

What Does the Consumer Price Index and the Producer Price Index Tell Us about Prices and the Broader Economy

The CPI and the PPI help a wide spectrum of economic and policy actors better understand the economy.

The Importance of Price Indexes

Policymakers and business owners closely follow the trend in prices. This focus, particularly in the Northern Hemisphere, on price change stems in part from the rapid inflation experienced by advanced economies from 2021 through 2024. It also is rooted in the massive, world-wide price adjustments that the Trump administration's higher tariff rates are producing. From seed store managers to the Federal Reserve Board of Governors, the appetite for price news is growing.

Policymakers especially use price data in their work. The well-known dispute in every developed country over when their central bank will lower interest rates turns often on the direction of prices. This is true particularly in the United States, one of the last major economies to maintain elevated interest rates. The Federal Reserve has reduced its main policy interest rate (the federal funds rate) from a range of 5.25 to 5.5 percent in July 2023 to today's range of 3.75 to 4.00 percent, but persistent price growth above the Fed's target rate of two percent has led the Board of Governors to keep that range elevated.

Where do these policymakers look for the information about the trend in prices? In the United States, they mainly watch the monthly releases of two prices indexes, the Consumer Price Index (CPI) and the Producer Price Index (PPI).¹ The CPI and the PPI, are both produced by the Bureau of Labor Statistics (BLS). These two price indexes cover two very different dimensions of the economy: prices facing consumers and prices important to the production of goods and services. This explainer describes how these indexes are created and how they differ from one another.

The Consumer Price Index

The CPI is the oldest price index maintained by the BLS. It originated in 1917 to measure inflation during World War I, and the Bureau began regular publication of the series in

¹ Some analysts, particularly in the Federal Reserve system, prefer to use another price index called the Personal Consumption Expenditures price index (PCE). The PCE builds off the CPI by including adjustments to price stemming from how consumers substitute one product for another as prices change (the substitution effect). The PCE also covers all households, while the CPI focuses on urban households. While historically the PCE has shown lower price inflation than the CPI, major changes to the CPI completed by BLS in 2022 and 2023 have significantly reduced the differences between the two indexes. See <https://www.nationalacademies.org/our-work/improving-cost-of-living-indexes-and-consumer-inflation-statistics-in-the-digital-age>

1921. Commissioners of Labor Statistics from that era were regularly called to arbitrate labor disputes (a prominent feature of the early 20th century U.S. economy), and the CPI allowed them to design equitable wage adjustments in long-term labor contracts. Thus, BLS constructed this early CPI in such a way as to reflect what working, blue-collar families purchased.

BLS continues to publish this wage-earner CPI, but it was displaced as the official CPI in 1978, when changes in demographics and the decline of blue-collar workers as a percent of the labor force led BLS to begin producing the CPI-U, or the All-Urban CPI. The [CPI-U](#) is now the dominant consumer index produced by BLS, even though the Bureau continues to publish the CPI-W (wage earners) and several other indexes (the chained CPI, which likely returns more accurate long-term results than the CPI-U, the CPI for elderly consumers, and a research CPI).

The CPI-U consists of a selected number of goods and services that would most likely be consumed by the typical urban household. BLS determines what a typical household would purchase by annually surveying a representative set of urban and suburban households. This detailed survey is called the [Consumer Expenditure Survey](#) (CE), and it collects information on purchases arrayed by demographic, geographic, and income characteristics. The CPI analysts at BLS study the CE survey results each year to see if the purchases made by the CE households are present in the CPI-U. They also use the CE survey to determine the CPI-U index weights. That is, how much of a household's monthly income goes to, say, housing, gasoline, food, and so forth. Current BLS practice is to test and change these weights each year.

Weights and measures: The CPI-U contains more than 200 individual items organized into eight categories. BLS regional price collectors (called Economic Assistants) collect prices in 75 geographic areas and about 22,000 retail establishments chosen by the Bureau to represent urban household consumption throughout the United States. For example, the category Food contains such items as a subcategory of Cereals and Bakery Products that, in turn, contains such sub items as breakfast cereals, white bread, and cookies. Furthermore, BLS collects prices on the same items purchased for home use and purchased away from home. The broad category Food has an index weight of 13.6 percent, which indicates its importance to typical household budgets.

Other important or heavily weighted categories are shelter and energy. Shelter prices, which includes rents and the equivalent “rent” that homeowners pay (basically their mortgage or an estimated monthly payment if the homeowner does not make a mortgage payment) currently has an index weight of 35.4 percent. Energy, which includes utilities and motor fuel, has a weight of 6.4 percent. Price changes in just these three categories (food, shelter, and energy) account for 55.4 percent of all monthly price index weights.

Index base years and COLAs: The CPI is an index. That means the values from month to month reflect the percentage point change from a base year. Suppose the base year and month is January of 2025. All index values in that month would be equal to 100, but goods that rose in price in February would have the value of 100 plus the percentage point increase from January. Suppose that a particular good in the index rose in price by 1 percent between January and February. Thus, the February value would now be 100

+ 1 = 101.00. A 10 percent increase would cause the value to 110.00 (100 + 10). The current base year for the CPI is an average of prices for the period 1982 through 1984.

Policymakers should be particularly interested in how the CPI is used to calculate cost of living adjustments in key government programs and by private businesses to estimate, among many other things, the inflation-adjusted values of historical and future costs. Perhaps the most well-known use of the CPI by a federal program is to calculate the annual [Social Security cost of living adjustments \(COLA\)](#) for benefit payments in the Old Age and Survivors and Disability Insurance programs. It is less well known that the inflation measure used is the CPI-W rather than the CPI-U. The CPI-W tends to produce higher COLAs than the CPI-U, and Congress has refused to change to a more accurate index because the adjustment might be demagogued as a benefit cut. This COLA adjustment for OASDI is so fiscally important that BLS price index employees were temporarily called back to work during the historically long government shutdown of 2025 just to complete work on the estimated COLA.

Businesses often use financial models to estimate the inflation-adjusted value of contracts that contain the delivery of future goods. These businesses use historical CPI-U values to build forecasting equations that estimate future CPI-U values. They then adjust out forecasted inflation to derive the “real” costs of the investment in today’s dollars.

Let’s illustrate how to read the BLS CPI report by looking at a recent issue. The latest release of the CPI-U ([for the September, 2025 survey month](#)) shows the “all items” annual rate of change at 3.0 percent, which is higher than August. If a reader stopped at the overall rate, she might not see that the core rate of price change, which is all items minus food and energy, fell from the previous month and equaled the overall rate for September. Details matter when processing these monthly reports.

The Producer Price Index

While the CPI measures prices consumers pay for products, the Producer Price Index measures transaction prices received by domestic producers of goods and services. The distinction may look subtle, but it is not. Producers not only create products that consumers buy (these are called final demand products), but they also create products purchased by other producers to produce those final demand products. The price received by these producers is called an intermediate demand price. Thus, BLS built the PPI to cover a much wider array of transactions than that contained in the CPI.

Indeed, the producer indexes contain vastly more products and prices. BLS maintains a bit more than 10,000 separate PPIs that generate something like 64,000 prices that BLS collects each month. By far the largest category of collected prices is for the spectrum from intermediate demand to final demand (though two other index categories are published: a PPI by commodity type and a PPI by industry classification).

It is important to remember that the PPI reflects prices received for goods and services produced in the United States. Thus, goods sold to foreign consumers (exports) are included in the PPI, but goods produced by foreign firms and sold in the United States

(imports) are not included. In short, the PPI is a collection of price indexes for domestically produced goods and services.

Some users of the PPI find the Index difficult because it focuses so much on “stages of production.” It should be evident now, however, that BLS constructs its presentation of producer prices this way. BLS wants to measure how intermediate prices can range from the production of raw to refined inputs (intermediate goods) that ultimately result in a final stage where the good is sold to the final consumer. Thus, the CPI and the PPI are equally comprehensive: both measures prices paid and received in domestic transaction. The big difference is the much larger universe of producer transactions.

Think about the production of a pickup truck. In stage 1, the producer creates steel and sells to other producers who, in stage 2, fabricate specialized steel equipment used to produce, in stage 3, the parts that are assembled into a pickup truck. The truck is sold to the final consumer in stage 4.

To illustrate how one might read the PPI report from BLS, here is a summary of the July 2025 report. The current PPI release ([for price activity in August, 2025](#))² showed an July-to-August decrease of 0.1 percent, largely because of a large drop in energy prices. The annual rate came in at 2.6 percent. However, the PPI annual rate without food, energy, and trade was higher at 2.8 percent. Both estimates are above the upper limit desired by the Federal Reserve.

Conclusion

The CPI and the PPI help a wide spectrum of economic and policy actors better understand the economic world around them. The ability to discern the direction and pace of price change promote better public and private decision making, which means our economy is more efficient because better decisions are being made. Given their importance to economic life, the BLS price indexes should be treated as essential economic infrastructure and protected by law from political interference and by adequate funding as we would anything that is central to our economic future.

² Note that BLS price employees were not called back to produce a September PPI during the 2025 federal government shutdown.