

Mastering Inflation:

A Visual Guide to Risk and Return for Investors



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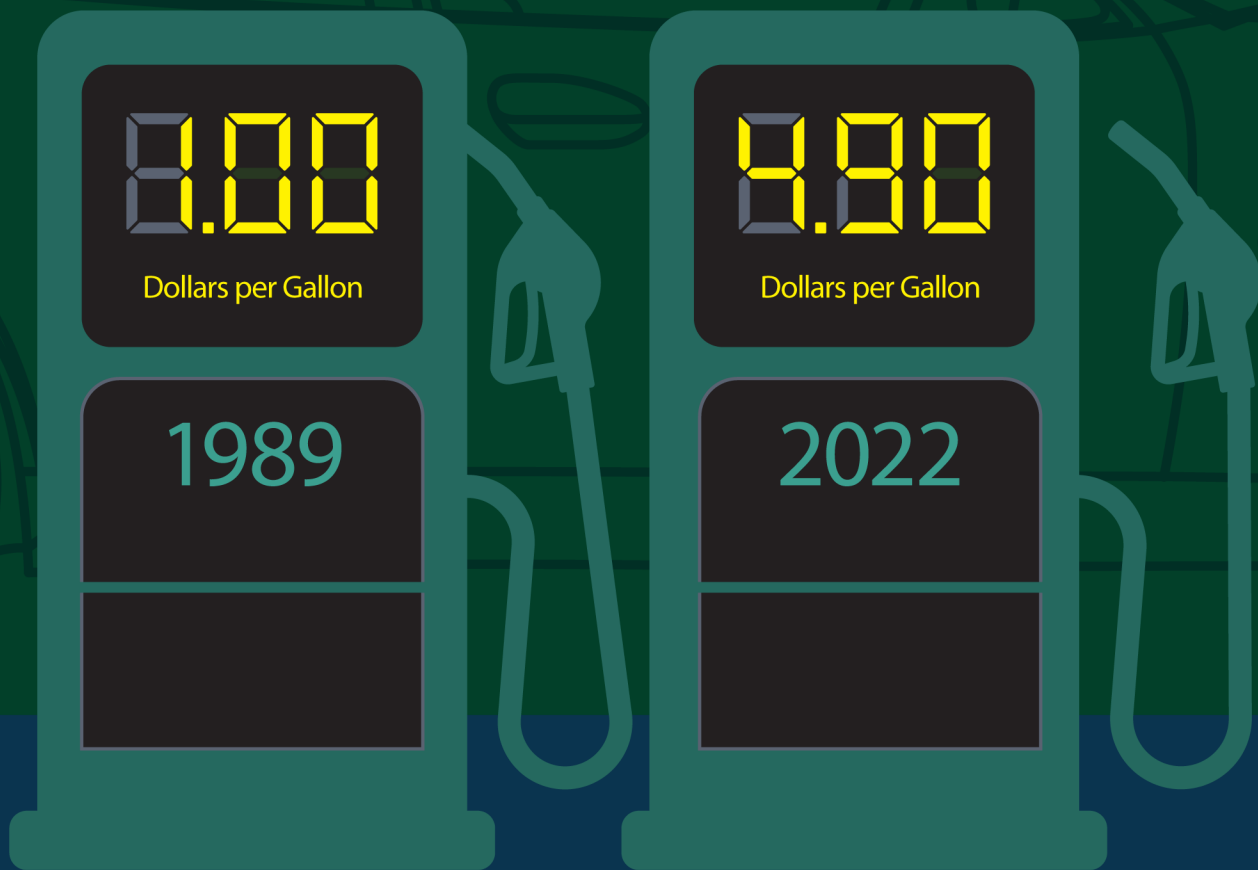
A Visual Guide to Risk and Return for Investors

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Inflation Defined

INFLATION AT THE PUMP

A Gallon of Gasoline: 1989 and 2022

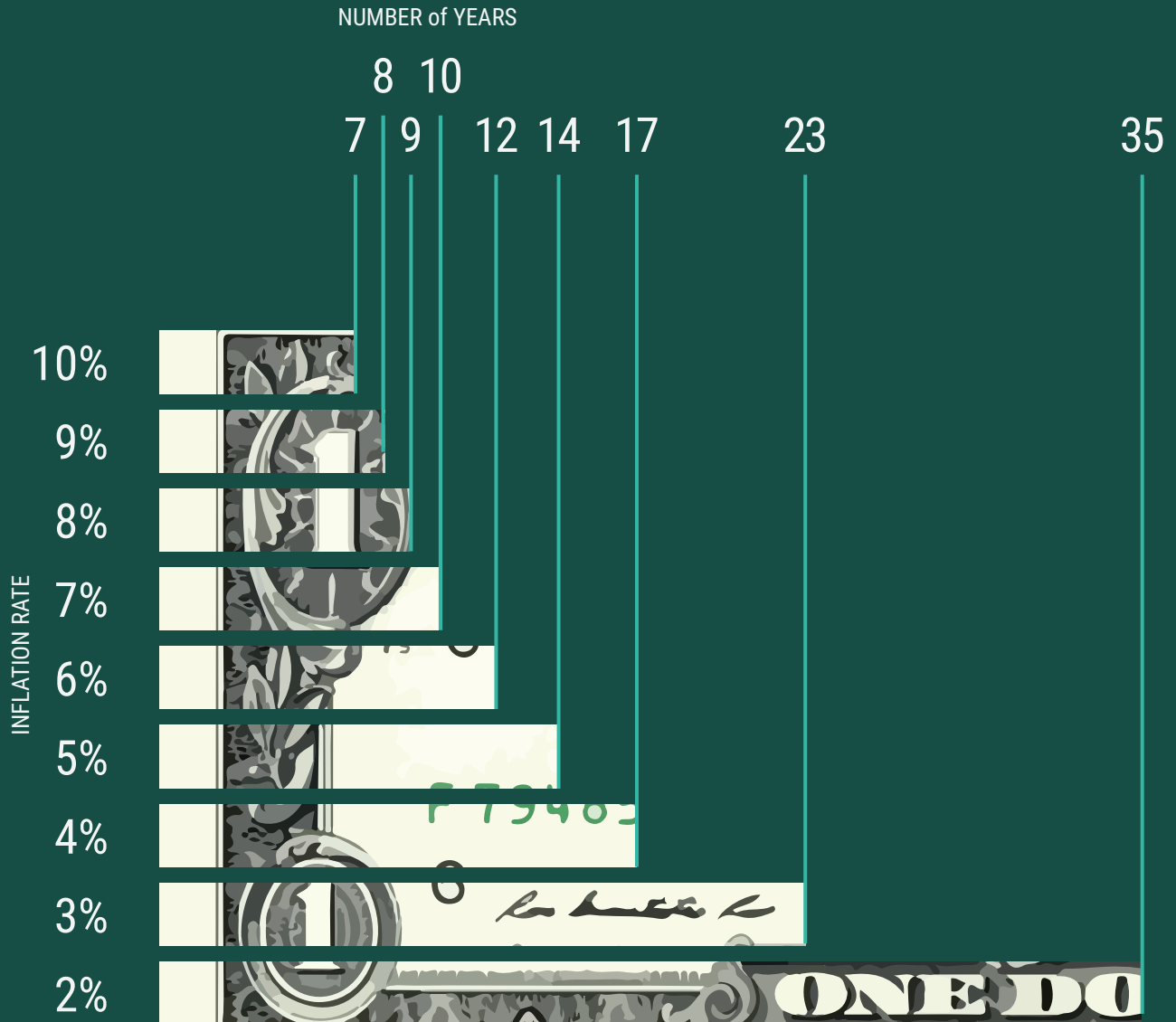


Inflation is the increase in the cost of goods and services over time.

As prices rise, you need more money to buy the same goods and services. Your money buys fewer goods and services than before. The experience at the gas pump is illustrative. In 1989, a gallon of gasoline cost \$1. In 2022, gasoline reached a peak price of \$4.90 per gallon. It's crucial for all of us, as consumers and investors, to understand inflation and its implications.

The Problem of Persistent Inflation

CUT IN HALF: Years to Reduce the Purchasing Power of \$1 by 50%



Persistent, long-term inflation can cut the purchasing power of investor savings in half. The question is: how fast?

Investors must achieve real returns above inflation to meet long-term objectives, such as retirement or providing children with an education. A low risk, low return portfolio may prove to be high risk over time once inflation erodes the purchasing power of investor savings.

The Problem of Inflation Shocks

INFLATION SHOCKS AND BEAR MARKETS

Period	Episode	Peak Inflation Rate	Bear Market Decline
2022	Post-pandemic inflation from supply chain disruptions and economic stimulus	9.1% JUNE 2022	-25% 10 MONTHS
2008	Oil prices double and inflation rises as Great Financial Crisis begins.	5.6% JULY 2008	-56% 17 MONTHS
2000-2002	Inflation doubles from low of 1.4% in 1998 to 3.8% in early 2000. "Tech Bust" and "Lost Decade" follow.	3.8% MARCH 2000	-49% 34 MONTHS
1980-1982	Second oil embargo: oil prices nearly double. Fed Chairman Volker raises rates and triggers recession to break persistent inflation.	14.8% MARCH 1980	-27% 21 MONTHS
1973-1974	First oil embargo: oil prices quadruple.	12.3% DECEMBER 1974	-48% 21 MONTHS

Sudden and unexpected increases in inflation can catch investors, industries and policymakers off guard.

"Spikeflation," another name for short-term inflation shocks, creates uncertainty, financial market volatility and economic dislocation. Catalysts include supply chain disruptions, geopolitical events or other unforeseen factors. These sudden increases may also trigger a sharp drop in financial asset values. Investors can prepare their portfolios – in advance – by including allocations to inflation-sensitive assets.

Measuring Inflation

6 Key Inflation Statistics Decoded

A variety of statistics and economic indicators help investors track and understand inflation. The acronyms have become part of our financial language. What does each acronym mean? Which ones matter? Understanding these statistics is essential to making informed investment decisions.



Published by the
Bureau of Labor Statistics
(BLS), a division of the
U.S. Department of Labor.

“Headline” CPI: Consumer Price Index

Measures the overall change in prices for a representative basket of goods and services, including food and energy. Most widely used inflation index. Also known as “headline” CPI. Based on 80,000 prices collected monthly.

Core CPI: Core Consumer Price Index, excluding Food and Energy

Excludes the volatile food and energy components of the CPI to provide a more stable inflation measure.

CPI-U: Urban Consumer CPI

Version of CPI selected by the US Treasury to calculate the inflation adjustment for TIPS: non-seasonally adjusted U.S. City Average All Items Consumer Price Index for All Urban Consumers.

PPI: Producer Price Index

Measures changes in wholesale prices, reflecting cost pressures for manufacturers and producers.



Published by the
Bureau of Economic Analysis
(BEA), a division of the
U.S. Department of Commerce.

PCE: Personal Consumption Expenditures Price Index

Measures spending on goods and services in the U.S. The PCE captures changes in prices as well as consumer behavior. A preferred inflation measure for the Federal Reserve.

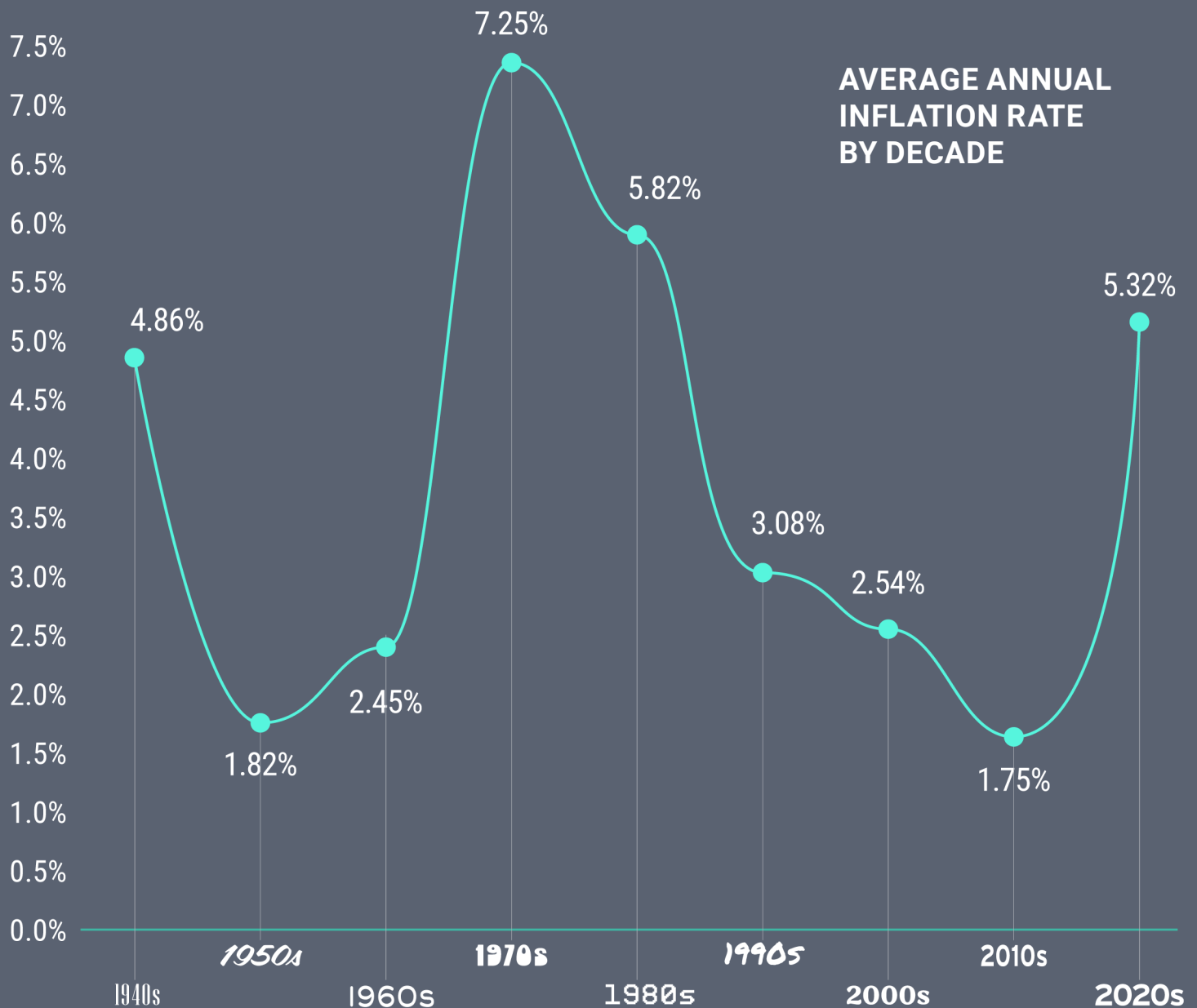
GDP Deflator: Gross Domestic Product Price Deflator

Measures the average change in the prices of all goods and services produced in the U.S. Includes exports but not imports. Used by some firms to adjust contract payments.

How do you preserve the purchasing power of your capital from the erosive effects of inflation?

The first step is understanding how inflation is measured. A variety of statistics and economic indicators help investors track and understand inflation. Understanding these statistics is essential to making informed investment decisions. While each indicator offers important insights into where price levels are, the three most often cited are CPI, PPI and PCE.

Where Are We Now?



Inflation varies over short, intermediate and long periods.

Understanding current and potential inflation can be a significant contributor to effective portfolio positioning and construction. As you see, while the 1970s hit an exceptional peak, our current average is quite high as well.

Components of Inflation



CONSUMER PRICE INDEX: Relative Importance of Components

U.S. City Average, December 2022

44.4%

Housing

16.7%

Transportation

14.4%

Food & Beverage

8.1%

Medical Care

5.8%

Education &
Communication

5.4%

Recreation

2.7%

Other Goods
and Services

2.5%

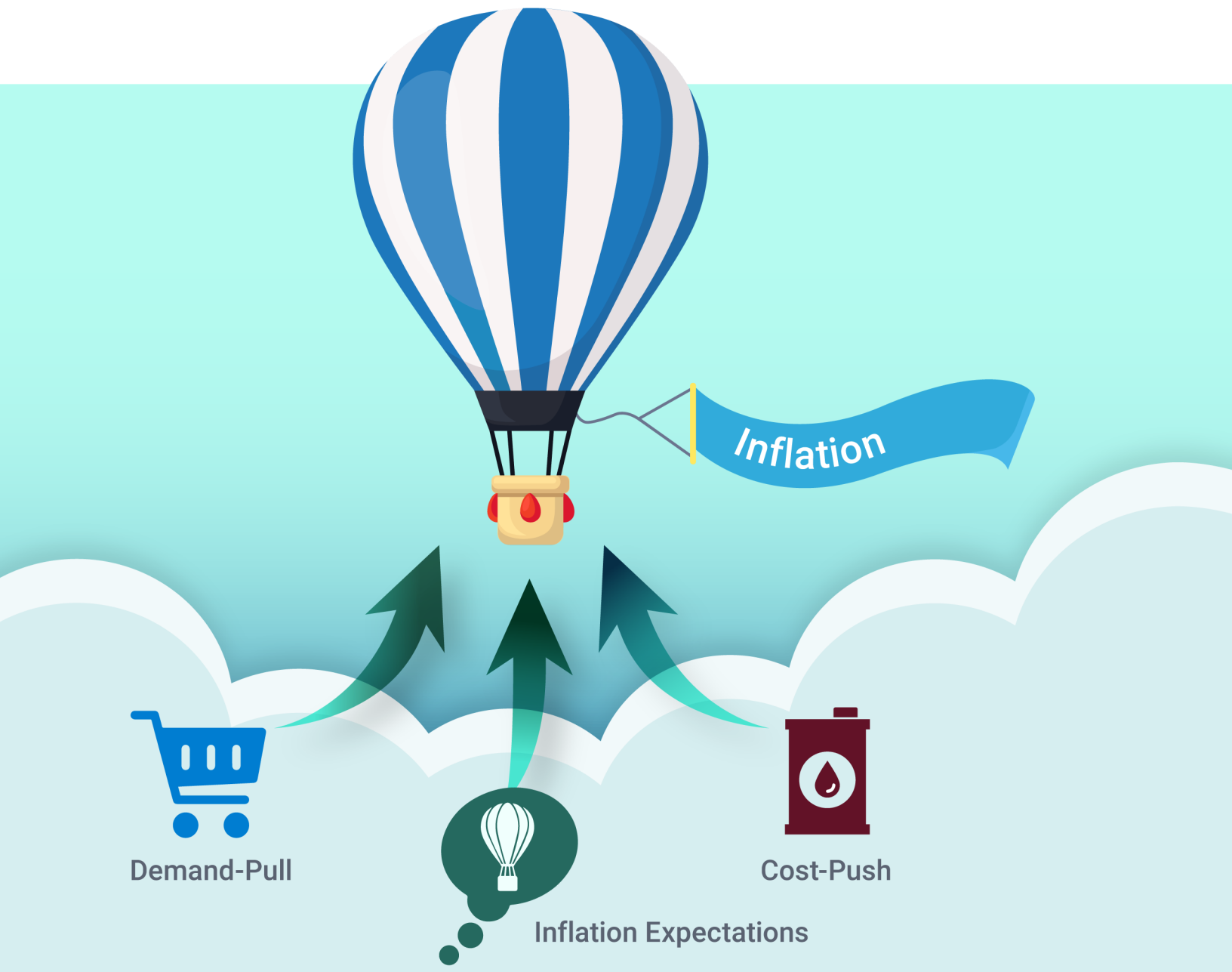
Apparel

The Consumer Price Index (CPI) represents all goods and services in the US.

The US Bureau of Labor Statistics has classified all CPI inputs into 200+ categories and eight major groups. Weightings are adjusted monthly.

Understanding the drivers of inflation is important to evaluating their impact on financial markets. Recognize that there can be a wide dispersion of elevated price levels across the spectrum of life's expenses.

Causes of Inflation



What causes inflation?

Economists identify three broad contributors: 1) costs, 2) demand, and 3) expectations. Investors must consider all three when analyzing and forecasting inflation.

Demand-Pull Inflation: Affected by developments on the demand side of the economy

Cost-Push Inflation: Caused by higher input costs on the supply side of the economy

Inflation Expectations: What households and businesses think may happen to prices can influence future prices

Inflation Today



Rising Housing Costs - Remote work increases the demand for living space amidst a chronic housing shortage

Pandemic

Catalyst for a variety of inflationary forces



Supply Chain Disruptions - COVID-induced interruptions to manufacturing and transportation drove up prices

Deglobalization - Reversing the deflationary and competitive benefits of decades-long globalization



Russia Invades Ukraine

Disrupting oil, grain and commodity markets worldwide



Increase in Money Supply - Central banks worldwide seeking to buoy economic activity

Goods Inflation

Consumers spent more on goods than services during lockdown



Emergency Unemployment and Benefits

- To protect workers from a pandemic-driven economic decline

Government Fiscal Policies
Combining tax cuts and spending to stimulate economies



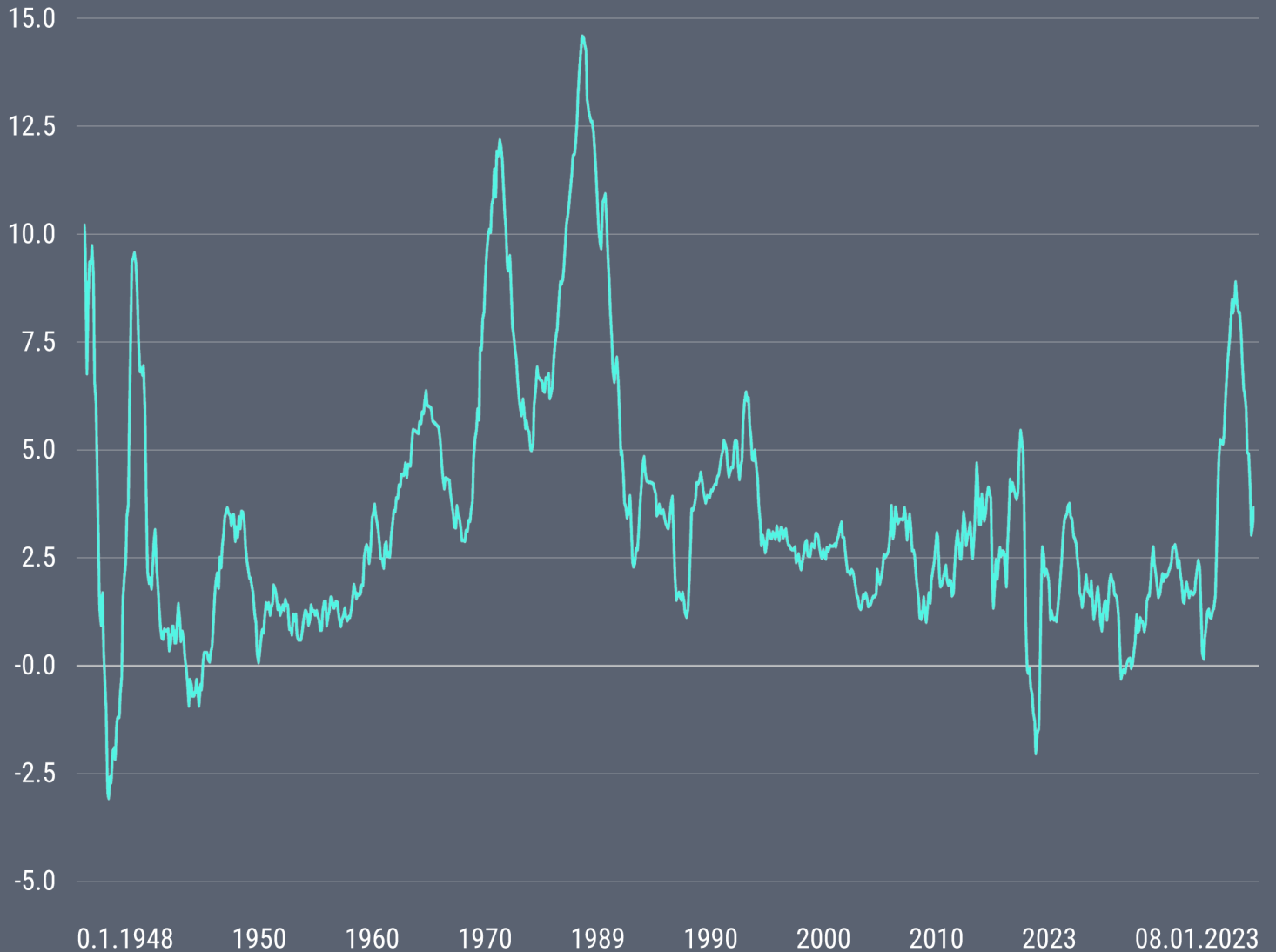
Wage Pressures - Caused by full employment and labor shortages after stimulus reversed the spike in unemployment at the start of the pandemic

In 2022, inflation spiked to an annualized rate of 9.1%, a 40-year high.

Inflation has moderated since but remains elevated. The pandemic set a variety of forces in motion that continue to cause inflation today. Stubborn, persistent inflation remains a key risk for investors.

Modern History of U.S. Inflation

CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS: All items in U.S. City Average



Inflation is an ongoing but variable economic phenomenon.

U.S. inflation rose during World War II and the Korean War before easing in the 1950s. Inflation rose steadily from the 1960s to the early 1980s. Afterwards, inflation moderated for 40 years, leaving investors and consumers complacent.

Today, investors are re-learning how to invest amid higher and potentially persistent inflation.

Source: Federal Reserve Bank of St. Louis

Inflation Fighter: Stocks

STOCKS BEAT INFLATION FOR THE LONG TERM

Compound Annual Returns 1926-2022

10.1%

2.9%

Stocks

Inflation

Investors need real returns above inflation to overcome the erosion of purchasing power.

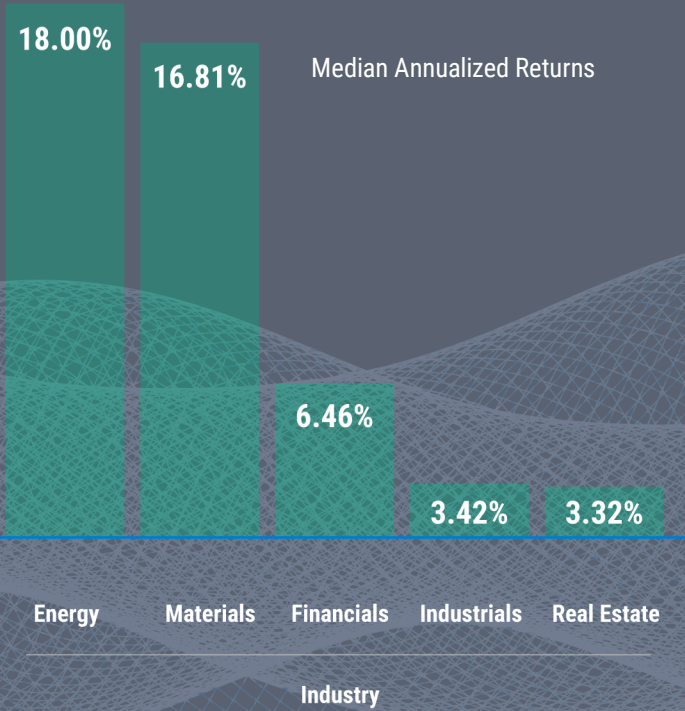
Over the long term, stocks have provided returns well above the inflation rate.

For illustrative purposes only and not indicative of any investment. Large stocks are represented by the Ibbotson Large Company Stock Index. Inflation is represented by the Consumer Price Index. Underlying data is from the Stocks, Bonds, Bills, and Inflation® (S&BBI®) Yearbook, by Roger G. Ibbotson and Rex Sinquefeld, updated annually. An investment cannot be made directly in an index. Past performance is no guarantee of future results. Data assumes reinvestment of all income and does not account for taxes or transaction costs. The average return represents a compound annual return. Stocks are not guaranteed and have been more volatile than the other asset classes. ©2023 Morningstar, Inc.

Inflation Fighter: Winning vs. Losing Stock Market Sectors

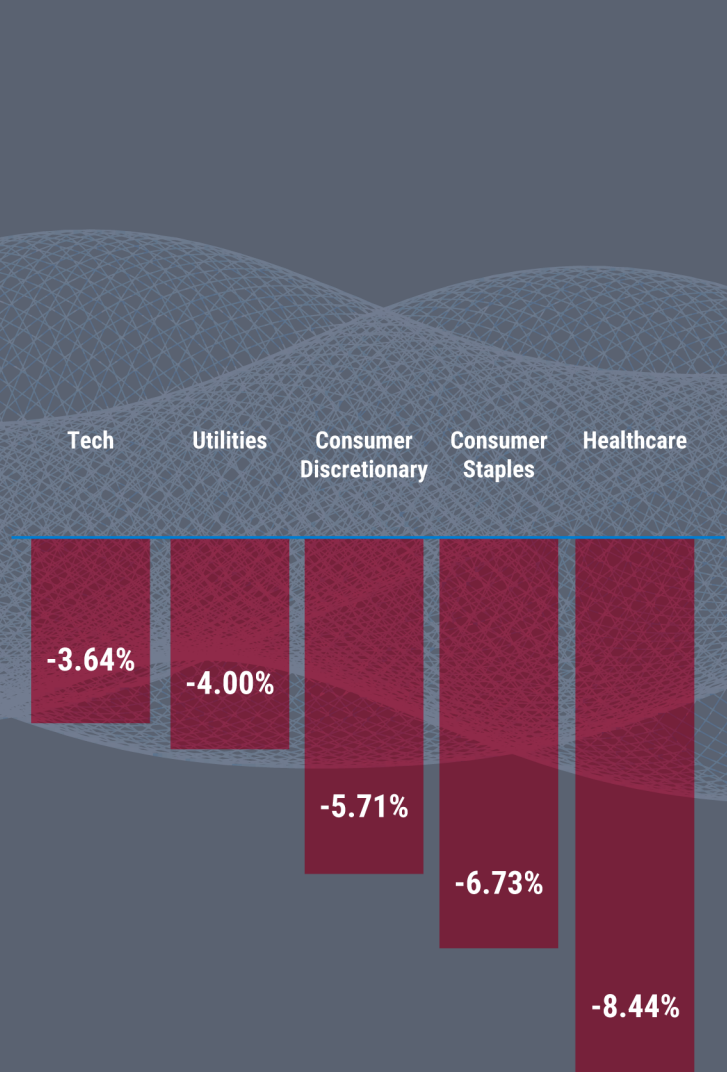
Winning U.S. Equity Sectors During Inflation Spikes

March 1973-May 1975, April 1978-September 1980, February 2021-March 2022



Losing U.S. Equity Sectors During Inflation Spikes

March 1973-May 1975, April 1978-September 1980, February 2021-March 2022



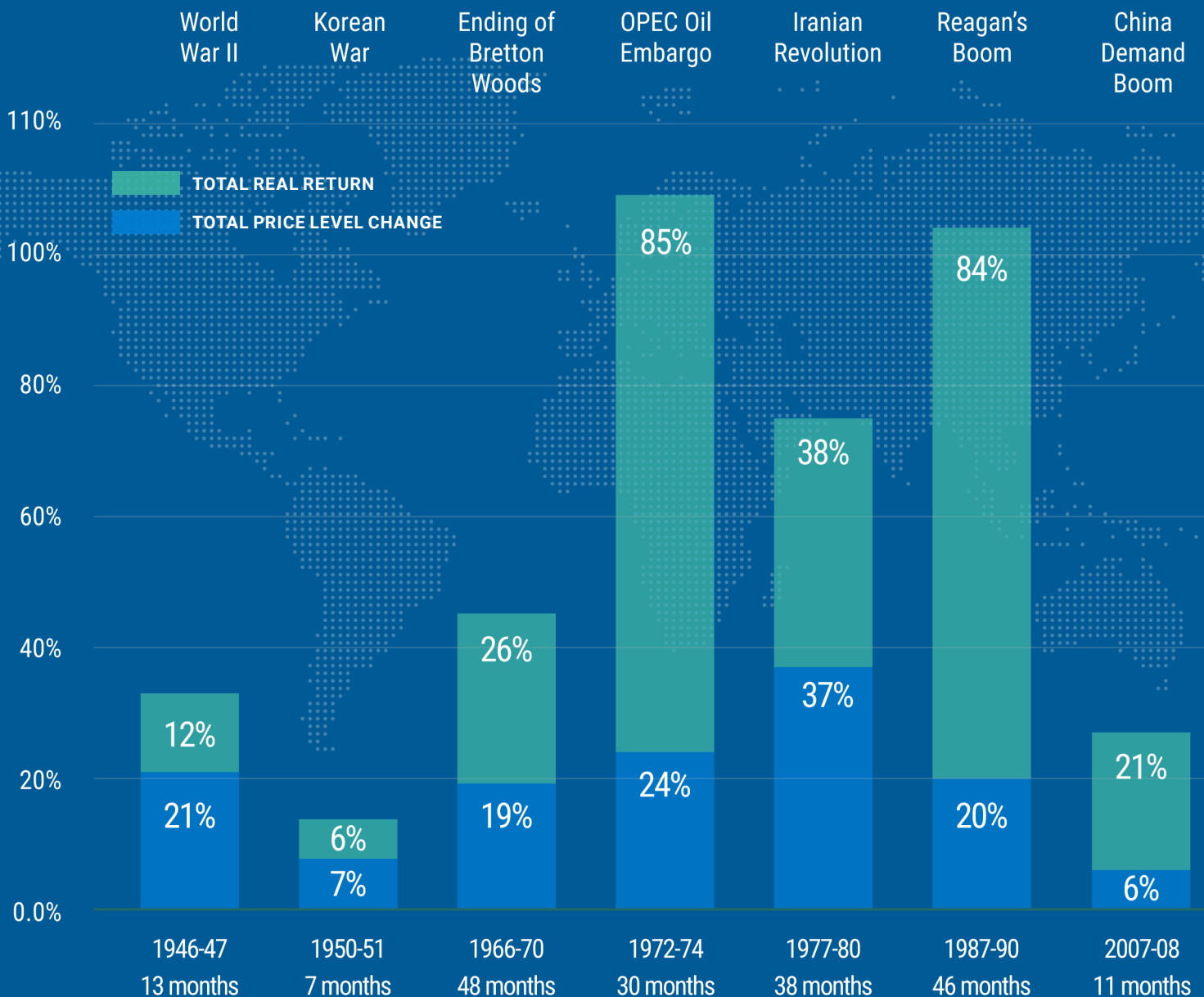
When inflation spikes, some stock market sectors win and others lose.

Consider maintaining an allocation to sectors that have historically outperformed as a hedge against inflation.

For illustrative purposes only and not indicative of any investment. Past performance is no guarantee of future results. Data based on calculations by Derek Horstmeyer, George Mason University, author of the *Wall Street Journal* article. Data is based on the returns for all stocks listed on the New York Stock Exchange or Nasdaq over the past 50 years. Three inflation spike periods were determined based on when the consumer price index inflation rate doubled in less than 24 months: March 1973 to May 1975, April 1978 to September 1980, and February 2021 to March 2022. Company data was divided into 10 industries by the author of the article. Sector data reflects the median stock returns in each industry during each of the three periods of surging inflation.

Source: Derek Horstmeyer, Wall Street Journal

Inflation Fighter: Commodities



Commodities, which include natural resources such as energy, metals and agricultural products, have historically shown a strong relationship with inflation.

Investors often turn to commodities during inflationary periods to preserve their wealth and maintain purchasing power. See how commodities performed historically in seven different inflationary regimes. Across these periods, commodities provided a 14% average annualized real return.

Source: "The Best Strategies for Inflationary Times," Man Group, 2021.

Inflation Fighter: TIPS

Hypothetical Growth of Adjusted Principal and Annual Coupon

TIPS: 1% Coupon, 3% Annual Inflation



10-Year TIPS: Hypothetical Illustration

The graphic above provides a hypothetical illustration of the growth of principal and interest payments for a TIPS security based on a 1% coupon rate and a constant 3% inflation rate.

Treasury Inflation-Protection Securities, or TIPS, are U.S. Treasury securities designed to protect investors from inflation.

Unlike conventional bonds, the principal value of TIPS adjusts with changes in the Consumer Price Index. As inflation rises, the principal value and yields increase, providing investors with higher returns.

Source: Schwab Center for Financial Research. The annual coupon payment equals the fixed coupon rate multiplied by the adjusted principal value. For this illustration, the initial TIPS principal value is \$1,000. Note that TIPS coupon payments are paid semiannually, not annually as illustrated. **Hypothetical, for illustration only.**

Fight the Inflation Challenge



Whether inflation is persistent or sudden, you must prepare your portfolio in advance.

To learn more, download our eBook:

5 Ways to Fight Inflation with ETFs: Building a Resilient Portfolio

To learn more about the AXS Astoria Inflation Sensitive ETF (PPI), an all-in-one ETF designed for inflation investing, visit our website:

AXS Astoria Inflation Sensitive ETF (PPI)

AXS Investments

AXS Investments is a leading alternative investment manager providing a diversified family of alternative investments for growth, income and diversification. The firm empowers investors to diversify their portfolios with investments previously available only to the largest institutional and high-net-worth investors. The investor-friendly AXS funds are time-tested, liquid, transparent and managed by high pedigreed portfolio managers with long and strong track records. For more information, visit www.axsinvestments.com.

IMPORTANT RISK DISCLOSURE ABOUT THE AXS INFLATION SENSITIVE ETF (PPI)

ETFs involve risk including possible loss of principal. There is no assurance that the Fund will achieve its investment objective.

There is no guarantee the sectors or asset classes the advisor identifies will benefit from inflation. Fund may invest a larger portion of its assets in one or more sectors than many other funds, and thus will be more susceptible to negative events affecting those sectors.

Equity Securities Risk: Equity securities may be particularly sensitive to rising interest rates, as the cost of capital rises and borrowing costs increase. Equity securities may decline significantly in price over short or extended periods of time, and such declines may occur in the equity market as a whole, or in only a particular country, company, industry or sector of the market.

Commodities Risk: Commodity prices can have significant volatility, and exposure to commodities can cause the value of the Fund's shares to decline or fluctuate in a rapid and unpredictable manner. The values of commodities may be affected by changes in overall market movements, real or perceived inflationary trends, commodity index volatility, changes in interest rates or currency exchange rates, population growth and changing demographics, international economic, political and regulatory developments, and factors affecting a particular region, industry or commodity.

Futures Contracts Risk: The Fund expects that certain of the Underlying ETFs in which it invests will utilize futures contracts for its commodities investments. The risk of a position in a futures contract may be very large compared to the relatively low level of margin the underlying ETF is required to deposit. In many cases, a relatively small price movement in a futures contract may result in immediate and substantial loss or gain to the investor relative to the size of a required margin deposit. The prices of futures contracts may not correlate perfectly with movements in the securities or index underlying them.

TIPS Risk: Principal payments for Treasury Inflation-Protection Securities are adjusted according to changes in the Consumer Price Index (CPI). While this may provide a hedge against inflation, the returns may be relatively lower than those of other securities. Similar to other issuers, changes to the financial condition or credit rating of the U.S. government may cause the value of the Fund's exposure to U.S. Treasury obligations to decline.

Shares of ETFs are bought and sold at market price (not NAV) and are not individually redeemed from the ETF. Brokerage commissions will reduce returns. NAVs are calculated using prices as of 4:00 PM Eastern Time. The closing price is the midpoint between the bid and ask price as of the close of exchange. Closing price returns do not represent the returns you would receive if you traded shares at other times.

Investors should carefully consider the investment objectives, risks, charges and expenses of AXS Astoria Inflation Sensitive ETF. This and other important information about the Fund is contained in the Prospectus, which can be obtained by visiting www.axsinvestments.com. The Prospectus should be read carefully before investing.

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