Miller Howard
INVESTMENTS

Embracing Uncertainty

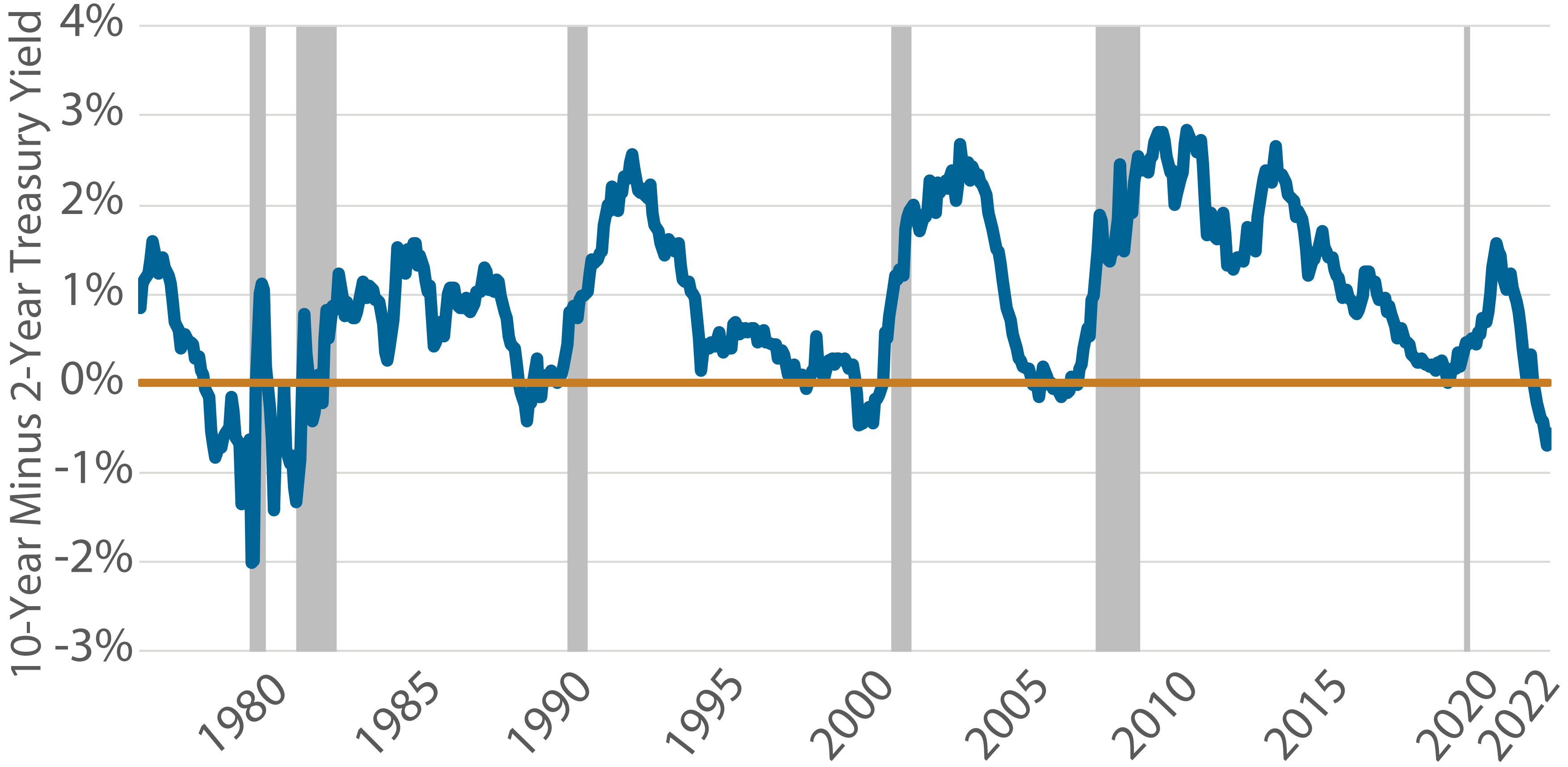
QUARTERLY REPORT 4Q 2022

Flip on any TV business program, and you are likely to hear a stock market debate that is tightly linked to forecasts of the future. The typical setup is an optimist versus a pessimist, with the debate focusing on inflation, the Federal Reserve, economic growth, and so on. Each proponent makes a forecast and then follows with investment advice that is tightly linked to their outlook. Adding a third debater who shrugs his or her shoulders when asked for a forecast would make for terrible TV, but in our minds, that would be a useful addition to the debate. Embracing uncertainty leads investors away from portfolios tailor-made for specific scenarios and towards solutions that control risk and offer likely returns, even in volatile times.

Of course, there are times when tilting a portfolio towards a forecast can make sense. An easy example is positioning for a recovery in a recession once small bits of good news—green shoots—start to emerge. Any successful investor can point to past wins based on an accurate forecast. It is a fallacy, however, to assume that all, or even most, points in time offer that type of opportunity. In particular, we view the current market outlook to be the most uncertain in memory.

The case for an impending recession is easy to make. The bond market is in a dour mood, with the yield curve more inverted than it has been in the last 40 years. At quarter end, the two-year Treasury was yielding 4.4% while the 10-year Treasury only yielded 3.9%. Typically, investors demand a higher interest rate for longer duration bonds to compensate for potentially missing out on more attractive investments that may develop. It is astounding that investors would be willing to tie up their money for 10 years for an annual return of merely 3.9%. This is well below inflation as well as the 10.3% average rolling 10-year return for equities *(see our 1Q 2022 Quarterly Report)*. Pessimism from the bond market is loud and clear.

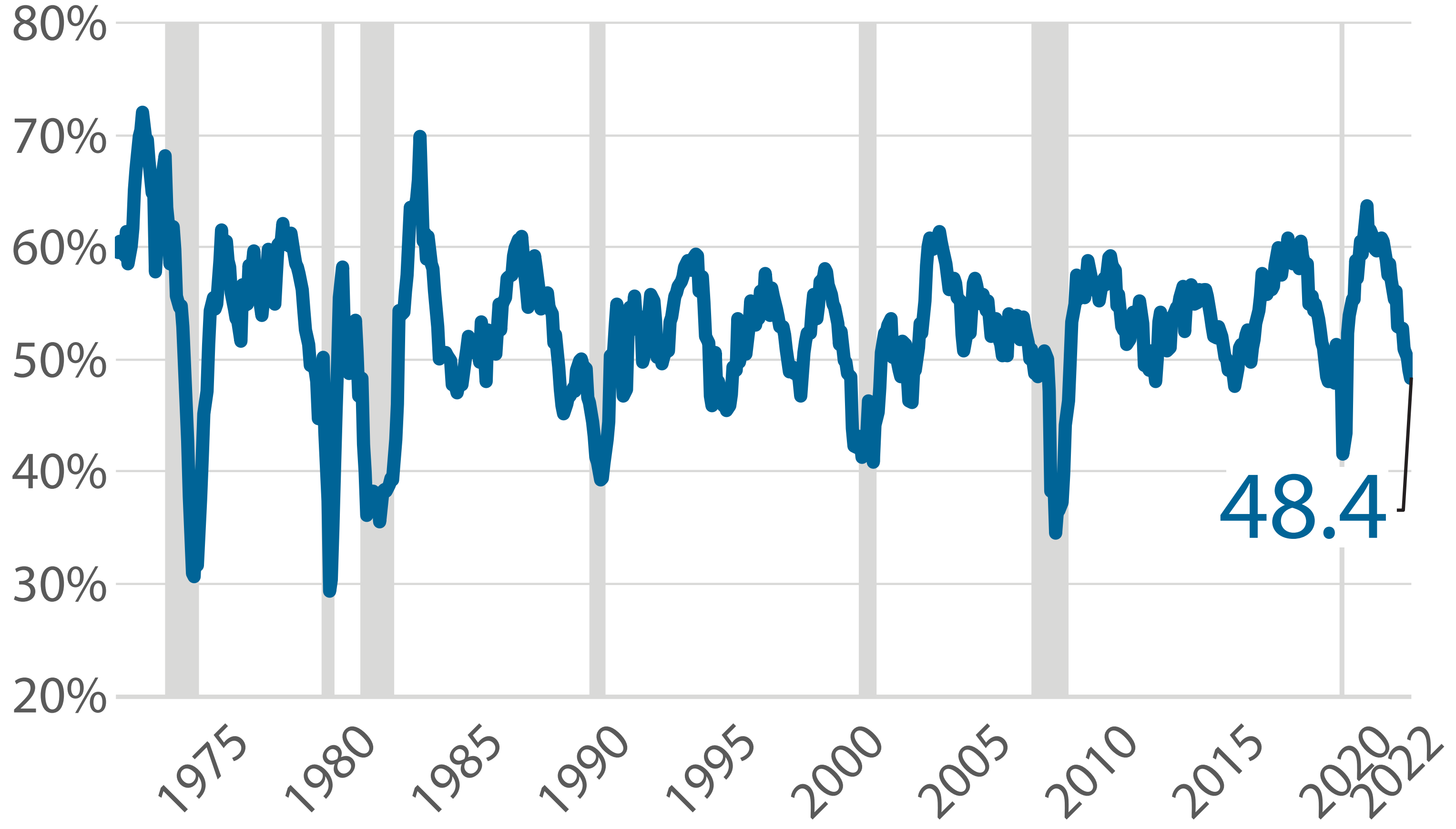
Yield Curve Has Inverted



Data as of December 31, 2022. Sources: Federal Reserve Bank of St. Louis; Miller/Howard Research & Analysis. Based on the difference in yields between the 10-Year Treasury constant maturity and the 2-Year Treasury constant maturity, monthly, not seasonally adjusted. Grey lines indicate recessionary periods.

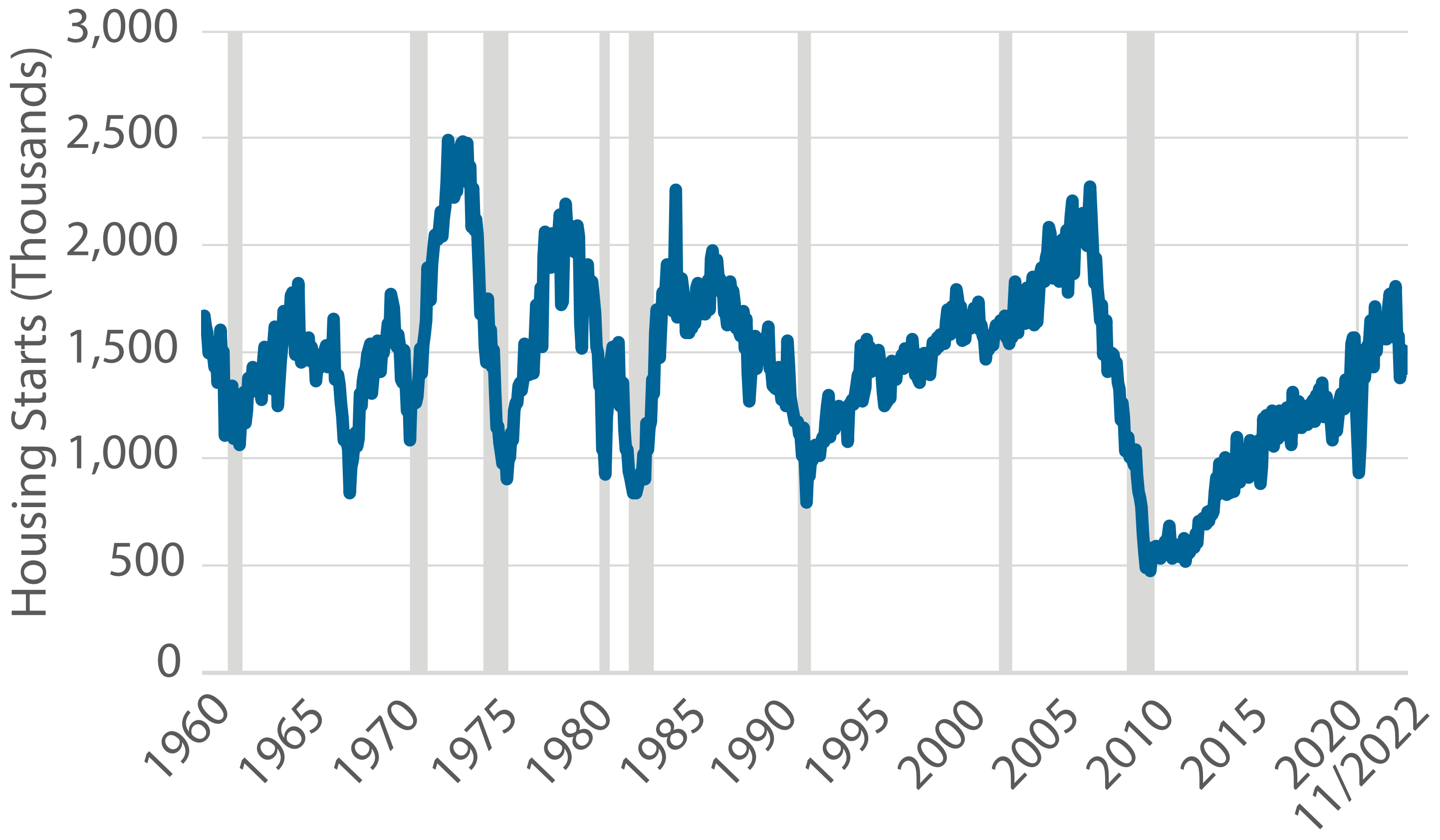
Bond investors are not the only ones seeing troubled times ahead. Many corporate executives are noticing a slowdown in business activity. This trend is best reflected by the ISM Manufacturing Purchasing Managers Index which has been dropping since March 31, 2022. Historically, drops in the Manufacturing PMI have frequently led or coincided with recessions.

Purchasing Managers' Index Turns Negative



As of December 31, 2022.
Sources: Bloomberg; Federal Reserve Bank of St. Louis.
A Manufacturing PMI® reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally declining. A Manufacturing PMI® above 48.7 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 48.7 percent, it is generally declining. The distance from 50 percent or 48.7 percent is indicative of the extent of the expansion or decline. Grey lines indicate recessionary periods.

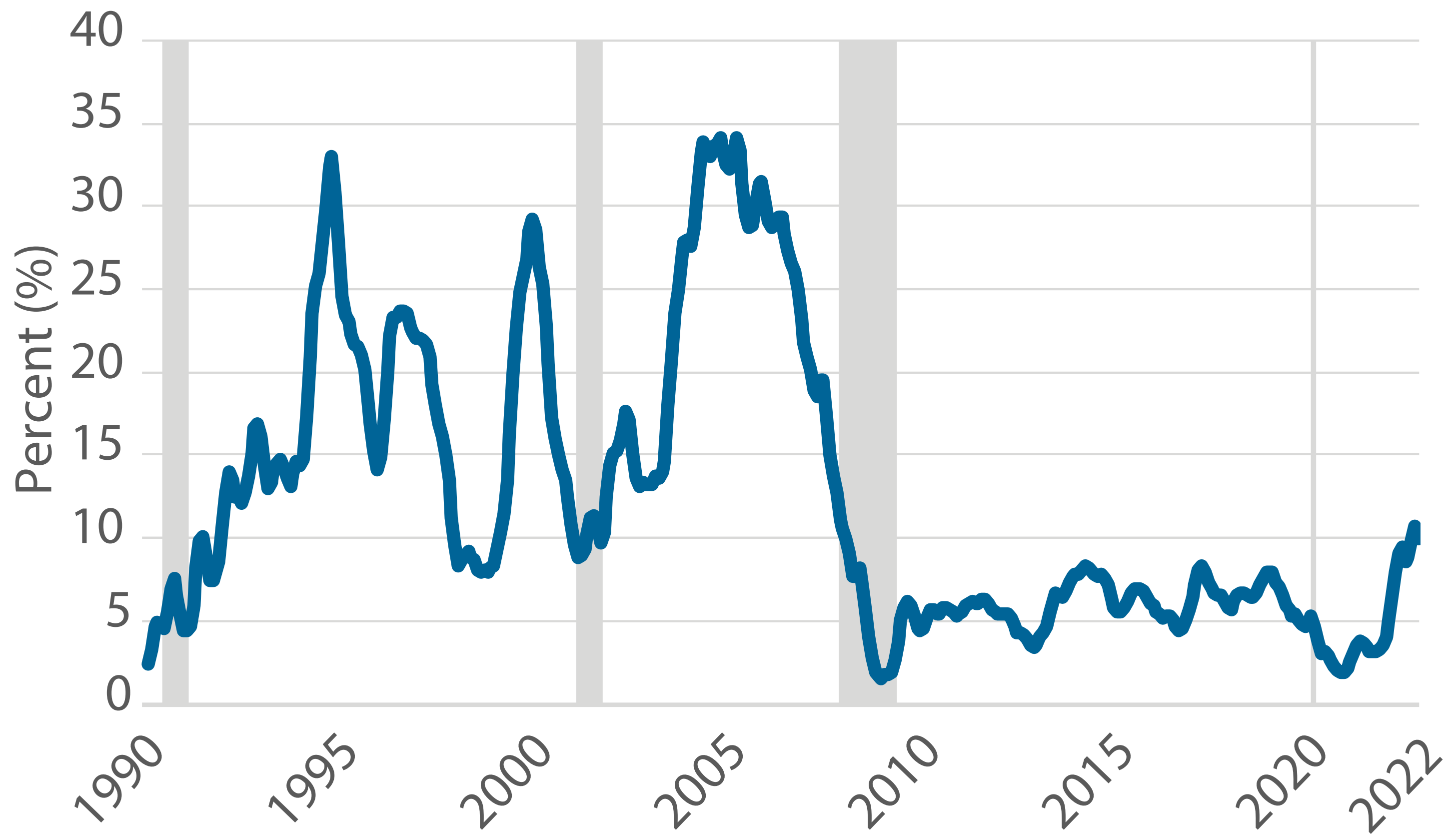
New Housing Starts Rolling Over



As of November 30, 2022. Sources: Federal Reserve Bank of St. Louis Economic Data; Miller/Howard Research & Analysis. New privately-owned housing units started, seasonally adjusted annual rate. Grey lines indicate recessionary periods.

The primary reason executives and economists alike are expecting a recession is the Fed's increase in interest rates. In our view, whether higher rates will tip the economy into a recession is far from certain. Higher rates primarily impact the economy through the housing sector. New home starts did decline, beginning in May 2022, shortly after the Fed began raising rates. New home construction averages less than 2% of GDP, making the sector important but probably not big enough to pull the whole economy into recession. The real question is whether the rest of the economy is sensitive enough to higher interest rates to push economic growth into negative territory.

Adjustable-Rate Mortgages Not Popular Post-2008



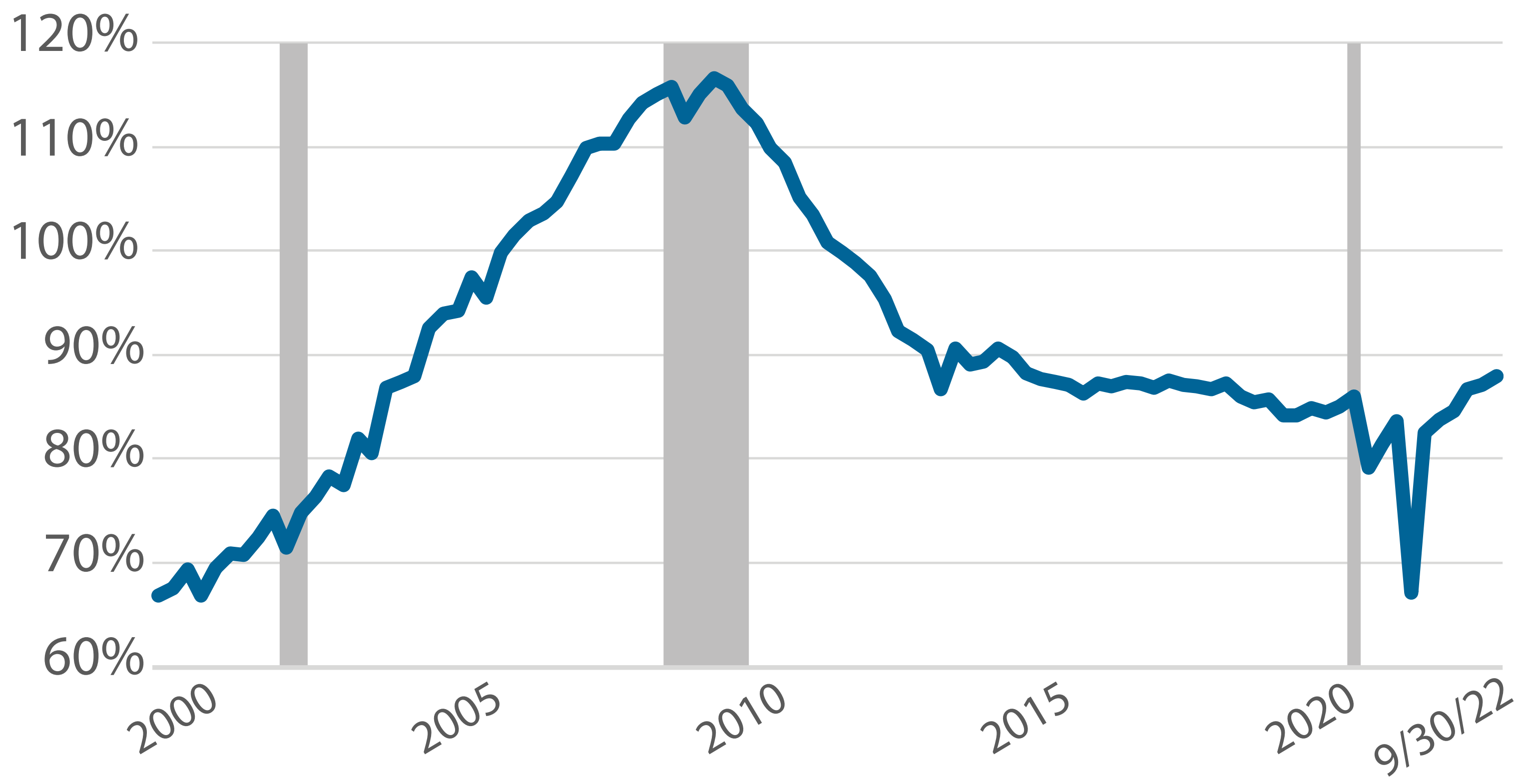
As of December 31, 2022. Sources: Mortgage Bankers Association. Adjustable-rate mortgage (ARM) share of number of loan applications, percent of 3-month average. Grey lines indicate recessionary periods.

One major change from the 2008-2009 recession is that adjustable-rate mortgages are much less common. As the housing bubble peaked in 2006, roughly one-third of new mortgage applications were adjustable-rate.

In the years post-2009, the vast majority of homeowners have a fixed-rate mortgage, with a rate well below prevailing mortgage rates. The incentive is to stay put. Unless unemployment truly jumps up, it appears that the current situation should not lead to the foreclosures we saw post-2008.

In addition to holding more fixed-rate debt than in 2008, overall, the consumer is also much less leveraged. In 2008, consumers, in aggregate, held debt equal to 115% of disposable income; whereas, now debt has dropped to less than 90% of disposable income. Cash on consumer balance sheets is also strong. During the heart of the pandemic, consumers received stimulus checks and simultaneously were unable to spend on a number of services such as travel. As a result, consumers accumulated a record amount of cash, even accounting for inflation. These excess cash balances have run off a bit but are still very high by historical standards, currently averaging about $24,000 (household per capita). High cash balances combined with low debt means the typical consumer is not stretched—a very different situation relative to 2008.

Consumer Debt Low Relative to Disposable Income

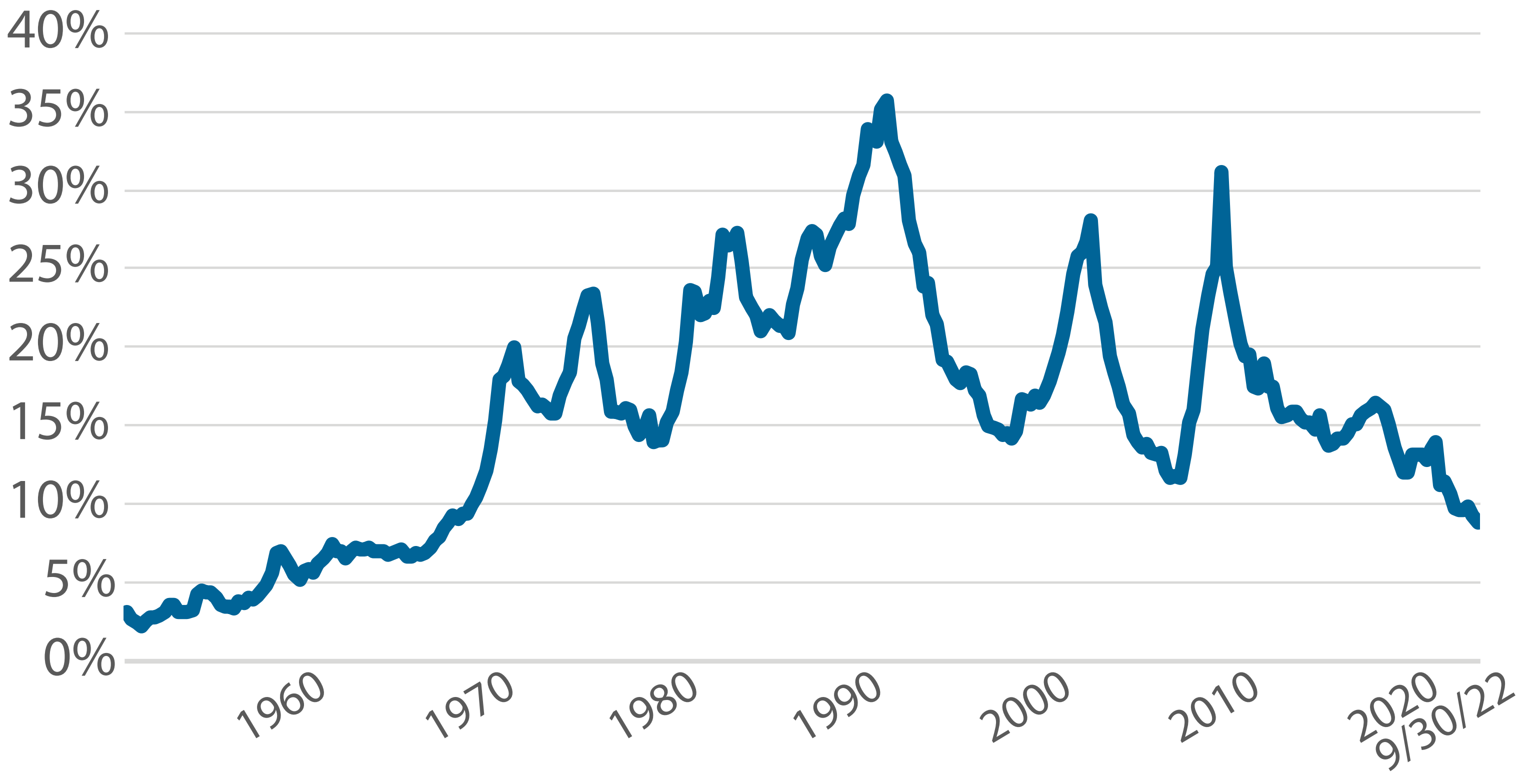


As of September 30, 2022. Sources: Federal Reserve; Bloomberg.
Based on total consumer debt as a percentage of disposable personal income.
Grey lines indicate recessionary periods.

In aggregate, the same is true for the business sector. Currently, the outstanding principal on corporate bonds is roughly twice bank debt. That's important because bonds are virtually all fixed-rate while bank debt tends to be floating-rate. The predominance of bonds means that corporate debt is mostly fixed. Most corporate debt is well-termed out, so the impact of higher rates will take years to play out. On top of that, corporate leverage is low relative to history, making it hard to see how higher interest rates will lead to recession-inducing stress.

The Corporate Debt Burden is Light

Interest expense as a % of operating income for nonfinancial corporations

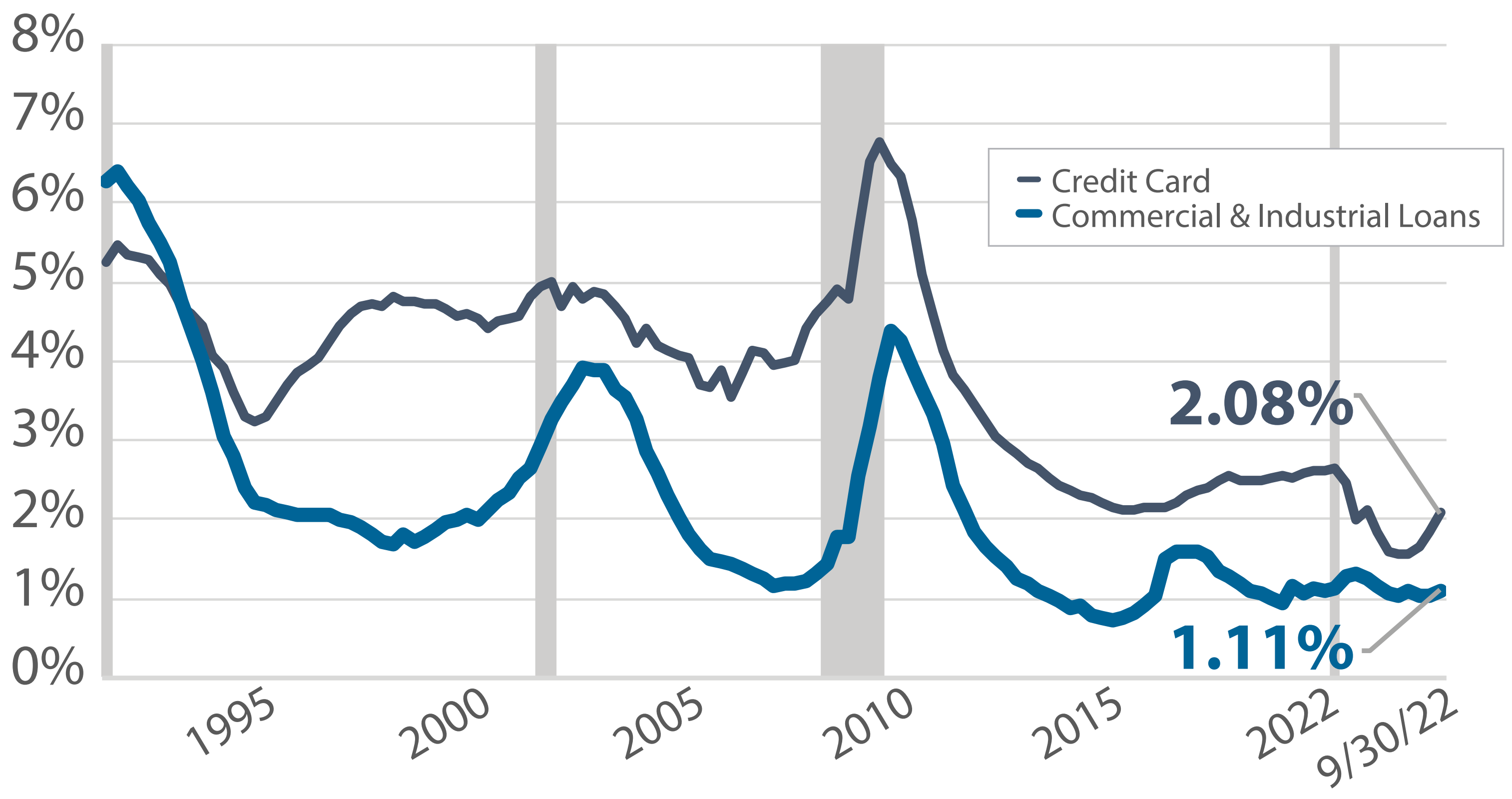


As of September 30, 2022. Sources: Bureau of Economic Analysis (BEA); Miller/Howard Research & Analysis. See definitions below.

Net operating income is categorized as net operating surplus by BEA. The definition of net operating surplus by BEA is a profits-like measure that shows business income after subtracting the costs of compensation of employees (received), taxes on production and imports less subsidies, and consumption of fixed capital (CFC) from value added, but before subtracting financing costs and business transfer payments. Consists of the net operating surplus of private enterprises and the current surplus of government enterprises.

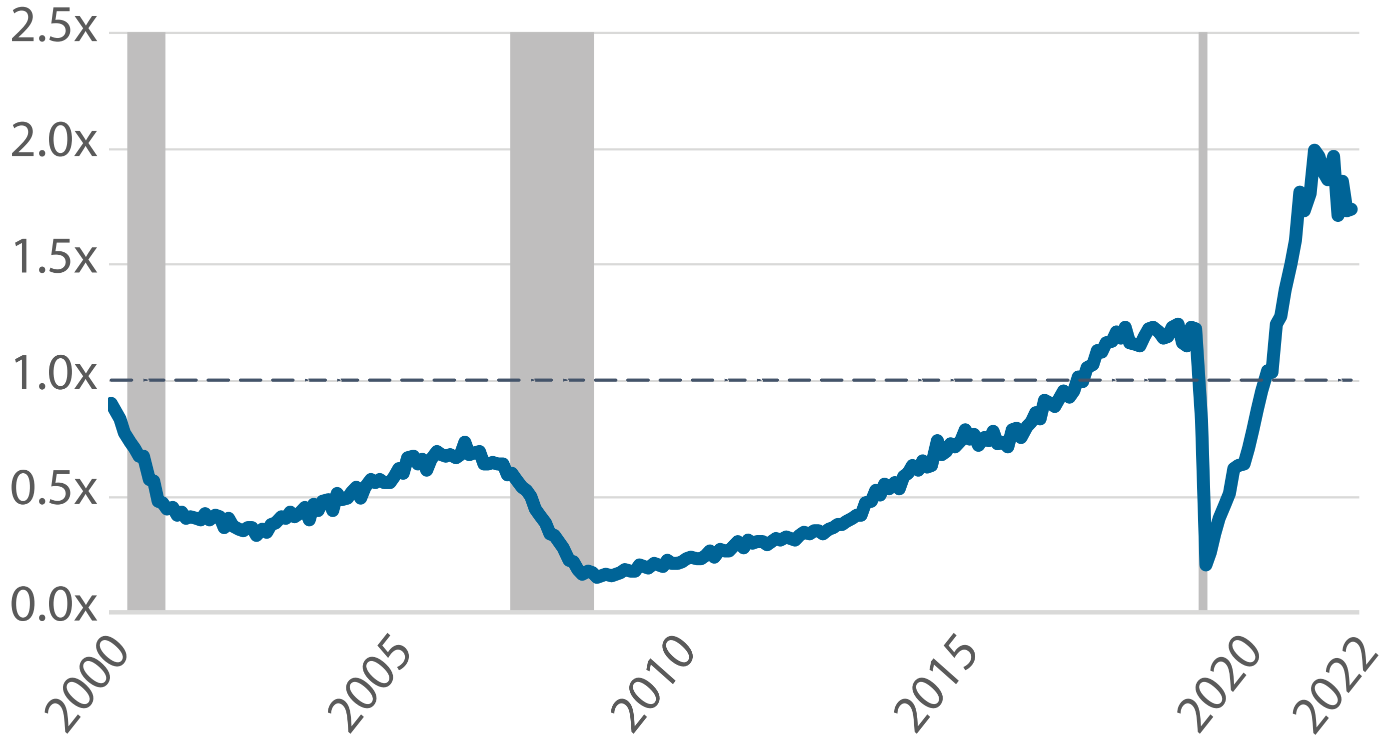
The earliest sign of credit distress is usually seen in delinquency data. Delinquencies have slightly risen on consumer credit card debt but are still very low relative to history. Delinquencies on commercial and industrial bank loans are very low, with no discernable uptick.

Low Delinquency Rates for Consumers & Businesses



As of September 30, 2022. Source: Federal Reserve.
Grey lines indicate recessionary periods.

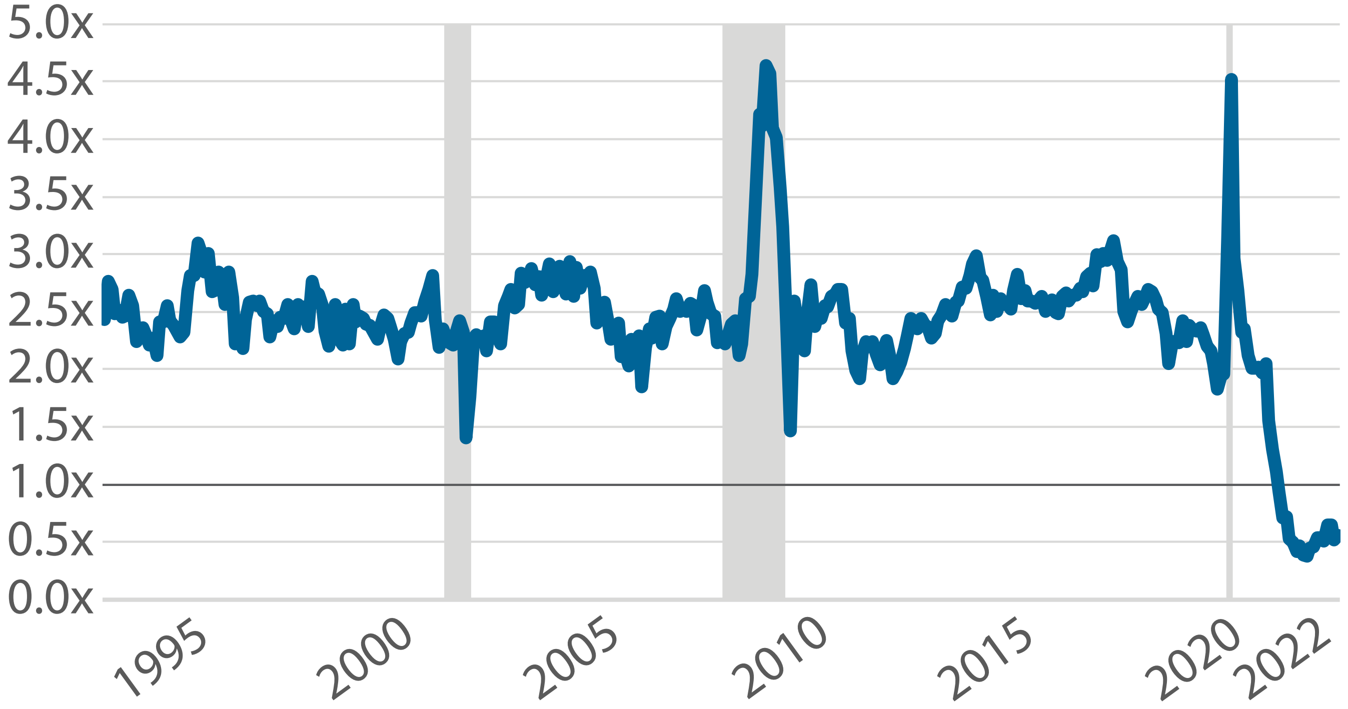
Job Openings Exceed Number of Unemployed



As of November 30, 2022. Source: Bloomberg. Based on the ratio of job openings relative to unemployment. Grey lines indicate recessionary periods.
Job openings is measured using the US Job Openings By Industry Total SA. This concept tracks the number of specific job openings in an economy. Job vacancies generally include either newly created or unoccupied positions (or those that are about to become vacant) where an employer is taking specific actions to fill these positions.
Unemployed workers is measured using US Unemployment Unemployed Workers Total in Labor Force. Unemployment measures the number of people who are without work (not in paid employment or self-employed), currently available for work and seeking work (taking specific steps to find work).

Pessimists argue that the current strength of the labor market is a lagging indicator—higher interest rates have always acted as a brake on economic activity. Saying, "It's different this time." can elicit eye rolls, but the pandemic had a very unique impact on the economy. The labor market is a prime example of this impact. Since we began collecting job vacancy data, we have never seen more job openings than unemployed people until now. The baby boomer generation worked longer than previous generations, but then decided in large numbers to retire during the pandemic. Combined with lower immigration, labor supply is tight, making it easy to find a new job. The Fed would like to see the job market cool, but it appears much of the tightness is a structural legacy from the pandemic.

Auto Dealers Short on Inventory



As of November 30, 2022. Source: Federal Reserve Bank of St. Louis. Monthly, seasonally adjusted. Based on the ratio of auto inventories relative to sales. Grey lines indicate recessionary periods.

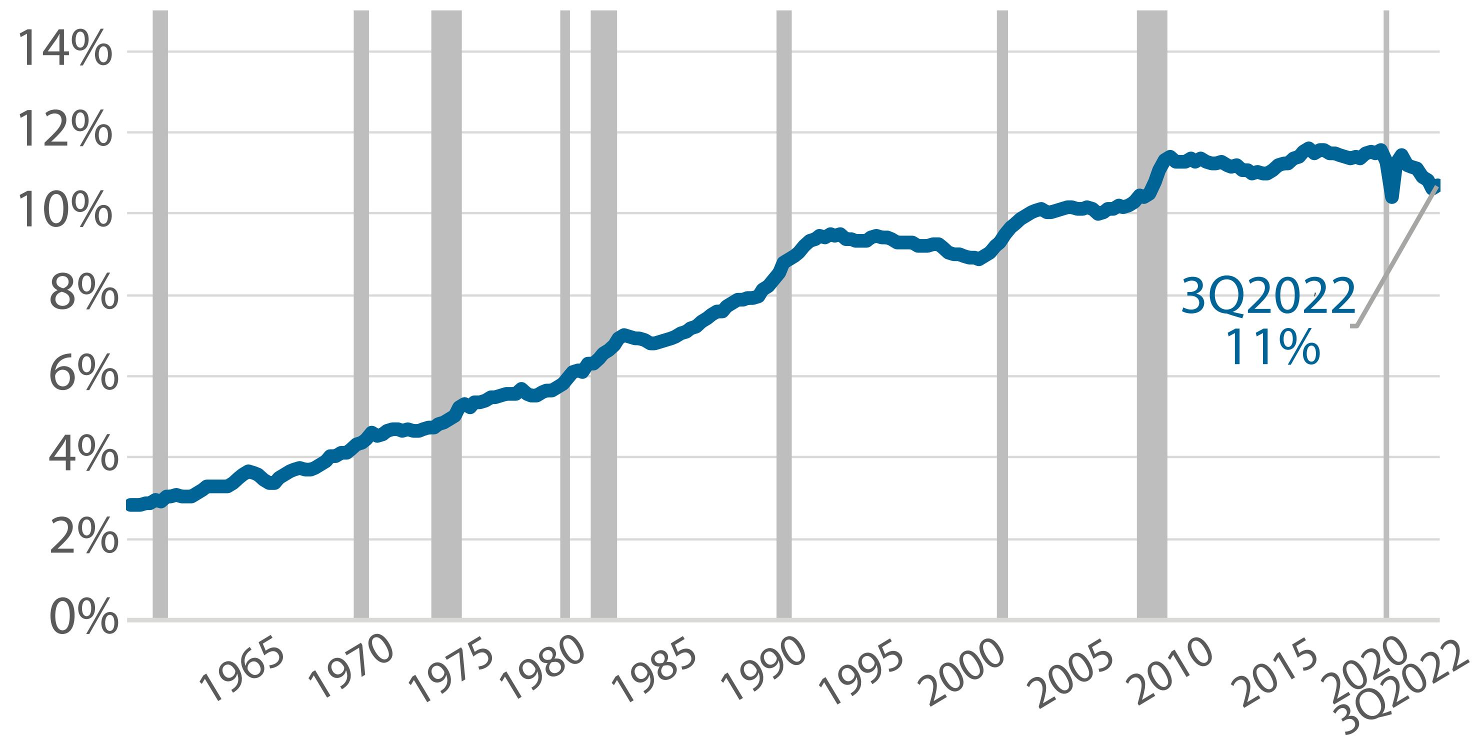
Job openings is measured using the US Job Openings By Industry Total SA. This concept tracks the number of specific job openings in an economy. Job vacancies generally include either newly created or unoccupied positions (or those that are about to become vacant) where an employer is taking specific actions to fill these positions.

Unemployed workers is measured using US Unemployment Unemployed Workers Total in Labor Force. Unemployment measures the number of people who are without work (not in paid employment or self-employed), currently available for work and seeking work (taking specific steps to find work).

Another unique feature of the current situation is the unwinding of supply chain constraints. Cisco's* most recent results were a good example of the snapback that is possible. Cisco had been troubled by semi-conductor shortages in past quarters. Bottlenecks have eased, and Cisco was able to ship backordered equipment, generating a nice jump in revenue and earnings. Given the widespread supply chain issues, there should be many similar situations. The auto industry, for example, also has widely reported production shortfalls due to chip shortages. The impact can be clearly seen in dealer inventories which have never been so low relative to sales. Even if higher interest rates dampen auto demand, there will still be a need for dealers to build back inventories.

*Cisco (CSCO) was held in the Income-Equity Strategies as of December 31, 2022. To receive a list of all recommendations for the previous year, please email compliance@mhinvest.com.

COVID-19 Depressed Demand for Healthcare Services



As of November 30, 2022. Source: Federal Reserve Bank of St. Louis. Healthcare services as a percent of GDP. Grey lines indicate recessionary periods.
Job openings is measured using the US Job Openings By Industry Total SA. This concept tracks the number of specific job openings in an economy. Job vacancies generally include either newly created or unoccupied positions (or those that are about to become vacant) where an employer is taking specific actions to fill these positions.
Unemployed workers is measured using US Unemployment Unemployed Workers Total in Labor Force. Unemployment measures the number of people who are without work (not in paid employment or self-employed), currently available for work and seeking work (taking specific steps to find work).

The pandemic also made its mark on the healthcare industry. Speaking with clients, everyone assumes that the pandemic increased demand for healthcare services. The truth is the opposite. Yes, COVID-19 caused many people to seek medical help, but millions more delayed care, reducing the diagnosis of various diseases and conditions, and in turn, lowering the number of prescriptions and certain surgical procedures. It will take years for analysts to accurately size the effect, but the shortfall is clear when looking at healthcare services as a percent of GDP. Healthcare services made up a widening slice of the economy for decades before exiting the pandemic at a materially lower level. As the pandemic recedes, we expect catch-up demand for this important sector.

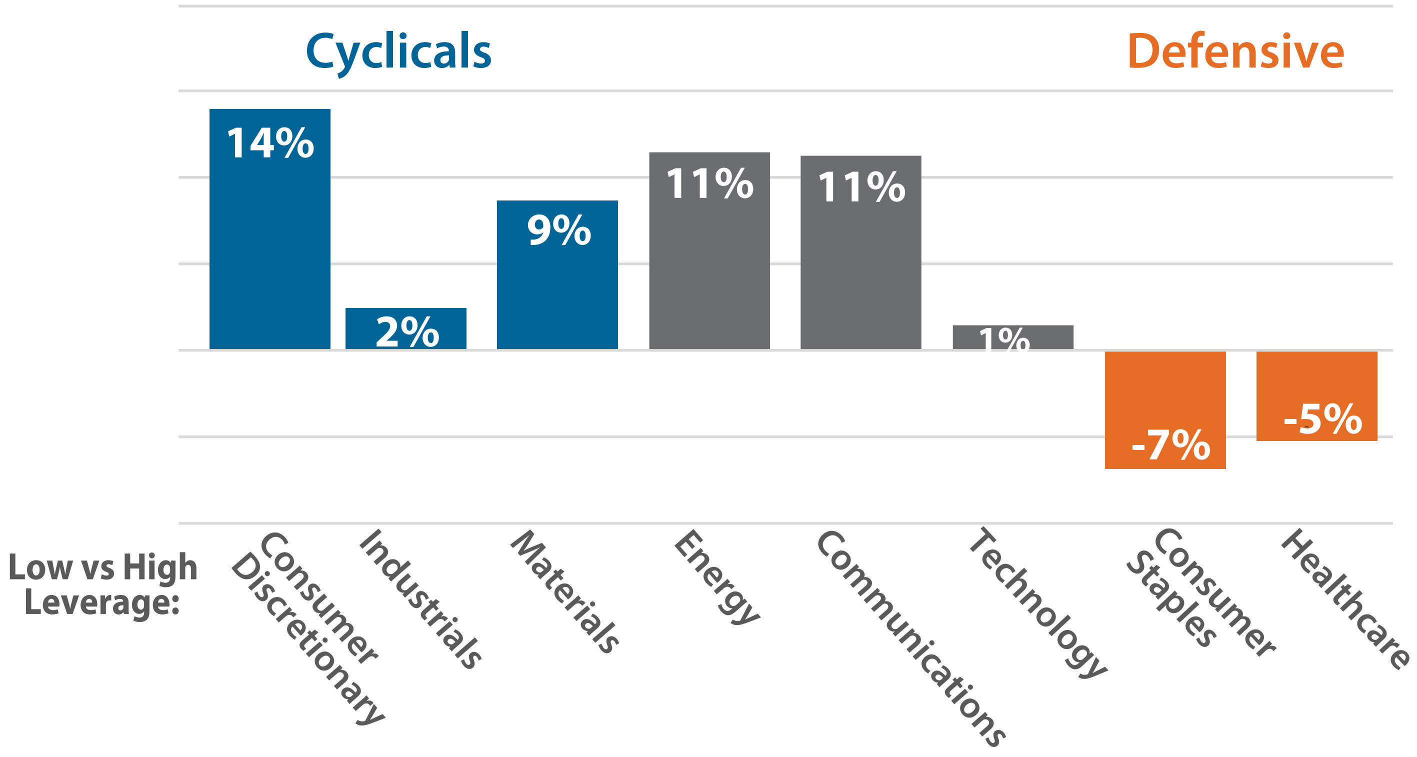
Building All-Weather Portfolios

Even though there is a great deal of underlying strength in the economy, the alarm bells coming from the bond market and the purchasing manager surveys are credible signals. On net, we shrug our shoulders without apology and conclude that there is a 50% chance of a recession. The critical question is how to invest given that uncertainty.

Our goal is to have "all-weather" portfolios—investments that will do reasonably well in a wide range of economic environments—analogous to all-weather tires. We believe that following a few basic rules should lead to portfolios that are resilient in difficult times yet still capable of generating good returns when the market recovers.

First, stay invested in the stock market. In our view, thinking one can jump in and out of cash at just the right time is folly. Our *1Q 2022 Quarterly Report* showed that over rolling 10-year holding periods, returns have always been positive for high-dividend-yield stocks over the past 50 years. The average annual return has been 12.1%. Yet we understand how seductive pessimists can sound, promising the direst future—one that calls for selling it all in favor of cash. Our view is that turning points are just too sudden. Recall, for instance, March 2009. A buy-and-hold strategy puts the odds in your favor without having to make the almost impossible quick judgments required for market timing.

Companies with Lower Leverage Tend to Outperform During Recessions



As of December 31, 2022. Sources: Bloomberg; Miller/Howard Research & Analysis. Recessionary periods as defined by Federal Reserve Bank of St. Louis (a total of 28 months or 2.3 years). Display shows the equally-weighted annualized relative returns for low versus high net debt/EBITDA terciles during recessionary periods, as sorted within sectors.

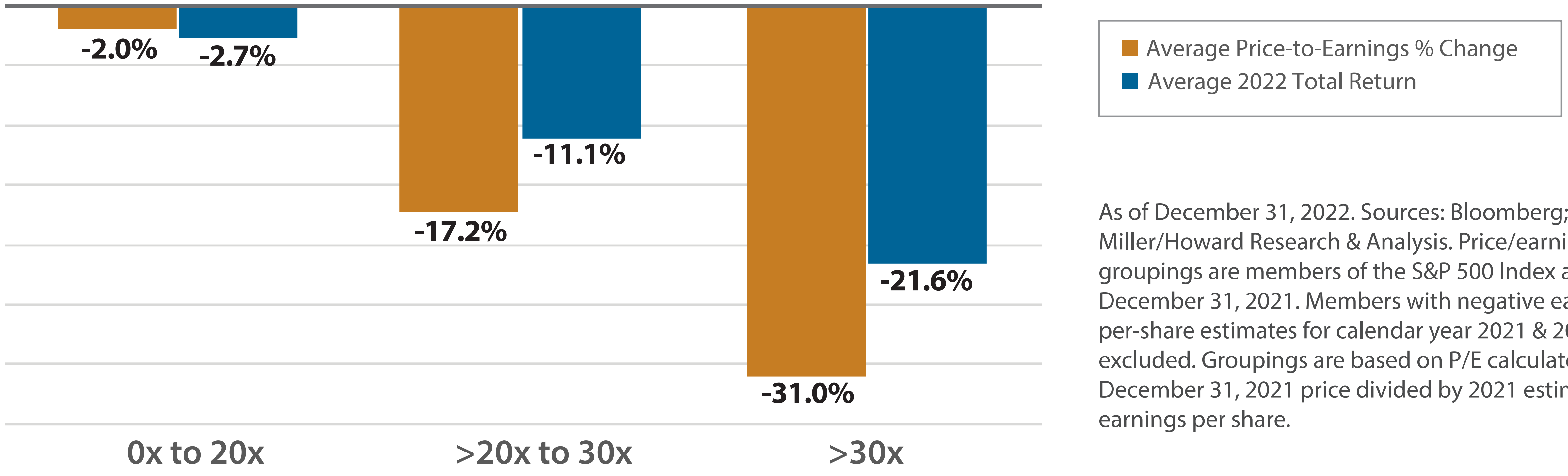
But what should we hold? We are always cautious about owning firms with high levels of debt, but that approach is imperative when recession risk is high. To test our intuition on this issue, we looked at the returns during recession months for stocks in various sectors. For most sectors, firms with lower leverage outperformed high-debt companies in the same sector during recession months. The only exceptions were two defensive sectors—consumer staples and healthcare.

Excessive debt can lead to bankruptcy, but more commonly, it can lead to situations in which management teams are forced to sell equity or valuable assets, or must increase borrowing at poor terms. An economic downturn raises the probability of trouble, so we advise sticking with strong balance sheets.

Forecasting is always hard, but buyers of stocks with high price/earnings (P/E) ratios are implicitly saying its easy to look decades ahead with confidence. Investors who recognize how uncertain the world actually is should stick with stocks with lower P/E ratios—in other words, valuations that can actually be justified by nearer-term earnings.

In 2022, increasing interest rates led investors to put higher discount rates on future earnings, lowering price/earnings ratios. The declines in price/earnings ratios were much more pronounced for stocks entering the year with high valuations, leading much lower total returns for expensive stocks. This trend could continue as the Federal Reserve intends to raise short-term interest rates further, likely lifting long-term rates as well, in our view.

Lower Price/Earnings Stocks Outperformed in 2022



As of December 31, 2022. Sources: Bloomberg; Miller/Howard Research & Analysis. Price/earnings (P/E) groupings are members of the S&P 500 Index as of December 31, 2021. Members with negative earnings-per-share estimates for calendar year 2021 & 2022 were excluded. Groupings are based on P/E calculated as of December 31, 2021 price divided by 2021 estimated earnings per share.

Volatility is a Drag

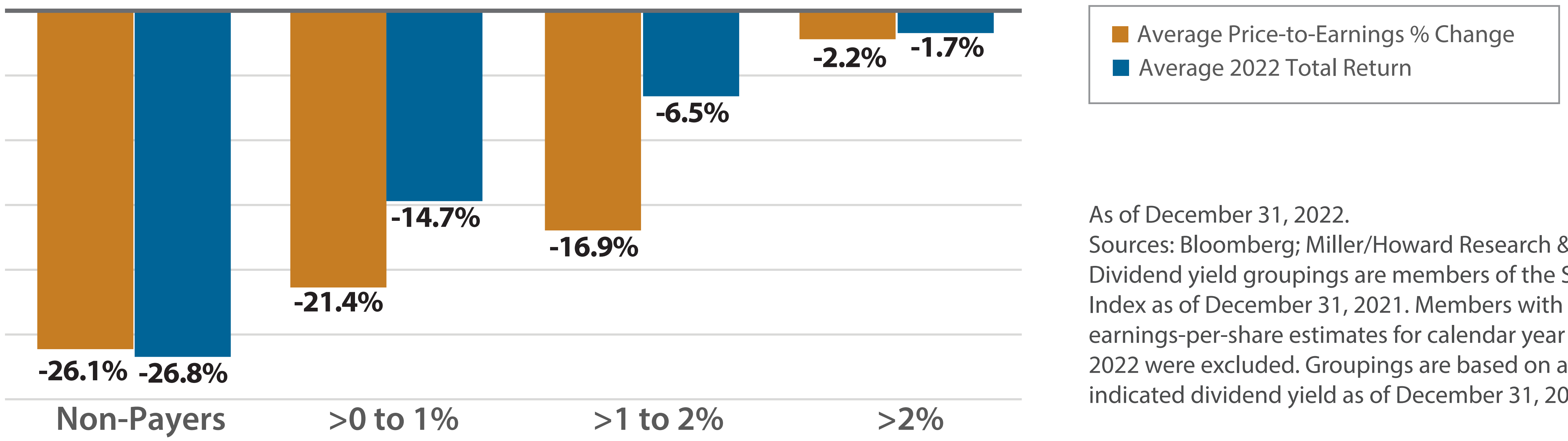
Year	Toggle +/-30%	Toggle +/-3%	Flat
1	-20%	7%	10%
2	40%	13%	10%
3	-20%	7%	10%
4	40%	13%	10%
5	-20%	7%	10%
6	40%	13%	10%
7	-20%	7%	10%
8	40%	13%	10%
9	-20%	7%	10%
10	40%	13%	10%
Simple Average	**10%**	**10%**	**10%**
10-year CAGR	**5.83%**	**9.96%**	**10.00%**
Growth of $100	**$176**	**$258**	**$259**

Based on hypothetical yearly returns at various volatility levels.
CAGR = compound annual growth rate.

Fluctuations in price/earnings ratios are the largest contributor to equity volatility. Investors tempted to chase expensive stocks in this environment should bear in mind that a stock down 50% needs to be up 100% to get back to breakeven. While volatility can never be eliminated in equity investing, excessive volatility puts a drag on returns. As an example, a hypothetical portfolio that toggles between returns of -20% and 40% yields much less than one that toggles between 7% and 13%, even though the simple average of returns is the same. Investments that grind ahead are not just better for the nerves, they are better for the bottom line.

When investing in the face of high uncertainty, we believe it is best to strive to hold equities that you are paid to own. This is easier said than done. For example, the S&P 500 Index started the year with a dividend yield of 1.4% and saw earnings grow an estimated 7% over the course of the year. Both of these factors normally contribute to positive returns, but in reality, the price/earnings multiple for the S&P 500 fell from 23x to 17x in 2022, leading to a total return of -18.1%. Price/earnings multiples are fickle and almost always the cause of negative returns.

Higher Dividend Yield Stocks Outperformed in 2022



As of December 31, 2022.
Sources: Bloomberg; Miller/Howard Research & Analysis. Dividend yield groupings are members of the S&P 500 Index as of December 31, 2021. Members with negative earnings-per-share estimates for calendar year 2021 & 2022 were excluded. Groupings are based on a members indicated dividend yield as of December 31, 2021.

Dividends are the one source of stock market returns that are always positive. Dividends, admittedly, do not have the drama of fluctuating P/E multiples or even earnings growth, yet they are the one element that is consistently additive to returns, year after year. The value of the dividend stream was apparent this year, with higher-dividend-yielding stocks substantially outperforming nonpayers and low yielders.

Again, with interest rates up substantially this year, it makes sense that price/earnings ratios were down for the vast majority of stocks. We have long argued that higher dividend yields and lower valuations should make stocks less vulnerable to the vagaries of price/earnings multiples. The past calendar year was a good test of this proposition, and indeed, price/earnings multiples did prove to be more resilient for reasonably valued stocks with good dividends. For this reason, both income and value stocks outperformed the broad market this year.

But investing is about the future, not the past. As we discussed in our *1Q 2021 Quarterly Report*, given increasing interest rates, we do not see P/E expansion as a reliable source of returns going forward. Adding the high uncertainty in the economic environment only strengthens the argument to avoid stocks with risky, high P/E multiples. We continue to advise investors to focus on dividends, reasonable valuations, and strong balance sheets—characteristics that, in our view, maximize the chance of getting paid to own stocks.

DISCLOSURE
Miller/Howard Investments Inc. is an independent, research-driven investment boutique with over three decades of experience managing portfolios for major institutions, mutual funds, and individuals in dividend-focused investment strategies. The firm is 100% employee-owned through an Employee Stock Ownership Plan (ESOP).

We continue to evolve and develop strategies that strive to provide investors with various levels of current income and dividend growth. Our objectives are to generate total returns in line with the broad equity market and provide a high and rising stream of income with the lower volatility that an investor might seek from bonds or other income alternatives. With a primary goal of reliable income and long-term returns, coupled with a belief that investors can play an important role in securing a sustainable future, our shareholder advocacy efforts include environmental, social, and governance (ESG) research and/or screening, direct engagement with companies, filing shareholder resolutions, proxy voting, coalition building, and public policy involvement.

This report represents Miller/Howard Investments' views. The statistics and projections cited in this report have been provided by sources generally considered to be reliable, but are not guaranteed. Opinions and estimates offered constitute Miller/Howard Investments' judgment and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. This material is solely informational. The information and analyses contained herein are not intended as tax, legal, or investment advice and may not be appropriate fr your specific circumstances; accordingly, you should consult your own tax, legal, investment, or other advisors, at both the outset of any transaction and on an ongoing basis, to determine such appropriateness. The material may also contain forward-looking statements that involve risk and uncertainty, and there is no guarantee they will come to pass. Any investment returns—past, hypothetical, or otherwise—are not indicative of future performance. The information provided should not be considered a recommendation to buy or sell any security, and should not be considered investment, legal, or tax advice. Securities mentioned are being shown for informational purposes only. Buy and sell rationales are the express opinions of MHI's investment team. These securities should not be considered a recommendation to buy, sell, or hold any of the securities and are not intended to imply that any one security listed above, or the portfolio as a whole, is suitable for a particular client. There is no assurance that the securities purchased have remained or will remain in the portfolio or that securities sold have not been or will not be repurchased. To receive a list of all recommendations for the previous year, please email compliance@mhinvest.com. Common stocks do not assure dividend payments. Dividends are paid only when declared by an issuer's board of directors, and the amount of any dividend may vary over time. Dividend yield is one component of performance and should not be the only consideration for investment. The returns on a portfolio that utilizes environmental, social, or governance (ESG) criteria for stock selection may be lower or higher than portfolios where ESG factors are not considered, and the investment opportunities available to such portfolios may differ.

DEFINITIONS:
S&P 500 Index® widely regarded as the best single gauge of large-cap US equities and serves as the foundation for a wide range of investment products. The Index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.
Price-Earnings Ratio (P/E)—The ratio of a company's share price to its earnings per share. The ratio is used as a valuation tool and can help determine whether a company is overvalued or undervalued.
Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA)—A non-GAAP measure used to provide an approximation of a company's profitability. This measure excludes the potential distortion that accounting and financing rules may have on a company's earnings; therefore, EBITDA is a useful tool when comparing companies that incur large amounts of depreciation expense because it excludes these noncash items, which could understate the company's true performance.
High-Dividend Yield Stocks consists of Decile 7, 8, and 9 of a universe of US dividend paying common stocks with a market capitalization equal to or greater than $1 billion.
Net Debt to EBITDA—A measure that computes the company's ability to pay off its debt by utilizing the earnings before interest, taxes, depreciation, and amortization (EBITDA).
Russell 1000 Index® measures the performance of the large-cap segment of the US equity universe. It is a subset of the Russell 3000 Index® and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000 Index® represents approximately 92% of market capitalization of the US market.
US Treasury 10-Year Yields are yield to maturity and pretax. Indexes have increased in precision as of May 20, 2008, to 4 decimal places. The rates comprise Generic US Government on-the-run government bill/note/bond indexes.

For more information and to request materials: Visit www.mhinvest.com or contact our Internal Sales Desk, email **internals@mhinvest.com** or call (845) 679-9166.
To receive the current ADV Part 2A free of charge email **compliance@mhinvest.com** / Call (845) 679-9166.
Notification to Clients: Contact your Advisor with any material changes to your financial profile that would impact your appropriateness for investment.
Miller/Howard Investments, The Fuller Building, 45 Pine Grove Ave, Suite 301, Kingston, NY 12401 | (845) 679-9166 | **mhinvest.com**