Inflation: Basic definitions

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Readings

Recommended readings

Required readings:

- 🔗 Consumer Price Index FAQs (*BLS*)

- 🔗 Consumer Expenditure surveys FAQs (*BLS*)

Recommended listening:

- 🔗 Planet Money Podcast: Inflation & drinking buddies (*NPR*)

Words of the day

- CPI;
- PCE.

Measuring inflation

Measuring inflation

As of September 2024, the U.S. *inflation rate*, measured by the **Consumer Price Index (CPI)**, is of 0.2%.

- How do you *interpret* this statistic?

Measuring inflation

Inflation is defined as the **percentage change** in the *price index* over a given time period.

- An economy's **price index** is an *index number* arbitrarily set to 1 or 100 for a certain period.

- The price index then increases (decreases) for each subsequent year by the *rate of inflation* (deflation/disinflation).

The *inflation rate* is nothing but the **growth rate** of a price index:

$$\text{Inflation rate } (\%) = \frac{\text{Final period's price index - Initial period's price index}}{\text{Initial period's price index}} \times 100$$

Measuring inflation

When defining inflation, the term **price index** was used.

This leads to the question of **what prices** we are considering.

In the U.S., there are a number of *different* measures of inflation.

The most common are:

- The *Consumer Price Index* (CPI);
- The *Personal Consumption Expenditure Deflator* (PCE).

Measuring inflation

The *Consumer Price Index* (CPI) is the most **popular** inflation measure across media outlets.

- Released by the **U.S. Bureau of Labor Statistics** (BLS), the CPI measures the average change over time in the prices paid by consumers for a *representative basket of consumer goods and services*.

Its purpose is to reflect inflation as experienced by consumers in their *day-to-day living expenses*.

Measuring inflation

The CPI compiles data on expenditure items into more than **200** categories, arranged into **8 major groups**:

1. Food and beverages;
2. Housing (shelter);
3. Apparel;
4. Transportation;
5. Medical care;
6. Recreation;
7. Education and communication;
8. Other goods and services.

Measuring inflation

Consumer Price Index: Basket of goods
% share (December 2023)
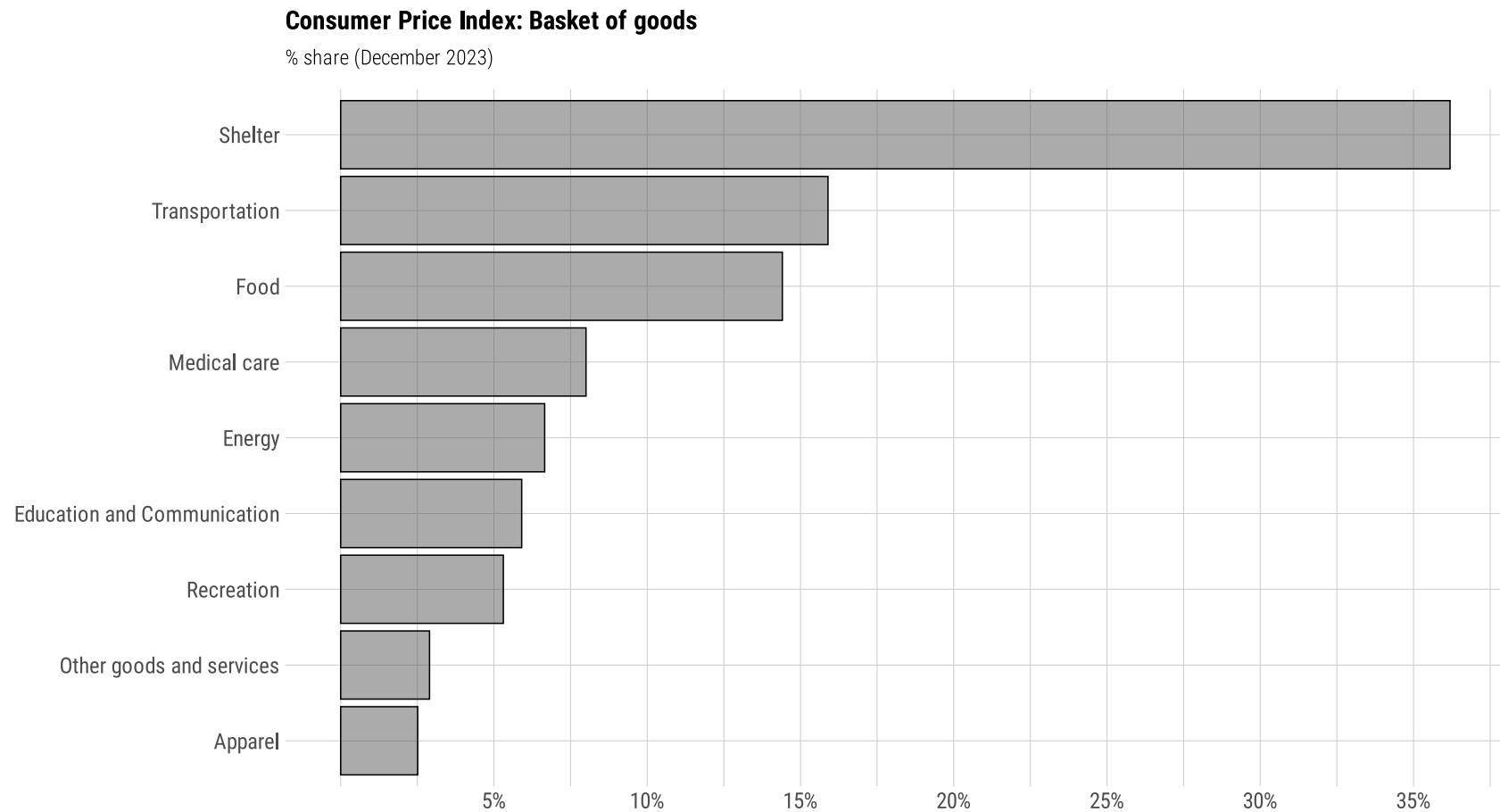
Source: U.S. Bureau of Labor Statistics.

Measuring inflation

🔗 What lies in each category?

Measuring inflation

Before moving on…

Q: Why should we *care* about inflation?

A: Inflation **deteriorates** the **purchasing power** of money.

- Recall that one of the *functions* of money is to **store value**.

- Given that, US$ 1,000 have *different* value properties when the inflation rate is *0.2%* and *5%*.

    - Why?

Measuring inflation

Back to the *Consumer Price Index* (CPI).

WHO

Q: What is the *sample* for the CPI?

A: **2** population groups:

- All *Urban* Consumers (CPI-U);

   → ≈ **90%** of the population.

- Urban *Wage* Earners and *Clerical* Workers (CPI-W).

   → ≈ **30%** of the population.

Measuring inflation

Q: What is the *sample* for the CPI?

A: *Consumer Expenditure* (CE) surveys conducted by the U.S. Census Bureau on behalf of the BLS.

- Two *independent* data collection surveys:
  → *Quarterly Interview* (monthly *out-of-pocket* expenditures);
  → *Weekly Diary survey* (weekly expenditures of *frequently* purchased items).

- ≈ 7,000 households.

Measuring inflation

🔗 How the Consumer Price Index Measures Inflation (*WSJ*)

Measuring inflation

Food and **energy** tend to be the most *volatile* components of the CPI.

To address this issue, we have the **Core CPI**.

> *"It provide(s) a better guide to monetary policy than the other indices, since it measures the more persistent underlying inflation rather than transitory influences on the price level."*

(Ben Bernanke, former chair of the U.S. Federal Reserve)

🔗 The latest numbers

Measuring inflation

Another measure of inflation policymakers keep a close eye on is the *Personal Consumption Expenditures Price Index* (PCE).

The **PCE** has a *broader* scope than the CPI:

- Also includes *rural* consumers, as well as expenditures made on consumers' *behalf*.

  → Health insurance, Medicare, and Medicaid, for instance.

🔗 The latest numbers

Measuring inflation

🔗 Inflation over time

Next time: Inflation & other aggregates