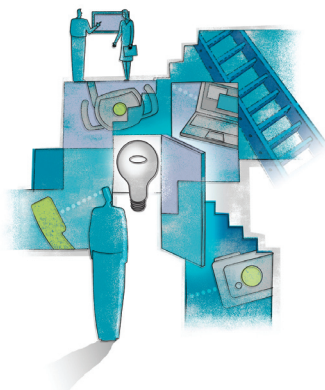


Facilitating Shared Appreciation Mortgages to Prevent Housing Crashes and Affordability Crises



SINCE 2007, the subprime mortgage crisis has rattled the lives and financial futures of millions of households who have become delinquent on their mortgages or whose homes have been foreclosed upon. The credit crunch is now making it more difficult for American households who rent housing to buy their first homes. Over time, of course, capital will flow again to borrowers. Without changes in housing finance, however, this capital may once again be lent through risky mortgage structures, perpetuating an ongoing cycle of boom and bust.

In a discussion paper for The Hamilton Project, Andrew Caplin, Noël Cunningham, Mitchell Engler, and Frederick Pollock argue that introducing shared appreciation mortgages (SAMs) would help to protect families and prevent future mortgage crises. As deferred-payment loans for a portion of the mortgage, SAMs can enhance affordability relative to traditional mortgages by reducing high monthly payments and by spreading risk more effectively between borrowers and lenders. If the price of a home secured by a SAM goes up, the borrower pays the lender a share of the appreciation in addition to the principal of the loan. If the price of that home goes down, however, the lender shares with the borrower much of the loss in home value; for example, the borrower would repay only the principal on the loan without any interest. Because of this risk sharing, SAMs reduce the probability of foreclosure. The authors argue that SAM-backed securities would be advantageous for capital markets as well. The development of SAMs has been frustrated, in their view, by unnecessarily punitive and complex tax treatment for SAMs. The authors propose regulatory reforms to facilitate the development of the SAM market and moderate the cycle of boom and bust for American homeowners and the U.S. economy.

THE CHALLENGE

The housing market collapse and the subprime mortgage crisis contributed to the foreclosure of 1.5 million homes in 2007. This number could increase to 2.5 million homes in 2008 as house prices continue to decline. Also worrisome is the likelihood that tightened lending standards will make it more difficult for many households, especially younger families, to advance from renting to homeownership. As the homeownership rate declines, pressure will build to reextend credit to risky borrowers. Congress will work to restore confidence in the mortgage market, and the private sector will make more capital available. Although greater access to credit could spur renewed growth in the housing market, without adequate safeguards it could once again lead to crisis if people bet on house price appreciation that fails to materialize.

One of the structural reasons for the current mortgage crisis and downturn in the housing market is the way in which home purchases are financed. Virtually all traditional mortgages are debt contracts, meaning that the borrower agrees to repay the full amount of the loan plus interest in monthly installments regardless of the fluctuations in home value. The problem with pure debt financing is that even a small reduction in the homeowner's ability to repay can trigger default and foreclosure. In addition, as home prices decline, borrowers who owe more on the home than the home is worth—that is, who have negative equity—may decide to walk away from their mortgages rather than struggle to make payments. This outcome damages their future chances of owning a home and pushes down the values of other homes in the neighborhood. Falling house prices can therefore trigger defaults, which can lead to further price declines and even more defaults, resulting in a vicious cycle.

Compared to other options, pure debt finance is a surprisingly risky way of financing homeownership. Interest rate payments stay the same irrespective of the value of the home even though fluctuations in

home value are largely outside borrowers' control. Moreover, in the case of option adjustable-rate mortgages (ARMs), a relatively new product designed to increase affordability, monthly payments may rise after an initial period. Indeed, the jump in interest rates from ARMs in combination with falling house prices was a contributor to the current housing crisis.

The authors contrast mortgage financing with the way that businesses finance their operations. If a small business borrows money just before an economic slowdown it may be unable to repay the loan on time even though the business is properly managed and otherwise solvent. Lenders in this situation (unlike homeowners) can sometimes convert the loan into equity, agreeing to forgo payment today in exchange for cashing in on the profitability of the business when it recovers. The business survives because it can defer payment and the lender benefits from the anticipated future payoff.

A NEW APPROACH

Caplin, Cunningham, Engler, and Pollock propose a sustainable solution to the current crisis by introducing a new type of mortgage that would address the inadequacies of traditional mortgages: shared appreciation mortgages (SAMs). They would make SAMs widely available as a financing option for new homebuyers, as well as a refinancing option for current homeowners struggling to avoid foreclosure. A SAM is a loan repaid in a lump sum at the end of the term of the loan rather than in monthly payments. In contrast to a traditional mortgage, the amount owed by the borrower on the SAM depends on the value of the home. If the value of the home goes up over time, then the borrower is required to pay the lender a share of the appreciation in an amount greater than a traditional mortgage. If the value of the home declines, however, then the borrower pays back only the original amount of the loan and does not pay interest. Thus, SAMs can lower monthly mortgage payments and enhance homeownership

affordability while also sharing risk between borrowers and lenders for some portion of the mortgage.

The following example illustrates how simple SAMs work. Suppose a family purchases a \$200,000 home, putting down a \$20,000 deposit and borrowing \$180,000. The family decides to borrow \$140,000 with a traditional mortgage and \$40,000 with a SAM. Whereas the family must make regular monthly payments on the traditional mortgage, no portion of the SAM needs to be repaid until termination, at which point the family would pay a share of any appreciation on the house. Suppose in this example that the lender is due 40 percent of the appreciation of the house at the end of the period. Now consider the following three scenarios:

Case 1:

House price rises from \$200,000 to \$400,000, appreciating a total of \$200,000. Upon the termination of the SAM the family pays \$40,000 for the original loan plus \$80,000 in shared appreciation (40 percent of \$200,000), for a total of \$120,000.

Case 2:

House price remains at \$200,000, with no appreciation to share. Upon the termination of the SAM the family repays only the original \$40,000 loan with no interest.

Case 3:

House price declines to \$100,000, again with no appreciation to share. Upon the termination of the SAM the family repays only the original \$40,000 loan with no interest, as in the second case.

In sum, in the case of a rising house price, the borrower owes more than she would have under a traditional mortgage. In the case of a constant or declining house price, however, the borrower pays less than under a traditional mortgage because no interest is due on the loan.

Under traditional debt mortgages, homeowners bear all the risk of price fluctuations that are largely outside their control.

Benefits of the SAM

The authors feel that SAMs have a number of advantages over traditional mortgages, including improved affordability, increased risk sharing, availability as a workout tool during crises, and benefits for capital markets.

Improved Affordability

SAMs enhance affordability for borrowers since borrowers would not have to make monthly payments on them. Instead, the loan is repaid in a lump sum upon termination at which point borrowers can tap into the equity of the home to repay the SAM. This deferred payment feature makes SAMs especially attractive to younger households who are still at an early stage in the life cycle of earnings and to low-income households who would otherwise be locked out of homeownership. The widespread introduction of SAMs could help push homeownership rates back up after the decline the authors expect in the next few years. By increasing affordability in a sustainable way, SAMs reduce the desire to develop more risky alternatives, such as option ARMs that largely disguise the true cost of borrowing.

Increased Risk Sharing

Risk sharing is another major advantage of SAMs over traditional mortgages. By financing homeownership with a mixture of debt and equity—as most businesses are financed—SAMs lower the risk assumed by

Key Highlights

Challenge

The bursting of the housing bubble and the subprime mortgage crisis have highlighted a number of short- and long-term problems in the housing finance system.

- The subprime mortgage crisis has spawned a credit crunch that makes it difficult for families to afford homes. This could cause a decline in the homeownership rate.
- Conventional mortgages, which are debt contracts, leave borrowers to bear the risk when housing prices fall, thereby exacerbating housing cycles.
- Mortgage-backed securities markets suffer from conflict of interest and rating problems that create systemic risk in the financial system when house prices decline.

A New Approach

The authors propose introducing shared appreciation mortgages (SAMs), deferred-payment loans for a portion of the mortgage that replace monthly payments with a lump-sum payment at the time of termination. If the price of the house rises, the borrower must share a percentage of the appreciation with the lender. If the price of the house falls, however, the borrower pays only the amount of the loan, free of interest.

- SAMs enhance affordability by reducing monthly mortgage payments.
- By replacing a debt claim with an equity claim, SAMs spread risk more effectively between the borrower and the lender, reducing the chance of default and future default-driven crises.
- SAMs would be useful tools in future crises as a means of renegotiating mortgages and avoiding foreclosure.

The tax treatment of SAMs has prevented their introduction and uptake in the United States, but the authors propose regulatory reforms to remove these barriers.

homebuyers and decrease the risk of foreclosure in the event of falling house prices. As demonstrated by the example above, the cost of the SAM to the borrower is higher when the price of the home rises and is lower when the price of the home falls. When a SAM is used as part of the original mortgage or as part of a workout, lower monthly payments make it less likely that the borrower will default on the loan if the borrower experiences an income shock or has negative equity in the home. This feature of SAMs is not only beneficial for homeowners wishing to lessen the possibility of foreclosure, but also for the economy as a whole because it reduces the chance of future default-driven housing crises. SAMs therefore offer an important opportunity to moderate the boom and bust cycle.

Availability as a Workout Tool During Housing Crises

SAMs also are ideal instruments to help households struggling to pay off mortgages during tough times such as the current housing slump. They function as an effective workout tool for borrowers who have high loan to value ratios on their houses—that is, borrowers who owe more on their home mortgage than the home is worth. By replacing part of the traditional mortgage with a SAM, the borrower would face a lower monthly payment and would therefore have an incentive to stay in the house and keep making mortgage payments. Lenders in this situation also might do better than under a traditional mortgage: instead of just writing down part of the debt, the lender could claim a greater share of future appreciation of the house if and when prices rise. The authors assert that future housing crises could be mitigated if SAMs are recognized as a valuable and available workout tool.

Benefits for Capital Markets

According to the authors, SAMs also present a number of advantages for capital markets. Traditional

mortgage-backed securities suffer from conflict of interest problems that can result in overly generous appraisals of homes and overly optimistic assessments of income. The authors claim the securitization of SAMs into SAM-backed securities would ameliorate these problems. Since the amount owed on the loan depends explicitly on the change in the value of the home, investors in SAM-backed securities would have strong incentives to demand accurate assessment of the underlying collateral. Moreover, investors in SAM-backed securities would understand that they are explicitly investing in residential real estate returns.

SAMANTHAs

Because the payments under SAMs occur when mortgages terminate, SAMs are especially advantageous for people who intend to live in their homes for a long time. Moreover, those who take out this form of finance face an incentive to prolong the holding period. The unpredictable nature of the payoff period appears to have derailed an innovative SAM that the Bank of Scotland introduced in the United Kingdom market in the mid 1990s.

The authors argue that two fundamental changes are needed to overcome the holding period problem. First, one needs to limit the term of the SAM to a range of ten to fifteen years, shorter than the thirty-year term of most traditional mortgages. Second, one has to adjust the terms of appreciation sharing depending on the period for which the mortgage is held. The authors propose a modification to the SAM: the SAMANTHA (a SAM with A New Treatment of Housing Appreciation). With a SAMANTHA the amount due at termination corresponds to a share in the value of the home that increases the longer the loan has been outstanding. The growth in the home value shared is known as the shared-equity rate. For example, the share of the home value owed might increase by 4 percent a year. The authors demonstrate

SAMs would allow homeowners to exchange debt for equity during tough times, much like businesses often do today in order to stay afloat.

that the modifications in SAMANTHAs make the cost of capital independent of the holding period, providing stable returns for investors regardless of when borrowers repay their loans.

Reforming the Tax Treatment of SAMs

If SAMs have so many advantages, why are they not used in the United States? There have in fact been previous attempts to introduce them, most notably by Bear Stearns in the 1990s. But Bear Stearns quickly withdrew its SAM products from the market as a result of uncertainty about their tax treatment. In 1986, the Treasury placed SAMs on its no-rulings list, thus preventing any advance ruling on the tax treatment of SAMs and increasing the risk of using this product.

A 1996 Treasury ruling seemed to indirectly clarify part of the tax treatment but did so in a punitive way. Investors would have to pay taxes on income from the SAM prior to receiving the payment, while borrowers could not claim a deduction for this payment until it was made. By treating borrowers and lenders asymmetrically, the ruling creates a substantial net tax cost. Further complicating the situation is the inconsistency of the tax code with regard to SAMs: if issued as part of refinancings, SAMs would likely receive better tax treatment than do conventional mortgages.

By sharing risk between the borrower and lender, SAMs can lower monthly mortgage payments and enhance homeownership affordability.

Caplin, Cunningham, Engler, and Pollock suggest key reforms that would remove these regulatory obstacles and make SAMs attractive to borrowers and lenders. The authors' preferred approach is to have the Treasury reinstate pre-1996 rules while making a clear statement defining what a SAM is and removing any ambiguity about tax treatment. The authors think that the poor treatment of SAMs is likely an unintentional and unfortunate anomaly that can be rectified easily. The Treasury can reinstate and clarify the pre-1996 situation by amending its regulation and adopting the simple definition of SAMs that the authors spell out. This regulation change would require no new legislation on the part of Congress and is thus the simplest solution.

The authors offer two alternative options for reform. One option would be to allow both the borrower and the lender to accrue contingent interest during the term of the SAM, in effect putting the borrower and the lender on the same accounting method. However, this option would require legislation, would complicate familiar tax rules, and could hurt borrowers whose homes do not appreciate. The second option would be to have Treasury recharacterize SAMs as equity rather than as debt instruments since equity interest receives better tax treatment. Such a ruling on SAMs, however, could have negative consequences, including uncertain implications for a number of other transactions.

Questions and Concerns

Do households understand SAMs and SAMANTHAs? Are they interested in these instruments?

In an earlier study, the authors provide survey evidence from fifteen hundred likely homebuyers regarding the introduction of SAMs and SAMANTHAs. Survey responses suggest that potential homebuyers understand at least the most basic versions of these instruments. The authors acknowledge, however, that more-complicated variations of SAMs and SAMANTHAs may be more difficult to understand. They recommend tests of financial literacy for those who apply for mortgages to encourage lenders to educate borrowers and to help ensure that borrowers understand the terms of their loans.

Households also express notable interest in SAMs. Among households expecting to buy a home within the next five years, 55 percent were at least "somewhat likely" to consider SAMs and 10 percent were "highly likely" to consider them. Notably, households expecting a future increase in earnings were especially interested in SAMs.

Is there a danger that SAMs would encourage the purchase of more-expensive homes?

One of the main objectives of SAMs is to increase affordability by replacing monthly payments on part of a mortgage with one future lump-sum payment. This deferral of payment might encourage people to purchase more-expensive homes than appropriate, given their incomes. However, the authors argue that SAMs are more likely to fill the gap in lending that will occur as lenders recoil from higher-risk mortgages. Without SAMs to increase affordability, the government would likely turn to subsidizing loans through public-private enterprises or by restarting the market in option ARMs that played a

role in the current crisis. The authors argue SAMs are the best alternative.

Could borrowers save too little and face problems when the single lump-sum payment is due?

SAM borrowers must pay off the entire principal plus any interest due on the loan in one lump-sum payment at termination. If borrowers have not saved enough throughout the life of the loan, they could face big problems. The authors point out, however, that termination can often be timed to coincide with the sale of the house, providing a ready pot of money for the borrower to use.

CONCLUSION

Caplin, Cunningham, Engler, and Pollock argue that SAMs offer the best of many worlds. Securitization and financial innovation in the past few decades increased affordability for households that would otherwise have had little hope of owning their own home. These developments also led to lending practices that contributed to the housing crisis when home prices stopped appreciating. Facilitating the development of SAMs, the authors argue, would expand homeownership and affordability with fewer risks. Sharing risk is good for borrowers, who find it easier to stay in their homes even in tough times, and for lenders, who are more likely to continue collecting payments during housing market declines. With its innovative features, the authors say, SAMs minimize the need for policymakers to choose between two important goals: stabilizing financial markets and opening the dream of homeownership to more Americans.

Learn More About This Proposal

This policy brief is based on The Hamilton Project discussion paper, *Facilitating Shared Appreciation Mortgages to Prevent Housing Crashes and Affordability Crises*, which was authored by:

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Additional Hamilton Project Proposals

An Opt-Out Home Mortgage System

Current regulatory responses to the mortgage crisis have important limitations. Disclosure requirements may overload consumers with too much information, while restrictions on specific products may diminish access to credit. This paper uses insights from the growing field of behavioral economics to craft a different approach to improving mortgage markets. The authors employ evidence on consumer bias toward the “default” or status quo to draw families toward financially sound mortgage options. Families would be offered simple mortgages unless they affirmatively opted out, in which case lenders would be required to thoroughly disclose the risks of more complicated alternative products and would face increased liability if borrowers defaulted.

Getting More from Low-Income Housing Assistance

The current system of federal housing aid is failing many low-income families, and has two major flaws. First, it relies excessively on expensive and restrictive unit-based housing assistance, in which participants must live in specially designated housing projects. Second, it is highly arbitrary, providing large subsidies to some families while excluding others. This paper proposes making housing assistance more efficient and equitable by turning it into an entitlement program and by transitioning to tenant-based assistance, in which families receive a voucher that they can apply to any housing unit meeting minimum standards. The author argues that these reforms would allow the government to serve at least one million more families, offer families more choice about where to live, and increase economic integration.

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The Project is named after Alexander Hamilton, the nation's first treasury secretary, who laid the foundation for the modern American economy. Consistent with the guiding principles of the Project, Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that "prudent aids and encouragements on the part of government" are necessary to enhance and guide market forces.

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