November 2, 2022

MACRO STRATEGY

U.S. Housing Market: Things that Rise Also Fall

Key Takeaways

- We anticipate the year-over-year growth of national home prices to slow to a positive single-digit rate at year-end 2022 and to turn negative in 1H23. We may see a negative single-digit change in home prices at year-end 2023.
- We anticipate the U.S. housing market to resume modest, positive price growth in two to three years.
- We expect continued rate hikes, already a major headwind, to further decelerate housing price growth in the near term. The stronger and/or longer the tightening cycle, the more negative we believe the impact on housing prices.
- We believe the chance of the rerun of the 2008 crisis is low, due to healthier household balance sheets, better credit quality of mortgage loans, less likely strategic defaults, lower loan-to-value ratios, more robust equity positions, and an underbuilt housing market.

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Is Chairman Powell right?

During the FOMC Press Conference on September 21, U.S. Federal Reserve (Fed) Chair Powell pointed out that the housing price gains were not sustainable. He also suggested that the housing market may have to enter a correction or see a cooldown in housing prices to take the supply and demand back to equilibrium and to pull inflation back down to the Fed's target level.[1]

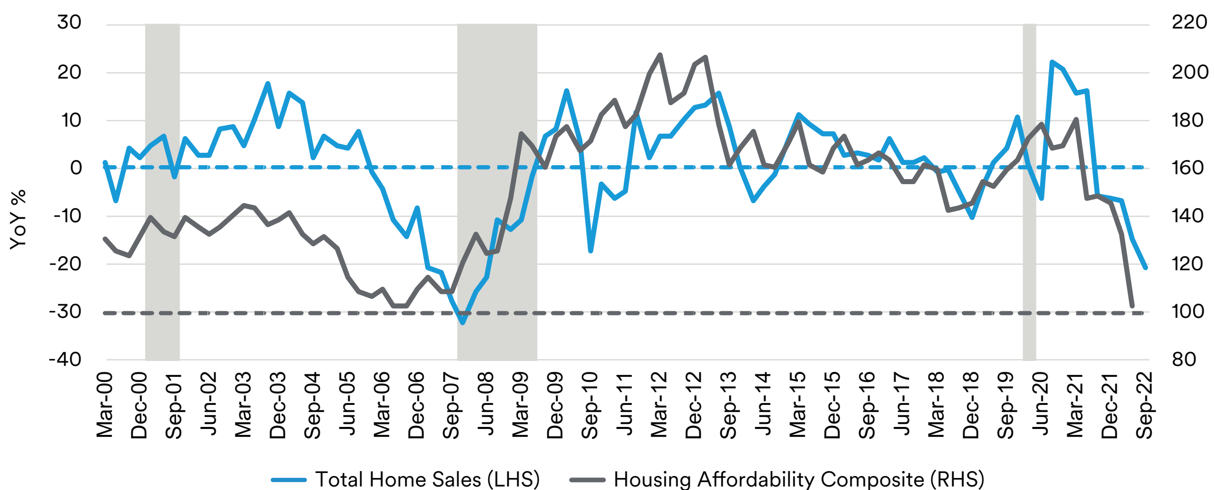
In line with Chair Powell's comment, we believe housing prices may see a correction, which is also indicated by our findings about cooling sales activity, lower affordability, relatively slower growth of rent and income, rising interest rates, and tightening lending conditions. However, we don't expect the current housing market slowdown to mirror what happened during the housing market crash in 2008.

Current Price Gains May Not be Sustained

Sales and Affordability are Down

Home sales activity has been cooling, with home sales seeing negative, year-over-year (yoy) growth estimates since August 2021, and total home sales falling by 21% yoy in September—the largest contraction since the Global Financial Crisis (GFC) (when total home sales dropped by 32% yoy in 2007, Figure 1.) The Housing Affordability Index, which tracks the affordability of housing based on median home prices, median income, and mortgage rates, fell to 102.8 in June, the lowest since June 2006 (right before the GFC). This measure shows that fewer families will be able to afford the median-priced house based on their current incomes and mortgage rates. With continued rate hikes, we expect U.S. for-sale housing to become even less affordable.

Figure 1 | U.S. Home Sales Activity and Housing Affordability



Note: Gray bars denote recessions. Total Home Sales include new home sales and existing home sales. When the Housing Affordability Index equals 100, a family earning the median income has exactly the amount needed to purchase a median-price resale home using conventional financing. An increase in the Housing Affordability Index means that a family is more likely to be able to afford the median priced house.

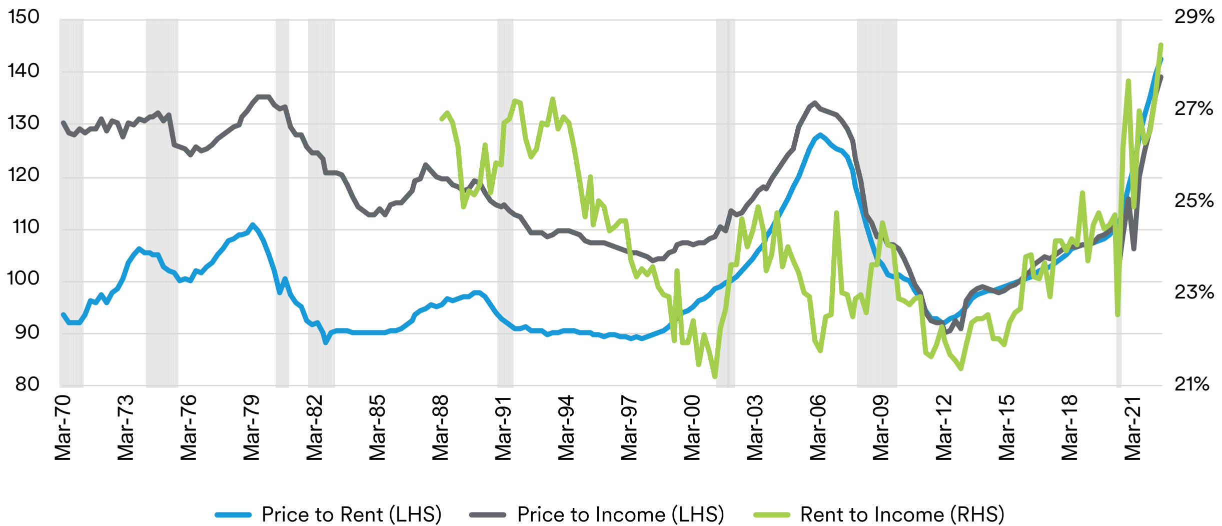
Source: Bloomberg, Federal Reserve, NAR, Census Bureau, MIM

Home Prices are Under Pressure

We observe (Figure 2) that during recessions, except for the 2001 dot-com bust and the 2020 pandemic recession, the price-to-rent ratio declined to between 90 and 100, suggesting that the ratio may be mean-reverting.

Housing price ratios have all risen to historic highs, also suggested by the z-scores[2] in Table 1 that those ratios are significantly higher than the long-term average. Moreover, current z-scores are higher than they were before the housing bubble of 2008. Home prices have been outpacing income and rent in the past two years, suggesting that for the price-to-rent ratio to revert, the most likely way is via a decline in housing prices.[3]

Figure 2 | Housing Ratios During Recessions



Note: The price-to-rent and price-to-income ratios provided by OECD are calculated using house price index and rent price index, while the rent-to-income ratio are calculated separately both using median nominal values. Income is defined as disposable income per capita. Gray bars denote recessions.

Source: Bloomberg, Federal Reserve, OECD, BEA, Census Bureau, MIM

Table 1 | Housing Ratios Are at Historic Highs

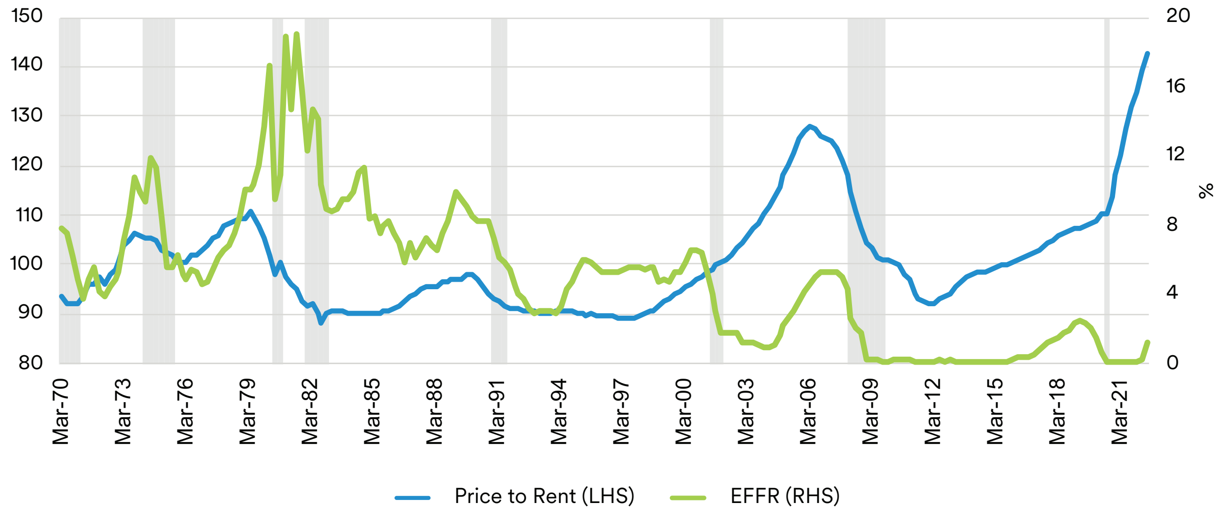
Ratios	As of June 2022	Min	Max	Average	Median	Z-score (as of June 2022)	Z-score	when the highest ratios right before GFC
Price to Rent	143	88	143	101	98	3.9	3.5	March 2006
Price to Income	139	90	139	116	115	2.0	1.6	December 2005
Rent to Income	28%	21%	28%	24%	24%	2.6	0.18	December 2006

Source: Bloomberg, OECD, BEA, Census Bureau, MIM

The Tightening Cycle is Likely to Negatively Impact the Housing Market

Analyzing the behavior of the price-to-rent ratio, we find that the stronger and/or longer the tightening cycle, the more negative the impact on housing prices (Figure 3). Given that the rent-to-income ratio is already under pressure (Figure 2), rents may become even less affordable when the labor market starts to feel the impact of a hawkish Fed.

Figure 3 | The Price-to-Rent Ratio Behavior Under Tightening Cycle

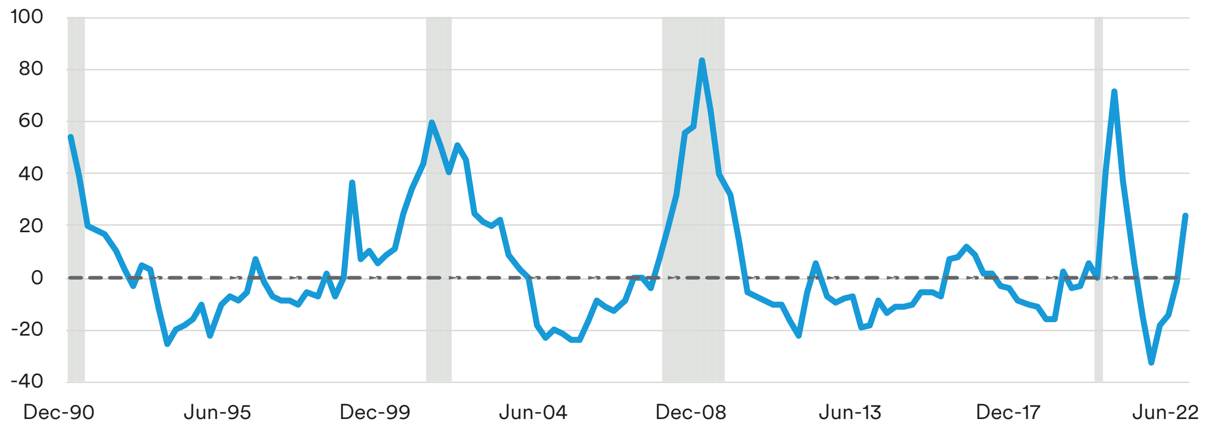


Note: Gray bars denote recessions. EFFR refers to effective fed fund rate.
Source: Bloomberg, OECD, Federal Reserve, MIM

Bank Lending Standards Have Become Tighter

With continued interest rate hikes, lending conditions are likely to become tighter (Figure 4), and many potentials, first-time buyers are unlikely to qualify for a mortgage, further reducing for-sale housing demand.

Figure 4 | Bank Lending Standard Conditions (Senior Loan Officer Surveys)



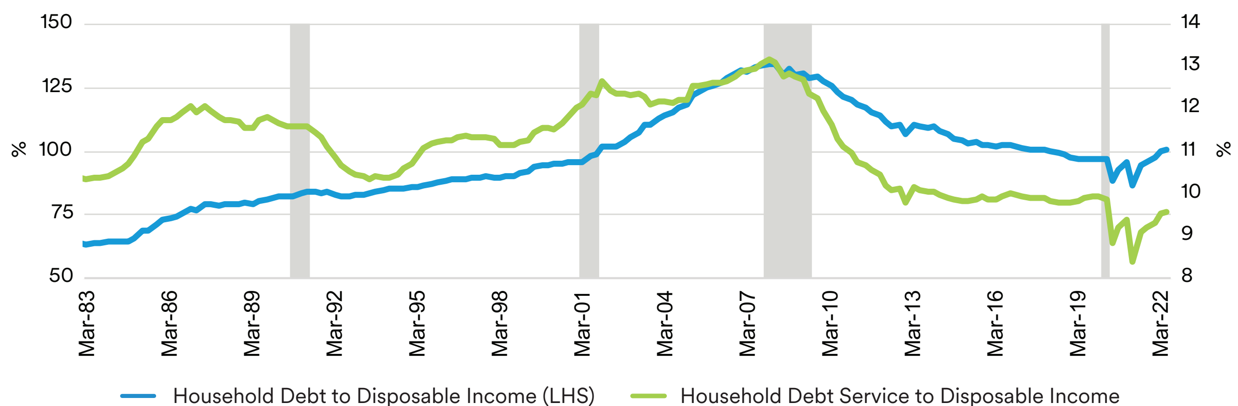
Note: Senior Loan Officer Surveys attempt to track bank lending standards within a specific economy. The survey generally measures the tightening or loosening of loan standards to both consumers and businesses and is conducted among senior loan officers at lending institutions. Positive values indicate tightening, while negative values indicate easing. Gray bars denote recessions.
Source: Bloomberg, Federal Reserve, MIM

2022 is Not 2007

Household Balance Sheets Have Improved Dramatically Since 2008

Before the 2008 housing crisis, household leverage was increasing continuously, with a historically high, household debt-to-disposable-income ratio of 134% and a household debt service ratio of 13% in 2007. Compared with 2008, household leverage is well below the peak of 2007, and the debt service ratio is below its long-term average (Figure 5). These ratios indicate that U.S. households are in a much better position to service their debt today than they were in 2007.

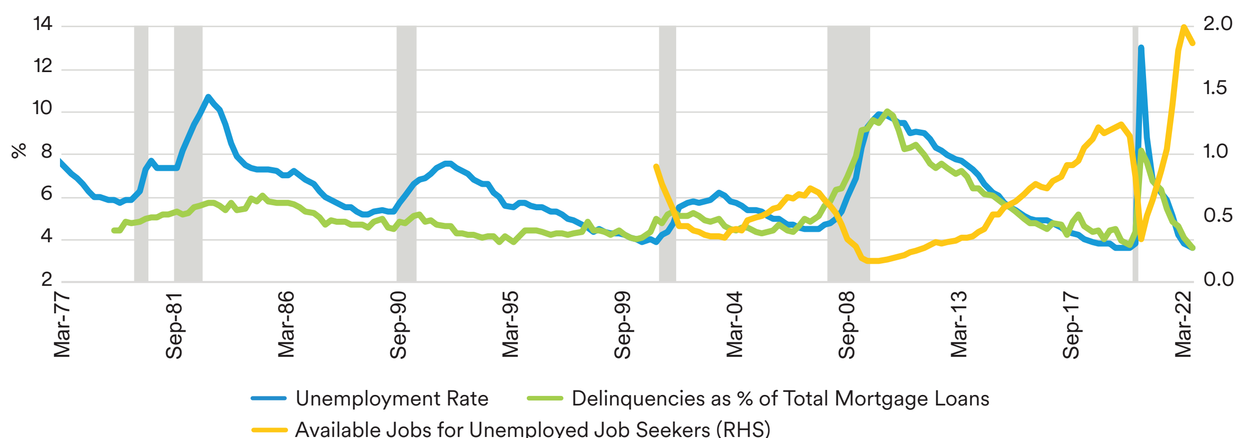
Figure 5 | Household Leverage Ratios



Note: Gray bars denote recessions.
Source: Bloomberg, Federal Reserve, MIM

Mortgage delinquencies usually rise with an increasing unemployment rate (71% correlation of delinquencies as % of total mortgage loans to unemployment rate using quarterly data from 1979 to 2022). However, the unemployment and mortgage delinquency rates are both near historical lows. In the short term, based on their relationship, we do not expect to see a drastic jump in mortgage delinquency rates as was seen in 2007. This is due to the historically tight U.S. labor market, which continues to have almost two vacancies for every unemployed worker (Figure 6). This is much higher than the pre-pandemic level and higher than the recent historical norm of about 0.7 vacancies per unemployed worker since 2000.[4]

Figure 6 | U.S. Labor Market Remains Tight and Resilient

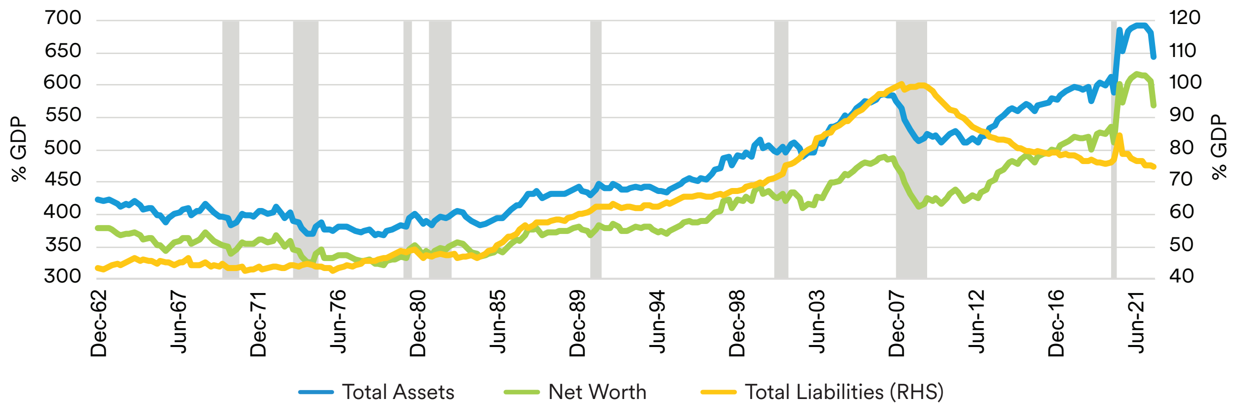


Note: Gray bars denote recessions.
Source: Bloomberg, Mortgage Bankers Association, BLS, Federal Reserve, MIM

Moreover, household assets and net worth, relative to GDP, have increased significantly, compared to their peaks in 2007, while total liabilities continued to decline after the GFC and are at a much lower level than in 2007 (Figure 7).

Even though the Fed is expected to continue hiking interest rates, for-sale housing market may see a less severe price drop than in 2007. Given the tight labor market and robust household balance sheets today, we expect households to weather the storm of the housing market slowdown better than they did in 2007.

Figure 7 | Household Balance Sheet (% GDP)

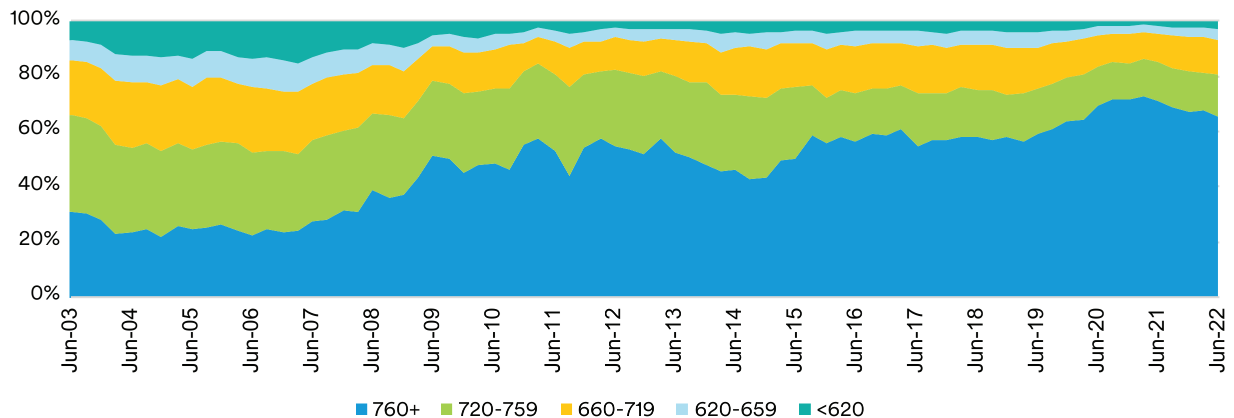


Note: Gray bars denote recessions.
Source: Bloomberg, Federal Reserve, MIM

Mortgage Debt Credit Quality Is Much Better Today Than in 2007

Prior to the 2008 housing crisis, subprime mortgage originations (credit scores below 620)[5] peaked in the first quarter of 2007, accounting for more than 15% of total mortgage originations, or $115 billion in volume, while super-prime loan originations with credit scores above 760 just represented 24% of total originations or $179 billion in volume during the same time period (Figure 8). Today (as of June 2022), subprime type originations have almost disappeared, with $22 billion in volume or only 3% of total originations, while super-prime originations dominate the mortgage market, soaring to $495 billion in volume or 65% of total originations.

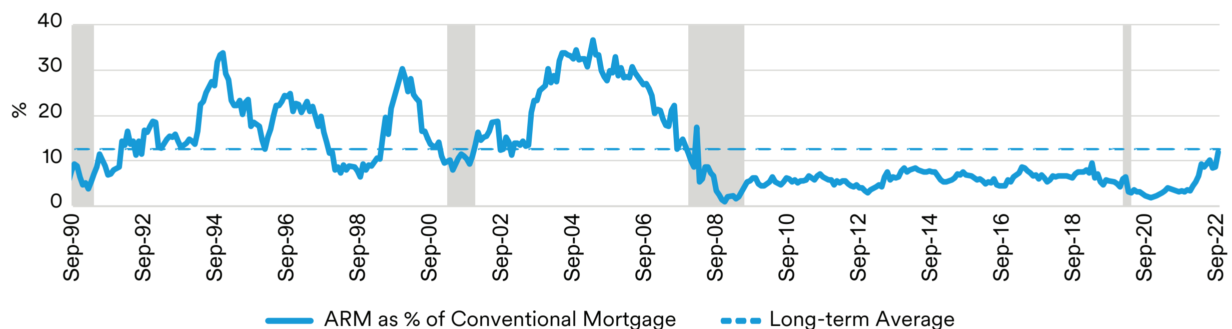
Figure 8 | Mortgage Originations by FRBNY CCP/Equifax Credit Score



Source: Bloomberg, FRBNY Consumer Credit Panel, MIM

In addition, the share of adjustable-rate mortgages (ARMs), which were one of the causes of the housing market crash,[6] remains relatively small and below the long-term average, coming in at 10% in September 2022, compared to the peak of 37% before the housing market crash in 2007 (Figure 9). In contrast with a fixed-rate mortgage, an ARM is considered riskier. Borrowers with ARMs can become more financially fragile and face larger mortgage payments during tightening cycles that boost mortgage rates. Since both subprime mortgages and ARMs today are playing an insignificant role in the mortgage market, the overall mortgage market has become more stable and secure than was the case in 2007.

Figure 9 | Share of Adjustable-Rate Mortgages



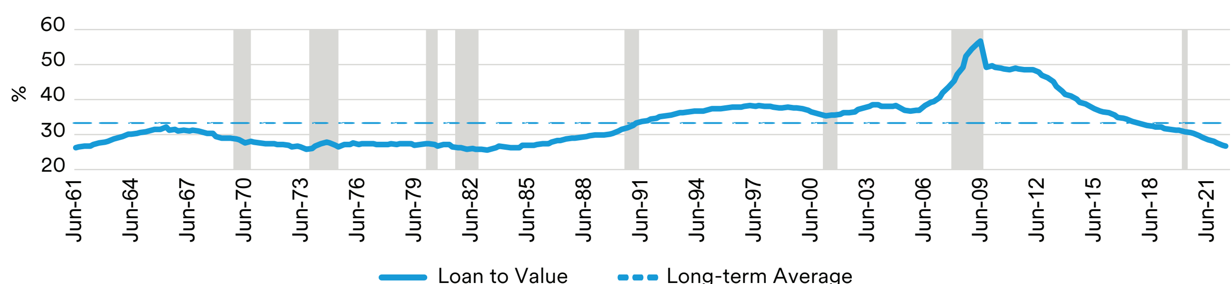
Note: Gray bars denote recessions.

Source: Bloomberg, Mortgage Bankers Association, Federal Reserve, MIM

The Likelihood of Strategic Default Today is Low

Due to easing lending standards (Figure 4) and high household leverages (Figure 5) before 2008, the U.S. loan-to-value (LTV) ratio continued rising and peaked in June 2009 at 57%. Given the high LTV ratio at that point (Figure 10), strategic defaults[7] by individual homeowners were common following the housing bubble bursting in 2007.[8] After the COVID-19 pandemic, the U.S. housing market boomed dramatically, so someone who had purchased a house a year or more ago has likely seen a substantial increase in their equity. Today, the LTV ratio at 27% is close to its historical low and below the long-term average, suggesting that most mortgage borrowers would still have positive equity in their properties even if the housing market saw a significant correction. The value of home equity in the system paints a similar picture (Figure 11). Borrowers had consistently cashed out their homes right before the GFC, but that has not been the case in the current time period. With a lower LTV ratio and a lower leverage ratio, servicers see more value in working with stressed borrowers rather than moving to foreclose quickly as was the case in 2007. As a result, the likelihood of strategic default is lower today than in 2007.

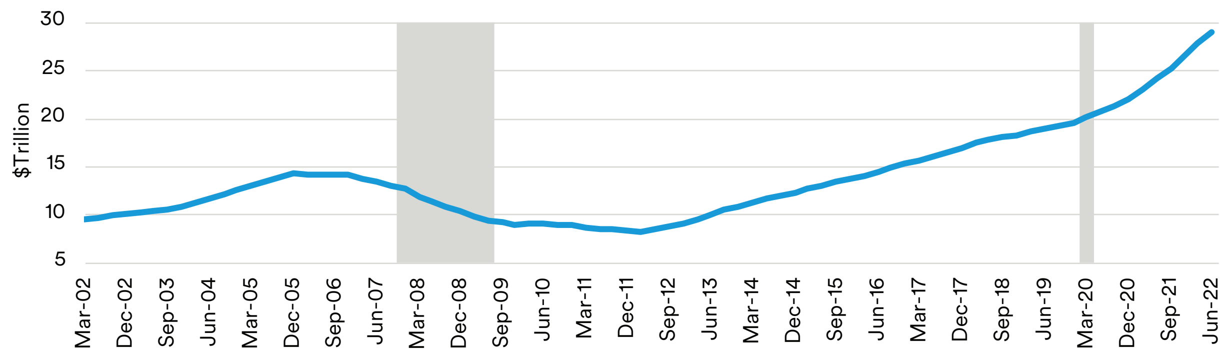
Figure 10 | U.S. Loan-to-Value Ratio



Note: LTV is calculated as U.S. mortgage debt outstanding divided by the value of U.S. household real estate. Gray bars denote recessions.

Source: Bloomberg, Federal Reserve, MIM

Figure 11 | Households Owners' Equity in Real Estate

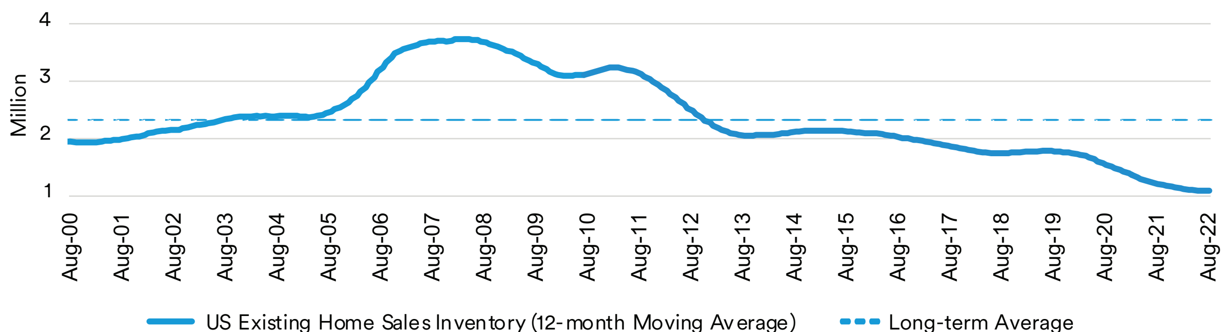


Source: Bloomberg, Federal Reserve, MIM

Housing Has Been Underbuilt for Years

Housing inventory has been low for many years. Compared to peak inventories of 3.74 million in 2008, the most recent estimate barely came in at 1.1 million, much lower than the long-term average of 2.3 million (Figure 12). In the current U.S. housing market, the main factors behind a lack of building include a lack of building materials, labor shortages, and a lack of entitled land. The process of land entitlement usually is considered complicated, costly, and lengthy and can take anywhere from three to 12 months (at a minimum). Unlike the 2008 housing market, when overall supply grew excessively, today's housing market is following a period of underbuilding and therefore may see a less severe supply/demand mismatch issue than in 2008.

Figure 12 | U.S. Existing Home Sales Inventory



Source: Bloomberg, NAR, MIM

Decline, Not Collapse

We believe that the U.S. housing market has passed its peak for this cycle due to rising interest rates, weakening demand, and tighter lending conditions. We thus expect to see a continued slowdown of price growth. However, we don't believe the housing market today or in the near future will repeat the 2008 housing market crash. Household balance sheets are better, the overall credit quality of the mortgage loans in the market is better, strategic defaults are less likely, and housing has been underbuilt. Taking the factors mentioned above and our forecast of monetary policy into account,[9] we anticipate the year-over-year growth of national home prices to slow to a positive single-digit rate at year-end 2022, turn negative in 1H23, and see a negative single-digit rate at year-end 2023. We remain optimistic about the housing market over the longer term.

Endnotes

[1] FOMC Press Conference September 21, 2022.

[2] Z-score is a metrics used to show how high or low the value relative to the average value using standard deviation as a unit. One z-score indicates that the current value is one standard deviation higher than the average value.

[3] For example, to make the price-to-rent ratio lower, either price goes down or rent goes up. But the rent-to-income ratio is already under pressure. To make the price-to-income ratio lower, either price goes down or income goes up, but the tightening cycle is more like pulling down rather than pushing up income or GDP.

[4] David Andolfatto and Serdar Birinci, “Is the Labor Market as Tight as It Seems?” Federal Reserve Bank of St. Louis, June 21, 2022.

[5] According to FRBNY CCP/Equifax, credit scores below 620 are considered subprime. https://www.federalreserve.gov/econres/notes/feds-notes/the-role-of-credit-score-transitions-20190625.html

[6] Colin McArthur and Sarah Edelman, “The 2008 Housing Crisis,” Center for American Progress, April 13, 2017.

[7] A strategic default is a decision made by a borrower to stop repaying a mortgage. The decision is typically made when the price of a property has fallen below the amount due on the mortgage. Instead of waiting for conditions to change, the mortgage holder walks away from the property and the debt.

[8] Julapa Jagtiani and William Lang, “Strategic Default on First and Second Lien Mortgages During the Financial Crisis,” Federal Reserve Bank of Philadelphia, December 9, 2010.

[9] We continue to expect Fed Funds rate cuts in 2023, despite markets lowering their rate cuts expectations. We believe it relatively unlikely that the Fed will be able to maintain high rates for a long time. Moreover, the higher they hike over the next few quarters, the more likely they will have to cut moving forward in 2023.

Authors

JASON CHEN
Associate
Global Market Strategy and Research

JUN JIANG
Assistant Vice President
Global Market Strategy and Research

JASON VALENTINO
Vice President
Structured Finance

ALFRED CHANG
Vice President
Private Assets

COLIN ROBINA
Vice President
Private Assets

POORVI DHOLAKIA
Vice President
Private Assets

PAUL CARROLL
Vice President
Private Structured Credit

ALLISON HOCK
Assistant Vice President
Residential Mortgages

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