



Summary

In this report, we take a look at the current state of the U.S. housing market, specifically digging into the details of the growing imbalances in for-sale and for-lease inventory and what we expect to see in the coming years. While this is not a new story, the current disparities between supply and demand in both for-sale and for-lease markets have reached record highs. Some factors contributing to the acceleration of demand for single-family homes (like the pandemic) may go away, but even if supply increases and demand stabilizes tomorrow it may take 1-2 years to normalize inventory to 2018-19 levels. We expect the effects of these supply-demand imbalances will persist and only gradually reverse over time. It may be several quarters before we see more normal rates of growth in home prices and rents.

Current state of the housing market

The U.S. single-family housing market is a seller's market currently with prices up 15% YoY (May 2020 versus May 2021) based on the Amherst Home Price Index. Similarly, YoY single-family rent growth is running close to 8% with several regions outperforming the national average according to Amherst's Rent Growth Index. With home prices and rents soaring, there have been questions asked if we are in a housing bubble and due for a correction.

We are not going to make the case that close to double-digit home price or rent growth is sustainable in the long run. At the same time, the confluence of relatively low interest rates, positive demographics, and the need for space in a 'live-work-shop-from-home' world may cause strong housing trends to persist for a while. In fact, there is an even more significant reason why we do not believe these price trends can reverse overnight and that has to do with the extraordinary supply-demand imbalances in the current housing market.

The visible for-sale inventory of single-family homes in May 2021 is lower by a whopping 35% versus the same time in 2019. Similarly, single-family for-lease inventory is lower by an even more astonishing 48% versus the same time in 2019. These declines are even more shocking given that 2019 was a normal year for housing with arguably no excesses that needed correction.

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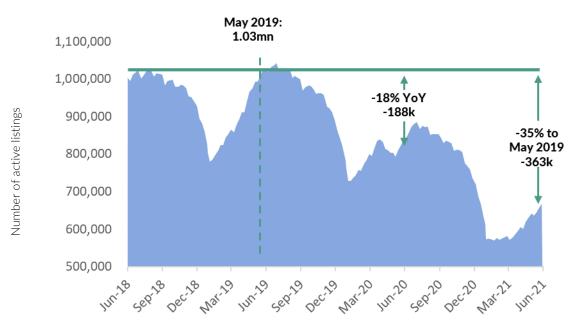
For-sale inventory is down 35% versus 2019

To do this analysis, we tracked single-family supply-demand and inventory trends based on Multiple Listing Service (MLS) data across hundreds of core-based statistical areas (CBSAs). These CBSAs account for the majority of U.S. single-family homes, and trends we observe within the CBSAs are highly representative of the entire market. We estimate that the forsale inventory based on MLS data as of end of May 2018 was about 1mm homes. We then compute the weekly inventory change for the next three years based on the following:

- 1. Inventory increases by net new listings (new listings less de-listings) every week (supply)
- 2. Inventory decreases as homes are sold (demand)
- 3. The combined effect of 1 and 2 moves the prior week inventory up or down

As Figure 1 shows, available for-sale inventory visible to the market was relatively flat from May 2018 to May 2019. However, it fell 18% to about 841,000 at the end of May 2020 and a cumulative 35% over two years to reach 666,000 at the end of May 2021. In other words, a buyer entering the market today would see about 35% fewer homes available on the market and be expected to pay substantially more for the same house than a couple of years ago.

FIGURE 1: FOR-SALE ACTIVE INVENTORY



Source: Amherst tabulation of Corelogic MLS data



To better understand the causes of the decline, we start with the visible inventory of 1mm homes in May 2018 and compute weekly changes based on demand and supply (Figure 2). The inventory was mostly unchanged in the first year (June 2018 – May 2019) as supply-demand matched evenly. However, as the pandemic unfolded, net supply of for-sale single-family homes fell from 2.6mm (June 2018 - May 2019) to 2.3mm (June 2019 - May 2020). Demand also fell but the drop was not as steep, falling from 2.6mm to 2.5mm. As a result, demand exceeded new supply by 188,000 over June 2019 – May 2020 and led to an equivalent drop in visible inventory.

The case of demand exceeding supply repeated itself over the last 12 months (June 2020 – May 2021) even as both supply and demand bounced back. Net supply recovered to pre-pandemic levels and stood at about 2.6mm homes. However, demand rebounded even stronger to 2.8mm, roughly 9% higher than pre-pandemic levels. This imbalance again led to a 175,000 decline in visible inventory bringing it to 666,000, down 35% in two years.

Finally, it is worth pointing out that the demand (number of sold homes) we observe is also limited by available supply. The actual demand — number of homes consumers are ready to buy at a specific price — is likely even higher and will continue to keep a lid on inventory build-up to pre-pandemic levels.

FIGURE 2: WHAT CAUSED THE DECLINE IN FOR-SALE INVENTORY?

Period	Net Supply	Demand	Change in Inventory	Date	Inventory
				May 2018	1,003,463
June 2018 to May 2019	2,605,746	2,579,914	25,832	May 2019	1,029,295
June 2019 to May 2020	2,304,133	2,492,370	-188,237	May 2020	841,058
June 2020 to May 2021	2,636,442	2,811,346	-174,904	May 2121	666,154

Source: Amherst tabulation of Corelogic MLS data



Demographics point to stronger housing demand in the coming years

There is no doubt that the demand for single-family homes went up dramatically due to the pandemic. That said, we should not forget the role positive demographics have played in the recent past and will continue to play in the coming years. An analysis of the U.S. population distribution shows that the 30-34 age cohort grew from 20.1mm people to 22.8mm people just in the last 10 years. More importantly, applying mortality and migration trends on today's age distribution suggests the population of 30-34 age cohort will rise to about 23.8mm people by 2025 (Figure 3). It is significant as this cohort is one of the biggest contributors to the first-time homebuyer population, which has a median age of about 33 years. A much bigger peak homebuying age cohort in the coming years and the pent-up demand from a decade of tight credit conditions will likely result in elevated demand for housing. Given such positive demographic tailwinds and existing supply-demand imbalances, the most likely scenario is that inventory build-up to prepandemic levels happens only gradually.

FIGURE 3: U.S. POPULATION EXPECTATION OVER TIME BY AGE COHORT

	Population in millions						
Age Cohort	2010	2015	2020	2025			
20-24	21.7	22.7	21.6	21.6			
25-29	21.1	22.4	23.2	22.3			
30-34	20.1	21.6	22.8	23.8			
35-39	20.1	20.3	21.8	23.1			

Source: Amherst tabulation of Corelogic MLS data

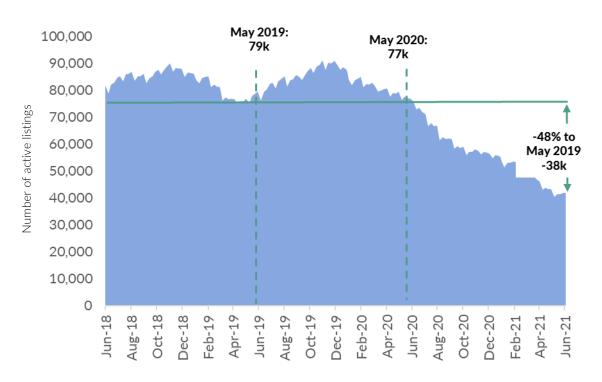
Similar dynamics in the for-lease market leave supply lower by 48%

In contrast to the for-sale market, a smaller proportion of new for-lease homes show up on MLS. Still, given our extensive coverage across the U.S., we are confident that trends we see are reflective of the entire market.

As Figure 4 shows, the number of active listings at the end of May was relatively unchanged from 2019 to 2020. However, the inventory number dropped precipitously in the last 12 months to about half its level from the same time in 2019. In other words, someone looking to lease a single-family home today would see about 50% fewer homes available on the market and be expected to pay almost 10% more on average for the same house versus two years ago according to the Amherst Rent Growth Index.



FIGURE 4: FOR-LEASE ACTIVE INVENTORY



Source: Amherst tabulation of Corelogic MLS data

Similar to the for-sale analysis, we start with a for-lease inventory of about 82,000 homes in our representative markets at the end of May 2018 (Figure 5). Between June 2018 and May 2019, there was only a marginal decline in inventory, and supply-demand remained in equilibrium for the June 2019 - May 2020 period. However, 2020 was different as for-lease supply plummeted in the second half of the year. Some of this could just be due to fewer move-outs as residents decided to stay put. At the same time, booming sales market and eviction moratoria likely made some landlords sell or not list their properties for lease. The combined effect was that the 12-month for-lease supply for June 2020 - May 2021 ran 84,000 lower than two years ago. Even with demand dropping nearly 50,000 (partly due to fewer homes on the market), the available inventory for lease went down 48% from May 2019 to May 2021.



FIGURE 5: WHAT CAUSED THE DECLINE IN FOR-LEASE INVENTORY?

Period	Supply	Demand	Change in Inventory	Date	Inventory
				May 2018	81,631
June 2018 to May 2019	365,531	367,856	-2,325	May 2019	79,306
June 2019 to May 2020	352,979	355,665	-2,686	May 2020	76,620
June 2020 to May 2021	269,240	304,216	-34,976	May 2021	41,644

Source: Amherst tabulation of Corelogic MLS data

Conclusion

The story of supply-demand imbalances in the U.S. housing market is not new. However, the current supply-demand imbalances in both for-sale and for-lease markets have reached epic proportions. Even if supply increases and demand stabilizes right away, it may take 1-2 years to normalize inventory to 2018-19 levels. The more realistic scenario is that the supply-demand imbalances persist for the time being and only gradually reverse. It may be several quarters before we see more normal rates of growth in home prices and rents.



ABOUT AMHERST HPI MODEL

Amherst Home Price Index is generated and maintained by Amherst. The index tracks price changes of single-family detached properties in 90 core-based statistical areas (CBSA) and 50 states in the US. The index is published monthly and is based on the Case Shiller repeated sales methodology. Unlike HPI published by S&P Case Shiller Weiss, Core logic and Federal Housing Finance Agency (FHFA), Amherst HPI is a distressed-free index which does not include price changes due to foreclosures, short-sales, bank repossession and REO resale. The repeated sales HPI rely on tracking price changes in transactions of the same house over time. For each arms-length and distressed-free home sale transaction, a search is conducted to find information regarding previous arms-length and distressed-free sales of the same house. If an earlier transaction is found, the two transactions are paired into a "sale pair." Sale pairs are designed to track price changes overtime for the same house, while holding the quality and size of each house constant. After sales pairs are formed, the index is calculated under a weighted least square framework, in which weights are based on price anomalies and time interval within pairs.

ABOUT AMHERST U.S. SFR RENT INDEX

Amherst Rent Index is generated and maintained by Amherst. The index tracks rent price changes of single-family detached properties in 250 corebased statistical areas (CBSA) and 49 states in the US. The index is published quarterly and is based on the Case Shiller repeated sales methodology. The rent index relies on tracking rent price changes of the same house over time. For each lease, a search is conducted to find rent price from the previous lease of the same house. If an earlier lease is found, the two leases are paired into a "lease pair." Lease pairs are designed to track rent price changes over time for the same house, while holding the quality and size of each house constant. After pairs are formed, the index is calculated under a weighted least square framework, in which weights are based on rent price anomalies and time interval within pairs. The index is based on re-leases on the same properties that are put on the market and therefore does not include any repeat leases which are renewals.



IMPORTANT DISCLOSURES

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ABOUT AMHERST

The Amherst Group of companies comprise of leading real estate investment and advisory firms with a mission to transform the way real estate is owned, financed and managed. Amherst leverages its proprietary data, analytics, technology, and decades of experience to seek solutions for a fragmented, slow-to-evolve real estate ecosystem and to materially improve the experience for residents, buyers, sellers, communities, and investors. Today Amherst has over 900 employees and more than \$9.8 billion in assets under management*.

Over the past decade, Amherst has scaled its platform to become one of the largest operators of single-family assets and has acquired, renovated, and leased more than 37,00 homes across 30 markets in the U.S. The firm delivers customized. stabilized cash-flowing portfolios of assets to its investors, wrapped in all the ongoing services required to manage, own, and finance the asset property management, management, and a full capital markets team. In addition to its single-family rental platform, Amherst's debt business pursues two distinct credit strategies in mortgage-backed securities and commercial real estate lending. Over its 25-year history. Amherst has developed a deep bench of research and technology talent, and leverages data and analytics at every stage in the asset lifecycle to improve operations and preserve long-term value for our investors and the more than 165,000 residents the firm has served.

*As of March 31, 2021,

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