Overview:

1. **The home price soft landing has arrived.** The housing market displays a sharp upward correction from the downturn that began in 2022 Q3. Home prices have thus far outperformed many forecasts and professionals' expectations and are looking to bounce back to historical norms.
2. **Short-run forecasts are optimistic.** Despite continual pressure from the Fed, there are strong signals that home prices already reached their lowest value, post-pandemic, and are on the rise. Housing market efficiency has improved drastically since 2008, and that has pumped the brakes on price declines.
3. **Housing supply issues linger in the United States.** The current supply deficit is continually increasing despite a growing house-buying population. This mismatch in the U.S. housing market will elevate HPA in the long run.

Home prices showing a strong rebound

Home prices as measured by the Case-Shiller U.S. National Home Price Index ticked up for the fourth consecutive month, growing at 1.2% for April[1]. Home prices peaked in June 2022 and suffered six straight months of declines until bottoming out in January 2023. Since January, prices have leveled off and dramatically sprung to life. These gains have been concentrated among the larger metropolitan areas in the United States, with the Case-Shiller Composite 10 and 20 both growing at 1.5% in May[2]. Prices are still down -0.4% from last year; however, that number is a result of the declines in the last six-to-nine months, rather than the current state of the market. The gains are well-distributed and positive across the top 20 metros[3] in the Case-Shiller Index, ranging from 0.9% in Denver (the most sluggish) to 2.7% in Cleveland (the fastest growing). There is certainly some spring and summer seasonality in the data where home prices pick up due to recurring seasonal demand. Regardless, these are the largest gains in seasonal months, excluding the pandemic, going back to 2013.

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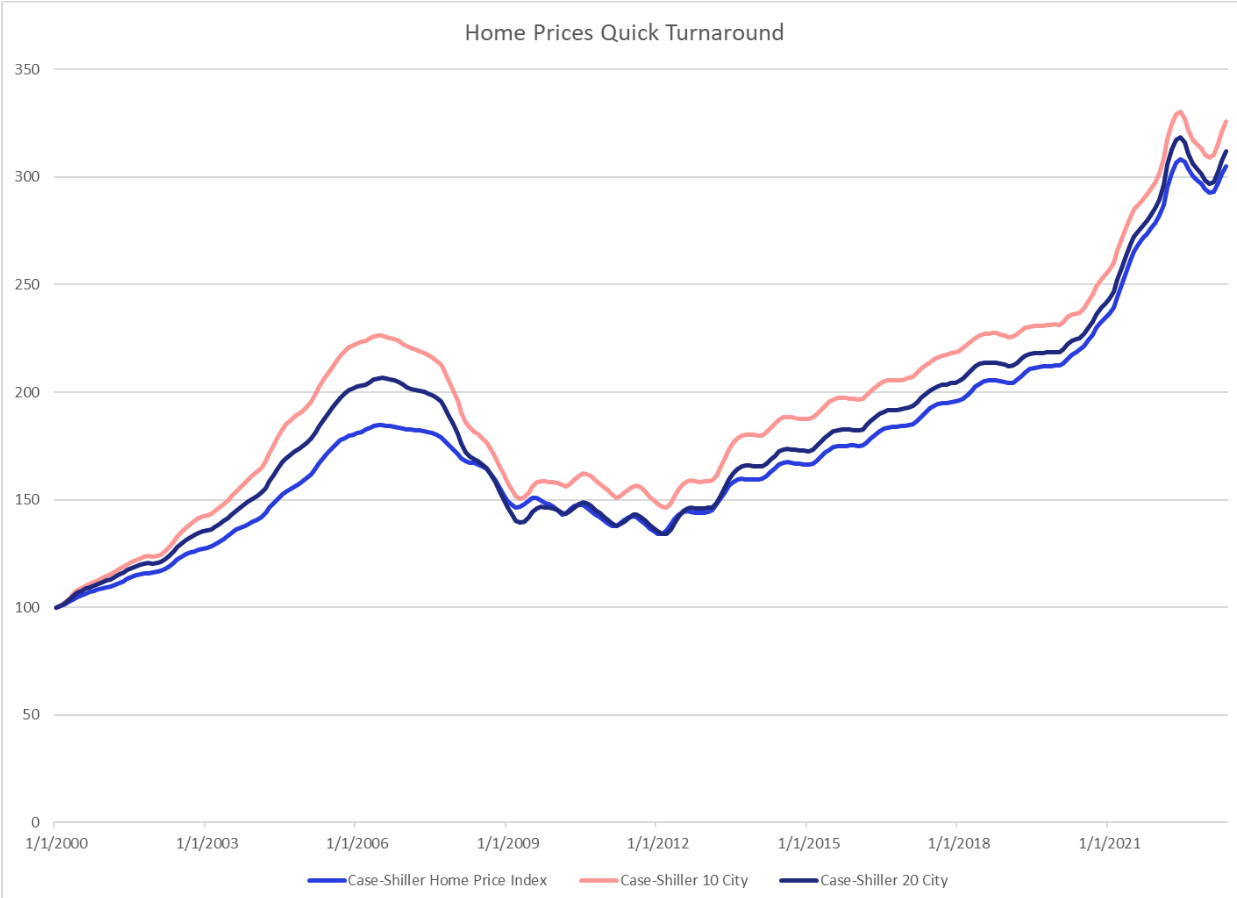
[1]S&P Dow Jones Indices LLC, S&P/Case-Shiller U.S. National Home Price Index [CSUSHPINSA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CSUSHPINSA, July 30, 2023.

[2]S&P Dow Jones Indices LLC, S&P/Case-Shiller 10-City Composite Home Price Index [SPCS10RSA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/SPCS10RSA, July 31, 2023.

[3]https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20210928-1443774/1443774_cshomeprice-release-0928.pdf



Short Run: Economic Robustness in Housing Market

The Federal Reserve is continuing its fight against inflation with another 25 bps hike coming in the July 26th Open Market Committee Meeting. This most recent hike pushed the target for the federal funds rate to between 5.25-5.5%. Notably, this is the highest the fed funds rate has been in more than 22 years[4]. Most importantly, these factors impact the housing market directly through the demand channel and transmission to mortgage rates. Thirty-year mortgage rates are at 6.8%, below the November peak of 7.08%, according to Freddie Mac–but have maintained a steady increase since February. However, there is some evidence of seasonality[5] in mortgage rates that could reflect the increasing consumer demand in the spring and summer months in the housing market. It's small but not necessarily negligible at 15 bps between June and January. There is still a stubbornly elevated and prolonged risk premium in the mortgage market, as the spread between the 10-year treasury[6] and 30-year mortgage[7] rates remains

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[4] https://www.cnbc.com/2023/07/26/fed-meeting-july-2023-.html

[5] https://haus.com/resources/winter-the-most-wonderful-time-to-mortgage#:~:text=As%20it%20turns%20out%2C%20mortgage,mortgage%20rates%20of%20the%20year.

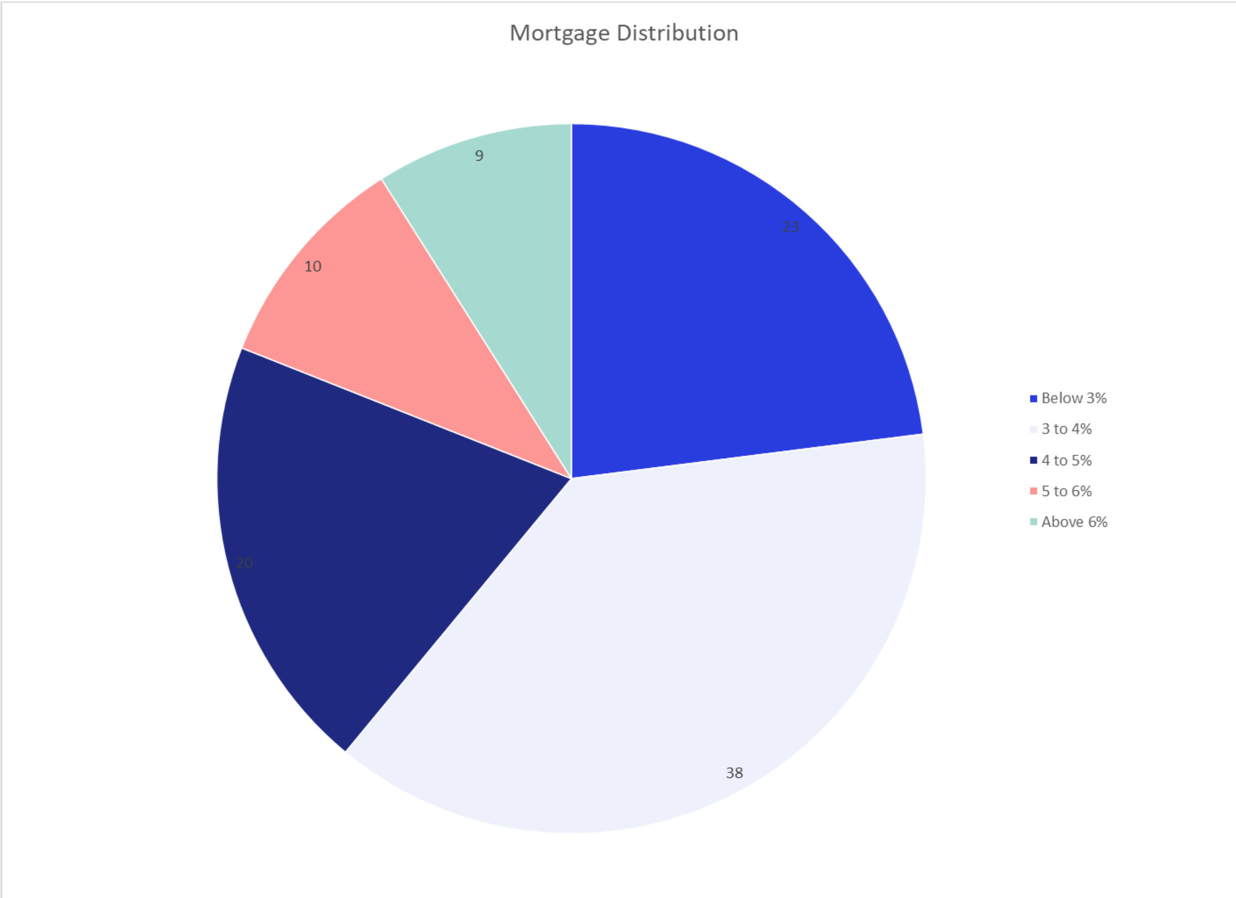
[6] Board of Governors of the Federal Reserve System (US), Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DGS10, July 30, 2023.

[7] Freddie Mac, 30-Year Fixed Rate Mortgage Average in the United States [MORTGAGE30US], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MORTGAGE30US, July 30, 2023.

about 300 bps; historically, it’s around 150 bps. This is the highest spike in this measure of the risk premium since the mid-1980s and the most prolonged since the Great Financial Crisis. The fact that demand has stayed consistent despite higher mortgage rates is a testament to the fundamentals in the housing market, and a sign that even if only risk falls, there could be a significant boom in demand.

There has been a significant secondary effect due to higher mortgage rates, which wasn’t present in 2008: a decrease in supply and listings because consumers are locked-in to more attractive financing options. According to Redfin[8], 82% of consumers have a current mortgage rate below 5%. During the pandemic, many consumers took advantage of ultra-low financing costs to secure cheaper mortgages. With relatively higher mortgage rates, the same restraints that have kept consumers from purchasing homes have also made them very reluctant to sell, because they can’t secure better financing. This listing pullback has allowed supply to better counterbalance demand shortfalls and stabilize prices in a way that didn’t happen in 2008.

[8] https://www.redfin.com/news/high-mortgage-rates-lock-in-homeowners-2023/



Part of the reason the Fed is continuing to pursue the most aggressive rate hiking policy in 22 years is that inflation remains elevated above their target rate, but more importantly for housing, the macroeconomy has been extremely robust due to the rising interest rates. The headline consumer price inflation[9] remains at 3% annually for June, only 50 bps above the target rate. Core inflation is higher on an annual basis, at 4.8%, but the most recent monthly posting is quite closely aligned to the Fed's long-term goals–if it can remain there. Despite the inflation and interest rate headwinds, the rest of the economy is extremely healthy. The unemployment rate[10] currently sits at 3.6%, which is below the Fed's target. While wage growth is falling compared to its ultra-high pandemic rate, real wage growth is actually on the rise[11] because wages are outpacing inflation.

[9] U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CPIAUCSL, July 30, 2023.

[10] U.S. Bureau of Labor Statistics, Unemployment Rate [UNRATE], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/UNRATE, July 30, 2023.

[11] https://www.axios.com/2023/07/12/real-wage-gains-inflation

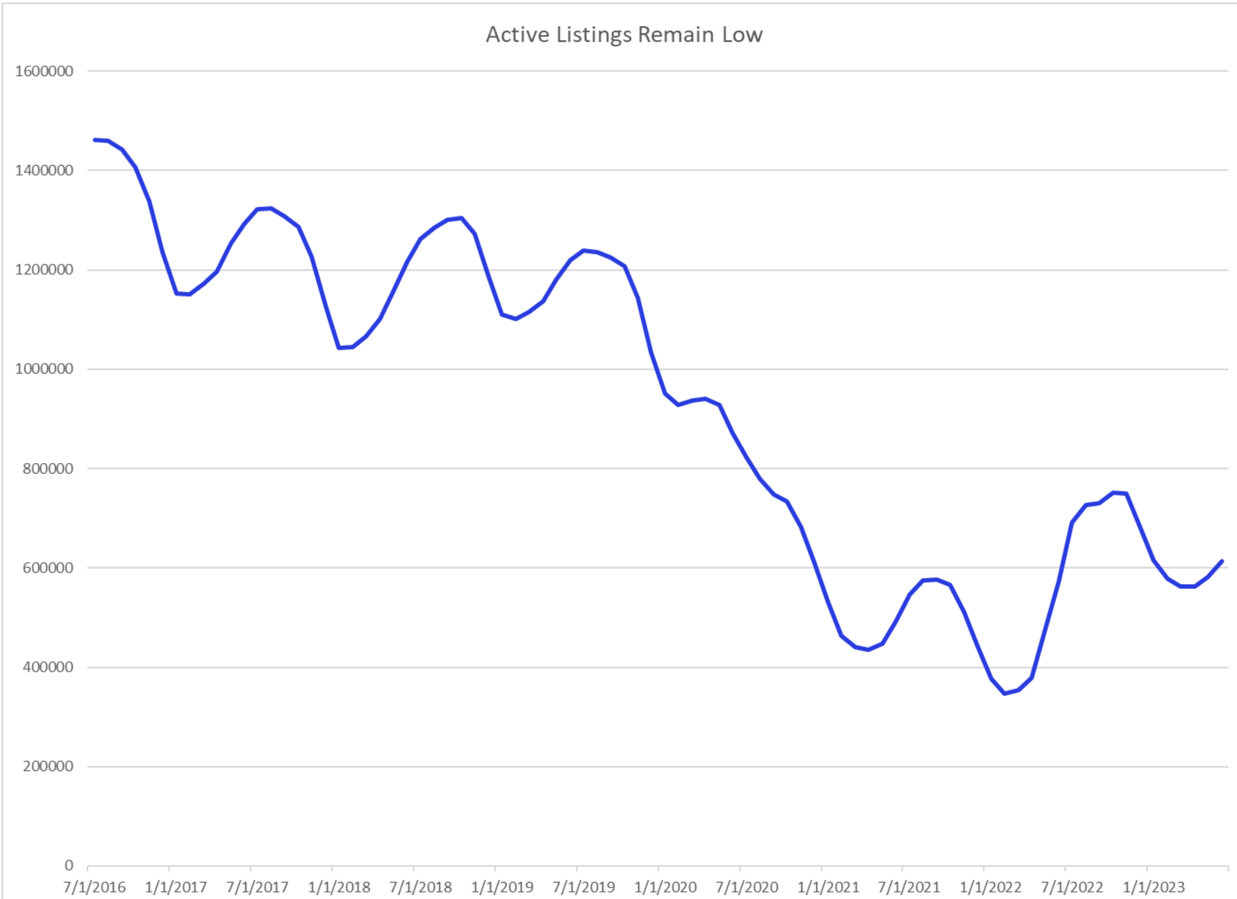
Last year there were extreme concerns about a looming recession, and some even suggested that we were already in a recession due to two consecutive quarters of negative GDP growth. Unison remained adamant that there was not, and would not be, a recession because the labor market conditions were just not consistent with those of a typical recession. A year later, this has indeed proved correct, as most Wall Street firms have canceled (or at least lowered) their recession probabilities, and economic growth has surged back to its historical levels. The 2023Q1 Real GDP[12] is estimated to be at 2% (annualized) and the estimate for Q2 is 2.4%. These are both at, or exceeding, the Fed's long-term goals for macroeconomic output. Moreover, these are all key contributors to HPA. These numbers lead us to believe that even if there is a slight break in mortgage rates, pent-up demand will put a jolt in an already rebounding housing market.

America's Housing Supply Issue

In most of our past economic analyses, we have focused on the shorter-run measures of the housing supply, and that is still quite constrained by a couple of metrics. For example, active

[12] U.S. Bureau of Economic Analysis, Real Gross Domestic Product [GDPC1], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GDPC1, July 30, 2023.

listings[13] remain well below the pre-pandemic numbers. As we mentioned above, this is a function of both supply pulling back naturally, and individuals being locked into higher mortgage rates.



While these are useful indicators as to where the market is going to move over the next three-to-nine months, there is a wealth of data on the longer-run measures of housing supply and its inability to meet the public's needs. Households, as defined by the Census Bureau[14], have been growing on a near-linear track in the United States for the last 70 years, but throughout that time new home construction has not kept up with household formation, leading to quite a supply deficit.

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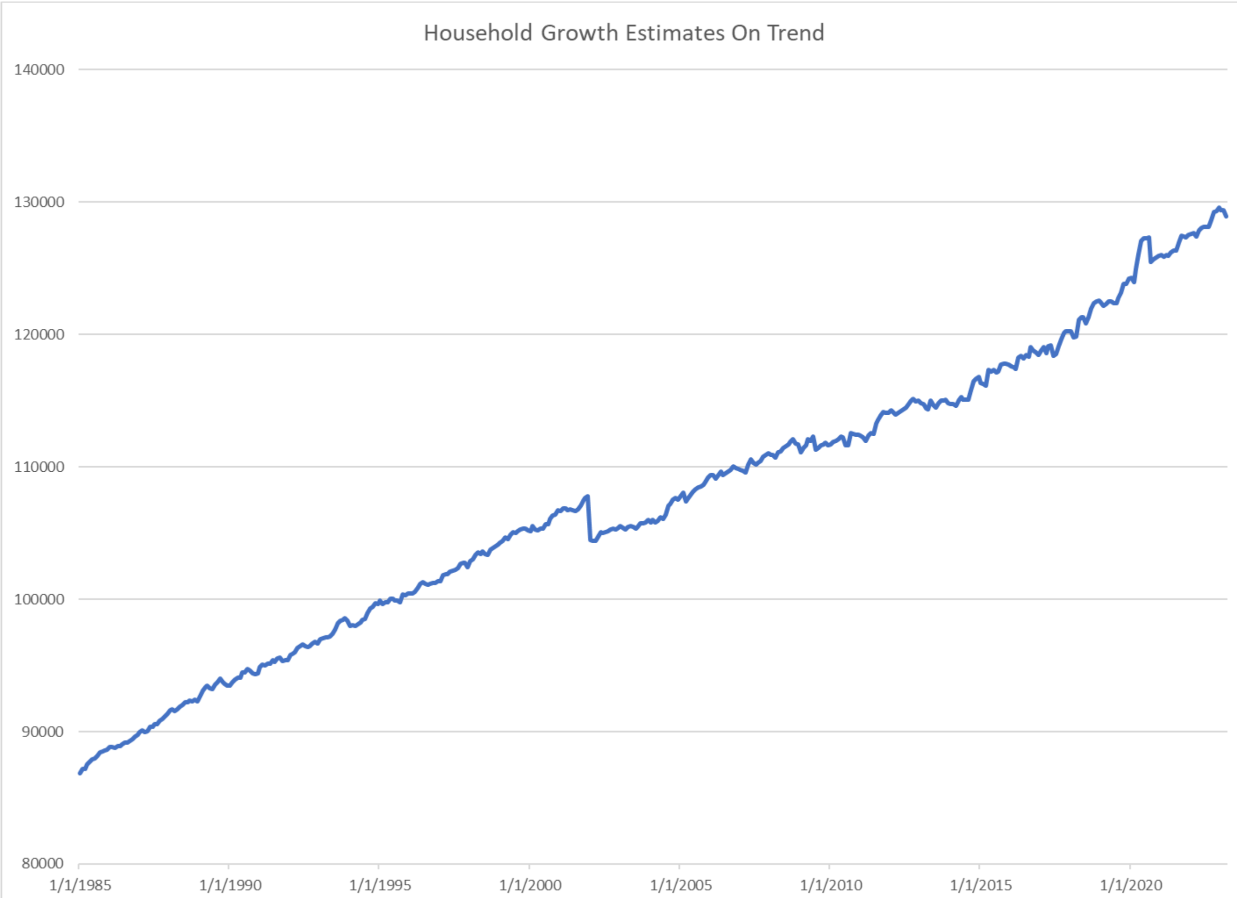
[13] Realtor.com, Housing Inventory: Active Listing Count in the United States [ACTLISCOUUS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/ACTLISCOUUS, July 30, 2023.

[14] U.S. Census Bureau, Household Estimates [TTLHHM156N], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TTLHHM156N, July 30, 2023.



The U.S. has added 7.1 million households between 2015 -2021, while the housing stock only grew by 6.3 million units over that same time frame. The pandemic exacerbated this problem, as household formation spiked relative to construction. In 2015, the U.S. housing supply deficit was already quite large at 2.7 million homes, but since then, that tally has increased by another 1.6 million homes. This sizable deficiency is forcing a large number of people and families in the U.S. to live with relatives or friends to accommodate their need for affordable shelter. According to Zillow[15], about eight million families are doubling up with non-relatives in a home they neither owned nor leased. There are other compelling metrics, such as the ratio of new jobs to new home building permits issued. In many metropolitan areas, job growth is quickly outpacing home starts or permit growth, causing significant shortfalls in housing.

Summary:

The U.S. housing market quickly recovered after prices began to fall in late 2022 and early 2023. Thus far, they have not only flattened but quickly rebounded to a trajectory similar to a long-term growth path. While higher interest rates have weakened U.S. housing demand, the high rates have also locked many Americans into their existing home, allowing supply to contract and more aptly meet demand without a price-free fall. The underlying economic activity

[15] https://www.zillow.com/research/affordability-crisis-missing-homes-32791/

that supports home price growth is high, and if interest rates fall in the next six to nine months due to lower risk premiums, housing demand could considerably strengthen. The U.S. still faces lots of positive HPA pressure in the long run, as by many metrics the housing supply is not keeping pace with a growing population, and many cities face large supply deficits.