WHITE PAPER

HOME OWNERSHIP INEQUALITY AND THE IMPACT ON THE MORTGAGE MARKET

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Introduction

The mortgage market in the US will benefit in the long-term from an increase in home ownership which requires better availability of affordable housing and mortgage credit for first-time buyers from all demographic groups. While there had been some recent improvement in market conditions since the low point following the financial crisis of 2008-09, the COVID-19 pandemic has reversed this progress. As we come out of the latest crisis, there is much more that can be done to create opportunities for home buyers, and technology and process innovation has a key role to play in that.

Key Takeaways

- The rate of home ownership has fallen from its peak of in 2004 and the proportional decline has been most significant in younger age groups.
- The number of first-time buyers, most of whom are less than 45 years old, has also fallen from its peak in 2003 but has started to grow again in the past few years.
- Household growth is exceeding housing supply growth which is driving down inventories of homes for sale and pushing up prices, particularly at the lower end of the market.
- Credit availability for lower income groups and those with low credit scores has been very restricted since the financial crisis with only a gradual improvement in recent years.
- Demographic and societal trends emphasise the need to focus in the coming years on products and services for younger borrowers and other demographic groups with non-standard credit profiles.
- The impact of the COVID-19 pandemic is so far being disproportionately felt by lower income groups, and credit availability is clearly declining even at the early stages of the crisis.

Home ownership has declined since the financial crisis but is starting to grow again

In 2004, 69% of households in the US owned their own home[1]. This was the peak of home ownership and by 2016, the proportion had declined to just 63%. From this low point there has been a small rise back to 65% in 2019. Mortgage originations were $1.31 trillion in 2004 and only $1.27 trillion in 2019 (purchase mortgages for 1-4 family homes), which is in fact a decline in inflation adjusted terms of around 25%[2].

The change in overall levels of home ownership are driven to some extent by demographic shifts in the population because the rates of home ownership vary substantially by age and by race or ethnicity. If the groups with lower home ownership rates increase as a proportion of the population, the overall home ownership rate will fall.

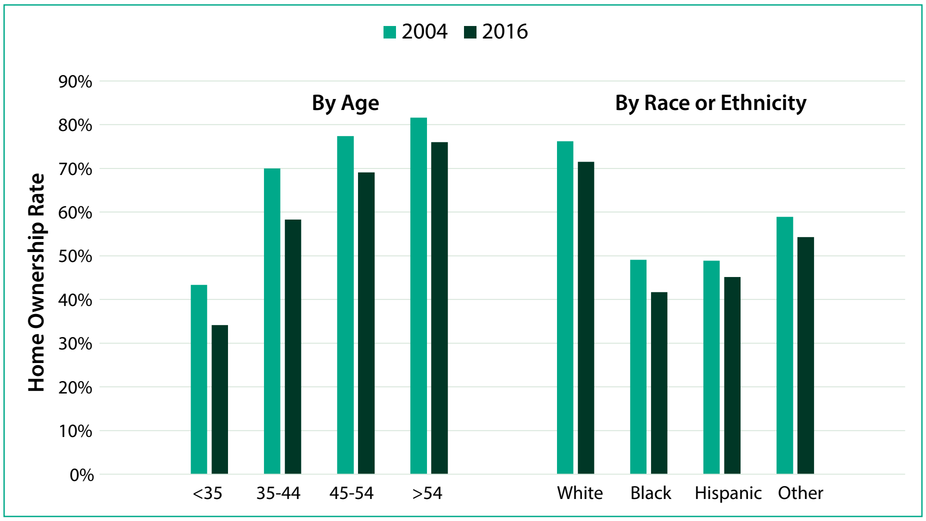
The current home ownership rate is highest for those over 65, at 79%, and is lowest for those below 35, at 37%. Home ownership rates increase progressively with each older age group. The difference in home ownership rates by race or ethnicity is also very stark – the average rate for white households is currently 74%, whereas it is only 49% for Hispanic households and 44% for black households. This under-served cohort is where innovation needs to be focused.

However, if we look more closely at the changes by demographic group, we can see that the decline from the peak in 2004 to the trough in 2016 was much greater for the younger age groups and for black households than for other groups (see Chart 1). The home ownership rate for the under 35's declined from a peak of 43% to a trough of 34%. The home ownership rate for black households declined from a peak of 49% to a trough of 42%.

Perhaps not surprisingly, home ownership rates also differ significantly by income level. For households above the median level of income the rate is currently 79%, whereas for households below the median level of income the rate is just 52%.

Chart 1

Declines in home ownership from peak to trough have varied by demographic group



Source: United States Census Bureau[1]

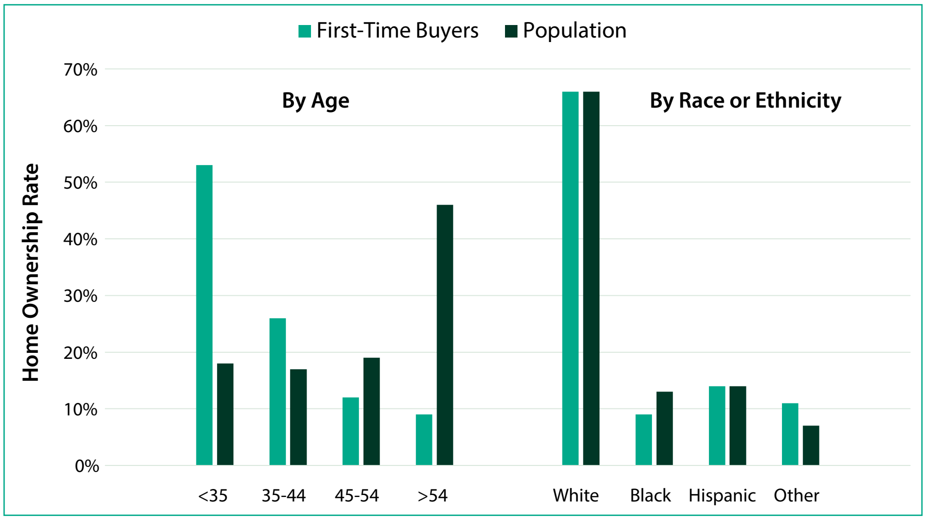
First-time buyer numbers are also slowly rising again from a post financial crisis low

A key driver of the level of home ownership is the number of first-time buyers coming into the housing market each year. In the US, the number of first-time buyers also peaked in the early 2000's, at 2.4 million per annum in 2003, but then declined to a low of just 1.1 million in 2012 according the Consumer Financial Protection Bureau (CFPB)[3]. Since then there has been a recovery to a level of 1.8 million per annum, which is still well below the earlier peak. On the other side of the home ownership equation, some households will return to renting each year for a variety of reasons, and others will fall out of home ownership due to death.

According to a report by the Joint Center for Housing Studies of Harvard University (JCHS)[4], 53% of first-time buyers are less than 35 years old and a further 26% are between 35 and 44 years old (see Chart 2). These are the two age cohorts which we already noted have seen the largest fall in the rate of home ownership in the past 20 years. In terms of race or ethnicity, 66% of first-time buyers are white households and only 9% are black households. This compares with 13% of total households in the US which are black and illustrates that the participation of this group in home purchase is lower than for other groups. Hispanic households represent 14% of first-time buyers and 14% of all households.

Chart 2

Younger age groups make up most of first-time buyers and black households are underrepresented



Source: Joint Center for Housing Studies of Harvard University[4]

Two of the factors which impact the potential for people to buy their first home and progress up the housing ladder are housing supply and prices, and credit availability and terms.

Housing supply and prices

From 1974 to 2011, the number of completions of new homes in the US exceeded the growth in the number of households in almost every year. However, from 2011 to 2018, the number of new homes constructed only matched the number of new households[5]. This may seem like a good balance but according to the Urban Institute, there is a regular fallout from the market each year of old and obsolete homes and so in fact there was a 350,000 gap in 2018 between the net number of new homes available and the growth in the number of households[6].

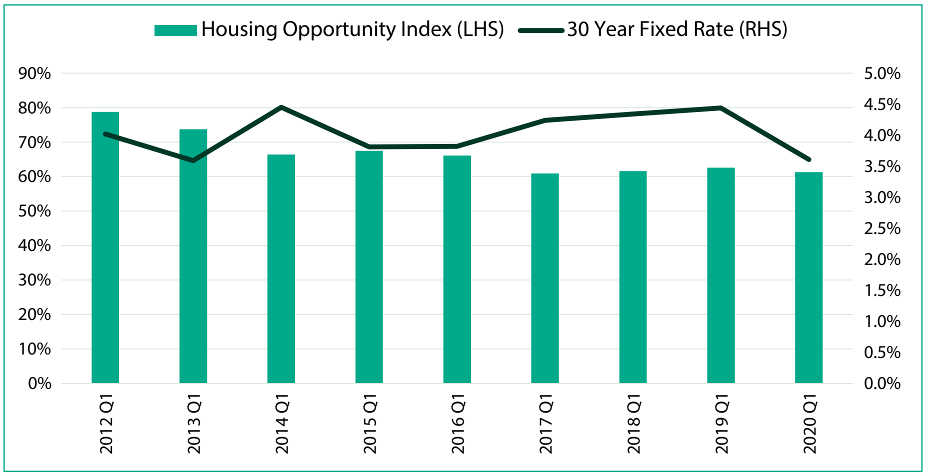
The consequences of this tight supply situation are that inventories of homes for sale have been falling and prices have been rising faster than incomes. The Urban Institute reported that the months of housing supply fell to just 3.4 in March 2020, below the long-term average and substantially below the level of around 10-12 months post the financial crisis[7]. JCHS analysis shows that the price-to-income ratio fell from a peak of 4.75 in 2005 to 3.25 in 2011 but has crept back up to 4.00 in the past few years[8].

More significantly for first-time buyers, the prices of the lower cost more affordable homes have been rising faster than the average of all homes in recent years. Research by the Urban Institute showed that since 2012, the prices of homes in the lowest 20th percentile increased by around 80% whereas in the highest 20th percentile they increased by around 40%[9].

Falling long-term interest rates have compensated to some extent for this increase in price but not enough. The NAHB / Wells Fargo Housing Opportunity Index, which measures the share of homes sold that would have been affordable to a family earning the median income, taking into account financing costs, has declined from the mid to high 70's in 2012, to the low 60's in 2019/20 (see Chart 3)[10].

Chart 3

Affordability of house purchase has been declining even as long-term interest rates have fallen



Source: NAHB / Wells Fargo[10]

> "In communities across the United States – from our fastest-growing cities to rural towns – imbalances between supply and demand have persisted. Rather than self-correcting, in many places they have worsened over the last decade."
>
> **Jeffrey Hayward, Fannie Mae[11]**

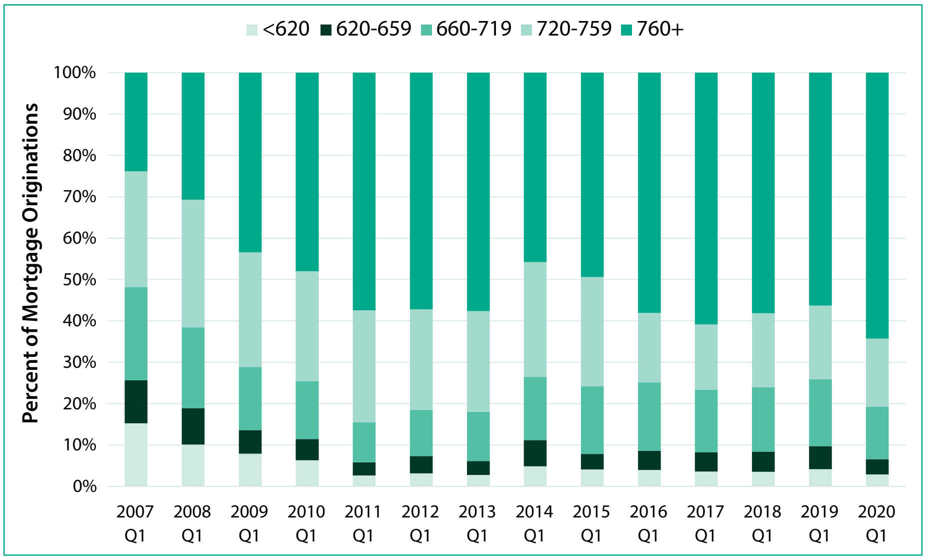
Credit availability and terms

The other significant factor affecting first-time buyers (and repeat buyers) is the availability of credit and its terms. It is not surprising that, after the financial crisis of 2008-09, lenders tightened credit standards and restricted credit availability. In the overall market, data from the New York Fed and Equifax shows that in early 2007, 25% of mortgage originations had a credit score of less than 660 (see Chart 4)[12]. This proportion fell to a low of just 6% by early 2013 and by the first quarter of 2020 still only 7% of mortgage originations had this level of score.

According to the CFPB, the median Vantage score of first-time buyers was at a low of 675 in 2007 but quickly increased in the subsequent 2 years and by early 2020 was around 725[13]. The CFPB also found that private sector lenders have moved away from the first-time buyer market – in 2006, 49% of first-time buyer loans went to the private market but by 2018 the proportion had fallen to 15% with the balance being taken up mainly by the FHA and GSEs. Over the same time, the combined loan-to-value ratio for first time buyers has stayed relatively stable at around 95%, but the debt-to-income ratio fell from 40% to 37% and then climbed back to 41%.

Chart 4

The share of mortgage originations at lower credit scores has declined since 2007



Source: Federal Reserve Bank of New York[12]

Demographic and societal trends are changing the market

One of the factors making credit scoring more difficult is the trend toward freelance work, sometimes called the "gig economy". Research by Upwork found that in 2019 there were 57 million freelance workers in the US, which represented 35% of the total workforce[14]. While the increase has been only 4 million in the previous 5 years, there has been a notable shift toward the proportion who were long-term as opposed to temporary freelancers.

Furthermore, JCHS analysis of the US Census Bureau data shows that the proportion of the population in the key cohort of 35-45 years is expected to grow significantly by 2029[15]. This is the so-called Millennial generation and it is at this age that many will be looking to buy their first homes.

The impact of COVID-19 on the housing and mortgage markets

Predicting what will happen to the housing and mortgage markets in the medium to long-term due to the COVID-19 pandemic is a difficult task. There will be a lot of inter-related effects on underlying factors such as housing construction, house prices, household incomes, individual behaviour and credit availability.

However, what we can already see in the short-term is a disproportionate impact on lower income groups and at the same time a reduction in credit availability:

- A survey by the Pew Research Center found that the pandemic is having a greater effect on lower-income adults with a high proportion reporting that they or someone in their household has lost a job or taken a pay cut[16]. They are also less prepared to withstand a financial shock than those with higher incomes. In addition, the research highlights a disproportionate effect on Hispanic adults.
- According to the Mortgage Bankers Association, their proprietary mortgage credit availability index declined by 12.2% in April 2020 to the lowest level since the end of 2014[17]. Illustrating the increasing risk aversion of lenders, JP Morgan Chase is reportedly requiring a credit score of at least 700 and a down payment of at least 20% for most new mortgages[18].

These recent developments just serve to increase the already existing challenges facing the market with respect to increasing the availability of credit and growing the level of home ownership.

Policy and innovation actions which might help to address the market challenges

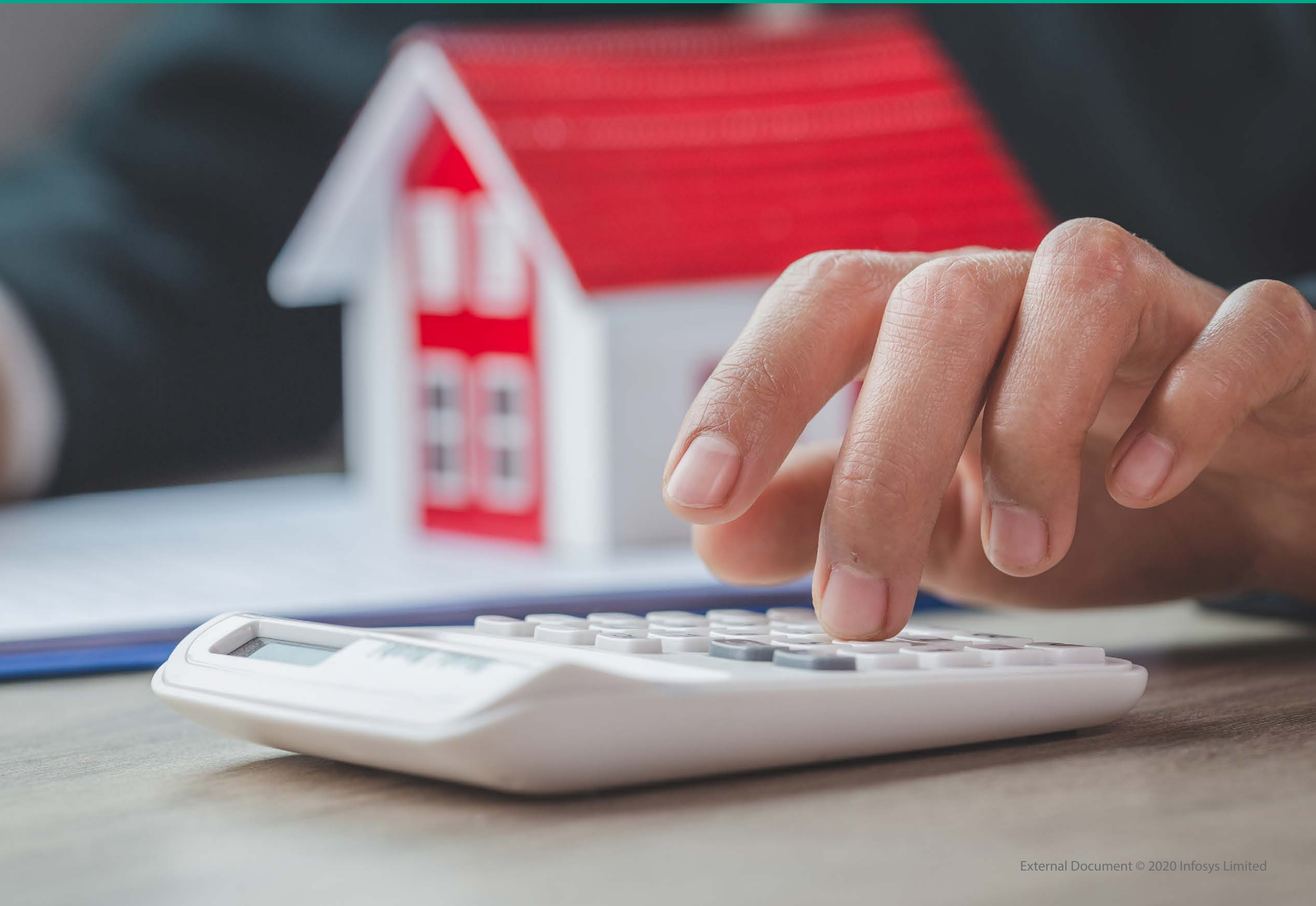
There are a few development opportunities where policy and technical innovation can unite to increase the rate of home ownership and reduce inequality, and at the same time boost the overall mortgage market:

- Incentives to developers to use state of the art materials, methods (i.e. 3D printing) that will increase in the availability of affordable housing inventory. This will create affordable supply as well as flatten the inflation growth in aggregate housing prices. This will also flatten the price-to-income ratio qualifying more first-time home buyers for conforming rate mortgages.
- Legacy platform modernization, business process digitization, and increase utilization of machine learning will lower the operational costs involved in originating a mortgage, a benefit which can be passed on to borrowers to lower the cost of ownership.
- Investor policy adoption of alternative credit scoring using AI and machine learning to better account for diversity of incomes and household circumstances, documenting detailed loan level credit due diligence as "transferable risk validation" will expand credit availability and lower credit costs while ensuring overall credit risk mitigation.

Mortgage lenders may not be able to fix the first of these but can take actions to drive down operating costs and increase the flexibility of credit scoring, using technology and innovation.

Conclusions

There are substantial barriers holding back the increase in home ownership in the US and the consequent development of the mortgage market. While the credit risk appetite of lenders had shown some signs of increasing prior to the COVID-19 pandemic, this relaxation is now being reversed. In the longer term the industry will need to work even harder to reduce the cost of home ownership and increase the flexibility of credit decisioning to take account of new ways of working and the needs of specific demographic groups.



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Henry is the Global Director Housing Finance technology and service solutions for Infosys. In his role he directs the development of Infosys' offerings around consulting, IT as service, managed business services, digital transformation and lending platform modernization. He also leads Infosys' 2NEXT Lab, an innovation acceleration lab that partners with clients, ecosystem suppliers and Fin Tech to design, build and productize industry solutions. In his role he also acts as a virtual CIO for numerous US based clients including Movement Mortgage and Churchill Mortgage.

Henry served as the head of Housing Finance and Lending Solutions at IBM, where he pioneered the use of cognitive technologies to automate residential mortgage underwriting, loan servicing and default services solutions. He also served as Chief Operating Officer of a captive joint venture servicing operation for Fannie Mae, a government sponsored entity that funded and securitized more than sixty percent of US residential mortgage loans.

Henry has a BA from Columbia University and a Master's Degree in Human Development from Harvard University.

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