Quarterly Market Review

Fourth Quarter 2022

First Business Bank®

Executive Summary

The dialogue in 2022 revolved around inflation, which surged to the highest level since 1981. As a result, we saw the most aggressive monetary policy tightening cycle in four decades as the Federal Reserve endeavored to tame inflation. Despite another cooler-than-expected reading on inflation, the Federal Reserve delivered a hawkish message after its December meeting, downplaying the recent progress on inflation and maintaining its higher-for-longer stance on monetary policy. After starting the year with two quarters of contraction, third-quarter real GDP came in at a strong 3.2%.

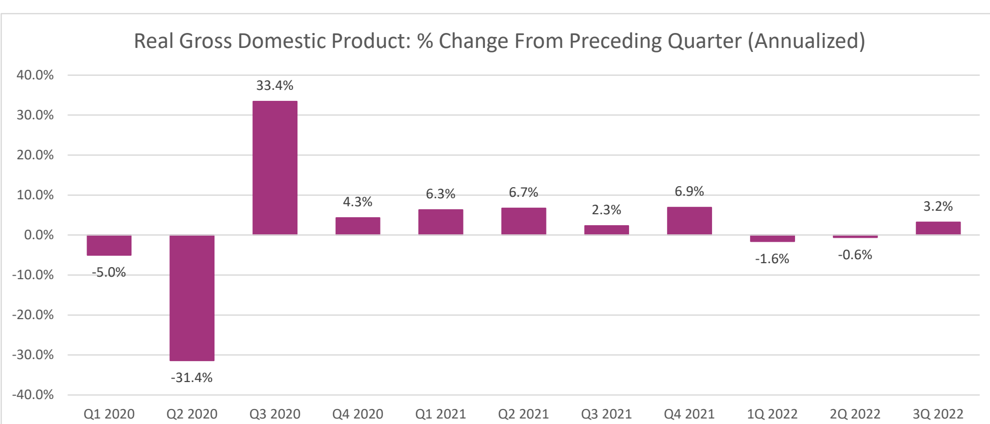
Entering the final stretch of the year, the U.S. economy shows signs of deceleration against strong headwinds. Recent economic data indicates declining industrial production and a contraction in manufacturing, services, and retail sales. Despite recent slowing, tracking estimates for the fourth-quarter real GDP still estimate growth of around 2.5%. Risk of a recession in the next year or two skews to the downside, with most calling for a mild recession in the next 24 months.

The job market remained firm in 2022, adding 4.3 million net new jobs through November. As of July, we regained all of the 22 million jobs lost in the pandemic and added another 1 million. The labor market is still challenging, with 1.7 job openings for every person looking for work. Likely the unemployment rate, which sits at 3.7% as of November, will soften as the economy slows.

Both equity and fixed income markets were weak throughout the year, with large cap equities down by as much as 25% in October, and all major averages suffering their worst year since 2008. Normally a safe haven, the Bloomberg Aggregate bond index fell by 13%, far outpacing the previous worst year since the 1970s, when it declined 2.9% in 1994.

Economy Rebounds In Q3, Uncertainty Looms

The U.S. economy grew an annualized 3.2% in Q3 2022, rebounding from two straight quarters of contraction. In the third quarter, private services-producing industries increased 4.9%, government increased 0.6%, and private goods-producing industries decreased 1.3%. Consumer spending rose strongly as growth in information, professional, and health care services was partially offset by a decrease in spending on both durable and nondurable goods. Also, nonresidential investment jumped 6.2%, boosted by equipment and intellectual property. The biggest positive contribution to growth came from net trade as strong exports outpaced imports in the quarter. On the other hand, residential investment tanked by 27.1%, led by new single-family construction. GDPNow real-time tracking estimates for fourth-quarter growth indicate expansion in the 2.7% range based on data in late December. The Blue Chip consensus estimate is lower, just above 1%.



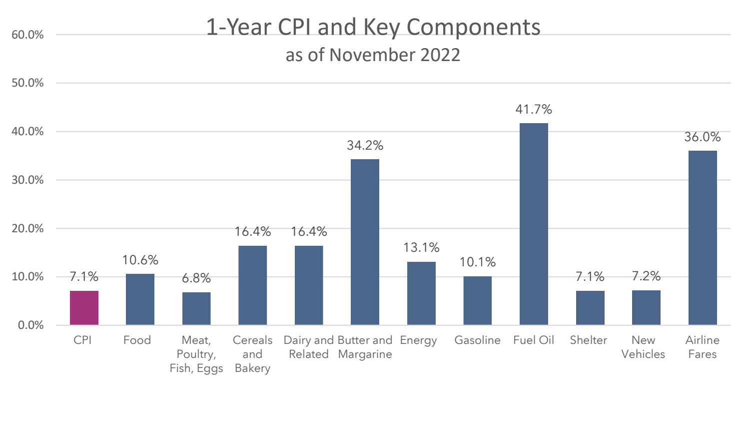
The S&P Global US Composite Purchasing Manager Index (PMI) declined to 44.6 in December 2022 from 46.4 in the previous month. The composite PMI tracks business trends across both manufacturing and service sectors (60% from the manufacturing sector and 40% from the services sector). A reading above 50 indicates expansion in business activity while below 50 signals contraction. December's reading marked the fastest decline in business activity in two-and-a-half years. Excluding the initial months of the pandemic, the contraction was the sharpest since 2009. New business declined at a faster pace in December, with new export orders dropping for a seventh month in a row. On the price front, input cost inflation was the slowest since October 2020, while the rate of selling price inflation eased to over a two-year low. Finally, business sentiment was among the weakest in over two years, as higher borrowing costs, inflation, and a broad economic slowdown dampened optimism.

Consumer spending has been the bedrock of the economic recovery following the pandemic. Data indicate that the strong demand for goods during the pandemic has begun to lessen. Retail sales in the U.S. declined 0.6% month-over-month in November of 2022. It is the biggest decline so far this year, with sales of furniture (-2.6%), building materials (-2.5%), and motor vehicles (-2.3%) falling the most during the holiday season. In contrast, increases were seen in sales at food services and drinking places (0.9%), food and beverage stores (0.8%), health and personal care stores (0.7%), and miscellaneous retailers (0.5%). Data for November, which include Black Friday and Cyber Monday, point to a slowdown in consumer spending amid higher inflation and interest rates. It also demonstrates that holiday shopping was pulled forward into October, when sales jumped 1.3%. Consumers may not be able to save the day in 2023, as the trillions in excess money stashed away during the pandemic has started to diminish. The Fed's rate hikes in 2022 have already slowed the housing market, and firms in the financial and technology sectors have started to lay off workers hired in the frantic early months of the pandemic.

There is significant speculation about a recession in the next 24 months. If this is the case, the economy enters in better shape than two previous recessions, which were brought about by economic shocks. Consumer debt service burdens are low (but rising), households still have $1 trillion in excess savings, and corporations have good balance sheets. The banking system is extremely well capitalized and every state has a rainy-day reserve.

Inflation Has Likely Peaked

The annual inflation rate in the U.S. slowed for a fifth straight month to 7.1% in November, the lowest level since December last year. It follows a reading of 7.7% in October. In November, the energy price index fell by 1.6%, nearly erasing the 1.8% jump in the prior month amid lower prices for gasoline, electricity, and utility gas services. Meanwhile, the cost of food rose by 0.5%, slightly easing from the 0.6% jump in the prior month, but with the costs for both food at home and food away from home continuing to rise. Shelter



prices rose by 0.6% and were responsible for nearly half of the increase in the Consumer Price Index (CPI). Despite the slowdown, the annual inflation rate is set to remain more than three times the Fed's 2% target, and still indicating broad price increases across the economy.

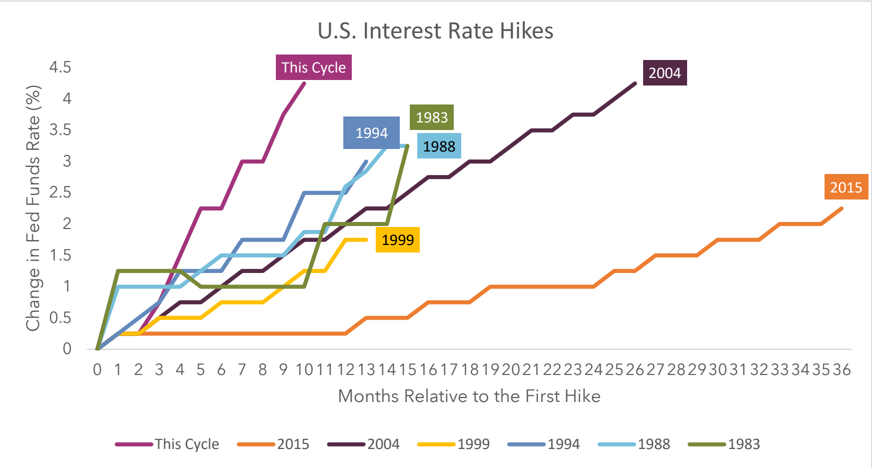
Higher short-term rates have brought the CPI down from a peak of 9.1% in June to 7.1% in the latest reading. Core inflation is expected to drop back toward 6% by the end of 2023 and reduce to 3% in 2025. Leading inflation indicators, such as gold and oil prices, are currently heading lower and wage growth has also recently stabilized at around 5% per year.

The war in Ukraine has led to the largest commodity price shock since the 1973 oil crisis, according to a World Bank report, elevating prices for years to come. Prior to the war, Russia supplied 12% of global oil and 17% of global natural gas. Russia and Ukraine together supplied 29% of global wheat and 19% of global corn. Both are also major suppliers of fertilizer and base metals. Price increases and shortages have had a global impact but have been most acutely felt in Europe.

The Personal Consumption Expenditures (PCE) price index, the Federal Reserve's preferred measure of inflation, rose 5.5% from the prior year in November. As with CPI, PCE appears to have peaked in June at a rate of 7%.

Federal Reserve Remains Focused On Inflation

Following its most recent meeting in mid-December, the Federal Reserve approved an interest-rate increase of 0.5 percentage points and signaled plans to lift rates through the spring, though likely in smaller increments. The decision marked a step down after four consecutive larger increases of 0.75 points and raised the benchmark federal funds rate to a 15-year high target of 4.25% to 4.50%. The latest increase capped a year in which the Fed raised rates at the fastest pace since the early 1980s to fight inflation. At that time, the federal funds rate was raised to a range of 19% to 20% to combat inflation running at almost 15%.



Fresh economic projections released after the meeting indicated plans to raise the fed funds rate to a peak level between 5% and 5.5% in 2023 and hold it there until some point in 2024. Following the FOMC meeting, the fed fund futures suggest the bond market believes that the terminal rate will be less than 5% when the current tightening cycle concludes. The takeaway is that the market continues to believe the Fed will complete its hiking cycle prior to what the Fed is telling us vis-à-vis the dot plot or Chairman Powell's press conference remarks. How long the Federal Reserve will be able to hold interest rates at higher levels is unclear. Traders in the futures market expect the Fed to start cutting rates by the end of 2023. In its own forecast, the Fed shows rate cuts starting in 2024.

The U.S. dollar has risen strongly in 2022 as the U.S. economy, while not particularly strong, has been in better shape than the economies of Europe, Japan, and China. Earlier in the year, the value of the dollar, compared with other major currencies, reached a decades-long high. The euro, used by 19 nations across Europe, reached 1-to-1 parity with the dollar in June for the first time since 2002 and the British pound hit at an all-time low against the dollar. When overseas economies begin to recover, typically foreign investors would start to repatriate funds out of U.S. Treasuries — which are already falling in price as the outlook for economic growth slows — and back into their own sovereign debt.

Employment Carrying U.S. Economy

The labor market was strong in 2022 with 4.3 million net new jobs added to payrolls through November. Despite headlines declaring job cuts at Twitter, Facebook parent Meta Platforms, Amazon.com, DoorDash, and others, the overall labor market remains robust. Nonfarm payrolls jumped 263,000 in November from October, and October's increase was revised up by 23,000, to 284,000. Schools, health care, state and local governments, manufacturing, and finance all added jobs. Information — which includes pure Internet and social media companies — actually increased payrolls by 19,000. Online retailers did trim payrolls by 2,100. The retail, wholesale trade, and transportation and warehousing sectors shed jobs.

On Nov. 30, the Job Openings and Labor Turnover Survey revealed that there were 10.3 million job vacancies in October, a decrease of 353,000. The report showed that the number of people quitting their jobs also fell. This data suggests some softening in the labor market. However, strong job gains show that the market remains robust, which has implications for Fed policymaking. Despite some weak data, the U.S. labor market has been a key factor keeping the economy out of recession. Consumer confidence has been choppy, but consumer spending has been supported by the tight labor picture and availability of jobs.

Improving Consumer Confidence

The University of Michigan consumer sentiment for the U.S. unexpectedly jumped to 59.7 in December of 2022 from 56.8 in November. Current conditions were assessed more positively, and the expectations gauge also improved to the highest level since April. Meanwhile, inflation expectations for the year ahead eased to 4.4%, the lowest reading since September of 2021, while the five-year outlook was steady at 2.9%. Consumers' outlook for inflation is closely watched as expectations for the future can drive consumer behavior.

At the same time confidence is improving, household balance sheets are deteriorating. Households increased debt during the third quarter at the fastest pace in 15 years due to hefty increases in credit card usage and mortgage balances. Total debt jumped by $351 billion for the July-to-September period, the largest nominal quarterly increase since 2007, bringing the collective household obligations in the U.S. to a fresh record $16.5 trillion, up 2.2% from the previous quarter and 8.3% from a year ago. The biggest contributors to that debt load came from mortgage balances, which rose $1 trillion from a year ago to $11.7 trillion, and credit card debt, which climbed to $930 billion. Despite the increase in debt load, household debt service ratios (debt payments as a percent of disposable personal income) are significantly lower at 9.5% than prior to the Great Recession in Q4 of 2007 when levels were at 13.2%. Delinquencies are higher, but remain low by historical standards, suggesting that consumers are managing their finances in this period of increasing prices.

Higher Mortgage Rates Impact Housing Market

Mortgage rates, which are significantly higher than a year ago, are dampening activity in the previously hot housing market. The average 30-year mortgage rate ended the year at 6.8%, cooling slightly from a high of 7.16% in mid-October.

Existing home sales in the U.S. plunged 7.7% to a seasonally adjusted annual rate of 4.09 million in November of 2022, much worse than market forecasts of a 5.4% drop. It marks the tenth consecutive month of declining home sales, which hit the lowest level since May of 2020. Building permits in the U.S. tumbled 11.2% from October's level to a seasonally adjusted annual rate of 1.342 million in November 2022, the largest monthly decline since April 2020.

Despite rapidly increasing mortgage rates, which hurt housing affordability, prices have remained high as inventory levels are remain near historic lows. At the end of November there were 1.14 million homes for sale, which is an increase of 2.7% from November of last year, but at the current sales pace it represents a still-low 3.3-month supply.

The National Association of Home Builders' (NAHB) housing market index, which is an index based on a monthly survey of home builders, declined to 31 in December, a new low since 2012, excluding the immediate onset of the pandemic. It was the 12th consecutive month of falling homebuilders' confidence, as high mortgage rates have negatively impacted affordability.

International Economies Experiencing Weak Growth

In Europe and the United Kingdom, economic activity has faltered due to higher energy prices and commodity shortages resulting from the war in Ukraine. Central banks have adopted more hawkish policy positions to combat sharply rising inflation. At the start of the year, the key policy rates of the European Central Bank and the Bank of England were at -0.50% and +0.25%, respectively. As of year-end, the rates are at 2% and 3.5%, and are expected to rise higher in the months ahead despite recession concerns. The unemployment rate in Europe is 6.5% as of November. Although calculated slightly differently from the U.S., inflation in the eurozone is significantly elevated, as high as 12.6% in Italy and 11.3% in Germany.

Growth has also been particularly weak in China due to a host of issues, including the effects of the Ukraine war, the regulatory crackdown last year, a collapsing housing market, and an aggressive zero-Covid containment policy. China has maintained some of the world's most restrictive coronavirus lockdown measures, resulting in a significant slowing in China's economic trajectory. GDP growth in China is estimated at 3.9% in 2022, well below the official target of 5.5%. Plans to lift Covid-19 quarantine requirements on international arrivals early in January could boost China's economy as travel resumes.

Key Rates

	12/31/2021	09/30/2022	12/31/2022
2-yr U.S. Treasury	0.73%	4.28%	4.73%
10-yr U.S. Treasury	1.51%	3.83%	3.88%
30-yr Fixed Mortgage Rate	3.29%	6.92%	6.80%
Fed Funds Target Rate (upper)	0.25%	3.25%	4.50%
U.S. Dollar Index	95.64	112.17	103.49
Crude Oil	$75.39	$79.74	$80.51
Gold	$1,829	$1,668	$1,830
Unemployment Rate	3.90%	3.50%	3.70%*

*As of November 2022 | Source: *The Wall Street Journal*

In 2021, bitcoin and other cryptocurrencies enjoyed rising prices and a trend toward mainstream adoption. Bitcoin is on track for its worst year since 2018 — the last so-called crypto winter when prices tanked — having shed nearly two-thirds of its value. 2022 has been marked by a series of crypto bankruptcies, theft, fraud charges, and falling prices. The shadow of 2022 is likely to linger and possibly set the crypto industry back several years.

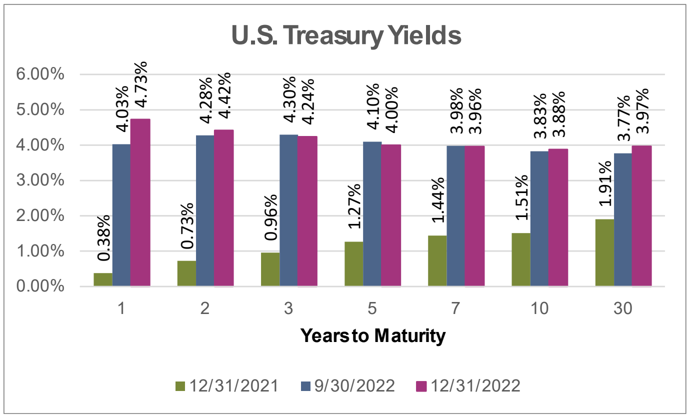
Market Commentary

Stock and bond markets suffered setbacks in 2022 as higher interest rates, reduced profit margins, and the potential for a recession weighed on investors. The large-cap equity market was down by as much as 25% in mid-October but recovered to close down 18% for the year. Negative returns for the largest holdings in the S&P, including Apple (-27%), Microsoft (-29%), and Amazon (-50%) heavily impacted the decline. Mid-cap markets troughed at down 26% and closed off 20.4% for the year. Developed international staged a strong recovery in the last quarter to recover from a loss of over 27% to close at 20%. Much of the year-end recovery in international equities was due to weakening in the U.S. dollar.

S&P 500 earnings grew at a projected 8% rate in 2022, boosted by a 150% rise in earnings growth in the energy sector. Excluding energy, the S&P 500 earnings fell by 1.8%. Companies had higher revenues, but higher input and interest cost have put downward pressure on margins. There is likely to be further pressure on earnings in 2023 and we have seen forward EPS estimates decrease accordingly.

Value stocks outperformed Growth stocks for the first time since 2106. Value stocks posted a return of negative 7.5%, significantly higher than Growth, which closed out the year down 29%. The energy sector far outperformed all others with a return of 64% for the year. Utilities were the only other positive sector, up 1.4%. Communication services (-40%), consumer discretionary (-37%), and technology (-28%) were the most negative.

2022 was a tough year for bond investors, the worst calendar year return in history. Coming into the year, short-term interest rates were still near the pandemic-era low of close to zero. The Federal Reserve began a gradual shift to tighter monetary policy with a 25-basis-point rate hike in March 2022. A measured pace soon gave way to rapid tightening as inflation surged on the back of supply/demand imbalances, a resilient economy, and the spike in oil prices due to the war in Ukraine. With starting yields low, and the rate of tightening fast, nearly every segment of the fixed income markets experienced declines, especially bonds with long durations.



In the last quarter of the year there was little change in rates, with the exception of the short end of the curve where rates trended higher. The yield curve remains inverted, with a 54-basis point spread between the 2-year and 10-year Treasury yields. Since the initial inversion in July of this year, we have discussed the implications of an inverted curve as a recession indicator several times. Bond prices reflect investors' expectations that longer-term yields will decline, as typically happens in a recession.

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Brookfield, WI 53045

Northeast Wisconsin:
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Appleton, WI 54914

Kansas City Metro:
11300 Tomahawk Creek Parkway
Leawood, KS 66211

The Bloomberg Aggregate bond index is down -13% for the year and up 1.87% for the quarter. Returns are negative on the short end as well with the Bloomberg U.S. Treasury 1–5 year index off 5.5% for the year.

Index Total Return	Q4 2022	2022
S&P 500 Index	7.56%	-18.11%
Russell 2000	6.23%	-20.44%
MSCI EAFE Index	17.34%	-14.45%
MSCI Emerging Markets Index	9.70%	-20.09%
Bloomberg Barclays U.S. Aggregate Bond	1.87%	-13.01%
Bloomberg Barclays U.S. Treasury 1-3 Year	0.73%	-3.82%
Bloomberg Barclays U.S. Treasury 5-7 Year	1.30%	-11.23%
Bloomberg Barclays Municipal Index	4.10%	-8.53%

Source: Morningstar Direct

Economic Outlook for 2023

As we move into a new calendar year, there are a few key themes that will continue to be important to the markets and the economy.

Inflation: Inflation should continue to trend lower but will take time to reach the Federal Reserve's target range. Inflation trends will continue to be important for the stock market in 2023. The Fed fell behind the inflation curve in 2021-2022 as it addressed the impact of the pandemic on the economy and unemployment and has had to give chase by raising interest rates rapidly in 2022.

U.S. Dollar: Currency translation has been an important factor impacting international investments as the U.S. dollar has risen to near record levels. Negative currency translation has contributed to almost half of the decline in developed international investments in 2022. International stocks now trade, on average, at a very wide discount to U.S. equities. Weakening in the dollar would positively contribute to international returns.

Recession: The potential for a recession is definitely elevated. Economists and CEOs have been forecasting a recession for months now, and many see it starting sometime late in 2023. Whether this recession is deep or shallow, long, or short, is up for debate, but the idea that the economy is going into a period of contraction is pretty much the consensus view. The unanimity is noteworthy because recessions typically tiptoe up on us. The fact that businesses and households are so universally bracing for a recession could work to cool the economy and possibly the Federal Reserve would have to do less to slow growth.

From a portfolio perspective, we continue to bias to more value exposure and increased participation in dividend growth and income-producing strategies in our equity portfolios. We continue to explore additional strategies to insulate against risk while still participating in the long-term potential of the equity markets. Bond portfolios have delivered negative returns in 2022, but higher rates will improve portfolio cash flow over time and offer attractive investment opportunities at today's much higher rates.

A year-end CNBC poll asked professional investors about their expectations for S&P 500 returns in the new year. The result was a much wider dispersion than is typical. While only 9% expect a negative return in 2023, 40% of them anticipate a return of 6 to 10%, and 18% are looking for 11 to 19%. Despite the anticipated weakening of the economic outlook, market returns in the 12 months following a peak in inflation, and following a trough in consumer confidence, are historically positive. It is reasonable to anticipate a slow start in the first half of 2023, as interest rates remain high, the bear market continues, and the economy flirts with recession. Inflation should continue to moderate throughout 2023, and the Fed will eventually pivot to lowering the fed funds rate as the economy softens and the unemployment rate trends higher. The anticipation of lower interest rates would help the housing market, benefit corporate profit margins, and support higher stock market valuations. These factors could fuel a second-half rally for stocks, leading to a positive 2023 after a challenging 2022.

First Business Bank's Private Wealth team is committed to providing thoughtful, high-quality guidance to our clients. We appreciate the confidence and trust you continue to place in us. As we move into 2023, we look forward to working with you to achieve your investment, lifestyle, and legacy objectives. Our team wishes you a happy and healthy New Year.

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