VANDERBILT Ave. ASSET MANAGEMENT

3rd Quarter 2022

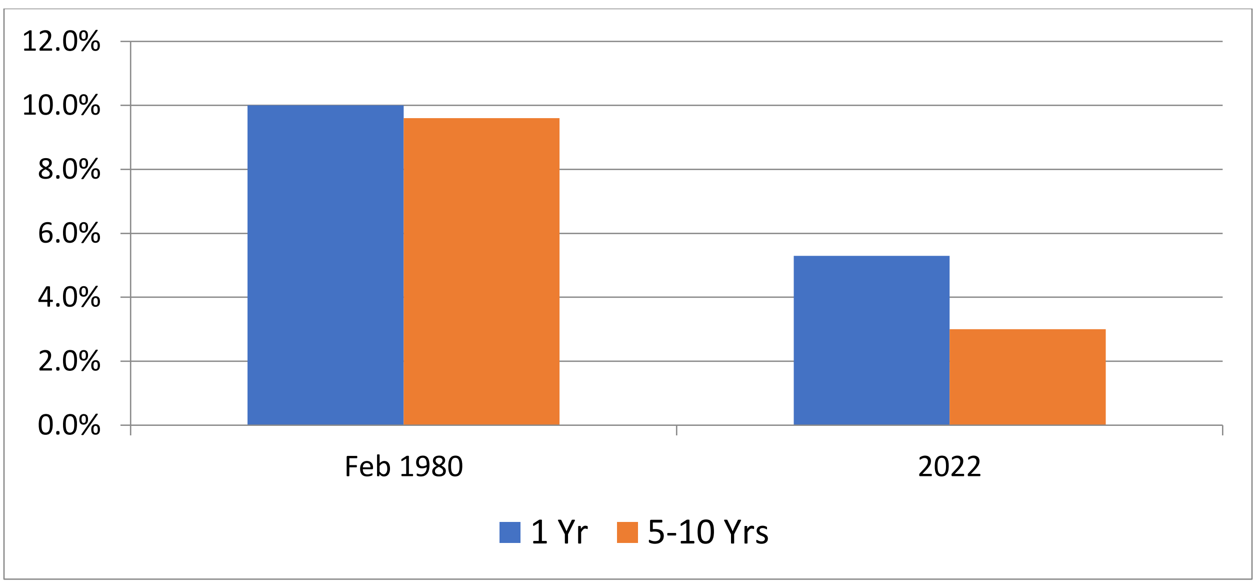
The Federal Reserve continued their aggressive **monetary tightening** to combat inflation. The FOMC raised the fed funds rate by another 75 basis points (their third 75 basis point increase in the last six months) to a range of 3% to 3.25%. Their forecast included the following: fed funds rate rising to 4 3/8% by the end of this year and to 4 5/8% next year (reflecting a more moderate pace of increases); the unemployment rate to rise to 3.8% by the end of 2022 and to 4.4% in 2023 and real GDP growth to slow through 2023. Monetary policy is focused on slowing the very strong labor market and seeing a consistent downward trend in the core PCE (currently at 4.6%) to approach their inflation objective of 2%. While the Fed can impact overall aggregate demand and protect against a wage price spiral getting out of control, they have limited ability to control supply chain constraints and one-off events such as the impact on fuel and food from the Ukraine war. Growth fundamentals are holding up and as we mentioned in previous quarterlies, we think the Fed was late in starting their restrictive monetary policy and once started, were not as aggressive as they should have been. The strong labor market is reflected in average payroll growth continuing the extension of solid gains the last six months, hiring up, wage rates up and finally a pickup in the labor force participation rate. This good news on the economy translates into bad news from the Fed's perspective. Chair Powell has noted the strong labor market with demand for workers outstripping supply and the potential for a wage-price cost spiral. Powell has said that reducing inflation is likely to require a sustained period of below trend growth and there will very likely be a softening in labor market conditions. Monetary tightening operates with long and variable lagged effects on the economy and there is a risk of over tightening and causing a recession. It is important to point out that the economic setting is not similar to the late 1970's to early 1980's when a severe recession ensued. Inflation today is not nearly as entrenched as it was in the previous period. As a result, a recession is not a sure thing. If there is a recession, it very well may not be as deep or prolonged as past recessions. VAAM is forecasting that a growth slowdown will result in a soft landing rather than a severe recession.

We are looking for real **GDP growth** of approximately 1% to 1.5% through next year. While we have revised down our growth estimate, our forecast is still higher than the consensus forecast. The consumer remains the backbone of the U.S. economy (70% of overall GDP). While Fed policy will eventually suppress consumer demand the consumer remains buoyed by a large amount of savings and a strong balance sheet. In addition, the business sector is also well positioned with profits that have held up thus far: strong cash flow and relatively low balance sheets. Monetary policy operates with lagged effects. The yield curve (3-month US Treasury bills vs. 10-year US Treasury notes) is not inverted and an inversion has generally preceded a recession. Leading indicators are not at a level of past recessions. Leading indicators have averaged approximately a nine-month lead time before the onset of a recession over the past three recessions. In addition, jobless claims are at the lowest level since July. Hourly earnings have remained strong and are up 5.2% on a year-over-year basis.

The path of **inflation** will dictate monetary policy. VAAM's outlook is for a gradual deceleration in inflation growth which we are beginning to see. The Fed's preferred inflation gauge (the core

PCE) is up 4.6% year-over-year. The Fed's policy objective is to get this rate down to 2%. The PCE rate is lower than the CPI partially due to a significantly higher weighting in housing for the CPI whereas the PCE has a higher weighting for health care. The core PCE rate of growth has recently moderated to its lowest level in nine months. It is instructive to look at past inflation episodes. The media has drawn attention to the inflation of the early 1980's and questioned whether today's inflation will follow a similar path. VAAM does not believe that will be the case. Due to the 15% inflation rate of the early 1980s, Fed Chair Volcker adopted a very tight monetary approach (fed funds grew to 20% vs. 3.25% today) which led to a severe recession and a sharp rise in unemployment. While this monetary policy brought inflation down, unemployment rose to 10.8%. The early 1980's inflation was deeply entrenched in the economy and the expectation was that inflation would remain high. Unions negotiated higher wage agreements and higher inflation became a self-fulfilling prophecy as companies raised prices to cover increased costs. Fed Chair Powell has on numerous times raised the importance of inflation expectations. It is very important to note that today's inflation and expectation outlook are significantly lower than those of the 1980's. In February 1980, both the 1-year and 5 to 10-year inflation outlook was the same, at 10% per year. However, today the 1-year outlook is for 5% inflation and the 5 to 10-year outlook is for a significant decline to 2.5%. Today's 2.5% inflation expectation shows that inflation has not become entrenched and is very close to the Fed's 2% objective.

Expected Inflation



Inflation, not entrenched – *University of Michigan*

Global market volatility has impacted all asset classes including the **foreign exchange** markets. Broad and sustained U.S. dollar (USD) strength has ramifications for the global economy. This includes a slowdown in economic growth and inflation headaches for global central banks. As the primary currency used in global trade and finance, the USD fluctuation has widespread impact. The Fed's monetary tightening and resultant higher rates will continue to fuel further USD gains. In addition, the USD will be in demand as a haven currency in times of economic volatility. China, Japan and Europe’s efforts to stabilize their currencies have been largely ineffective. The U.S. dollar index (USD versus a basket of U.S. major trading partner currencies) is up more than 16% year-to-date. The Euro, Yen and Pound have all fallen to multi decade lows. The currency declines for emerging markets have been even worse. Developing economies are hurt when purchasing commodities such as fuel and food that are priced in USD. Higher U.S. interest rates have caused investors to pull money out of other markets to invest in higher yielding U.S. assets. This trend will continue with further U.S. monetary tightening. Worse economic prospects overseas will also boost the USD. A stronger USD means cheaper imports for Americans which also serves as a way to fight inflation. However, a stronger USD also hurts U.S. exports and makes overseas earnings of U.S. companies lower when those earnings are converted back to the strong USD. Emerging economies could be facing a financial crisis as the global economy slows. A stronger USD makes debt that emerging market governments and companies have borrowed in USD more expensive to repay. In order to meet these debt payments, emerging market governments could be forced to make budget reductions for such items as health care and education. Emerging market central banks are raising their rates to rein in the depreciation of their currencies.

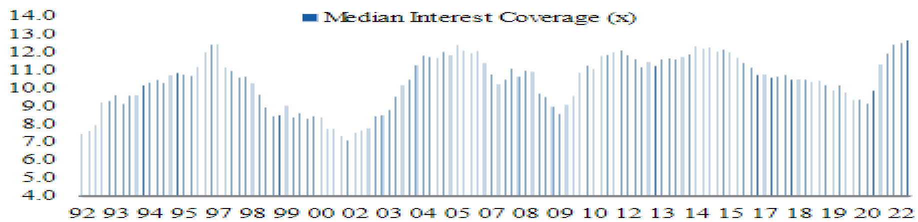
Volatility in foreign exchange rates has highlighted the increasing discrepancy between a restrictive monetary policy and, at the same time, a stimulative fiscal policy, especially for the UK and Euro zone economies. The UK and Europe are faced with fighting inflation, a recession and funding energy subsidies for companies and households due to extreme pressure on energy prices emanating from the Ukraine war. A prime example is the UK. A new Prime Minister has enacted a large expansionary fiscal policy to combat a stagnant economy on the verge of recession. Very large tax reductions have been proposed, which combined with large energy subsidies the government will pay, will cause large budget deficits. The new UK government will fund this deficit not by reducing expenditures elsewhere but by significantly increased debt financing. Fiscal and monetary policies are working at cross purposes with little coordination. As a result, UK stocks, bonds and the Pound are all suspect.

Fixed Income Summary

Global cross currents around inflation and the central banks response to it have resulted in significant volatility in otherwise safe instruments. The 2-year US Treasury yielding 4.22% is near its 25 year high. Short duration investment grade corporate bonds are at their highest nominal yields in a decade and credit spreads reman relatively contained. However, the interest coverage ratio is the best since the early 1990’s. Most issuers have locked in low rates and the refinance wall has been priced out to 2028. With underlying rates below our peak forecast, the future is brightening for short duration bonds.

As the Federal Reserve increased the Fed Funds rate, interest rates across the curve rose during the third quarter, with the greatest increase occurring in the short end, resulting in inversions along several parts of the curve. The spread between the 10-year and 2-year treasury began the third quarter at near parity, and finished the quarter inverted at -0.40%. At VAAM, we also analyze the spread between the 10-year and 3-month part of the curve, since the 3 month is the rate at which banks borrow money. While this differential has indeed compressed, it remains positive at +0.50% at the end of the quarter.

Spreads on corporate bonds were at their widest at the start of the quarter due to investor concerns of earnings missing analysts' estimates. However, as most earnings surprises were positive, spreads tightened back in August, before widening again in September in advance of the next earnings cycle. In addition to robust earnings, corporate fundamentals have remained solid, even as interest rates have continued marching upwards. In fact, interest coverage ratios increased for another quarter. Improvement in Interest coverage levels can be attributed to the high volume of debt that was financed in the low interest rate environment of 2020-2021, whereas much of the maturing debt has been relatively higher than new debt.



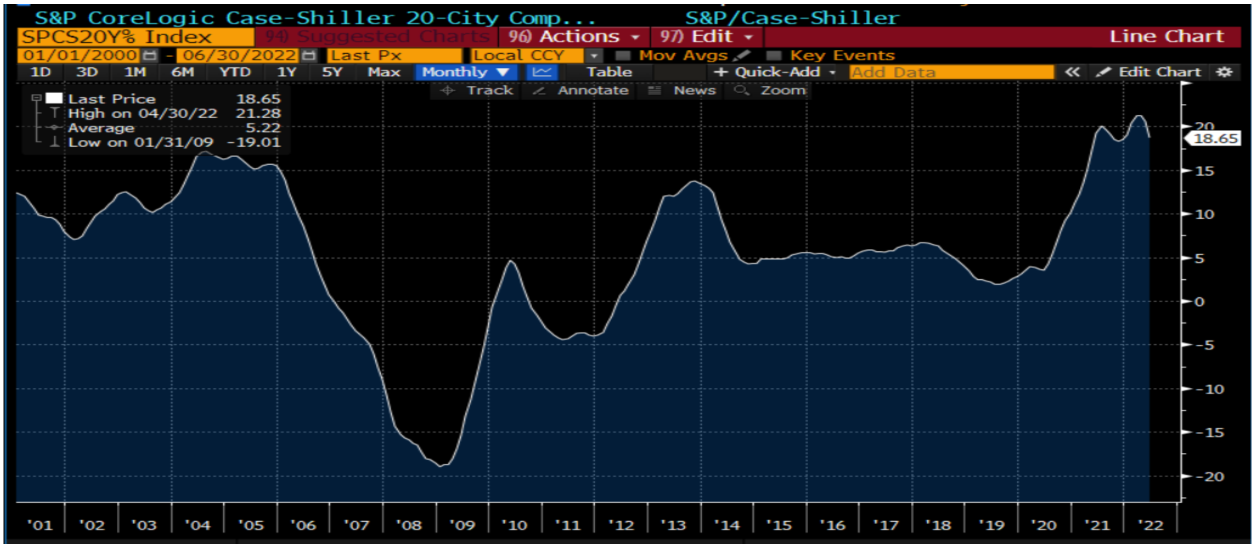
Source: Morgan Stanley Research, Bloomberg

Companies' balance sheets are also showing less gross leverage, both on average, as well as fewer at the highest levels. In fact, gross leverage rates are back down to pre-Covid ranges. Leverage is also lower across more sectors as companies have elected to buy back debt.

In addition to treasuries and corporate bonds, your portfolio is invested in Treasury Inflation-Indexed Securities ("TIPS"), which adjust upwards in value when inflation expectations, as measured by the TIPS Breakeven Rates increase in value. The Breakeven Rate measures the difference between the yield of nominal treasuries and inflation-indexed treasuries. TIPS posted high returns for the quarter, driven by the summer months when expectations for future inflation were running hot.

Housing Sector Commentary

In the two years following the onset of the covid pandemic, residential real estate prices experienced a meteoric rise with monthly increases consistently hitting double digits in 2021 and during the first half of 2022.

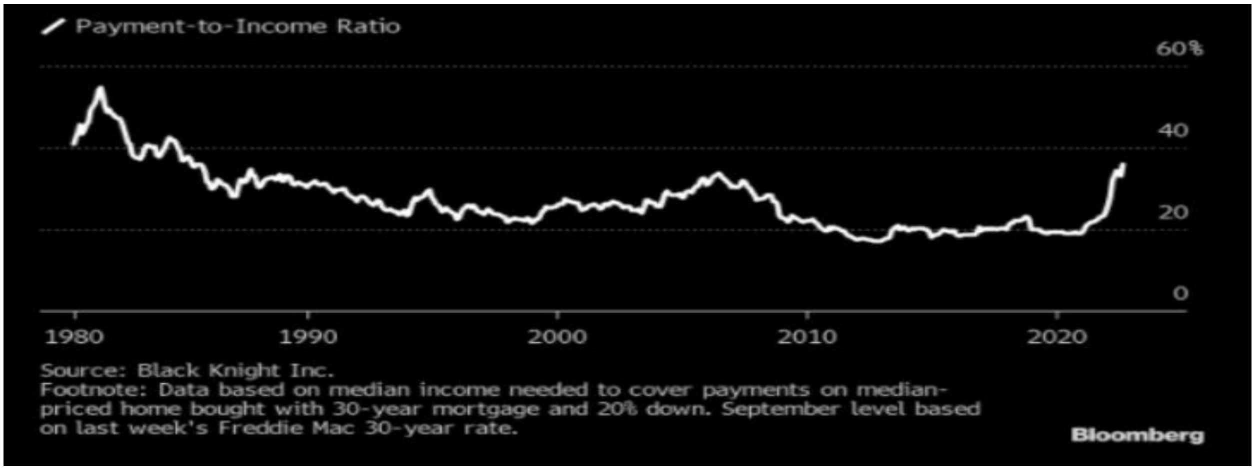


Home price appreciation gained momentum as a confluence of events affecting supply and demand for homes aligned. Demand for homes was largely driven by a greater value placed on one's residence at a time when working from home became the new normal and interest rates were at historical lows, resulting in low mortgage borrowing rates. At the same time, supply of homes was insufficient for the largest generation, millennials.

The demand from millennials, keen to work from home and secure a low mortgage rate, increased, and continued to be met with insufficient supply of homes not only due to a slowdown in building over the last decade, but also because of post-pandemic labor shortages and supply bottlenecks of materials like lumber and appliances. More of the millenniums were reaching home buying age, but were confronted with fewer homes for sale, a consequence of decreased home building which followed the Great Recession. And so a perfect storm ensued, where home prices were on an endless path to skyrocket, until the first quarter of 2022.

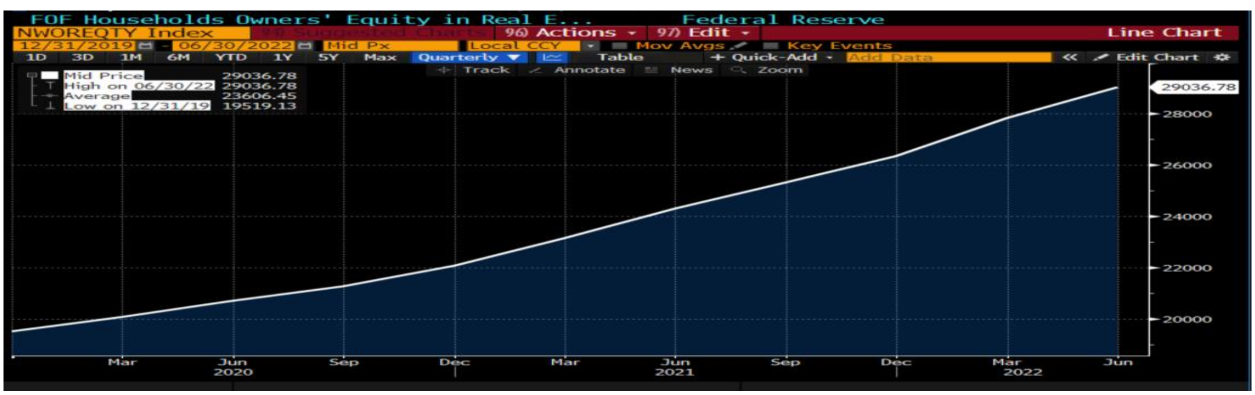
When the Federal Reserve began increasing interest rates in March 2022, mortgage borrowing rates increased in concert, eventually doubling from 3% in January to 6% by September, impacting affordability for new borrowers. As a result, many Wall Street analysts began calling for a major housing repricing. VAAM however, sees a modest correction on the horizon and falls short of projecting a housing recession.

By increasing interest rates, the Federal Reserve can control demand for homes, but it is not able to control supply of homes for sale. As interest rates have increased, housing affordability has been squeezed. The ratio of mortgage payment to income has risen from 22% in September 2021 to 36% today and is the highest it has been since 1985.



Although lower affordability brings fewer buyers to the market, given the situation existing homeowners find themselves in, it also leads to fewer sellers, and therefore not the ubiquitous housing correction that one would expect. Virtually all but 2% of U.S. homeowners have fixed rate mortgages in 2022, which is very different from the housing situation preceding the Great Recession when half of homeowners had adjustable-rate mortgages in 2006 (interestingly, this is not the case in other countries such as Australia and U.K. - whose existing mortgage borrowers are exposed to financial difficulties as their central banks raise rates to battle inflation).

As rates increase for existing U.S. mortgage borrowers, they can choose to stay in their homes instead of rushing to sell, like many were forced to do in 2006. Additionally, they have accumulated a substantial amount of home equity in the last two years (home equity increased by 50%, from \$19 trillion on 12/31/19 to \$29 trillion on 6/30/22), and they can tap into that without the need to sell their homes.



Where we have begun to see home price appreciation decelerating the most is in those parts of the country that experienced the greatest growth after the start of the pandemic, particularly in west coast cities like San Francisco, which still have the highest priced homes in the country. Given the ability to work from anywhere, particularly among technology jobs, homeowners have been choosing to take jobs and sell homes in high priced areas while relocating to other parts of the country. While this results in price decreases in some areas, it primarily leads to redistribution of housing prices, and not a housing recession as some may expect.

In any case, new homebuyers are bearing the cost of tight monetary policy. Since the mid-1990s only 18% of disposable family income has gone toward mortgage payments. Now however, new homebuyers are allocating 25% to 30% of income to mortgage payments. Despite monetary policy putting a damper on demand, the inventory of U.S. housing stock is close to its historical lows. In June, more than 1/3 of all listed houses sold within two weeks. That supports our out of consensus forecast for a housing correction but not a recession.