A primer

# The market in single-family rental debt

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# SUMMARY

- **A growing business**: In the wake of the housing crisis, private equity investors began buying portfolios of distressed homes and set up single-family rental (SFR) businesses. Institutional ownership has since grown to 2% of the single-family rental market over the past decade. The future of the sector may be in built-for-rent, as a housing shortage a decade in the making has collided with a demand surge for single-family homes.

- **Investment through securities**: SFR securitizations are a hybrid of CMBS-like deal structures with MBS-type collateral. SFR deals offer a range of credit exposures and price competitively to inside of CMBS across similar classes given the stronger fundamentals of multifamily.

- **Single- and multi-borrower deals**: Large, often public operators tend to finance portfolios of homes through single-borrower securitizations, where they are the sole sponsor of the underlying loan(s). These deals most closely resemble single-asset, single-borrower CMBS. Smaller players have their loans combined in multi-borrower deals, which require enhanced credit analysis as multiple sponsors and a broader range of collateral can heighten risks.

- **Private deals**: Banks, life insurance companies and other specialty lenders have sought out SFR investment through private deals. These deals have features of both bank loans and securities and allow more flexibility in collateral and financing terms.

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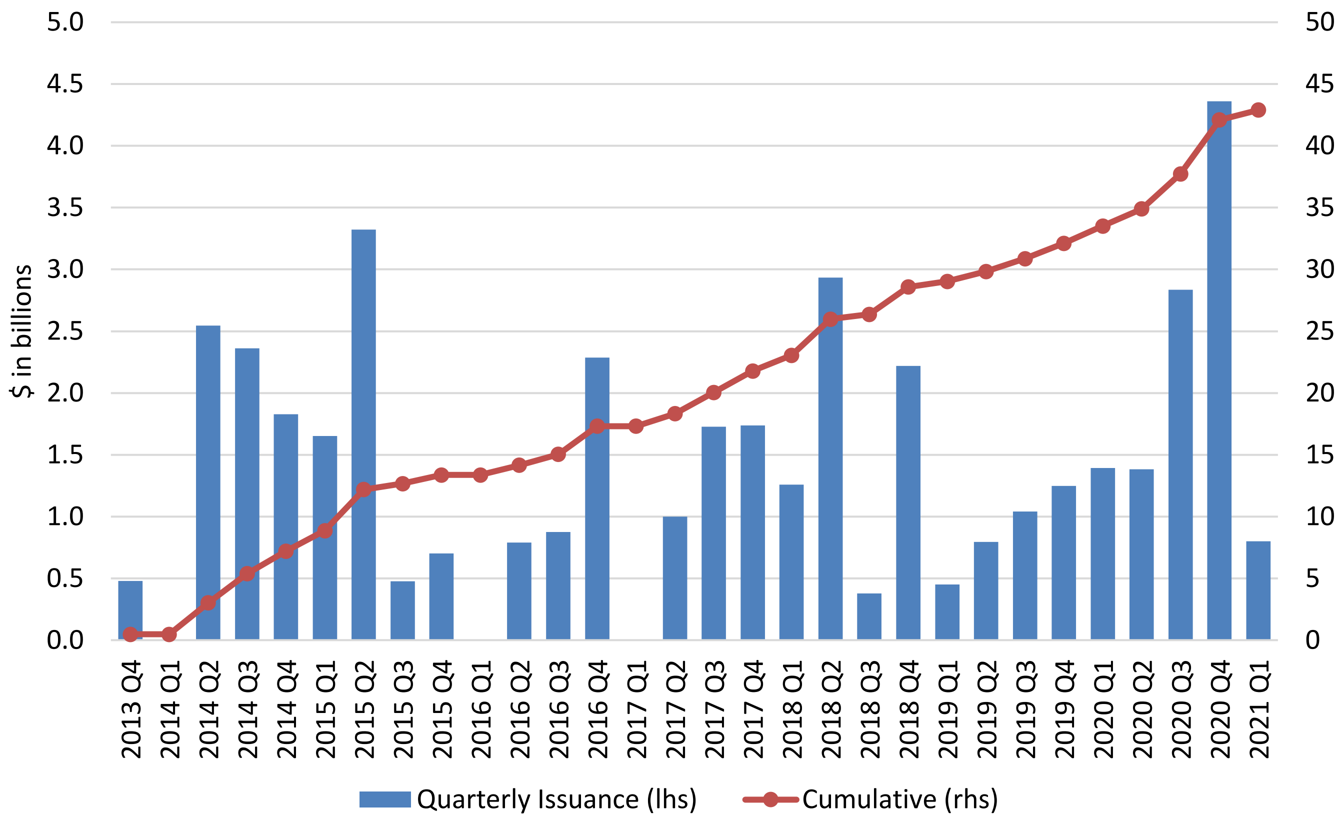
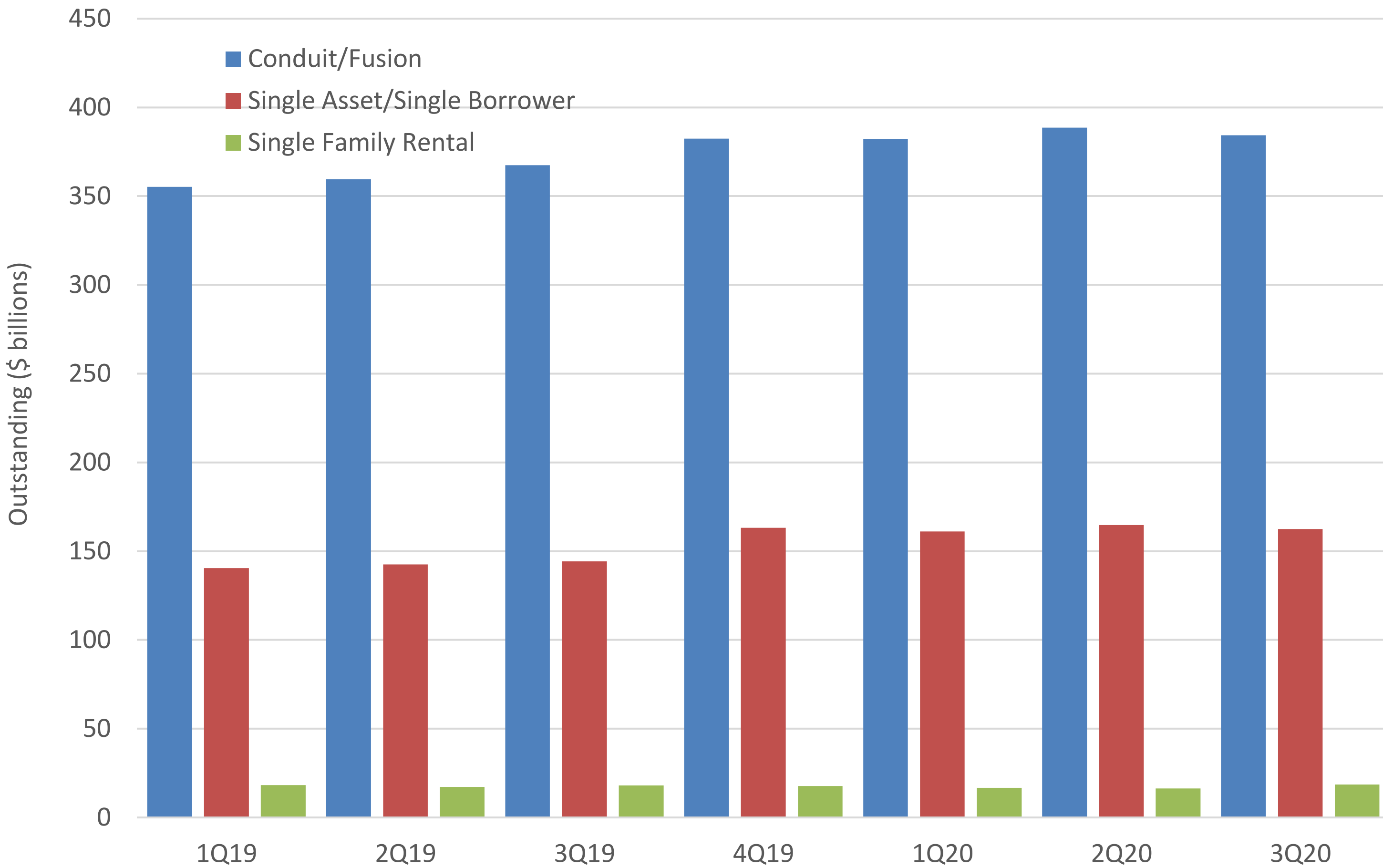
# SFR PUBLIC DEBT ISSUED SINCE 2013 HAS GROWN STEADILY

**Cumulative public issuance since 2013 of debt secured by portfolios of rented single-family homes has reached $43 billion with debt outstanding of $25 billion.**




*Note: A material amount of SFR debt has also been issued privately. Source: Bloomberg, Amherst Pierpont Securities*

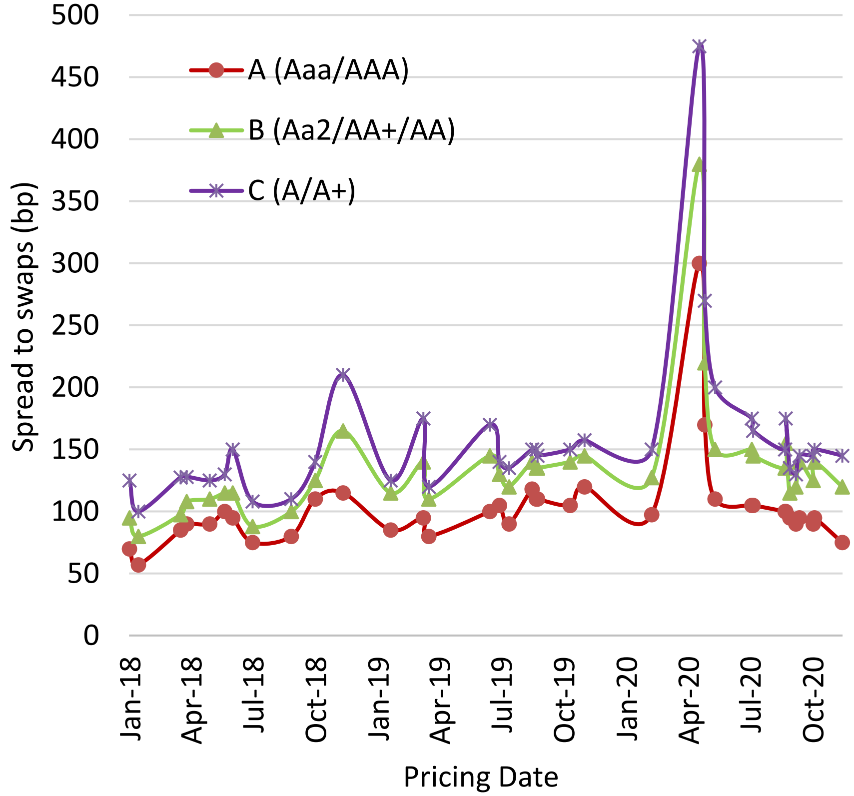
# SFR IS A SMALLER, MORE SPECIALIZED MARKET COMPARED TO CONDUIT AND SASB

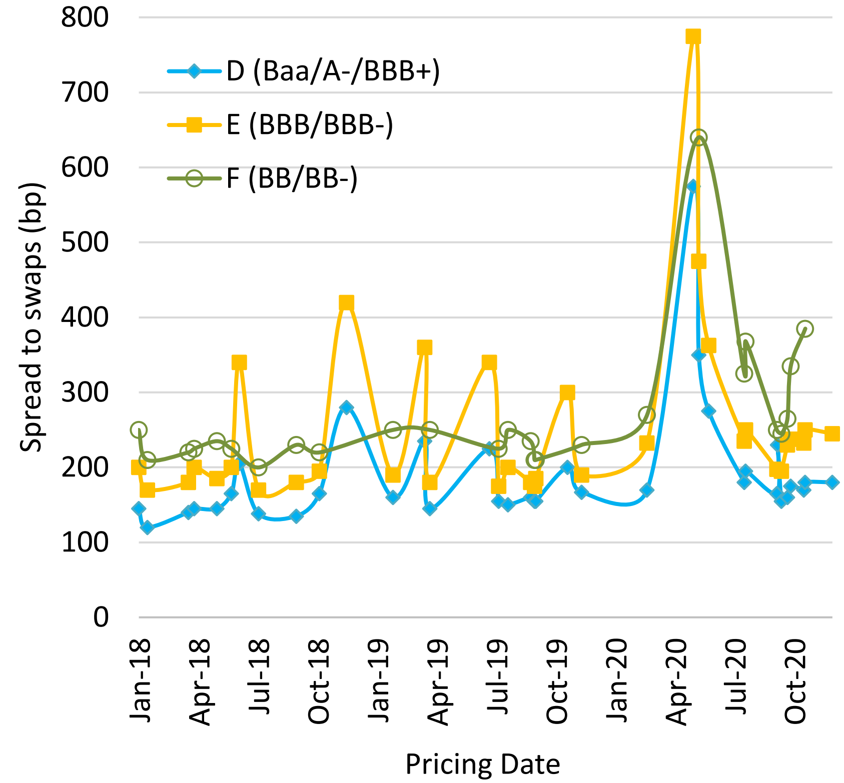



*Note: Data shows publicly issued SFR debt only. Outstanding data is from SIFMA and it appears to be missing part of the market as the amount outstanding as of Q1 2021 is $25 billion. A material amount of SFR debt has been issued privately. Source: SIFMA, Amherst Pierpont Securities*

# SFR DEBT OFFERS RISK EXPOSURE FROM 'AAA' TO 'BB'

## SFR spread vary in line with other markets, widening in late 2018 and early 2020

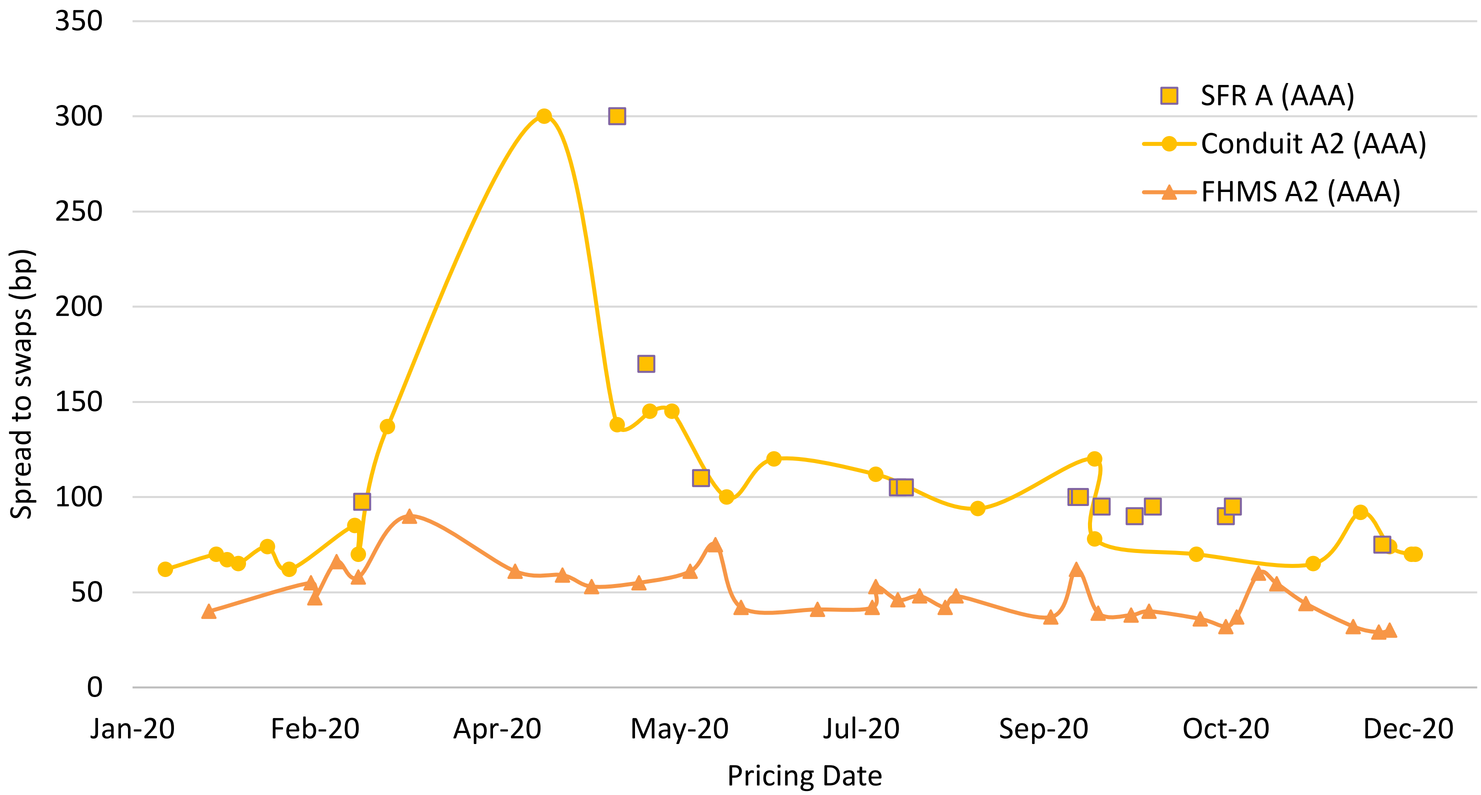



- Non-investment grade rated F classes (BB/BB-) are frequent, but not a feature of all deals.
- A handful of deals include G classes that have ratings from B+ to B-.
- Moody's will typically rate the A through D classes only.
- Kroll and DBRS Morningstar will usually rate all offered classes when they rate a deal.

*Source: Bloomberg, Amherst Pierpont Securities*

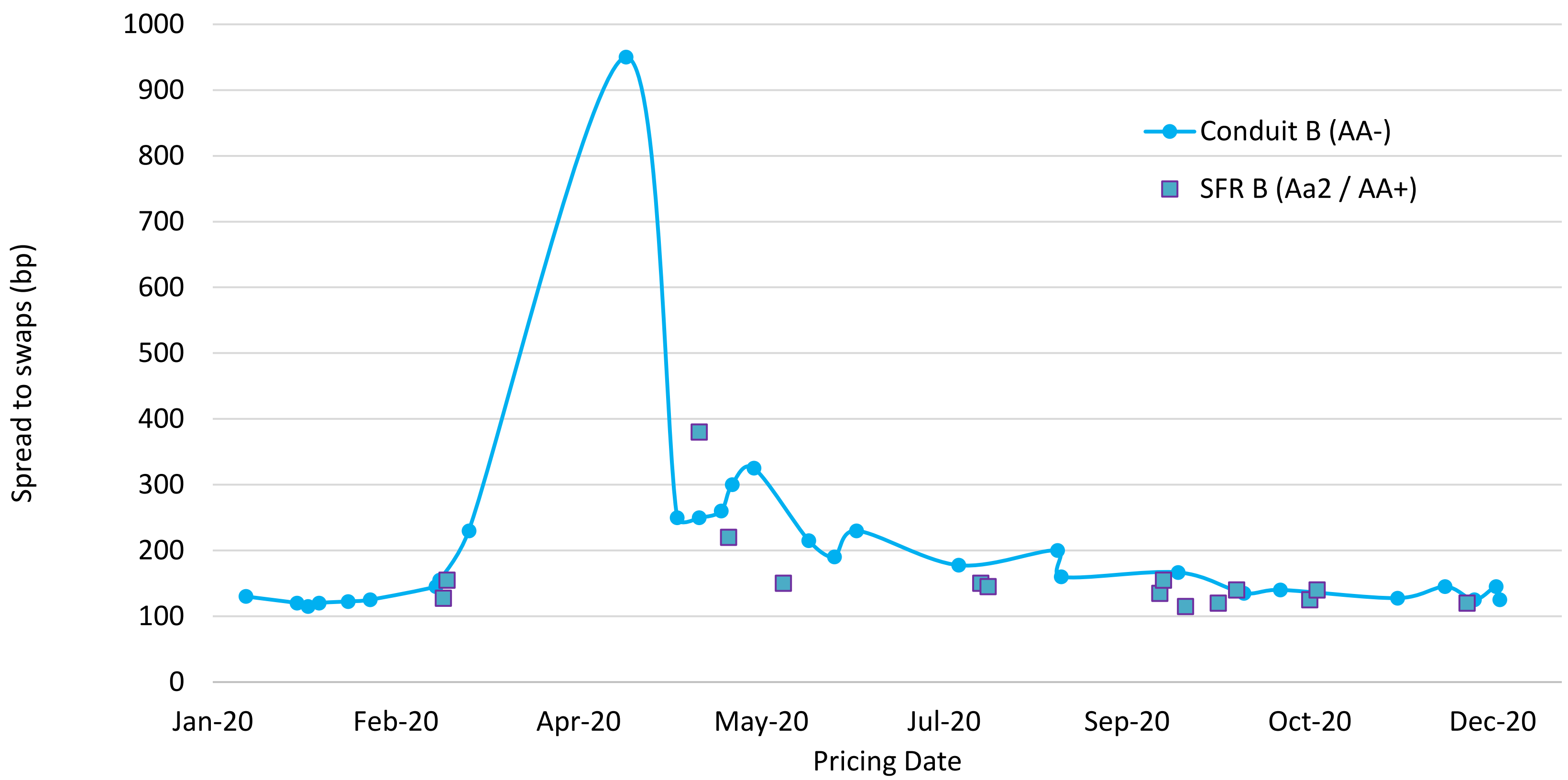
# ‘AAA’ SFR classes lately trade in the neighborhood of ‘AAA’ conduit CMBS




- ‘AAA’ SFR have a 5Y WAL while ‘AAA’ conduit CMBS typically have a 10Y WAL; both trade wide to 10/9.5 agency CMBS.
- Spreads have tightened in 2021, with the AAA class of a Progress deal coming at +45 bp to swaps (2/11/2021), and a Starwood AAA class at 1mL +60 bp (2/22/2021).
- Both conduit and SFR trade wide to agency CMBS. The agency guarantee includes timely payment of interest and ultimate payment of principal. This additional measure of credit protection results in a lower regulatory risk-weighting, making agency CMBS particularly attractive for banks and insurance companies.

*Source: Bloomberg, Amherst Pierpont Securities*

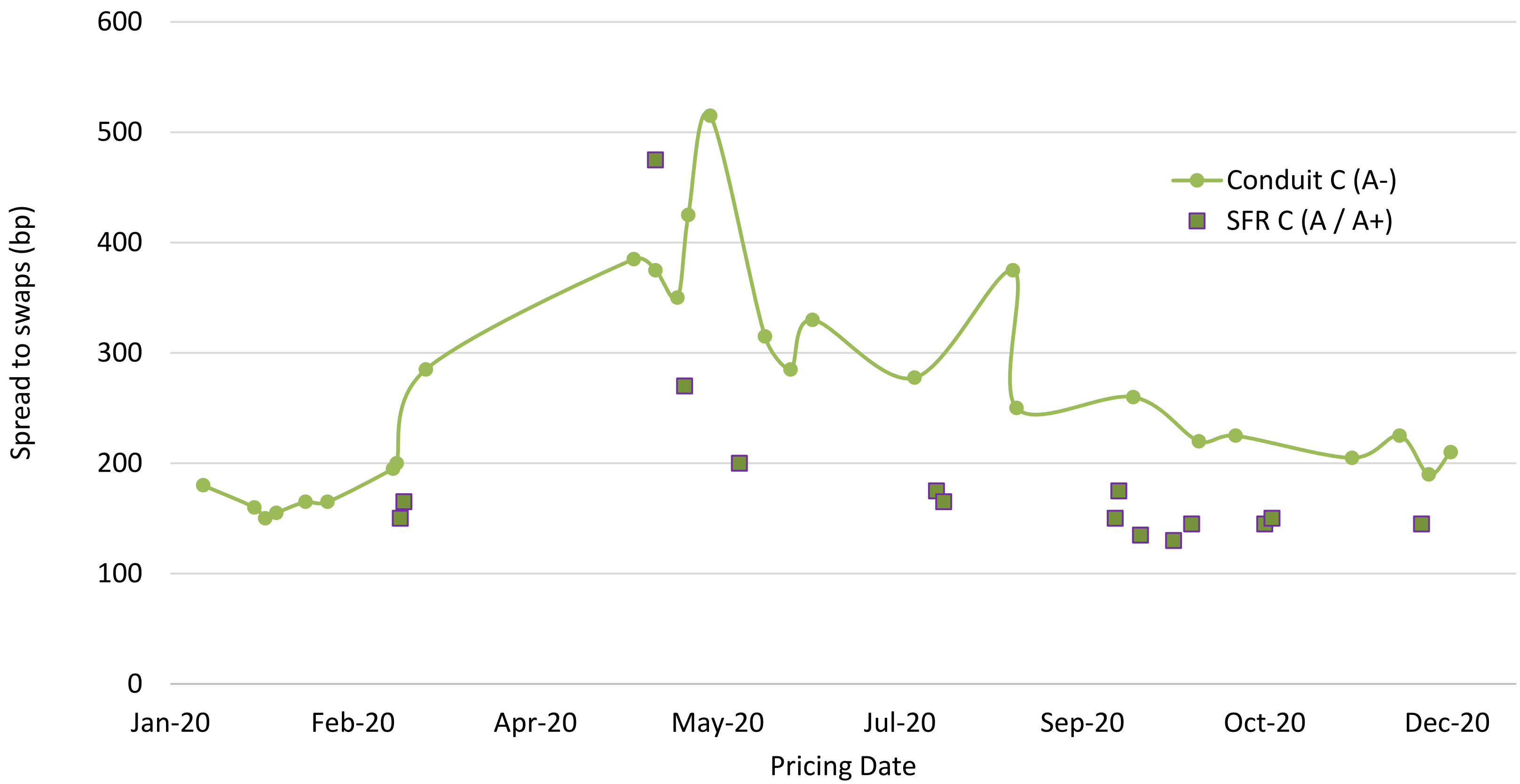
# ‘AA’ SFR CLASSES TRADE IN THE NEIGHBORHOOD OF ‘AA’ CONDUIT CMBS




- ‘AA’ SFR have a 5Y WAL while ‘AA’ conduit CMBS typically have a 10Y WAL, which is part of the reason they tend to price inside of similarly rated conduit CMBS. The stronger historical performance of of multifamily collateral versus that of retail, hotels or office is also a factor in some deals.
- A recent Progress residential deal priced 2/11/2021 with the AA class at +70 bp over swaps.
- A Starwood deal priced 2/22/2021 with a AAA/AA+ class coming at 1mL + 75 bp and the AA class at 1mL + 105 bp.

*Source: Bloomberg, Amherst Pierpont Securities*

# ‘A’ SFR LATELY HAS TRADED TIGHT TO ‘A’ CONDUIT CMBS




- This can be a function of both credit and deal structure. Residential mortgages generally have stronger performance than most other commercial property types, meaning diversification across sectors in CMBS is not necessarily an advantage. Credit enhancement provided by the structure itself may also be lower in conduit than SFR deals of equivalent classes.
- The low A-rated class of a Starwood deal that priced 2/22/2021 came at 1mL + 130 bp, while the similar class of the Progress deal (PROG 2021-SFR1) priced at swaps + 95 bp on 2/11/2021.
- ‘A’ SFR have a 5Y WAL while ‘A’ conduit CMBS typically have a 10Y WAL.

*Source: Bloomberg, Amherst Pierpont Securities*

# SFR AND CONDUIT SPREADS EXHIBIT MORE VOLATILITY THAN AGENCY CMBS

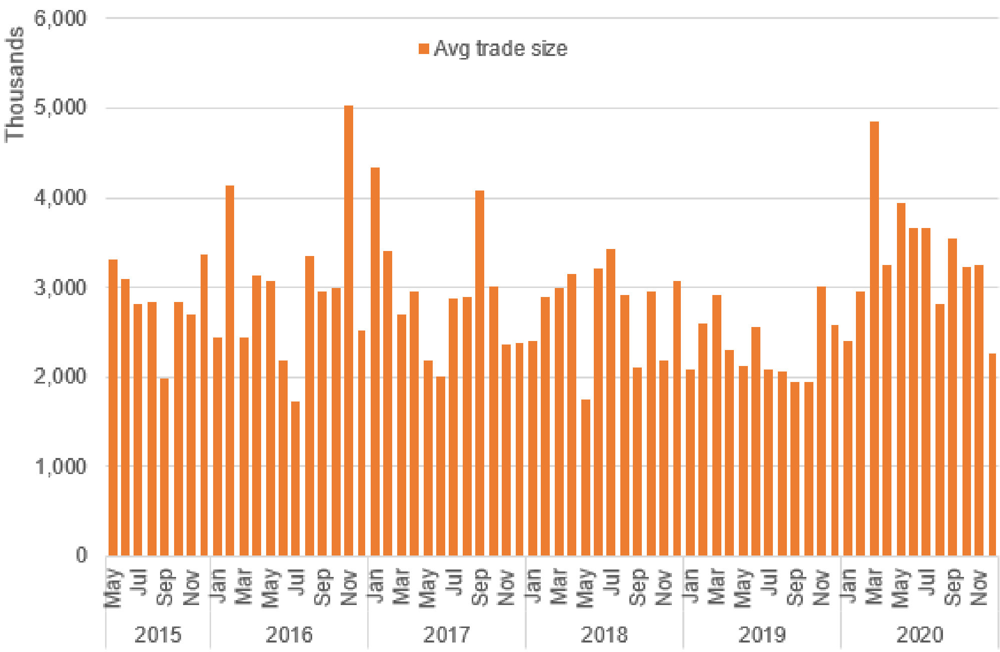
## SFR spreads tightened to conduit over time as the market developed

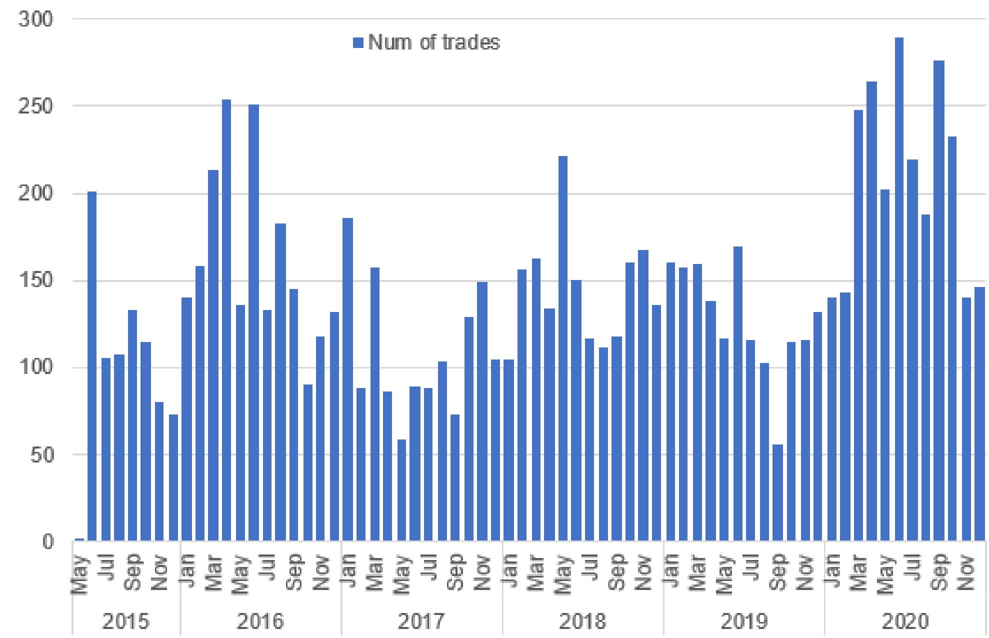
| | SFR | | | Conduit | | | Agency CMBS | | |
|---|---|---|---|---|---|---|---|---|---|
| Rating | Avg | Med | SD | Avg | Med | SD | Avg | Med | SD |
| AAA | 103 | 96 | 38 | 69 | 65 | 32 | 52 | 55 | 12 |
| AA | 135 | 129 | 49 | 153 | 135 | 84 | | | |
| A | 158 | 145 | 63 | 205 | 190 | 61 | | | |
| BBB | 218 | 180 | 108 | 301 | 275 | 82 | | | |
| BB | 264 | 235 | 91 | 383 | 348 | 82 | | | |

Note: Spread data at pricing for deals issued from 2018 through 2020. Source: Bloomberg, Amherst Pierpont Securities

# SECONDARY MARKET TRADING HAS BEEN STEADY

## Liquidity deepened in 2020 with average trade size growing from $2.2 million to $3.3 million per month; and the average number of trades per month increasing from 144 to 207.




Source: FINRA TRACE, Amherst Pierpont Securities

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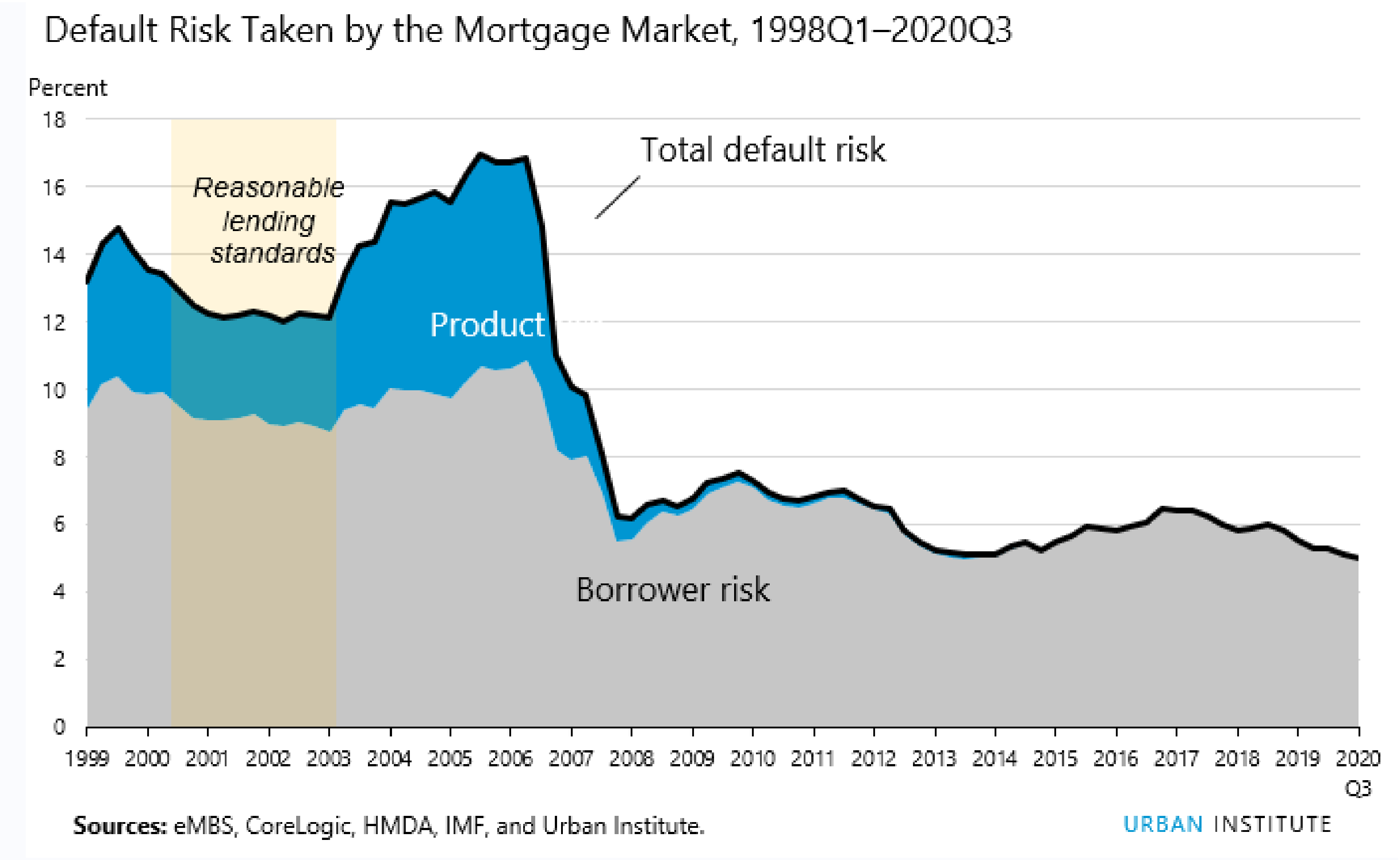
# THE INSTITUTIONAL SFR MARKET EMERGED AFTER THE 2008 HOUSING CRASH TRIGGERED A SURGE IN MORTGAGE DELINQUENCIES, DEFAULTS AND FORECLOSURES

## The 2008 housing crash led to a surge in homeowner DQs, impairing borrowers' credit and ability to qualify for mortgage debt


Source: Mortgage Bankers Association, Bloomberg, Amherst Pierpont Securities

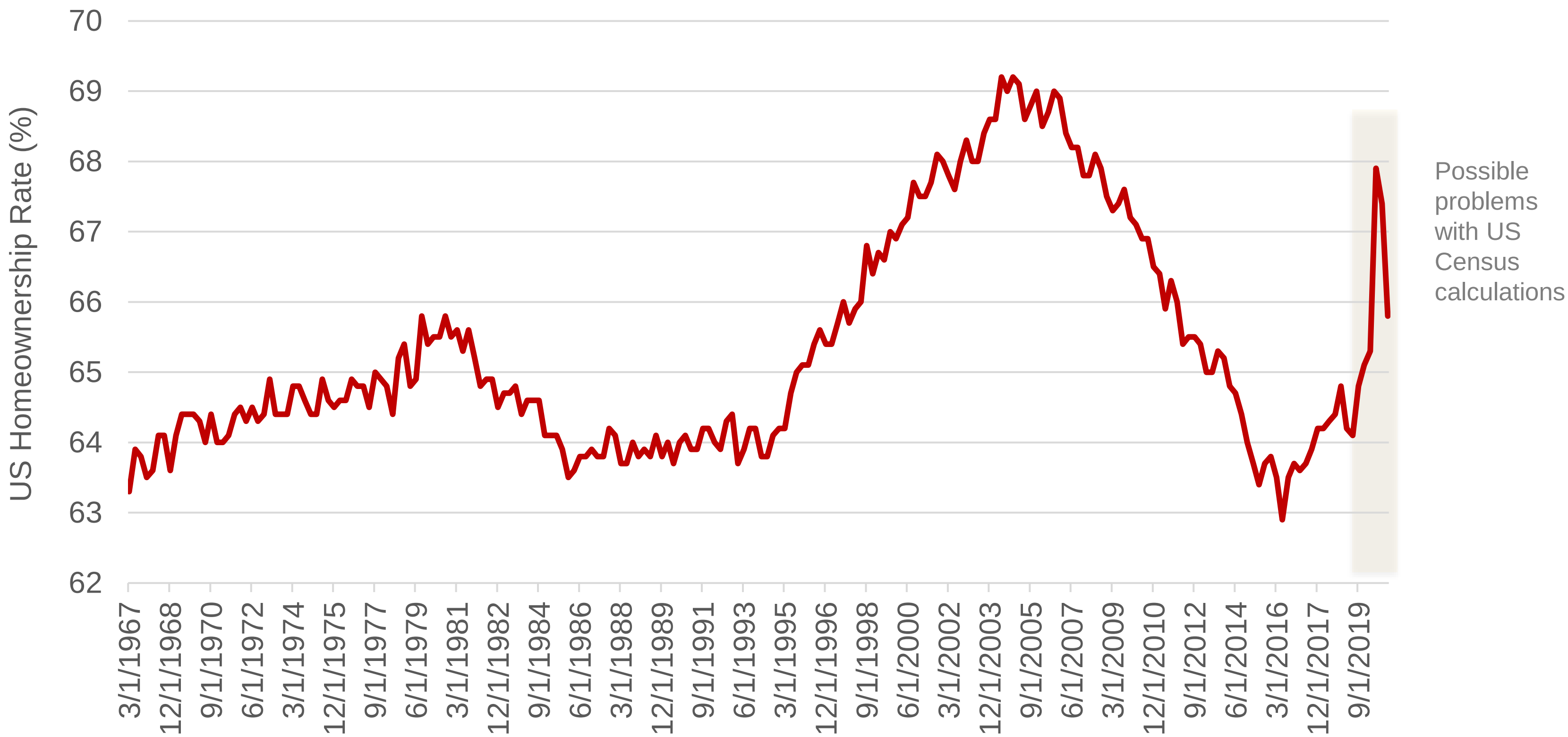
# TIGHTENING LENDING STANDARDS DISQUALIFIED MANY FORMER OWNERS

## Post-crisis requirements for a Qualified Mortgage and other factors tightened mortgage lending standards



# US HOMEOWNERSHIP RATES FELL AFTER 2008

## Post-housing crisis homeownership rates fell to a modern low




Note: Census Bureau data shows a sharp increase in the homeownership rate during the 2Q and 3Q of 2020. Numerous economists have speculated that the data is incorrect, while many real estate professionals have argued that it is consistent with the over 20% jump in existing home sales. The Census Bureau has responded that the pandemic impacted the methodology of their residential vacancies and homeownership data collection, but they are unable to determine the extent to which it affected the homeownership estimates. Source: US Census Bureau, Bloomberg, Amherst Pierpont Securities

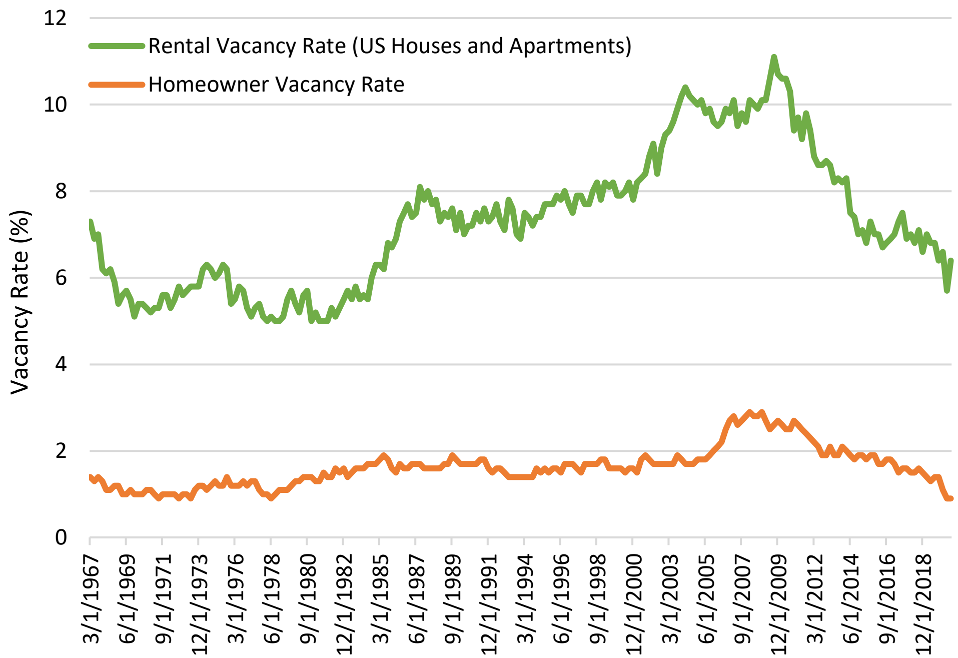




AMHERST PIERPONT

# DEMAND TO RENT ROSE AND VACANCY RATES FELL

## Rental vacancies from 2009 to 2018 declined from 10%+ to less than 6%




## SFR: 18% of occupied housing units, 50% of rentals

*in millions*

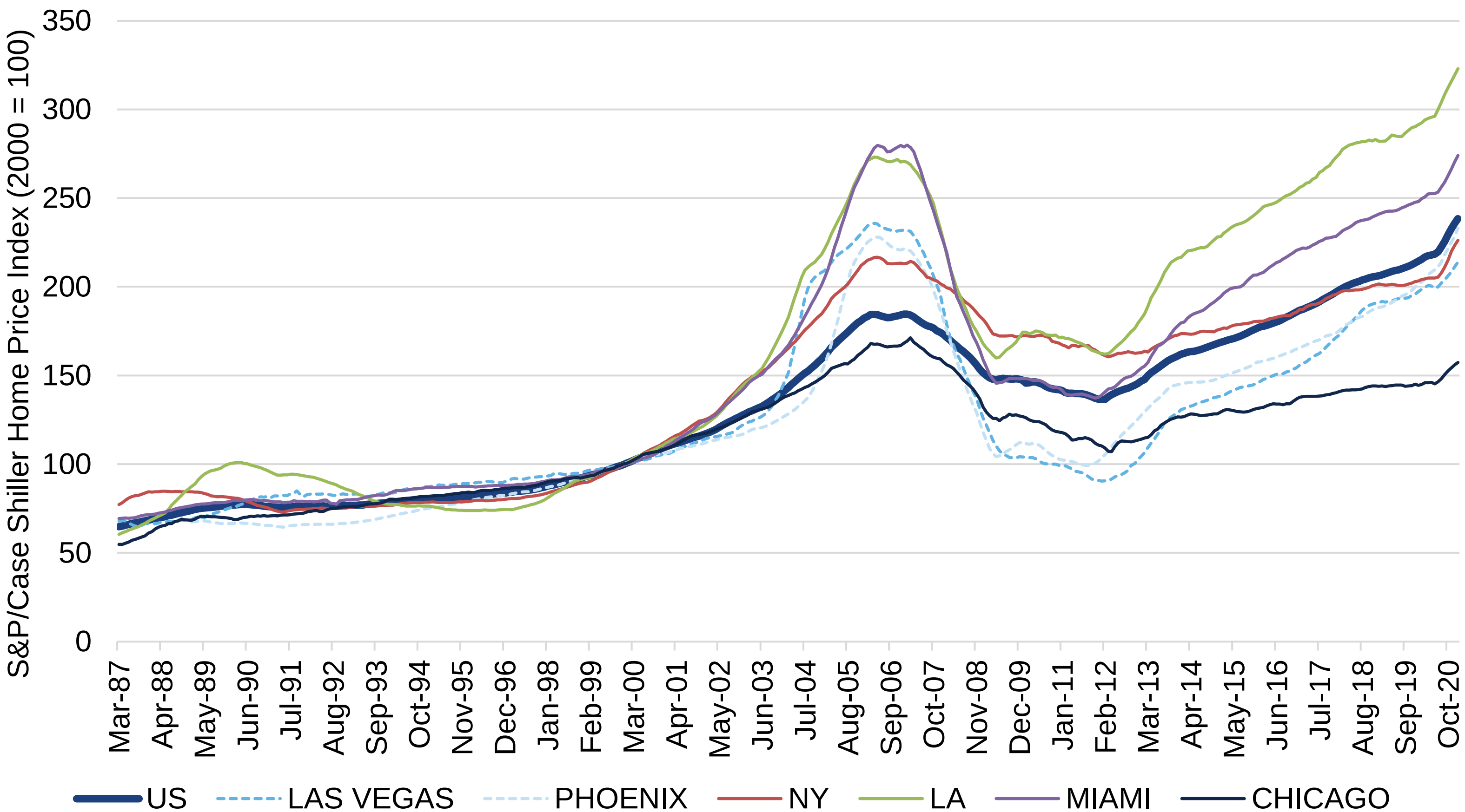
| US households | Number | % of total |
|---|---|---|
| Owner occupied | 78.7 | 64% |
| *1 to 4 units* | 71.2 | |
| *5+ units* | 7.5 | |
| Renter occupied | 44.1 | 36% |
| *1 to 4 units** | 22.1 | 18% |
| *5+ units* | 22.0 | |
| **Total households** | **122.8** | **100%** |

*Note: *This is the standard measure of the single-family rental market used by the Urban Institute.*

Source: US Census Bureau, American Community Survey data as of 2019, Bloomberg, Amherst Pierpont Securities

# HOME PRICES FELL AS WELL, MAKING HOUSING MORE AFFORDABLE FOR INDIVIDUALS AND INSTITUTIONS THAT COULD GET FINANCING

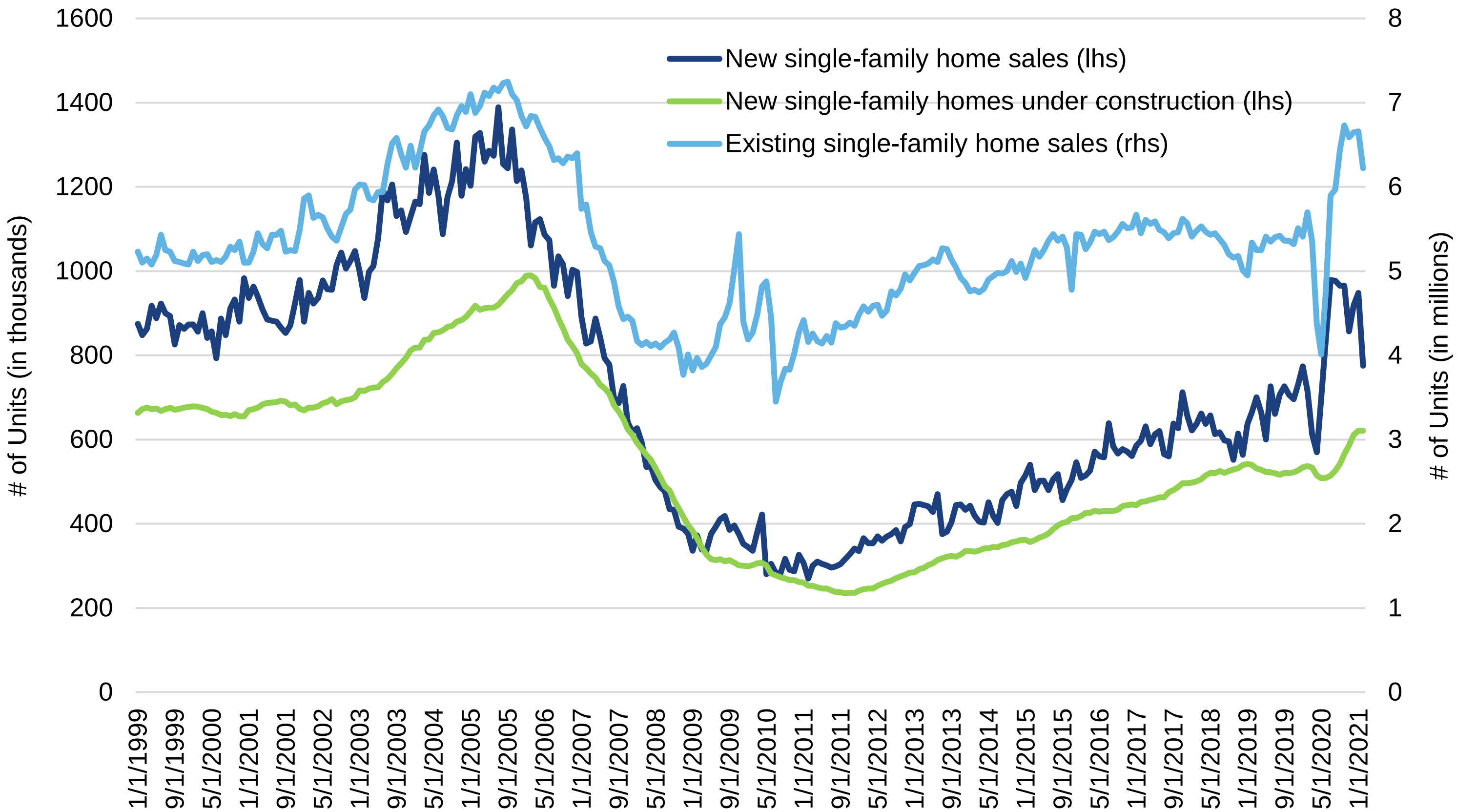
## Prices in some of the most severely affected markets such as Las Vegas and Phoenix fell below the cost of construction




Source: Bloomberg, Amherst Pierpont Securities

# A STRUCTURAL SHORTAGE IN HOUSING BEGAN TO DEVELOP POST-CRISIS

## Single-family home construction plummeted and remained depressed

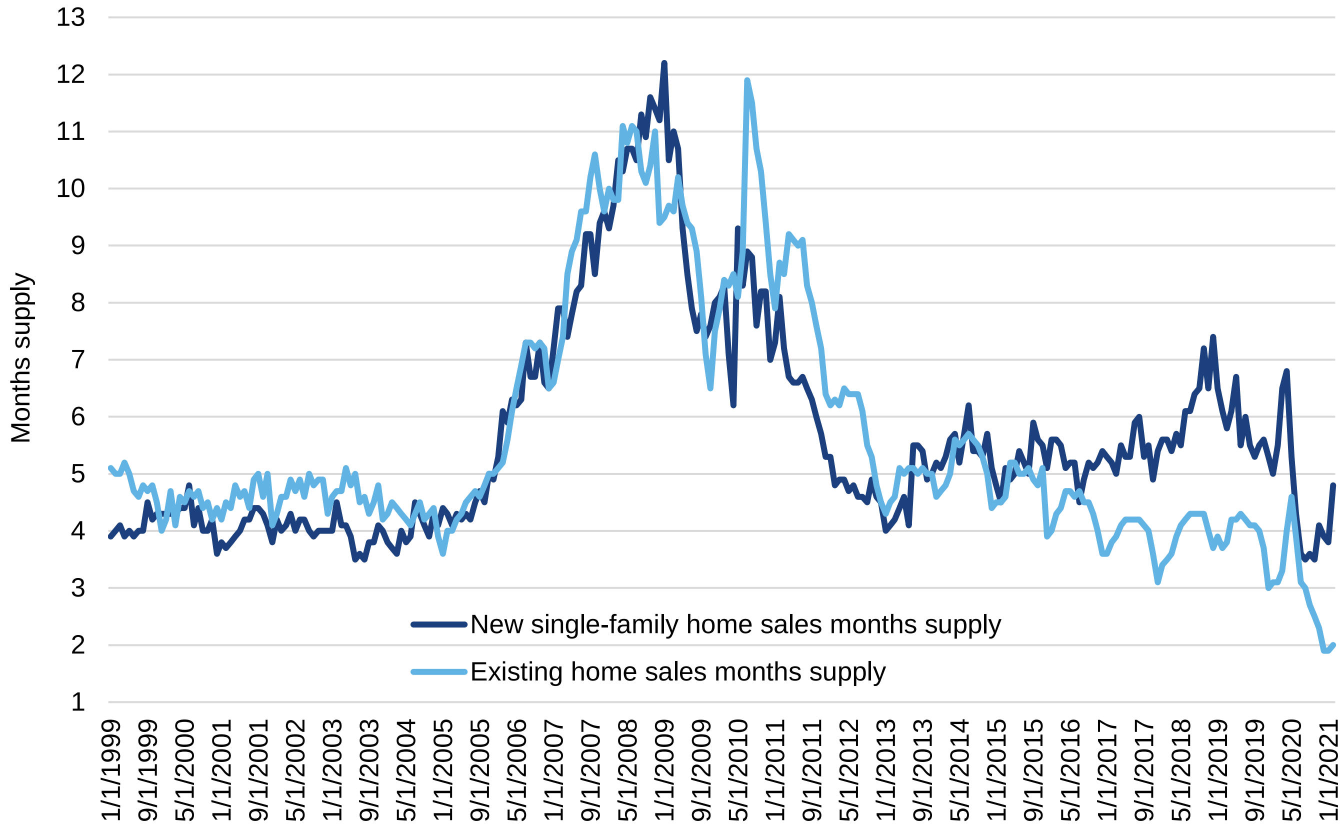



Source: US Census Bureau, National Association of Realtors, Bloomberg

- The low level of housing production relative to the population is attributed to both an increase home building costs, driven higher by both the cost of land and regulatory costs; and a shortage of skilled labor.
- New single-family home construction is running at barely 600,000 units per year; still below the pre-crisis pace of 650,000.

# THE COVID-19 PANDEMIC HAS ACCELERATED HOME BUYING, DEPLETING ALREADY THIN INVENTORIES

## Existing homes for sale dropped to two months supply

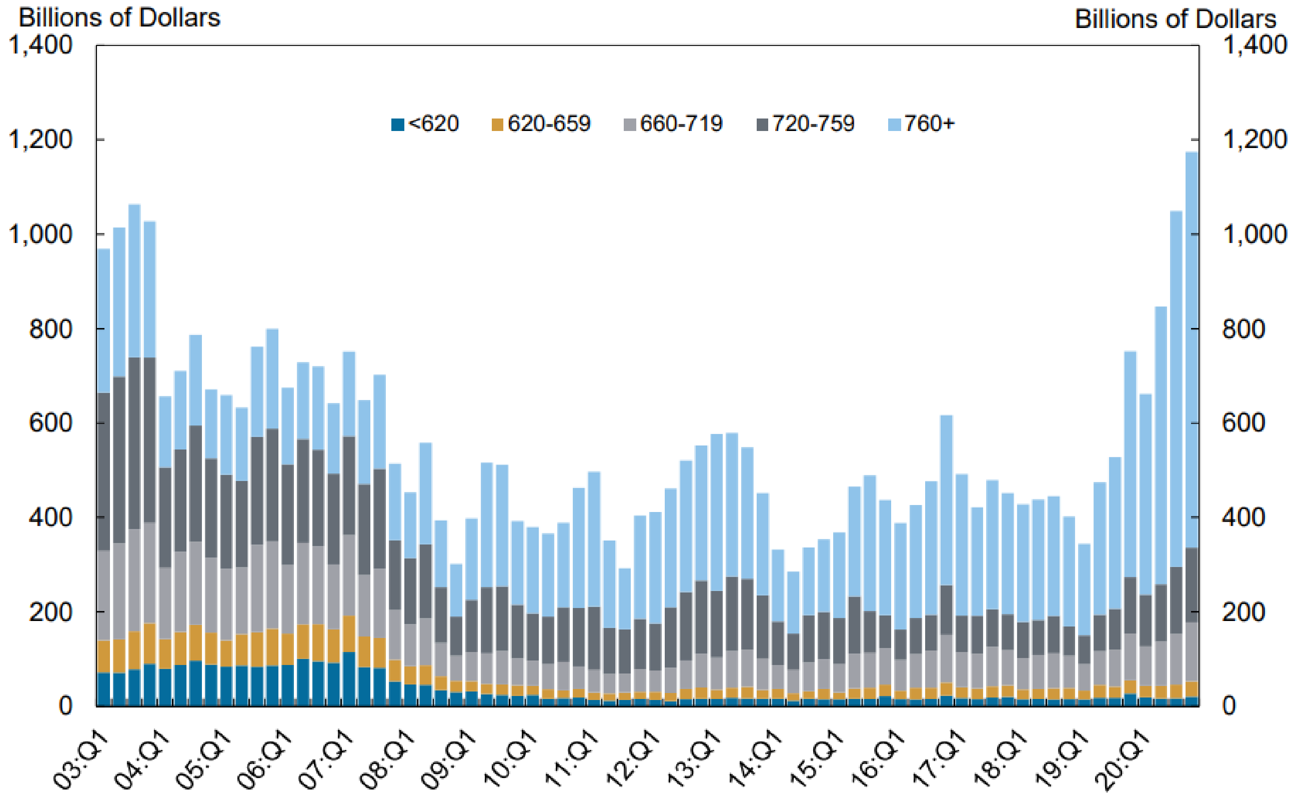



Source: US Census Bureau, National Association of Realtors, Bloomberg

- New household formation has averaged 1.2 million per year for the past 20 years. The Census Bureau projects that it will increase to 1.5 million per year over the next decade as Millennials and Generation Z form households of their own.

# Pandemic did not ease the post-crisis tightening of mortgage credit

## Ultra-low mortgage interest rates overwhelmingy benefitted borrowers with high credit scores




Note: *Credit score is Equifax Riskscore 3.0. Data through the fourth quarter of 2020. Source: New York Fed Consumer Credit Panel/Equifax.

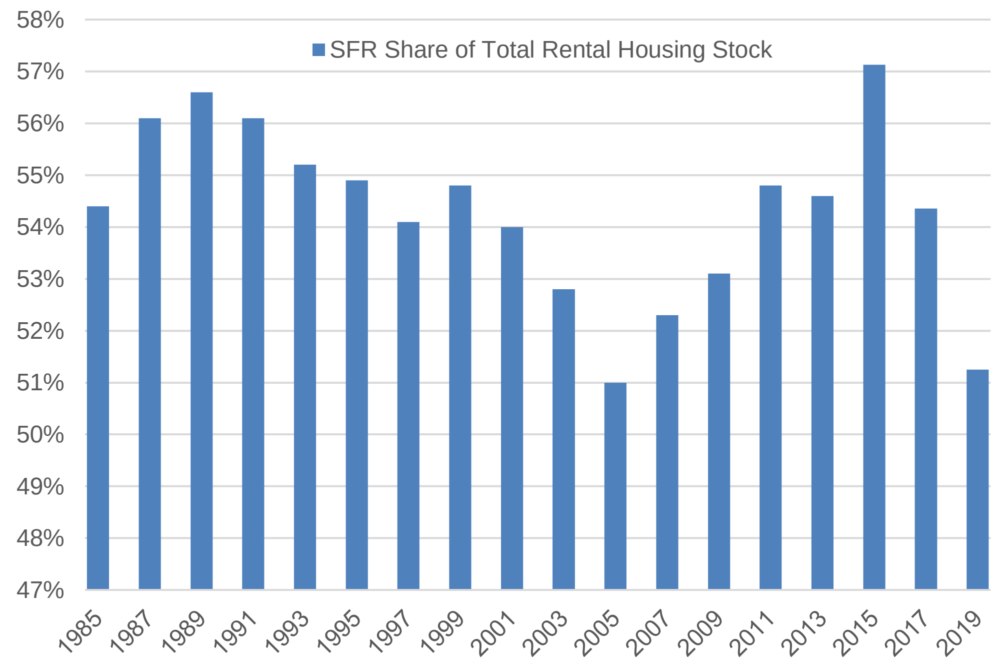
- The surge in demand for single-family homes during the pandemic drove home price appreciation up by 12% in 2020. This will put homeownership further out of reach for first-time homebuyers, particularly those burdened by student loan debt.

# Although small investors have long dominated single-family rentals…

## 85% of the single-family rental market is owned by investors with 10 or fewer properties

**Renter occupied housing units**
*numbers in thousands*

| Strucutre type | | subtotal | |
|---|---|---|---|
| 1, detached | 12,554 | | |
| 1, attached | 2,520 | | |
| | | 15,074 | single-family units |
| 2 to 4 Units | 7,814 | | |
| | | 22,888 | single-family plus |
| 5 to 9 Units | 5,465 | | |
| 10 to 19 Units | 4,730 | | |
| 20 to 49 Units | 4,231 | | |
| 50 or more | 5,632 | 20,058 | multifamily |
| Manufactured home | 1,694 | | |
| **Total** | **44,660** | | |




Source: US Census Bureau, American Housing Survey data as of 2019, Urban Institute, Amherst Pierpont Securities

## A NEW CLASS OF INSTITUTIONAL INVESTORS ENTERED THE SFR MARKET

**From an inaugural purchase in 2012, institutional investors now own 2% of single-family rental homes**

- Invitation Homes, originally funded by Blackstone, was the first to buy portfolios of distressed homes in 2012.
- Invitation Homes also pioneered single-family residential securitization in November 2013 as a method to raise financing.
- The asset class has grown to about 80 SFR deals issued, with $26 billion outstanding.
- Institutional operators currently own 300,000 single-family properties, up from an estimated 200,000 in 2017.
  - 2% of the 15 million 1-unit detached single-family homes
  - 1.3% of the 22.9 million 1- to 4-unit single-family homes

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# SFR OPERATORS INCLUDE BOTH PUBLIC AND PRIVATE COMPANIES

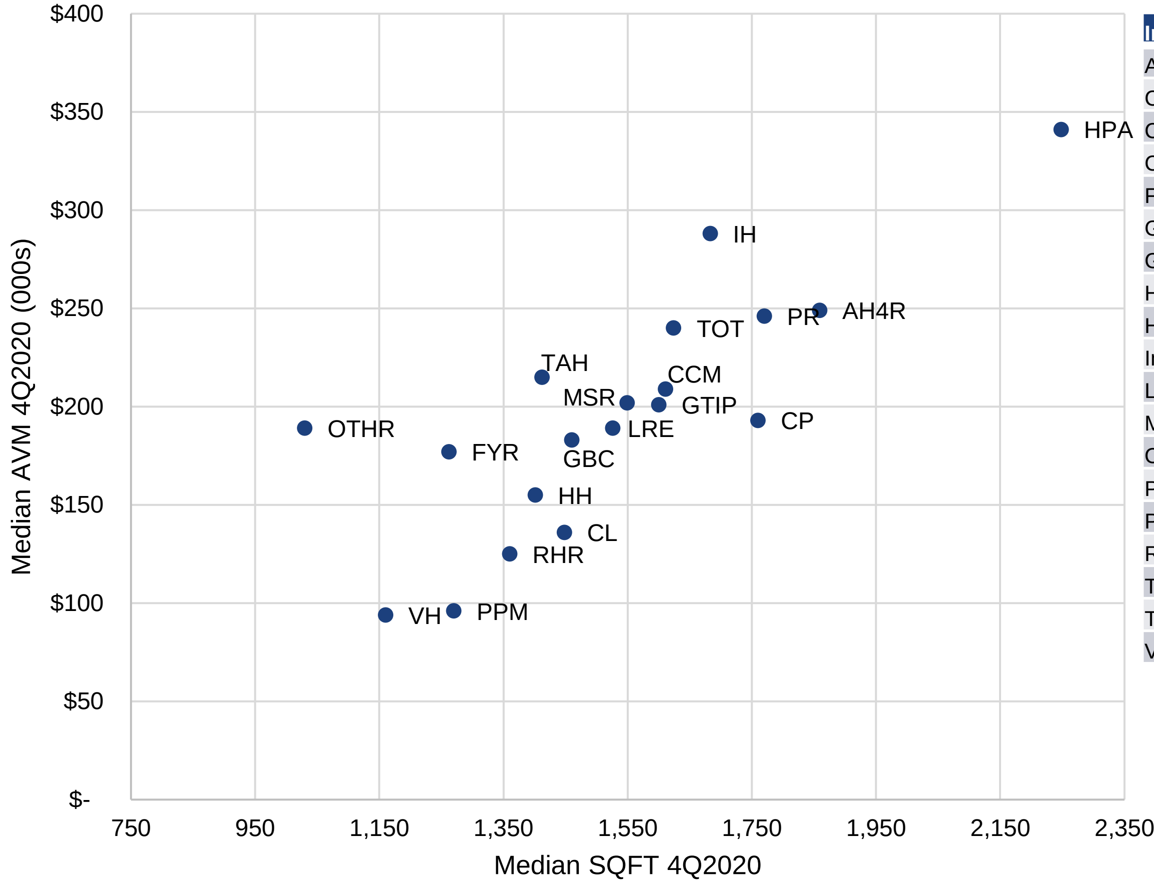
## Institutional holdings are concentrated in the largest portfolios

| Insitutional Investor | No. Homes 2020 (000s) | Median SQFT | Median Vintage | Median 4Q2020 AVM (000s) | Median 4Q2020 Rent Est | Median Income (000s) | Median Purchase Year |
|---|---|---|---|---|---|---|---|
| Invitation Homes | 76.0 | 1,683 | 1994 | $ 288 | $ 1,879 | $ 71 | 2013 |
| American Homes 4 Rent | 48.6 | 1,859 | 2003 | $ 249 | $ 1,725 | $ 77 | 2013 |
| Progress Residential | 32.8 | 1,770 | 2003 | $ 246 | $ 1,697 | $ 72 | 2016 |
| Cerberus Capital Mgmt | 24.2 | 1,611 | 1991 | $ 209 | $ 1,596 | $ 63 | 2018 |
| Main Street Renewal | 23.0 | 1,549 | 1996 | $ 202 | $ 1,546 | $ 62 | 2018 |
| Tricon American Homes | 18.6 | 1,412 | 1998 | $ 215 | $ 1,543 | $ 64 | 2013 |
| Home Partners of America | 14.4 | 2,248 | 2000 | $ 341 | $ 2,164 | $ 88 | 2018 |
| Front Yard Residential | 11.8 | 1,262 | 1985 | $ 177 | $ 1,430 | $ 59 | 2016 |
| Connorex-Lucinda | 8.2 | 1,448 | 1972 | $ 136 | $ 1,258 | $ 56 | 2017 |
| Vinebrook Homes | 7.0 | 1,160 | 1957 | $ 94 | $ 1,086 | $ 46 | 2018 |
| Gorelick Brothers Capital | 2.5 | 1,460 | 1983 | $ 183 | $ 1,427 | $ 57 | 2015 |
| Camillo Properties | 1.6 | 1,760 | 2015 | $ 193 | $ 1,571 | $ 69 | 2015 |
| Lafayette Real Estate | 1.5 | 1,526 | 1988 | $ 189 | $ 1,466 | $ 54 | 2014 |
| Golden Tree Insite Partners | 1.2 | 1,600 | 1999 | $ 201 | $ 1,512 | $ 65 | 2016 |
| Havenbrook Homes | 1.1 | 1,401 | 1973 | $ 155 | $ 1,331 | $ 50 | 2014 |
| Prager Property Mgmt | 1.1 | 1,270 | 1969 | $ 96 | $ 1,039 | $ 42 | 2017 |
| Reven Housing REIT | 0.8 | 1,360 | 1985 | $ 125 | $ 1,155 | $ 44 | 2015 |
| Other | 1.9 | 1,030 | 1974 | $ 189 | $ 1,390 | $ 46 | 2014 |
| TOTAL | 276.3 | 1,624 | 1998 | $ 240 | $ 1,682 | $ 68 | 2015 |

Source: Amherst Holdings (March 2021), US Single-Family Rental: 2020 Institutional Activity, Exhibit 1, Amherst Pierpont Securities

# SFR OPERATORS PURSUE DIFFERENT SEGMENTS OF THE RENTAL MARKET

## Portfolios differ in home size and value per square foot

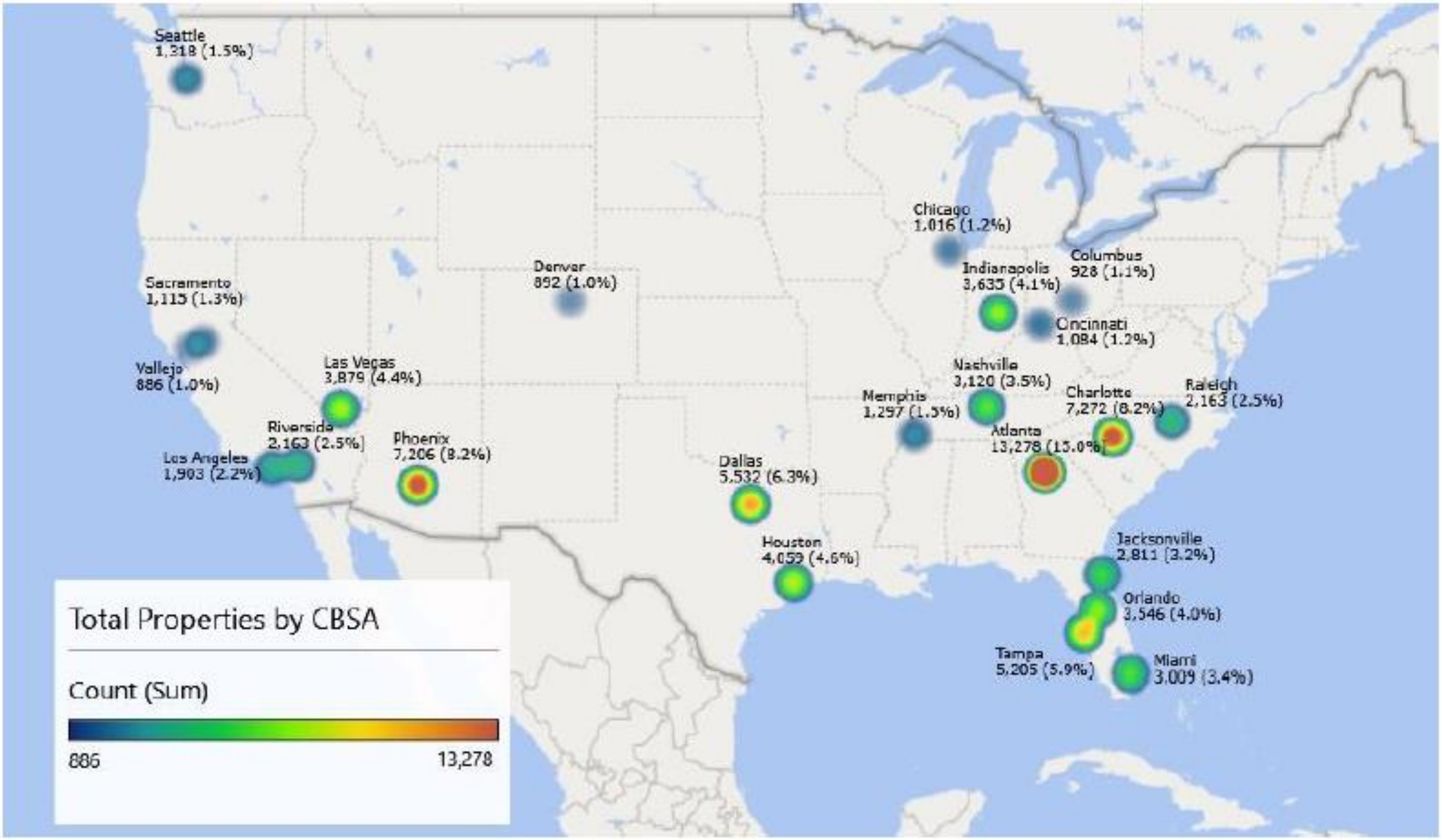



| Insitutional Investor | Short Label |
|---|---|
| American Homes 4 Rent | AH4R |
| Camillo Properties | CP |
| Cerberus Capital Mgmt | CCM |
| Connorex-Lucinda | CL |
| Front Yard Residential | FYR |
| Golden Tree Insite Partners | GTIP |
| Gorelick Brothers Capital | GBC |
| Havenbrook Homes | HH |
| Home Partners of America | HPA |
| Invitation Homes | IH |
| Lafayette Real Estate | LRE |
| Main Street Renewal | MSR |
| Other | OTHR |
| Prager Property Mgmt | PPM |
| Progress Residential | PR |
| Reven Housing REIT | RHR |
| TOTAL | TOT |
| Tricon American Homes | TAH |
| Vinebrook Homes | VH |

Source: Amherst Holdings (March 2021), US Single-Family Rental: 2020 Institutional Activity, Exhibit 1, Amherst Pierpont Securities

# SFR PORTFOLIOS TEND TO CLUSTER IN CERTAIN HOUSING MARKETS

## The highest density of properties is in Sun Belt cities, including Atlanta, Dallas, Phoenix, Charlotte and Tampa.




*Note: The map illustrates the 23 markets with the highest concentrations of properties across KBRA-rated SFR securitizations (88,246 properties total). CBSA is a core-based statistical area defined by the US Office of Management and Budget that consists of one or more counties anchored by an urban center plus adjacent counties tied by commuting. Source: [KBRA's Single-Borrower SFR: Comprehensive Surveillance Report](), August 2020.*

# HIGH DEMAND FOR SINGLE-FAMILY RENTALS IS EXPECTED TO PERSIST FOR YEARS

## SFR operators and investors turn towards built-for-rent.

| Institutional Investor | Millions of Dollars Dedicated |
|---|---|
| Pretium Partners and Ares Management | 2,500 |
| JP Morgan (AH4R) | 625 |
| Rockpoint Group (Resicap/Invitation) | 625 (soon 2,500) |
| Nuveen (Sparrow, Vertica) | 400 |
| Blackstone (Tricon) | 300 |
| Brookfield (Conrex) | 300 |
| Koch Industries (Amherst Holdings) | 200 |

Note:Equity funds earmarked during 2020 for SFR/BFR in millions of dollars. The total equity deployment for 2021 will be over $10 billion, according to projections by Hunter Housing Economics. Source: Hunter Housing Economics and CBRE

- Major homebuilders such as Toll Brothers and Lennar Homes have formed joint ventures with financial partners and instutional SFR operators to invest in built-for-rent (BFR) instead of competing to purchase existing homes.
- Based on the typical leverage ratio for capital in the space of 3-to-1, operators could raise $30 billion in debt financing in 2021-2022 with a further ramp up in following years.

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# SFR SECURITIES ARE A HYBRID BETWEEN MBS AND CMBS

**CMBS-style securitization structure and cashflows**

- The cash flows for the securities are generated by income-producing real estate with loan underwriting focused on net operating income of the properties.
- Early deals were mostly floating-rate with 2- to 3-year terms and one or more optional 1-year extensions, which resembled CRE CLOs.
- Recent deals are primarily fixed-rate with 5- to 10-year terms and balloon payments at maturity, with REMIC structures like CMBS.
- Since SFR loans do not fully amortize over the term of the securities the borrower has to either refinance or sell the property to make the balloon payment.

**MBS-type credit risk**

- If a borrower defaults the collateral sold is a portfolio of single-family homes.
- Rating agencies and analysts primarily use single-family home valuation models to estimate the value of the collateral with hybrid CMBS features to evaluate the cash flows.

# SFR SECURITY STRUCTURES FALL INTO SINGLE- AND MULTI-BORROWER DEALS

**Single-borrower deals**

- Borrower/loan sponsors are typically large institutions or REITs that own and operate the single-family rental business.
- The assets are comprised of one or more loans made to the same borrower, where each loan is secured by a pool of single-family rental properties and the cash flows generated from the properties.
- The number of properties underlying each loan can vary from a few hundred to several thousand.
- Average property values tend to be higher and some credit metrics stronger for deals backed by a single large institutional borrower.

**Multi-borrower deals**

- The loans underlying the deal are made to numerous, discrete borrowers/loan sponsors.
- Borrowers tend to vary considerably in size, scale and expertise operating and managing rental property. The largest loan sponsors tend to be smaller than institutional firms in single-borrower deals, while many loans are to small investors that operate 10 to 100 properties.
- The loans may vary considerably in size and be secured by a few to several hundred properties of potentially more diverse and lower quality collateral.

# A SINGLE-BORROWER STRUCTURE TYPICALLY ISSUES DEBT SECURED BY A SINGLE LOAN

## The simplest structure has one loan to a single borrower, where the loan covers a pool of single-family rentals

| Collateral | | Class | Rating | LTV* | Credit support | WAL | Tranche |
|---|---|---|---|---|---|---|---|
| One loan secured by: | | A | AAA | 27% | 58% | 5.0 | SEQ |
| - first priority mortgage | -------> | B | AA | 43% | 42% | 5.0 | SUB |
| - assignment of leases | *Rental* | C | A | 54% | 31% | 5.0 | SUB |
| & rents | *cashflows* | D | BBB+ | 63% | 22% | 5.0 | SUB |
| - pledges of deposit & | | E | BBB- | 70% | 15% | 5.0 | SUB |
| reserve accounts | | F | BB+ | 80% | 5% | 5.0 | SUB |
| on a pool of single-family | | G | NR | 85% | 0% | 5.0 | SUB |
| rental properties. | | | | | | | |

- The transactions are often structured with a lockbox and cash management structure so the sponsor collects the rents from the tenants and submits those to the servicer.
- The servicer applies the gross proceeds to debt service, reserves and escrows; any excess is returned to the sponsor.
- Interest and principal is paid sequentially from the top class down, with losses accruing from the bottom class up. This is also typical of a single-asset, single-borrower CMBS.
- Interest-only classes are sometimes included. Some subordinated classes may allow for deferral of interest without default if the DSCR or debt yield falls below some threshold.
- Class G is an example of a horizontal risk retention class which is the first to absorb losses. 5% of total value of transaction must be retained by the sponsor.

Note: LTV* of the class is calculated by dividing the aggregate principal balance of that class and all classes senior to it by the aggregate Broker Price Opinion (BPO) as of the cut-off date. Also referred to as the certificate principal to BPO ratio.

# SINGLE-BORROWER DEALS OFTEN OFFER EXPOSURE FROM 'AAA' TO 'B'

## Institutional operators with large portfolios of properties tap financing using single-borrower deals.

| Deal | Issuer | Num of loans | Num of properties | Aggregate BPO value | Avg home value | LTV | DSCR | Pricing date |
|---|---|---|---|---|---|---|---|---|
| **AMSR 2020-SFR3** | AMSR Trust | 1 | 1,443 | 293,024,669 | 203,066 | 99.0% | 1.72 | 7/29/2020 |

| Class | Bond amount | Thickness (%) | Coupon | Spread at pricing | Credit support | LTV* | WAL | Moody's | DBRS |
|---|---|---|---|---|---|---|---|---|---|
| A | 84,977,000 | 29.3% | 1.36 | 105 | 70.7 | 29.0% | 5.1 | Aaa | AAA |
| B | 33,697,000 | 11.6% | 1.81 | 150 | 59.1 | 40.5% | 5.1 | Aa3 | AAA |
| C | 10,989,000 | 3.8% | 2.06 | 175 | 55.3 | 44.3% | 5.1 | A1 | AAH |
| D | 15,384,000 | 5.3% | 2.11 | 180 | 50.0 | 49.5% | 5.1 | Baa2 | AH |
| E1 | 23,442,000 | 8.1% | 2.56 | 225 | 41.9 | 57.5% | 5.1 | NR | BBBH |
| E2 | 27,104,000 | 9.3% | 2.76 | 245 | 32.6 | 66.8% | 5.1 | NR | BBBL |
| F | 25,640,000 | 8.8% | 3.55 | 325 | 23.7 | 75.5% | 5.1 | NR | BBL |
| G | 27,837,000 | 9.6% | 4.99 | | 14.1 | 85.0% | 5.1 | NR | BL |
| H | 24,908,000 | 8.6% | 6.50 | | 5.6 | 93.5% | 5.1 | NR | |
| I | 16,116,000 | 5.6% | 7.38 | | 0.0 | 99.0% | 5.1 | NR | |
| R | - | 0.0% | 0.00 | | | | 5.1 | NR | |
| | 290,094,000 | 100.0% | | | | | | | |

*Note: LTV* of the class is calculated by dividing the aggregate initial balance of that class and all classes senior to it by the aggregate Broker Price Opinion (BPO) value at the cut-off date. Also referred to as the certificate principal to BPO value ratio. The spread at issue is to swaps. All data is as of origination. Source: Bloomberg, Amherst Pierpont Securities.*

# DEALS VARY IN ISSUER, SIZE AND CREDIT OF UNDERLYING PROPERTIES

## Investors can easily compare property information, cash flow and credit metrics across single-borrower deals that KBRA rates.

| Transaction Name | FKH 2020-SFR2 | FKH 2020-SFR1 | TAH 2020-SFR1 |
|---|---|---|---|
| **Deal Information** | | | |
| Closing Date | 10/20/2020 | 8/14/2020 | 7/21/2020 |
| **Loan Information** | | | |
| Loan Balance ($mm) | $2,499.3 | $826.2 | $601.4 |
| Loan Interest Rate | Fixed 1.99%[1] | Fixed 2.18%[1] | Fixed 2.43%[1] |
| Initial Loan Term[2] | Five year | Five year | Six years |
| Extension Options | None | None | None |
| Fully Extended Loan Term[2] | 5 years | 5 years | 6 years |
| Amortization Type | None | None | None |
| **Property Information (cut-off date)** | | | |
| Property Count | 14,288 | 3,847 | 3,540 |
| Purchase Price ($mm) | $2,220.2 | $841.0 | $698.8 |
| Issuer Cost Basis ($mm) | $2,354.6 | $879.9 | $762.9 |
| Issuer BPO Value ($mm) | $2,777.0 | $918.1 | $763.3 |
| KBRA Adjusted BPO Value ($mm) | $2,575.5 | $823.5 | $683.4 |
| KBRA Value Haircut to BPO Value | 7.3% | 10.3% | 10.5% |
| Average BPO Value | $194,360 | $238,641 | $215,635 |
| Number of States Represented | 15 | 12 | 7 |
| Top 3 States Represented | FL, TX, GA | FL, NC, AZ | TN, GA, TX |
| Top 3 States (% BPO) | 53.5% | 57.3% | 68.9% |
| Number of CBSAs Represented | 41 | 35 | 21 |
| Top 3 CBSAs (% BPO) | 36.1% | 34.7% | 62.1% |
| Average Square Footage | 1,647 | 1,987 | 1,713 |
| Average Home Age (years) | 37 | 18 | 16 |
| Median Property Acquisition Date | Nov-17 | Oct-19 | Sep-19 |
| Rehab as % of Purchase Price[4] | 6.1% | 4.6% | 7.5% |
| WA Original Lease Term (months) | 12.6 | 12.9 | 14.5 |
| WA Remaining Lease Term (months) | 7.2 | 7.1 | 8.5 |
| WA Monthly Rent | $1,597 | $1,622 | $1,585 |
| % Occupied | 97.1% | 99.1% | 93.7% |
| Section 8 properties (% by count) | 4.1% | 0.2% | 0.0% |

Source: KBRA SFR Comparative Analytic Tool (SFR KCAT) available on their website (requires login).

# MULTI-BORROWER DEALS CAN HAVE MORE COMPLEX CREDIT PROFILES

## Multi-borrower deals tend to have lower average property values and more diverse collateral types.

| Deal | Issuer / Originator (parent) | Num of loans | Num of properties | Agg principal balance | Avg property value | LTV | DSCR | Pricing date |
|---|---|---|---|---|---|---|---|---|
| **CAFL 2020-4** | CoreVest American Finance | 94 | 2,460 | 274,743,358 | 170,771 | 65.4% | 1.36 | 12/10/2020 |

| Class | Bond amount | Thickness (%) | Coupon | Spread at pricing | Credit support | LTV* | WAL | KBRA | Fitch |
|---|---|---|---|---|---|---|---|---|---|
| A | 176,522,000 | 64.2% | 1.17 | 75 | 35.8 | 29.6% | 4.5 | AAA | AAA |
| B | 30,565,000 | 11.1% | 1.71 | 120 | 24.6 | 40.8% | 5.3 | AA- | NR |
| C | 20,263,000 | 7.4% | 2.25 | 145 | 17.3 | 48.1% | 8.2 | A- | NR |
| D | 16,141,000 | 5.9% | 2.71 | 180 | 11.4 | 54.0% | 9.6 | BBB | NR |
| E | 6,182,000 | 2.3% | 3.38 | 245 | 9.1 | 56.3% | 9.8 | BBB- | NR |
| F | 9,958,000 | 3.6% | 5.05 | | 5.5 | 59.9% | 9.8 | BB- | NR |
| G | 2,748,000 | 1.0% | 5.05 | | 4.5 | 60.9% | 9.8 | B- | NR |
| H | 12,364,358 | 4.5% | 5.05 | | 0.0 | 65.4% | 9.8 | NR | NR |
| R | - | 0.0% | | | | | | | |
| | 274,743,358 | 100% | | | | | | | |

Types of properties

| | |
|---|---|
| 1,492 | single-family residential properties (single unit) |
| 288 | 2-4 unit properties |
| 30 | multifamily properties |
| 374 | townhomes |
| 272 | condominiums |
| 4 | mixed-use properties |
| 2,460 | |

*Note: CoreVest (previously Colony American Finance) is a residential mortgage lender. CoreVest entities are originators and sellers of the mortgage loans and sponsors of the transaction. The sponsor retained the F, G and H class certificates as an "eligible horizontal residual interest" to satisfy US risk retention obligations. The R certificates represent residual interests in each trust REMIC and are not entitled to distributions of principal or interest. Source: Deal prospectus, Bloomberg, Amherst Pierpont Securities*

# COMMON TRANSACTION FEATURES CAN MITIGATE OR INCREASE RISK

- **Credit protection**: Comes from overcollateralization where loan amount is less than the value of the properties as provided by the broker price opinion; and from the credit enhancement embedded in the senior- subordination structure of the deal itself.
- **Call protection**: Loans commonly feature lockout periods, yield maintenance premiums or spread maintenance premiums (for floating-rate deals) be paid prior to a certain date to protect against prepayment. Call protection varies considerably across deals.
- **Property releases**: The borrower is generally entitled to obtain releases of individual properties by prepaying a portion of the loan at a specified release price - generally ranging from 105% - 120% of the loan amount of the property being released. The release can also be subject to conditions such as payment of yield or spread maintenance premiums and that the debt yield of the deal (NOI / loan amount) does not fall below a specified level.
- **Property substitutions**: In other circumstances a borrower may have the option or be required to substitute properties that breach property-specific covenants or are disqualified due to casualty or condemnation.
- **Lockbox**: A common feature of CMBS deals, these provisions ensure that all property expenses, including taxes, insurance and debt service, are paid before the borrower can access cash flow.
- **Equity pledge**: Loans are secured by the first-priority mortgages and a grant of a security interest in all personal property of the borrower and equity owner; or a grant of a security interest in all personal property of the borrower and equity owner.

# PRIVATE DEAL STRUCTURES ARE A POPULAR ALTERNATIVE

## Private financings offer more flexibility for borrowers and lenders

- A robust outlook for the SFR market and the strong performance of securitized deals has attracted more investors.
- Banks, insurance companies and other specialty lenders have sought out opportunities to partner with broker/dealers or investment banks in order to extend financing to owners of SFR assets as an alternative to securitizations.
- Private SFR financing facilities are best thought of as a hybrid of bank credit and a rated 144a securitization.
  - The financing is in loan form with a credit agreement executed between the borrower and lender; the transaction is an unrated, unitranche structure.
  - Like securitizations the financing is typically fixed-rate for a 3- to 7-year term; the loans are subject to yield maintenance for up to ¾ of the term.
- Borrowers have more flexibility to fund portfolios that include non-stabilized properties; loans can have a draw facility for six months to 18 months.
- Banks and life insurance companies can typically obtain better capital treatment for a private real estate financing compared to holding a non-rated loan backed by other alternative assets, though it is not as competitive as owning securities.

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# DELINQUENCY AND LOSSES IN SFR CONCENTRATED IN MULTI-BORROWER DEALS

| | Deal | Deal amount (orig bal) | Num of loans | SS & DQ amount* | SS & DQ (% of orig bal) | Cum loss amount | Cum loss (% of orig bal) |
|---|---|---|---|---|---|---|---|
| 1 | CAFL 2016-1 | 254,982,121 | 24 | 551,728 | 0.2% | 22,627 | 0.01% |
| 2 | CAFL 2016-2 | 187,917,881 | 45 | 506,712 | 0.3% | 158,780 | 0.08% |
| 3 | CAFL 2017-1 | 207,208,633 | 58 | 1,451,356 | 0.7% | 742,964 | 0.36% |
| 4 | CAFL 2018-1 | 236,784,337 | 97 | 677,000 | 0.3% | 1,002,380 | 0.42% |
| 5 | CAFL 2018-2 | 226,146,000 | 108 | 2,391,995 | 1.1% | 699,873 | 0.31% |
| 6 | CAFL 2019-1 | 317,115,499 | 73 | 5,056,957 | 1.6% | - | 0% |
| 7 | CAFL 2019-2 | 242,386,438 | 83 | 17,017,070 | 7.0% | - | 0% |
| 8 | CAFL 2019-3 | 376,162,038 | 125 | 9,205,000 | 2.4% | - | 0% |
| 9 | CAFL 2020-1 | 344,294,399 | 128 | 1,044,760 | 0.3% | - | 0% |

*Note: * Total oustanding balance of specially serviced delinquent loans; excludes foreclosed, REO and matured loans. Source: Bloomberg, Amherst Pierpont Securities*

- Of the nearly 80 public SFR securitizations issued to date, five of those have incurred losses and nine have loans currently delinquent that are in special servicing (data as of March 2021).
- These are all multi-borrower deals issued by CoreVest American Finance (CAF), previously Colony American Finance (CAFL from 2016 to 2020).
- Three classes (E, F and G) from the CAFL 2019-2 deal have been placed on watch developing by KBRA primarily due to the high delinquency rate.

# THERE ARE THREE SOURCES OF RISK TO EVALUATE

## SFR is like any structured transaction in that investors are exposed to three dimensions of risk

Collateral

Sponsor/Issuer

Related Parties

# THE COLLATERAL EMBODIES BOTH RESIDENTIAL AND COMMERCIAL MORTGAGE RISK

- SFR securitizations are backed by rental income generated from single family homes owned by the sponsor
- As such, credit risk is a hybrid of residential and commercial mortgage credit risk

## Residential Mortgage Credit Risk

- Property valuations
- Credit underwriting of tenant
- Trajectory of home price appreciation/depreciation and correlation of rental income to regional home prices
- Mortgage credit availability
- Geographic concentration
- Liquidation value

## Commercial Mortgage Credit Risk

- Rental Income
  - Occupancy/Vacancy Rates
  - Turnover Time
  - Acquisition Cost
- Underwriting and Debt Service Coverage
  - Capitalization rate on property
  - Cost to rent versus own/sustainability of rental income
  - Stabilization/lease terms
- Balloon/Refinancing risk
  - Short duration soft bullet structure implies sponsor will need to refinance the properties at the expected maturity of the securitization
- Liquidation value

# THE UNDERWRITING PROCESS HAS MATURED TO REFLECT SFR CHARACTERISTICS

- A consolidated financial statement for each loan, summarized in the prospectus, allows investors to assess the characteristics of each portfolio of properties in a deal.

## Mortgage loan charateristics

- Standard mortgage loan characteristics include property valuations, occupancy rates, loan to value (LTV) ratios, operating income, expenses, debt service payments and debt service coverage ratios (DSCR).

- Lockout periods, yield maintenance or prepayment penalties, and lockbox provisions are among standard disclosures.

## Property income and expenses

- SFR properties can have higher expenses than multifamily buildings.
  - Expenses due to credit and vacancy loss
  - Property management fees
  - Marketing and leasing
  - Repairs and maintenance
  - HOA fees and assessments
  - Taxes and insurance
  - Landscaping and other expenses

- Rental income is disclosed for each property, along with property size and type characteristics
  - Multi-borrower and private deals often include more diverse collateral types, including condos, townhomes, 5+ unit multifamily properties and manufactured homes.

# SPONSOR RISKS CAN BE EASIER TO ASSESS IF THE BORROWER IS A PUBLIC COMPANY

- Sponsors of SFR securitizations can be both private and public companies
- There are embedded risks in both the operations and corporate structure of the sponsor

## Operational Risk

- Efficiency of property management
  - Size of sponsor and prior track record are important factors
- Scale and cost control
  - SFR differs from multifamily property management as it is horizontally as opposed to vertically integrated
  - Maintaining scalable investments in concentrated geographies helps reduce expenses
- Management of capital expenditures
- Comprehension of regional nuances associated with property management
  - Understanding and adherence to local rental and eviction policies and related statutes

## Structural Risk

- Transparency and level of disclosure of financial condition of public versus private operators
- Sources of capital
  - Public REIT structure offers permanent capital and more transparent disclosures on financial condition of operator
- Sources of financing
  - Securitization
  - Other forms of private debt financing
- Available and contingent liquidity

# RELATED PARTY RISKS CAN BE HEIGHTENED IN LIQUIDATION SCENARIOS

- As in other forms of securitization, there are several parties to SFR transactions that may introduce or mitigate risk to investors

## Master Servicer

- Responsible for making monthly advances of principal and interest. Servicer risk is generally localized to liquidity and the ability of servicers to operate in different states and jurisdictions

## Special Servicer

- Responsible for servicing loans that are delinquent or in default. Special servicer risk is generally localized to loss mitigation strategies that result in the greatest net present value to bond holders

## Property Disposition Agent

- Some transactions may include a property disposition agent. The agent is responsible for overseeing the sale of properties pledged to the securitization and may add additional protection to investors to maximize liquidation values of distressed properties

## Risk Manager

- Some transactions may employ a risk manager to oversee the activities of the sponsor. The manager is tasked with ensuring the collateral BPOs are accurate estimates of the collateral value and ensuring the sponsor keeps the homes in good condition, which should help mitigate some potential elements of sponsor risk

## Trustee

- The trustee is the beneficial owner of the collateral and acts in a fiduciary role. In some cases, they may be tasked with the interpretation of governing agreements to the transaction

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