methodology was followed. This involved the use of advanced techniques to define outlet frames, combined with census data to analyze population density at the neighborhood level within cities.

Representative cities within the sample were selected based on geographical and demographic criteria to guarantee comprehensive and accurate representation of all 13 administrative regions in the Kingdom. As a result, the number of cities included in the sample increased from 16 in the previous index to 23 in the new update, enabling broader and more inclusive coverage of price changes both within cities and across different regions.

11. How was the Consumer Price Index linked to the previous time series after the update?

The updated Consumer Price Index (CPI) has been linked to the previous time series in accordance with the methodology adopted in the IMF manual.

To ensure the continuity of the time series and comparability across periods, linking factors have been applied between the old and new series. These factors were calculated based on the rates of change in the indices during the transition period and were used to adjust previous values to align with the new base year 2023.

The linking process was carried out over several time intervals within the historical series, using statistical methods that take into account methodological differences. The revised time series, covering the period from 2013 until the present, has been reviewed and published to ensure all

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data is consistent with the new base year. This enables researchers and decision-makers to accurately and continuously track inflation trends and price changes.

12. What improvements have been made regarding the level of detail?

In addition to publishing the general Consumer Price Index (CPI) at the regional level instead of the city level, the update will include the release of other indices covering multiple areas to provide a more comprehensive view of the market. These indices include:

- The core CPI: which excludes the most volatile items (such as food, beverages, and energy) to provide a more stable reading of inflation.
- The CPI for durable, non-durable, and semi-durable goods: to measure differences between long-term use goods (such as cars and furniture) and those consumed immediately (such as food and beverages).
- The services CPI: to measure changes in the cost of services such as transportation, education, and healthcare.

13. What are chain-linked indices, and how are they connected to time series data?

Chain-linking is a statistical methodology that involves updating the CPI basket weights annually, instead of relying on a fixed base year where weights remain constant for several years based on Household Income and Expenditure Surveys (typically every three to five years). This approach provides flexibility in representing consumption patterns and allows adaptation to rapid changes in the market, such as shifting consumption habits or the introduction of new products.

The CPI results are linked at the start of each calendar year using the updated weights through a Linking Factor, enabling the construction of a consistent and dynamic time series that reflects the economic reality more accurately.

14. What is the Classification of Individual Consumption According to Purpose (COICOP 2018), and what is its purpose?

COICOP is an international reference classification issued by the UN Statistics Division. It is used to organize and classify household spending on goods and services according to their purpose. This classification aims to facilitate statistical analysis and comparisons of consumption patterns across countries and sectors, serving as a standardized tool to unify individual consumption data. The classification consists of 13 main divisions representing household consumption, with six levels of detail: division, group, class, subclass, sub-item, and item. It is primarily used in compiling the Consumer Price Index to classify the components of the consumption basket according to their purpose.

15. What are the main changes in the CPI basket?

- A new section for insurance and financial services.
- Addition and removal of items to reflect evolving consumption trends.
- Increasing classification levels from 4 to 6.
- Adjustments to overall basket weights according to HFCE results.

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- Reclassification and redistribution of some items across main categories according to the latest COICOP 2018 update.

16. What is the frequency of updating the relative importance (weights) of items in the CPI basket under the updated methodology?

The relative importance (consumer basket weights) will be updated annually based on household consumption expenditure patterns.

17. Why was 2023 chosen as the reference year?

Because the most recent Household Income and Expenditure Survey was conducted in 2023.

18. How can researchers and interested parties access the methodology details?

The methodology is published on the official GASTAT website.

19. Were international organizations consulted in reviewing the methodology?

Yes, international expertise and best practices were utilized.

20. Was coordination made with other relevant entities in reviewing the methodology?

GASTAT is an independent statistical authority that follows international standards to ensure impartiality. Nevertheless, coordination with relevant entities is carried out to meet national, regional, and international requirements.

21. What is the difference between the base year and the reference year in CPI calculation?

- Base Year: The year used as a temporary reference when reviewing expenditure weights. The Saudi General Authority for Statistics reviews this year annually within the chain-linked methodology, which aims to link different base years to the reference year, ensuring the index remains consistent and reflects changes in consumption patterns.
- Reference Year: The year in which the CPI is set to 100 and serves as a fixed point for comparison over time. This year is used to analyze price changes and measure inflation or deflation rates accurately, providing a stable basis for statistical analysis.



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