The Davis Center For Portfolio Management

University of Dayton

U.S. Equity Outlook

Fall 2023 Outlook: Prospects and Peaks: Charting the Course for U.S. Equities

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Real GDP Growth

The U.S. economy is currently grappling with a challenging situation as the effects of the Federal Reserve's policy on interest rate remain uncertain. Meanwhile, the global economic landscape is fraught with risk that could lead to economic downturns. U.S. consumer confidence has declined to a four-month low, primarily due to persistent concerns about rising prices and heightened fears of a recession. However, it's worth noting that households generally maintain optimism about the labor market, suggesting that employment remains a bright spot amid broader economic concerns. In the context of UAW contract negotiations, prolonged strikes are expected to result in short-term vehicle price inflation, which will, in turn, affect consumer prices overall. Rising prices for both new and used cars could lead to higher CPI reports. Consequently, this may prompt the Fed to maintain higher rates longer in an effort to control inflation. Unfortunately, this scenario does not bode well for GDP growth in 2024 and raises concern of a potential recession. Another concerning indicator is the Russell 2000 Index of small-cap stocks, whose recent performance seems to confirm a move towards a bearish trend. This confirmation follows a break below important support levels and the triggering of several technical indicators in quick succession. Such trends often serve as broad market warning signs, especially as small caps are highly sensitive to economic downturns. History has shown that extreme downward moves for small caps can be precursors to more significant economic challenges.

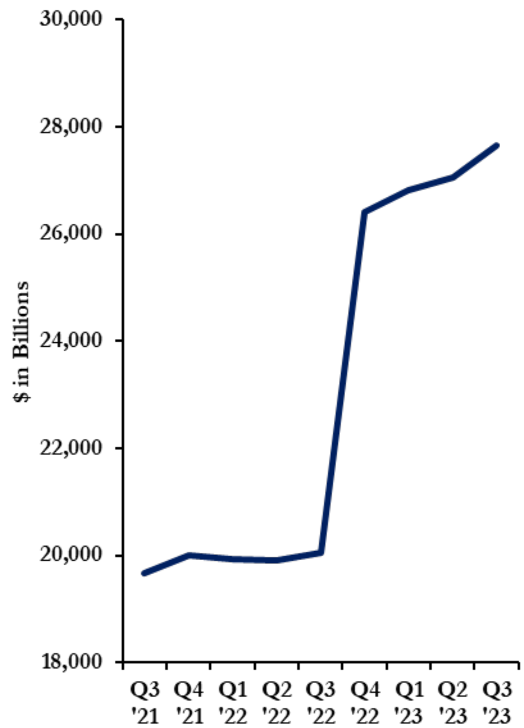

Figure 1: U.S. GDP; seasonally and inflation adjusted
Source: FRED St. Louis Economic Data

Looking at the economic data, the second quarter of 2023 witnessed an annualized GDP increase of 2.1%, following a 2.0% growth rate in the first quarter. This growth in Q2 was predominantly attributed to substantial gains in consumer spending and increased business investment. Notably, consumer spending saw a moderation in its growth rate (1.7% compared to 4.2% in Q1), as did government consumption (3.3% compared to 5.0%). On the other hand, nonresidential fixed investment experienced its most significant increase in nearly a year (6.1% compared to 0.6%). However, exports faced their most substantial decline since the COVID-19 outbreak in Q2 of 2020 (-10.6% compared to 7.8% in Q1), and residential fixed investment continued its nine-period slump (-3.6% compared to -4.0%). Furthermore, private inventory investment had a negative impact on GDP. On a global scale, the economic outlook signals a deceleration in growth. Following

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an estimated 3.5% growth rate in 2022, global growth is anticipated to decline to 3.0% in both 2023 and 2024. While the 2023 forecast exhibits a slight improvement compared to earlier projections, it remains below historical benchmarks. In conclusion, the current economic landscape presents a challenging and uncertain road ahead, with several key indicators pointing towards the possibility of a recession. Factors such as the Federal Reserve's potential interest rate hikes, persistently high inflation, and prolonged UAW strikes in the automotive industry are casting shadows on economic stability. Additionally, the confirmation of a bearish trend in small-cap stocks, historically sensitive to economic downturns, adds to the concerns.

Labor Market Conditions

Despite an increase in interest rates since the last Equity Outlook, the U.S. labor market has remained relatively resilient, but there are signs that it may be slowing down. From June to August, U.S. employers added a monthly average of 150,000 jobs compared to an average increase of 238,000 from March to May. Although average job gains decreased, the labor market still shows signs of tightness. The number of prime working age adults (25 to 54 years) employed this summer increased to the highest total in over 20 years. Additionally, since the beginning of 2023, the unemployment rate has ranged from 3.4%-3.8%, well below the historical average of 5.71%. Some economists believe that the current labor market environment is pointing towards a "soft landing." With growing labor force participation, wages should fall and reduce the chance that the Federal Reserve will continue interest rate hikes.

August report

The August jobs report reflected mixed results. The unemployment rate unexpectedly ticked up 0.3% from July to 3.8% and the number of unemployed people rose to 6.4 million, a 514,000 increase compared to a year ago. This 3.8% marks the highest unemployment rate since February 2022. However, the labor force participation rate ticked up 0.2% from July to 62.8%, reaching its highest level since February 2020. The increase was mostly attributable to young adults and women above 55. Nonfarm payrolls rose by 187,000 in August, which is less than the average monthly increase of 271,000 over the previous year, but ahead of the estimate of 170,000. The industries that saw the highest increases were health care (+71,000), leisure and hospitality (+40,000), social assistance (+26,000), and construction (+22,000). Information employment and professional and business services changed little in August, while transportation and warehousing lost 34,000 jobs. In terms of wages, average hourly earnings for all employees increased 0.2% since July and 4.3% compared to the prior year period, both below estimates of 0.3% and 4.4%, respectively. Wages are still rising faster than the 3.5% pace that economists note as consistent with the Federal Reserve's 2% target, but as fewer people quit their jobs to search for better prospects in this environment, wage increases could decline in the near future.

Long-term Outlook

Although the August report showed some positive signs, the general consensus is that the labor market is slowing down after coming off of a two-year boom following the pandemic. The labor

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department recently predicted that total employment will increase around 0.3% every year until 2032, which is much lower than the 1.2% growth rate over the past ten years. Much of this slowdown is attributed to population constraints created by retiring baby boomers, who were America's largest population group at ages 59 to 77. According to the Wall Street Journal, by the end of 2028, the youngest baby boomers will reach the retirement age of approximately 64. Due to the declining presence of baby boomers in the labor market, the Department of Labor is expecting the participation rate to drop to 60.4% in 2032. Regardless, the labor market has remained resilient through the current high interest rate environment, and the Federal Reserve continues to closely monitor wage growth and unemployment as it considers interest rate decisions.

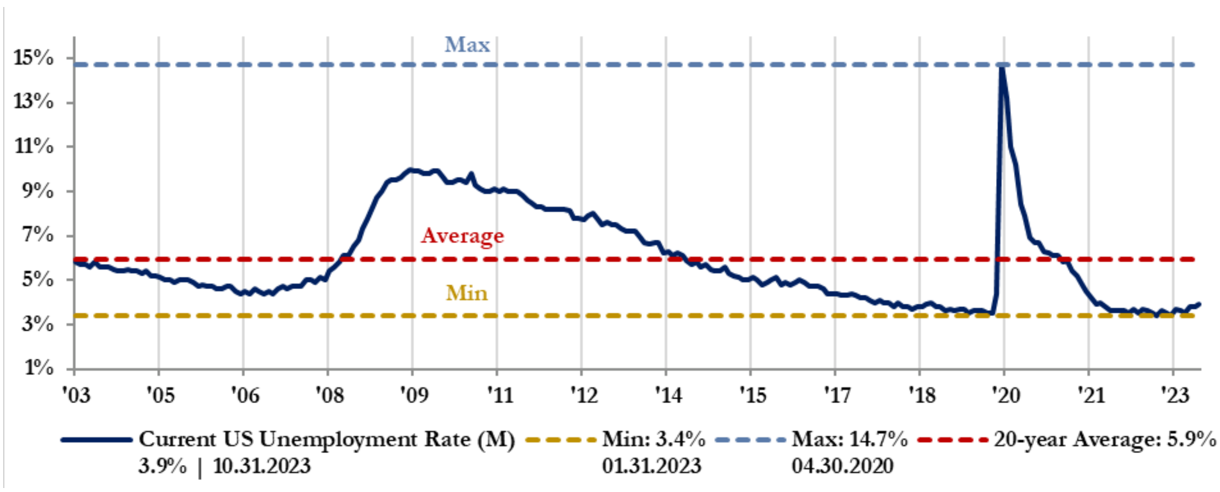

Figure 2: U.S. Unemployment Rate
Source: Bureau of Labor Statistics

Inflation Woes

Transitioning from a summer consisting of cooling inflation, U.S. inflation accelerated in August. In June, the CPI climbed 3% from the year prior, the slowest pace in over two years and a significant decline from the inflation rate of 9.1% in June 2022, at which time gas prices reached a record U.S. average of $5 per gallon. Down from the 4% May inflation rate, the June 2023 figure gave investors optimism that the Fed was finding success in its efforts to curb inflation, reflected in rising stocks and falling bonds. All but two of the S&P 500's 11 sectors rose, and the yield on the 10-year Treasury Note experienced its largest one-day decline since May.

This trend continued in July, with both the CPI and core CPI rising a modest 0.2% and annual core inflation decreasing to 4.7% from June's 4.8%. These new figures lowered the three-month annualized rate of core inflation to 3.1%, the lowest reading in two years and down from 5% in May. Core prices rose at an annualized 2.9% over the prior three months, the lowest reading since January 2021. Following a pause in rate hikes at the Fed's June meeting, the Fed delivered a much-anticipated hike of 25 bps, raising rates to a 22-year high ranging between 5.25% and 5.5%. At

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this July meeting, Fed Chair Jerome Powell indicated that September's rate decision would be dependent on market data, with two jobs and inflation reports between meetings to help inform the FOMC. Following this announcement, the S&P 500 finished mixed, the tech-heavy Nasdaq decreased slightly, and the 10-year Treasury yield fell to 3.850% from 3.911%. At this meeting, Powell also remarked that his staff shifted their expectations to a "noticeable slowdown" in the economy in 2023 from a recession previously predicted in March, May, and June.

Following these moderate inflation increases throughout the prior months was a spike in consumer prices at the fastest rate in over a year, rising a seasonally adjusted 0.6% from July to August and 3.7% on an annual basis. This uptick in prices was largely driven by escalating energy costs, with over half of the increase attributed to higher gasoline prices; greater costs for additional items like airfare and vehicle insurance also prompted this increase. Gas prices increased 10.6% from the prior month – the largest one-month jump since June 2022 – with the average price per gallon of gasoline rising from $3.60 to $3.84 from July to August. Additionally, U.S. crude oil futures closing at about $91 a barrel in mid-September following higher gas prices in August and cuts in OPEC production sparked concerns about managing inflation. Oil price spikes following rate cuts by the Fed played a part in hard landings in 1990 and 2008, which the Fed is trying to avoid. The core CPI, which excludes volatile energy and food prices, rose more modestly at 0.3%, which was still an uptick from June and July. With energy and food prices acting as key inflation indicators for many Americans, food prices rose a mild 0.2% in August, the same pace as in July.

With officials concerned about prematurely determining that inflation had slowed following a cooler inflation over summer, the Fed announced on September 20 that rates would be held steady. Ahead of the meeting, Fed Governor Christopher Waller stated that they want to be "careful stating [they've] done the job on inflation until [they] see" additional inflation readings like those of June and July, recognizing that prices appeared to ease at various times in 2021 and 2022 before reaccelerating. Powell echoed these thoughts at the September meeting, acknowledging that they want the encouraging inflation readings they have seen to continue for "more than just three months." Further, ahead of the 1990, 2001 and 2007 recessions, many economists mistakenly believed the U.S. was on the verge of achieving a soft landing, where increased interest rates can temper inflation without causing a recession. Because of this, officials have indicated a "higher for longer" rate strategy until they have gained confidence that this summer's cooling will hold, especially following August's recent jump.

Looking ahead from the September meeting, the Fed anticipates labor market rebalancing to contribute to easing upward pressure on inflation, noting a moderation in inflation from mid-2022 and encouragement that expectations on longer-term inflation "appear to be well-anchored." Still, Powell acknowledged that the process of getting inflation to return to 2% has "a long way to go." With all of these factors considered, the median projection for total personal consumption expenditure (PCE) inflation is 3.3% this year before falling to 2.5% in 2024 and eventually reaching 2% in 2026.

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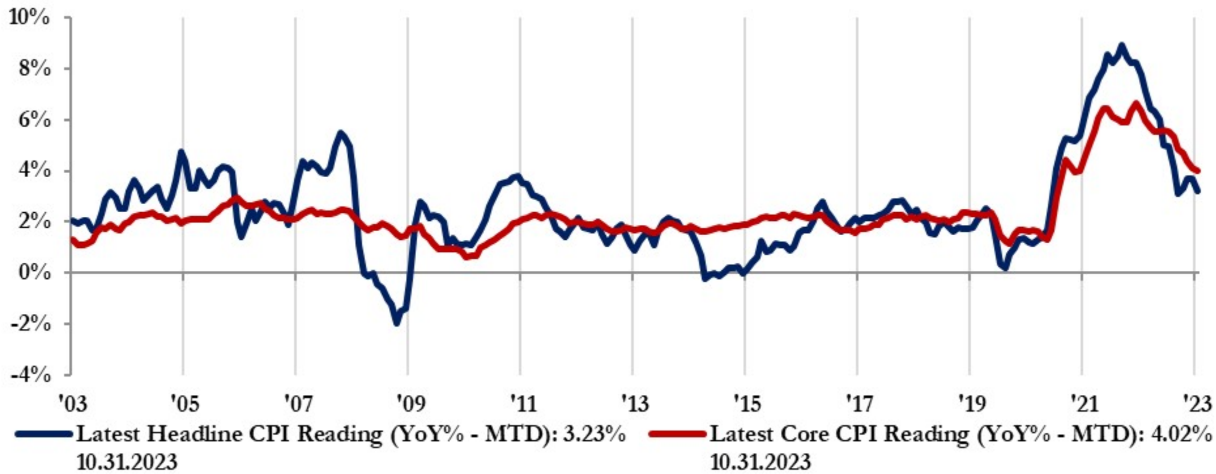

Figure 3: Headline vs. Core Consumer Price Index
Source: FactSet

Federal Reserve Actions

The Federal Reserve has continued to make headlines in recent months. In a period of economic uncertainty, an increasing number of spectators linger on every word that escapes a Board Governor. In the most recent FOMC meeting, the decision was made to hold rates steady at a target range of 5.25%-5.50%. This marks only the second time that the Fed has elected to pause since it began its swift rate hiking campaign in Q3 2022. The reasoning for the pause is similar to the rationale for pausing in June, with declining inflation, a slightly looser labor market, and higher growth projections (Atlanta Fed 4.9% Q3 2023) playing important roles. These prints are reminding the Fed that it should take a step back to observe the repercussions of rising rates, which have a lagging effect on the economy. The September meeting decision also came with the third Summary of Economic Projections for 2023. A "higher for longer" narrative was cited, with the idea of a slower rate-cutting campaign being introduced. Twelve of the 19 Fed officials favored one more rate hike in one of the two meetings before the conclusion of 2023. Previously, projections indicated four rate cuts for the year 2024; however, that has since been reduced to two. Futures markets imply a 48% chance of a one more rate hike for the year, with a 55% possibility of a cut by next September's meeting. While headline inflation has been steadily declining, it did recently bottom at 3% and has since jumped back up to 3.7% on higher oil pricing pressures. The Fed continues to keep a close eye on maintaining its goal of 2% YoY inflation, making the recent jump somewhat concerning. Open Market Operations persist, with the Fed enacting quantitative tightening through bond roll offs from its balance sheet. Since a March 2022 high of nearly $9 trillion, the balance sheet has shrunk 11% to $8.02 trillion. It is important to note that although the Fed is projecting a slower rate-cutting cycle, that is something it has historically struggled to successfully accomplish. Instead, when the Fed cuts rates, it typically slashes them. Opponents of Fed outlooks criticize the central bank for a rosy view of inflation even as OPEC and recent U.S. oil reserve reductions will continue to drive the price of oil. The IMF conducted a study on past

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inflation shocks and concluded that, on average, an elevated rate environment of three years was needed to quell inflation. Although the near-term rate outlook continues to be uncertain, the Fed appears to be settling on a median average rate of 2.5% for the long term. This, paired with quantitative tightening, will come at a sharp contrast to the last 10-15 years of easing and near 0% rates. Keeping a close watch on the effects of fiscal policy decisions and an impending government shutdown due to deficit concerns will be necessary.

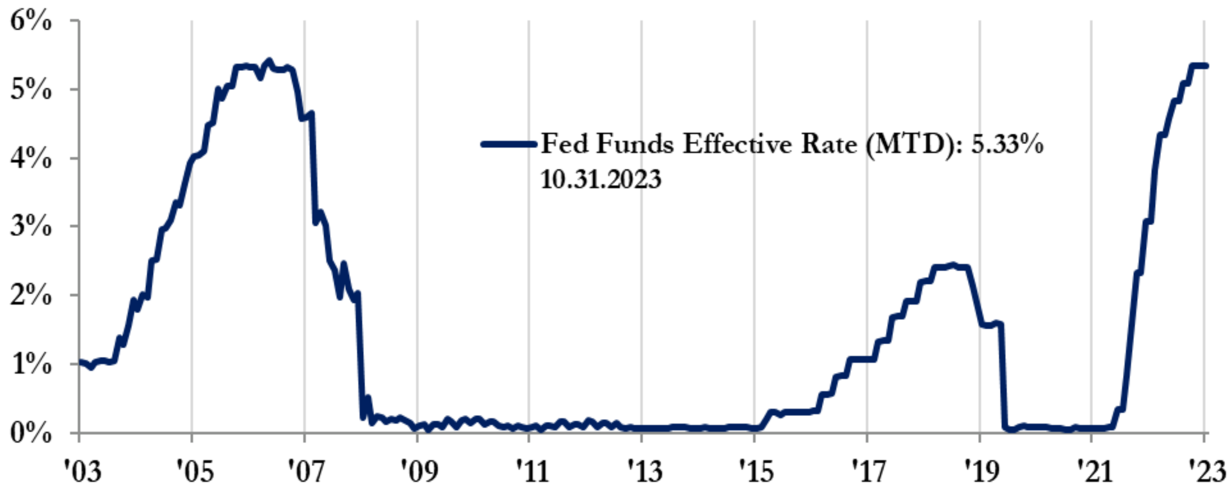

Figure 4: Effective Federal Funds Rate
Source: FactSet

Treasury Yields

The U.S. bond market has witnessed a rollercoaster ride in the realm of Treasury yields this year, with turbulence and unpredictability becoming the new norm. Bond yields have rallied sharply in the second half of this year and look to be climbing higher than consensus estimates of investors. The yield on a 10-year Treasury Note has grown to its highest levels in over 16 years and not seen since the subprime crises began in August 2007. Since late July, the yield on the 10-year U.S. Treasury Note has jumped from around 4% to about 4.8% (10/9). The increase in yields stems mostly from two foundational reasons: continued elevated inflation levels well above the Federal Reserves' 2% target and higher real interest rates as a result of the inflationary environment. The higher yields have provided investors with a more attractive and safe investment option that may encourage decisions to include more bonds in their portfolios to diversify against the currently volatile and risky stock market. This is part of the reason why the stock market has not been able to keep up with the positive rally experienced in the first half of the year. However, the surge in yields experienced this year may be caused by a different set of characteristics than exhibited last year. The spike in long-term Treasury yields observed in 2022 can be attributed to two main factors: market anticipation of an uptick in short-term interest rates due to a hawkish Fed and investors' heightened requirements for additional compensation to retain longer-dated assets due to

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rising inflationary concerns. However, it seems that neither of these factors is currently responsible for the rise in yield rates. Prevailing factors encompass decreased demand for Treasurys from international investors, U.S. banks, and domestic portfolio managers who have traditionally acquired government bonds as a safeguard against declines in equities and other volatile assets. Furthermore, the yield curve has remained inverted since July 2022, with yields on shorter-term bills and notes exceeding those on longer-term securities as investors priced in higher interest rates and economic risk in the near term. However, due to recent bear-steepening patterns in the yield curve and the strength of the economy signaling higher-for-longer rates, this inversion has lessened. This may not necessarily present a positive situation for the economy, however, as increases in longer-term yields are often associated with higher mortgages, credit card rates and business loans. For example, rising yields have recently produced sharp spikes in mortgage rates, pushing the 30-year fixed rate to just under 8% for the first time in over 23 years.

The future of bond yields, like any investment, is unknown. However, it is likely that the yields on government securities could remain elevated for quite some time due to the implications of higher-for-longer interest rates and continued higher inflation levels. Some experts, including former Treasury Secretary Lawrence Summers and head of J.P. Morgan's Global Strategy Team, Marko Kolanovic, believe that the 10- year Treasury yield still has more room to grow. Summers recently claimed that the 10-year Treasury yield could soon reach 4.75%, and average that figure for the next decade, far outpacing the average in the last 20 years of 2.9%. Kolanovic went a step further, claiming that the 10-year Treasury could reach a sustained yield of 5% if current inflation levels persist. This could prove unfavorable for the U.S. government as a sustained rise in Treasury yields would prove costly because the government would face higher borrowing costs on a much larger stock of its debt. Publicly held U.S. debt has doubled to around $26 trillion over the past eight years, causing fundamental problems. The reason yields fell last time they were this high in 2007 was due to a greater demand for liquidity that made investors reluctant to buy longer-term assets. In addition, the uncertainty in the mortgage market caused investors to switch from securities such as MBS's to government Treasurys. However, today's economic environment is very different than what we saw right before the Great Financial Crisis, leading to uncertainties in the future of the bond market. Still, moving forward, bonds could remain an appealing investment if yields remain high, minimizing the equity risk premium.

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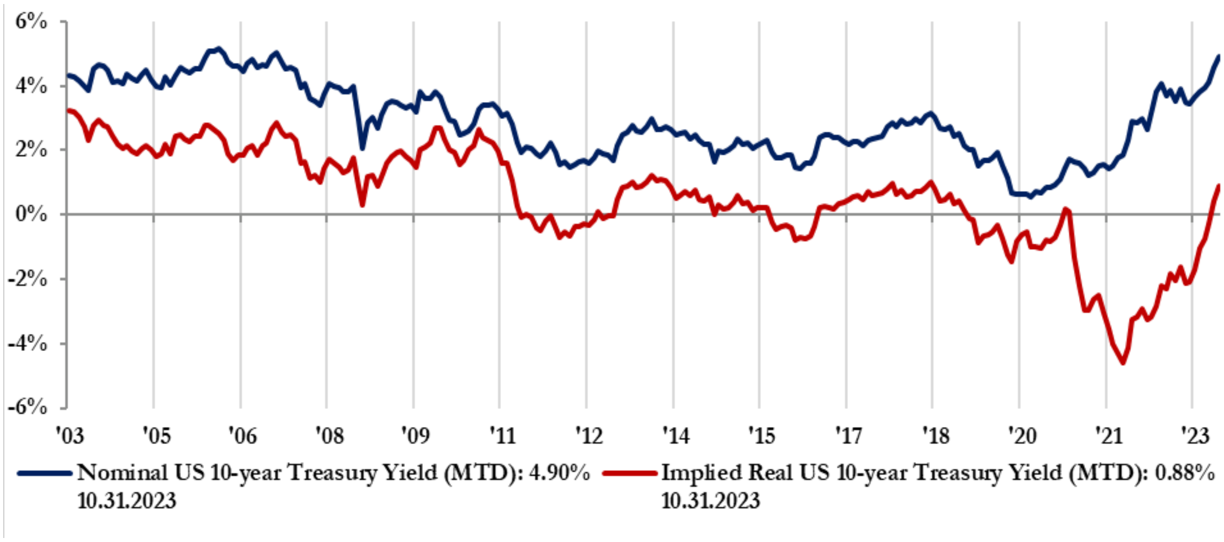

Figure 5: Nominal vs Implied Real U.S. 10-Year Treasury Yield
Source: FactSet

Manufacturing and Services Activities

The Purchasing Managers' Index (PMI) is the leading indicator of economic production, drawing on data from a survey administered to supply chain managers across 19 industries. The survey encompasses five topics: new orders, inventory levels, production, supplier deliveries, and employment. Each of these contributes to a score ranging from 0 to 100, with a score above 50 indicating expansion and a score below 50 pointing to contraction. The PMI is not only a measure of what is happening, but a guide used by manufacturers to forecast future cash flows and budgets.

Looking at the most recent data, contractionary trends are clear. The Institute for Supply Management (ISM) PMI increased to 47.6 in August, up from 46.4 the previous month (+2.59%) and beating estimates of 47, though still below the crucial 50-point threshold. This marks the tenth consecutive month of contraction for the manufacturing sector, the largest stretch of contraction since the Great Recession. The sector has shrunk again, but the uptick from July to September suggests it is contracting at a slower rate. The New Orders Index remained in contraction territory at 46.8 percent, 0.5 percentage point lower than the figure of 47.3 percent recorded in July. The Production Index reading of 50 percent is a 1.7 percentage point increase compared to July's figure of 48.3 percent. The Prices Index registered 48.4 percent, up 5.8 percentage points compared to the July figure of 42.6 percent. The Backlog of Orders Index registered 44.1 percent, 1.3 percentage points higher than the July reading of 42.8 percent and growing for the third straight month. The Employment Index registered 48.5 percent, up 4.1 percentage points from July's reading of 44.4 percent. Sufficient inventory levels combined with dampened consumer demand caused firms to reduce their purchasing activity. Because of falling demand, postproduction inventories faced their fastest drop since November 2021, reflecting less of a need for firms to keep large inventories on hand. Additionally, input prices are trending upwards, mainly due to elevated

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fuel prices. Continued inflation and higher rates from the Fed are affecting consumer spending and therefore contributing to the bearish outlook on manufacturing and services. In total, five industries reported growth in the month of August: Printing & Related Support Activities; Transportation Equipment; Food, Beverage & Tobacco Products; Petroleum & Coal Products; and Miscellaneous Manufacturing. Thirteen industries reported contraction in August: Apparel, Leather & Allied Products; Furniture & Related Products; Plastics & Rubber Products; Primary Metals; Fabricated Metal Products; Textile Mills; Electrical Equipment, Appliances & Components; Chemical Products; Computer & Electronic Products; Paper Products; Wood Products; Nonmetallic Mineral Products; and Machinery.

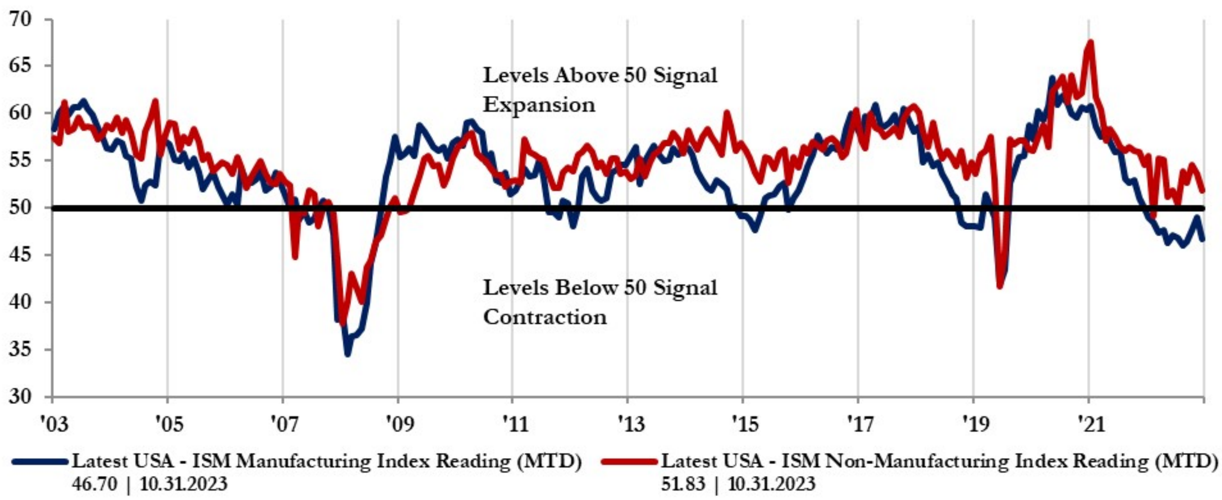

Figure 6: ISM Manufacturing PMI vs. Non-Manufacturing PMI
Source: FactSet

The U.S. Consumer

Consumer Spending

As of the second quarter of 2023, consumer spending in the United States increased to 14,419.86 USD billion from 14,360.36 USD billion in the first quarter of 2023. Consumers have the power to significantly influence the United States' economy, and their ability to spend has consistently defied many predictions. During the severe recession caused by the global COVID-19 pandemic, consumers splurged on many large-ticket goods such as gym equipment, home upgrades, outdoor gear, and other items to keep them busy. Following pandemic lockdowns, consumers entered a phase of "revenge spending," a term referencing the spending spree that follows a period of restraint or financial challenge for the consumer. Post-pandemic, spending shifted from durable goods to services that were off-limits during the health crisis, including travel, entertainment, and dining out. More recently, many signs show that some consumers are becoming more conservative about their purchases. Consumer savings have started to disappear as inflation and the fear of tighter lending standards continue to dampen spending and unemployment rises. Retailers, including Macy's, Kohl's, and Nordstrom, report a shift in consumer spending to needs more than wants will be underway and the economic strain will continue.

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Household spending, the primary driver of economic growth, rose 0.8% in July, which was the fastest rate increase since January. According to the Commerce Department, spending was on an upward track, increasing 0.6% in the previous month of June. Consumers greatly increased their spending in July while pressures remained modest, buying more groceries, recreational goods, vehicles, and services including housing, dining, and insurance. This spending patterns is causing many economists to raise projections for the third quarter of 2023. Gross Domestic Product will increase at a 5.6% annual rate from July to September, according to an Atlanta Fed forecast. Meanwhile, S&P Global Market Intelligence estimates a 3.8% growth rate in the third quarter. Both of the stated estimates would clearly surpass second quarter growth of 2.1%.

Spending on services rose more quickly in July for the second straight month as consumers indulged in travel and entertainment such as movies and concerts. Consumers are spending on experiences as well as looking for deals in this economy. Uber reported that the number of rides in the United States as well as Canada surpassed pre-pandemic levels for the first time this past spring. Uber's demand for meal delivery helped the company stay strong and Uber patronage grew during the summer as well. Meanwhile, cautious consumer are watching their budgets. The nation's largest retailer by revenue, Walmart, recently stated that the outlook for consumer spending has brightened since the start of the year with the help of low unemployment levels and solid wage growth.

Although consumer spending has been increasing incrementally, many economists believe that it cannot continue at the current pace. The measure of how much households have left each month after spending and taxes, also called the personal savings rate, dropped to 3.5% in July, the lowest it has been since November 2022. American households are depleting the savings built up during the pandemic and have begun accumulating credit card debt in order to support their lifestyles while facing inflated prices. Meanwhile credit card interest rates have hit record highs. The current average credit card rate of 22.16% is an increase from 16.55% a year ago and adds about $25 a month in interest charges on an average credit card balance of $5,700. This month American credit card balances surpassed $1 trillion for the first time, fueled by inflation, consumer spending, and fewer and fewer borrowers paying off their statements in full. By encouraging saving and making borrowing more expensive, the Fed's rate hikes are intended to slow down spending. Despite that, many credit card users have not felt the sting of the 22-year-high interest rates because of the barrage of 0%-interest promotions offered by credit card companies vying for market share. These offers have opened a record-beating $89 billion worth of new credit lines this year alone according to the Federal Reserve Bank of Philadelphia. In addition to 0%-interest balance-transfer offers, personal loans from financial institutions have become a popular way to combat credit card debt. The average rate for a 24-month loan is 11.48%, about half the rate for credit cards. Refinancing does not necessarily get the borrower out of debt, however, as a recent study disclosed that consumer who discharge credit card obligations through personal loans are apt to find themselves in arrears again within 18 months.

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Consumer Sentiment

In September, U.S. consumer confidence witnessed a notable decline for the second consecutive month, reaching its lowest point in four months, according to data from The Conference Board. The Consumer Confidence Index fell to 103 from 108.7 in August, which was below analyst expectations and marked a significant shift in consumer sentiment. The decline in consumer confidence was evident across all age groups and most notable among consumers with household incomes of $50,000 or more. The decrease was underpinned by a combination of factors, prominently including concerns about rising prices, elevated interest rates in the 5.25-5.50% range, and fears of an impending recession. What was particularly striking in the recent CCI announcement was the sharp drop in The Conference Board's Expectations Index, plunging from 83.3 in August to 73.7 in September, as a below-80 rating has historically been associated with imminent recessions. The Conference Board's Present Situation Index changed little, rising slightly to 147.1 from 146.7 in August. The share of consumers surveyed who believe a recession is "somewhat likely" or "very likely" grew in September after lowering in August. Consumers appear to be reacting to a series of negative indicators, including discouraging corporate earnings reports, narrowing job openings, and the potential ongoing upward trajectory of interest rates as the Fed targets a soft landing. It's noteworthy that consumer spending, a key driver of the U.S. economy as it accounts for approximately 70% of economic activity, has not exhibited a significant decline. This is partially attributable to the strong labor market, where wage growth has remained elevated. Consumer inflation expectations over the next year have remained stable. However, fewer consumers expect to buy a house given that with the 30-year fixed mortgage rate is at its highest level in more than 22 years. While the U.S. economy has displayed remarkable resilience despite higher borrowing costs and although employment figures remain robust, recent data suggests that Americans may tighten their budgets in anticipation of the upcoming holiday season. Overall, current consumer sentiment seems to reflect a cautious outlook on the economy, particularly regarding the uncertain future trajectory of inflation, interest rates, and overall economic conditions. Inflation is cooling down, yet prices remain higher than they were pre-pandemic. These concerns continue to weigh heavily on the minds of American consumers.

Energy Outlook

U.S. crude oil futures have extended their three-month rally, bringing them up to their highest levels of the year. Futures for November delivery settled at $93.68 a barrel, up more than 30% since June. Prices remain high despite the release of 2.2 million barrels of crude oil from U.S stockpiles the week ending September 22, reducing inventories to 416.3 million barrels. (Reuters' expectations were for a mere 320,000-barrel drop). Saudi Arabia and Russia recently announced that they would be extending their voluntary production cuts of 1.3 million barrels a day through end of the year. Additionally, Russia stated that it will temporarily ban exports of gasoline and diesel to most countries, adding even more tension to the global supply. U.S. oil rig counts, an indicator of future production, fell by eight to 507 last week, signaling a decrease in U.S. supply. These constraints have caused worry for investors as the U.S. heads into winter.

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In early September, Biden suggested depleting the Strategic Petroleum Reserves (SPR) to combat these supply constraints. The SPR was created back in the 1970s to protect against an energy crisis during a national emergency. The Biden administration, having deemed the past two years a national emergency, has drained nearly 300 million barrels from the SPR since September 2021, cutting the reserves in half. Refilling these reserves is an expensive task for the U.S. Biden signaled last year that he would start to do so if oil were to hit a price of $70 a barrel, which it did three times this year. President Biden has only increased supply by 400,000 barrels since the June lows however, President Biden faces a difficult decision heading into winter: to bet on energy demand decreasing due to higher interest rates or to again tap the SPR and leave the U.S. vulnerable to energy crises in the future.

Despite multiple constraints on the crude oil market, natural gas prices remain low as winter approaches. U.S. natural gas contracts for October delivery finished at $2.764/MMBtu, marking a fourth straight session of higher prices. Natural gas price increases have lagged behind their crude oil counterparts, however, remaining well below their one-year high of around $7/MMBtu. Prices remain lower despite a short-term consumption forecast of 80.5 billion cubic feet per day from the U.S. Energy Information Administration, a record high, up 5% from the previous record set in September 2022. The full-year forecast has minimally risen to 89.7 billion cubic feet per day, slightly up from the record high set last year. Most of this increase comes from the electric power sector, which will average 40.1 billion cubic feet per day, a new record that is up 7% from the previous September. This is mostly due to higher temperatures over the past two summers as natural gas provides most of the fuel for summer electricity generation.

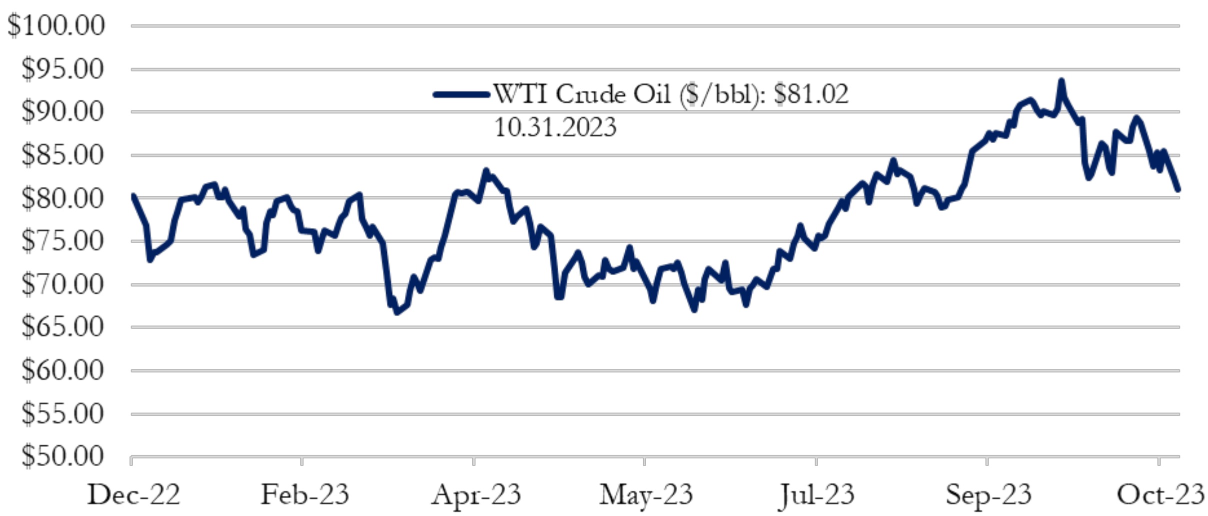

Figure 7: U.S. Crude Oil Prices: West Texas Intermediate (WTI)
Source: Bloomberg

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Global Economic Outlook

The International Monetary Fund projected a slightly improved outlook for the world economy in its July 2023 World Economic Outlook Report than in its previous report in April. The IMF estimates that the world economy will grow 3% in 2023 and 3% in 2024. Although the rate for 2023 is slightly higher than April's projection of 2.8%, it is relatively low compared to historic levels. The annual world economic growth rate was 4-5% for much of the 2000s according to the IMF. Persistent, high inflation has been the primary headwind for world economic growth, and the majority of central banks around the world have enacted monetary tightening policies to combat it. These policies are apparently working as intended as the IMF forecasts headline inflation will fall to 6.8% in 2023 and to 5.2% in 2024. Core inflation is projected to be stickier, however, and to decline at a slower rate over time.

The trajectory of the Chinese economy, among the largest in the world, is arguably one of the biggest and most volatile factors shaping the future of the global economy. The outlook on China's economy is relatively weak according to the IMF and to private sector investment research as well. Although the Chinese economy strongly rebounded at the beginning of 2023 with the end of the country's strict Zero-COVID policies, several economic indicators remain negative. Investment in the Chinese economy continues to be low due to ongoing systematic weaknesses in its real estate sector, which comprises a significant portion of GDP. Much of China's booming economic growth the past several decades can be attributed to a copious amount of infrastructure development catalyzed by low interest rates, high levels of consumer investment, and a borrow-to-build business strategy. However, infrastructure construction has continued despite the fact that the population is finally declining as a result of China's longstanding one-child policy, which ended in 2016, rendering much of the recent infrastructure/property development unnecessary and underutilized. Consequently, the debt levels of major Chinese banks and property developers have soared, with the level of credit as a percentage of GDP among Chinese nonfinancial sector companies reaching a recent peak of ~295%, over 35% higher than in the U.S. and European Union. A rebound in net exports in early 2023 has partially offset weakening levels of investment, but as the economy begins to slow across the world as the result of central banks' tightening monetary policies, so will China's net exports. Additionally, several other growing systematic risks exist for the Chinese economy. China's youth unemployment rate has been troubling. It was reportedly as high as 20.8% in May of 2023. Heightening tensions between China and the U.S. relating to Taiwan, have translated to an escalating trade war that has limited the exportation of U.S. technology to China and could even cause the end of U.S. investment in the Chinese economy altogether (a goal of some current U.S. politicians).

Despite these mounting risks, China has a massive economy with numerous positive catalysts that still make it a potentially appealing investment opportunity. China now leads the world in automobile exports, in part due to its expanding production of electric vehicles. China's electric vehicle market penetration is significantly higher than that of western economies, currently sitting at over 30% with room to grow. The charging infrastructure needed to accompany this quick adoption of

Macro Conditions

electric vehicles in the country is an enticing investment as China could also export this technology to western countries looking to expand EV use. China also has immense potential in the growing industry of artificial intelligence given the major strides that advanced Chinese technology companies are making in this area, and the copious amount of data the Chinese government possesses on its population of 1.5 billion people that can be utilized by AI. China also remains a worldwide leader in manufacturing, boasting over 25% of the world's manufacturing output.

This combination of positive and negative catalyst has caused the IMF to ultimately project that the Chinese economy will grow 5.2% in 2023 and 4.5% in 2024. Although these growth rates are much higher than the estimated worldwide economic growth rate, they are considerably lower than the country's historic economic growth rates as the Chinese economy grew by an annual average of 9% from 2000-2020 according to the IMF. Given the size of the Chinese economy and its significant role in global trade, the IMF lists a continued contraction in Chinese economic performance as one of the primary risks to its global economic outlook. Persisting struggles in the Chinese real estate sector, waning consumer confidence, and reduced fiscal spending as a result of lower tax revenue are the major risks to China's economic growth.

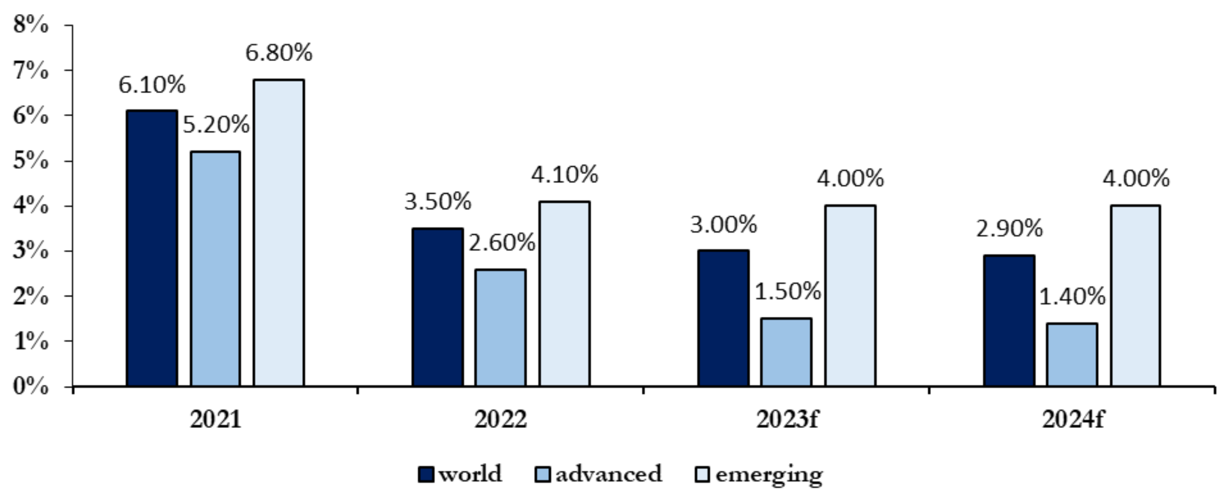

Figure 8: IMF Growth projections
Source: International Monetary Fund (IMF)

S&P 500 Outlook & Fundamentals

S&P 500 Outlook

The S&P 500 Index has surged since September 2022, up 16.3%, or $4,274.51. Prior to September 2022, the S&P was plagued by a very high inflationary period due to COVID, geopolitical tensions in Ukraine, and escalating energy prices. Since then, investors have chosen to be optimistic, placing their faith in the Fed's decision-making process. However, investor confidence has started to decline since the first of September. Looking at September, the index has fallen 5.4% on hints from Jerome Powell that rates could rise again. The expected range for another hike is 5.5%-5.75%. At its most recent meeting, the Fed decided to remain within their range of 5.25%-5.5% but still remains hawkish. The volatility index saw a drastic decline from the previous year, down 44.1%, or 18.22. This is most apparent in the real estate market, where the 30-year fixed-rate mortgage stands at 7.19%. While interest rates have impacted various sectors, their influence is particularly pronounced in real estate, with the sector experiencing a decline of 6.72%. Other sectors have experienced higher returns owing to external macroeconomic factors. Energy is up 8.15% YTD primarily due to an oil production cut extension coming from OPEC+. Communication Services has jumped 39.84% with consumers continuing to pay their phone bills, generative AI implementation, and further cost cutting initiatives. The Magnificent 7 has especially benefited from the increased demand of generative AI and cost efficiencies. The magnificent 7 grew 71% in 2023 whereas the remaining 493 only saw 6%. With better margins paired with sales growth potential, the magnificent 7 are expected to continue their success. The question that remains is whether or not the average consumer can continue to afford the cost of living as CPI hovers at 3.7%. Over the next couple of months, we can expect to see increased volatility due to unknowns associated with the Federal Reserve, OPEC, and other organizations.

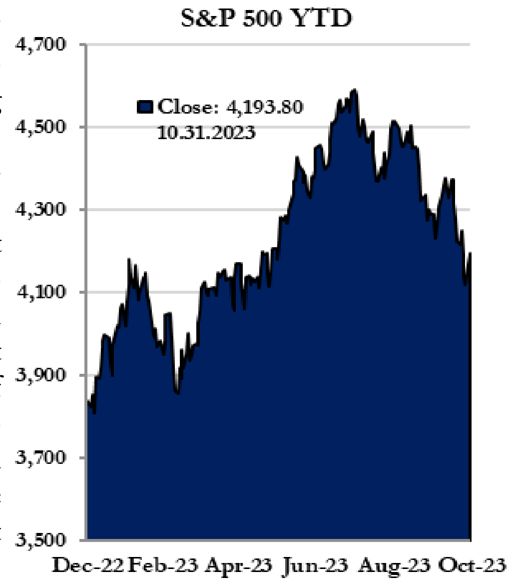

Figure 9: S&P 500 Price Index
Source: FactSet

Earnings

As of August 4, the late stage of Q2 earnings season, 84% of S&P 500 companies reported actual earnings. Of that 84%, 79% reported actual EPS above estimates, exceeding the five-year average of 77% and the ten-year average of 73%. The blended year-over-year earnings decline for the second quarter was -5.2% as of August 4, which is the largest year-over-year earnings decline since Q3 2020 (-5.7%). The Consumer Discretionary and Communication Services sectors led the S&P in year-over-year earnings growth, whereas the Industrials, Materials, and Health Care sectors were the only sectors to report a year-over-year decline. As of September 22, the estimated earnings growth rate for the Consumer Discretionary sector increased to 21.6% from 12.5% on June 30.

S&P 500 Outlook & Fundamentals

Twenty-nine of the 53 companies in the sector saw an increase in their mean EPS estimate during this time. The estimated earnings growth rate for the Communication Services sector increased to 32.1% from 26.3%. The estimated earnings decline for the Materials and Health Care sectors worsened to -22.0% and -11.6% from -10.9% and -7.8%, respectively. The estimated earnings growth rate for the Industrials sector declined to 6.1% from 13.3%. Among the largest catalysts for negative growth was the price of oil, which surpassed $90 per barrel in September, causing supply chain shocks in the Industrials and Materials sectors. As of September 22, 116 companies in the S&P 500 had issued EPS guidance for Q3 2023. Of these companies, 74 (64%) issued negative EPS guidance and 42 (36%) issued positive EPS guidance.

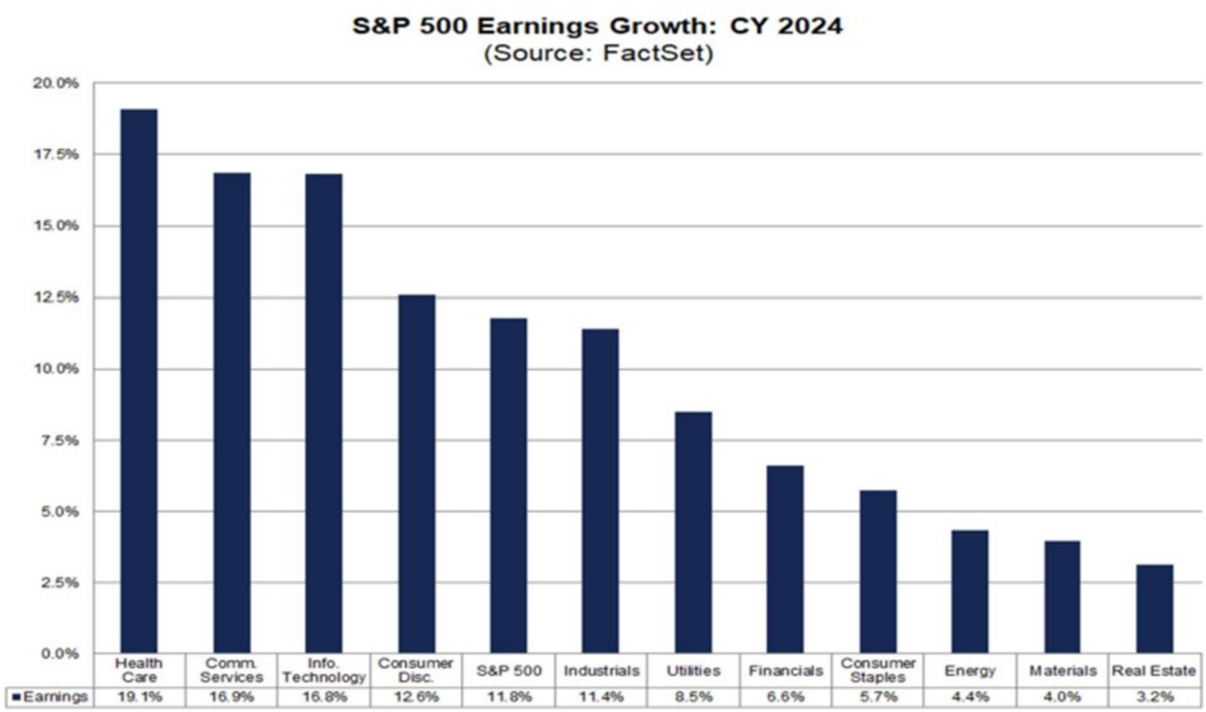

Figure 10: S&P 500 CY 2024 Earnings Growth Estimates
Source: FactSet

Valuation

With Treasury yields at their highest since before the Great Financial Crisis, higher-than-expected CPI in August, continued growth in consumer debt, and the softening labor market, it is hard to project where the overall market will move. The forward 12-month P/E ratio for the S&P 500 is 18.0, below the five-year average of 18.7 but above the ten-year average of 17.5. It is also below the forward 12-month P/E ratio of 19.1 recorded at the end of the second quarter. Since the end of the second quarter, the price of the index has decreased by 2.7%, while the forward 12-month EPS estimate has increased by 3.2%. At the sector level, the Information Technology (24.3) and Consumer Discretionary (23.8) sectors have the highest forward 12-month P/E ratios, while the Energy (11.7) and Financials (13.4) sectors have the lowest. Valuation projections show the economy may make a "soft landing", defying previously assumed recession fears. The Flyer Investments Team will continue to track valuation metrics throughout the semester in order to develop responses to uncertainty within the market.

Valuation Matrix	October 31, 2023	3 Month Median	5-Year Median	10-Year Median	20-Year Median	Current vs 10-Year Median Difference	Premium (Discount) vs 10-Year Median
S&P 500 (LTM)							
P/E	**20.5x**	21.4x	20.8x	19.5x	17.3x	1.0x	5.0%
P/B	**4.0x**	4.1x	4.0x	3.4x	2.9x	0.6x	18.2%
EV/Sales	**2.8x**	2.9x	2.9x	2.6x	1.9x	0.2x	9.5%
EV/EBITDA	**14.2x**	14.7x	14.4x	13.1x	10.8x	1.1x	8.2%
S&P 500 Sectors (Forward P/E)							
Energy	**10.8x**	11.3x	12.3x	16.8x	12.3x	(6.0x)	(35.7%)
Materials	**16.6x**	17.2x	16.8x	16.3x	15.0x	0.4x	2.4%
Industrials	**17.0x**	17.7x	18.7x	17.2x	16.0x	(0.2x)	(1.0%)
Consumer Discretionary	**22.8x**	24.3x	26.6x	23.3x	18.4x	(0.6x)	(2.4%)
Consumer Staples	**18.4x**	18.7x	20.1x	19.6x	17.5x	(1.2x)	(6.2%)
Healthcare	**16.7x**	17.2x	16.6x	16.4x	15.9x	0.3x	1.9%
Financials	**12.5x**	13.1x	14.0x	13.6x	12.6x	(1.1x)	(8.0%)
Technology	**23.8x**	25.1x	23.4x	17.2x	16.4x	6.7x	38.8%
Communication Services	**15.7x**	16.8x	18.2x	18.5x	17.7x	(2.8x)	(15.2%)
Utilities	**15.2x**	15.6x	18.4x	17.5x	15.4x	(2.3x)	(13.2%)
Real Estate	**14.9x**	15.5x	20.1x	18.3x	18.4x	(3.4x)	(18.5%)
Macroeconomic Enviroment							
10-Year US Treasury Yield (Nominal)	**4.45%**	4.56%	1.84%	2.35%	2.76%	2.1%	89.4%
Effective Federal Funds Rate	**5.33%**	5.33%	2.32%	1.13%	1.44%	4.2%	371.7%
Core CPI (YoY)*	**4.13%**	4.13%	3.37%	2.14%	2.09%	2.0%	92.7%

Data as of 10.31.2023 | Source: FactSet

Figure 11: S&P 500 Price Valuation Matrix
Source: FactSet

Valuation

Figure 12: S&P 500 Forward EV/EBITDA
Source: FactSet

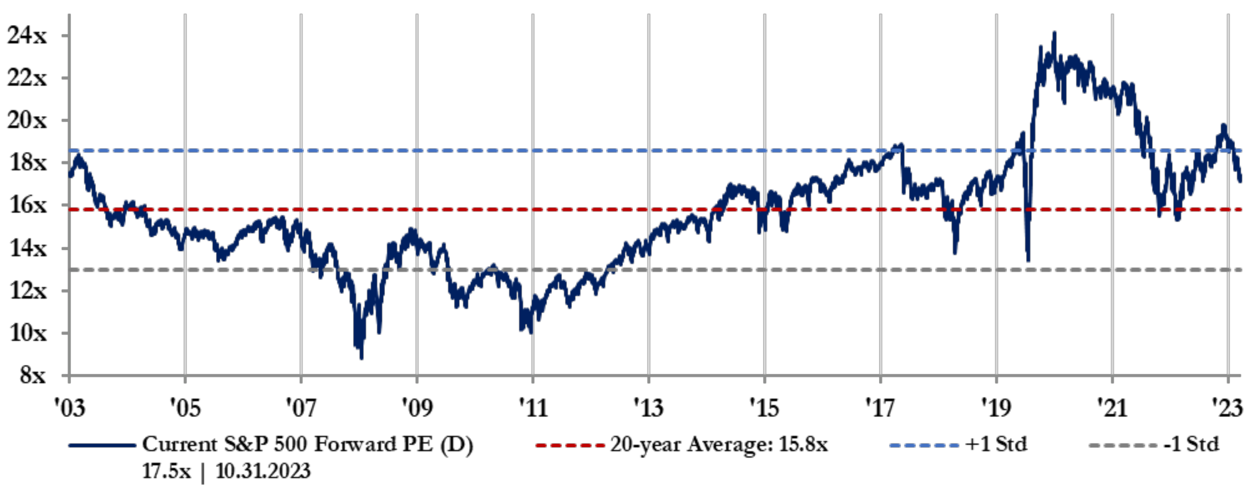

Figure 13: S&P 500 Forward P/E
Source: FactSet

Sector Positioning

Information Technology

The Economic Analysis Team recommends a neutral position in the Information Technology sector relative to the S&P 500 Index for the upcoming semester. Facing numerous market challenges, the technology sector endured a difficult and underperforming year last year. However, since its October lows, the sector has strongly outperformed due to strong fundamental AI tailwinds and performance from names such as Apple, Microsoft, and Nvidia. As a result, valuations remain stretched beyond historical averages and are currently trading at a 41.8% premium to their ten-year PE average. Opportunities in cloud computing, 5G, AI, and semiconductors have begun to shift the sector into a less cyclical and more-mission critical industry, suggesting growth potential in both the short and long terms. However, the concentration of Apple and Microsoft, accounting for nearly half of the sector's market capitalization, poses a historical risk for growth in times of high interest rates and elevated inflation.

Health Care

The Economic Analysis Team recommends a neutral weight position in the Health Care sector relative to the S&P 500 Index for the upcoming semester. The sector has displayed a disappointing underperformance to the broader U.S. stock market in 2023, leading to one of the lowest first-half performances in the last three decades. This underperformance is largely attributed to investor sentiment gravitating towards higher-growth sectors such as Communication Services and Information Technology. However, specific firms, like Eli Lilly and Novo Nordisk, have achieved significant outperformance by capitalizing on long-term trends related to weight-loss drugs in obesity treatment, with the potential for ongoing success. Although this sector has not portrayed its defensive characteristics recently, the diversification in growth and defensive properties in its sub-sectors will allow for mitigation of certain headwinds.

Financials

The Economic Analysis Team recommends a neutral position in the Financials sector relative to the S&P 500 Index for the upcoming semester. The sector has faced a tough year as it has dealt with bank failures and liquidity woes, leading to a sharp underperformance to the broader U.S. stock market. The sector is experiencing pressure due to tighter global financial conditions, increased capital requirements and regulatory scrutiny, and a slowing availability of credit. Rising rates and elevated inflation have triggered recessionary fears and the prospect of notably higher loan losses for banks, slower growth for life insurers, and risk to downside for the property and casualty insurance space. The sector could also suffer pressures associated with credit risk should a recessionary environment challenge the ability of borrowers to make their required loan payments to banks. All of this has caused valuations to compress to more attractive levels as the sector is now trading at an 8.1% discount to its ten-year PE average. Companies with proven track records of navigating economic downturns, strong fundamentals, and low valuations could show resilience.

Sector Positioning

Consumer Discretionary

The Economic Analysis Team recommends an underweight position in the Consumer Discretionary sector relative to the S&P 500 Index for the upcoming semester. Despite robust performance so far this year due to stronger-than-expected consumer spending trends, fundamentals are pointing to a more constrained consumer moving forward. While consumer spending remains strong, credit card debt has ballooned to $1 trillion, highlighting the degree to which spending is being supported by borrowed money. This heightened dependence on borrowed capital may render it impossible to achieve a further increase in spending, implying that a possible deceleration could be pending, as acknowledged in management comments. Additionally, with interest on student loans resuming September 1 and payments restarting in October, it is almost certain that more debt will accrue, and delinquencies will arise, depleting consumers' purchasing power. Lastly, personal savings rates are well below pre-pandemic and historic levels, having dipped to a range not seen since the Great Financial Crisis.

Communication Services

The Economic Analysis Team recommends a neutral weight position in the Communication Services sector relative to the S&P 500 Index for the upcoming semester. The sector has experienced a remarkable turnaround this year, transitioning from being the worst-performing sector in 2022 to becoming the top performer in the S&P 500 thus far in 2023. The robust outperformance can be attributed to stronger-than-expected earnings beats resulting from advancements in generative AI and cost-cutting programs at companies such as Google, Meta, and Netflix. However, pressure from higher interest rates and a deteriorating economic environment could hurt ad revenue for companies such as Alphabet/Google and Meta/Facebook, which compile almost half of the sector's market cap. Meanwhile, the telecommunications industry is still grappling with challenges driven by increasing competition and pricing pressures. However, carriers are countering these obstacles by increasing their market share in broadband services and venturing into 5G, where they offer premium plans. Regardless, the sector's wide diversity of companies with differing cyclical exposures will offer opportunities both now and long term.

Industrials

The Economic Analysis Team recommends a neutral position in the Industrials sector relative to the S&P 500 Index for the upcoming semester. The industrial landscape is poised for several noteworthy developments. A ramp-up in federal spending budgets is on the horizon, potentially bolstering activity in select industrial end markets. Notably, specific sub-industries, like aerospace and defense, as well as HVAC, have demonstrated resilience and strong performance. While the advantage of robust pricing power has helped counter inflation and supply chain challenges, this support may diminish in the near term. In 2024, global industrial demand could experience a broad softening as markets normalize due to slower economic growth, but long-cycle sectors could shine as bright spots. Unprecedented federal spending is expected to sustain robust growth in equipment rentals while automotive production stabilizes. However, trucks and agricultural equipment may moderately underperform, stepping down from recent peaks. The diversity of industrial end markets provides a shield against the broad-based weakness anticipated in 2024. Furthermore, unique

Sector Positioning

trends are emerging, driven by factors such as semiconductors and electric vehicles, nearshoring initiatives, and the conversion of office buildings into industrial spaces, adding intriguing dynamics to the industrial landscape.

Consumer Staples

The Economic Analysis Team recommends a neutral position in the Consumer Staples sector relative to the S&P 500 Index for the upcoming semester. Better-than-expected market conditions and consumer spending have caused the sector to largely underperform and have hindered its defensive nature this year, causing it to be one of the worst performing sectors in the Index. The sector has also faced headwinds from higher yields as investors have shed dividend-paying shares for less risky investments in U.S. Treasurys. While economic slowdown and possible recessionary fears may play into the inelastic demand for the sectors' products, the persistence of challenges--including rising input costs stemming from higher outlays for labor and materials as the result of stubborn inflation--has tested profitability. Companies in this sector may find it difficult to expand margins while inflation continues to moderate. However, the sector's valuation has improved this year to a more compelling level as it now trades at about a 7% discount to its ten-year PE multiple.

Energy

The Economic Analysis Team recommends an overweight position in the Energy sector relative to the S&P 500 Index for the upcoming semester. The implementation of output cuts by OPEC+ and Russia and the anticipation of a more restricted market offer a positive outlook for oil in the near term, despite lingering economic worries. In addition, the rising geopolitical risk environment in Israel and the Middle East have lifted the price of oil and have clouded supply outlooks for the rest of the year and into 2024. Meanwhile, the companies in this sector possess extremely strong and resilient balance sheets that allow them to combat an economic downturn. Lastly, valuations remain highly compelling, given that the sector is currently trading at about a 34% discount to its ten-year PE multiple and enjoys the lowest PE among all sectors.

Real Estate

The Economic Analysis Team recommends a neutral weight in the Real Estate sector relative to the S&P 500 Index for the upcoming semester. Numerous REIT properties, especially commercial real estate, are feeling the impact of the prospect of higher-for-longer interest rates. This sensitivity has been illustrated in 2022 and 2023 as the Federal Reserve's sharp rise in rates caused the sector to largely underperform the overall market by ~29%. However, data center REITs, driven by the expansive surge in technology and AI, stand out as noticeable exceptions. Additionally, valuations appear compelling, given that the sector is currently trading at about a 20% discount to its ten-year PE multiple.

Sector Positioning

Materials

The Economic Analysis Team recommends a neutral weight in the Materials sector relative to the S&P 500 Index for the upcoming semester. Given the sector's cyclical nature, it could be at risk as the result of worldwide recessionary concerns and declining global growth prospects. A continued resilient economy could combat these risks, however, should factors such as unemployment continue to show strength. While growth for 2023/2024 looks uncertain, the longer-term outlook for lithium and the overall sector appears more attractive.

Utilities

The Economic Analysis Team recommends an underweight position in the Utilities sector relative to the S&P 500 Index for the upcoming semester. High bond yields persistently exerted pressure on utility stocks this year, making the sector the worst performer in the S&P 500. The significant surge in bond yields has led to a negative yield spread between utility dividends and U.S. Treasurys for the first time in 14 years. As a result, the sector has lost its defensive allure, evident by investors' growing pessimism and the subsequent sharp decline in its performance. With the Federal Reserve's commitment to keeping interest rates elevated for an extended period, it appears that the negative yield will persist in the near to medium term. In addition, the sector grapples with underlying challenges such as fluctuating natural gas prices and increasing levels of leverage.