



INVESTING IN WONKY MARKETS

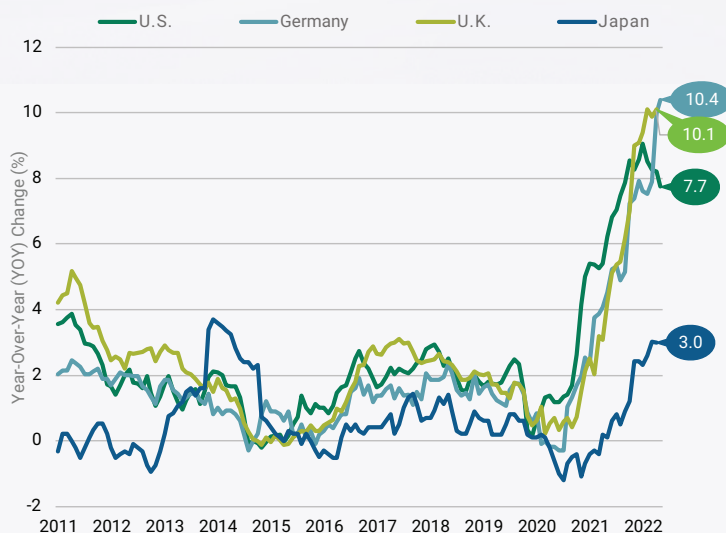
November 17, 2022

The combination of continued inflation, rising interest rates and volatility has felt atypical for investors. Though not unprecedented, it may have some wondering about long-held investing principles. Our Office Talks webcast is designed to help you make sense of what's happening, understand our investment teams' point of view and hear their outlook and ideas for what might be ahead.

WHERE WE ARE TODAY

Two strong and potentially opposing forces are the backdrop for investing right now: growth and inflation. It's been a domino effect with Inflation shocks leading to rate shocks, and rate shocks leading to growth shock. Ultimately the economy is affected.

Global Consumer Price Indices



Data from 6/30/2011 to 10/31/2022
Source: FactSet

Inflation Peaking But Remains Elevated

Overall, we believe inflation is close to or has peaked, so we don't expect it to go up significantly from here. But the real question: How quickly will it go down?

To combat inflation, the Federal Reserve (the Fed) has said it will continue to raise interest rates until they see signs that it will move down closer to its 2% target.

Some Signs Inflation is Moderating

Two indicators inflation is moderating are easing supply chain pressures and decreasing commodity prices. Economics tell us that supply and demand go hand in hand. When supply is high and demand is low, prices may decrease. When supply is low and demand is high (as we saw from COVID economic shutdowns) prices may rise.

- Recent indicators show tight shipping markets opening and trucking capacity in Europe and the U.S. increasing.
- Commodity prices have also been coming down. And even though oil prices have been volatile, they have also been coming down from the year's earlier highs.

Consumer Price Index (CPI) Core Services vs. Core Goods



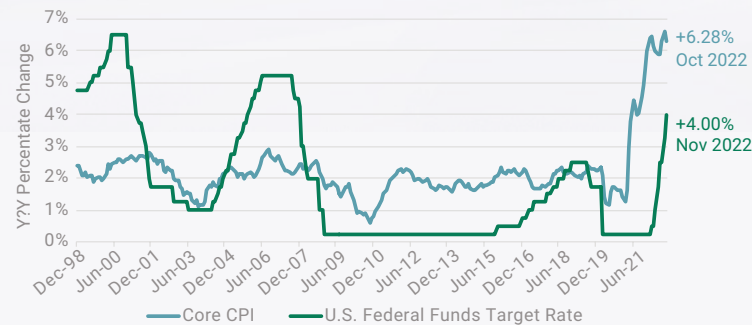
Data from 3/31/2008 to 10/31/2022
Source: Factset

Service Inflation Keeping Core Inflation High

Core goods inflation is falling from its peak but will likely remain higher than pre-pandemic levels until supply shortages are fully managed. Core services inflation tends to be slower to ease. Even though inflation is fading in some parts of the market, services inflation is likely to keep CPI elevated for an extended period. This leaves the Fed with few options but to keep raising rates

Goods are tangible things we buy.
Services are essential to public health and safety.

Inflation and Fed Funds Rate December 1998 to November 2022



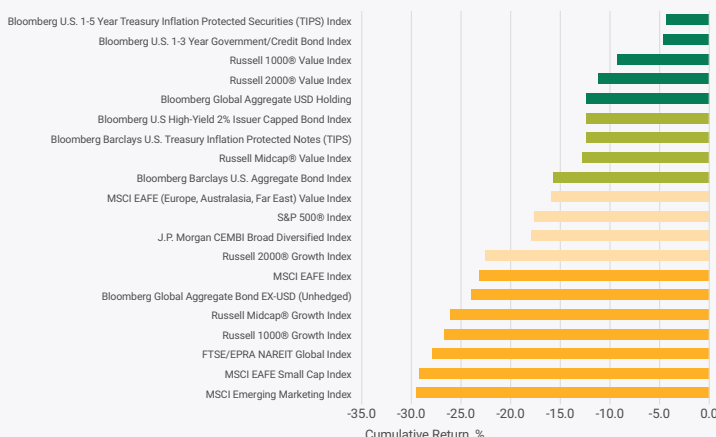
Effective Federal Funds Rate and Consumer Price Index, all items excluding food and energy for the United States (percent change from year ago).
Source: Factset, U.S. Bureau of Labor Statistics

“Sticky” Inflation Forcing the Fed to Keep Tightening

The Fed knows the risks of easing inflation too much too soon. It can result in inflation flaring up and becoming imbedded like in the 1970s. That explains their “higher for longer” stance and willingness for short-term pain to achieve long-term gain. In the meantime, we are left with uncertainty and likely losses across stock and bond markets.

The Fed’s short-term rate target may end the year at 4.25% to 4.75%.

Asset Class Benchmark Index Returns 1/1/2022 - 10/31/2022



Past performance is no guarantee of future results
Data from 1/1/2022 - 10/31/2022
Source: Factset

Uncertainty Has Resulted in Elevated Volatility & Losses

There has been little room to hide across markets year-to-date as uncertainty around rates led to losses in equities and bonds. Typically, the Fed raises rates when the economy is strong to avoid inflation. Today, we’re tightening when growth has already slowed, and inflation is already high. While it’s not very common for stocks and bonds to decline at the same time, we have seen it happen before.

Date	Bloomberg US Aggregate Index - Total Return	S&P 500 Index (1936) - Total Return	Next 12 Months Return - Bloomberg US Aggregate - Total Return	Next 12 Months Return - S&P 500 Index Total Return
03/31/77	-0.81%	-7.44%	4.37%	-4.70%
12/30/77	-0.08%	-0.13%	1.39%	6.52%
12/29/78	-1.40%	-4.95%	1.93%	18.45%
03/31/80	-8.71%	-4.07%	13.05%	39.91%
06/30/81	-0.33%	-2.29%	13.35%	-11.40%
09/30/81	-4.06%	-10.17%	35.21%	9.92%
06/29/84	-2.07%	-2.56%	29.94%	30.84%
03/30/90	-0.80%	-3.01%	12.91%	14.41%
03/31/92	-1.28%	-2.53%	13.29%	15.23%
03/31/94	-2.87%	-3.79%	4.99%	15.57%
03/31/05	-0.48%	-2.15%	2.26%	11.73%
06/30/06	-0.08%	-1.44%	6.12%	20.59%
06/30/08	-1.02%	-2.73%	6.05%	-26.21%
09/30/08	-0.49%	-8.37%	10.56%	-6.91%
03/30/18	-1.46%	-0.76%	4.48%	9.50%
03/31/22	-5.93%	-4.60%		
06/30/22	-4.69%	-16.10%		
09/30/22	-4.75%	-4.88%		
Average	-2.30%	-4.55%	10.66%	9.56%
Average 2022	-5.13%	-8.53%		

Rows in red indicate consecutive quarters where bonds and equities were down together.
Past performance is no guarantee of future results

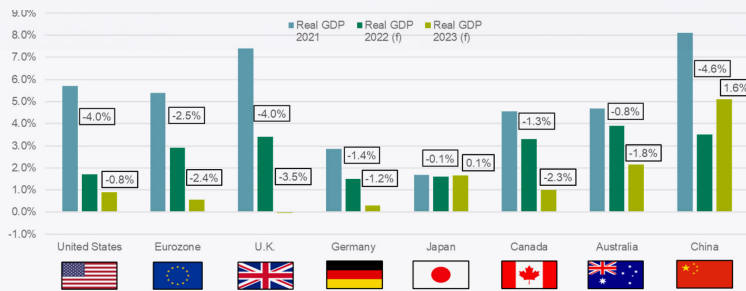
It's Rare, But Equities and Bonds Have Declined Together Before

- Stocks and bonds have been down together in 10% of quarters since 1976.
- Periods tended to be short-lived and often had positive returns in the following year.

WHERE WE'RE WATCHING

GDP Estimates Remain Positive But Continue Trending Down

2021 - 2023 GDP Growth Expectations



"f" is abbreviation for forecast. **Forecasts are not a reliable indicator of future performance.**
 Data as of 10/31/2022.
 Source: FactSet

Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific period. It is a method for measuring growth. From the chart, the key takeaway is that global growth forecasts are broadly trending down. In the U.S., the economy has slowed sharply from 5.75% GDP growth last year. Currently, consensus forecasts call for U.S. real GDP growth of 2.0% this year and 1.1% in 2023.



FIRST TO SLOW → **REACTS LAST**

Housing	New Orders	Profit	Employment
Nation Association of Home Builders (NAHB)	Consumer Confidence	Capital Goods	Payrolls
Building Permits	Consumer Spending	Industrial Production	Personal Income
Manufacturing Orders	Manufacturing Sales	Hours Worked	Core CPI

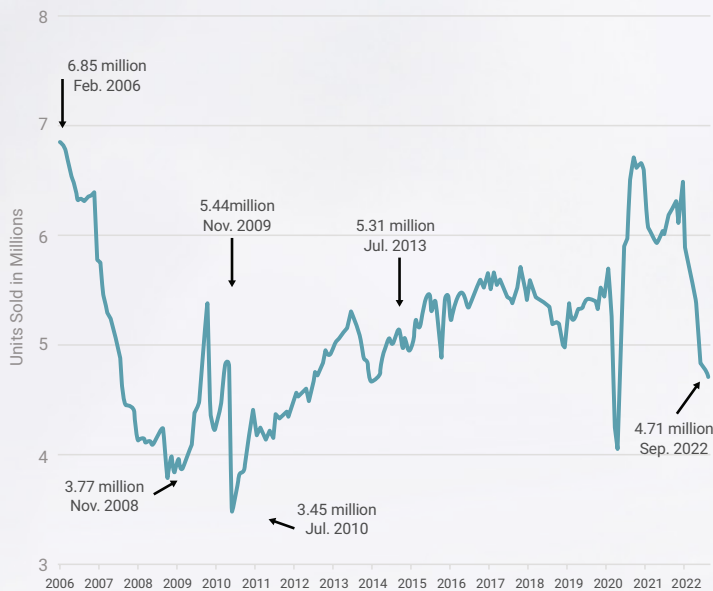
Source: Michael Kantowitz, Chief Investment Strategist, Piper Sandler & Co.

HOPE In Fed Tightening Cycle

The image highlights the relationship between the Fed tightening cycle and when we might expect to see peaks in certain economic data.

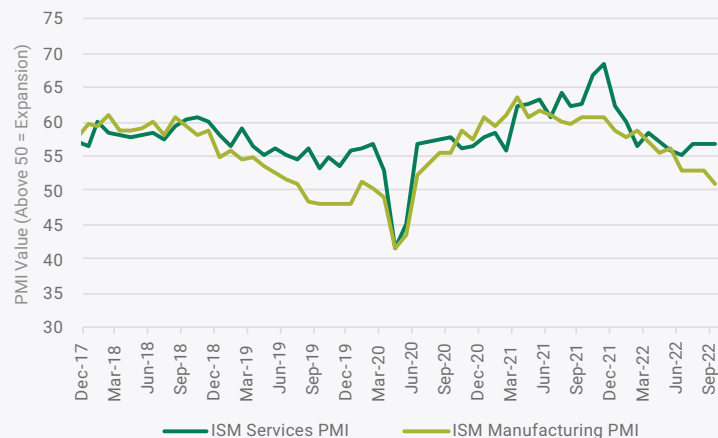
Capital Goods are physical assets a company uses to manufacture or produce products and services.

U.S. Existing Home Sales



Data from 2/28/2006 - 9/30/2022
Source: FactSet

The Institute of Supply Management (ISM) Services and Manufacturing Purchasing Managers' Index (PMI)



Data from 12/1/2017 - 10/31/2022
Source: FactSet, Institute for Supply Management (ISM)

Profits & Employment

We are in earning seasons which we believe is doing a little better than anticipated. However, a concern is how sustainable it is. Raising prices can only go so far in an inflationary environment before it affects a company's ability to sell.

For Employment, the jobs market has been solid. The number of unemployed persons per job opening is low which means companies are competing for talent and that drives wages up. Year over year, we've seen close to 5% wage growth. This is also another reason why inflation is staying elevated.

Housing and New Orders When Rates Rise

The housing sector responds to rising rates first, making it a good leading indicator for the economy. Housing downturns have started. The US Home Builders Index (NAHB) fell for the tenth straight month in October 2022 and affordability is now at its lowest level since 1989 according to the National Association of Realtors.

Housing weaknesses have been a critical part of U.S. economic recessions because of its direct relationship with consumer spending. Homeowners tend to feel more financially secure when their homes or investment portfolios increase in value. It's called the "wealth effect." Unfortunately, it also works in reverse. Fewer home sales and a negative wealth effect are some reasons why economists are reducing growth forecasts this year.

For orders, we can look at the Purchasing Manager Index (PMI) which is an economic indicator derived from monthly surveys of different companies. PMI shows a clear slowdown across manufacturing and services sectors.

PMI is also tied to confidence and how willing businesses are to invest. A decline in investment and confidence is leading to this slowdown in orders.



Source: Michael Kantowitz, Chief Investment Strategist, Piper Sandler & Co.

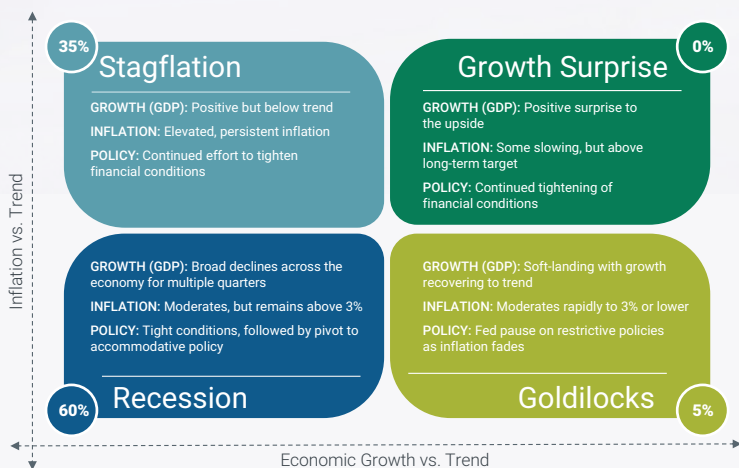
Putting HOPE together, we see:

- Declines in housing and orders, but not yet in profits or earnings.
- Employment is typically one of the last to turn. Companies generally do not lay off unless it is absolutely necessary.

What's to come? We believe we may be closer to the middle than the end of this downturn. That means more challenges are likely.

Macro Scenarios and Probabilities

There are a few different scenarios for what's ahead in the economy. When we're examining them, we consider the two key forces at play now: growth and inflation



Source: American Century Investments. Opinion as of 10/31/2022. Opinions and estimates offered constitute our judgment and along with other portfolio data, are subject to change without notice. The opinions expressed are those of American Century Investments (or the fund manager) and are no guarantee of the future performance of any American Century Investments fund.

Scenario 1: Growth Surprise - The economy takes off.

In this scenario, inflation stays high because growth is strong. The Fed would have to continue rate hikes indefinitely. We don't think it's realistic because it's the environment we had been in from April 2021 until a few months ago and we don't believe we're going back anytime soon.

Scenario 2: Goldilocks – The Fed brings down inflation.

The Fed could then pause rate hikes with growth recovering. Unfortunately, we think it's more likely that growth slows in the coming months. Housing and orders slowdowns are why.

Scenario 3: Stagflation – Continuation of current environment.

This would be a continuation of the current environment where growth is slowing, and inflation stays high (called stagflation). The Fed would be forced to continue tightening financial conditions with no pivot to easing.

Scenario 4: Recession occurs.

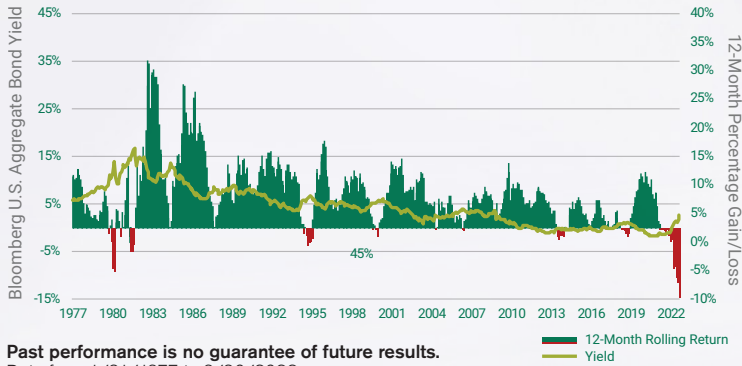
We think this is the most likely scenario over the next six months. It is NOT to say we'd experience another 2008 financial crisis recession. The economy is in a very different place. We believe it would likely be more moderate (like in the past) with growth declines for multiple quarters. Initially the Fed would have to keep financial conditions tight but eventually would pivot as growth slows and inflation cools down

Recessions sound scary but we believe staying invested through market cycles is the most effective way to build wealth over time.

HOW ARE ACTIVE PROFESSIONALS MANAGING NOW?

Bloomberg U.S. Aggregate Bond - Historical Yield and 12-Month Rolling Monthly Returns Since 1977

11.7% of the periods experienced losses (64 out of 549)

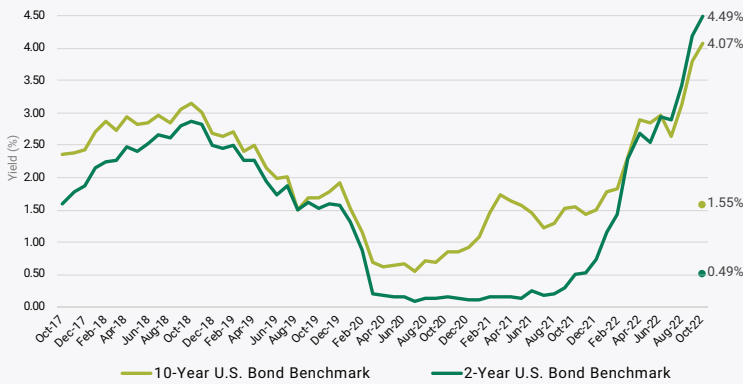


Past performance is no guarantee of future results.

Data from 1/31/1977 to 9/30/2022

Source: FactSet

U.S. Treasury Yields



Data Points represent yields one year ago

Data from 1/31/2017 to 10/31/2022

Source: FactSet

Our View: Not the Time to Give Up on Bonds

Even though bonds have declined this year, their performance tends to be positive after periods of price weakness (price moves opposite yield).

Our View: Attractive Income Opportunities

10-year US Government Treasuries are seeing 4% yield today compared to ~1.5% just a year ago.

The Fed's policy shift results in higher income potential for bonds.

This is important because higher income can drive higher total returns over the long term.

Looking forward, we don't expect to see rates go much higher than they are currently. If rates start to go down, prices would go up, which would benefit investors.

It's also important to remember that investing in a bond fund is different than buying a single bond.

A bond fund will reinvest the coupon payments and maturing securities in its portfolio at the new, higher rate, so the fund will typically reflect the increase in prevailing yields faster than many investors realize.

Equities in Past Recessionary Environments

Many associate “recession” with the 2008 crisis and rightfully so. But a recession now may not be severe given there are no “excesses” like in the dot com bubble. Remember we also went into a recession for a short time at the outset of the COVID crisis. That often fades from memory since markets rebounded quickly. Every recession is different, and sectors have recovered at different rates.

Peak Month	Through Month	Month in Contraction	Average Monthly Market Return
January 1980	July 1980	6	1.21%
July 1981	November 1982	16	0.46%
July 1990	March 1991	8	0.93%
March 2001	November 2001	8	-0.03%
December 2007	June 2009	18	-2.26%
February 2020	April 2020	2	-0.40%

Past performance is no guarantee of future results.

Data from 11/1/1973 - 4/30/2020, as measured by the Russell 3000 Index.

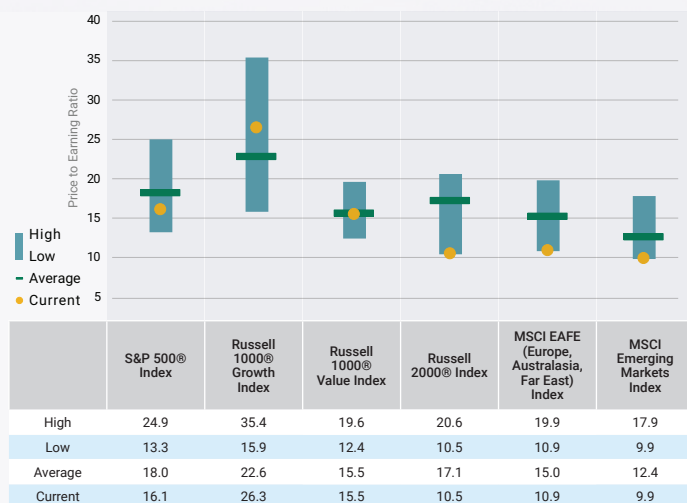
Source: FactSet, NBER

U.S. business cycle expansions and contraction data from the National Bureau of Economic Research. The Russell 3000® Index measures performance of the 3,000 largest publicly held companies

Historically, the largest losses have tended to happen early in the recession period and different sectors recover at different rates. There may be opportunities within these cycles if investors are able to take a more active approach and sell-offs might create an attractive entry point for investors with long-term horizons.

Current Price to Earnings vs. 10-Year High, Low and 10-Year Average

Next 12-Month Data as of 9/30/2022



Past performance is no guarantee of future results.

Data as of 9/30/2022

Source: FactSet

Current Valuations May Present Opportunities

The blue bar represents the range in valuations; the green line represents the average valuation over the past 10 years and the yellow dot is where we are now.

The S&P 500® Index is trading at 16 times earnings, which is much closer to its historical average than in the last 12 months. Growth stocks have come down from their highs but are still trading slightly above their 10-year average. Historically there has been more downside risk in stocks if a recession is imminent. However, for investors with long-term horizons, there are some areas where valuations are looking more interesting, including small cap stocks, international stocks and emerging markets.

Performance by size segments over last 16 recessions

Recession		% Return 1-Year After		
Oct. 1926	Nov. 1927	36.6	43.0	41.7
Aug. 1929	Mar. 1933	214.2	161.0	83.8
May. 1937	Jun. 1938	-4.5	-0.9	1.0
Feb. 1945	Oct. 1945	-4.6	-2.8	-5.3
Nov. 1948	Oct. 1949	33.9	27.5	28.1
Jul. 1953	May. 1954	46.6	40.0	34.5
Aug. 1957	Apr. 1958	56.1	49.3	37.4
Apr. 1960	Feb. 1961	11.1	12.4	13.3
Dec. 1969	Nov. 1970	16.2	18.7	11.5
Nov. 1973	Mar. 1975	47.3	40.8	26.0
Jan. 1980	Jul. 1980	26.5	23.1	11.8
Jul. 1981	Nov. 1982	33.0	30.1	22.0
Jul. 1990	Mar. 1991	23.1	19.2	11.2
Mar. 2001	Nov. 2001	-11.0	-10.3	-16.3
Dec. 2007	Jun. 2009	26.2	25.7	13.1
Feb. 2020	May. 2020	77.0	56.2	41.0
Average (%)		39.2	33.3	22.2

Past performance is no guarantee of future results.

Data from October 1926 – May 2020

Source: Center for Research in Security Prices (CRSP), The University of Chicago Booth School; Jefferies

Large cap represented by S&P 500 Index. Mid caps represented by CRSP 3-5 decile index from 1926 to 2011; CRSP mid cap index from 2012 to present. Small caps represented by CRSP 6-8 decile index from 1926 to 2011; CRSP Small Cap index from 2012 to present.

Small Cap Stocks Have Generally Outperformed Post-Recessions

Small caps tend to outperform halfway through a recession. Longer term, small caps are set to benefit from trends like reshoring (bringing back manufacturing and services to the U.S. from overseas). There may also be opportunities outside the U.S.

Even with a prospect of recession on the horizon, there are opportunities in every market environment.

Investing in a Recessionary Environment

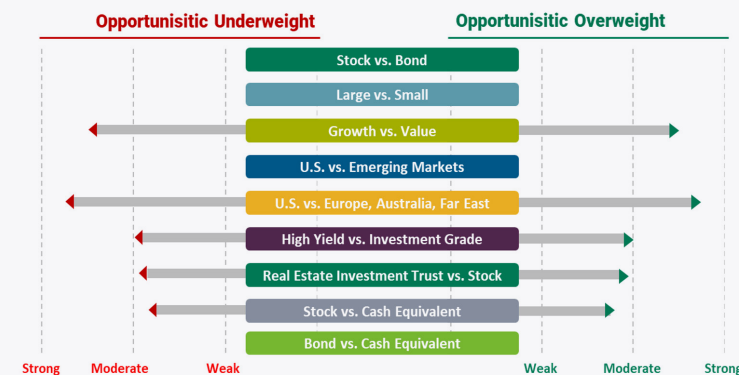
In a recession, we expect some sectors to perform better than others.

Within Bonds Consider:

- + Longer duration strategies
- + Higher-quality credit
- + Maintain some inflation protection

Within Stocks Consider:

- + Quality stocks in defensive sectors – utilities, health care, consumer staples
- + Secular earnings growers with competitive advantages
- Commodity-linked assets, except for gold
- Real estate equities



Current view of market as of 10/6/2022

Within our portfolios, we are making the following adjustments:

- Overweighting Value relative to Growth
- Underweight U.S. Stocks vis-à-vis Non-U.S. Equities
- Underweight High-Yield Credit
- Underweighting Real Estate Investment Trusts (REITs)
- Overweight Cash relative to Stocks
- Overweight Inflation Protection in Fixed Income Allocations

WHERE TO FOCUS THIS QUARTER

Develop a Plan

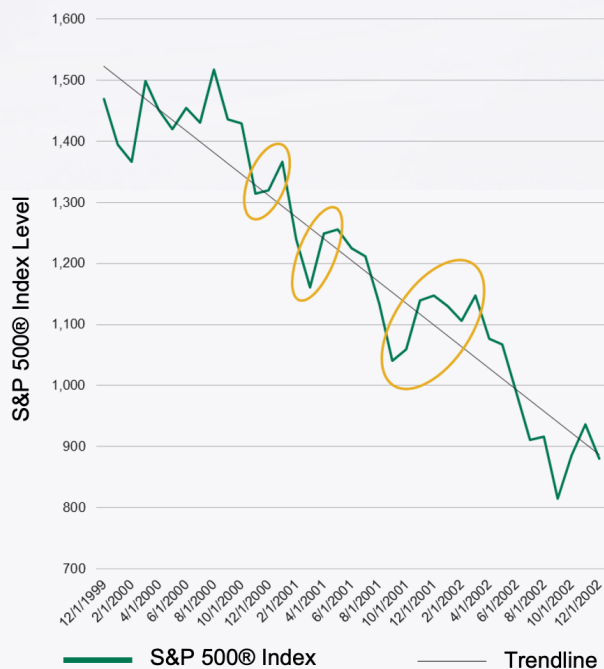
One of the most important steps is to create a roadmap for your future. Having a plan can help investors keep emotions in check when making important financial decisions. A plan also:

- Allows you to develop long- and short-term goals which may help you avoid making kneejerk reactions.
- Is not set in stone; it can be changed when your needs do.
- Can keep your focus on what matters most.

Market Returns Have Rarely Followed a Straight Line

Sustained Downtrend

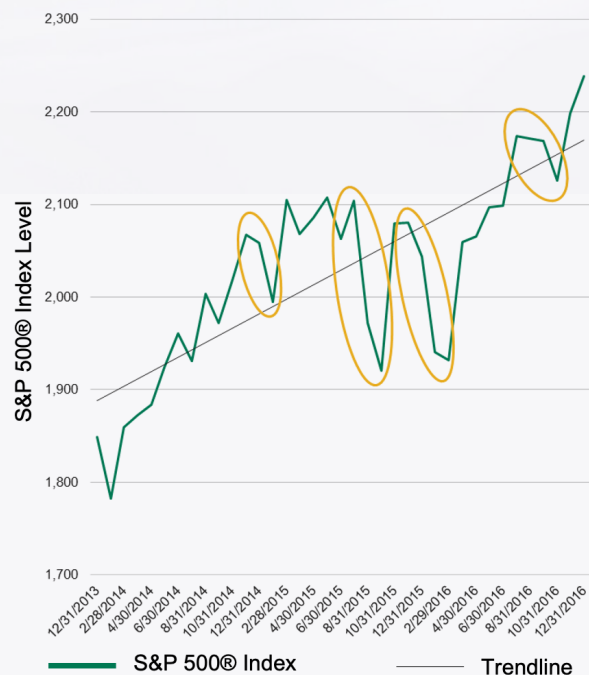
December 1999 - December 2002
Countertrend Moves: 3



Past performance is no guarantee of future results.
Data from 12/31/1999 to 12/31/2002
Source: FactSet

Sustained Uptrend

December 2013 - December 2016
Countertrend Moves: 4



Past performance is no guarantee of future results.
Data from 12/31/2013 to 12/31/2016
Source: FactSet

Markets will move up and down and rarely follow a straight line. Trying to time them is generally not advised, especially when you consider what the chart shows. Rather than focus on short-term market moves, focus on long-term investing targets and the underlying fundamentals within the economy.

Percentage of Time an Investment Increased in Value per Holding Period
 Bloomberg U.S. Aggregate Bond Monthly Rolling Investment Periods Since 1976.



	1 Year	2 Years	3 Years	4 Years	5 Years
Total Holding Periods	540	528	516	504	492
Gain Periods	494	516	512	504	492
Loss Periods	46	12	4	0	0

Keep a Longer-Term Perspective

Keeping a long-term approach is important for both stocks and bonds. The chart shows the percentage of time investors have historically seen positive returns from U.S. investment-grade bonds. Since 1976, investors profited in over 91% of one-year periods. In the same time frame, there was not a period longer than four years where investors lost money.

Source: FactSet, Bloomberg. Data as of 12/31/2021. The index does not reflect fees, brokerage commissions, taxes or other expenses of investing. Investors cannot invest directly in an index.

Past performance is no guarantee of future results.

For Everyone: Diversification Matters

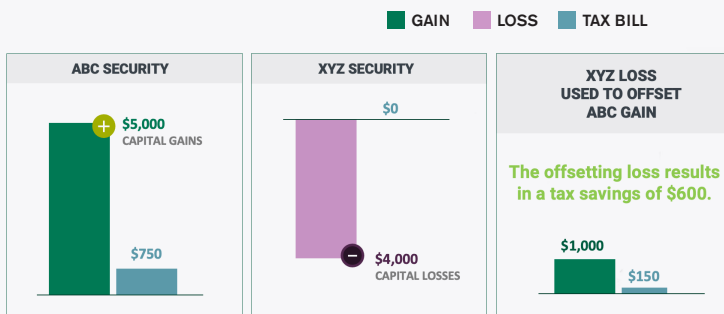
Unfortunately, there is no crystal ball that tells us what to expect in the future. This is why having a diversified portfolio is important. A diversified portfolio allows investors to avoid placing all their eggs in one basket, with the idea of having some assets pursuing market upside in good times, while other assets help manage volatility during down times.

Opportunities in Down Markets

Not every result from a market downturn is bad. It can provide opportunities. Following are a few potential ones.

Tax Loss Harvesting

While there are several factors to consider, tax loss harvesting can provide a few advantages such as helping rebalance a portfolio and lowering capital gains and income. Please speak with your financial and tax professionals for guidance.



Source: American Century Investments

This example assumes a capital gains tax rate of 15 percent. This rate varies by filing status and income.

This hypothetical situation contains assumptions that are intended for illustrative purposes only and are not representative of the performance of any security. There is no assurance similar results can be achieved, and this information should not be relied upon as a specific recommendation to buy or sell securities.

Long- and short-term capital gains are taxed at different rates. Long-term gains may only be offset by longer-term losses.

Likewise, short-term gains may only be offset by short-term losses.

Roth Conversion

Roth conversions are taxable events. Weigh the pros and cons before making a move.

There can be potential long-term benefits such as not having to take a required minimum distribution (RMD) from the account and potentially keeping you from a higher income tax bracket in the future. Earnings are tax-free and so are withdrawals in a Roth IRA.



Please consult your tax advisor for more detailed information regarding Roth IRA or for advice regarding your individual situation.

Taxes are deferred until withdrawal if the requirements are met. A 10% penalty may be imposed for withdrawal prior to reaching age 59 1/2.

Potential long-term benefits

- Shelter future dollars from Required Minimum Distribution (RMD)
- Potential for tax-free earnings for yourself or inheritance
- Opportunity to avoid higher tax brackets in the future

Considerations

- Taxable Event
- Age
- Time Horizon

What Can You Do Right Now?

1. Work with your advisor to:
 - Explore and consider inflation-fighting investments
 - Understand strategies for rising interest rates
 - Manage volatility in your portfolio
2. Take time for portfolio review with a financial consultant – Talk about why diversification matters and if you have the right mix in your portfolio.
3. Ask Questions. Be engaged in discussions about your financial health.
4. For those still working, take advantage of employer matches.

Are You Ready for
Today's Real Challenges?
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Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost. Past performance is no guarantee of future results.

Diversification does not assure a profit, nor does it protect against loss of principal.

Generally, as interest rates rise, the value of the securities held in the fund will decline. The opposite is true when interest rates decline.

Rebalancing allows you to keep your asset allocation in line with your goals. It does not guarantee investment returns and does not eliminate risk.

International investing involves special risks, such as political instability and currency fluctuations. Investing in emerging markets may accentuate these risks.

Historically, small cap stocks [and mid cap] have been more volatile than the stock of larger, more-established companies. Smaller companies may have limited resources, product lines and markets, and their securities may trade less frequently and in more limited volumes than the securities of larger companies.

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IRA investment earnings are not taxed. Depending on the type of IRA and certain other factors, these earnings, as well as the original contributions, may be taxed at your ordinary income tax rate upon withdrawal. A 10% penalty may be imposed for early withdrawal before age 59 ½.

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DEFINITIONS

Asset Classes

Morningstar Large-Blend Category funds are representative of the overall U.S. stock market in size, growth rates, and price. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate.

Morningstar Diversified Emerging Markets Category includes portfolios that tend to divide their assets among 20 or more nations, although they tend to focus on the emerging markets of Asia and Latin America rather than on those of the Middle East, Africa, or Europe. These portfolios invest at least 70% of total assets in equities and invest at least 50% of stock assets in emerging markets.

Treasury Inflation Protection Securities (TIPS) are a special type of U.S. Treasury security designed to address a fundamental, long-standing fixed-income market issue: that the fixed interest payments and principal values at maturity of most fixed-income securities don't adjust for inflation. TIPS interest payments and principal values do. The adjustments include upward or downward changes to both principal and coupon interest based on inflation. TIPS are inflation-indexed; that is, tied to the U.S. government's Consumer Price Index (CPI). At maturity, TIPS are guaranteed by the U.S. government to return at least their initial \$1,000 principal value, or that principal value adjusted for inflation, whichever amount is greater. In addition, as their principal values are adjusted for inflation, their interest payments also adjust.

Treasury yield is the yield of a Treasury security (most often refers to U.S. Treasury securities issued by the U.S. government). For bonds and other fixed-income securities, yield is a rate of return on those securities.

Individual Commodities

West Texas Intermediate (WTI) crude oil is a specific grade of crude oil and one of the main three benchmarks in oil pricing.

Risks

Inflation Risk is the possibility of investments not keeping pace with inflation. It may impact reaching your goals—even when the rate is relatively low.

Market Risk is when economic events cause the value of investments to drop.

Indices

Bloomberg Barclays U.S. Aggregate Bond Index covers the USD-denominated, investment-grade, fixed-rate, taxable bond market. The index includes government and corporate securities, mortgage-backed securities, and asset-backed securities, with maturities of at least one year.

Bloomberg Barclays U.S. Treasury Inflation Protected Notes (TIPS) consists of Treasury inflation-protected securities issued by the U.S. Treasury with a remaining maturity of one year or more.

Bloomberg Commodity Index is part of Bloomberg's financial benchmarks designed to provide liquid and diversified exposure to physical commodities via futures contracts. It is calculated on an excess return basis and reflects commodity futures price movements.

Bloomberg Global Aggregate Bond EX-USD (Unhedged) is a broad-based measure of the global investment-grade fixed income markets, excluding U.S. dollar-denominated securities. The three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian government, agency and corporate securities.

Bloomberg Global Aggregate Bond Index (USD, Hedged) is a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian government, agency and corporate securities, and USD investment grade 144A securities.

Bloomberg U.S. 1-3 Year Government/Credit Bond Index is a component of the U.S. Government/Credit Bond Index, which includes Treasury and agency securities (U.S. Government Bond Index) and publicly issued U.S. corporate and foreign debentures and secured notes (U.S. Credit Bond Index). The bonds in the index are investment-grade with a maturity between one and three years.

Bloomberg U.S. 1-5 Year Treasury Inflation Protected Securities (TIPS) Index consists of inflation-protected securities issued by the U.S. Treasury with maturities between one and five years.

Bloomberg U.S. High-Yield 2% Issuer Capped Bond Index is a component of the Bloomberg U.S. Corporate High-Yield Bond Index, which covers the universe of fixed-rate, non-investment grade corporate debt of issuers in non-emerging market countries. It is not market capitalization-weighted--each issuer is capped at 2% of the index.

The CRSP US Mid Cap Index targets inclusion of the U.S. companies that fall between the top 70%-85% of investable market capitalization. The index was first available on the NASDAQ GIDSSM (Global Index Data ServiceSM) feed on August 15, 2011.

The CRSP US Small Cap Index includes U.S. companies that fall between the bottom 2%-15% of the investable market capitalization. There is no lower limit in market capitalization, other than what is specified by investability screens. The total return index was first available on the NASDAQ GIDSSM (Global Index Data ServiceSM) feed on December 31, 2012; the price return index was first available on August 15, 2011.

CRSP Cap-Based Portfolio (Decile) Indices are a monthly series based on portfolios that are rebalanced quarterly. The universe includes all common stocks listed on the NYSE, NYSE MKT, and NASDAQ Global and Global Select Markets (NASDAQ National Market prior to July 2006). Individual decile portfolios are created for each exchange group, the largest being in decile 1 and the smallest in decile 10. The returns of the combined portfolios are the value-weighted returns of the relevant deciles.

CRSP U.S. Total Market Index represents nearly 100% of the U.S. investable equity market and includes nearly 4,000 companies across mega, large, small and micro capitalizations.

Dollar Index measures the value of the dollar against six world currencies—Euro, Swiss Franc, Japanese Yen, Canadian dollar, British pound, and Swedish Krona.

FTSE EPRA/NAREIT Global Index is designed to track the performance of listed real estate companies and REITs in both developed and emerging markets.

ICE BofA U.S. Corporate Index tracks the performance of U.S. dollar-denominated investment-grade corporate debt publicly issued in the U.S.

iShares Core High Dividend ETF seeks to track the investment results of an index composed of relatively high dividend-paying U.S. equities.

Institute for Supply Management (ISM) Manufacturing Index is published on a monthly basis and surveys more than 300 manufacturing firms on employment, production, new orders, supplier deliveries, and inventories. A composite diffusion index of national manufacturing conditions is constructed, where readings above (below) 50 percent indicate an expanding (contracting) manufacturing sector.

J.P. Morgan CEMBI Broad Diversified Index is a global, liquid corporate emerging markets benchmark that tracks U.S.-denominated corporate bonds issued by emerging markets entities.

MSCI EAFE (Europe Australasia, Far East) Index measures developed market equity performance, excluding the U.S. and Canada.

MSCI EAFE Small Cap is a market capitalization-weighted index that is designed to measure developed market equity performance of small cap stocks, excluding the U.S. and Canada.

MSCI EAFE Value Index is a market capitalization-weighted index that monitors the performance of value stocks from Europe, Australasia, and the Far East.

MSCI Europe Value Index measures large- and mid-cap securities exhibiting overall value style characteristics across the 15 Developed Markets (DM) in Europe.

MSCI Emerging Markets Net Return measures the performance of stocks in global emerging market countries.

MSCI U.S. Real Estate Net Return broadly and fairly represents the equity Real Estate Investment Trust (REIT) opportunity set with proper screens to ensure that the index is investable and replicable. The index represents approximately 85% of the U.S. REIT universe.

MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

MSCI World ex-USA Small Cap Index captures small cap representation across developed markets countries (excluding the United States), covering approximately 14% of the free float-adjusted market capitalization in each country.

MSCI Europe ex-UK Small Cap Index captures small cap representation across 14 Developed Markets (DM) countries in Europe, excluding the United Kingdom.

MSCI UK Small Cap Index measures the performance of the small cap segment of the equity market in the United Kingdom.

MSCI Emerging Markets Small Cap includes small cap representation across 25 Emerging Markets' countries.

MSCI Japan Small Cap Index measures the performance of the small cap segment of the Japanese market.

MSCI Pacific ex-Japan Small Cap Index captures small cap representation across four of five developed markets (DM) countries in the Pacific region--excluding Japan.

Purchasing Managers Index (PMI) measures dominant economic trends in manufacturing. It is based on a monthly survey of supply chain managers across 19 industries, covering both upstream and downstream activity.

Russell 1000® Growth Index measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 1000® Value Index measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell 2000® Index is a market-capitalization weighted index created by Frank Russell Company to measure the performance of the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization.

Russell 2000® Total Return measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index, representing approximately 10% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

Russell 2000® Growth Index measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 2000® Value Index measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell Midcap® Growth Index measures the performance of those Russell Midcap Index companies (the 800 smallest of the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell Midcap® Value Index measures the performance of those Russell Midcap Index companies (the 800 smallest of the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell Midcap® Total Return measures the performance of the 800 smallest of the 1,000 largest publicly traded U.S. companies, based on total market capitalization

S&P CoreLogic Case-Shiller Home Price Indices provide measures for the U.S. residential housing market, tracking changes in the value of residential real estate both nationally and in 20 metropolitan statistical areas. Calculated quarterly, the S&P CoreLogic Case-Shiller U.S. National Home Price Index is a composite of single-family home price indices for the nine divisions of the U.S. Census divisions.

Other

Atlanta Fed's Wage Growth Tracker is a measure of the nominal wage growth of individuals.

Consumer Price Index (CPI) is the most commonly used statistic to measure inflation in the U.S. economy. Sometimes referred to as headline CPI, it reflects price changes from the consumer's perspective. It's a U.S. government (Bureau of Labor Statistics) index derived from detailed consumer spending information. Changes in CPI measure price changes in a market basket of consumer goods and services such as gas, food, clothing, and cars. Core CPI excludes food and energy prices, which tend to be volatile.

Derivatives are securities whose performance and/or structure is derived from the performance and/or structure of other assets, interest rates, or indexes.

Duration is an important indicator of potential price volatility and interest rate risk in fixed income investments. It measures the price sensitivity of a fixed income investment to changes in interest rates. The longer the duration, the more a fixed income investment's price will change when interest rates change. Duration also reflects the effect caused by receiving fixed income cash flows sooner instead of later. Fixed income investments structured to potentially pay more to investors earlier (such as high-yield, mortgage, and callable securities) typically have shorter durations than those that return most of their capital at maturity (such as zero-coupon or low-yielding noncallable Treasury securities), assuming that they have similar maturities.

Federal funds rate (aka fed funds rate) The federal funds rate is an overnight interest rate banks charge each other for loans. More specifically, it's the interest rate charged by banks with excess reserves at a Federal Reserve district bank to banks needing overnight loans to meet reserve requirements. It's an interest rate that's mentioned frequently within the context of the Federal Reserve's interest rate policies.

Global Innovation Index (GII) tracks the most recent global innovation trends against the background of the COVID-19 pandemic.

Global Supply Chain Pressure Index (GSCPI) integrates commonly used metrics to provide a more comprehensive summary of potential disruptions affecting global supply chains. These indicators include the Baltic Dry Index (BDI) (which measures the cost of shipping goods worldwide), the Harpex Index (measuring container shipping rates) and price indices that measure the cost of air transportation of freight to and from the US. As published by the U.S. Bureau of Labor Statistics.

Gross Domestic Product (GDP) is a measure of the total economic output in goods and services for an economy. Real GDP is adjusted for inflation.

ISM New Orders Index shows the number of new orders from customers of manufacturing firms reported by a survey of respondents compared to the previous month.

ISM Services and Manufacturing Purchasing Manager Index represents business sentiment about the economy by showing trends in both manufacturing and service sectors.

National Federation of Independent Business (NFIB) Small Business Price Plans (adv. 12 months) provides price changes and planned changes by small businesses.

National Homebuilders of America (NAHB) Index is based on a monthly survey of home builders who rate current sales of single-family homes and sales expectations for the next six months and to rate traffic of prospective buyers.

Next Twelve Months (NTM) refers to financial measures such as revenue or net income that is being forecasted for the immediate next twelve months from the current date. It is used when a company's performance is cyclical, and valuations may not represent the potential value of a business. NTM is a forward multiple that provides a picture of what the company is projecting to achieve.

Price to earnings ratio (P/E) the price of a stock divided by its annual earnings per share. These earnings can be historical (the most recent 12 months) or forward-looking (an estimate of the next 12 months). A P/E ratio allows analysts to compare stocks on the basis of how much an investor is paying (in terms of price) for a dollar of recent or expected earnings. Higher P/E ratios imply that a stock's earnings are valued more highly, usually on the basis of higher expected earnings growth in the future or higher quality of earnings.

Revisions Earnings occur when analysts adjust a company's consensus earnings estimates (a combined estimate by all analysts covering the stock). They can be upgraded or downgraded.

U.S. Treasury securities are debt securities issued by the U.S. Treasury and backed by the direct "full faith and credit" pledge of the U.S. government. Treasury securities include bills (maturing in one year or less), notes (maturing in two to 10 years) and bonds (maturing in more than 10 years). They are generally considered among the highest quality and most liquid securities in the world.