

What PropTech is Doing to Address Housing Affordability

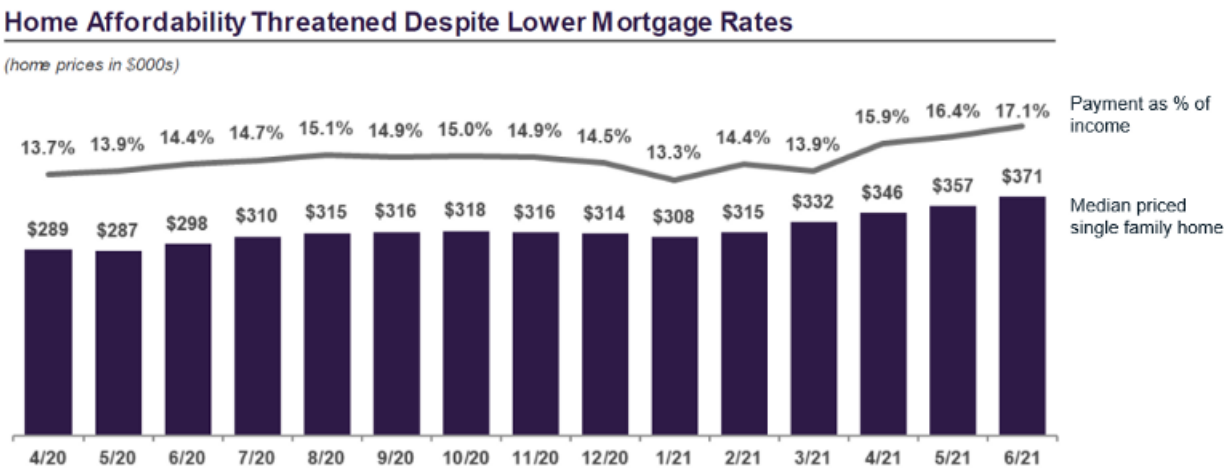


Introduction: The Affordability Problem

Housing affordability concerns have reached a fever pitch recently. Whether it’s a [story about buyers offering \\$1M over asking price](#) in a hot market, a report about [soaring median prices](#), or a cautionary assessment of eviction waves coming given [struggles to afford rent](#), the issue has suddenly catapulted to the forefront of public consciousness.

The problem isn’t a new one: [housing prices in the U.S. have outpaced income growth for decades](#). Price growth has been the result of ongoing trends in supply, demand, and financing that have been long brewing, but that have seen recent inflection points, many of which were aggravated further by COVID-19.

While low interest rates initially offset the rising cost of housing over the last few years, that trend reversed in 2021, as record price appreciations resulted in rising household expenditures on housing. In June, [median home prices](#) grew 20% higher from just a year earlier, with gains coming from diverse geographies: 89% of metropolitan statistical areas tracked experienced [double-digit YoY gains](#) from Q1 2020 to Q1 2021. However, they disproportionately impacted [high-cost-of-living \(HCOL\) areas](#) such as the San Francisco Bay Area, San Diego, Los Angeles, and Denver, which struggled with affordability even before the pandemic.



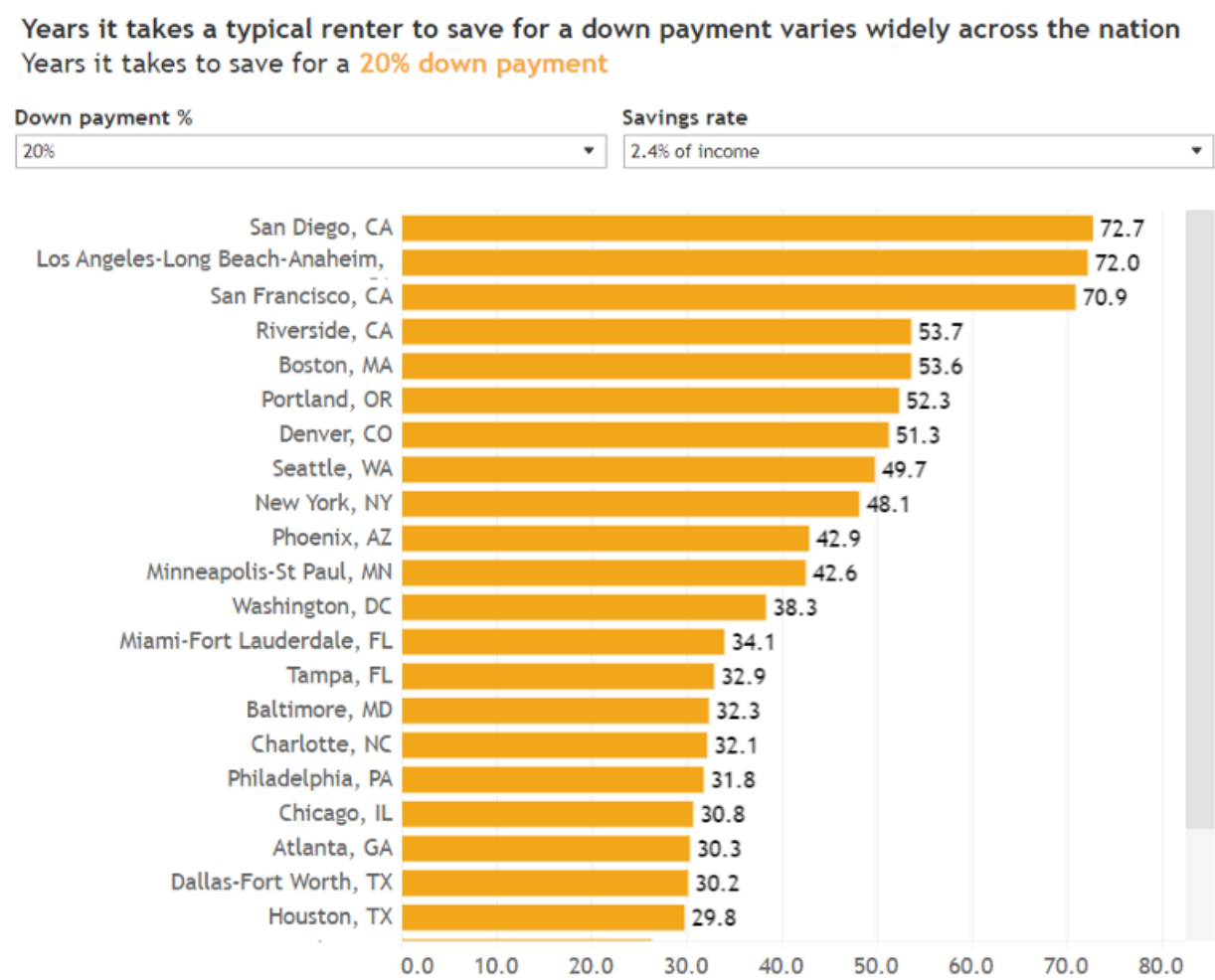
Source: Truist Real Estate & Mortgage Technology Market Overview, August 2021 (USA)

Shifts in housing preferences are driving the burgeoning demand. Work-from-home arrangements during the pandemic contributed to an outflow of workers from urban centers to suburbs and increased demand for single family homes. This migration is only a continuation of a broader demographic shift as the millennials age into prime homebuying years. (In the past three years, the millennial homeownership rate [increased from 40% to almost 48%](#)).

A chronic undersupply of housing stock hasn’t helped. Inventory at the end of June of this year was [three quarters lower than a decade ago](#). According to [Ronnie Walker, a Goldman Sachs economist](#), “red-hot demand has brought the supply of homes available for sale down to the lowest level since the 1970s” and “the supply picture offers no quick fixes to the shortage of available homes.” New housing starts have struggled to keep pace given rising construction costs due to shortages in both labor and materials, resulting in a [7% drop](#) in July of this year.

Supply issues are further amplified by the emergence of single-family residential (SFR) as an institutional asset class: Institutional investors are [expected to ramp up their acquisitions](#) from 46,000 in 2019 to over 70,000 in 2021, reducing supply of available homes for sale further, but adding rental housing supply as an alternative.

First time home buyers may be disproportionately impacted by housing price growth because they are least likely to afford the down payment required to purchase a home. More than half of renters say that the reason they rent is because they [cannot afford a down payment](#). At average savings rates, [Zillow calculated](#) that a typical renter would need to save for a whopping 25+ years to come up with a 20% down payment for the average starter home at today’s prices.



Source: Zillow Research, July 2021

Why can't households save more? Student debt is a factor: 45% of millennial households had student loans at ages 25–34 (vs. fewer than 25% of baby boomer and Gen. X households at the same age) and their average student loan amount [exceeded their annual income](#). The result is that more than half of first-time homebuyers are using gifts, loans, or other means to finance down payments, widening generational wealth disparities, especially for [Black and Latinx families](#) who have less access to those sources of down payment.

In cooler housing markets, low down payment mortgages—those under 20% down payment and often backed with private mortgage insurance—were a more feasible option. But increasingly, competition is allowing both sellers and banks to be choosier. During the pandemic, lending standards have tightened even further, rewarding buyers with high FICO scores asking for smaller loans. According to [The Wall Street Journal](#), “more home loans are being made than almost ever before, but they are going almost exclusively to borrowers with pristine credit histories and sizable down payments.”

The rental picture isn't much better, with rent inflation significantly [outpacing renter income growth](#). Similar undersupply dynamics exist, especially in the affordable housing sub-segment. Supply sits at historically low levels, as “extremely low-income renters in the U.S. face a shortage of nearly 7 million affordable and available rental homes” and “only 37 affordable and available homes exist for every 100 extremely low-income renter households,” according to the [National Low Income Housing Coalition](#). This tight market is driven by the convergence of several factors: “budget shortfalls mean city and state programs to subsidize housing have been gutted... COVID-19 construction slowdowns and material shortages have made ongoing projects more expensive... [and] some experts even say the value of the Low-Income Housing Tax Credit—one of the primary funding sources for low-cost housing in the country—is decreasing, meaning less funding,” according to [Bloomberg](#).

The pandemic has created further housing instability. For low-income households, lockdowns and economic uncertainty impacting retail, food service, and hospitality jobs caused many to draw down limited savings or fall behind on rent payments. With the eviction moratorium effectively ended earlier this year, [many experts see a wave of evictions coming](#).

Emerging PropTech Solutions

Given the saliency of housing affordability, it's unsurprising that a large crop of start-ups has emerged with the goal of tackling it. In this series, we will focus on residential start-ups that impact how homes are built, transacted, or operated—while acknowledging that other approaches that touch on policy and regulation, mobility, education, economic

development, personal finance, income/wealth inequality, and other facets of the problem are also addressing affordability.

In the “PropTech” market, we are seeing approaches in three general categories:

1) NEW PATHS TO HOME OWNERSHIP: Novel financing models that make ownership accessible to a larger pool of potential home buyers

a. **Shared equity:** Creating financial vehicles that help institutional capital co-invest alongside homeowners and share in home price appreciation

b. **Rent-to-own and flexible equity:** Bridging renting and owning by getting buyers into the homes they want to buy sooner

c. **Co-buying:** Facilitating co-ownership and co-investment between non-institutional, non-family buyers

2) NEW APPROACHES TO RENTAL HOUSING: Innovating on financial products to ease rent burdens and decrease evictions, or creating partnerships to increase space efficiency

a. **Alternative screening:** Increasing access to rentals for renters with a more diverse set of backgrounds

b. **Security deposit replacement:** Providing alternatives to reduce upfront cash outlay

c. **Alternative rent payments and financing:** Providing alternative methods for renters to pay rent, such as via credit, loan-type products, or other arrangements

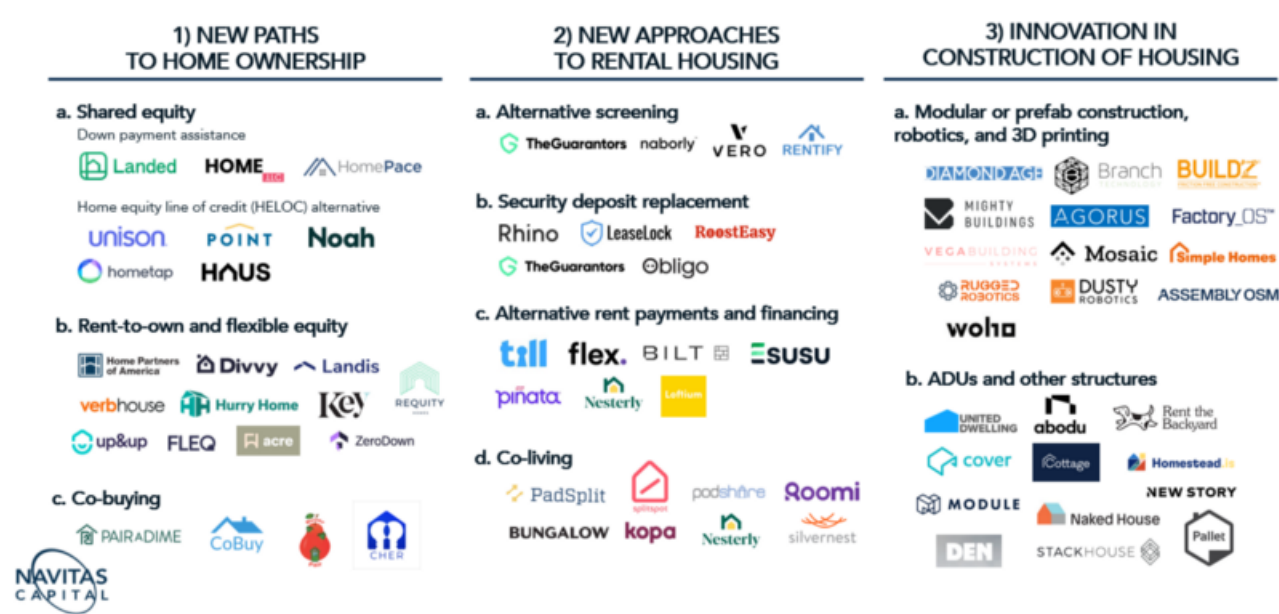
d. **Co-living:** Facilitating home or apartment sharing to reduce overall cost

3) INNOVATIONS IN CONSTRUCTION OF HOUSING: Building affordable homes more cheaply, quickly, and/or efficiently to increase supply:

a. **Modular or prefabricated construction, robotics and 3D printing:** Innovating on construction processes to de-bottleneck shortages in labor and/or materials

b. **Accessory dwelling units and other structures:** Building smaller, more simple, often modular structures to increase housing supply quickly

Selected PropTech Start-Ups Addressing Housing Affordability



Part 1: New Paths to Homeownership

We start with this category because it has the most direct impact on housing affordability for any individual customer. The start-ups that have emerged here directly pitch affordability and accessibility to their customers, many of whom may have lower credit or lack the savings to access home ownership through “traditional” routes. Given the complexity of many of these transactions, technology is usually critical for businesses to scale efficiently.

Three emerging approaches we have seen in this space include shared equity, rent-to-own and flexible equity, and co-buying.



a. Shared Equity

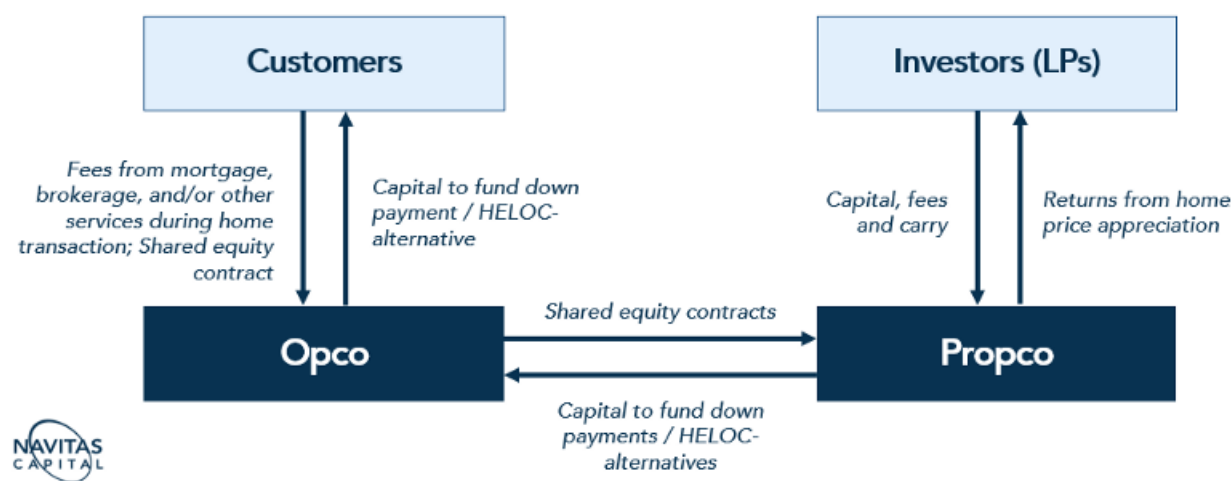
Millennials’ well-known lack of savings is delaying homeownership by years even in situations where they have good credit and stable incomes: The Joint Center for Housing Studies at Harvard [estimates](#) that more than 15 million current renters would be able to buy a home with just modest down payment assistance. Shared equity models are one Proptech solution to this challenge. In this model, buyers or homeowners receive cash in exchange for a share of the future appreciation of their home’s value. For buyers, this cash enables a larger down payment, reduced mortgage payments, and/or avoidance of private mortgage insurance, potentially enabling them to enter home ownership years sooner. For existing homeowners, the cash payment is an alternative to a home equity line of credit (HELOC) and can be used for any cash need.

The “cost” of this capital varies by company, but shared equity contracts typically claim anywhere between 25% to 50% of home price appreciation for an equity infusion of 10% of the home’s value.

On the investor side, investing alongside homeowners is a compelling way to gain exposure to home price appreciation in attractive markets. These markets are often underrepresented in single family rental portfolios because they have low rent yields, so they are usually not accessible to investors at scale.

Start-ups in this space typically have Opco-Propco structures where the Opco acquires customers (buyers or homeowners) and manages and monetizes the transaction process, selling off the shared equity contracts to the Propco, which manages that investment in a real estate portfolio supported by a discrete set of real estate investors. Returns (and/or losses) on home price appreciation accrue to the Propco and its investors.

THE OPCO-PROPCO MODEL



[Unison](#) and [Point](#) initially emerged as two of the biggest players in this space; [Haus](#), [Noah](#), [Hometap](#) and others have also received VC backing. Over time, most shifted away from offering down payment assistance and pivoted toward the HELOC alternative only. This is likely due to complexity—down payment assistance is operationally more complex given the number of parties involved, including agents on the sell side and buy side, mortgage companies, and regulators. On the other hand, HELOC alternatives are simpler in that the agreement lies between the homeowner and the HELOC alternative company alone.

The tradeoff is that HELOC alternatives don’t meaningfully address the housing affordability crisis since their customers are already home owners. Start-ups focusing on down payment assistance—while engaging in the more operationally challenging of the two models—are better able to capitalize on demand tailwinds. They also have a larger opportunity to become platforms for home buying.

[Landed](#) has a unique model targeting a specific category of workers (“essential professionals”: educators, healthcare workers, and public sector employees) via their employers’ benefit programs. Its down

payment assistance program becomes a customer acquisition tool for the Landed home purchasing platform. In effect, this enables Landed to capture the economics of the entire transaction by monetizing brokerage commissions, originating the buyer's mortgage, and selling additional ancillary services like title or insurance—opportunities not available to HELOC alternatives. As a bonus, Landed's stake in the home and alignment of incentives with the buyer also gives it the potential to continue its relationship with the customer past the point of the original home transaction. That financial relationship with its customer ends when the customer buys Landed out through a refinance (which becomes possible sooner the faster the home appreciates) or when they sell their property.

Newer entrants in the down payment assistance space include [Home.LLC](#) and [Homepace](#), which have a similar approach to Landed but acquire their customers through different channels. As more players continue to emerge with shared price appreciation models (either offering down payment assistance or HELOC alternatives), we see this as a benefit for the sector overall as these companies begin to normalize shared equity as an investment category among institutional investors and individual homebuyers.

b. Rent-to-own and flexible equity

Similarly, rent-to-own is not a new concept, but start-ups are emerging that are further blurring the lines between renting and owning. Companies in this space aim to turn renters into owners by finding a home that the renter hopes to own, purchasing it, and renting it to customer while the hopeful buyer acquires the down payment or credit necessary to buy the home.

In some models, the customer pays rent plus a monthly payment toward a down payment for a specified time period until they exit the agreement via a traditional mortgage; In others, there is more flexibility and customers can purchase slivers of the equity in a home at their own pace, reducing their rent as they go, and circumventing a mortgage completely.

[Divvy](#), backed by Tiger Global and Andreessen Horowitz, has emerged as a leader in this space valued at \$2B in its most recent financing round; [Home Partners of America](#) was acquired by Blackstone for \$6B earlier in 2021. Compared with shared price appreciation, rent-to-own models are simple to explain to both customers and real estate investors, which effectively are investing in a single family rental (SFR) product without a property management company.

Rent-to-own portfolios differ, however, from traditional single family rental portfolios: Because customers shop for their own homes, they have “built in” higher occupancy. Maintenance costs should be lower as most agreements posit that customers perform their own routine

maintenance. However, transaction costs can exceed traditional models since many companies hold their homes for shorter time periods. And rent yields may be lower or higher depending on the markets the company operates in. There can be mismatches between high-yield SFR markets and desirable markets for the rent-to-own product.

TRADITIONAL SFR VS. RENT-TO-OWN (FOR INSTITUTIONAL NVESTORS)

	Traditional SFR	Rent-to-own Propcos
Asset characteristics	Varies, with value-add common	Ready to move in
Hold period	Determined based on real estate strategy	Predetermined by lease agreement and typically shorter (~1-3 years)
Leasing and vacancy	Some vacancy / lease-up period	No vacancy (since the occupant determined pre-sale) except at disposition
Operating expense	Relatively high compared with other asset classes due to disparate assets and lack of density	May be lower as occupant is responsible for most routine maintenance and treats the home "like an owner"
Rental yields	Maximized (markets and assets are chosen to maximize yield)	Varies; Many charge above market rents, but markets and assets not always chosen for highest yield
Asset appreciation	Enjoy full impact of home price appreciation at disposition, but markets are not typically chosen for home price appreciation	- Asset disposition price is typically locked in at start of lease, so price appreciation upside is capped but downside can be significant (since renter can walk away from sale) - Markets may be chosen for home price appreciation



Rent-to-own models help aspiring homebuyers move into the homes and neighborhoods they might not be able to access otherwise, but they have also received some criticism: Monthly payments are often significant (for Divvy, about 33% higher than market rent). In structured programs like Divvy or Landis, renters have up to 2 or 3 years to purchase the home at a pre-determined price. If they walk away, they forfeit a “surrender fee” of 2 percent. [Divvy has said it hopes half of renters can be converted to buyers](#). There is also an inherent conflict in that Propco investors typically enjoy better economics the longer the resident stays renting in the property.

Other models offer more flexibility and aim to cut out mortgages completely, such as newcomers [Acre Homes](#), [Fleq](#), or [Key Living](#). These platforms aim to allow renters to purchase varying amounts of equity in their homes, paying rent proportionally.

c. Co-Buying

While the previous two approaches rely on connecting home buyers to capital markets and institutional investors, the last approach facilitates co-investment between unmarried buyers, who either plan to live in the home together or co-own as an investment. Given declining marriage rates, greater consumer acceptance of co-living, and the opportunity or need to pool resources to afford home ownership, we see this as a [small but potentially growing](#) segment of the market to keep our eye on.

Co-buying platforms vary in what they offer, but they primarily help facilitate the buying and financing journey. While co-buying isn't complex, the prospect can be daunting, so working with a platform like [Pairadime](#) or [Cher](#) may ease buyers' worries, as the platforms will match co-buyers with real estate agents, lawyers, and other experts who are experienced in navigating the nuances of the co-buying process. One advantage of this approach is that these platforms not only have the opportunity to be the first stopping point on a buyer's journey to home ownership, but can also extend their reach through the entire home ownership life cycle. This means continued opportunities to offer products and services to their customers, such as facilitating mortgage payments, splitting the cost of other items such as repairs or home renovations, and eventually exiting co-ownership.

One drawback of this model is that the addressable population is likely relatively small, at least today, and may be difficult to target with precision. As such, we'd expect customer acquisition costs to be higher relative to other homebuying platforms, and start-ups will have to invest more to educate the market on the offering.

A related category to co-buying is fractional ownership, where buyers purchase stakes in a home together but do not necessarily live in it with each other. [Pacaso](#), which facilitates fractional ownership of vacation homes, made headlines earlier in 2021 by becoming the fastest unicorn ever after raising \$75M in 5 months; Other start-ups like [Fractional](#) or [Coral](#) take a similar approach to multifamily properties. While these companies reduce the barriers to entry for second homes or investment properties, they don't fundamentally address housing affordability and in fact have been [criticized for inflating home prices](#).

Impact on the customer

Which model ultimately has the greatest impact on affordability for the customer? While hard to compare because of the different target customers, we ran a scenarios across these models for a buyer who has \$50K savings and wants to buy a \$500K home to illustrate the impacts to the customer relative to traditional offerings (for this buyer, a mortgage with private mortgage insurance being the legacy alternative).

Scenario	Summary	Takeaways
Mortgage with PMI	• Buyer obtains a high loan-to-value (LTV) mortgage of 90% and purchases private mortgage insurance (PMI) • While the buyer ends the period with the most home equity, monthly costs are high due to PMI • This scenario is not always feasible due to availability of mortgages with PMI, and can result in higher interest rates, driving up the monthly cost further (not captured in this analysis)	• Best when available for customers who don't want to give up any home price appreciation
Shared equity down payment assistance	• Buyer puts in 10% down payment and obtains an 80% LTV mortgage (no PMI) • Buyer partners with an equity investor who puts in 10% in exchange for 25% of home price appreciation • Because of this trade-off, the buyer ends up with less equity in their home than the PMI scenario, but lower monthly cost	• Best for customers who have some savings and want lower monthly and overall cost while building wealth via home equity
Rent-to- own	• The buyer pays a 1% deposit for a rent-to-own program and invests the rest • During the period, they pay market rent while investing and saving toward a future down payment (and potentially also improving credit score) • The buyer has no home equity at the end of the period	• Best for customers with very limited initial savings and who potentially need to work on credit, but who want to move into their desired home faster
Co-buying	• Two peers, family members, or investors purchase a home together, and share the upfront and ongoing cost burden of homeownership • 50/50% home split and a traditional mortgage with 20% down • Resulting economics mirror traditional mortgage, but split in half with each owner left with a 21% ownership stake	• Best choice combining lowest monthly payment and ending equity value, but requires finding the right co-buyer and living together



Here’s the math:

	Mortgage with PMI	Shared equity down payment assistance	Rent-to-own	Co-buying	Assumptions: • Buyer with \$50K in savings • \$500K home • 5-year period • 4% annual home price appreciation • 8% rental yield • 3.5% mortgage interest rate • 1% PMI • 10% return on investing 
Upfront cash required	\$50K	\$50K	\$5K (Invest the rest)	\$50K	
Total monthly payments	\$143K	\$107K	\$200K	\$54K	
% home equity owned	34%	28%	0%	21%	
Ending equity value	\$205K	\$173K	\$73K (investments)	\$125K	

Each model has advantages and disadvantages. In all three, customers can live in their desired homes sooner than they otherwise might. Co-buying has the best overall economics for those who are willing to room with others. Between the other two models, down payment assistance customers become owners sooner than in rent-to-own and without the compromises of co-buying, giving them access to wealth creation sooner too. Instead of using monthly savings to move customers closer to ownership, down payment assistance uses the appreciation of the property to grow the customer’s home equity. That can be a big win for the aspiring homebuyer.

Parts 2 & 3

Stay tuned for **Part 2: New approaches to rental housing**, where we dive into Proptech players that are aiming to make renting more accessible, followed by **Part 3: Innovations in construction of housing**.

Questions? Comments? Did we miss something? Email jenny@navitascap.com

By [Jenny Song](#) on [October 7, 2021](#).

[Canonical link](#)

Exported from [Medium](#) on April 18, 2022.