

4th Quarter 2022

Vanderbilt Avenue Asset Management ("VAAM") is forecasting a growth slowdown commencing the second half of 2023. Signs that the economy could only enter a mild recession based on the latest GDP report underscores the strength of the consumer. In the GDP report, final sales to domestic purchasers moved higher. Over the past forty years when the yield of the tenyear treasury note has fallen below the yield of the three-month treasury bill the U.S. economy has entered a recession. If a recession is on the way, the U.S. consumer has not received the memo. The University of Michigan Survey of Consumer Sentiment increased more than expected in the final December report and New Home Sales increased in November against consensus expectations for a decline.

Based on the continued strength in consumer spending and labor market data, we could see a scenario where the U.S. consumer buttresses the U.S. economy. A strong labor market continues to strengthen the consumer as job openings exceed the supply of labor. It's fair to say that the inverted yield curve is a strong sign that a potential recession is looming, but the U.S. consumer can step in and prevent a recession from becoming a significant event. Consumer fundamentals remain strong with disposable income (adjusted for inflation) at \$15 trillion dollars - driven higher by direct transfers through government subsidies and higher wages. The US consumer is also sitting on \$426 billion in personal savings, the equivalent of approximately 2% of GDP.

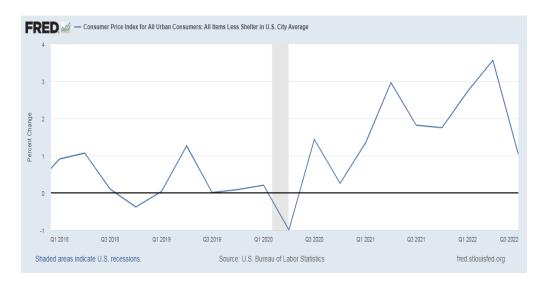
In addition, bank balance sheets are strong and interest rate spreads continue to widen improving bank profitability and lending potential. The corporate sector will also serve as a prop to the economy with strengthened balance sheets, solid profits and cash flows. Historically, recessions have been characterized by a slowdown in production coupled with an increase in unemployment. Thus far, these developments have not materialized.

Nevertheless, the Fed's tightening of monetary policy and higher interest rates will ultimately reduce aggregate demand. The labor market has recently cooled from earlier in the year, though it remains historically tight due to a limited pool of workers that has caused elevated wage gains. Rising rates and inflation will significantly reduce the cushion of cash consumers built up during the pandemic sometime in mid 2023. The good news is that this slowdown in the economy will gradually reduce inflationary pressures.

The **inflation** outlook is critical because it will guide monetary policy. VAAM forecasts that a gradual slowing of inflation will continue. Core goods inflation is down as supply chains have improved but core services inflation has been much slower to decline. Monetary tightening is making a difference. The CPI was 7.1% YoY in November, down from 7.7% YoY in October. This is the fifth consecutive drop in a row since inflation peaked at 9.1% YoY in June. Core CPI (excluding food and energy) is still at a high annual rate of 6% YoY. However, the November core PCE (which is the indicator the Fed monitors) came in line with consensus expectations and the year over year rate declined to a four month low of 4.69%. Most importantly, the one year inflation expectation declined by 2/10ths while the 5-10 year inflation expectation declined by

1/10th to 2.9%. Household demand for goods is weakening across the globe and factories are cutting production in response. This has reduced pressure on supply chains leading to a downshift in price increases, slowing global trade and retailers discounting to reduce inventory levels.

One of the larger categories of the CPI is the owners' equivalent rent. Mortgage rates have risen substantially, and rents are starting to decelerate. Once the owners' equivalent rent peaks, this will contribute greatly to a cooling of the CPI.



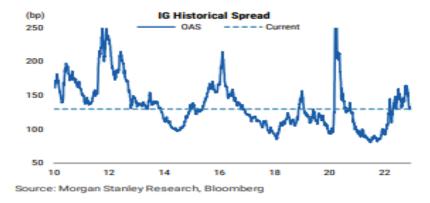
As the rate of inflation has slowed the **Federal Reserve** recently reduced the pace of their interest rate increases. The fed funds rate was recently raised 50 basis points (in contrast to previous increases of 75 basis points) to a range of 4.25% to 4.5%. This places the fed funds rate at a 15-year high. Fed Chair Jerome Powell has said that wages are well above levels consistent with 2% inflation. The Fed is convinced that the job market needs to weaken to bring inflation under control. While low unemployment and wage gains are helping fuel consumer spending, the economy's main engine, this is also contributing to inflation. There is concern that there are plenty of job openings in the labor market, new claims for unemployment insurance are low and hiring remains strong. However, recently there have been layoff announcements and job growth has slowed. Further softening in the labor market is expected as the lagged effects of rising rates impact the economy.

This could result in inflation expectations being built into future labor agreements. A prime example of this is what is occurring in the UK. Across numerous sectors of their economy strikes are taking place over wage demands. For example, nurses have recently gone on a nationwide strike demanding wage increases of approximately 15%. This is an attempt to secure real wage gains to offset rising inflation. Polling in the UK show a majority of the populace support these strikes even though they cause inconveniences. So far in the U.S. inflation expectations have not become elevated and fixed income breakeven rates indicate inflation of approximately 2.5% (near the Fed's 2% objective) over the next 2-5 years. The Fed is confident that higher rates will trigger more layoffs, a softening in the labor market and a slowing economy. A major uncertainty is how high rates will have to go and how long they will remain at peak levels before the Fed is comfortable they have achieved their objective.

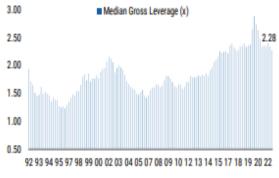
Lower inflation in the months ahead would allow the Fed to further reduce the magnitude of its rate increases, or even pause them, while it waits to see the full effect of its rate increase regime. The Fed's dual mandate from Congress is to keep prices stable and achieve full employment without overheating the economy. While inflation has been and will remain for the foreseeable future the Fed's primary focus, the question arises at what point and under what economic circumstances will its attention begin to shift to its employment mandate.

Corporate Credit Summary

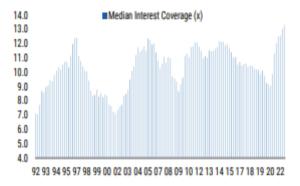
In 2022, U.S. treasury bonds incurred historical rate increases, with the 10-year treasury ending the year over 200 basis points higher than it started, and the 3-month rate over 400 basis points higher. The multiple increases of the Fed Funds rate by the Federal Reserve led to an inversion of the yield curve that peaked near -0.90% in mid-December, expressing investors' concern over a possible impending recession. Along with the volatility in treasuries, corporate bond spreads fluctuated significantly throughout the year, ending much wider than they started. Like the inversion in the yield curve, much of the widening in spreads was due to fears of an economic slowdown and a decrease in earnings. However, because of still-solid fundamentals, corporate bond spreads narrowed during the fourth quarter.



Gross leverage, which has been decreasing since the start of the pandemic in early 2020 has continued to drop and is currently below pre-Covid levels.



Source: Morgan Stanley Research, Bloomberg



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Likewise, interest coverage is improving and now stands on average at 13.3x, The breadth of issuers with better year over year interest coverage ratios are at a healthy 60%.

We continue to overweight higher quality corporate bonds, with allocations to some floating rate securities which have performed well as their coupons have increased along with rates. These include an A rated United Parcel Service floater and A- rated Cigna floater, both of which had significant positive earnings surprises in the last quarter. As we close out 2022, we will continue to closely monitor corporate bonds, assuring that the securities are backed by companies with solid fundamentals.

Housing Industry

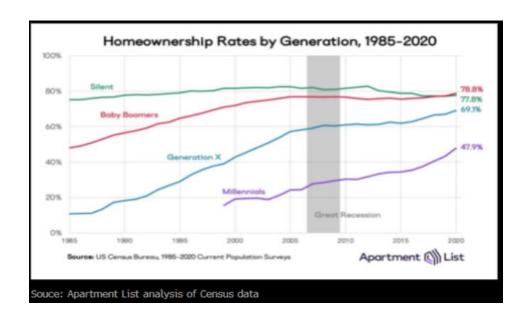
Interpreting the conundrum that is the 2022 housing market requires investors to take a page from a primary lesson in economics supply and demand, along with a look back at some events in recent history.

Many will recall that the Great Recession was spurred by the collapse of the housing market in 2007. The early aughts were a time when banks loosely extended credit to borrowers, over half of whom took on adjustable-rate mortgages. For several years, these mortgages worked well for borrowers because, as home prices appreciated, borrowers simply refinanced into new adjustable-rate loans with low teaser rates. When home prices stopped appreciating, this system, that was also fraught with fraud, quickly unraveled. Borrowers walked away from mortgage loans that were greater than the value of their underlying homes, wreaking havoc to the banking system, while home builders, stuck with a glut of unwanted inventory were also put out of business.

In the 15 years that followed the Great Recession, banks' underwriting standards tightened dramatically, while builders were slow to ramp up construction to meet the eventual growth of the new generation of buyers, the Millennials, who were greater in numbers than those who preceded them. As a result, after the home price collapse reached a bottom and began to gradually ratchet up, the new fleet of home buyers to whom banks extended mortgage loans boasted significantly better credit quality than their predecessors. In order to ensure that borrowers have skin in the game, banks expected typical borrowers to invest at least 20% of the value of their home (equivalent to loan-to-value ratios of 80% or lower), to demonstrate good credit quality (typical FICO scores higher than 700), and only offered them a fixed rate mortgage (as of 2021, 98% of mortgages were fixed rate, versus 50% before the Great Recession). These fixed rate mortgages were at manageable rates, typically well below 5%, after the Federal Reserve cut rates in response to the recession. After the stock of the millions of foreclosed houses had sold, home prices slowly appreciated for most of the 2010's, allowing borrowers to gradually accumulate equity in their homes. Additionally, the ramp-up in new construction was slow, since many builders went bankrupt after the Great Recession, and this aided in the gradual ascent of home prices.

The catalyst that changed this steady price-increasing dynamic was the global pandemic. With the onset of Covid, and the flexibility for many workers to work from home, household formation began to increase geometrically as people sought more stable living situations that accommodated a home office. As buyers' homes became their places of work, demand for homes, particularly in underpriced areas of the country, skyrocketed. Many of these buyers were

Millennials, the generation that had reached peak home-buying age. They were confronted with rising prices at a time when older homeowners were not ready to sell as life expectancy rates were higher, and when new construction was still ramping up post the Great Recession. Additionally, another bottleneck to construction were global supply chain disruptions and labor shortages resulting from Covid. With demand for homes vastly outstripping supply, prices climbed, putting homeownership out of reach for many first-time buyers.



In early 2022, when the Federal Reserve began to increase interest rates to battle surging inflation, one of the price areas it was targeting to relieve was housing, where rental prices had also been escalating upwards uncontrollably. Many Wall Street analysts pointed to the Fed's actions and forecasted a severe housing correction, because higher interest rates, would result in higher mortgage rates, and in turn lower demand for homes, which should have resulted in lower prices since supply of homes for sale should have remained unchanged. But miscalculating supply was the error.

What analysts did not consider is that although there are indeed fewer buyers able to buy homes with mortgage rates that doubled from 3% in January 2022 to 6% in December 2022 (even reaching a whopping 7% in October 2022), there are also significantly fewer sellers. Unlike the unraveling of the housing market that ravaged the late aughts, the 2022 housing market is comprised of borrowers who are locked into low fixed rate mortgages (because interest rates were low for over a decade), have strong credit quality (because underwriters demanded this), have equity in their homes (a requirement of underwriters, and additional equity from recent home price appreciation). Therefore, these borrowers are not under any pressure to sell into a market where buyers are expecting lower prices, and where a new mortgage will require sellers to enter a higher rate mortgage if they purchase another house. So, although first-time buyers are unwilling to pay higher prices, sellers are not willing and are under no pressure to sell at lower prices. The housing market is at a virtual standstill.

There has been price softening in certain parts of the country, particularly in areas that were overvalued. In California, where tech sector employees can work from home, for example, homeowners continue to sell high priced homes and move to areas with lower cost of living. Other distinct areas which experienced outsized growth are also seeing price reductions. But nationally, while home prices are softening, they are far from plummeting, because ultimately there remains a shortage in the supply of homes to fulfill the existing demand. And as builders are again taking a pause, the supply shortage will only fuel a greater real estate market in the future.

At VAAM we continue to maintain a moderate outlook on housing. Even as the number of home sales are dropping, prices of homes are only decreasing slowly, and are in fact up over 10% year over year, according to the latest Case Schiller 20 City composite report.

Covid-19

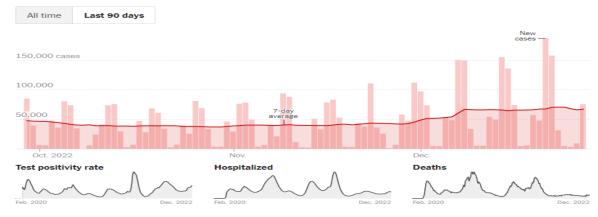
In October, new variants BQ.1 and BQ.1.1 from the dominant BA.5 appeared to be spreading quickly but comprised only a small proportion of overall variants. Although variant XBB was of concern internationally, it was rare in the United States. Recommendations for receiving vaccination booster shots were mixed: while populations at risk of severe disease and death should stay up-to-date, healthy, middle-aged-and-younger populations were rarely at risk of severe illness, and most have adequate immunity. Although the newest bivalent boosters target the recent BA.4 and BA.5 variants and their risks are low, some experts recommend new strategies to develop vaccines with broader effectiveness.

In the months leading up to November, deaths from COVID-19 substantially decreased, attributed to high levels of population immunity (through vaccination or prior infection), and improvements in early treatment for patients at risk for severe disease. The CDC recommended vaccinations, treatments for immunocompromised individuals and to reduce severity of the disease and continuing to wear masks in public. Nonetheless, Dr. Anthony Fauci, said the Biden administration felt that there was "enough community protection that we're not going to see a repeat of what we saw last year at this time" (referring to the emergence of the Omicron variant).

A study of vaccine effectiveness found that U.S.-authorized bivalent mRNA boosters to those having already received 2 to 4 monovalent vaccinations provided significant additional protection against symptomatic SARS-CoV-2.

Going into Christmas weekend, the key measures of the pandemic are no longer rising like they were in early December. Cases have been roughly flat nationally for the past week, and hospitalizations have begun to level off after a month of consistent growth. Cases are rising in some states, however, and the Northeast remains a troubling hotspot. At a time of extensive holiday gatherings and lagging vaccine uptake, there are reasons to suspect that the current leveling off could be short-lived.

New reported cases



	Daily AVG ON Dec 27	Per 100,000 Daily	14-Day CHANGE
Cases	67,215	20	+2%
Test Positivity	14%		+17%
Hospitalized	39,432	12	-1%
In I.C.U. s	4,871	1	+8%
Deaths	388	<1	-18%

China is the world's second largest economy, second only to the United States. Covid-19 has presented challenges to the Chinese government with the viruses ability to spread despite strict lockdowns and large scale closings of entire sectors of the Chinese economy. As China prepares to fully re-open the country to travel and full economic production, an average of 3,639 cases per day were recently reported in China. Cases have increased by 5% from the average two weeks ago. Deaths have increased by 50 percent.

Since the beginning of the pandemic, a total of 1,909,905 cases have been reported. At least 1 in 266,638 residents have died from the coronavirus. After the easing of China's "zero Covid" policies in December 2022, the country is struggling with a massive wave of infections and deaths, almost all of which are going unreported. China is also thought to have drastically understated the number of Covid cases and deaths in official figures early in the pandemic. A reemergence of supply chain disruption cannot be ruled out. The severity and impact of this possibility will be a key economic focusing point.