Reserve-fund mortgages: A possible way to reduce the volatility and safeguard housing markets

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An Experian white paper

Executive summary

This paper proposes a new type of mortgage product that could help to lower current risks of home-price bubbles in various strongly growing economies — and perhaps future risks in the United States and other countries as well.

In booming economies like Brazil, China, Singapore and Hong Kong, housing-market concerns are now very different from those in the United States and other nations still dealing with the fallouts of real-estate meltdowns.

Home prices have been rising sharply in the booming economies, raising fears in each of these countries of a real-estate bubble of their own. While various risk offsets exist, there is a strong incentive in each of these nations to continue to take protective measures now to avoid potential housing-bubble and burst scenarios like those experienced elsewhere. Such measures also are important for worldwide economic growth and stability, as they should help to keep the high-growth emergent economies (now with variously rising inflation and interest rates, stock market volatility and growth uncertainties) — and their imports and exports — more stable and strong.

In Singapore, for example, the Monetary Authority has imposed LTV limits that range from 80 for first-time homebuyers to 60 or less for different types of property investors. The Hong Kong Monetary Authority similarly has had a long tradition of LTV limit rules, and banks in Brazil limit borrowers to no higher than 80 LTV. In general, such policies have been effective in containing the real-estate fluctuation risks.

Limits on mortgage loan-to-values (LTVs), to lower future negative-equity default risks, have quite naturally been a first method deployed to contain emerging housing-market bubbles.

LTV limits, however, have a general problem in that they tend to "leak" for at least three reasons:

1 Both borrowers and creditors (formal or less formal) have proved to be industrious and inventive in finding ways around the limits. This has been seen in the experiences of the United States (with "piggyback second" mortgage loans) and in other nations. Particularly as home prices boom while strong demand for homes and financing remains, consumers and creditors tend to find ways to finance properties at true total LTVs that are significantly higher than the posted LTV "speed limits."
2 Moreover, commonly across nations, both social pressures from housing affordability concerns (particularly for lower-income borrowers) and lender competition create a general, almost inexorable tendency for LTV limits themselves to increase (one way or another) as home prices continue to climb.
3 Appraisal bias — with values inflated to justify "equity-based" lending — was one of the main weaknesses of U.S. subprime mortgage lending. In the early 1990s, a top U.S. bank nearly went under following a large mortgage program that would approve any loan — as long as the loan had a "75 LTV." The data later revealed a large spike in the number of purported "75 LTV" loans and a corresponding large default rate on those loans.

It is clear from historical experiences that when LTV "speed limits" are posted, the economic principals involved in the real-estate and mortgage transactions often will find ways to make it appear like they are operating within these limits when they really are exceeding them. In addition, while LTV limits lower future risk and current housing demand from low–down payment borrowers, they do not directly address property speculation in a boom. For these reasons, policymakers may find value in another idea to help protect against emerging housing-bubble risks.

The appraised values of homes tend to become biased upward, as do the irrationally exuberant home prices that some borrowers may be willing to pay during a real-estate boom.

Safeguard housing markets with reserve-fund mortgages

This is a proposed new mortgage product recently developed for a Brazilian real-estate audience and is called, a reserve-fund mortgage.

A reserve-fund mortgage takes half the appreciation when a borrower sells a house and puts these funds into a reserve fund administered by the borrower's selected financial institution, similar to a 401(k) savings plan in the United States. This fund cannot be pledged as collateral for a hidden second mortgage loan.

If the home seller then buys another home with a new mortgage, the reserve fund is pledged against the risk of home-price decline and borrower default on that new loan. In other words, while held in escrow, these funds are payable to the new mortgage lender in the event of borrower default, thus lowering the effective LTV of the new mortgage.

If the home seller never takes out another mortgage again or never defaults on a mortgage, the reserve fund operates like a 401(k) and is payable to the borrower, with accrued interest, upon retirement or under some forms of documented hardship.

Borrowers who sell more than one home with appreciation gains will build up an enlarged reserve fund, so some maximum percentage limit is needed for the amount of the reserve funds pledged against a new mortgage (for example, a maximum of 20 percent to 30 percent of the new mortgage, which effectively puts any new mortgage at an original LTV no lower than 70 to 80 based on the pledged reserve funds alone).

If a borrower defaults on a mortgage and the maximum reserve-fund payments to the mortgage lender kick in, any remaining balance left in the reserve fund still goes to the borrower upon retirement or documented hardship. [1]

Potential investment losses in a reserve fund, as in a 401(k), would be another issue. The reserve-fund requirements can place limits on the risk profile of the fund investments.

First-time homebuyers may establish a reserve fund for their first loan with savings; this reserve fund also cannot be used as collateral for a hidden second mortgage. For any borrowers who refinance their mortgage loan, the reserve-fund pledge moves to the new loan. To further inhibit property speculation, penalties on the nonreserved appreciation may be imposed on speculators, with these penalty fees going toward low-income down-payment assistance. Similarly, outlier-biased appraisals can be identified with statistical models, with penalty fees also ascribed there, to go toward a down-payment assistance fund.

[1] Permissible withdrawals under hardship can include the pending sale of a home with negative equity.

Benefits of reserve-fund mortgages around the globe

A mortgage-lending system that includes or even requires reserve-fund mortgages may help to:

- Cool down house-price inflation and lower incentives for housing speculation
- Contain the broader risks from the housing market at the emergence of a bubble by lowering mortgage default risk
- Resist competitive and social pressures to raise mortgage LTVs
  - Build on, or promote, traditional savings practices in homebuying
  - Promote housing affordability through less inflation rather than through higher LTVs
- Support or encourage higher savings rates for retirement and lower mortgage interest rates, with all else being constant

This type of product may be particularly well suited to Brazil, for example, where most real-estate funding still follows an earlier tradition of buying homes with cash savings. Lenders in Brazil formerly were unwilling to lend mortgages. Since collateralization was improved with legal changes in 2005, outstanding mortgages have boomed, but they are still only about 5 percent of Gross Domestic Product while now growing rapidly (this compares with about 20 percent in Chile and 100 percent in the United States, for example). Other nations similarly have relatively high savings-rate traditions that may be supported and institutionalized in protective real-estate equity through this proposed new mortgage product.

To inhibit property speculators, Singapore already imposes a tax on property sellers with limited holding periods, which they also have raised significantly and expanded. A reserve-fund mortgage approach also reduces potential immediate gains for speculators. However, instead of a tax, it escrows half of speculators' gains into a direct, institutionalized pledge of automatic lower LTVs for any future mortgage, with property sellers still having full appreciation gains available upon retirement, provided that they have no future mortgage default.

Penalties on the nonreserved appreciation half may therefore be appropriate for property speculators, with such penalty fees used for low-income down-payment assistance programs (short-holding exemptions might be allowed for borrowers forced to sell after a short period in order to relocate for job reasons, for example, while higher penalties might be imposed on speculators holding multiple mortgages).

In the same vein, outlier-biased appraisals also can incur penalty fees, which can likewise be directed to down-payment assistance for low-income homebuyers. Biased appraisals can be identified with statistical automated valuation models and models derived from recorded review appraisals versus original appraisals.

Similarities and differences with mortgage insurance

Reserve-fund mortgages bear a distinct similarity to mortgage-insurance systems. In Hong Kong, for example, since 1999 a mortgage-insurance program has helped to promote housing affordability by allowing LTVs up to 90 instead of the traditional 70 percent limit. The United States likewise has had a mortgage-insurance industry for many years, with this private mortgage insurance required on any Government Sponsored Enterprise (GSE)–insured (Fannie Mae or Freddie Mac) loan above 80 LTV. However, the severity of the housing downturn since 2007 has winnowed and weakened the traditional effectiveness of this industry insurance, with elevated counter-party risks and costs imposed from disputed loan-policy claims. The U.S. government also provides insurance, with very low or even zero down payments, on Federal Housing Administration or Veterans Administration loans.

Reserve-fund mortgages are unlike traditional mortgage insurance in that traditional insurance typically allows borrowers to pay relatively small monthly premiums (which they never get back) compared with an up-front prepaid-fund commitment of reserve-fund collateral. From this standpoint, emergent economies with strong traditions of high cash savings for homebuying and strong LTV restrictions may have an advantage in being able to more readily adopt reserve-fund mortgages.

Even in a country like the United States, with its strong developed availability of low down payments for housing affordability, reserve-fund mortgages could work for many borrowers (even for first-time homebuyers) by simply creating a reserve fund from a pledged part of the borrower's pre-existing 401(k) or Individual Retirement Account (IRA) savings. This would necessitate a modification of 401(k) and IRA rules.[2] Even vested future retirement pension values might potentially be used to some degree.

From the borrower's point of view, a reserve-fund mortgage is actually adaptable self-mortgage insurance — where the prepaid or designated-savings "premium," albeit sizable, is held in escrow, and fully returned to nondefaulting borrowers, with interest, upon retirement. From the mortgage investor's point of view, the insurance commitment of pledged retirement funds gives borrowers more long-run incentive to never default on any mortgage — which may be particularly effective in reducing the number of "strategic defaults" under negative equity. [3, 4]

[2] Existing U.S. tax rules penalize early withdrawals from retirement accounts, but limited borrowing or withdrawal of funds from 401(k) or IRA is allowed for home purchases. Rules would have to be modified to accommodate a mortgage reserve-fund pledge, which is not a withdrawal, but a pledge of collateral against mortgage default risk.

[3] Strategic defaulters are those who default on their mortgages due to negative equity even though they are fully capable of continuing to pay. Borrowers who suffer stress mortgage defaults, such as those stemming from job loss or uncovered medical bills, etc., can lose more — including part of their retirement savings — in a system of reserve-fund mortgages. However, social safety nets, job-loss insurance and other insurance coverage can address this. Moreover, since borrowers with negative equity can withdraw their reserve funds under documented hardship, they may be able to execute a deed-in-lieu with no recorded mortgage charge-off (the reserve fund being used to make the lender whole), thus preventing a drop in the borrower's credit score.

[4] Some borrowers with high sources of funds for a reserve fund may be tempted to substitute this collateral pledge for making a traditional down payment on a new home — if allowed to do so — even though this will force them into a corresponding higher mortgage amount and monthly payment. From a national-policy point of view, balancing these incentives and borrower responses, traditional and effective LTV limits with reserve-fund mortgages should be set low enough to still require some level of traditional down payments (e.g., an effective LTV of 70 would be achieved with a 20 percent reserve-fund pledge and a 10 percent down payment). More total savings is the goal. If made available as a loan-product option, relatively stronger borrowers with higher reserves may choose a reserve-fund mortgage product if the interest rate charged is lower due to the lower default risk, This would be similar to the 15-year fixed rate mortgage product, vs. the more common 30-year product, in the United States.

Adoption of reserve-fund mortgages may help to contain emerging house-price bubbles and establish more firm, low, true total LTVs less easily circumvented by borrowers, lenders, other agents and social pressures.

Conclusion

Low true total LTVs achieved this way can give the high-growth emergent economies (and perhaps the United States and other countries as well) a better "cushion" against any future downward home-price shocks, with resulting lower default risks and greater long-run stability. Another way to think of this is that reserve-fund mortgages can create an adaptable, naturally embedded, robust form of self-mortgage insurance (linked to retirement savings) with low administrative costs, which can further reduce mortgage default risk and attract more capital for mortgage financing.

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John Straka, Ph.D., has more than 25 years of risk-management experience, including mortgage risk modeling, credit policy, loss mitigation, risk analytics strategies, fraud analytics and mortgage investments.

As a consultant with Experian's Global Consulting Practice, Straka counsels mortgage-lending banks, government agencies, and other financial institutions of all sizes and capabilities on ways to mitigate risk, grow their business and increase returns. Offering a global perspective from the bottom up to produce an immediate positive impact for clients, Straka provides timely insights and ideas on industry trends. He leads projects to full completion to ensure that clients stay ahead and move forward with confidence in a rapidly changing business environment.

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