

# 2021 U.S. Housing Market Outlook

## April 2021



**Charles P. Himmelberg**  
Senior Managing Director  
Macro Research



**Zain N. Butt**  
Associate  
Research & Strategy

### EXECUTIVE SUMMARY

## Housing Was the Top Macro Surprise of 2020

- CoreLogic's National Home Price Index rose 9.2% YoY, a remarkable performance given the severity of job losses and incomplete recovery of pre-pandemic employment levels.
- As the pandemic began to restrict social interaction, households suddenly found themselves working from home (also schooling, cooking, and pretty much everything else from home); distance mattered less, and space mattered more.
- Reflecting these new demands on homes, potential downsizers and retirees decided to postpone listing decisions, while space-constrained families and second-home buyers put new urgency into their purchase decisions, both of which drove the pre-pandemic supply-demand imbalance from bad to worse.

## Home is Still Paramount

- These "pandemic preferences" will likely begin to reverse as social distancing restrictions begin to ease in the second half of 2020.
- A return of pent-up sellers and more patient buyers should help rebalance supply and demand, allowing a modest deceleration of home price appreciation to 7% in 2021 and 4% in 2022.
- Pre-pandemic trends that were driving households into the sunbelt and into the suburbs also seem likely to gain momentum in the post-pandemic era.
- In particular, millennial families were already embracing the suburbs, and if work-from-home habits persist into the future as we suspect, then the appeal of the suburbs will have only grown.
- Indeed, demand for suburban homes will likely outpace supply for years to come, which implies that strong recent rental demand for Single Family Rental ("SFR") will likely remain robust, driving continued rent growth of around 5% in both 2021 and 2022.

## Implications for SFR and Mortgages

- SFR and mortgage credit have always offered attractive “yield alternatives,” but we feel these features will prove ever more attractive in a fixed income environment where low policy rates, quantitative easing, and now “Corporate QE” have extracted much of the yields available from liquid securities.
- Since illiquidity and complexity are barriers to entry for capital, these asset classes have arguably been subject to less crowding than competing sources of yield.
- Moreover, due to the adoption of new technologies that have increased the scope of institutional ownership, the SFR market is arguably ripe for consolidation, thus increasing its ability to absorb institutional capital inflows without undermining returns.
- Proper fixed income exposure is available via the mortgage credit side of residential housing markets, and these assets, too, should benefit from the robust housing market envisioned by our outlook.
- In particular, while mortgage forbearance policies have pushed serious delinquencies to impressively high levels, homeowners are equity-rich, and their debt service ratios are at 40-year lows – a social dividend on the re-regulation and conservative lending policies of the past decade.
- Thus, in dramatic contrast to the devastating experience of the Global Financial Crisis ("GFC"), most of these seriously delinquent mortgages have high potential to end with favorable economic outcomes for homeowners and investors alike.

## Pretium Forecasts for 2021 and 2022

		2019	2020	Q1	2021E	2022E
<b>Macro</b>	Real GDP (YoY%)	2.3%	-2.4%	4.5%*	6.0%	2.7%
	Fed Funds	1.6%	0.1%	0.1%	0.1%	0.1%
	10Y Treasury Yield	1.9%	0.9%	1.5%	1.3%	2.4%
	Mortgage Rate - 30 Yr	3.7%	2.7%	3.0%	3.3%	3.5%
	PCE Inflation	1.6%	1.3%	1.5%	2.1%	2.0%
<b>Housing/SFR</b>	Home Price					
	Appreciation (YoY%)	4.0%	9.2%	0.9%	7.0%	4.0%
	John Burns SFR Index	4.3%	3.7%	3.7%	5.0%	5.0%
	Single Family Starts	777	877	973	973	1,022
	(SAAR in mil.)					

\*Bloomberg consensus mean, %QoQ SAAR

Source: Pretium internal using Bloomberg – data through January 31, 2021

**As We Entered 2020**



Mortgage rates  
**-65 bps**



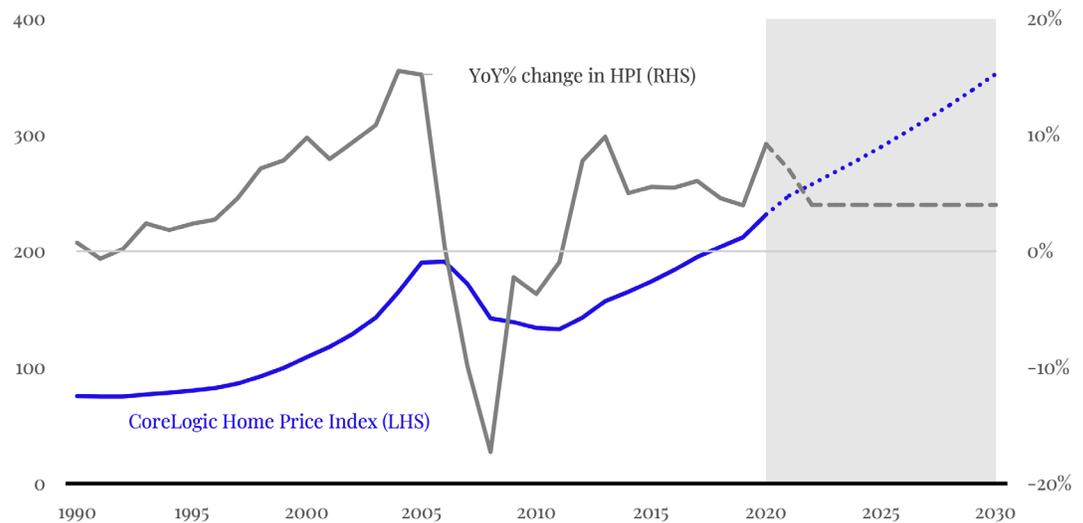
Existing home sales  
**+10.4% YoY**

## Housing Markets Were the Top Macro Surprise of 2020

The pandemic performance of housing markets has been truly remarkable. Despite a steep recession and the severe economic disruptions caused by the COVID-19 pandemic, the CoreLogic home price index rose 9.2% in 2020, its biggest year-on-year increase since the rebound from the Global Financial Crisis in 2014 (Exhibit 1). We expect home prices to grow at 7% and 4% for 2021 and 2022, respectively, driven by chronic shortage of supply coupled with acceleration in deurbanization.

### Exhibit 1: CoreLogic Home Price Rose +9% YoY

CoreLogic Home Price Index – Actual and Forecast



Source: Pretium internal using CoreLogic HPI, data through December 31, 2020

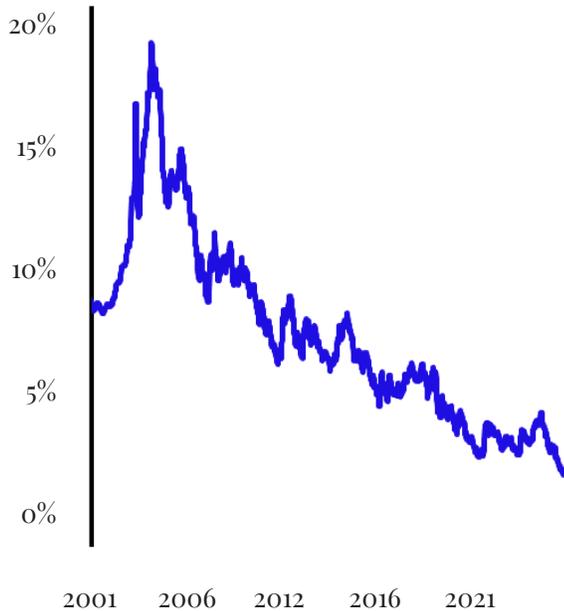
*While the need to shelter in place obviously fueled housing demand, the quick and aggressive policy response of the Fed played a big role too.*

Indeed, the housing market is arguably one of the most remarkable macroeconomic stories of 2020. Contrary to the worst initial fears of many economists, housing turned out to be a refuge from the storm. While the need to shelter in place obviously fueled housing demand, the quick and aggressive policy response of the Fed played a big role, too. Indeed, even before the onset of the pandemic, housing activity was already beginning to increase at a rapid clip, with 30y fixed-rate mortgage rates dropping 65bps and existing home sales rising a robust 10.4% YoY as we entered 2020 as shown in Exhibit 2 and 3.<sup>1</sup> The most likely explanation for this surge is the Fed easing that had begun during the summer of 2019.

<sup>1</sup> Existing home sales from Moody's Analytics, National Association of Realtors and Mortgage rates from FRED, data through Dec. 31, 2020

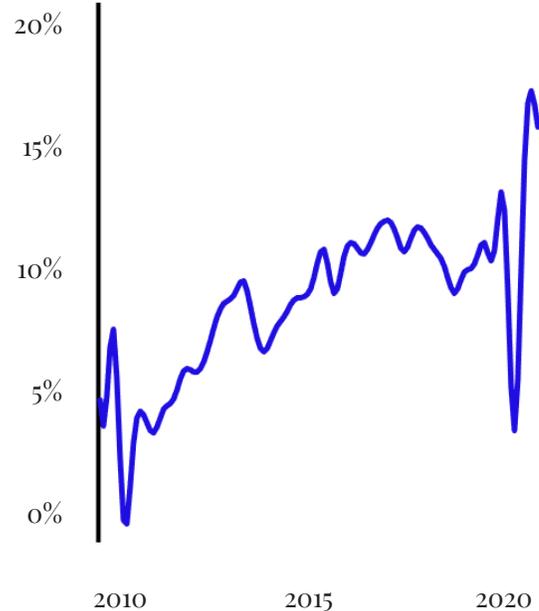
## Exhibit 2: Mortgage Rates Are at Multi-Decade Lows

Percent 30-Year Fixed Mortgage Rate in U.S



## Exhibit 3: Annual Home Sales Rose 18% in 2020 Despite H1 Collapse

Existing Home Sales (SAAR, %YoY)



Source: Existing home sales from Moody's Analytics, National Association of Realtors and Mortgage rates from FRED, data through Dec. 31, 2020

*For big urban cities like New York and San Francisco, this meant that rents and home prices in the urban centers fell, while in the suburbs they rose.*

That said, the biggest development within the housing market in 2020 was clearly the emergence of dramatic preference shifts induced by the pandemic. In addition to working from home (WFH), household members were also schooling, dining, and doing pretty much everything else from home. This sharply increased the value of “home amenities” ranging from internet services and home appliances to home renovations and simple square footage. Meanwhile, as visits to offices, restaurants and other such city services collapsed, so too did the value of proximity to such “urban amenities”. For big urban cities like New York and San Francisco, this meant that rents and home prices in the urban centers fell, while in the suburbs they rose (see also Exhibit 7). But for most cities, especially cities with less well-defined urban cores, the most visible consequence was simply higher home prices everywhere; households just wanted more. This is evidenced in Exhibit 4 which shows home price appreciation at state level compared to zip code level.

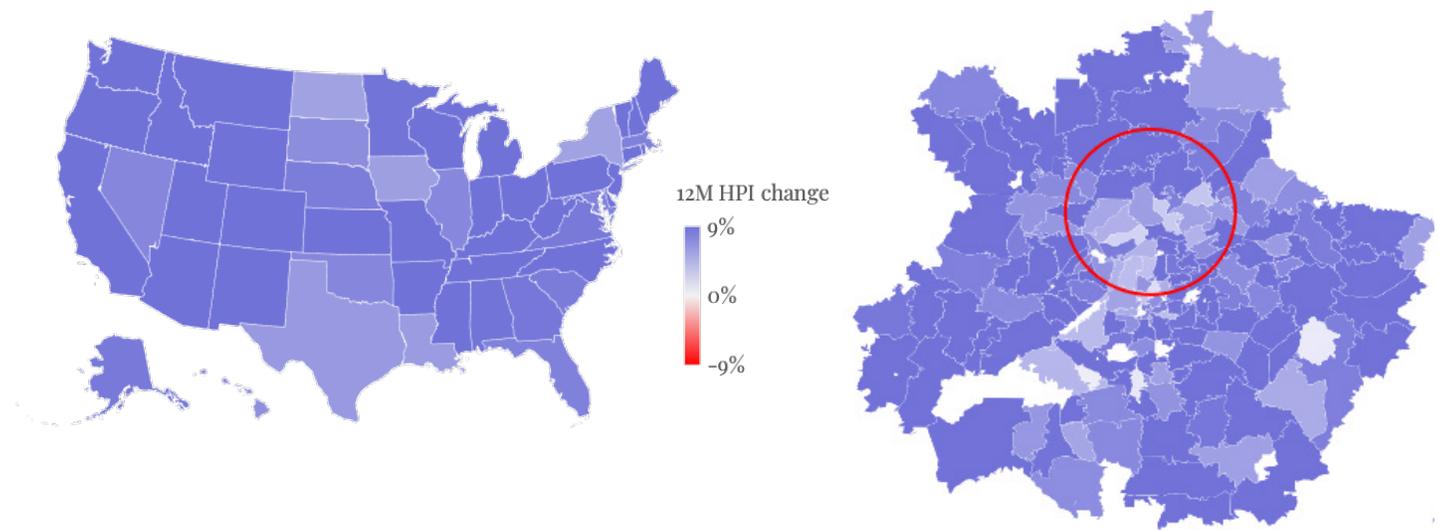
If housing demand in 2020 was a bumper sticker, it might read: *Distance mattered less, space mattered more.* While some observers have described the flight to the suburbs and rural areas as motivated by health concerns (or “density aversion”), we suspect these preference shifts are motivated more by space and distance – an increased demand for space to accommodate “everything from home”, and a

decreased demand for proximity to central cities given the dramatic collapse of office commutes and the widespread shut-down of other urban amenities. Taken together, these two preference shifts naturally re-directed housing demand to locations with a lower cost of housing per square foot.

**Exhibit 4: Urban to Suburban Rotation is Observable in Home Price Growth**

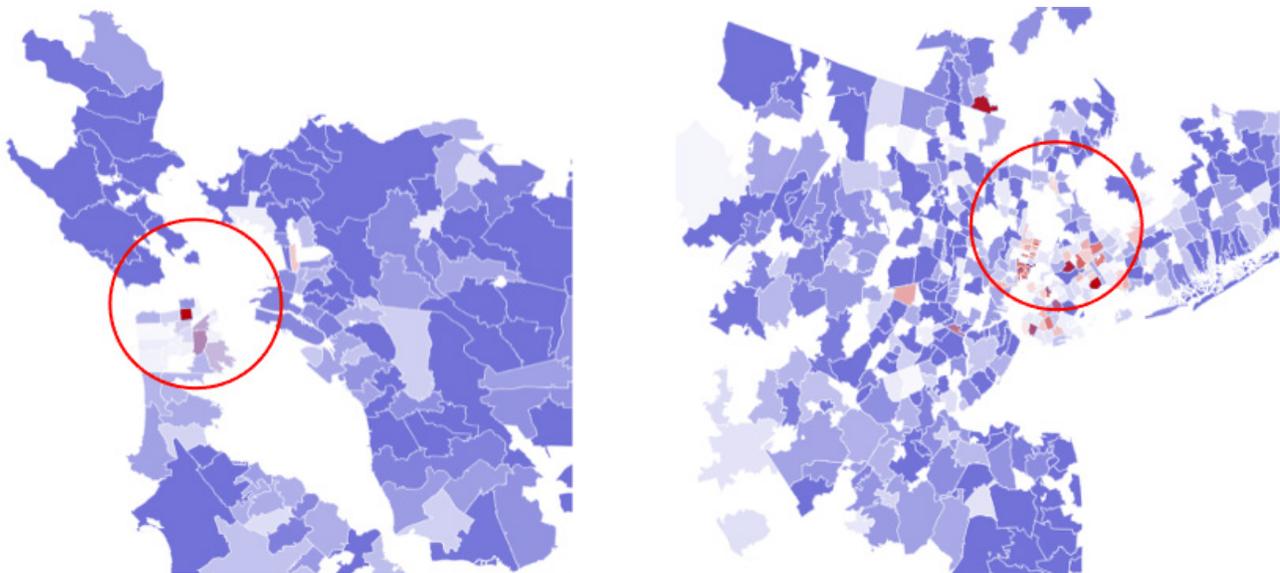
**YoY Percent Change in CoreLogic Home Price Index**

**Atlanta Metro Area**



**Greater Bay Area**

**Greater New York City**



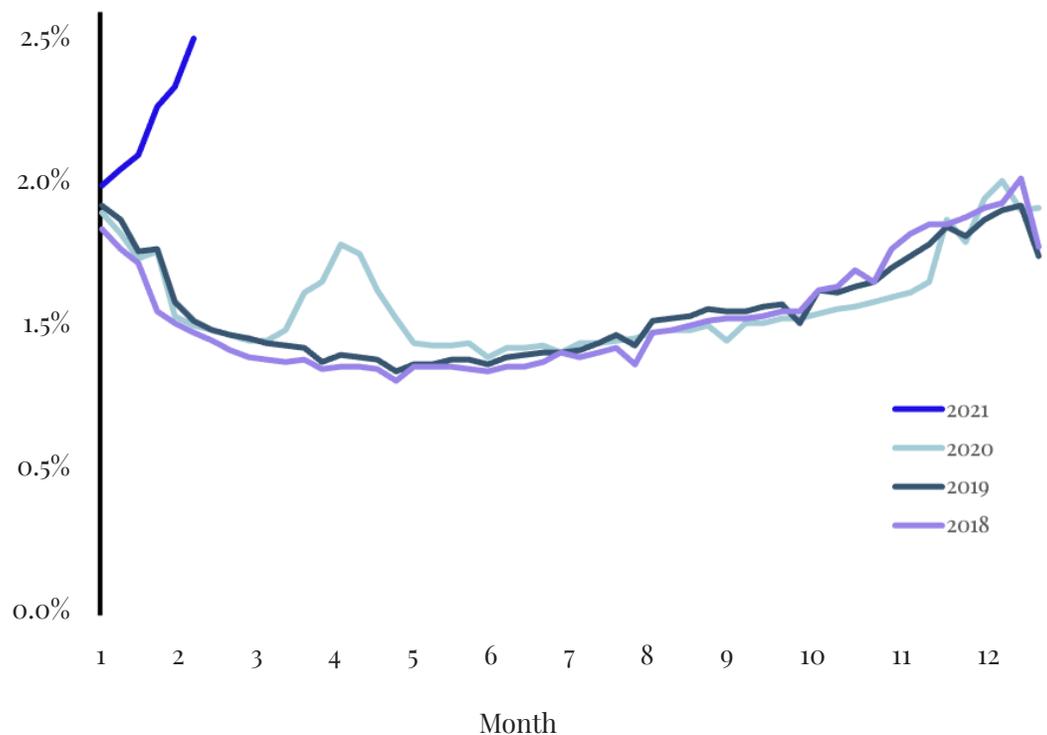
Source: Pretium internal using CoreLogic HPI, Zip code level, data through Dec. 31, 2020

*Survey evidence suggests that a large fraction of would-be home sellers decided to hunker down in place for the duration of the pandemic, delaying the decision to put their homes on the market (Exhibit 5).*

Another big development for housing markets in 2020 was the disappearance of sellers. Survey evidence suggests that a large fraction of would-be home sellers decided to hunker down in place for the duration of the pandemic, delaying the decision to put their homes on the market (Exhibit 5). When asked in annual surveys by the National Association of Realtors about their motives for selling, two of the top reasons cited by households 55 and older are “Desire to be closer to family, friends and relatives” and “desire for a smaller home”.<sup>2</sup> Heads of households aged 55 and older also tend to be net sellers of homes.<sup>3</sup> Not surprisingly then, the May 2020 report of the Michigan Survey of Consumers showed the largest-ever 3-month jump in the number of households saying that “now is a bad time to sell” a home, and despite a partial recovery, selling sentiment has remained well-below pre-COVID levels as the pandemic has extended.<sup>4</sup> That negative selling sentiment persists despite the recent increases in home prices and underscores the strong aversion to selling among existing homeowners.

### Exhibit 5: Active Listings Are Being Delisted as Virus Continues to Spread

Percent Active Listings Being Delisted



Source: Pretium internal using Redfin data, Percent Active Listings Delisted, data through Jan. 31, 2020

<sup>2</sup> See Exhibit 11

<sup>3</sup> Pretium internal using NAR survey, data through June 2020

<sup>4</sup> Surveys of Consumers, University of Michigan, data through January 2021

*While tighter lending standards and zoning restrictions make it less likely that we are entering into another long cycle, the boom in new-home construction in the midst of the pandemic is noteworthy.*

We expect housing demand to remain strong in 2021, driving HPA to 7%, although we expect a substantial cooling in the second half of the year. This cooling reflects our expectation that an easing of the pandemic restrictions will boost the supply for-sale inventories as pent-up selling motives are released into the market. This baseline scenario assumes that new case rates for COVID-19 will (hopefully) continue to fall and as vaccinations rise.

The primary risk to our baseline scenario is the possibility that new, more contagious strains of the virus prove harder to contain (as many epidemiologists warn). This “extended pandemic” scenario would likely keep would-be sellers on the sidelines for longer while doing little to discourage buyers, thus fueling another year of strong HPA comparable to 2020. But this scenario would only delay the eventual return of sellers, hence the risk to HPA is more a matter of “when” than “if”. For 2021, however, it is the reason we think the risks to HPA are skewed somewhat to the upside of 7%.

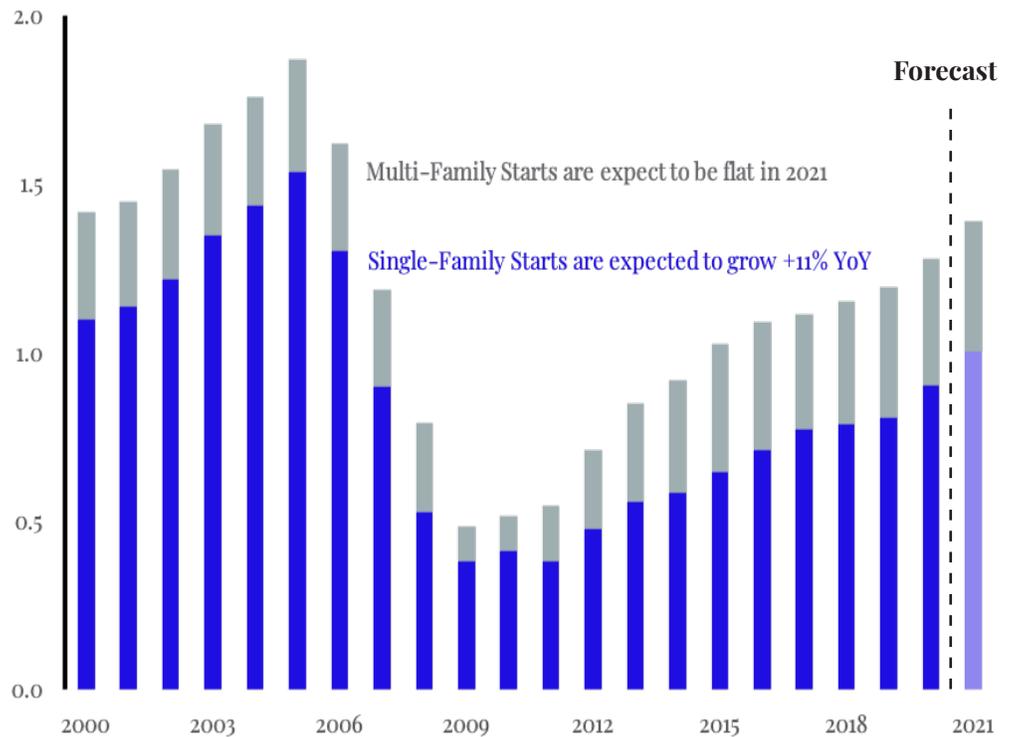
We also expect a robust increase in the pace of new single family home construction in 2021. Housing starts for privately owned homes grew 12% in 2020 to reach 1.0 million, the highest level since the end of the Global Financial Crisis (GFC). Even so, this barely matches the weakest years during the extended construction boom that ran from 1992–2007, a cycle that peaked in 2005 at 1.7 million single family home starts.<sup>5</sup> While tighter lending standards and zoning restrictions make it less likely that we are entering into another long cycle, the boom in new-home construction in the midst of the pandemic is noteworthy. With many homebuilders reporting that they are running near full capacity and demand conditions still strong, we forecast new construction activity will remain robust at around 11% in 2021 (Exhibit 6).

---

<sup>5</sup> Bloomberg Weighted Average Consensus, Housing Starts, retrieved January 31, 2021

## Exhibit 6: Single-Family Starts Should Outpace Multi-Family From Here

Starts (SAAR, millions)



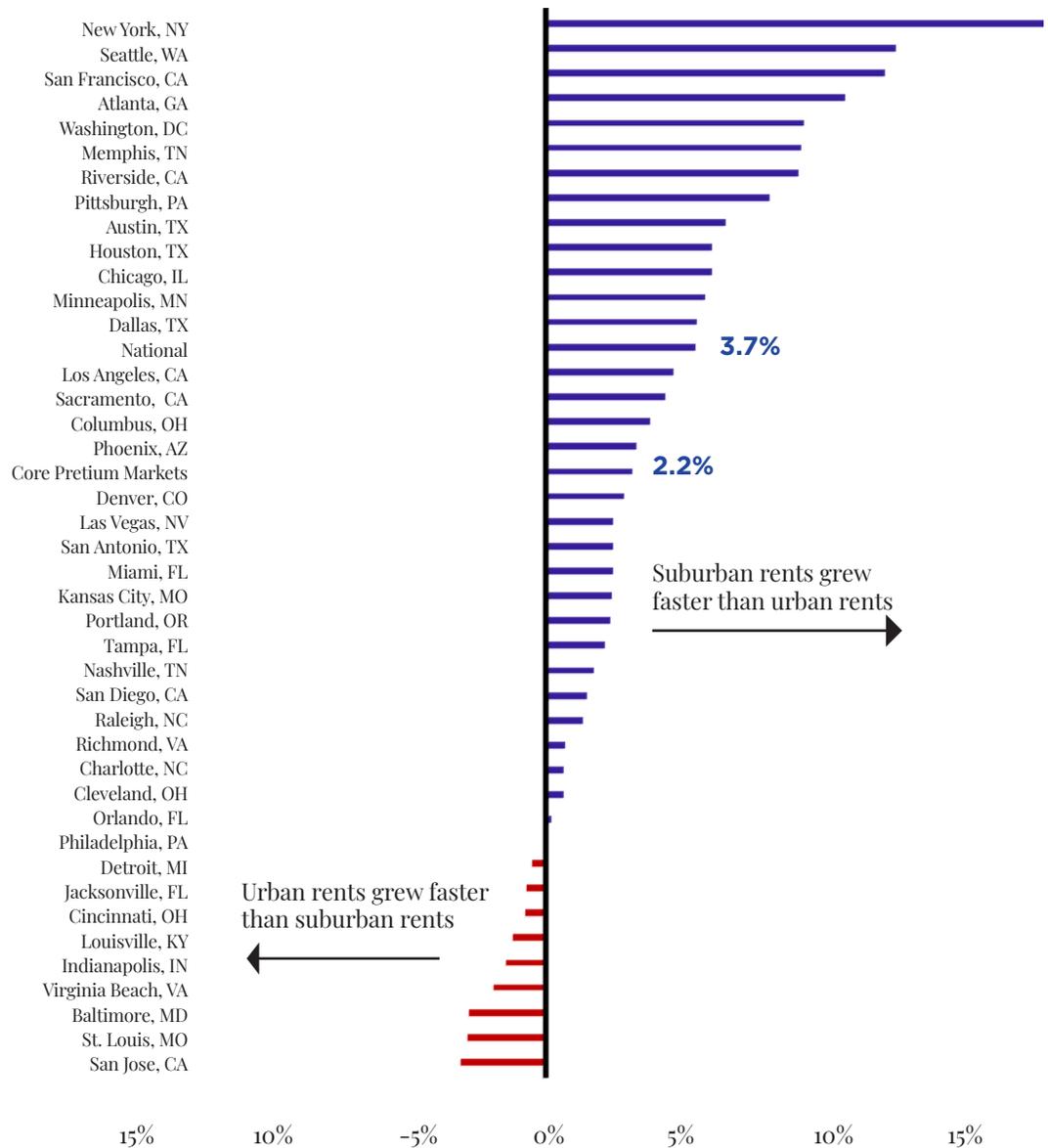
Source: Pretium internal using Bloomberg Weighted Average Consensus, Housing Starts, retrieved January 31, 2021<sup>6</sup>

Will pandemic preferences persist? The pandemic era has seen housing demand shift from urban to rural, from cities to suburbs, and from multi-family apartment buildings to single-family homes. But to what extent will these shifts persist in 2021 and beyond? While we’re clearly going to see some reversion back to pre-pandemic norms, our view is that many of these shifts will prove surprisingly persistent. For one, working from home has been a learning experience. Many workers have learned that they enjoy working from home, and many employers have learned that this can be just as productive (and perhaps less costly) than providing office space. In addition, while restaurants and other “pandemic exposed” businesses will obviously reopen, those that have gone out of business obviously will not. The start-up of new businesses will take time, and until that happens, the amenity value of urban living will be diminished. Finally, for households that fled the city, life in the suburbs will likely become an acquired taste. For all these reasons, we expect the pandemic will cast a long shadow on housing demand in the post-pandemic economy.

<sup>6</sup> Pretium internal using Bloomberg Weighted Average Consensus, Housing Starts, retrieved January 31, 2021

## Exhibit 7: Rent Growth in the Suburbs Outpaced Downtown

### YoY Rent Growth in Suburban Minus Urban Area



*Single-family homes have been failing to keep pace with trend growth demand. Meanwhile, household demand for single-family homes has been growing robustly as millennials are now starting families and choosing to move to the suburbs.*

Source: Pretium internal using Zillow data, [www.zillow.com/research/2020-urban-suburban-report-28802](http://www.zillow.com/research/2020-urban-suburban-report-28802), data through Feb. 4, 2021

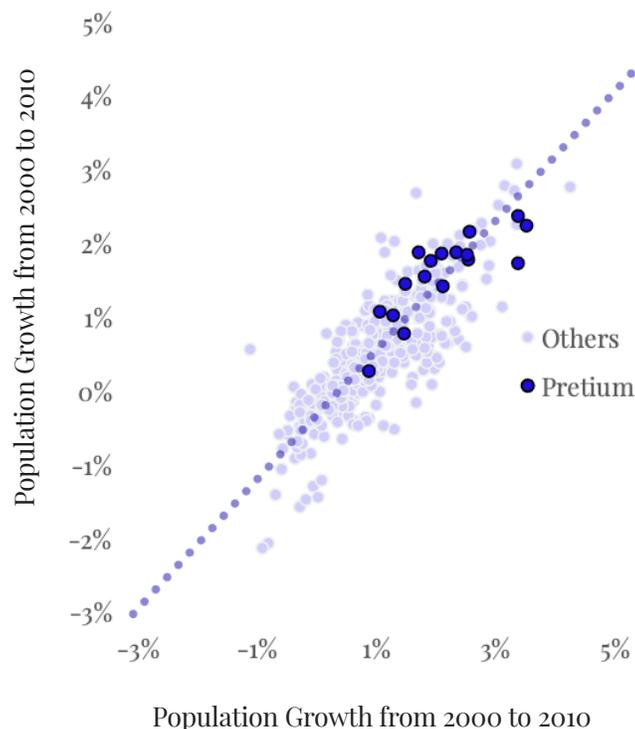
Many long-running tailwinds for housing should persist past the pandemic. Throughout the entirety of the recovery from the GFC, construction of single-family homes in this expansion has been failing to keep pace with trend growth demand. Meanwhile, household demand for single family homes has been growing robustly as millennials are now starting families and choosing to move to the suburbs. The construction of single family homes has been steadily rising in recent

years and will further close the gap in 2021, but this long-running deficit remains large and will likely take years to make up.

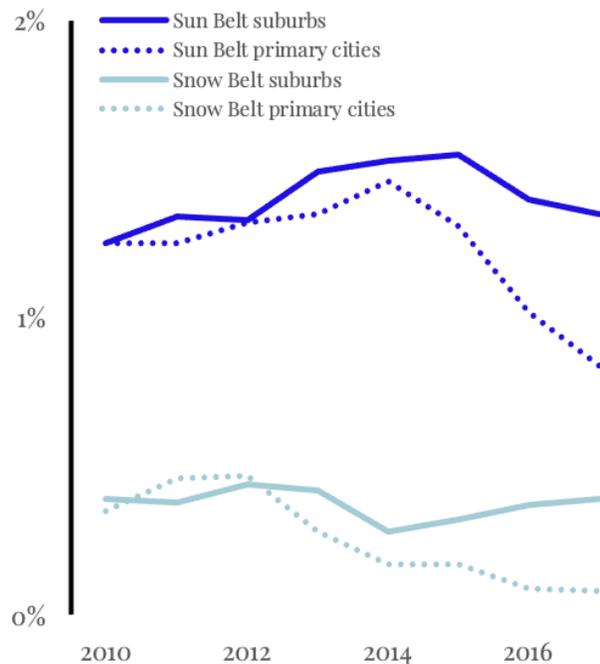
For investors in single family rentals (SFR), migration to both the sunbelt and the suburbs should provide strong tailwinds. The pre-crisis demand for sunbelt suburbs – whether owned or rented – was already strong, and all signs suggest that these preferences have only strengthened as a result of the pandemic (Exhibit 8). Moreover, not all households who wish to move to the suburbs necessarily wish to own, nor do they necessarily have the ability to buy. Some find it economically preferable to rent. This may describe households who were previously renting in an urban multi-family setting and now wish to rent in the suburbs. But it may also describe households who prefer to layoff HPA risk on landlords.

**Exhibit 8: Population Growth is Persistent and Skewed to Sunbelt Suburbs**

**Population Growth Regression**



**YoY Population Growth**

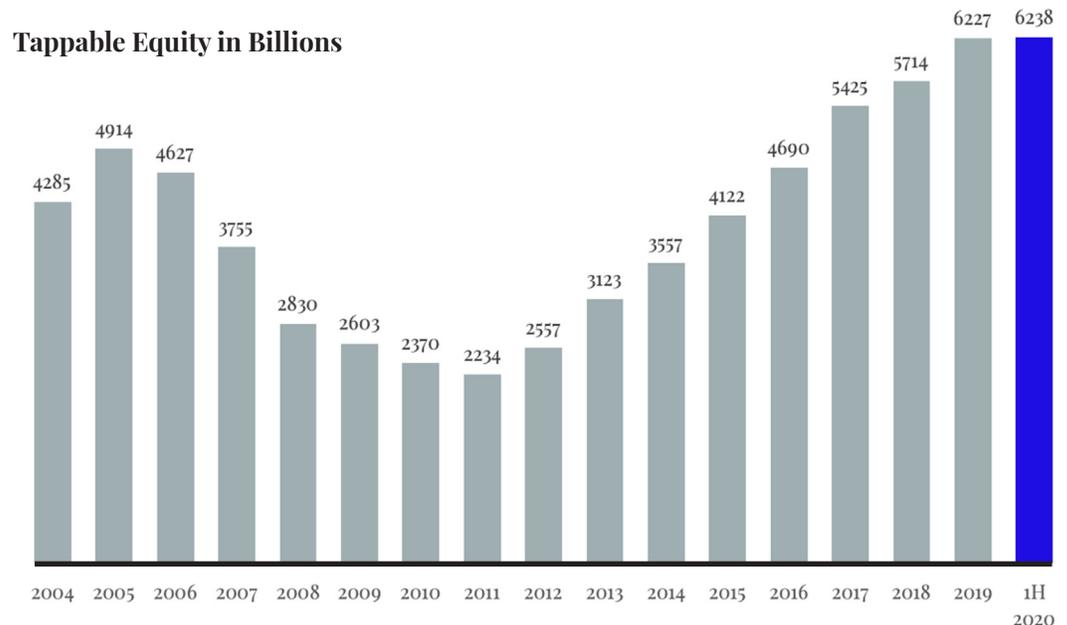


Source: Pretium internal using data from Brookings Institute for Suburbs and primary cities and Moody’s Analytics, data as of Feb. 2021

For investors in residential mortgages, these migration trends also imply a reduction in mortgage credit risk. While the pandemic has caused enormous economic hardship for many homeowners, the implications for mortgage credit has been greatly mitigated by record levels of fiscal support as well as by robust house price appreciation. And while mortgage forbearance programs, eviction

moratoriums and income support have all provided more time and resources to mitigate hardships, homeowners have also been able to lean on the positive home equity, helped not only by favorable financing conditions but also by robust appreciation of home prices (Exhibit 9). Even for households who find they can no longer afford their homes, the fact that housing market conditions remain so favorable is a win-win for both these homeowners and their mortgage lenders.

### Exhibit 9: Homeowners are Equity Rich



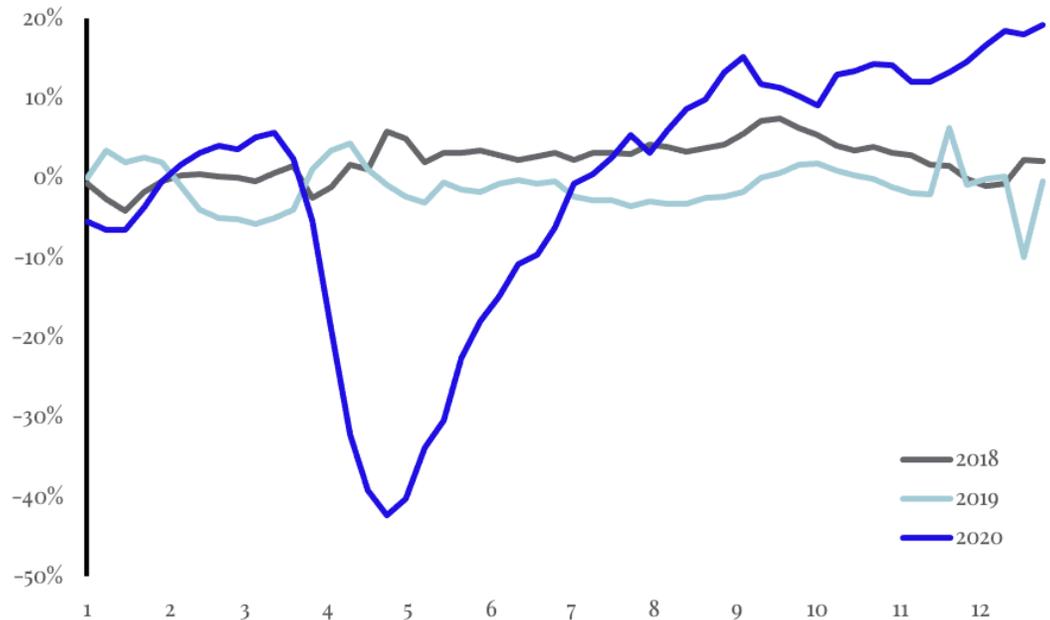
Source: Pretium internal using Black Knight/McDash data through June 2020

## Pandemics and Housing Markets: Lessons from 2020

The onset of the pandemic profoundly disrupted the normal seasonal pattern of home sales. During the first few months, de-listings rose and new listings fell as would-be sellers withdrew from the market (Exhibit 10). This was accompanied by a sharp decline in home sales as buyers initially withdrew, too, but not for long. As spring progressed into summer, buyers returned to the market en force, pushing the spring selling season into summer. Would-be sellers, however, stayed on the sideline, with the result being that inventories of homes for sale were quickly depleted to record-low levels.

## Exhibit 10: Active Listings Plunged As Virus Lockdowns Took Hold

YoY Change in Active Listings



Source: Pretium internal using data from Redfin, data as of Dec. 2020

Potential sellers remained on the sidelines throughout the fall and into the new year. The net sellers of existing homes are proto-typically empty nesters who frequently cite “a desire to be closer to family and friends” along with “downsizing” as top motives for moving (Exhibit 11). A modest recovery of listing activity over the summer notwithstanding, many such homeowners (typically aged 55 and older) were evidently in less of a hurry to sell, content to ride out the pandemic in their current homes. While health concerns and the complications of showing a home during a pandemic likely played some role in this, we think it is more likely that the pandemic undermined their underlying selling motives. Restrictions on social interaction obviously diminished the value of being close to family and friends, and the convenience of being able to convert extra bedrooms into home office presumably diminished the appeal of downsizing. Even under more favorable selling conditions, surveys reveal that this cohort of net sellers is usually not in any particular hurry to sell, all of which makes it easier to understand the collapse in listing activity.

### Exhibit 11: COVID-19 Undermined Selling Motives for Ages 55+

Reason for Move	All Sellers	Net Buyers			Net Sellers		
		22-29	30-39	40-54	55-64	65-73	74-94
Want to move closer to friends & family	<b>16%</b>	13%	5%	5%	19%	28%	33%
Home is too small	<b>13%</b>	23%	28%	21%	5%	5%	3%
Job relocation	<b>11%</b>	22%	19%	19%	9%	2%	N/A
Neighborhood has become less desirable	<b>10%</b>	8%	10%	12%	10%	10%	6%
Change in family situation (e.g. marriage, birth of child, etc.)	<b>10%</b>	22%	14%	12%	10%	7%	5%
Home is too large	<b>9%</b>	N/A	3%	6%	12%	10%	17%
Want to move closer to current job	<b>5%</b>	3%	7%	8%	5%	1%	N/A
Upkeep of home difficult due to health/financial limitations	<b>4%</b>	N/A	2%	1%	4%	5%	12%
Schools became less desirable	<b>1%</b>	N/A	2%	2%	N/A	N/A	N/A
Cannot afford the mortgage & expenses of owning home	<b>1%</b>	N/A	1%	1%	2%	2%	N/A
Other	<b>14%</b>	5%	9%	12%	16%	15%	17%

Source: Pretium internal using NAR survey, data through June 2020

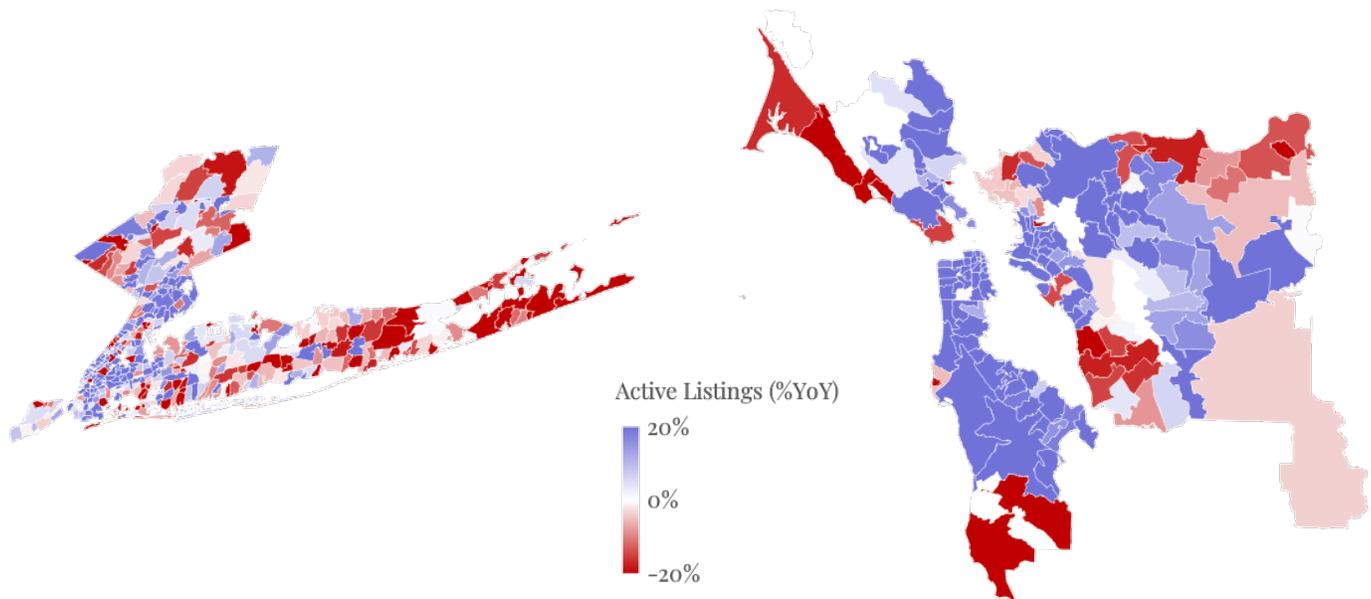
As the pandemic surged again in the fall, the pattern from spring was repeated. Again, new listings fell and delistings rose, but this time demand held firm. In fact, demand was strong enough to push sales volumes to levels that more than made up for the sluggish spring, which combined with tight supply was enough to push home prices to their fastest growth rates since the post-GFC rebound in 2013 (Exhibit 12).

## Exhibit 12: Active Listings Rose in Urban Centers

### YoY Percent Change in Active Listings

#### New York Metro Area

#### San Francisco Metro Area



Source: Pretium internal using Active Listings from Redfin.com, Zip code level – data through November 2020

*Single-family homes in the suburbs have risen robustly, while rents in large multi-family buildings closer to urban centers have fallen (see Exhibit 13).*

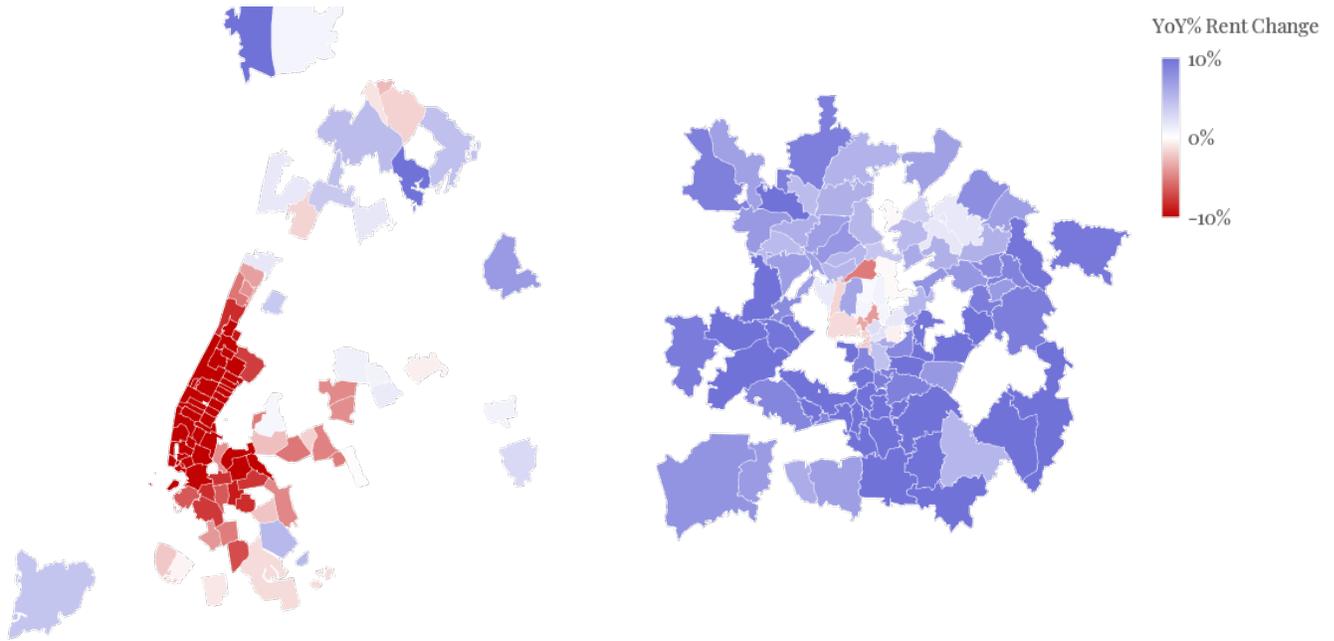
Another distortion caused by the pandemic was to turn inter-metro patterns of price appreciation “inside out”. Under normal market conditions, local economic growth tends to fuel increases for apartment rents or home prices that are strongest for housing units located closest to city centers. But as it is now well-known, the pandemic caused a dramatic shift in preference for the amenity values of suburbs over city centers (space mattered more, distance mattered less). As a result, “heat maps” for large cities with dense city centers produced distinct “red donuts with purple holes”, with purple indicating listing increases and red indicating declines. In cities like New York and Atlanta, for example, these shifts have revealed even higher rates of inventory drawdowns for suburbs located furthest from the center. This net demand shift was similarly visible in rental markets; rents for single-family homes in the suburbs have risen robustly while rents in large multi-family buildings closer to urban centers have fallen (see Exhibit 13).

**Exhibit 13: Rents Fell in Urban Centers, But Rose in Suburbs**

**YoY Percent Change in Rent**

**New York Metro Area**

**Atlanta Metro Area**

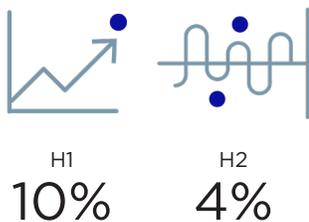


Source: Pretium internal using ZORI from Zillow.com, Zip code level – data through December 2020

**Robust HPA and Rent Growth Should Cool as Pandemic Fades**

How will housing markets evolve from here? Over the near-term horizon (6-12 months), we expect to see strong housing demand persist through at least the summer of 2021. We also expect to see continued “patience” on the part of sellers, and hence a sustained demand-supply imbalance for at least as long as housing market behaviors are being shaped by the social distancing restrictions imposed by the pandemic. This market imbalance could easily sustain double-digit price growth through the first half of the year.

**Prices Rising & Cooling**

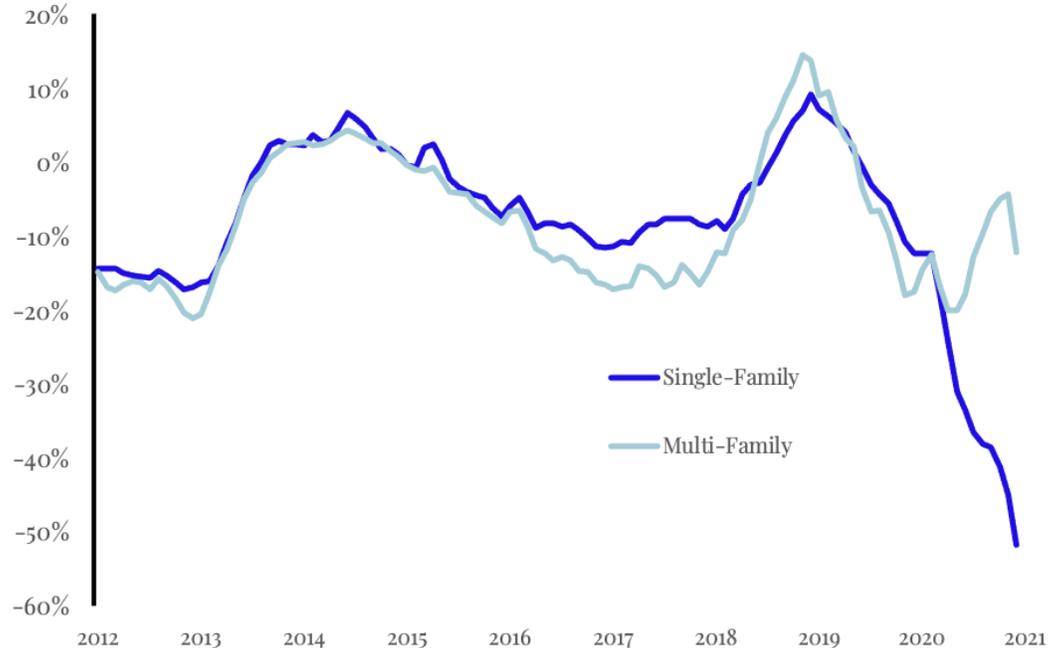


But pandemic restrictions appear poised to relax, after which we think HPA could quickly cool to a year-on-year pace of around 7%. This forecast envisions home prices rising at an annualized average pace of around 10% during H1 before cooling to a pace of around 4% in H2. A deceleration obviously envisions a meaningful convergence of the demand-supply imbalance; we expect such adjustments to come from both cooling demand and surging supply.

On the demand side of the market, we expect the blistering 18.7% surge in new home sales in 2020 to slow in 2021.<sup>7</sup> Our assumption is that new home sales in 2020 were driven by an elevated sense of urgency that will (hopefully) be missing by the second half of 2021. Mortgage origination data show that most of the increased sales in 2020 went to first-time homebuyers and purchasers of second homes. These buyers had obviously become impatient since they managed to drive new home sales to their largest annual increase of the post-GFC period despite a 9.2% increase in home prices and a 52% decrease in the inventory of homes for sale (see Exhibit 14). But the composition of buyers also suggests that the pandemic encouraged many households to “pull forward” the timing of purchases that households had previously planned to make in the future. As such, when we look ahead to the second half of 2021, we expect the relaxation of pandemic restrictions will be met with a modest cooling of housing demand relative to 2020. That said, we believe demand will still remain firm since the preference shifts induced by WFH and other norms will likely persist for years.

### Exhibit 14: Inventories Are Down Sharply for Single Family Homes

YoY Percent Change in Inventory for Sale



Source: Pretium internal using Inventory from Redfin.com – data through February 2021

Meanwhile, the easing of pandemic restrictions should also release pent-up selling back into the market. Despite better prices and higher sales volumes in 2020,

<sup>7</sup> U.S. Census Bureau and the U.S. Department of Housing and Urban Development, New Home Sales, as of February 2021

existing homeowners were largely unresponsive to these incentives and generally appeared to disengage from the housing market. As a result, the inventory of existing single-family homes for sale was drawn down by the surge in sales. Indeed, this decline in the inventory of homes for sale has continued into the first few months of 2021 and will likely persist until the pandemic restrictions begin to ease.

*Our baseline scenario envisions a material easing of pandemic conditions by June, but there are risks.*

Our baseline scenario envisions a material easing of pandemic conditions by June. While the difficulty of predicting the pandemic's path to date warrants forecaster humility, the rapidly falling case rates during the first two months of 2021 likely bode well for the next few months. In particular, the falling rates suggest that the combined effects of mask wearing and social distancing measures are reducing transmission rates. The rising fraction of the vaccinated public will soon begin to help, too. That said, there are risks in both directions. On the one hand, some scientists have recently pointed to rapidly falling case rates to suggest we may be closer to herd immunity than is generally believed.<sup>8</sup> On the other hand, the emergence of new strains that are more contagious may threaten to delay the point of herd immunity. As such, there is considerable uncertainty around our expectation of a second-half cooling of HPA, implying a corresponding amount of upside risk to our expectation that home prices grow 7% in 2021.

## Long-Run Housing Fundamentals Remain Robust

The longer-term outlook for housing remains robust, but risks remain. Relative to our pre-pandemic outlook, we think the longer-term outlook for both price appreciation and rent growth of single family homes has improved. In particular, we think likely that post-pandemic preference shifts will more than offset the expected future declines in affordability metrics (more on that below), which will only add to the fundamental support implied by the long-standing dearth of new construction relative to the organic growth of new household formation.

To be fair, there are numerous economic headwinds to be overcome. For one, the “K-shaped” nature of the recovery has caused disproportionate damage to small businesses and workers in lower-income service sector jobs. Even today, 10 million jobs are still missing<sup>9</sup>, robust recovery notwithstanding. In addition, the aggressiveness of fiscal and monetary policy implies a payback period when the

---

<sup>8</sup> <https://www.businessinsider.com/johns-hopkins-professor-herd-immunity-us-april-2021-2>

<sup>9</sup> Non-farm payroll, U.S. Census, through March 2021

fading of fiscal stimulus and removal of monetary accommodation will effectively feel like new headwinds for growth. While these policy shifts will not likely appear before sometime in 2022, they will nonetheless loom over the outlook for sentiment, especially if the strength of the recovery happens to disappoint.

But there are new tailwinds, too. For one, to the extent that firms and workers have discovered WFH arrangements are more feasible or desirable than was previously known, the preference for suburban over urban will likely persist. To repeat the bumper sticker, distance matters less, and space matters more. And while much of this boost is obviously transitory, recent experience has demonstrated that for some jobs, working from home is just as productive as working in the office. In addition, while the ending of the pandemic will obviously allow small service-oriented businesses to reopen, many have gone out of business, and the growth of new businesses will take time. Finally, for many urban transplants, life in the suburbs will likely become an acquired taste. For all these reasons, we expect that suburban preferences will persist past the pandemic.

### Motives for Moving



Employment  
43%

vs



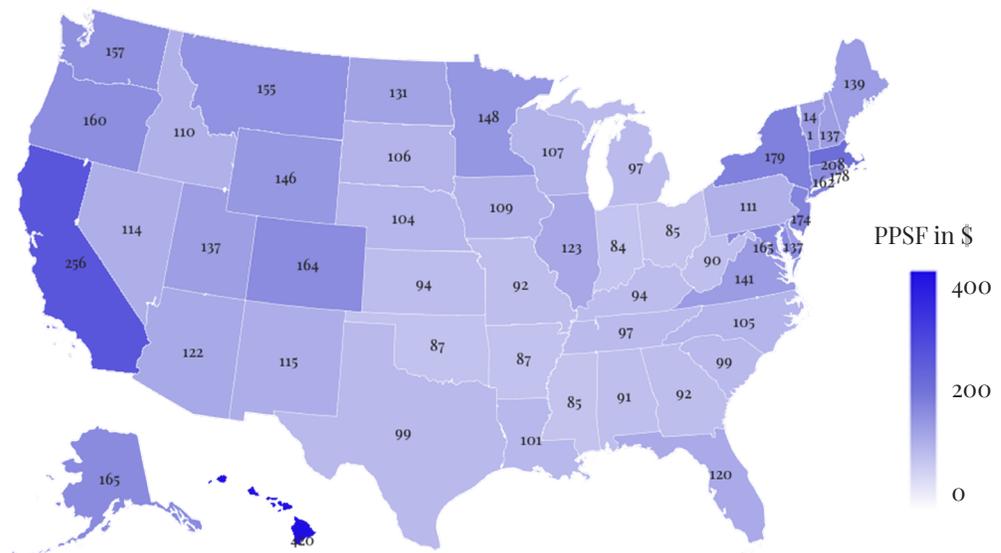
Housing-relating concerns  
25%

Second, any shifts in post-pandemic migration trends will likely benefit the Sun Belt. Consistent with our view that larger numbers of households will be choosing WFH arrangements, we expect that such households will also favor housing options offering more square feet per dollar. This implies not only a shift from city centers to suburbs, but also a higher propensity to migrate from high-cost coastal cities to low-cost cities. In a survey asking households who moved 50 miles or more about their motives for moving, it's not surprising that 43% answered "employment". But perhaps more surprisingly, 25% cited "housing-relating" concerns, and when asked to provide details, a desire for cheaper and better ranked as the top motives.<sup>10</sup> In short, roughly a quarter of long-distance migration appears to be heavily influenced by a desire for a cheaper quality of life. If the pandemic experience causes households to put more value on their quality of life, as we expect, then this shift will likely provide yet another boost to the pre-pandemic migration trends that were already boosting population in the Sun Belt relative to the rest of the US.

<sup>10</sup> U.S. Census Bureau, Housing Pulse Survey, data through February 2021

## Exhibit 15: Price per Square Foot is Lower in Sun Belt Markets

### Price per Square Feet by State



Source: Pretium internal using Price per Square Foot by State from Census 2019 ACS – data through December 2019

Finally, the impressive resilience of household balance sheets during this pandemic underscores the improved quality of mortgage lending standards over the past decade. This resilience bodes well for the organic sustainability of housing demand. In contrast to the credit-fueled bubble in housing demand leading up to the Global Financial Crisis, demand growth has been fully organic. Indeed, the ratio of mortgage debt to GDP prior to the pandemic has fallen steadily throughout this expansion. While this trend has been interrupted by the recent surge in refinancing activity, there is little doubt that home price appreciation over the course of this expansion has been more “supply driven” than “demand driven”. Thus, while home prices by some metrics may look moderately over-valued, there is far less downside risk in housing markets today. In contrast to “sudden stops” of demand caused by abrupt changes in financial conditions, there really is no sense in which the market can be disrupted by a “sudden surge” of supply.

## Implications for Investors in Single-Family Rentals and Mortgage Credit

For investors in the single family rental market, the onset of the COVID-19 pandemic posed obvious headwinds. In addition to the fact that many tenants were struggling with job loss and other financial hardships, they were also taking advantage of eviction moratoriums to mitigate those difficulties. With the unemployment rate spiking to 14.8% back in April 2020<sup>11</sup>, the prospects for SFR markets (like residential real estate more broadly) were looking challenging, to say the least.

As it turns out, the SFR sector in 2020 was a “A Good Place to Be”, as Greenstreet Research put it in a recent report. According to this report, SFR asking rents were up over 7% YoY in 2020, while the national apartment average was down over 1%.<sup>12</sup> Despite a record jump in the national unemployment rate, the single family rental sector has weathered the storm with relative ease. The urban-to-suburban demand shifts described above were obviously beneficial since most of the SFR housing stock resides in the suburbs. In addition, because SFR was suddenly so sought after, existing tenants were motivated to prioritize rent payments. And finally, the middle-income (and often two-income) families that tend to gravitate toward the SFR market may have fared better during the pandemic than lower-income households. In particular, unemployment data by occupation suggests that the pandemic fell harder on low-wage jobs in the service industries, and such households tend to rent lower-cost apartments.<sup>13</sup> But even here, survey evidence collected by the US Census suggests that the speed and scale of the fiscal response played an important role in helping even low-income tenants remain current on their rent.<sup>14</sup> Exhibit 16 shows Green Streets expectations for Public and Private REITs.

---

<sup>11</sup> U.S. Bureau of Labor Statistics, Unemployment rate, data through December 2020

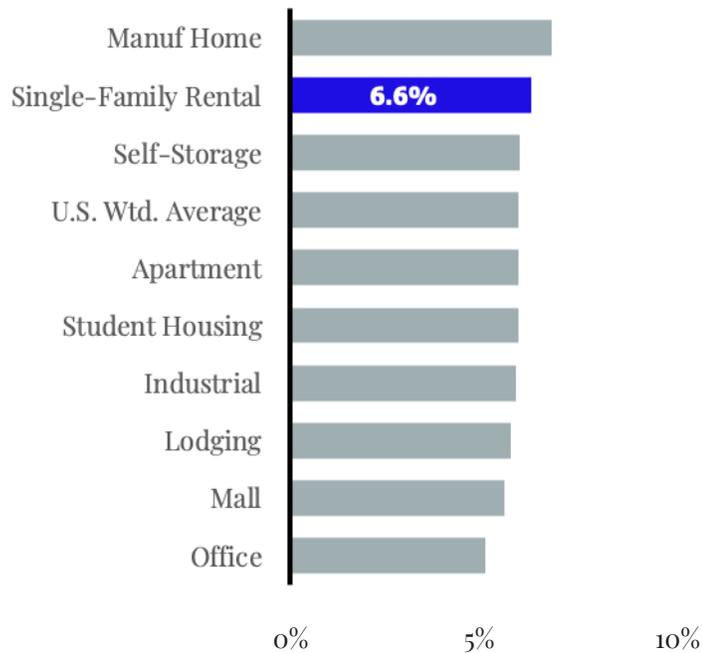
<sup>12</sup> Residential Sector Update”, December 7, 2020

<sup>13</sup> Labor Force Statistics from the Current Population Survey, <https://www.bls.gov/web/empsit/cpseea30.htm>

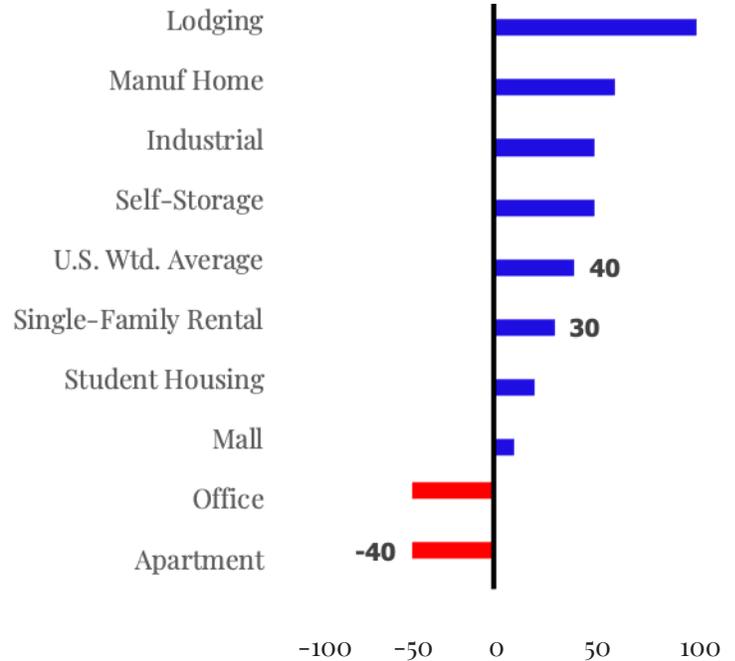
<sup>14</sup> <https://www.census.gov/programs-surveys/household-pulse-survey/data.html>

## Exhibit 16: Risk Adj. Returns Expected to Be +40bps for Private REITs vs. Public

Annualized Risk Adjusted Return



Risk Adj. Return Difference in bps – Private minus Public



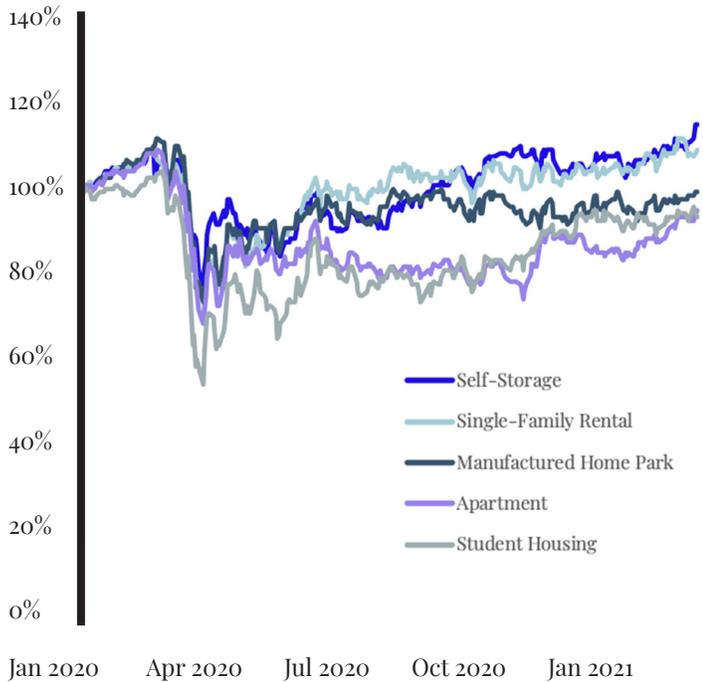
Source: Pretium internal using Green Street Monthly REIT report – data through January 2021

*Diversified portfolios exposed to a mix of MFR and SFR realized lower volatility than portfolios holding MFR alone.*

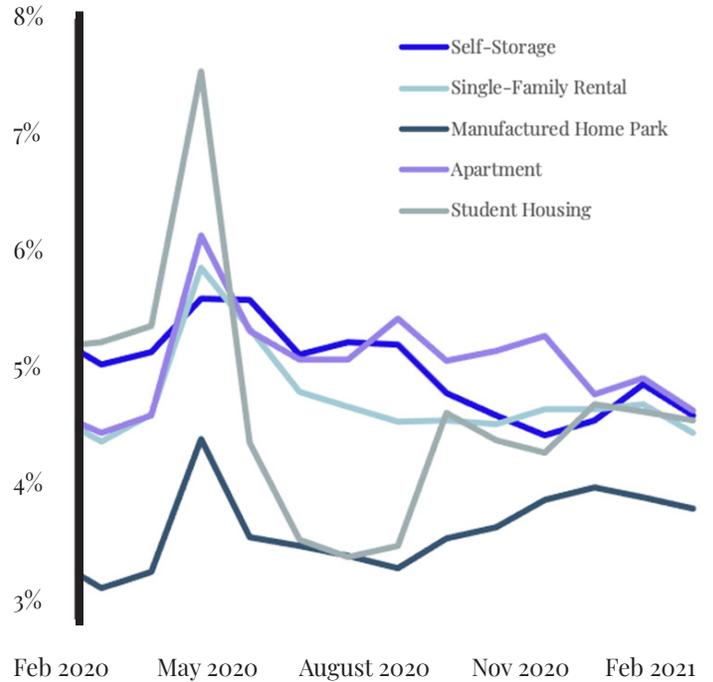
We are bullish on the longer-run prospects for the SFR sector. For one, we suspect that the COVID-19 pandemic will come to be seen as a seminal event for SFR. Its impressive performance during the pandemic demonstrated not only its maturity and resiliency, but also its diversification value. While multi-family was exposed to falling demand for urban centers and smaller floor plans, SFR was on the receiving end of this demand shift. Consequently, diversified portfolios exposed to a mix of MFR and SFR realized lower volatility than portfolios holding MFR alone (Exhibit 17). More generally, the single-family rental stock is an enormous asset class in which we believe institutional investors have long been under-invested.

## Exhibit 17: SFR Provided Diversification During Pandemic

### Daily Equity Returns Indexed to 100 as of Jan 1, 2020



### Property Sector Implied Cap Rates



Source: Pretium internal using Green Street Monthly REIT report – data through January 2021

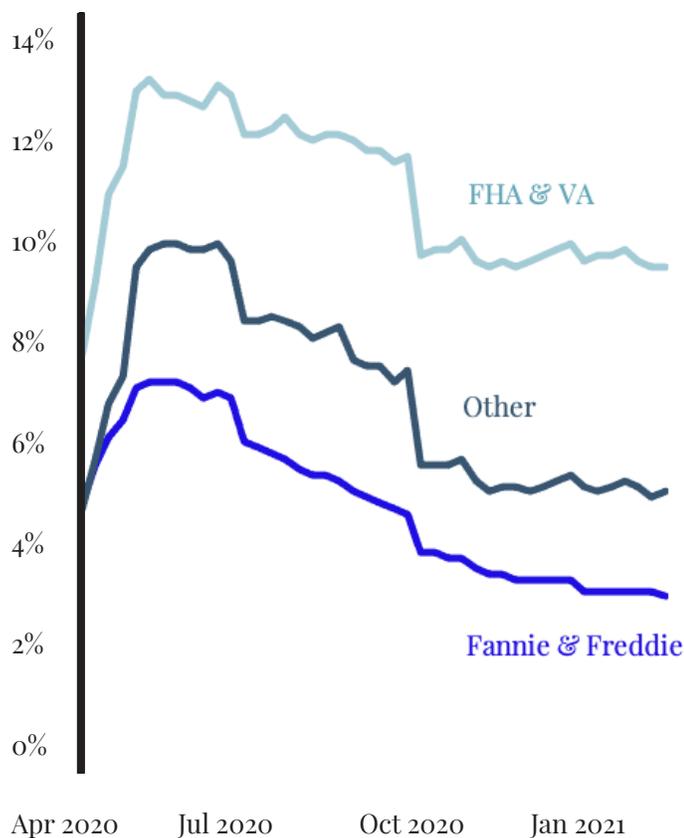
*Within the universe of “yield alternatives”, we think the cap rates in the SFR sector are particularly well-positioned to withstand inflows of institutional capital.*

Second, the pandemic has also ushered in version 2.0 of the “new normal” for yield investors. In contrast to the original “new normal”, however, the new version has come with an additional twist, namely, “Corporate QE”. In our view, the Fed’s recent expansion of Quantitative Easing (“QE”) to include not just Treasuries and MBS but also, for the first time in history, corporate bonds, has the potential to become yet another seminal event. For fixed income investors who have come to rely on corporate bonds for incremental yields, the birth of “Corporate QE” threatens to squeeze yields to untenable levels. Within the universe of “yield alternatives”, we think the cap rates in the SFR sector are particularly well-positioned to withstand inflows of institutional capital. Whereas other sectors in real estate already have large institutional ownership shares, SFR is primed for increased institutionalization. New technologies have greatly increased the operational efficiency of SFR assets, thus increasing the scope of institutional ownership versus more traditional “mom and pop” owners. This implies the possibility of a long runway over which SFR can offer highly competitive cap rates while also absorb significant inflows of new capital without suffering an undue compression of rental yields.

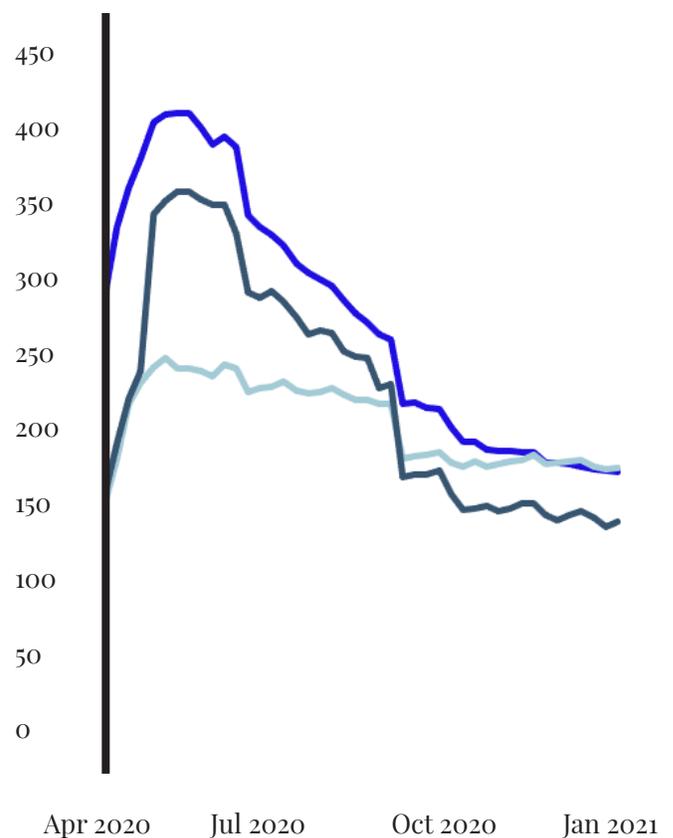
In addition to SFR, residential mortgages – the credit counterpart to SFR equity – offer yet another way to generate yield from exposure to housing. Under the outlook for housing markets that we have laid out above, mortgage credit is positioned to perform well. Forbearance and foreclosure moratoriums have created a situation that is basically without precedent (Exhibit 18). On the one hand, housing markets have been unusually robust over the past year, and there is no reason to think that price growth won't remain stable and rising for years to come. On the other hand, over 12 months of mortgage forbearance has created 2.5 million seriously delinquent mortgages that will very likely need to be sold and modified.<sup>15</sup>

**Exhibit 18: Mortgage Forbearance is Concentrated in Weakest Loans**

**Forbearance Rate**



**Total Unpaid Principal Balance in Bil.**



Source: Pretium internal using Black Knight data – data through February 2021

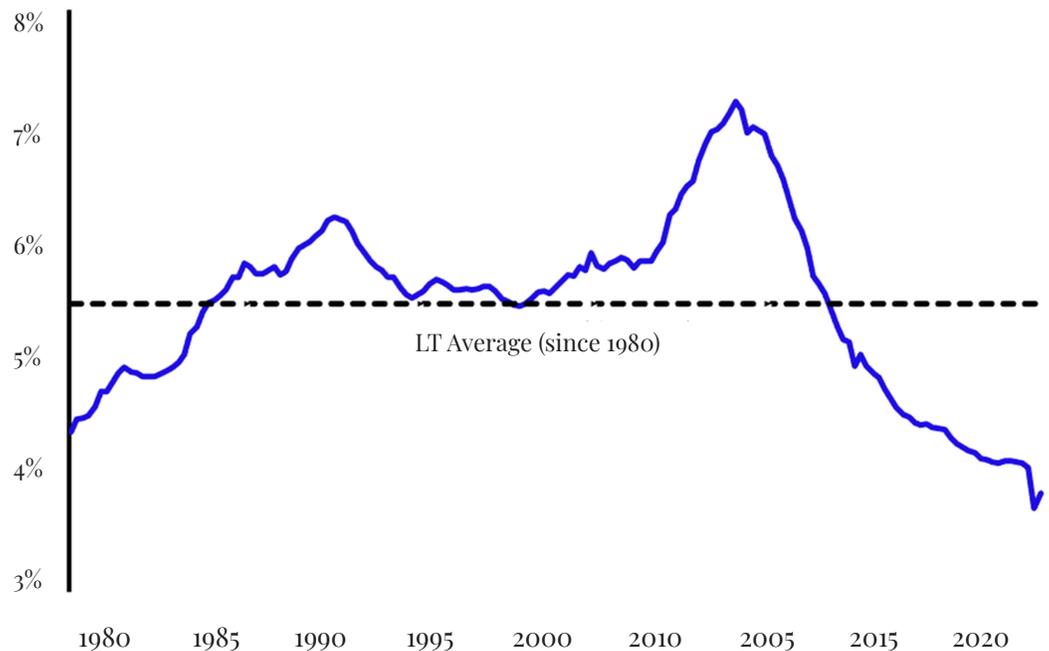
<sup>15</sup> Black Knight, Monthly Mortgage Monitor, data through January 31, 2021

These mortgage market conditions are historically unprecedented. Except for GFC, such large increases in the “distress rates” for mortgages have no precedent in the modern era. But in sharp contrast to the boom of the early 2000s, mortgage debt over the past decade has been falling as a fraction of income. In fact, according to data from the Federal Reserve Board, mortgage service payments as a percentage of personal disposable income have fallen to their lowest levels in over 40 years.<sup>16</sup> More households own positive equity in their homes today than at any time since the end of the GFC, and homeowner balance sheets are as strong as they’ve been in decades (Exhibit 19).

*Service payments as a percentage of personal disposable income have fallen to their lowest levels in over 40 years.*

**Exhibit 19: Declining Mortgage Rates Have Improved Affordability**

**Mortgage Payments as Percent of Disposable Personal Income**



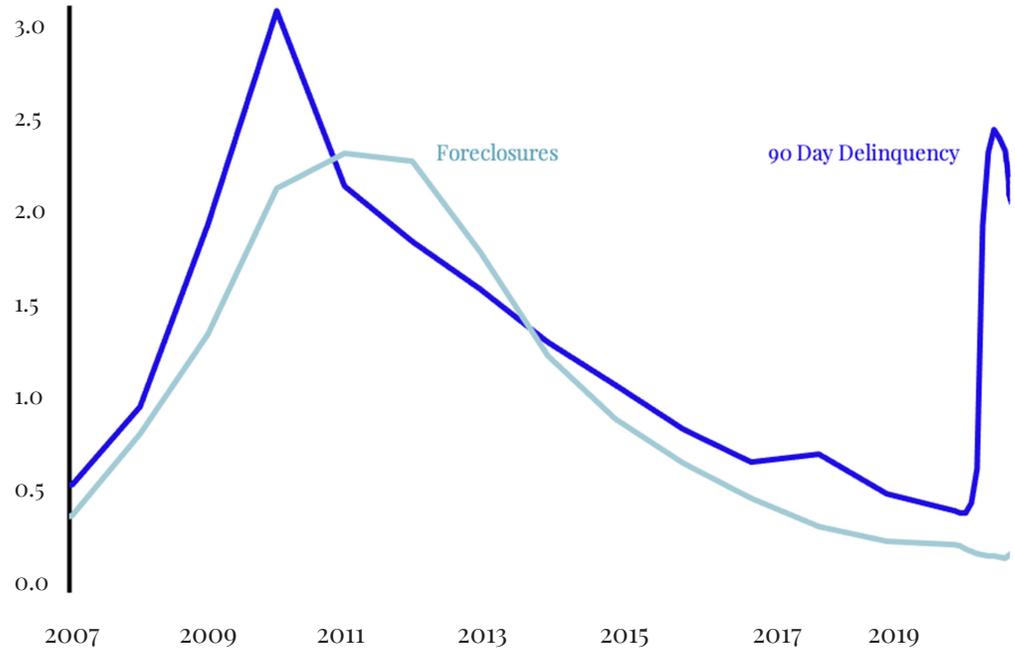
Source: Board of Governors of the Federal Reserve System

That’s what makes the current market so unusual. Despite the general robust good health of both housing markets and borrower balance sheets, mortgage distress is at levels approaching those of the GFC. For most of these mortgages, substantial amounts of home equity available can be accessed via restructuring, making it possible for homeowners to get current on their mortgage payments and remain in their homes. In our view, this will likely add to the steady growth in the supply of attractive, risk-adjusted yields available in mortgage credit.

<sup>16</sup> <https://www.federalreserve.gov/releases/housedebt/default.htm>

## Exhibit 20: Delinquency Rates Have Spiked, But Foreclosures Remain Low

90 Day Delinquency and Foreclosure Counts



Source: Pretium internal forecasts using Delinquency rates and foreclosure data from Mortgage Bankers Association– through December 2020

## Conclusion

What a strange 12 months it has been for housing markets. Prior to the onset of the COVID-19 pandemic, housing markets were already in the midst of a modest boom. At this time last year (in February), monthly home prices were rising at a 5.5% annualized rate and existing home sales had risen to a 5.7 million SAAR.<sup>17</sup> Then the pandemic washed ashore and what followed has been a remarkable year of volatility in housing markets, yet those markets end the year with strong momentum.

As we have argued here, we believe the recent momentum in housing markets will most likely extend through at least the first half of 2021, if not longer. We expect this mini-boom will begin to decelerate as the “pandemic panic” for home buying begins to normalize. We may even see a modest dip in demand as we discover how much of the surge in 2020 sales was partly a pull-forward of future sales. However, we think with GDP expected to grow 6% and mortgage rates unlikely to rise much above 3%, housing demand seems very firmly on track.

A bigger question, in our view, is how much pent-up supply from natural net sellers will have accumulated by the time we’ve effectively exited the pandemic. The collapse of inventories for sale suggests that many potential sellers did, in fact, decide to hold pat. There’s no guarantee, of course, that these households haven’t decided to remain in place indefinitely. In this scenario, our HPA forecast will likely prove to have been too timid. We think it’s more likely that these households will be looking to turn the page on the pandemic and begin their post-pandemic chapter by listing their existing homes. In this scenario – our baseline – we expect the boost to inventories will be enough to cool HPA to around 7% in 2021. Either way, we think it sets up an exciting year for residential housing assets.

---

<sup>17</sup> Home price growth from CoreLogic Home Price Index and Existing Home Sales from National Association of Realtors, data through December 2020

## Confidentiality and Other Important Disclosures

This report discusses general market activity, industry, or sector trends, or other broad-based economic, market or political conditions and should not be construed or relied upon as research or investment advice, as predictive of future market or investment performance or as an offer or solicitation of an offer to buy or sell any security or investment service. This report reflects the views of Pretium Partners, LLC (“Pretium”), as of the date on the cover and these views are subject to change without notice as the market conditions change and evolve, which can occur quickly. Past performance is not indicative of future results.

Recipients are urged to consult with their financial advisors before making any investment. All investments entail risks, and mortgage-related investments are speculative and entail special risks. Changes in interest rates, both real estate and financial market conditions, the overall economy, the regulatory environment and the political environment can affect the market for mortgage-related investments and should be considered carefully. Investors may lose all or substantially all an investment, and no investment strategy or process is guaranteed to be successful or avoid losses.

This report is being furnished on a confidential basis and is intended solely for the person to whom it was originally delivered. Distribution of this report to any person other than the person to whom it was originally delivered is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of its contents, without the prior express written consent of Pretium, is prohibited.

Certain information in this report has been obtained from published and non-published sources prepared by third parties, which, in certain cases, have not been updated through the date hereof. While such information is believed to be reliable, Pretium has not independently verified such information, does not assume any responsibility for the accuracy or completeness of such information nor does it warrant that such information will not be changed. Any reference to a specific company or security does not constitute a recommendation to buy, sell, hold or directly invest in the company or its securities.

The information included herein may not be current and Pretium has no obligation to provide any updates or changes. No representation, warranty or undertaking, express or implied, is given as to the accuracy or completeness of the information or opinions contained herein, and nothing in this report should be relied upon as a promise or representation.

This report includes a discussion of certain market opportunities as determined by Pretium. There can be no assurance that such opportunities will exist, and both the timing and opportunities are subject to change based on Pretium’s analysis of current market conditions.

This report contains forward-looking statements, which can be identified by the use of forward-looking terminology such as “may,” “will,” “should,” “seek,” “expect,” “anticipate,” “project,” “estimate,” “intend,” “continue,” “target,” “plan,” “believe,” the negatives thereof, other variations thereon or comparable terminology and information that is based on projections, estimates, and assumptions. Such statements and information cannot be viewed as fact and are subject to uncertainties and contingencies. Actual results during the period or periods covered by such statements and information may differ materially from the information set forth herein, and no assurance can be given that any such statement, information, projection, estimate, or assumption will be realized or accurate.

The information set forth in this report is not intended as a representation or warranty by Pretium or any of its affiliates as to the composition or performance of any future investments. Assumptions necessarily are speculative in nature. It is likely that some or all the assumptions set forth or relied upon in this report will not materialize or will vary significantly from any assumptions made (in some cases, materially so). You should understand such assumptions and evaluate whether they are appropriate for your purposes. Certain information in this report is based on mathematical models that calculate results using inputs that are based on assumptions about a variety of future conditions and events. The use of such models and modeling techniques inherently are subject to limitations. As with all models, results may vary significantly depending upon the value and accuracy of the inputs given, and relatively minor modifications to, or the elimination of, an assumption, may have a significant impact on the results. Actual conditions or events are unlikely to be consistent with, and may differ materially from, those assumed. **ACTUAL RESULTS WILL VARY, AND MAY VARY SUBSTANTIALLY FROM THOSE REFLECTED IN THESE MATERIALS.**

## **For questions or comments on this report, please contact your Pretium relationship manager.**

**Charles P. Himmelberg, Senior Managing Director** – Macro Research, [chimmelberg@pretium.com](mailto:chimmelberg@pretium.com)

Charlie Himmelberg is Senior Managing Director and Head of Macro Research at Pretium, where he has overall responsibility for global market research across all of the firm's strategies, including real estate. Mr. Himmelberg joined Pretium in 2020 with more than 25 years of experience in mortgage, credit, market, and policy research. Prior to joining Pretium, he spent 15 years at Goldman Sachs & Co., most recently as Partner & Managing Director, Global Investment Research, responsible for the global market research teams in rates, FX, credit, mortgages, EM and macro equity; previously, he was head of global credit and mortgage research. Prior to joining Goldman, Mr. Himmelberg had a distinguished career in policy research and academia at the Federal Reserve Bank of New York, Columbia University, New York University, and The University of Chicago. Mr. Himmelberg is a member of Pretium's Executive Committee. He received a BA in Economics and a BS in Mathematics from the University of Kansas, and a PhD in Economics from Northwestern University. Additionally, he serves as a trustee of St. Peter's Catholic Church.

**Zain N. Butt, Associate** – Research & Strategy, [zbutt@pretium.com](mailto:zbutt@pretium.com)

Zain Butt is an Associate on the Macro Research Team at Pretium, where he supports global market research across all of the firm's strategies, analyzing trends in the economy, capital markets and housing markets, as well as working across the organization to translate top-down thoughts into the investment process and business development efforts. Zain joined Pretium in 2019 after completing a 3-year credit rotation program from S&P Global Ratings and has experience in analyzing healthcare, insurance, and asset-backed securities. Prior to S&P, he also spent 1 year at Aegis Capital as part of their equity research team focusing on biotech. Zain graduated cum laude from CUNY Baruch College with a BBA in Economics and Finance, and is a CFA level 2 candidate.