Inflation cheat sheet

How to invest when inflation is high

High inflation may stick around

Inflation is high in much of the developed world, although there are signs headline inflationary pressures may be waning.[1]

Headline inflation	US	Euro zone	Median country
11/2020	1.1%	–0.3%	0.7%
11/2021	6.8%	4.7%	4.8%
11/2022	7.1%	10.1%	7.1%

But higher prices may stick around. Core inflation, excluding volatile food and energy prices, are likely still to peak.[1]

Core inflation	US	Euro zone	Median country
11/2020	1.6%	0.2%	1.3%
11/2021	5.0%	2.6%	2.7%
11/2022	6.0%	5.0%	5.4%

What does this mean?

- Core inflation's stickiness raises the prospect that we are in a prolonged inflationary period.
- As a result, central banks may have to keep interest rates higher for longer than some investors initially anticipated – a scenario that raises the cost of borrowing and can provide a headwind for financial markets.

4 factors pushing headline inflation lower

Slowing global output

Economic activity is forecast to slow in 2023. In fact, the US and Europe may dip into recession. A sluggish economy should help to dampen inflation.

Food

Food prices have eased from recent highs scaled after Russia's invasion of Ukraine. An agreement to unblock grain exports from Ukraine, a key supplier of basic staples, has helped. as has weaker global demand.

Energy

Energy prices have adjusted more quickly than expected to the effects of the war in Ukraine. Gas prices in Europe have come down and oil prices have fallen from their recent highs of 2022 and may moderate further in 2023.

Monetary policy

Interest rates have risen since 2022 as central banks have sought to tame rising prices. There are some signs that action may be starting to work in reining in demand for goods and services and, hence, inflation.

See "Key terms to know" for helpful definitions

[1] Source: Haver Analytics and IMF staff calculations.
Note: The figure shows the developments in headline and core inflation across 18 advanced economies and 17 emerging market and developing economies. Core inflation is the change in prices for goods and services, but excluding those for food and energy (or the closest available measure). For the euro zone (and other European countries for which the data are available), energy, food, alcohol, and tobacco are excluded. percentiles of inflation across economies.

Allianz Global Investors

4 factors keeping core inflation higher

Money supply

Central banks have flooded the banking system with liquidity, and the money supply is outpacing the growth in economic output. The excess money supply should eventually moderate as central banks embark on "quantitative tightening" but it will take time.

Deglobalisation

International trade (typically a price equaliser) is losing steam. Countries are also seeking to be self-sufficient with essential goods, which could push prices up as countries compete for raw materials.

Tight labour markets

Labour markets have proven unexpectedly strong even as economic momentum starts to slow. With unemployment low, companies have found it more difficult to hire, putting upward pressure on wages.

Combating climate change

In the medium term, going green may mean less access to "cheap" energy, an increase in environment-related regulations and other inflationary factors. Yet over the long run, this investment will hopefully lead to higher economic output and lower inflation.

What's good about inflation

Some inflation is a good thing for economies – and for equity valuations

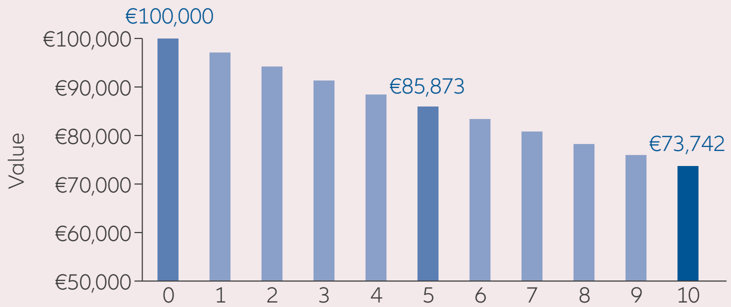
- A healthy economy grows at a sustainable rate, and inflation is a typical by-product of economic growth.
- Fixed income can offer potential tools tomanage changing inflation and interestrate risks.
- A moderate amount of inflation can alsobe good for the stock market, largelybecause reasonably higher prices canlead to higher earnings for companies.
- We found that for the S&P 500 Index, thehighest equity valuations were observed forinflation rates of between 2% and 4%. Butwhen inflation is beyond 5% or so, we tendto see lower earnings and lower levels ofconsumption overall.

What's bad about inflation

Even a small amount erodes purchasing power

- A 3% inflation rate can reduce the value of an asset by nearly 25% in just 10 years.
- That's why inflation has been called a "stealth threat"to portfolios.

Effect of 3% annual inflation rate on initial EUR 100,000 hypothetical investment



Source: Allianz Global Investors. Hypothetical example for illustrative purposes only.

How investors can fight shifting inflation

Save more and invest earlier

Given that any level of inflation will shrink your future purchasing power, one of the best ways to combat inflation is to save more and invest earlier. This gives your portfolio the opportunity to take advantage of the power of compounding. It's also important to consider the real yield of your investment after inflation is factored in.

Consider inflation-hedging assets

- Inflation-linked bonds – such as Treasury inflation-protected securities in the US and gilts in the UK – directly benefit from rising inflation expectations, since they are designed to help protect investors from inflation.
- A combination of short-term, fixed-rate cash bonds with futures and options on interest rates and credit derivative indices can help limit rates and spread volatility caused by shifting inflation expectations.
- An active fixed-income investor can seek returns regardless of the inflation environment – which is critical given the uncertain inflation outlook.
- During periods of higher inflation, commodities and gold have historically done very well.
- Institutional investors may want to consider private-market assets to hedge against – or even benefit from – a sustained return to inflation.

Key terms to know

Base effect: term sometimes used when measuring inflation. When comparing two points in time, if the inflation rate is unusually low at one end (the "base"), even a small rise can appear to be an outsized increase in the inflation rate.

Behind the curve: term used to describe when central banks deliberately do not raise interest rates fast enough to head off inflation.

Break-even inflation rate: the sum of the expected inflation rate and the inflation premium. Signifies the average inflation rate where an investor would achieve the same return from either a) receiving the fixed average inflation rate or b) receiving the actual inflation as a variable cash flow.

CPI (consumer price index): usually refers to headline CPI, also known as headline inflation. This is a key inflation metric for the US and UK, among other regions. Refers to the full hypothetical "basket" of goods and services vs core CPI/core inflation. Because headline inflation is volatile, it is considered not very predictive over the short term.

Core CPI (consumer price index), core inflation: calculated by subtracting volatile food and energy prices from headline inflation.

CPI-U (consumer price index for all urban consumers): measures the average change over time in the prices paid by US urban consumers for a market "basket" of consumer goods and services.

Deflation: when inflation falls below 0%.

Disinflation: when the rate of inflation falls, but doesn't go into negative territory.

Expected inflation rate: represents market participants' expectation of the average yearly rate of inflation – ie, the change of the underlying price index.

HICP (harmonised index of consumer prices): CPI as calculated in the European Union (EU). Types of HICP include MUICP (the monetary union index of consumer prices, covering the euro area); EICP (European index of consumer prices, for the whole EU); national HICPs (for each of the EU member states); EEACIP (European Economic Area index of consumer prices): an additional HICP index for the European Economic Area (EEA) that covers the EU, Iceland and Norway.

Hyperinflation: a disruptively rapid rise in inflation, generally more than 50% per month.

Inflation expectations: the expectations of consumers and businesses on the future rate of inflation. High inflation expectations can actually push inflation up.

Inflation risk premium: the compensation for unexpected inflation or deflation. It is similar to an insurance premium against unexpected moves.

Loose/easy monetary policy: economic shorthand for how central banks expand the supply of money (via low rates, asset purchases and more) to stimulate economic growth. Also known as expansionary or accommodative monetary policy.

Money supply: measures an economy's supply of cash, liquid bank accounts, long-term deposits, etc. When the money supply outpaces economic output, inflation generally follows because there is more money chasing the same amount of goods and services.

Nominal: before inflation is factored in (as in nominal yield, nominal growth rate, etc).

Output gap: the spare capacity in the economy – the difference between actual growth and potential growth. In recent years, the global economy was operating below

Key terms to know

its full potential, so the output gap increased. This is typical during economic slowdowns or recessions. Now, the output gap is shrinking.

PCE: the price of goods and services consumed by all households, and by nonprofits serving households. PCE has tended to be lower than CPI.

Quantitative tightening: monetary policies that reduce the balance sheet of a central bank. It is the opposite of quantitative easing, policies that involve central banks buying market securities to increase the money supply.

Real: after inflation is factored in.

Reflation: when deflation stops or reverses.

Stagflation: a period of high inflation, slow economic growth and high unemployment.

Wage share: the portion of economic output that gets paid to workers in the form of compensation.