INVESTOR EDUCATION

PIMCO

Recessions: What Investors Need to Know

SUMMARY

- What is a recession?
- What factors cause a recession?
- How does a recession affect investment returns?
- What asset classes tend to do well in a recession?
- How can fixed income investors benefit from active management in a recession?
- What can investors do if they are worried about future recessions?

The old adage "what goes up, must come down" aptly describes a dynamic economy that has historically followed a cycle of growth and decline. The down period in that cycle constitutes a recession, which affects investment returns across various asset classes. For this reason, investors may benefit from understanding what a recession is, what causes it, and the steps to take as economic conditions change.

WHAT IS A RECESSION?

A recession is a period of significant decline in economic activity that may last for months or years. Typically, a recession is marked by falling productivity, investments and business profits, as well as rising unemployment.[1]

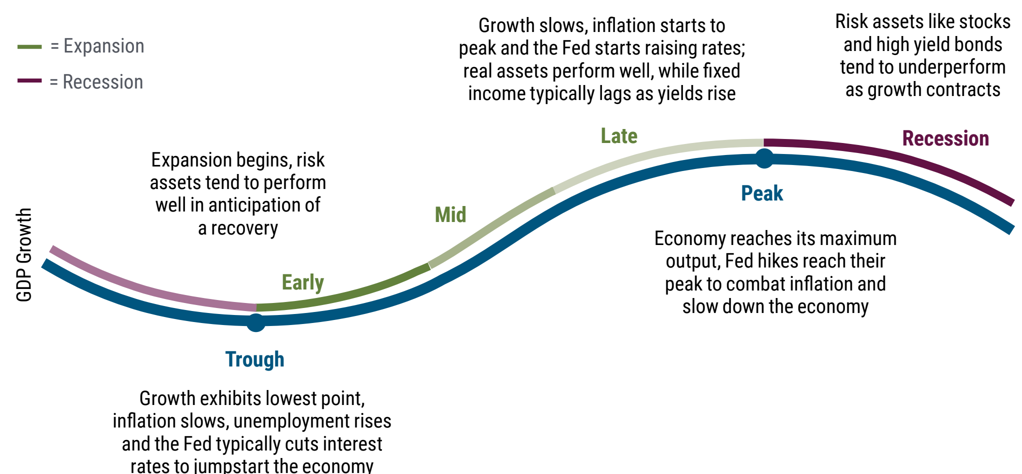
At any given time, the economy, which is made up of a country's aggregate production and consumption, follows a pattern of activity often referred to as the business (or economic) cycle.

Consider the following:[2]

- Historically, recessions have been a natural part of the economic cycle, occurring every 3.25 years in the U.S.
- Between 1945 and 2019, the average U.S. recession lasted approximately 11 months, while the economic expansion that followed lasted an average of 65 months.

As Exhibit 1 shows, the business cycle starts during a period of economic growth, followed by a slowdown. After economic activity reaches its lowest point, or trough, it picks up again until it reaches its highest point. Once activity drops from the peak, this signals the start of a recessionary period.

Exhibit 1: Phases of the business cycle



Source: PIMCO **For illustrative purposes only.**

WHAT FACTORS CAUSE A RECESSION?[3]

The nature and causes of U.S. recessions have varied, and have been generally characterized by a decline in consumer and business spending. Consumer spending greatly affects economic activity, accounting for 68% of U.S. Gross Domestic Product (GDP).[4]

Some examples of the causes of recessions include:

- **Unforeseen events** – such as the 2020 COVID-19 global pandemic and geopolitical crises, which impacted supply chains and business activity
- **Oil shocks/energy crises** – rising oil prices in 1973 and 1980, which contributed to high inflation, as shown in Exhibit 2
- **An overheated economy** – characterized by low unemployment, rising inflation, and asset valuation bubbles, which may cause central banks worldwide to tighten financial conditions by raising short-term interest rates; examples of asset valuation bubbles that led to recessions included the dotcom bubble in 2001, and the real estate bubble that led to the 2008 Global Financial Crisis

Exhibit 2 shows U.S. recessions from the 1950s through 2020 and the various economic variables (measured at the peak of the business cycle) that contributed to recessions, including changes in inflation, oil prices, interest rates, credit/debt to GDP, and real (inflation-adjusted) corporate earnings.

The table's shaded areas highlight the years with the highest increases for inflation, oil prices, interest rates, and credit/GDP, as well as the years with the steepest declines in real corporate earnings growth.

Exhibt 2: Possible causes of U.S. recessions vary

	ECONOMIC VARIABLES AT THE PEAK OF THE BUSINESS CYCLE				
	Inflation	Oil Shock	Monetary	Credit	Equity Market
Recession	CPI YoY Growth	WTI Spot Price YoY Growth	Fed Funds YoY Difference (bps)	Credit/GDP 3-Year Growth	Real Earnings YoY Growth
Jul 1953	0.4%	9.7%	--	5.6%	7.1%
Aug 1957	3.7%	8.9%	51	19.0%	-5.0%
Apr 1960	1.7%	0.0%	96	11.9%	2.6%
Dec 1969	6.2%	4.6%	295	3.3%	-5.5%
Nov 1973	8.3%	81.2%	497	13.5%	16.9%
Jan 1980	13.9%	130.9%	375	5.9%	4.1%
Jul 1981	10.8%	-10.5%	1001	-4.5%	-8.2%
Jul 1990	4.8%	12.7%	-109	-3.7%	-17.3%
Mar 2001	2.9%	-1.8%	-54	8.0%	-13.3%
Dec 2007	4.1%	57.7%	-100	11.1%	-22.0%
Feb 2020	2.3%	-21.6%	-82	2.2%	-9.4%
Full Sample Median	2.8%	0.0%	4.0	4.8%	4.0%

Source: PIMCO, FRED, GFD. Full median sample since January 1950.
Highlighted values correspond to values in the top quartile (bottom quartile for real earnings growth).
Past performance is not a guarantee or a reliable indicator of future results.

HOW DOES A RECESSION AFFECT INVESTMENT RETURNS?

Exhibit 3 shows that recessionary periods have affected asset classes differently, with some outperforming others.

The first half of a recession (shown on the right) is typically marked by a decrease in economic activity from its late cycle stage "peak", as measured by analyzing growth, inflation and unemployment data. During the first half of a recession stage, core bond returns (i.e., Treasuries and investment-grade securities) are historically positive, while returns for high yield bonds, equities, and commodities are negative.

The second half of a recession (shown on the left) is typically marked by a continued drop in economic activity – in which equities, high yield bonds, and core bonds historically perform well, and commodities decline – before the economy enters "recovery" or expansion stage (middle of chart).

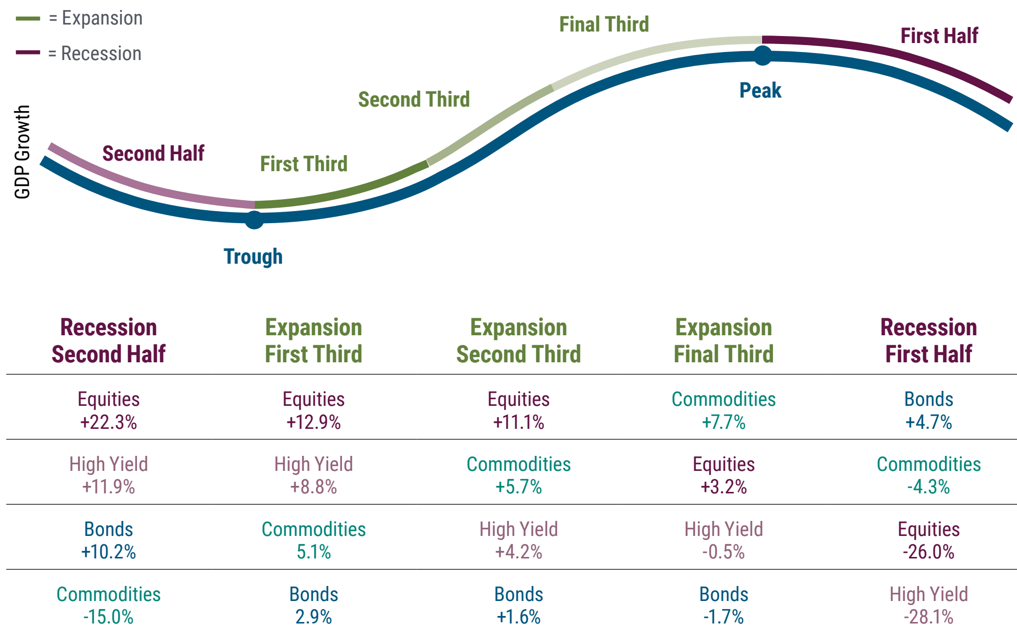
WHAT ASSET CLASSES TEND TO DO WELL IN A RECESSION?

In general, core bonds historically have tended to do well during recessions. Owning core bonds in all stages of the business cycle, and especially during an economic slowdown, may help investors preserve principal while reducing overall portfolio risk, as core bonds are typically less volatile than other asset classes.

Risk assets, such as equities, historically outperform during the second half of a recession and in the expansion phase.

The differences in returns highlight the importance of diversification, a strategy of allocating to various asset classes, which could enable investors to generate gains from some investments and help offset losses from others.

Exhibit 3: Excess returns across the business cycle



Recession Second Half	Expansion First Third	Expansion Second Third	Expansion Final Third	Recession First Half
Equities +22.3%	Equities +12.9%	Equities +11.1%	Commodities +7.7%	Bonds +4.7%
High Yield +11.9%	High Yield +8.8%	Commodities +5.7%	Equities +3.2%	Commodities -4.3%
Bonds +10.2%	Commodities 5.1%	High Yield +4.2%	High Yield -0.5%	Equities -26.0%
Commodities -15.0%	Bonds 2.9%	Bonds +1.6%	Bonds -1.7%	High Yield -28.1%

As of 31 December 2022. Source: PIMCO, FRED, Bloomberg, NBER US Business Cycles. **For illustrative purposes only. Past performance is not a guarantee or a reliable indicator of future results.**

Calculations for excess returns over the cash rate for equities (represented by S&P 500 Index) and bonds (represented by FRED US 7-10 Year Treasury series) based on monthly data from May 1953. Calculations for Commodities (represented by Composite Commodity Index of widely followed indices) and HY (represented by Bloomberg U.S. Corporate High Yield Index) are based on monthly data from July 1959 and August 1988, respectively. Equity, bonds and commodities are in excess of the risk free rate (represented by 3-month Treasury Bill). HY is duration neutral, thus we do not subtract the risk free rate. Estimates assume the current stage to be an expansion as of 31 December 2022. Recessions and expansions are defined by NBER.

HOW CAN FIXED INCOME INVESTORS BENEFIT FROM ACTIVE MANAGEMENT IN A RECESSION?

The bond market is vast and exceedingly diverse. It includes corporate and high yield bonds, mortgage-backed securities, municipal bonds, emerging market bonds, and more. Each sector or asset class responds differently to economic and market conditions.

Active fixed income managers typically have more flexibility than their passive peers to buy attractive securities and sell those that may underperform. For example, skilled active managers with robust credit research teams have resources to find attractive opportunities, and at the same time manage risks, across the global bond market.

WHAT CAN INVESTORS DO IF THEY ARE WORRIED ABOUT FUTURE RECESSIONS?

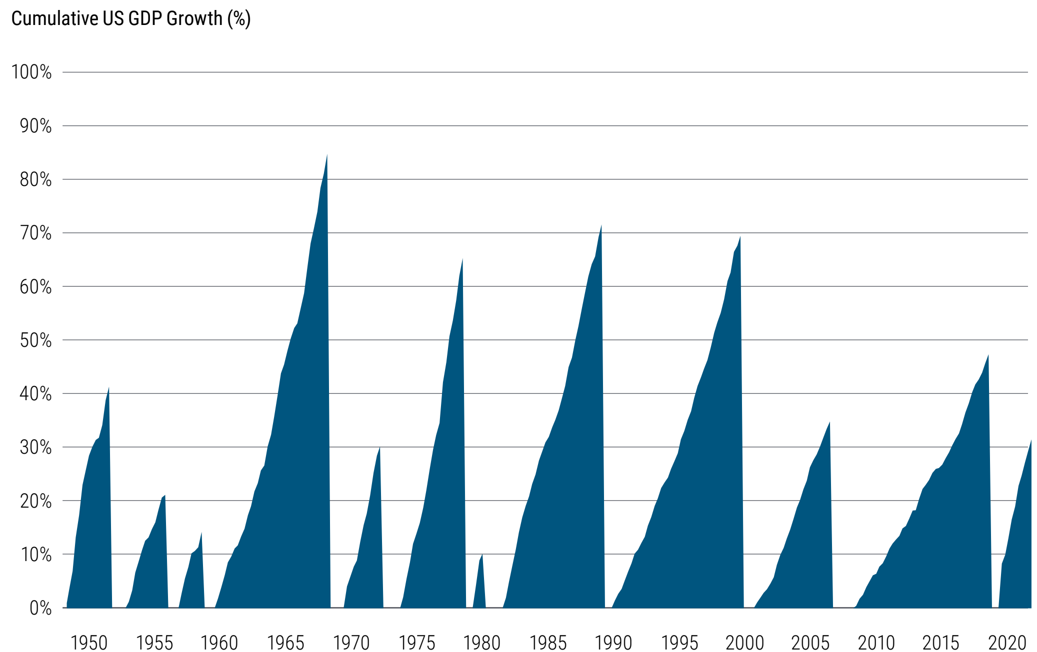
Simply put, investors may do well to stay diversified to mitigate potential portfolio volatility – during market and economic downturns. This may also enable portfolios to be well-positioned for a potential market recovery.

Given today's uncertain economic and geopolitical environment, it may help to look back to how the economy performed following recessionary periods to find reasons for optimism going forward.

Reasons For Optimism

From a historical perspective, it may be good to know that the vibrant U.S. economy has been through many economic cycles (see Exhibit 4), where each downturn or growth slowdown (i.e., the spaces between blue bars, when growth is negative or has slowed significantly) has been followed by a significant recovery (blue bars).

Exhibit 4: U.S. Economy's History of Strong Economic Growth After Recessions



Sources: PIMCO, National Bureau of Economic Research, Federal Reserve Bank of St. Louis; as of 12/31/2022

For illustrative purposes only. Past performance is not a guarantee or a reliable indicator of future results.

THERE ARE STEPS YOU CAN TAKE TO HELP COUNTER RECESSION CONCERNS

Investors worried about a recession may benefit from taking the following steps to mitigate the potential impact on their portfolios:

- Avoid behavioral bias when making investment decisions such as selling low during market declines, and buying high during market upturns, which may lead to less than ideal long-term investment outcomes.
- Stay diversified to potentially mitigate portfolio volatility by allocating across different investments, such as equities, core bonds, credit, and alternatives.
- Ensure that your investment portfolio remains aligned with your long-term financial goals through regular rebalancing.

In summary, if there's one important takeaway about recessions, it is that they are part of a vibrant economy. While they can be daunting and unpleasant in the short term, recessions may also present opportunities for patient, long-term investors.

GLOSSARY[5]

Basis Point: Equal to 1/100th of 1%.

Bonds: Fixed income investments representing a loan made by an investor to a borrower, such as a government or corporation.

Commodities: Basic goods used in commerce and can be traded with other types of goods. Commodities that can be traded in the public markets include energy, metals, livestock, and agriculture.

Consumer Price Index (CPI): Measures price changes for a representative basket of goods and services paid by consumers over time.

Consumer Spending: The total money spent on final goods and services by individuals and households.

Credit/Debt to GDP: Measures a country's public debt to its gross domestic product (GDP).

Diversification: The strategy of spreading investments across various asset classes to help reduce portfolio volatility over time.

Equities: Shares of stock in a company.

Federal Funds Rate: The interest rates in which a depository institution lends funds maintained at the Fed to another depository institution overnight.

Federal Reserve (Fed): The U.S. central bank was created by Congress in 1913 to provide the nation with a safer, more flexible, and more stable monetary financial system. The Fed's mandates include full employment and stable prices.[6]

Global Financial Crisis (GFC): The financial crisis of 2008, or GFC, marked a sharp decline in worldwide economic activity, triggered by the collapse of the U.S. housing market, which was fueled by low interest rates, easy credit, insufficient regulation, and toxic subprime mortgages.

Gross Domestic Product (GDP): The total market value of the goods and services produced within a country's borders in a year. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of a given country's economic health.

High Yield Bonds: Debt securities issued by companies that can provide a higher yield than investment-grade bonds, but are considered riskier investments.

Inflation: The increase in the overall price of goods and services in an economy over time.

Investment-Grade Securities: Securities with investment grade ratings that fall within the range of Aaa to Baa3 from credit rating agencies Moody's, or AAA to BBB- from Standard & Poor's. A company's securities have investment grade ratings if it has a strong capacity to meet its financial commitments.

Monetary Policy: A set of tools used by a nation's central bank to control the overall money supply and promote economic growth. These tools include changing the level of interest rates and bank-reserve requirements.

National Bureau of Economic Research (NBER): A non-profit organization that tracks economic growth and retroactively declares recession periods in the United States.

Treasuries: U.S. Treasury securities issued by the federal government and are considered to be among the safest investments, because all Treasury securities are backed by the "full faith and credit" of the U.S. government.

Volatility: A measure of price fluctuations for securities, derivatives, and market indices.

West Texas Intermediate (WTI): The benchmark crude of the U.S. oil industry.

Yield Curve: A line that plots interest rates, at a set point in time, of bonds having equal credit quality but different maturity.

1 National Bureau of Economic Research "Business Cycle Dating" https://www.nber.org/research/business-cycle-dating#:~:text=The%20NBER's%20definition%20emphasizes%20that,more%20than%20a%20few%20months.

Federal Reserve Bank of St. Louis "Is the U.S. in a Recession? What Key Economic Indicators Say" Sept. 26, 2022 https://www.stlouisfed.org/en/on-the-economy/2022/sep/us-recession-what-key-economic-indicators-say

2 Kiplinger "What is a Recession? 10 Facts You Need to Know" November 22, 2022. Congressional Research Service "Introduction to U.S. Economy: The Business Cycle and Growth" January 3, 2023

3 PIMCO and Federal Reserve Economic Data – Federal Reserve Bank of St. Louis; Federal Reserve Bank of St. Louis Economic Research, March 2023 https://research.stlouisfed.org/publications/page1-econ/2023/03/01/all-about-the-business-cycle-where-do-recessions-come-from

4 Federal Reserve Bank of St. Louis "Shares of gross domestic product: Personal Consumption Expenditures" Q1 2023 https://fred.stlouisfed.org/series/DPCERE1Q156NBEA

5 (various terms and definitions) GLOSSARY Bureau of Economic Analysis, U.S. Department of Commerce https://www.bea.gov/ ; Federal Reserve https://www.federalreserve.gov/faqs.htm ; Investopedia https://www.investopedia.com/ ; FINRA https://www.finra.org/investors/learn-to-invest/types-investments/bonds/types-of-bonds/us-treasury-securities; CME Group https://www.cmegroup.com/education/glossary.html#W

6 Board of Governors of the Federal Reserve System FAQs "What is the purpose of the Federal Reserve System?" https://www.federalreserve.gov/faqs/about_12594.htm

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Past performance is not a guarantee or a reliable indicator of future results.

Investing in the **bond market** is subject to risks, including market, interest rate, issuer, credit, inflation risk, and liquidity risk. The value of most bonds and bond strategies are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and volatile than those with shorter durations; bond prices generally fall as interest rates rise, and low interest rate environments increase this risk. Reductions in bond counterparty capacity may contribute to decreased market liquidity and increased price volatility. Bond investments may be worth more or less than the original cost when redeemed. **Commodities** contain heightened risk, including market, political, regulatory and natural conditions, and may not be appropriate for all investors. **Equities** may decline in value due to both real and perceived general market, economic and industry conditions. Investing in **foreign denominated and/or domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. **Mortgage and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and their value may fluctuate in response to the market's perception of issuer creditworthiness; while generally supported by some form of government or private guarantee there is no assurance that private guarantors will meet their obligations. **High-yield, lower-rated, securities** involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. **Diversification** does not ensure against loss.

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S&P 500 Index is an unmanaged market index generally considered representative of the stock market as a whole. The Index focuses on the large-cap segment of the U.S. equities market. The Bloomberg U.S. Corporate High-Yield Index the covers the USD-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The index excludes Emerging Markets debt. FRED, short for Federal Reserve Economic Data, is an online database of economic data time series created and maintained by the Research Department at the Federal Reserve Bank of St. Louis. It is not possible to invest directly in an unmanaged index.

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