Harbor

Harbor Investment Themes Q4 2022

At Harbor we curate investment managers, solutions, and insights. Harbor's Multi-Asset Solutions Team's (MAST) theme guide seeks to address your clients' needs and explore solutions for your portfolio construction efforts.

Proper Recession in 2023

Theme 1 of 3

Market Environment

With the Federal Reserve nearing the end of their hiking cycle, leading indicators are pointing to a growth contraction. However, with high inflation and an unyielding labor market, the lessons of the 1970s could prevent the Fed from adjusting course before it's too late. The likelihood of a recession is high and our base case for 2023. Our Business Cycle Index is now in Contraction and leading indicators including Purchasing Managers Indexes (PMIs), lending standards, the yield curve, money supply and housing corroborate this signal. We believe it's not whether the unemployment rate will increase but when and by how much.

Bonds to Diversify Once More

Theme 2 of 3

Market Environment

We expect duration to perform well over 2023 as upside risk is limited alongside attractive yields. As the year unfolds, we expect the curve to steepen as front-end rates decline in either a soft-landing or a recession scenario. We believe inflation is past its peak, and we expect the correlation between stocks and bonds to decrease from extremely elevated levels. We saw bear markets for both bonds and equities in 2022. We expect diversification to increase as markets price in recession risk and the hiking cycle ends.

Corporate Earnings Are Poised to Fall

Theme 3 of 3

Market Environment

Financial conditions have tightened meaningfully over the past 12 months and the lagged effects of monetary policy will likely be felt in corporate profits over 2023. Our U.S. Business Cycle Indicator leads realized earnings growth by six months and indicates further weakness ahead. Forward earnings expectations still look optimistic. We expect earnings to fall further as margin assumptions are re-priced throughout the year. Our forward EPS (Earnings Per Share) growth, or estimate of a company's next period's earnings, model indicates that forward earnings should be down ~10% from their June 2022 peak by the end of the first half of 2023.

[1]Source: FactSet, October 2022

Proper Recession in 2023

With the Federal Reserve nearing what we believe is the end of their hiking cycle, leading indicators are pointing to a growth contraction. However, with high inflation and an unyielding labor market, the lessons of the 1970s could likely prevent the Fed from adjusting course before it's too late. The likelihood of a recession is high and our base case for 2023.

Our Business Cycle Index is now in Contraction and leading indicators including PMIs, lending standards, the yield curve, money supply and housing corroborate this signal. We believe it's not whether the unemployment rate will increase but when and by how much. We believe inflation is past its peak, but elevated service sector prices and high wages make for an uncertain terminal inflation rate in 2023. Risk management suggests the Fed will keep policy tight, despite the disinflationary trends in goods, rental indices, and commodities.

Positioning

Theme 1 of 3

Multi-Asset Solutions Team Positioning

- Underweight to equities; within equities, an overweight to quality/defensive sectors such as utilities and healthcare.
- Overweight to core fixed income, favoring high quality investment grade corporate bonds and mortgage-backed securities over treasuries.

Client Challenge:

Weathering equity volatility & avoiding market timing

Investment Options:

Lower beta, a measure of volatility or systematic risk, strategies with improved down capture ratios, or statistical measures of a manager's overall performance in down-markets, seek to provide a smoother ride

Client Challenge:

Taking advantage of more attractive Fixed Income Yields while not sacrificing credit quality

Investment Options:

Core options focused on issuer fundamentals, with a quality bias

Domestic Equity

Harbor Dividend Growth Leaders ETF (NYSE: GDIV)

Harbor Small Cap Value Fund (HASCX)

Harbor Small Cap Growth Fund (HASGX)

International & Global Equity

Harbor International Fund (HAINX)

Harbor Diversified International All Cap Fund (HAIDX)

Fixed Income

Harbor Core Bond Fund (HACBX)

Harbor Core Plus Fund (HABDX)

Bonds to Diversify Once More

We believe clear signs that inflation is waning could deliver positive returns to fixed income in 2023. And while more inflation surprises may be in store, we think the hiking cycle ends in Q1 '23 before a prolonged stay at 5%. The end of the hiking cycle comes with elevated recession risk so investors must be nimble when positioning on the curve. We think a barbell approach is best as the back-end of the curve can hedge against a more severe slowdown, while the front-end can offer high income with low duration risk. Whether it's a soft-landing or a recession in 2023, we expect the curve to steepen over the second half of the year.

Positioning

Theme 2 of 3

Multi-Asset Solutions Team Positioning

- Overweight to core fixed income, favoring high quality investment grade corporate bonds and mortgage-backed securities over Treasuries.
- Overweight to gold as falling real rates should support "non yielding currencies" aka gold and other precious metals.

Client Challenge: Sourcing diversifiers to risk assets in a recession **Investment Options:** Core options focused on issuer fundamentals, with a quality bias	**Client Challenge:** Sourcing diversifiers to risk assets in a recession **Investment Options:** Broad commodities strategies with meaningful precious metals exposure.
Fixed Income	**Commodities**
Harbor Core Bond Fund (HACBX) Harbor Core Plus Fund (HABDX)	Harbor All-Weather Inflation Focus ETF (NYSE: HGER)

[2]Source: Harbor's Multi-Asset Solutions Team, October 2022

[3]Source: FOMC, September 2022

Corporate Earnings Are Poised to Fall

- Our baseline expectation remains an acute growth slowdown in 2023, which comes from tightening financial conditions, labor market weakness, and subsequent headwinds to economic momentum. With this backdrop – along with global growth headwinds and somewhat sticky input costs – we continue to believe that the next phase of this cycle will consist of earnings downgrades as analysts reset expectations to the current environment. Earnings scenarios in past recessions have varied widely depending on the pervasiveness and persistence of the economic downturn; however, historical earnings over the last 8 recessions going back to the late 60s average earnings declines of ~20%. We assume an EPS (earnings per share) decline of at least 10% in 2023.

Positioning

Theme 3 of 3

Multi-Asset Solutions Team Positioning

- Underweight to equities; within equities, an overweight to quality/defensive sectors such as utilities and healthcare.
- Underweight to value due to the cyclicality of earnings in a recession.

Client Challenge:

Staying Invested and uncovering opportunities when others are fearful

Investment Options:

Active growth strategies with sustainable (less cyclical) earnings growth in a recession and more attractive valuations (long-term) vs a year ago

Domestic Equity	International & Global Equity
Harbor Capital Appreciation Fund (HACAX) Harbor Long-Term Growers ETF (NYSE: WINN)	Harbor International Compounders ETF (NYSE: OSEA)

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Important Information

The views expressed herein are those of the Harbor Investment Team at the time the comments were made. They may not be reflective of their current opinions, are subject to change without prior notice, and should not be considered investment advice. The information provided is for informational purposes only.

Past performance is no guarantee of future results.

Investors should carefully consider the investment objectives, risks, charges and expenses of a fund before investing. A summary prospectus or prospectus for this and other information is available at harborcapital.com or by calling 800-422-1050. Read it carefully before investing.

Investing involves risk, principal loss is possible. Unlike mutual funds, ETFs may trade at a premium or discount to their net asset value. The ETFs are new and have limited operating history to judge.

Shares are bought and sold at market price not net asset value (NAV). Market price returns are based upon the closing composite market price and do not represent the returns you would receive if you traded shares at other times.

Stock markets are volatile and equity values can decline significantly in response to adverse issuer, political, regulatory, market and economic conditions. Investing in **international and emerging markets** poses special risks, including potentially greater price volatility due to social, political and economic factors, as well as currency exchange rate fluctuations. These risks are more severe for securities of issuers in emerging market regions. **Fixed income** investments are affected by interest rate changes and the creditworthiness of the issues held. As interest rates rise, the values of fixed income securities are likely to decrease and reduce the value of the security. **High-yield** investing poses additional credit risk related to lower-rated bonds. Although **inflation protected** securities seek to provide inflation protection, their prices may decline when interest rates rise and vice versa. **Mortgage- and asset-backed securitie**s 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. **Commodities Risk** – The value of commodities investments will generally be affected by overall market movements and factors specific to a particular industry or commodity including weather, embargoes, tariffs, or health, political, international and regulatory developments.

Diversification does not assure a profit or protect against loss in a declining market.

Please refer to each Funds prospectus for additional risks associated with each Fund.

Harbor MAST BCI Index aggregates leading economic indicators across different sectors of the economy (i.e., industrial/manufacturing, consumption, housing, financial conditions, etc.) to generate economic regimes based on the probability of a recession in the forward 12-month period.

Harbor MAST BCI Index Sources: Harbor MAST, Bloomberg, Institute of Supply Management, Federal Reserve, Bureau of Labor Statistics, Commodity Research Bureau, National Federation of Independent Business (NFIB), Caixin, European Commission, Japan Machine Tool Builder's Association, Association of American Railroads, American Iron and Steel Institute, Department of Labor, Conference Board, University of Michigan, Redbook Research, National Association of Homebuilders, Mortgage Bankers Association.

Important Information

The Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors. The purpose of the PMI is to provide information about current and future business conditions.

Duration is a commonly used measure of the sensitivity of the price of a debt security, or the aggregate market value of a portfolio of debt securities, to change in interest rates.

Beta is a measure of systematic risk, or the sensitivity of a fund to movements in the benchmark. A beta of 1 implies that the expected movement of a fund's return would match that of the benchmark used to measure beta.

Down capture is a statistical measure of an investment manager's overall performance in down-markets.

Harbor MAST BCI and Rate of Change Index Sources: Harbor MAST, Bloomberg, Institute of Supply Management, Federal Reserve, Bureau of Labor Statistics, Commodity Research Bureau, National Federation of Independent Business (NFIB), Caixin, European Commission, Japan Machine Tool Builder's Association, Association of American Railroads, American Iron and Steel Institute, Department of Labor, Conference Board, University of Michigan, Redbook Research, National Association of Homebuilders, Mortgage Bankers Association.

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