Interest Rates and Home Prices

Home prices have increased significantly over the past four years. At the same time, Federal Reserve policy has significantly increased mortgage rates. As a result, new homeowners need to spend an ever-greater portion of their income on housing. A correction to housing prices may be overdue.

The Housing Market and the Banking Sector

The housing market played a central role in the great financial crisis of 2007-2008. There were significant reforms made in the wake of the financial crisis, but housing markets are still susceptible to bubbles, and the housing market has continued to grow over the past 15 years. Between 2009 and 2023, the value of US mortgage-backed securities held by commercial banks in the US increased from just under $1 trillion to just over $2.6 trillion.[1]

The Impact of Interest Rates on Home Prices

In April of 2019, the 30-year mortgage rate was 4.17%. At that rate, the monthly payment on a $1,000,000 mortgage would be $4,873. Now, as a result of Fed tightening, mortgage rates have increased to 6.39%, and that same $4,873 monthly payment will only get you a mortgage of $779,814.[2]

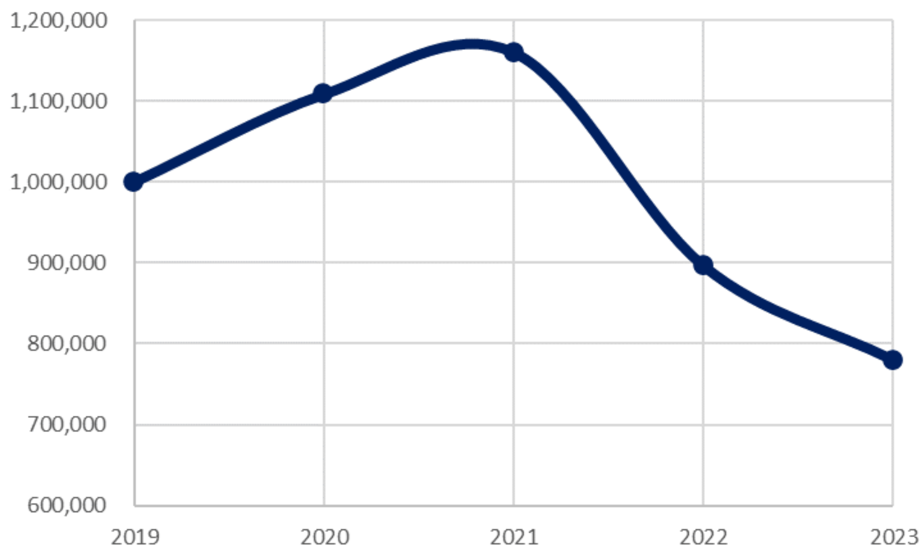

Figure 1: Value of 30-Year Mortgage for $4,873 Monthly Payment

[1] Source: Board of Governors of the Federal Reserve System (US), Treasury and Agency Securities: Mortgage-Backed Securities (MBS), All Commercial Banks.
[2] Rates used in text and accompanying chart are for 2019-04-18, 2020-04-23, 2021-04-22, 2022-04-21, and 2023-04-20. Source: Freddie Mac, 30-Year Fixed Rate Mortgage Average in the United States.

Put another way, all else being equal, if the amount of money that home buyers were willing to spend on monthly mortgage payments had remained constant over this period, housing prices would have decreased by 22%.

So, Housing Prices are Down?

Rather than going down, though, home prices have increased dramatically over the past four years, only turning down slightly over the past 12 months. From April 2019 to February 2023, the most recent date for which data is available, the S&P Case-Shiller Home Price Index increased by 41%.

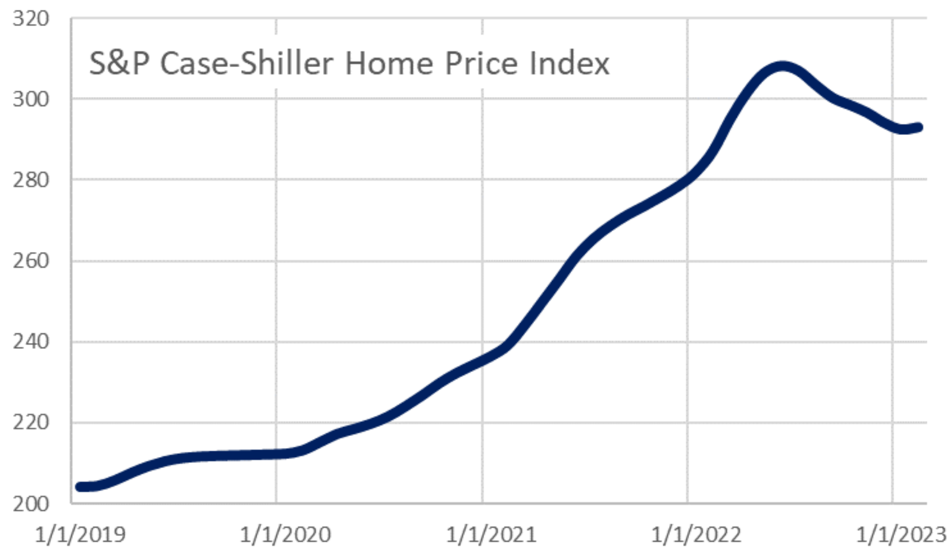

Figure 2: S&P Case-Shiller Home Price Index, Nominal Prices. Source: S&P Dow Jones Indices LLC.

Why haven't home prices crashed? One reason is that households have more money to spend. From 2Q 2019 to 4Q 2022, nominal GDP per capita increased by 21%.[3] This increase almost offset the increase in rates. If a household was willing to spend $4,873 per month in 2019 for a $1,000,000 mortgage, then by the end of 2022 the same share of their income would have amounted to $5,915 per month, which would have secured a mortgage of $946,602 in April 2023.

To buy the same home, though, that same home buyer would have had to spend not $1,000,000, but $1,411,493, which would have required monthly payments of $8,820 per month. Compared to the $5,919 they would have been willing to spend, this represents a 49% increase. This figure is consistent with other data that indicate that that the ratio of home prices to median income has increased by approximately 40% over this period, and is now higher than at any point in the last 50 years, including the lead up to the great financial crisis.[4]

What this Means for Financial Markets and the Broader Economy

People who are working from home may be willing to spend more of their income on housing, and face less pressure to relocate for work, allowing them to ride out a difficult housing market. Income growth for likely home buyers may have been higher than for that of the general population, and there are regional variations in the housing market. These factors, and others, may explain some of the increase in housing prices, but it is unlikely that they explain all of the increase. On the heels of unexpected instability in the banking sector, we may be

[3] Source: U.S. Bureau of Economic Analysis, Gross domestic product per capita.

[4] See, for example, Longtermtrends.net, Home Price to Median Household Income Ratio (US).

overdue for a correction in the housing market. This could lead to significant volatility in the broader financial markets.

What this Means for Your Portfolio

For hedge funds, increasing market volatility means both increasing opportunities and increasing risk. It is important to understand your exposures, both direct and indirect. At Northstar, our stress tests and factor models can help you better understand the macro exposures in your portfolio. In particular, our Financial Crisis and various interest rate stress tests, and our mortgage-backed security, real estate sector, and yield curve factors can help fund managers better gauge their exposures.