

# NOVEMBER 2018

The UCLA Ziman Center for Real Estate presents the next in a series of Affordable Housing Policy Briefs. This November 2018 Brief synopsizes a paper presented at the <u>Conference on Housing Affordability</u> by the American Enterprise Institute, Bank of Israel, Board of Governors of the Federal Reserve System, Tel Aviv University, and UCLA.

The author, UCLA Anderson Professor of Finance Mark J. Garmaise, analyzes whether alternative mortgages, such as interest-only loans, are a benefit to home ownership and the affordability crisis.

Here is a link to the full paper.

# Do Alternative Mortgages Improve Affordability?

The Potential Role of Interest-Only and Other Innovative Home Loans

By Mark J. Garmaise

In this paper, I discuss the potential role of alternative and innovative mortgage designs in alleviating problems of housing affordability. I focus on alternative designs that shift the burden of borrower payments to later periods. This includes back-loaded payment mortgage contracts such as interest only (IO), payment-option mortgages that allow for negative amortization and teaser mortgages.

"Alternative mortgages, when used properly, should be most useful in assisting highly educated young people to buy larger houses. As for lower-income, less educated households, there is little reason to believe that alternative mortgages lead to direct harm."

From a theoretical standpoint, it seems clear that alternative mortgages can aid in addressing housing affordability. Introducing innovative mortgages expands the set of contracts, allowing lenders and borrowers to come to a richer set of agreements that suit them both. Alternative mortgages should thereby serve to ease borrower constraints and facilitate home purchases by buyers without sufficient ready cash.

Beyond this simple and compelling intuition, recent theoretical work has shown that alternative mortgages have many key features that are especially designed to aid constrained borrowers. For example, researchers Piskorski and Tchistyi (2010) find that a mortgage form very much like an option ARM (adjustable rate mortgage) with associated credit line is actually the optimal security if households wish to buy large houses and face income variability. The option to make different payments at different times gives constrained borrowers much-needed flexibility. They show that back-loaded mortgage payment structures for riskier borrowers can be optimal when expected house price and income growth is high.

Especially relevant to our question is the work of Chambers, Garriga and Schlagenhauf (2009) who show that back-loaded mortgages are particularly helpful in increasing the homeownership rates of low-income individuals. Alternative mortgages are less attractive to high-income individuals who do not experience the same tight financial constraints. It is fair to say that there is almost a theoretical consensus that alternative mortgages are a useful instrument in addressing housing affordability.

### DO ALTERNATIVE MORTGAGE CONTRACTS CAUSE BOOM AND BUST CYCLES?

Some observers have suggested that these mortgages played a role in generating the U.S. housing crisis leading to the Great Recession. There is general agreement that the use of alternative mortgages in the U.S. was highly correlated with the pre-crisis boom and post-crisis crash in housing prices (Amromin et al. 2011). That is, the markets that experienced the greatest boom and bust cycles were also the markets in which alternative mortgages were most popular. This raises the obvious question of causality: Did the presence of alternative mortgages lead to greater house price volatility or were borrowers in a booming market forced to use alternative mortgages in order afford newly expensive homes?

One way to analyze this question is to consider the issue of timing: did the surge in alternative mortgage use pre- or post-date the increase in house prices? There is not agreement on this topic. Barlevy and Fisher (2011) find that the heightened origination of IO mortgages typically came before future house price appreciation and did not follow it. Bäckman and Lutz (2016) argue that in Denmark the introduction of IO loans caused a housing price boom (and increase in transactions) and subsequent bust. By contrast, Brueckner, Calem, and Nakamura (2016) show that alternate mortgage use follows appreciation in house prices.

Some informative evidence on the role of alternative mortgages in causing the housing crisis comes from Corbae and Quintin (2010, 2015) who argue that the use of alternative mortgages generated a large fraction of the foreclosure increase observed during the downturn. This arose because riskier households were able to receive mortgages and they accumulate equity more slowly. The main contribution of alternative mortgages to foreclosure, however, was due to their lower down payments, not the delayed amortization or backloading.

Thus, even if alternative mortgages cause a more pronounced boom-bust housing price cycle, this seems like a feature of any financial innovation allowing lower income households to buy homes using more leverage.

### DO ALTERNATIVE MORTGAGE CONTRACTS ENCOURAGE SPECULATION?

A less complicated question is whether alternative mortgages lead to speculative investment in housing, as this would seem to be clearly unattractive to policy makers. These mortgages did experience higher default rates (e.g. Amromin et al. 2011, Brueckner, Calem, and Nakamura 2016 and Garmaise 2013), which can be associated with speculative investment in housing. Default often leads to foreclosure with negative externalities for other homeowners in the neighborhood (Campbell, Giglio and Pathak 2011).

Barlevy and Fisher (2011) make the provocative argument that IO mortgages are attractive to both borrowers and lenders in bubbles and not otherwise, and Garmaise (2013) finds that offering alternative mortgages leads to very negative selection effects as high-risk borrowers are drawn to these instruments. Nonetheless, Barlevy and Fisher (2011) argue that alternative mortgages do not cause bubbles and may mitigate them; the use of IOs is simply associated with bubbles.

Taken together, these results indicate that alternative mortgages may require greater bank and regulatory scrutiny. It is possible that both banks and regulators can learn from the excesses of the crisis to minimize selection issues arising from offering these loans. Indeed, Cocco (2013) argues that a similar process occurred in the U.K. after the year 2000; after an initial period of potentially inappropriate use of alternate mortgages, better disclosure and increased lender legal liability have led to an ordered and well-functioning market in these instruments.

# ARE ALTERNATIVE MORTGAGES TOO COMPLICATED FOR BORROWERS?

Are alternative mortgages – with potentially misleading low early payments and convoluted overall payment paths – simply too complicated for borrowers?

There is evidence that this concern may be overstated. The main users of these mortgages in the U.S. were high income, had high credit scores and lived in neighborhoods with a high proportion of well-educated residents (Amromin et al. 2011). Alternative mortgage borrowers do not appear to have been particularly poor: average loan sizes were larger than for traditional mortgages (Brueckner, Calem, and Nakamura 2016).

Financial sophistication and wealth are highly correlated and hard to disentangle. As a result, a study that shows that alternative mortgages are used by the wealthy/sophisticated will be interpreted as evidence that these contracts are not an affordability product. A study showing that they are used by the less wealthy/unsophisticated may be interpreted as evidence that alternative mortgages exploit those with less knowledge. Overall, however, it appears that these products can be offered to lower-income borrowers without manipulating them, particularly in a context with guidelines on information provision and disclosure.

# DO ALTERNATIVE MORTGAGES ADDRESS AFFORDABILITY ISSUES?

I consider two main questions. First, do alternative mortgages improve the allocation of existing housing? Second, do alternative mortgages promote the building of additional housing?

On the first issue of allocation, the primary argument is that the availability of alternative mortgages may improve "consumption smoothing." That is, they may facilitate the consumption of larger housing by young and financially constrained borrowers. Presumably, this is accomplished by promoting the sale of large houses by older homeowners who no longer require them to young families with children.

If alternative mortgages fulfill this consumption-smoothing function, then their use should be associated with future income gains. Testing this hypothesis is the central focus of Cocco (2013) who finds that borrowers who expected higher and safer incomes were indeed more likely to take out an alternative mortgage. He further shows that these borrowers realized higher income growth after origination. Alternative mortgages thus allow younger borrowers to enjoy larger housing and also reduce transaction costs by allowing them to purchase large homes once rather than purchasing a sequence of increasingly bigger homes as their income rises.

More broadly, the theoretical consumption-smoothing benefits from alternative mortgages should be the greatest for borrowers with low current income and high future income. The impact of the affordability crisis on lower-income families receives the most attention. Do low-income individuals commonly have higher future income expectations? Perhaps young people with high education do. Are they the target of

affordability programs? For lower-income families, consumption smoothing seems like less of a first-order issue. It is not that they expect future high incomes and need to smooth their housing consumption over time, but rather that housing is too expensive for them generally over the course of their lives.

This highlights the second question: does the availability of alternative mortgages actually trigger a supply response among low-income families? This could take the form of conversions from rentals to low-cost condominiums or an increase in the building of new low-income targeted housing. I am not aware of empirical work on these questions, but such a response seems somewhat unlikely in supply-constrained coastal cities. A supply response should be more feasible in outlying areas. On the other hand, affordability considerations may not be as serious in those markets.

In my view, evidence documenting the benefits of alternative mortgages for low-income families would be especially useful. This might take the form of results showing that alternative mortgages help low-income borrowers purchase their own housing at a younger age. Even more compelling would evidence of some sort of supply response to the introduction of alternative mortgages that is relevant to low-income borrowers.

### CONCLUSION

Who is most likely to achieve superior housing outcomes as a result of the availability of alternative mortgages? From a theoretical perspective, the greatest benefits should accrue to the highly educated young, who are likely to have sharply rising future incomes. Highly educated borrowers are also most likely to understand these products and, in fact, in markets with appropriate disclosures of risks there is evidence that they are the most likely to use them. In other words, alternative mortgages, when used properly, should be most useful in assisting highly educated young people to buy larger houses. As for lower-income less educated households, there is little reason to believe that alternative mortgages lead to direct harm. We also lack compelling evidence; however, that alternative mortgages can address broader issues of housing affordability for less fortunate Americans.

## AEI-BoI-BGFRS-TAU-UCLA Conferences on Housing Affordability

The American Enterprise Institute, Bank of Israel, Board of Governors of the Federal Reserve System, Tel Aviv University Alrov Institute for Real Estate Research and UCLA Ziman Center for Real Estate embarked on a three-year academic partnership from 2015-2017 to advance new academic research on housing affordability and on policy approaches to address the affordability challenge. The conferences brought together economists, policymakers and real-estate industry professionals to discuss one of the most serious domestic challenges in the United States and other countries: the shortage of housing affordable for lower- and moderate-income households. The first two conferences in the series were held at UCLA in 2015 and at Tel Aviv University in 2016. The culminating conference, held in 2017 at the American Enterprise Institute in Washington, D.C., examined government and private-sector programs designed to promote affordability, the role of regulatory constraints, innovative mortgage products, and other topics to identify the most effective path forward to make housing affordable again. The research associated with the UCLA Affordable Policy Brief by Mark J. Garmaise (UCLA) was presented at the 2017 Conference (PDF: https://bit.ly/2zwoppC).

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