JUNE 2023

Market Insights

Housing Crash or Opportunity?

PALISADES

PRIVATE RESIDENTIAL CREDIT

Private credit has been the belle of the ball in 2023. Hardly a week goes by without the headlines extolling the benefits of private credit and the opportunity arising from tightening credit conditions in the bank market. Compared to traditional liquid fixed income, the benefits include higher potential investment returns, diversification beyond publicly-traded government and corporate bonds, customized loan structures with enhanced covenant and collateral arrangements, and less regulatory oversight that allows for improved efficiency in process and bespoke loan structures.

We view *private residential credit* as being the intersection of private credit markets and real estate, where the loans enjoy credit protections and are at all times collateralized by land and building structures.

Some investors perceive the **residential loan market** to be a niche asset class, while in fact it is a **$13+ trillion market** (versus a $10.3 trillion corporate bond market and estimated $1.2 trillion private credit market) and produces new loans to the order of **$2 to $4+ trillion per year**. The market is highly diverse and provides a multitude of duration, credit risk, and return profiles across product sectors, from distressed non-performing loans to a variety of performing credit products.

HOW ARE CONDITIONS IN THE HOUSING MARKET?

Following a period of historically low levels of existing home sales, serious questions remain unanswered with respect to the current state of the residential housing market. Has the market crashed? Will the market crash? What constitutes a housing market crash? Does a significant drop in housing transactions define a crash (I bet our local real estate agent would think so)? Does it require credit market conditions to deteriorate as seen by rising defaults and foreclosures, or does it require home prices to decline by some observable percentage?

Depending on one's perspective, the housing market may have already crashed, is in the process of crashing, or may potentially be structurally insulated from a major downturn.

LOOKING AT THE DATA

KEY METRIC	STATUS
Housing Affordability	👎
Transaction Volume	👎
Demand	👎
Supply	👎
Home Equity	👍
Credit Underwriting	👍
Debt-to-Income*	👍
Defaults & Foreclosures	👍

* Mortgage debt service payments to disposable income of existing mortgage loans.

In this market that is defined by conflicting indicators, there are clear headwinds for residential housing, most notably reduced housing affordability. As new home purchases become more expensive, demand tends to recede, leading to a decline in aggregate housing transactions.

From a residential credit perspective, there remain some notable tailwinds, such as:

- Historically low housing supply;
- Historically low residential vacancy rates;
- Pent-up demand;
- High levels of home equity;
- Relatively low levels of credit risk; and
- Historically low mortgage debt service obligations relative to disposable income.

Several factors could tip the scales with respect to these headwinds/tailwinds, including:

- Inflation and the Fed's ongoing policy efforts;
- Higher short-term rates for a longer period of time;
- A catalyst that reverses the current disincentive for homeowners to sell their homes;
- Labor market conditions; and
- The potential for stagflation and/or a mild or deep recession.

In recent Market Insights, we have highlighted several fundamental drivers of investment performance in the housing market using time series analyses. We think that these are informative when seeking to identify trends. Another way to view these drivers is to observe how they stack up on a historical basis using histograms. In this report, we look at several histograms that help put the current environment into historical context.

HOW DO WE THINK ABOUT HOUSING SUPPLY?

Existing Home Inventory

Existing home inventory has historically represented the lion's share of housing transactions at approximately 85% to 90% of all home sales, with new home sales accounting for only 10% to 15%. The rapid pace of rising interest rates has reduced the supply of existing home inventory due to the 'lock-in effect,' or the disincentive for homeowners to list properties for sale given the disparity between current mortgage rates (~7.08%+) [1] and homeowners' existing mortgage rates (2.50% to 5.00%).

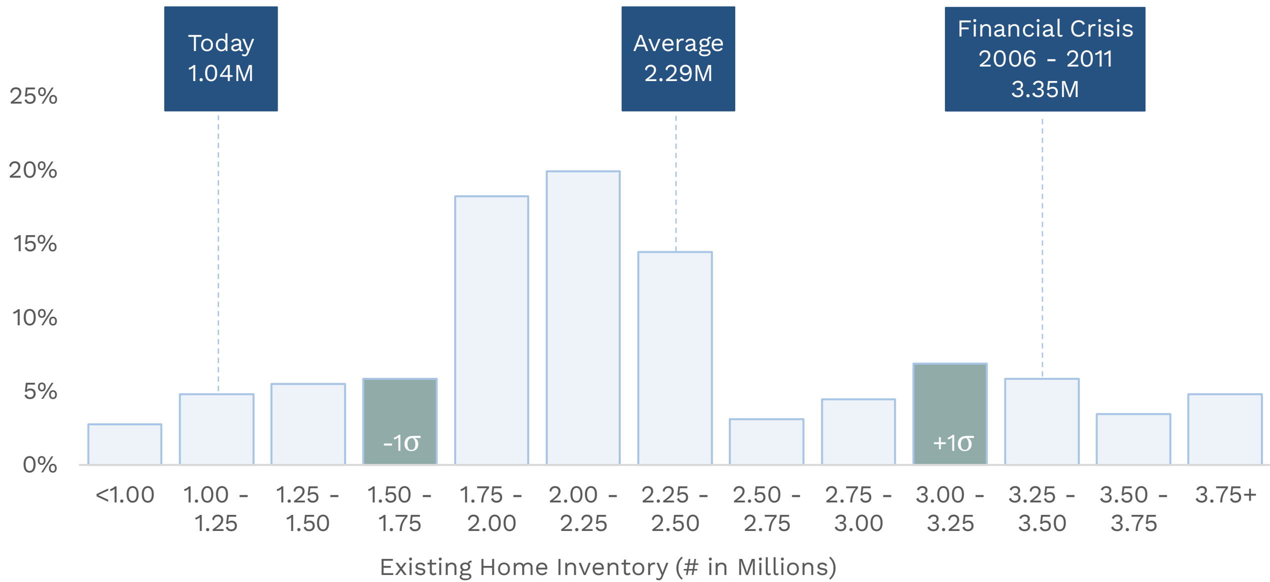
[1] Bankrate.com

We can see how the current levels of existing home inventory stack up against the historical data set.

Existing Home Inventory (Histogram)

in Millions; January 1999 through April 2023

Source: National Association of Realtors



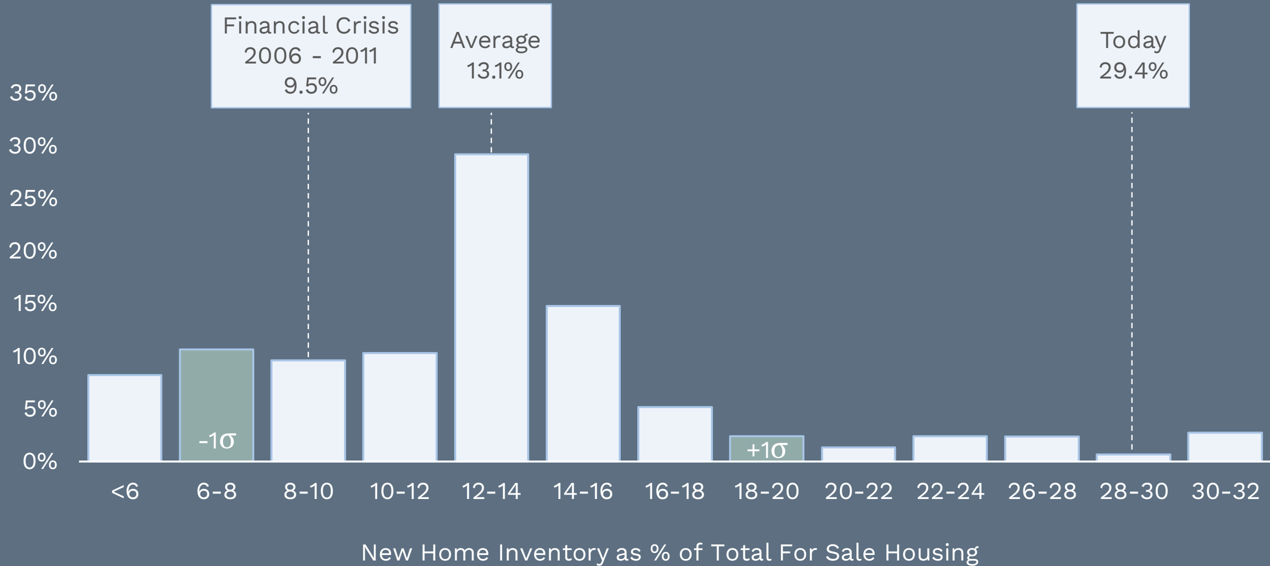
The data confirms what we have been describing using time series charts for years – that the housing market is very undersupplied. Today's level of existing housing inventory is 1.04 million, which is 55% below the 24-year monthly average of 2.29 million. Current inventory is only 190 thousand units above the all-time historical low set in January 2022 and well beyond a minus-1 standard deviation plot across the data set.

New Home Inventory

Historically, new home supplies have averaged approximately 13.1% of total home inventory. Today, at 29.4% new homes are overrepresented by approximately 2.25 times the historical average.

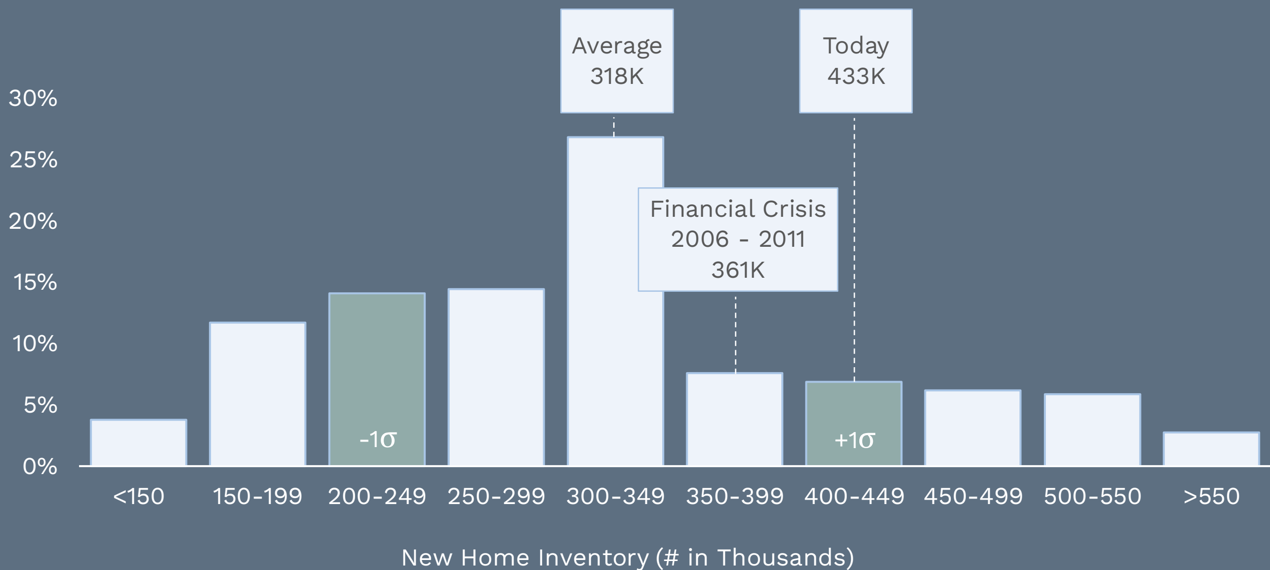
New homes as a percentage of total for sale housing far exceeds a one (1) standard deviation move across the data set due to the combination of (i) lower supply of existing home inventory, and (ii) higher aggregate levels of new homes for sale.

New Home Inventory % of Total Homes for Sale (Histogram)
January 1999 through April 2023
Source: National Association of Realtors, Census Bureau



The most recent U.S. Census Bureau report reflected new home inventory of 433 thousand units, which is approximately 36% higher, and one standard deviation above, the historical average dating back 24 years.

New Home Inventory (Histogram)
in Thousands; January 1999 through April 2023
Source: Census Bureau



We view this aggregate level of new home activity to be a net positive for the undersupplied housing market. However, it is not uncommon to see this metric referenced in research as indicating the new home market is oversupplied. New home inventory is unique in that it is comprised of three (3) component parts, including (i) homes permitted but have yet to break ground, (ii) homes under construction, and (iii) completed homes.

Sales during the **permitted phase** tend to be relatively low, as buyers usually prefer to see at least some progress on the construction before making a commitment. The National Association of Home Builders ("NAHB") estimates that approximately 10% of new home sales occur during this phase.

During the **construction phase**, sales activity tends to increase as potential buyers can visualize the progress of the homes being built. Buyers may enter contracts during this phase, as they can often still make certain customizations. NAHB estimates approximately 30% of new home sales occur during the construction phase.

Most new home sales occur after the home has been **completed**, as buyers can see the final product and can move in quickly. This is also the time when builders often hold open houses to attract potential buyers. The percentage of sales during this phase are estimated by NAHB to be approximately 60% of total new home sales.

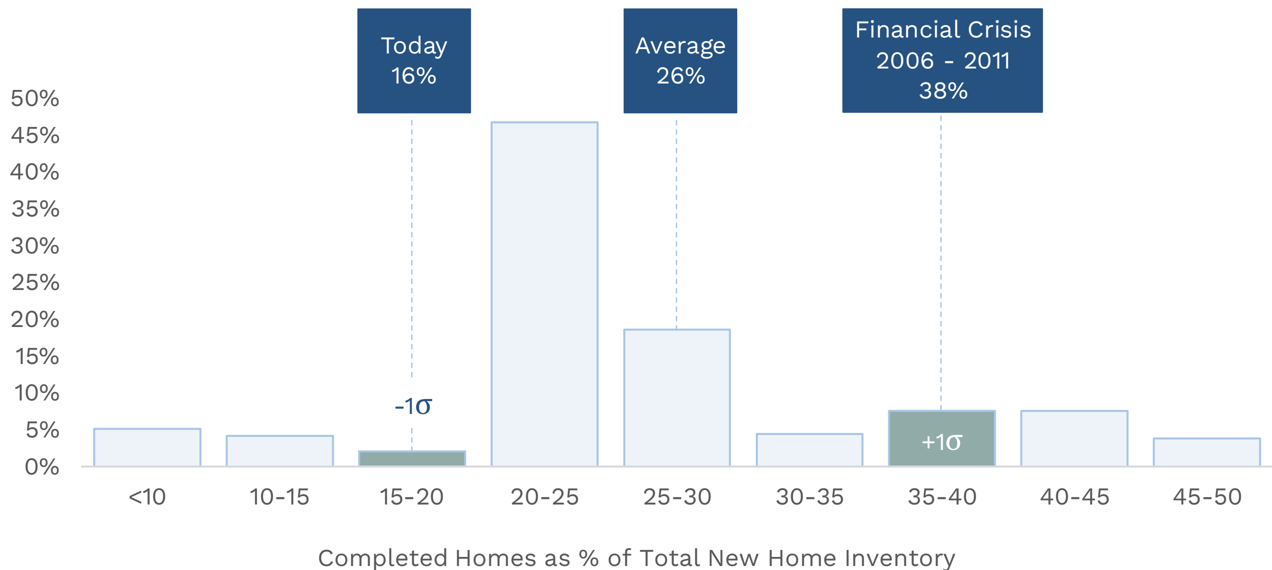
Historically, completed homes have represented approximately 26% of new home inventory, today they are responsible for only 16% (10 percentage points below average), while permitted but not yet started homes historically comprised 16% of total inventory, today they represent 23% (7 percentage points above average).

The point is to highlight completed homes are currently underrepresented in the total inventory basket to the order of one (1) standard deviation dating back more than 24 years.

Completed Homes as % of Total New Home Inventory (Histogram)

January 1999 through April 2023

Source: Census Bureau

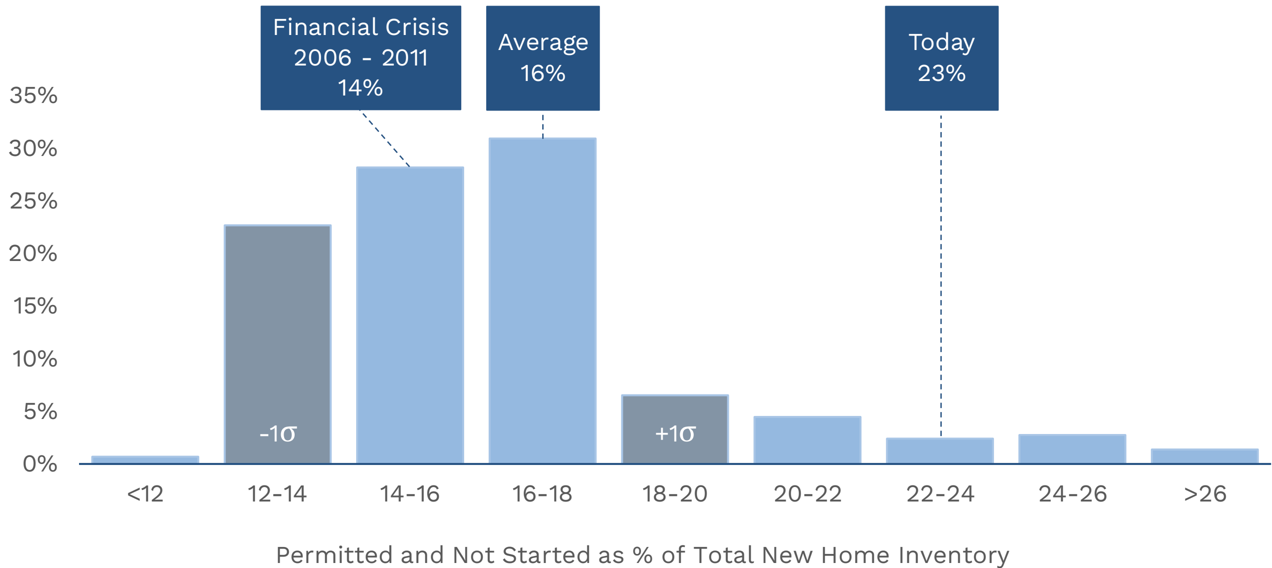


In contrast, homes **permitted but not yet started are overrepresented** by more than one (1) standard deviation. It is good to see home builder sentiment improving and new homes in the pipeline, but we need to see these projects start and move through the construction phase before they have an impact on real supply.

Permitted and Not Started as % of Total New Home Inventory (Histogram)

January 1999 through April 2023

Source: Census Bureau



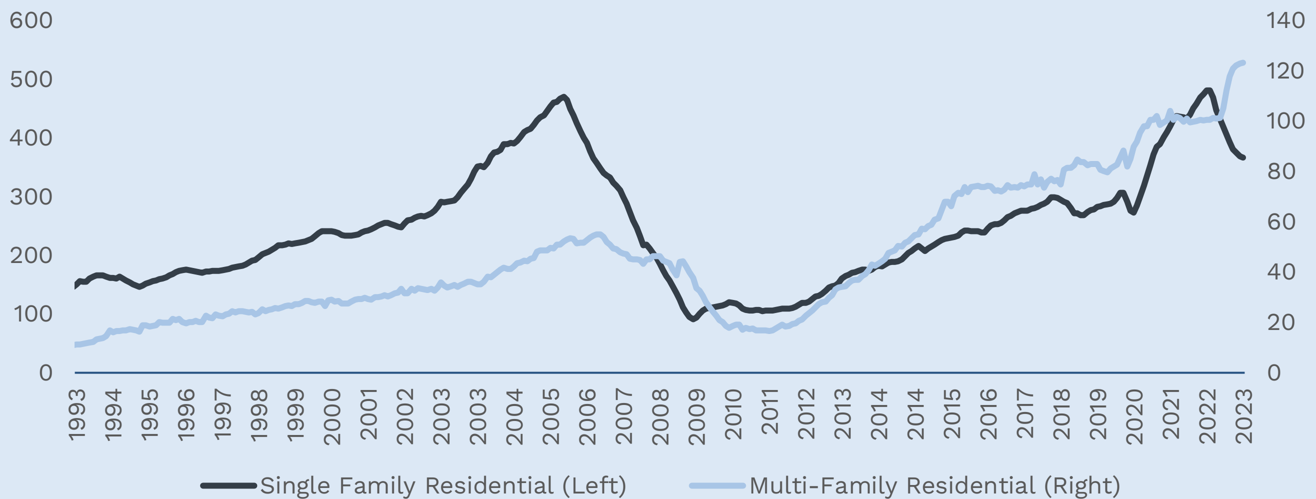
Home Builder Sentiment Index

Seasonally Adjusted

Source: National Association of Home Builders

Given the level of (i) new homes under construction, and (ii) demand for new homes (as discussed below), we would expect to see construction spending on single family homes trending positive. However, U.S. Census Bureau construction spending data shows a decoupling of single family and multi-family activity, with single family in decline over the past year while multi-family spending is on the rise.

Construction Spending (Single Family vs Multifamily)
Seasonally Adjusted Annual Rate, $ in billions
Source: U.S. Census Bureau



While interest rates remain elevated, it is not likely meaningful supply will emerge from the stock of existing homes; and, while there are positive trends in new construction, given the scale differential (new homes historically representing less than 15% of total sales) the housing market is likely to remain undersupplied for some time.

HOW DO WE THINK ABOUT HOUSING DEMAND?

We can observe headline housing demand on an absolute and/or relative basis. The easiest way to show headline demand is through the lens of total home sales – which have declined precipitously since the middle of 2022.

While total home sales do not provide a complete picture of housing demand, it is the bellwether for housing activity. If housing transactions alone could constitute a 'crash' then the current market would qualify, with total home sales activity in April 2023 reported at a seasonally adjusted annual rate of 4.96 million, or 18% below the historical average.

We expect purchase activity to remain suppressed throughout 2023 and continue until mortgage rates decline to 6.00% or less. In May 2023 alone, mortgage rates have increased 0.29% to 7.08%, according to Bankrate.com, which will undoubtedly force a portion of the would-be buyer base out of the purchase market, while further disincentivizing homeowners from listing properties.

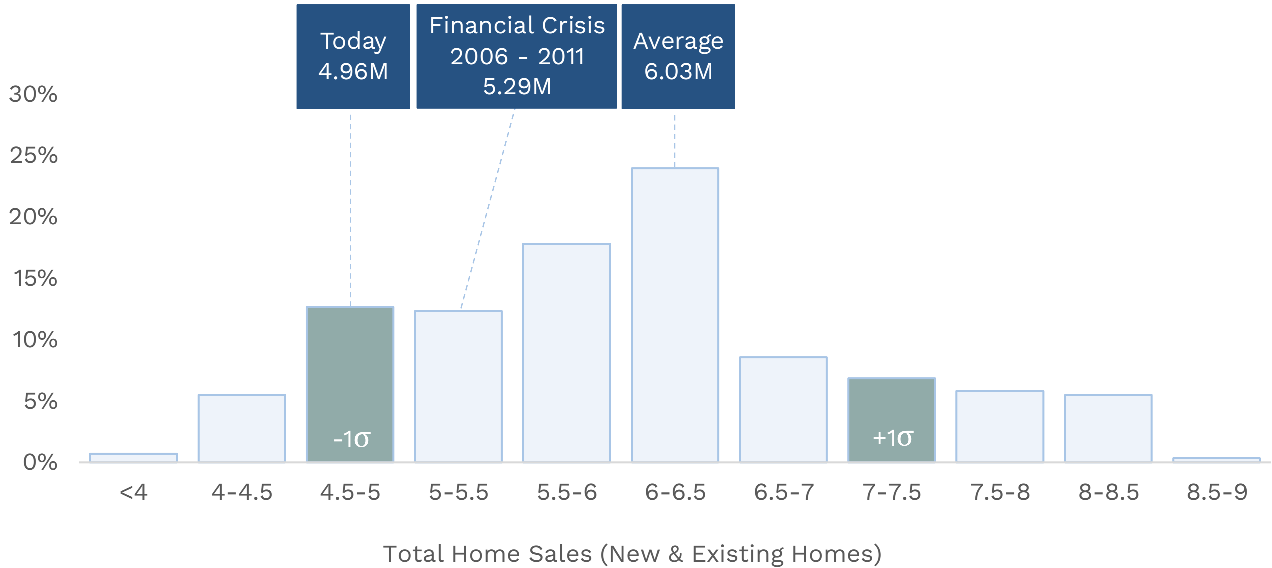
Several items have contributed to the reduction in consumer demand for housing in today's market, including purchases that were pulled forward during the low-rate environment of late 2019 to early 2022 timeframe.

Annual home sale activity averaged 6.03 million over the prior 24 years compared to 6.91 million from July 2020 to May 2022, implying 1.68 million home purchases were pulled forward during the period.

Total Home Sales (New and Existing Homes)

Seasonally Adjusted Annual Rate, $ in millions; January 1999 through April 2023

Source: National Association of Realtors, Census Bureau

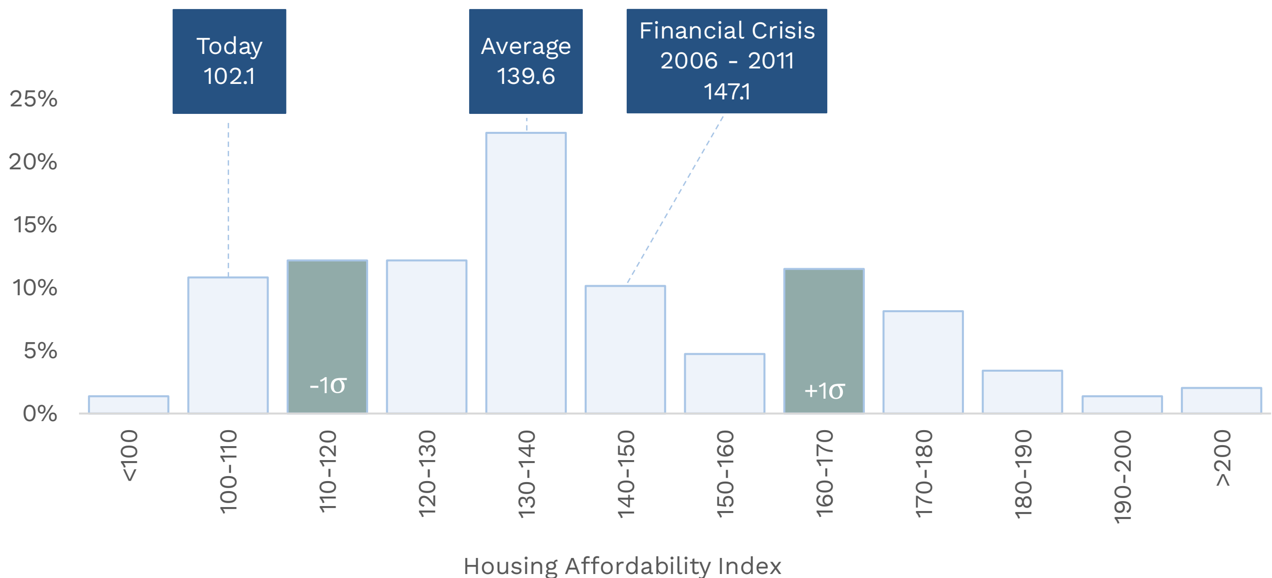


There is no question the combined run-up in home values and interest rates have made owning a home less affordable. In fact, the histogram below shows that today's affordability index is outside one (1) standard deviation of all quarterly readings over the last 37 years.

Housing Affordability Index (Histogram)

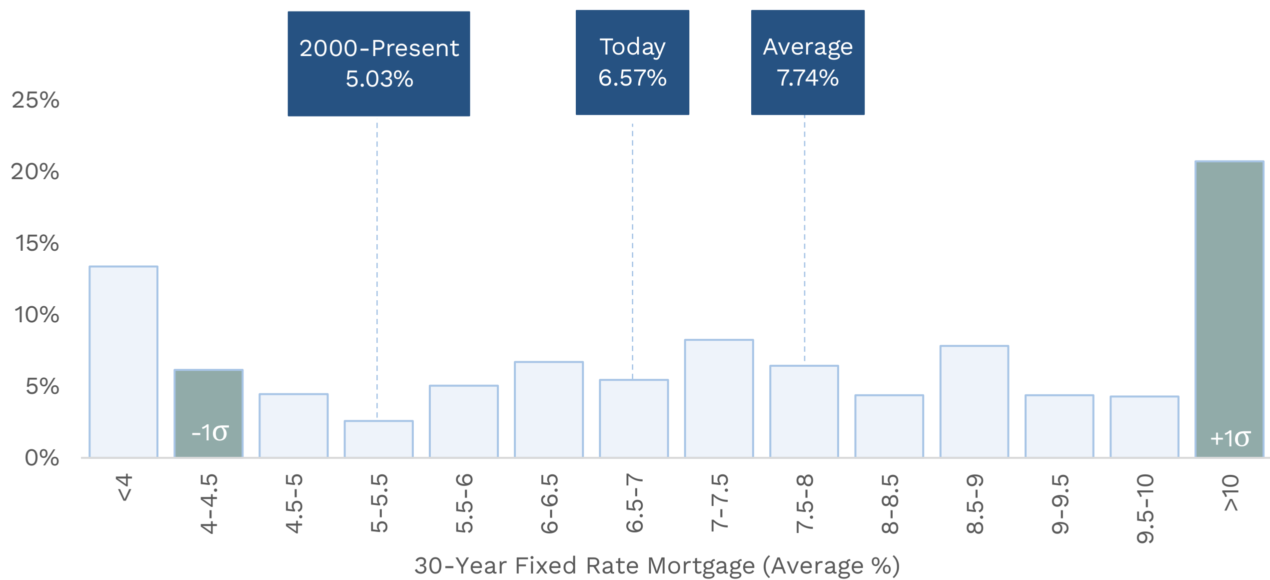
Lower the Index Value = Less Affordable; March 1986 through March 2023

Source: National Association of Realtors



The pace at which interest rates increased has shocked the system that had enjoyed ultra-low rates for years. And while the speed has been abrupt, it is important to put into context where current rates are relative to historical levels. The Freddie Mac Primary Mortgage Market Survey[2] is currently showing average mortgage rates of 6.57%. That compares to a 52-year average of 7.74%, but higher than average mortgage rates dating back to 2000 (average of 5.03%).

30-Year Fixed Rate Mortgage Average (Histogram)
Weekly average rate (%); April 1971 through May 2023
Source: Freddie Mac, St. Louis Fed (FRED)



HOW DO WE THINK ABOUT SUPPLY-DEMAND PARITY?

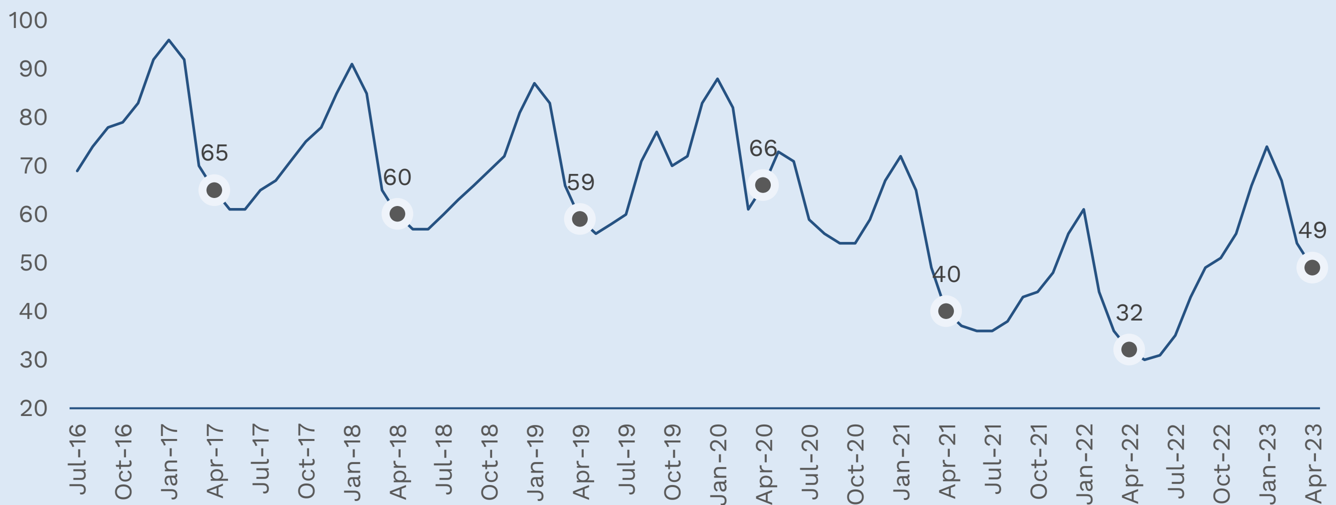
It is also important to consider demand relative to the amount of market supply. We think of this in terms of certain supply-demand parity indicators. Four (4) ways we like to apply this analysis is by reviewing:

- Days on market for all home listings;
- Months to sale from completion of new homes;
- Months' supply of new and existing home inventory; and
- Vacancy rates.

[2] We use Freddie Mac PMMS instead of Bankrate.com due to the data set covering a larger time period.

Median days on market is a barometer of demand, as the number of homes staying on the market longer indicates an excess supply of housing inventory relative to demand. Median days on market is currently reported to be 49 days as of April 2023, which is higher than the same month from the prior two years, however, it is meaningfully lower than the same months in the periods from 2016 through 2020.

Median Days on Market
Source: Realtor.com, St. Louis Fed (FRED)



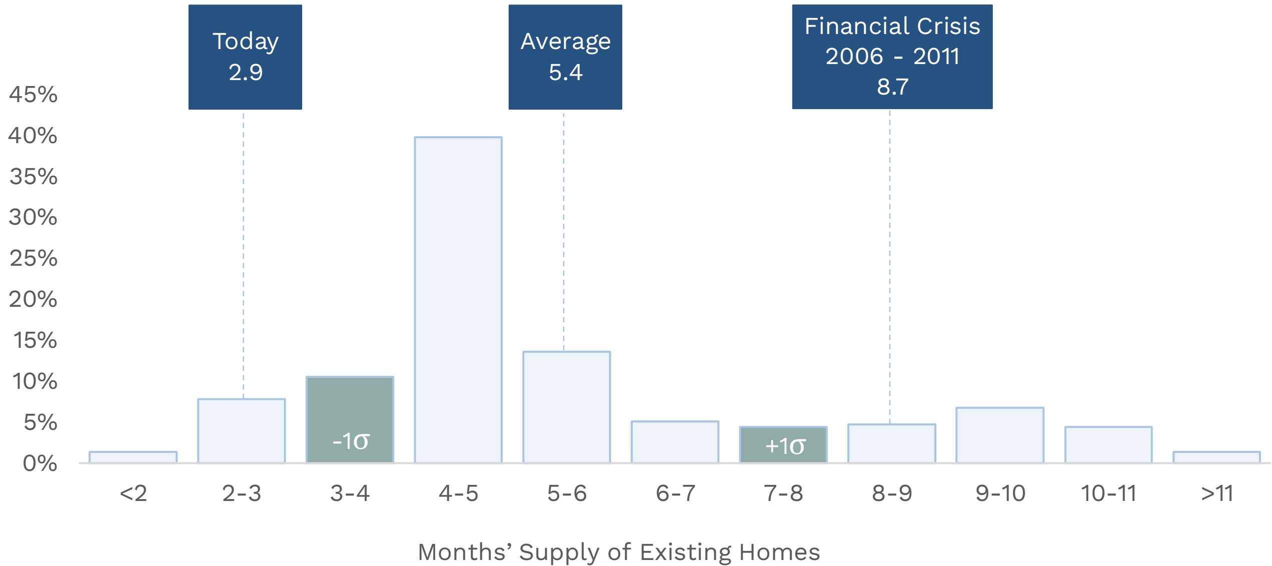
Another common measure of supply-demand parity in the housing market is the ratio of existing and/or new home inventory to sales, or **months' supply of existing and/or new homes**. In markets with declining inventory and/or increasing sales, months' supply will decline, and conversely, in markets with increasing inventory and/or decreasing sales, months' supply will increase.

Months' supply of existing homes is currently reported at **2.9 months**. This compares to the historical average of **5.4 months**, or more than **46% below what would be considered a balanced market**. From an existing home perspective, this reading indicates a market with either (i) low levels of existing home inventory, and/or (ii) high levels of demand. Given we know that demand has waned due to affordability pressures, our view is that the primary issue at hand relates to low levels of inventory created by the previously mentioned 'lock-in effect.'

Months' Supply of Existing Homes (Histogram)

January 1999 through April 2023

Source: National Association of Realtors

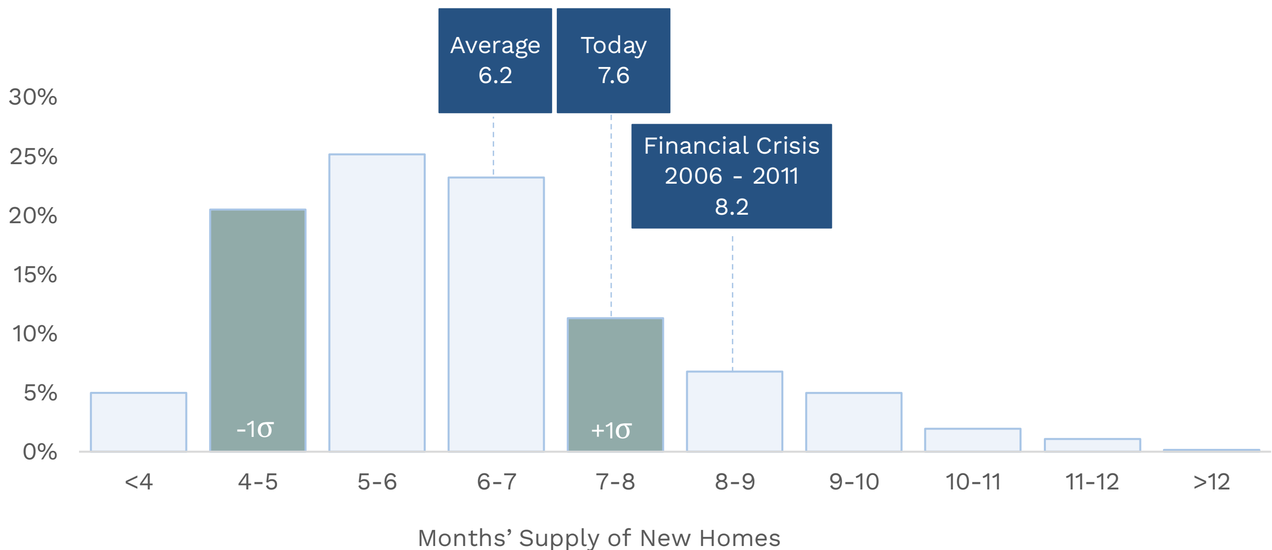


The new home measure of supply-demand parity is a bit more complex due to the inventory figures (numerator) including permitted but not yet started homes, homes under construction, and completed homes. Recall that completed homes represent only 16% of the inventory used to calculate months' supply of new homes. The current months' supply of new homes is reported at 7.6 months, which is 23% above the historical average of 6.2 months dating back to 1968.

Months' Supply of New Homes (Histogram)

January 1999 through April 2023

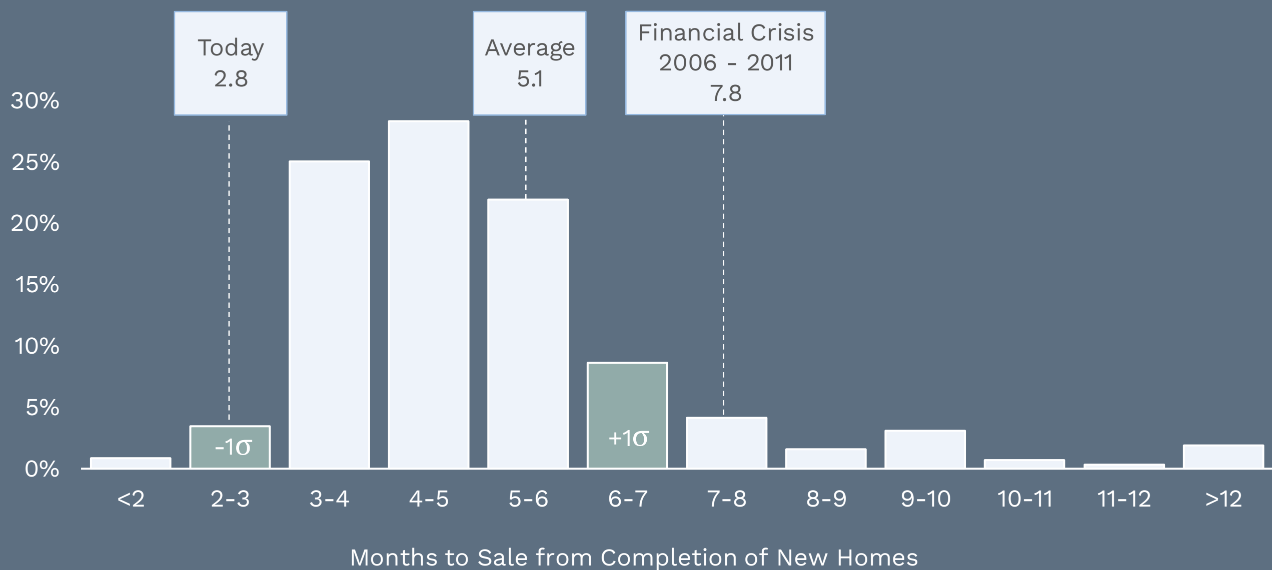
Source: Census Bureau



While the chart above would seem to indicate an abundance of new home inventory, the figure gets skewed when 84% of inventory units are homes that have not broken ground or remain under construction.

To check this, we can observe U.S. Census Bureau data that tracks the months to sale since completion of **finished homes**. When **demand outpaces supply**, we would expect completed homes to sell quickly as more buyers are competing for limited for-sale inventory. Conversely, when **supply outpaces demand**, the tendency is for completed homes to stay on the market for longer. As we can see from the chart below, **current market conditions indicate that demand is outpacing supply as the months to sale from completion is reported at one standard deviation below the historical average**.

Months to Sale from Completion of New Homes (Histogram)
January 1975 through April 2023
Source: Census Bureau



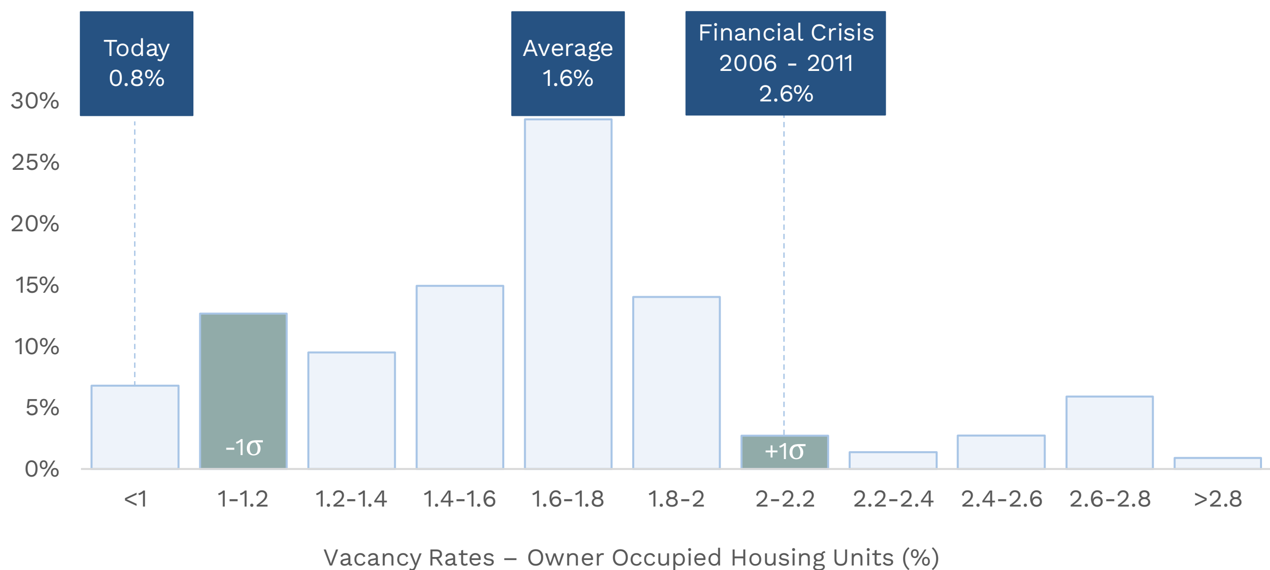
As we can see in both time series charts and the histogram above, completed new homes are being met with considerable demand in part due to the lack of existing home inventory.

According to the 1Q 2023 National Association of Homebuilders survey, as mortgage rates came down from their peaks, **"a record share of adults (18%)...[indicated] having plans to buy a home within a year."** Of this group, **"a series high of 71% of prospective buyers"** were reportedly first-time homebuyers, up from 61% in 1Q 2022. Finally, when the prospective buyers were asked what they are most likely to do if they are unable to find a home in the next few months, they responded as follows:

- 40% said they will continue the search in the same location;
- 40% will expand their search area;
- 27% expected to accept a smaller/older home;
- 26% said they will pay for a more expensive home; and
- 23% said they will give up the search until next year.

Finally, vacancy rates serve as a gauge for supply-demand parity. Vacancies for owner-occupied housing units sit at historically low levels of less than 1.0%, and beyond a one standard deviation plot from the average dating back to 1968. The low levels of housing inventory and vacancy rates are in part functions of the underinvestment in housing in the decade after the 2008 global financial crisis.

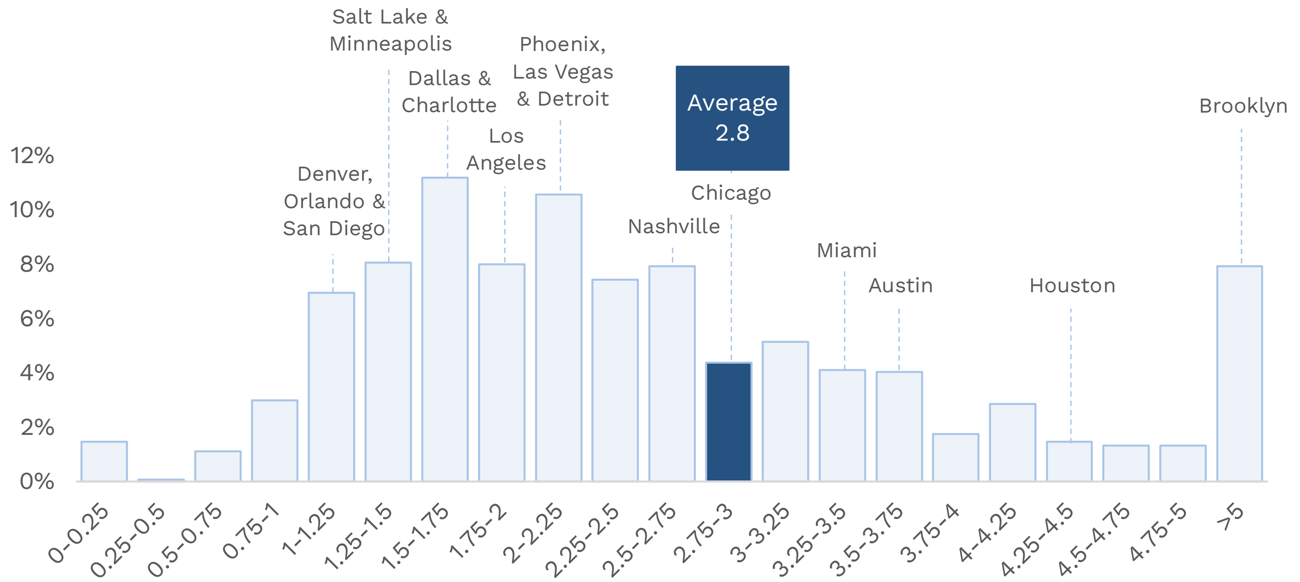
Vacancy Rates – Owner Occupied Housing Units (%) (Histogram)
March 1968 through March 2023
Source: Census Bureau



While declining affordability for new purchases has curtailed both housing supply and demand nationally, dynamics vary across cities, states, and local property markets. Months' supply of housing inventory is in part a function of demographic trends, land availability, weather patterns, and other local property market factors.

The table below sourced from Redfin data shows the months' supply across more than 1,400 counties, with some notable locations called out. The simple average months' supply is 2.8 months as compared to the 10-year average of 5.5 months.

Months' Supply of Inventory – County Level (Histogram)
1,439 Counties; as of March 2023
Source: Redfin

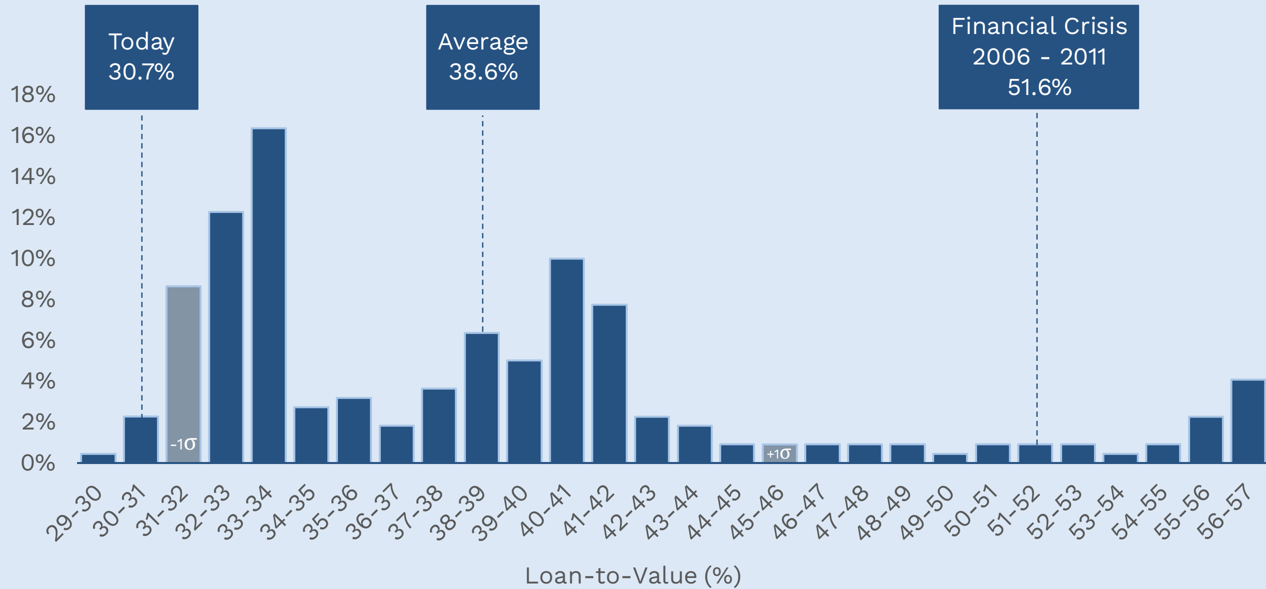


HOW DO HOUSING MARKET CREDIT CONDITIONS LOOK?

Credit conditions as measured by system-wide leverage, debt service coverage, and actual delinquent and defaulted loans have improved and evolved considerably since the 2008 financial crisis period. The housing market has de-levered alongside rising home values, and credit availability has been limited to only the most creditworthy borrowers (aside from Ginnie Mae being the government's version of a highly leveraged subprime credit investor – we'll see how that turns out for the taxpayer).

The table below shows housing market leverage using a Federal Reserve dataset going back to 1968.

Loan-to-Value (%) (Histogram)
Mortgage Debt divided by Household Real Estate Value
March 1968 through December 2022
Source: Federal Reserve



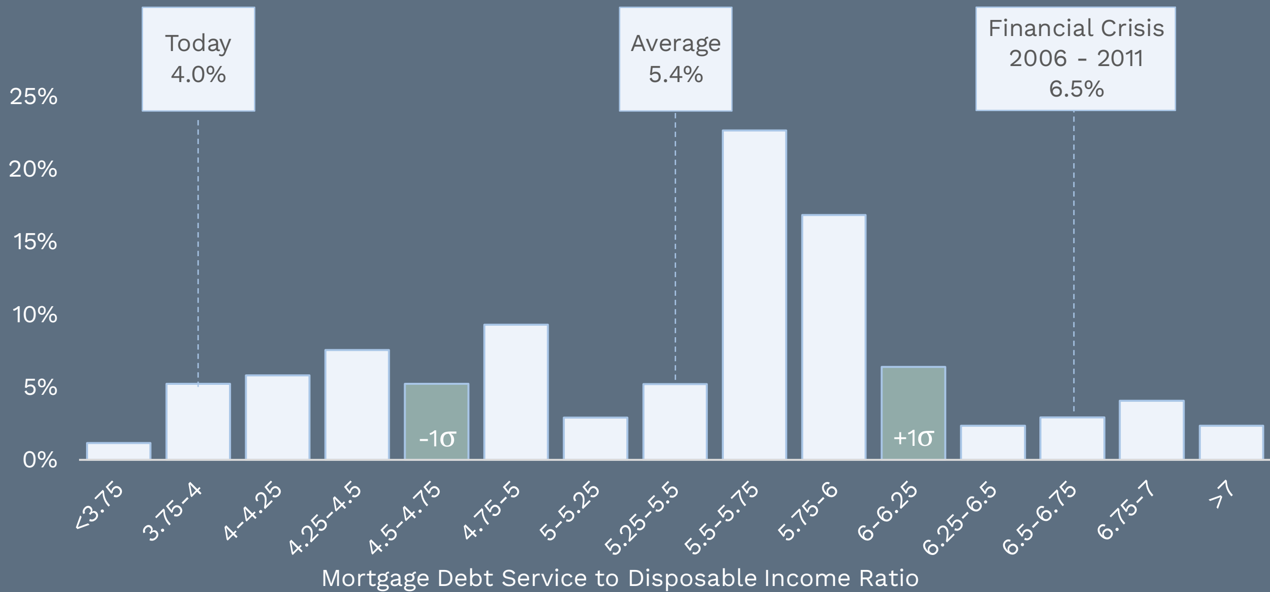
Using these metrics, the housing market has more than $30 trillion of home equity which is approximately 3 times the amount in 2008 and 2009. This incremental equity serves as protection against credit losses and enhances the borrower's incentive to preserve their nest egg.

Credit conditions are also a function of the borrower's ability and willingness to make debt service payments. **Preservation of equity provides an incentive for the 'willingness' element, while income relative to debt service obligations drives the 'ability' component.**

Over $10 trillion of purchase and refinance transactions occurred from late 2019 through 2021, when the 30-year fixed rate mortgage averaged 3.32%. The activity during this period reset the market's debt service obligations, and with the post-global financial crisis transition away from adjustable-rate mortgage loans, the vast majority of today's existing mortgage universe have low rates fixed for 30 years.

The low rates created a mortgage market with historically low levels of debt service relative to disposable income. This favorable dynamic provides another buffer against potential credit events.

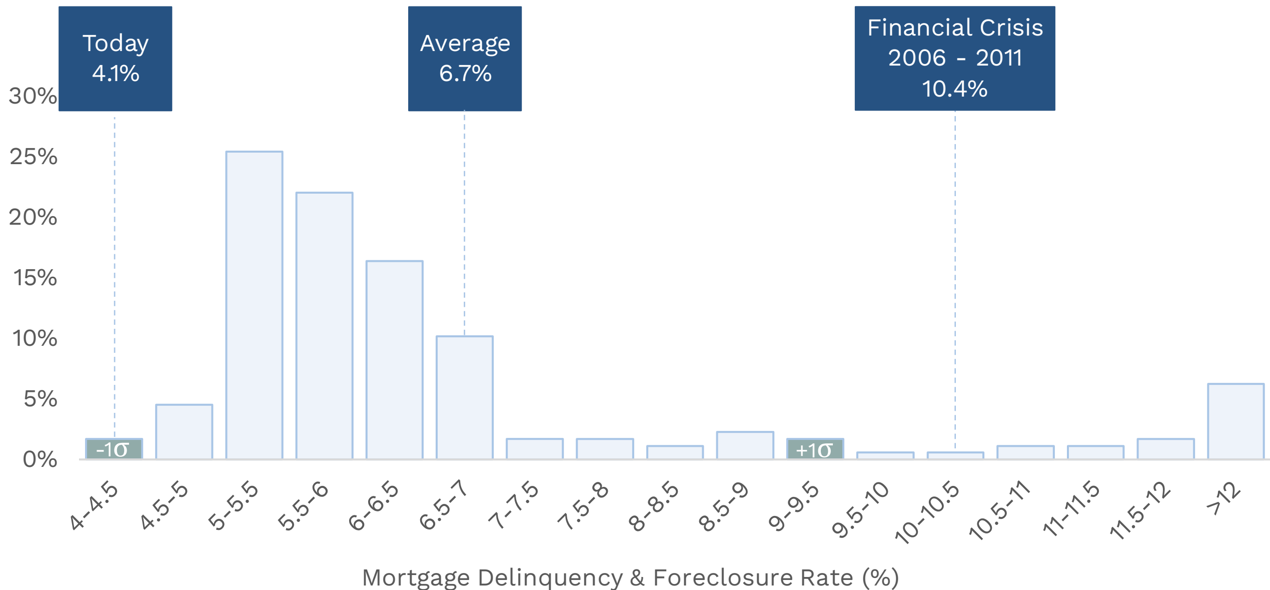
Mortgage Debt Service to Disposable Income Ratio (%) (Histogram)
January 1980 through October 2022
Source: Federal Reserve



We anticipate credit conditions to be challenged in the coming months as the Fed continues to fight inflation by targeting demand and the froth in labor markets. Even with what will likely be some form of recessionary market environment, credit conditions in mortgage lending have improved markedly because of the post-global financial crisis regulatory improvements. New regulations passed as part of the Dodd-Frank Act improved the safety and soundness of mortgage lending by (i) requiring lenders to verify and document a borrower's ability to repay the loan, and (ii) eliminating risky loan products such as balloon and negatively amortizing loans.

The regulatory environment has improved lender underwriting standards and essentially eliminated the old guard subprime lending from private markets. As a result, mortgage credit markets have enjoyed a period of exceptionally low delinquency, default, and foreclosure rates.

Mortgage Delinquency & Foreclosure Rate (%) (Histogram)
March 1979 through March 2023
Source: Mortgage Bankers Association



Delinquencies likely have only one direction to go from today's levels, and we expect them to trend toward the historical average over the next 12 to 24 months. This depends in large part on the depth and breadth of any recession, but we believe fundamentals in mortgage credit are on a solid foundation. **Most mortgage credit products are well collateralized and poised to withstand moderate declines in home values and/or an uptick in delinquencies and foreclosures. Importantly, in most cases investors are properly pricing in the risk (other than a recent non-performing loan trade whose buyer will remain nameless).**

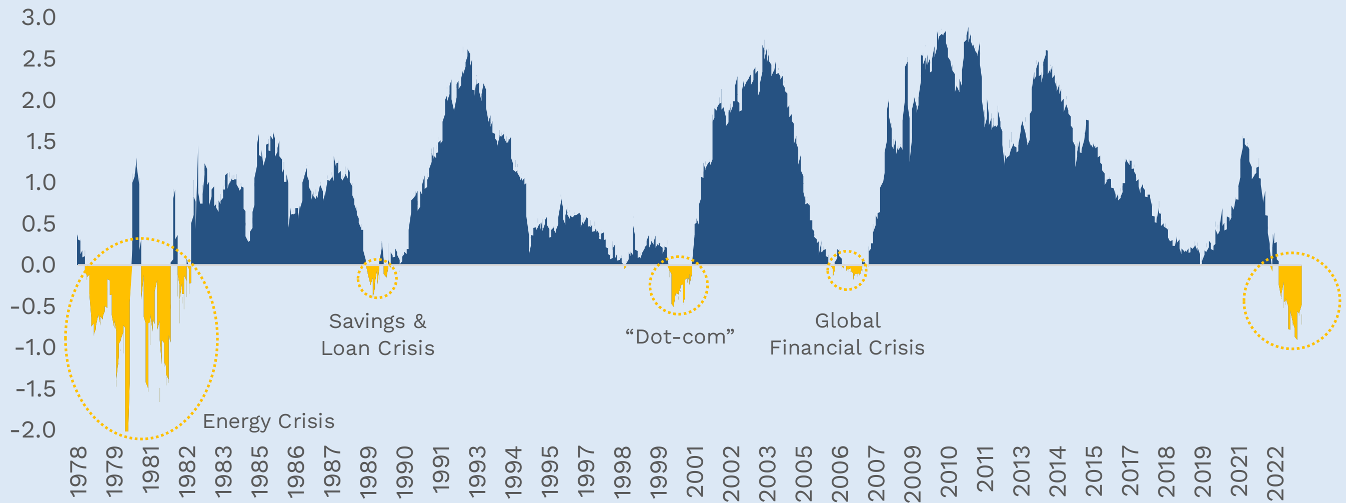
WHAT IS THE FUTURE OF HOUSING?

Supply and demand in housing is highly dependent on inflation and the path of interest rates. Much of the inflationary pressure across markets has been driven by supply-side challenges, including COVID-era supply chain disruptions along with a decade of underinvestment in critical areas such as infrastructure and housing. Geopolitical tensions add to the challenges by accelerating the trend toward 'onshoring', which will put further pressure on near-term inflation.

Palisades' view remains that short term rates will be higher for longer relative to what Fed futures have been implying. As recently as May 11, Fed futures were pricing in multiple rate cuts in 2H 2023 with a year-end implied overnight rate of 4.3%. In the 3 weeks since, futures have now come to grips with the idea that inflation is sticky, the labor market is strong, and we may be in for a longer ride than originally anticipated (current implied year end overnight rate is 4.9%).

The length and depth of the yield curve inversion that currently sits at 74 basis points is evidence that investors need to position defensively, as inversions have historically been good leading indicators of recessions.

10-Year versus 2-Year Treasury Spread (%)
Source: Bloomberg



The dispersion of potential outcomes remains wide, and while fault lines may not be readily apparent, it is hard to envision a scenario that does not include rough times ahead. While there is always a chance of an upside surprise, we would not ascribe a high probability to the 'upside' scenario. On the other hand, we believe residential housing is likely to be a bright spot in the coming 12 to 24 months (even with rising delinquencies), as troubles in commercial real estate, banking, and legacy tech valuations take the spotlight.

Base Scenario. Rates remain higher for longer. Housing transactions will remain subdued in part due to reduced demand, but primarily due to the depressed supply of for-sale inventory. There is a chance that motivated sales accelerate as labor markets cool and some homeowners are forced to sell to protect their home equity. An outsized portion of demand will be directed toward new homes as completions come online and existing housing supply remains suppressed. Home prices will remain flat to slightly positive.

Upside Scenario. The Fed threads the needle and orchestrates a 'soft landing' with inflation between 2% and 3% (3% and below will be viewed positively despite rhetoric), labor markets softening but not breaking, and economic growth is flat for a quarter or two before rebounding.

Rates decline marginally, yield curve inversion reverts to upward sloping, and credit spreads decline. Home sales will pick up alongside improved affordability and increased demand. Housing inventory comes to the market from both the existing housing stock and new home completions. The composition of housing transactions reverts to historical levels with existing home sales representing 85% to 90% of purchase activity, leaving new home sales between 10% and 15%. Affordability will improve as mortgage rates recede, wage growth is normal, and home prices will be positive.

Down Scenario. Supply side inflationary pressures prove difficult to solve with demand-oriented tools, and the Fed takes financial markets to the brink. Higher short-term rates, more severe unforeseen economic events, unemployment spikes, recession, and stagflation-type environment.

Home sales will decline in recessionary environment as housing formation stalls and demand craters. Housing inventory is paltry, with existing housing stock locked in place other than forced sales, and builders pull back on new home completions. Supply-demand parity remains unbalanced due to excessively low inventory.

While the dispersion of outcomes is wide, we believe that the probability weighted outlook today is arguably better than those we faced circa 2021 when rates were low, credit spreads were tight, and prices were high. And unlike the 2020-2021 period, we believe that the distribution of returns in many residential credit products are positively skewed in today's environment.

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