Did housing cause the Bitcoin bubble?

Chief economist's comment

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- In advanced economies, housing is generally the most important asset an individual will own.
- If homeownership is a realistic goal, young people will save for a deposit and other homeownership costs. Such savings are generally low risk—speculation does not just threaten potential financial loss, it may also mean living with your parents for longer.
- If housing is so expensive that young people have no hope of homeownership, there is less incentive for such low-risk savings. Instead, younger people have an incentive to spend more or gamble (speculate).
- Crypto and meme stocks are disproportionately owned by young people. Fewer and fewer young people can afford homeownership. Data suggests that speculation is more likely in countries with rising homeownership costs. The stereotype of many crypto-owners as young men still living in their parents' basements may be well-founded.
- If homeownership remains unattainable, gambling on crypto, meme stocks, and other speculations may remain attractive to younger generations. If homeownership becomes affordable for young people, this speculation may quickly fade.

Source: Getty Images

The past few years have experienced growth in some very specific forms of speculation. The increased prominence of crypto and meme stocks (equities whose value is driven by social media promotion rather than anything economic) owes much to speculation. There are various drivers of this —a belief that the offering is something new, a "post-truth" approach to investment commentary, and of course a lack of (or a disregard for) regulation.

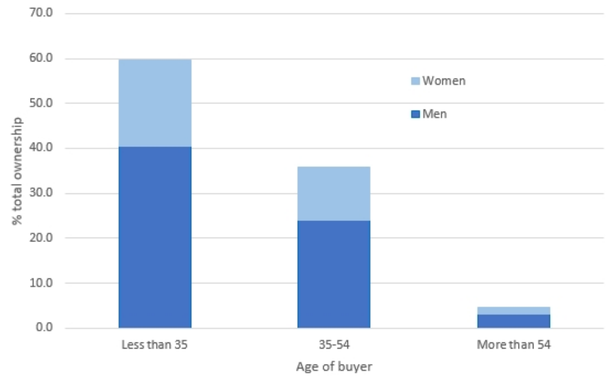
One other driver of speculation in crypto and meme stocks might be the rather more traditional asset of housing.

Crypto and memes – a young person's gamble

Recent research by the Bank for International Settlements[1] offers some insight into which groups of retail investors have bought into crypto. The analysis looks at downloads and usage of crypto exchange applications as a proxy for retail ownership. The defining characteristic of crypto buyers is their youth—the proxy identifies Gen Z (born 1997 to 2012) and younger Millennials as the key buyers of crypto.

Retail buyers of crypto are disproportionately young

Proxy for retail ownership of crypto by age range



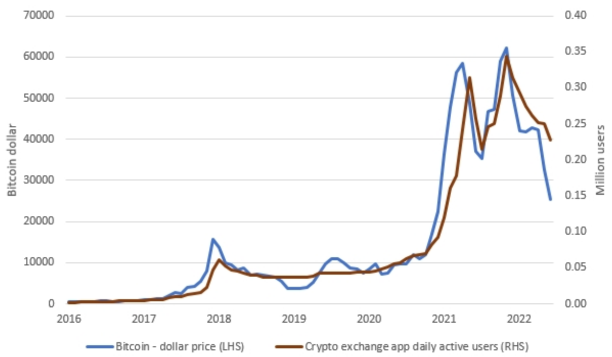
Source: BIS

It is harder to get data on meme stock investors. However, the method of encouraging meme stock investment (focused on specific forms of social media) is something that is skewed toward the younger demographics. Gen X are not graceful performers of TikTok dances. Anecdotal evidence in media reports suggests meme stock investors are a similar demographic to crypto buyers.

The second characteristic of crypto identified by the BIS is that the buyers show strong speculative instincts. That is to say, it is when prices are rising that new buyers are active—and a rising price encourages more activity.

A rising price lifts interest

Bitcoin price increases encourage crytpo activity – falling prices discourage crypto activity



Source: BIS

The speculative element of meme stock investing is almost a defining characteristic of the purchases. Fundamental values are not driving process.

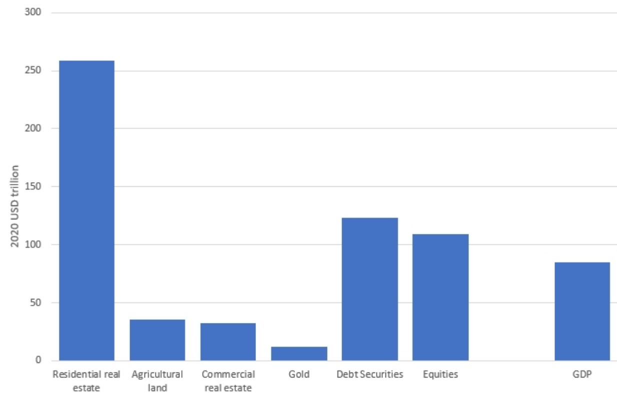
These two trends—younger people, choosing to gamble—might be tied to national housing markets. Changing housing affordability is likely to have a profound effect on consumer saving behavior.

Housing – the most important asset

The family home is the single most important asset most households will own, in most countries. Savills estimated that residential real estate was valued at 45% of global real estate, securities and gold holdings.[2] The US Survey of Consumer Finance has the home as the most important asset owned by most US households (the exception is those who own their own business). In the UK, pension assets are the most important asset for high income earners, but the family home is far more important than any other asset.

Housing is the biggest asset purchase most households make

Global asset market values 2020



Source: Savills

The importance of housing as an asset creates a very specific type of savings behavior. The prospective homeowner will almost certainly need to save a deposit or down payment. They will also need to save money to cover the legal fees and taxes associated with the purchase. There will then be the start-up costs associated with owning a home—not just the mortgage costs, but property taxes, furniture, and maintenance.

If someone is saving to buy a house, the savings approach is likely to be low risk. Buying a house entails a specific cost. There is a clear, nominal currency target that has to be hit. As house prices rise, the amount of money that must be saved will normally increase in proportion.

Wannabe homeowners are not going to gamble the money needed for their deposits. Losing money through speculative investments means that the dream of homeownership fades further into the distance, and conceivably disappears. This is especially important for first-time buyers. This groups will tend to save toward a house in a conservative way. Gambling with the deposit for a home risks more than a monetary loss. If you lose the deposit, you lose the social status associated with homeownership, and potentially the independence that property ownership can bring. No one wants to be living in their parents' basement in their forties, because of reckless investment decisions in their twenties.

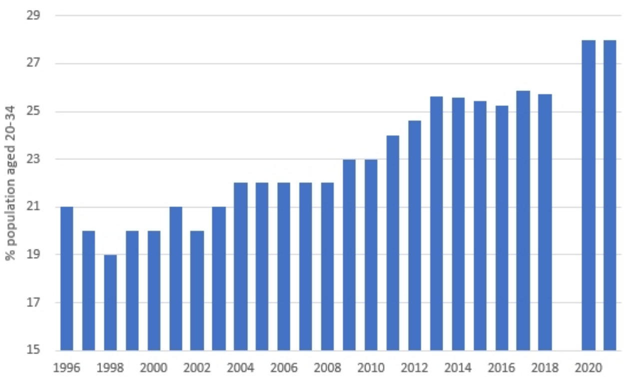
Rolling the dice – when property is unaffordable

A very specific picture is emerging. Property is the most significant asset for most households. Young people starting on the property ladder require a cash payment, and that cash payment is not something to gamble with. But this raises a critical question. *What happens if buying a house seems permanently out of reach?* If homeownership becomes unaffordable for the young, the motives for saving will change. Critically, the risk appetite around savings is also likely to change.

In several economies, younger people are now significantly less likely to own a home than people of the same age in earlier generations. Research from the ECB suggests that this decline in homeownership is nothing to do with a reduced desire to own a home.[3] Young people face financial conditions and affordability problems which prevent them from owning a home. In the UK the instance of young adults (aged 20 to 34 years old) living with their parents steadily increased after the global financial crisis.

The stay-at-home generation

Proportion of UK young adults living with one or more parents



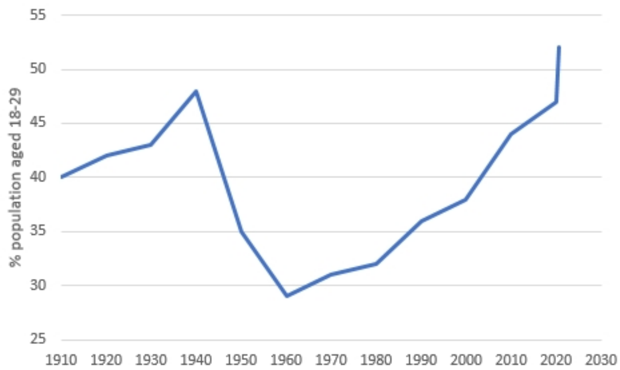
Source: UK Office for National Statistics

Young people are also dramatically more likely to rent—so even those who escape from their parents are unable to buy their own home.

In the US a majority of people aged 18 to 29 years now live with their parents—the first time since the Great Depression that has happened. The number is boosted by the pandemic. The pre-pandemic trend was also for more and more young people to live at home. As in the UK, those who do manage to escape from the parental basement are more likely to rent than to own a property. Just over 60% of US households headed by someone under 35 (i.e. not living with their parents) are renters rather than owners of the property. The most common reason for living in a multigenerational household is financial, and more men live this way than do women.[4]

Even pre-pandemic, Gen Z stayed with their parents

Proportion of US young adults living with one or more parents

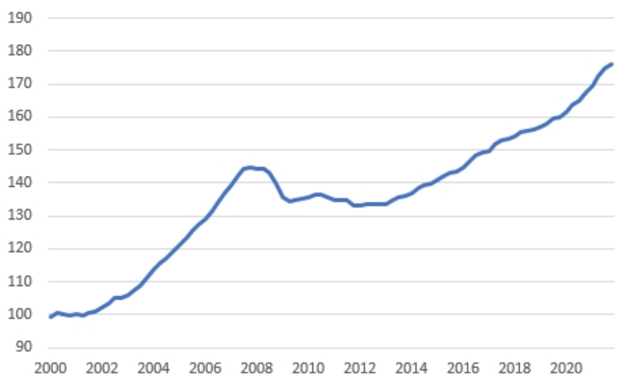


Source: PEW research center "A majority of young adults in the U.S. live with their parents for the first time since the Great Depression" 4 September, 2020

The story is repeated across the OECD. In most OECD countries a majority of people aged 20-29 live with their parents, and the share still in the parental home has increased over the past fifteen years in twenty of those countries.[5] The increasing share of younger people excluded from the housing market coincides with an increase in house prices around the world. House prices have been rising faster than consumer price inflation for almost a decade—raising the house-price-to-income ratio. While lower mortgage rates may mean that monthly mortgage payments have risen less than real house prices, the amount of money that must be saved for a deposit in absolute terms and as a share of income has risen.

Global real house prices have risen inexorably

Real house prices, 2000 average = 100



Source: IMF Global Housing Watch

If homeownership is unattainable, there is no necessity to hold low risk savings for a deposit, legal bills, and other homeowner expenses. In other words *if Gen Z and younger millennials give up on homeownership (unless they inherit), their attitudes to savings and investment are likely to change.* The attraction of gambling on speculative instruments increases.

The lure of the casino

If younger people are not saving to buy a home, speculation is not the only option. The alternative is consumption of goods and services, or perhaps what an economist would refer to as "the consumption of leisure" (which means "working less"). There is evidence in Japan from the 1990s that younger renters, who had decided not to aim for homeownership, would spend 30% to 40% more than those who still clung to the (distant) dream of being a homeowner.[6] That means that to attract young peoples' money, speculation needs to have two characteristics.

First the speculation must have an element of fun. To compete with consumption (and in particular the consumption of leisure "experiences" like holidays) there needs to be some entertainment in the act of speculating. Crypto and meme stocks help provide that with online discussion groups which create a sense of community. Crypto in particular has been compared to a religious zeal in the approach of retail investors. Crypto and meme investing is not a passive experience.

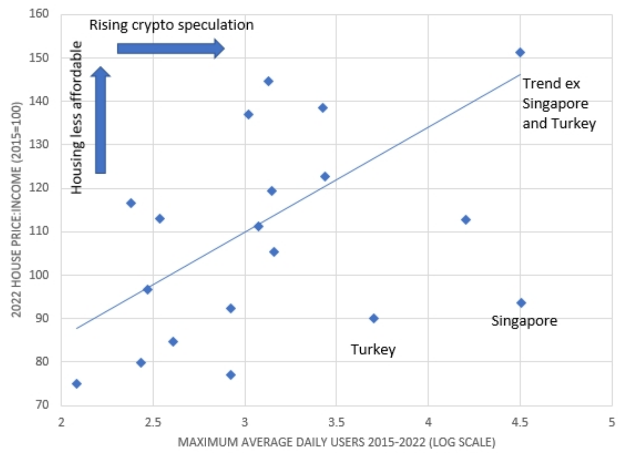
Second the speculation must offer the potential for extraordinary rewards. This is an aspect of most forms of gambling—but in this case housing may make this more important. The stereotypical "crypto bro" is a young man in his twenties, still living at home in his parent's basement with no conventional prospect of homeownership. This sort of person will be attracted to speculation if it holds out the possibility of being able to purchase his own home in the event of the speculation paying off. A belief in being able to get out before the bubble bursts means that as long as prices are rising, more and more people will be attracted to the speculation—as the BIS research has shown in crypto. This is sometimes referred to as the "greater fool theory" (the idea being that the speculator will be able to sell to someone who is a greater fool than they are).

If the speculation does not pay off, then provided the speculator has not leveraged in order to participate the cost is not so significant. A wannabe homeowner who speculates with their deposit loses not just the money, but the prospect of owning a home if the speculation fails. The speculator who does not have a meaningful prospect of buying a home has a smaller loss—they just lose the money they put into the speculation. While loss aversion means that the speculator is not going to be completely indifferent, they are also not going to be so negatively affected.[7] The loss can be characterized as the price paid for the entertainment of the gamble.

Countries that have seen house-price-to-income ratios rise most since 2015 are those countries that are more likely to have crypto enthusiasts. The following chart looks at the relationship for twenty major economies. This is not a perfect relationship—if housing was already unaffordable to young people in 2015, small changes in affordability since then would not lessen the enthusiasm for betting on crypto or other speculative assets. Governments may also add distortions to either the crypto or the housing market. Correlation should never be confused with causation, but the relationship is consistent with the idea that giving up on homeownership encourages speculation.

Less affordable housing, more betting in crypto

Change in housing affordability against the maximum number of crypto exchange app users



Source: BIS (maximum average daily users of crypto exchange apps over the past seven years), OECD index of the latest house price:income ratio (2015=100), IMF index of the latest house price:income ratio (2015=100). The trend line excludes Turkey because of the disruption of unconventional central bank policies, and Singapore because of the role of the government in helping with homeownership.

What next?

Older generations often regard Gen Z's activity in meme stocks and crypto in bewildered incomprehension. But the disbelief that people would willingly buy crypto or meme stocks comes from a different set of values—values shaped by a realistic aspiration of homeownership. Speculation looks more rational to a generation that will inherit rather than buy property. As long as homeownership is unrealistic, Gen Z and young millennials are likely to keep speculating —although of course the vehicles in which they speculate may change in the future.

Of more interest, perhaps, is what might happen if housing becomes more affordable in the future. Declining populations and changing patterns of real estate use (e.g. offices converted into apartments) may alter both supply and demand for housing. If that rekindles the homeownership dream for younger generations, the speculation and conspicuous consumption of recent years suddenly acquires a higher cost. Improved housing affordability may end up bursting Gen Z's speculative bubbles.

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[1] R Auer, G Cornelli, S Doerr, J Frost and L Gambacorta (2022): "Crypto trading and Bitcoin prices: evidence from a new database of retail adoption", BIS Working Papers, no 1049, November

[2] Savills "The total value of global real estate", Market Trends, September 2021

[3] G Paz-Pardo "Younger generations and the lost dream of home ownership", ECB Research Bulletin 91, 26 January 2022

[4] PEW Research Center "Financial issues top the list of reasons U.S. adults live in multigenerational homes", 24 March 2022

[5] B. Cournède and Marissa Plouin "No home for the young" OECD June 2022

[6]. Moriizumi, "Targeted saving by renters for housing purchase in Japan", Journal of Urban Economics 53 (2003) 494-509

[7] This is not to be indifferent to the plight of those older investors who switched savings from conventional, lower risk assets to crypto or meme socks because of the speculative frenzy. As the BIS data shows, this group is not likely to be a significant part of the total.

Appendix

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