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Beyond the 30-Year Fixed-Rate Mortgage: A Plan for Reform

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With the U.S. housing market recovering from its historic crash, proposals for reform of the nation's housing finance system are moving ahead, albeit slowly. As the debate unfolds, it becomes clear that a great deal hinges on the future of the 30-year fixed-rate mortgage. Without continued significant government involvement in the mortgage market, it is highly unlikely that banks and other lenders will be able to offer this popular form of finance as they have historically.

Does this matter? Is the 30-year fixed-rate mortgage necessary for a healthy housing market? Would Americans miss it if it faded away? Examining the question from a variety of perspectives, we conclude that while the 30-year fixed-rate mortgage is a valuable financial tool for many households, preserving its dominant market share carries risks and requires costly trade-offs for borrowers, lenders, and the broader financial system.

That the fixed-rate mortgage has become a cornerstone of the U.S. housing market is largely an accident of history, but its clarity and simplicity in the eyes of borrowers make it an overwhelming favorite among American homebuyers, accounting for more than 90% of all new mortgage originations. With the amount of each monthly payment and the term fixed at origination, consumers can plan and budget their expenses effectively. The federal government's support of fixed-rate mortgages via subsidized loan rates also serves as a tacit endorsement. Finally, the popularity of fixed-rate loans has been self-reinforcing, as increased originations have improved liquidity and investor demand, thereby reducing costs.

Yet the fixed-rate loan is not without drawbacks. Its long duration combined with borrowers' ability to prepay without penalty raises the cost in ways that are not obvious to most consumers. Without government support, few private investors would be willing to bear the prepayment and credit risks inherent in long-term fixed-rate loans. As became painfully clear during the Great Recession, such government support can expose taxpayers to significant risk.

Even less obvious, but arguably more significant, are the ways fixed-rate mortgage loans complicate national monetary and fiscal policy. The very features that make fixed-rate loans attractive to borrowers can limit the transmission channels through which the Federal Reserve and Congress react to economic shocks, contributing to economic volatility and instability.

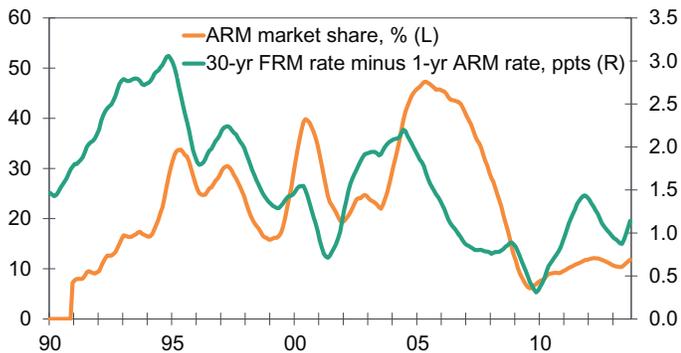
This analysis begins with a brief history of the fixed-rate mortgage in the U.S. Next we compare the U.S. mortgage market with those in other countries. We then compare the costs and benefits of fixed-rate mortgages to other types of home loans. We conclude with what it will take to reduce the 30-year fixed-rate mortgage's dominant role in the U.S., along with recommendations for housing finance reform.

The history of the fixed-rate mortgage

Although it seems fundamental to U.S. housing today, the fixed-rate mortgage is actually a relatively new lending instrument, which likely would not exist had earlier home-financing programs not failed so spectacularly during the Great Depression.

Prior to the 1930s, the typical home mortgage was a five- to 10-year, interest-only balloon loan. Borrowers made monthly fixed payments until it matured, then either refinanced or repaid the loan in full. Because the principal was not amortized over that time, if the borrower was unable to refinance the risk

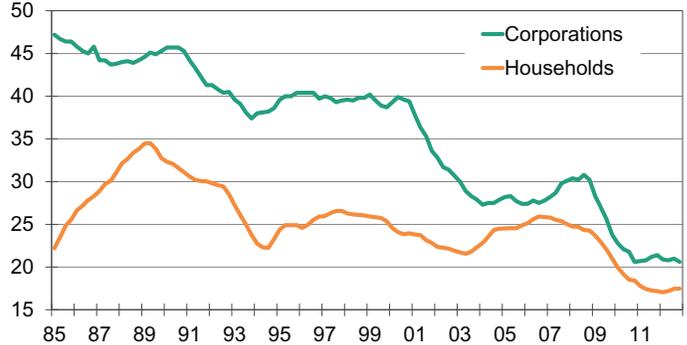
ARM Market Share Tracks Interest Rate Spreads



Sources: Freddie Mac, Mortgage Bankers Association, Moody's Analytics
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Businesses, Households Have Locked In Rates

% of liabilities that adjust within 1 yr



Sources: Federal Reserve, BEA, Moody's Analytics

of default was relatively high. To lower such risk, lenders would typically require down payments in excess of 25%.

The system worked well, until it did not. When credit dried up during the Depression, millions of borrowers were unable to refinance, and many lost their homes to foreclosure even though they had sufficient income to continue monthly interest payments.

To address this market failure, President Franklin Roosevelt and Congress created the Federal Housing Administration in 1934. The FHA created and promoted a type of long-term mortgage with features that distinguished it markedly from those in the private market and foreshadowed the fixed-rate mortgages of today. Among these:

- » Loans had a maximum term of 20 years and were fully amortizing (that is, not balloon mortgages).
- » Interest rates were set by the government, originally at 5.5%.
- » Minimum down payments of 20% of the property value were required.
- » Qualifying mortgages were limited to \$16,000 initially.
- » Mortgages were assumable, meaning that they could be transferred with the sale of a property.
- » Loans carried no prepayment penalties, so borrowers could pay them off ahead of schedule.

For borrowers, these were much more favorable terms than those available prior to the Depression. Thus, fixed-rate mortgages spread quickly, receiving an addi-

tional boost when the Veterans Administration offered them with even more generous terms to servicemen returning from World War II.

Further government help ensured that this kind of mortgage credit flowed freely through the expanding U.S. economy. Fannie Mae was created in part to purchase loans that conformed to the FHA requirements from banks, enabling them to lend unimpeded by the size of their own balance sheets. Freddie Mac was launched to compete with Fannie Mae and to serve savings and loan institutions specifically.

There were other snags. The prepayment option demanded by the FHA exposed lenders to the risk that their capital could be returned in a time when rates were falling, reducing the flow of interest payments and forcing lenders to reinvest capital at lower rates of return. The development of agency mortgage-backed securities mitigated this risk and increased liquidity by encouraging a wider range of investors to participate in the industry.

Adjustable-rate mortgages were introduced in the 1960s but did not take off until banks were allowed to provide them under the Garn-St. Germain Depository Institutions Act of 1982. ARMs grew in popularity during the 1980s after fixed-interest rates had soared into the high double digits. Borrowers could lower their monthly payments by taking out ARMs and hoping rates would fall, which they did.

ARMs were also attractive to banks and thrifts, permitting them to better match assets with liabilities. The inability to do this

sooner was partly the reason for the savings-and-loan crisis of the 1980s.

Since then, the proportion of ARMs in the U.S. housing market has fluctuated widely. While averaging around 20% of the market for most of the last two decades, the ARM market share soared above 40% before each of the last two recessions. This appears to have been caused by aggressive credit extension to unqualified borrowers rather than by a rational response to a high interest-rate spread. In the 2000-2001 episode, the rate differential was near its historic low, favoring fixed-rate originations. The spread was relatively high in 2005, justifying increased ARM activity, but fell rapidly through 2008 while the ARM share remained high.

Federal policy continues to encourage the use of fixed-rate loans. The 2009 Dodd-Frank financial reform favors them in its definition of a "qualified mortgage" in setting out rules for lender liability. Long historical precedent, moreover, treats fixed-rate mortgages as plain-vanilla loans for which lenders are unlikely to be successfully sued.

At the same time, the Federal Reserve's efforts to keep interest rates exceptionally low have encouraged millions of borrowers to lock in long-term interest rates, which will insulate them when rates rise in coming years. Increased refinancing activity allowed households to hang on to more of their income rather than spending it on debt service, thereby supporting additional spending and the broader recovery as a consequence.

Table 1: Distribution of Mortgage Products Internationally

| | Adjustable-Rate | Short 1-5 yrs | Fixed-Rate Medium 5-10 yrs | Long More than 10 yrs |
|-------------|-----------------|------------------|----------------------------------|--------------------------|
| Australia | 92% | 8% | | |
| Canada | 35% | | 55% | 10% |
| Denmark | | 17% | 40% | 43% |
| France | 33% | | | 67% |
| Germany | 16% | 17% | 38% | 29% |
| Ireland | 91% | | 9% | |
| Japan | 38% | 20% | 20% | 22% |
| Korea | 92% | | 6% | 2% |
| Netherlands | | 15% | 66% | 19% |
| Spain | 91% | 8% | | 1% |
| Switzerland | 2% | | 98% | |
| U.K. | 47% | 53% | | |
| U.S. | 5% | | | 95% |

Source: Michael Lea, “International Comparison of Mortgage Product Offerings,” *Research Institute for Housing America Special Report*, 2010.

International evidence

It is important to realize that the 30-year fixed-rate mortgage is almost exclusively an American phenomenon. Despite its popularity in the U.S., few other governments have taken steps to encourage similar forms of financing. Only in Denmark is a long-term, fixed-rate mortgage that is prepayable without penalty offered, and such loans have less than half the market share they enjoy in the U.S. (see Table 1). Fixed-rate mortgages are available in France, Germany and Japan, but with shorter terms than in the U.S. and with prepayment penalties.

At the other extreme, adjustable-rate loans make up more than 90% of the mortgage markets of Australia, Ireland, Korea and Spain. Although several countries have experienced housing booms and busts, it is difficult to assign direct causality between the mix of mortgage products and the degree of housing market stability. Rather, the data seem to suggest that borrowers can adapt to whatever mortgage instrument is available. The dominance of fixed-rate mortgages in the U.S. appears to have more to do with history and government policy than with the existence of some natural equilibrium.

International data also show that most countries provide a fairly robust mix of

short- and longer-term adjustable and fixed-rate mortgages. Such a mix would be expected, given demographics and changing risk tolerances across the lifecycle of households. Some will accept the volatility that comes with adjustable-rate mortgages in return for lower interest rates, while others such as those with stable incomes from government employment or pensions may be better off with more predictable fixed-rate mortgages.

Another difference between the U.S. and other mortgage markets is the use of prepayment penalties. Though U.S. consumer advocates have championed the ability to pay off a mortgage at any time, lenders in nearly all other countries impose some type of prepayment penalty. The size varies from modest to large, but outside the U.S., only in Denmark and Japan are borrowers allowed to prepay without penalty.

If designed poorly, prepayment penalties can have several unwanted side effects. For example, they can inhibit labor mobility if imposed on borrowers who want to relocate. For this reason, countries such as Germany and Canada allow specific exceptions for these situations.

During the U.S. housing boom, sub-prime mortgages were typically offered with prepayment penalties, allegedly to

provide borrowers with lower rates. The problem with this practice was not so much the penalty itself but the failure to disclose it properly or to provide borrowers with a clear option to either accept or reject it. If borrowers—including prime borrowers—were offered the chance to reduce their interest rates by 50 or 100 basis points in return for agreeing not to prepay their mortgages for at least three years, they could make rational decisions based on individual circumstances. Yet in response to the past failure of lenders to clearly disclose such options, the Dodd-Frank financial reform act outlawed prepayment penalties across the board.

International experience suggests that the U.S. housing finance system could remain healthy without the 30-year fixed-rate mortgage, although the size of the entire market would be reduced for some time as lenders and borrowers adjusted to this new system. The experience of Canada and Western Europe suggests that fixed-rate mortgages would not disappear without government support, although the 30-year term might. Fixed-rate mortgages would still likely be offered at terms of five, 10 or 20 years. The share of the market taken by fixed-rate loans would fall substantially, as lenders emphasize adjustable rates to minimize their own interest-rate risk and better match funding with short-term deposits. The reduced access to credit and the transfer of interest-rate risk to borrowers would have consequences, but houses would still be bought and sold, and lenders would continue to write mortgages.

Borrower costs and benefits

A key argument for fixed-rate loans is the protection they offer from interest-rate fluctuations. Risk in mortgage-backed securities is transferred from borrowers to investors, who are better able to manage the risk by pooling it across loans and sharing it with other investors. But this protection comes at a cost to borrowers. A typical lender’s rate sheet indicates that borrowers pay as much as 1.5 percentage points more for the benefit of locking in rates for 30 years, compared

Table 2: Interest Rate and Monthly Payment Calculations Across Mortgage Products

| Product | | Initial Interest Rate | Initial Monthly Payment | Flat-Rate Scenario Through 7 Yrs | | Worst-Case* Scenario Through 7 Yrs | |
|---------|-----|-----------------------|-------------------------|----------------------------------|------------------|------------------------------------|------------------|
| | | | | Cumulative finance charges | △ from 30-yr FRM | Cumulative finance charges | △ from 30-yr FRM |
| 30-yr | FRM | 4.55% | \$999 | \$58,882 | \$0 | \$58,882 | \$0 |
| 20-yr | FRM | 4.44% | \$1,238 | \$53,798 | (\$5,084) | \$53,798 | (\$5,084) |
| 15-yr | FRM | 3.62% | \$1,418 | \$40,366 | (\$18,516) | \$40,366 | (\$18,516) |
| 10-yr | FRM | 3.46% | \$1,954 | \$32,550 | (\$26,332) | \$32,550 | (\$26,332) |
| 10/1 | ARM | 4.08% | \$1,013 | \$52,559 | (\$6,323) | \$52,559 | (\$6,323) |
| 7/1 | ARM | 3.69% | \$940 | \$47,344 | (\$11,538) | \$47,344 | (\$11,538) |
| 5/1 | ARM | 3.33% | \$940 | \$42,559 | (\$16,323) | \$62,149 | \$3,267 |
| 3/1 | ARM | 3.25% | \$870 | \$41,499 | (\$17,383) | \$80,778 | \$21,896 |
| 1-yr | ARM | 3.00% | \$843 | \$38,198 | (\$20,684) | \$97,106 | \$38,224 |

Sources: Bankrate.com, assuming \$200,000 loan with 20% down, 800 credit score, Moody's Analytics

*Worst-case finance charge calculation assumes rates jump by 5% at time of first reset for all ARMs (with 5/2/5 cap)

with the rate on a one-year adjustable loan (see Table 2). For a \$200,000 mortgage, this equals \$156 per month, a nontrivial amount for most borrowers.

Considering that the typical mortgage remains in effect on average between seven and 10 years, borrowers may have an irrational fear of the risk they could potentially face from adjustable rates. To combat these fears, lenders have developed hybrid ARM products with longer fixed-rate periods and interest rate caps. For example, a borrower today could opt for a 7/1 ARM, which allows a fixed monthly payment for the first seven years. After that, rates and payments adjust once a year. Interest-rate cap structures are quoted with three numbers: an initial rate cap, a subsequent cap, and the lifetime cap.

For example, a 2/2/5 structure would allow the interest rate to rise by at most 2 percentage points after five years and by 2 percentage points each year after that until reaching a maximum of 5%. A 7/1 hybrid ARM with such a cap feature, if originated today with a starting interest rate of 3.5%, could reach a maximum rate of 5.5% after seven years, but would never exceed 8.5%.

Under a worst-case scenario of rapidly rising interest rates, a borrower would be better off with a 7/1 structure until year eight. If the borrower were to continue paying off the loan for its full 30-year term, finance charges would total more than twice as much as on a fixed-rate loan.

This would naturally frighten most borrowers. Yet if history is a guide, the rise in

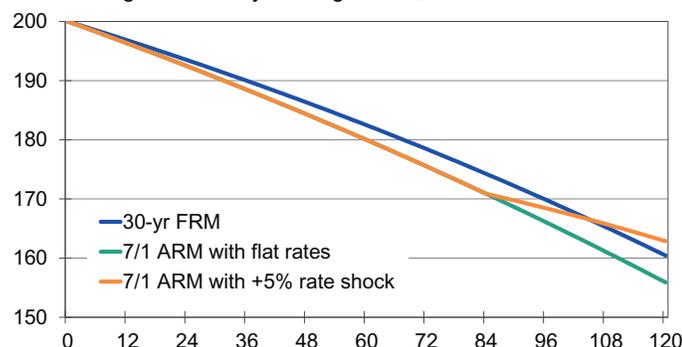
interest rates would more than likely be associated with an accelerating or growing economy. Rising wages and house prices would offset some of the extra cost brought by rising rates and would allow a disciplined borrower to accelerate payments.

Borrowers in other countries typically manage fluctuations in interest rates quite successfully. U.S. borrowers could learn to do so as well, given enough time and education and with sufficient safeguards—such as interest rate caps—to deal with risks beyond their control.

Unfortunately, the mortgage lending industry did itself no favors during the housing boom by pushing millions of borrowers toward products with negative amortization, interest-only periods,

Hybrid ARMs Offer a Better Deal for Borrowers...

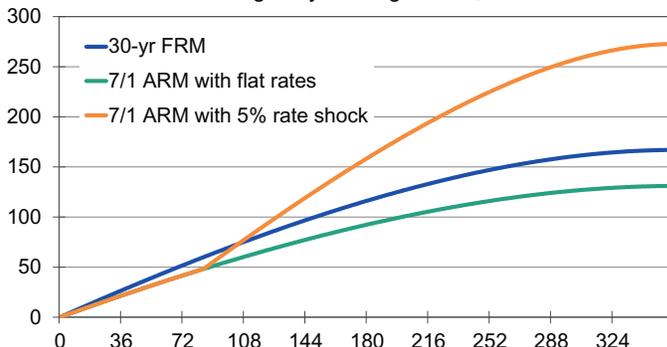
Outstanding balances by loan age in mo, \$ ths



Source: Moody's Analytics

...As Long as They Know Their Housing Tenure

Cumulative finance charges by loan age in mo, \$ ths



Source: Moody's Analytics

and interest-rate floors, all in an effort to secure the lowest possible initial monthly payment. Although some of the more exotic ARM features might have been useful for sophisticated borrowers able to manage volatile payments, for most they were simply not appropriate. Without amortization, borrowers fail to build equity, exposing them to any weakness in the housing market. Interest-rate floors prevent borrowers from taking advantage of falling interest rates during times of economic weakness, precisely when lower payments would be beneficial. Such arrangements essentially leave borrowers with all the downside risk and none of the upside. Their inevitable failures to meet payment schedules tarnished the image of adjustable-rate mortgages severely, to the point where many prospective borrowers who could benefit from a properly underwritten ARM loan will not even consider one.

The price of prepayment

Yet fixed-rate loans carry hidden costs as well. For example, most fixed-rate mortgages in the U.S. allow borrowers to pay off the loan at any time without penalty—a popular option that allows borrowers to lock in the benefits when interest rates fall. Lenders charge higher rates in exchange, because they have to assume that most borrowers will exercise the prepay option and refinance as soon as it makes economic sense. Typically a half-point drop in rates is all that is required.

Moreover, a mortgage prepayment option may sound inherently consumer-friendly, but the benefits may not be distributed equitably. That is, all borrowers end up paying for the option through higher interest rates, but only a relatively small number may actually exercise the option. Others may not expect to stay in the house long enough to make refinancing cost-effective, or their credit may be too impaired to secure a replacement loan. Such situations are more common during periods of stress; the same weak economy that prompts the Federal Reserve to cut interest rates will stress homeowner bal-

ance sheets. And, as the Great Recession demonstrated, a sharp decline in house prices can wipe out homeowners' equity, making it difficult or impossible even for borrowers with good credit and stable incomes to refinance into lower rate loans. The U.S. government's Home Affordable Refinance Program was designed specifically to address this issue, although it did so imperfectly.

In this way, the prepay option in fixed-rate mortgages can serve to exacerbate rather than alleviate economic stress. If more borrowers had had adjustable-rate mortgages during the Great Recession, they could have taken advantage of lower rates automatically, regardless of their credit or equity positions. If interest payments had fallen on the \$10 trillion in outstanding U.S. mortgage debt by just 1 percentage point, consumers would have unlocked an additional \$100 billion per year during the recession, at the time when the economy was in serious need of additional spending. This would have represented a type of economic stimulus that did not require congressional approval or additional paperwork and which would have directly benefited financially strapped, underwater homeowners, precisely the group in greatest need.

As counterintuitive as it may sound, prepayment penalties could make the mortgage finance system fairer than it currently is. As long as penalties are fully disclosed and easily understood, borrowers who want to prepay their mortgages to take advantage of lower rates would have to pay lenders an extra premium up front to make up for some of the lost interest. Under the current system, lower-income borrowers, who are more prone to having impaired credit, end up subsidizing more affluent borrowers who are able to take advantage of refinancing. As with caps on adjustable-rate mortgages, moreover, safeguards can be put in place to protect consumers while still allowing borrowers to make reasonable choices. Borrowers selling their homes to move could be permitted to prepay their mort-

gages without penalty, and prepayment penalties could be stepped down over time. For example, borrowers who prepay for financial reasons might be charged 3% during the first year of a loan, 2% during the second year, 1% during the third, and no penalty thereafter. Mortgage lenders might be willing to offer such terms to reduce their risk exposures.

As an additional benefit, prepayment penalties could also keep mortgage refinancing from occurring in waves, as it often does now, making the home financing system more stable and manageable. Refinancing waves are difficult for mortgage originators to manage from a staffing perspective and ultimately add to borrower costs. Lenders are reluctant to train and hire thousands of mortgage processors when rates are low and mortgage applications are high, only to lay many of them off within a few months after the refinance wave subsides. This volatility contributes to the boom-bust cycle of mortgage lending as brokers seek to maximize profits during good times—even at the expense of prudent underwriting.

Fixed-rate mortgages do offer borrowers a hedge against inflation, lowering their house payments in real terms over time. But this benefit, too, is not without cost. Investors in mortgages need to hedge against the possibility that their future income will be eroded by inflation, as happened to hundreds of lending institutions during the 1970s and 1980s. Ultimately, borrowers pay for the inflation protection built into their mortgages, either through higher interest rates (if institutions properly manage the risk) or through taxpayer bailouts (if, like the saving and loans, they do not). Forgotten in the current debate on government-sponsored enterprise reform is the fact that Fannie Mae and Freddie Mac incurred hundreds of millions of dollars in losses during the early 1980s from their own inability to hedge against rising rates. This spurred the expansion of the agency mortgage-backed securities market as the institutions attempted to shed the interest-rate risk exposure, giving it to a

Mortgage Originators Benefited From Fed Actions

30-yr FRM commitment rate minus 10-yr treasury rate, %



Sources: Freddie Mac, Treasury Dept., Moody's Analytics

broader pool of investors who were better able to manage it.

Monetary policy and fixed-rate mortgage

In a 2004 speech to credit unions, former Federal Reserve Chairman Alan Greenspan noted that the option-adjusted spread on fixed-rate mortgages may cost the typical homeowner 0.5 to 1.2 percentage points in annual interest payments. Thus he concluded, "American consumers might benefit if lenders provided greater mortgage product alternatives to the traditional fixed-rate mortgage."¹ Although Greenspan's remarks were framed as a way of helping to strengthen household balance sheets, he might just as well have prescribed a shift in mortgage products as a way to make monetary policy more effective.

Fixed-rate mortgages and other long-dated financial instruments can complicate or limit the Federal Reserve's options. The central bank's most powerful weapon, the overnight lending rate that drives the prime rate and other short-term instruments, has a relatively minor effect on these long-term loans. This is partly why the Fed had to resort to quantitative easing and Operation Twist in the wake of the Great Recession to lower longer-term mortgage rates. How much easier would life be for the Fed if it could move nearly all the economy's major in-

terest rates with a single switch, rather than having to jump through many hoops to affect fixed-mortgage rates? Such control would also mitigate the need to expand the Fed's balance sheet by purchasing mortgage-backed securities and could reduce

the risks associated with unwinding these long positions.

As it happened, Greenspan's speech preceded a rapid expansion of adjustable-rate lending, but was not likely the cause of it. The ARMs originated during the housing boom were of the very worst variety: interest-only and negative-amortization loans for poorly qualified "alt-A" and sub-prime borrowers seeking the lowest possible monthly payment. If, instead, millions of prime borrowers had switched out of 30-year mortgages and into five- or seven-year ARMs, Ben Bernanke, Greenspan's successor at the Fed, would presumably have had a much easier time managing monetary policy through the crisis. Millions of consumers would have been able to unlock billions of dollars in interest savings, money that could have been used to alleviate some of the economy's stress.

Instead, Congress and the Federal Housing Finance Agency had to intervene aggressively in the mortgage market, initiating HARP to enable underwater homeowners to benefit from record-low interest rates. The program took months to implement and yielded suboptimal results, mainly because of documentation bottlenecks. Today, negative equity continues to bar millions of homeowners from taking advantage of low rates. The Fed has had to accelerate purchases of agency MBS in a crude attempt to bring rates down, hoping the benefits will be passed on to refinancing homeowners. Yet much of the benefit has been cap-

tured by mortgage originators, who have raised rates to keep the flow of loan applications manageable for their staffs and systems. Though the Fed's aggressive MBS purchases may have helped shore up the banking system, they have not done as much for borrowers as the central bank intended.

Policy recommendations

The 30-year fixed-rate mortgage remains standard for most U.S. homebuyers, because of its simplicity, long history and government backing. A large majority of borrowers choose it even when other products make more financial sense. Some of this is due to mere inertia: Stories of grandparents or great-grandparents who lost homes during the Great Depression continue to influence households, making consumers suspicious about any financial product marketed as new or innovative. Breaking from this tradition may be difficult, especially after the recent financial crisis.

To be sure, the fixed-rate mortgage is well-suited for borrowers with stable incomes who plan to stay in their homes for decades. Civil servants, postal employees, and other workers who tend to have long job tenures with little fluctuation in earnings may be making the right choice when they opt for a 30-year fixed-rate loan. Yet even for these households, and for many more, such a long-term instrument may not be ideal, given that the odds show most will move after five or 10 years as family circumstances change.

It might be argued that an extra 1 or 2 percentage points of interest for a 30-year fixed-rate mortgage is money well spent for peace of mind, but that overlooks the broader societal price of such arrangements. The extra cost of fixed-rate mortgages is economically inefficient and allocates capital away from more productive endeavors. For many households, the extra \$100 or \$200 they could save each month would go a long way toward building a more secure retirement. As it is, the National Institute on Retirement Security reports that the median savings for a household 10 years away from retirement is a mere \$12,000.

¹ <http://www.federalreserve.gov/boarddocs/speeches/2004/20040223/default.htm>

Table 3: Options and Features of 5/1 Adjustable-Rate Mortgage

| | |
|---------------------------------------|-------------|
| Loan start date: | Jan 1, 2014 |
| Loan amount: | \$200,000 |
| Fixed-rate period: | 60 mo |
| Fixed interest rate: | 3% |
| Fixed monthly payment: | \$843.21 |
| Date of first rate adjustment: | Jan 1, 2019 |
| Maximum interest rate at this date: | 8% |
| Maximum monthly payment at this date: | \$1,372.39 |

| Features | This option may be a good fit if: |
|---|--|
| <ul style="list-style-type: none"> The interest rate and monthly payment is fixed for the initial loan term (five years). When the fixed-rate period ends and the loan begins to adjust, your payments will reflect the current rates, which might be lower or higher. ARMs have limits (caps) as to how much the rate can change in the variable period: Cannot go up or down more than 5% in the first year the rate adjusts, more than 2% each subsequent year, and cannot go up or down more than 5% over the life of the loan. 5/1 ARMs are amortized over 30 years. No prepayment penalties. | <ul style="list-style-type: none"> Like most Americans, you do not plan on staying in your home for more than five years. You want to pay less interest and pay off your mortgage faster. You want to build more equity by making additional principal payments using the money you can save from having a lower interest rate. |

Sources: CapitalOne360.com, Moody's Analytics

Beyond that, it simply makes sense that in a country as diverse as the U.S., no one mortgage product should dominate the market to the extent that the fixed-rate loan does today. Trends in U.S. household mobility further suggest that most borrowers would be better off with shorter-duration mortgages.

Yet making the transition to a more diverse mortgage market will take years, if not decades. Of primary importance is ensuring that borrowers are able to manage the risks of adjustable-rate mortgages in order to reap the benefits. This will require a cultural shift, and evidence from other countries shows it can be done.

The first and most powerful step will be to change the default options presented to borrowers when they shop for mortgages. Rather than displaying 30-year fixed rates at the top of the list, brokers should show borrowers rates for 5/1, 7/1 and 10/1 ARMs. Their rates and rate caps could be clearly disclosed, along with a table describing the advantages of each. A suggested example is in Table 3.

Borrowers could still obtain information on fixed-rate mortgages on request, but such rate quotes would come with their own set of disclosures emphasizing the hidden costs, as in Table 4. Studies from behavioral economics find that too much choice can overwhelm and confuse consumers. Further, rather than allow borrowers and lenders to customize products along multiple dimensions, product options should be limited to a few. A simple table describing the costs, savings and risks of 5/1, 7/1 and 10/1 ARMs as well as 15- and 30-year fixed-rate mortgages would provide a sufficient range of choices.

To further promote hybrid mortgages, the GSEs should charge lenders more to insure fixed-rate loans than hybrid adjustable-rate mortgages with similar credit characteristics. An interest-rate differential of as little as 25 or 50 basis points would encourage borrowers to consider hybrid ARMs. Not only would this achieve a public policy goal, but also a shift in market share toward ARMs would make bank lend-

ers more competitive with the GSEs. This in turn would attract more private capital to the housing finance system, one of the stated goals of mortgage market reform.

Even if all the recommendations above are implemented, the transition would be lengthy. Tradition and familiarity will ensure that peers, relatives, Realtors and loan brokers continue to steer homebuyers toward long-term fixed-rate mortgages. The inherent uncertainty of adjustable rates may continue to have a bad psychological connotation for years because of the most recent housing meltdown. Younger buyers in particular may be especially risk-averse, given their own experiences with the housing market. Finally, it may be difficult to muster the political will to change the system. Like the elder statesman who has served honorably for decades, however, it is time for the fixed-rate mortgage to retire and pass the baton to a younger, more flexible loan product that is better suited for today's economy.

Table 4: Options and Features of Fixed-Rate Mortgages

| | |
|------------------------|-------------|
| Loan start date: | Jan 1, 2014 |
| Loan amount: | \$200,000 |
| Fixed-rate period: | 360 mo |
| Fixed interest rate: | 4% |
| Fixed monthly payment: | \$954.83 |

| Features | This option may be a good fit if: |
|--|---|
| <ul style="list-style-type: none">• Interest rate and monthly payments are fixed for the life of the loan.• Thirty-year term is amortized over 30 years.• No prepayment penalties. | <ul style="list-style-type: none">• You want the security and peace of mind of a guaranteed fixed rate that will not change for 30 years in exchange for paying a higher interest rate.• You want your monthly payments to remain the same for the life of the loan.• You plan on keeping your mortgage for an extended period of time. |

Sources: CapitalOne360.com, Moody's Analytics

About the Author

Cristian deRitis

Cristian deRitis is a director in the Credit Analytics group at Moody's Analytics, where he develops probability of default, loss given default, and loss forecasting models for firms and industries; contributes to forecasts and analysis for CreditForecast.com; and writes periodic summaries of the consumer credit industry. His commentary on housing and mortgage markets, securitization, and financial regulatory reform often appears on the Dismal Scientist web site and in the Regional Financial Review.

Dr. deRitis' recent consulting work has included an evaluation of the efficacy and cost of the federal government's Home Affordable Modification Plan, and he is frequently consulted on credit risk modeling and measurement as well as housing policy. He helped develop the company's models to forecast the Case-Shiller and FHFA metropolitan house price indexes and is a regular contributor to the firm's Housing Market Monitor. Dr. deRitis also gives frequent presentations and interviews on the state of the U.S. housing, mortgage and credit markets.

In his previous work at Fannie Mae, Dr. deRitis supervised a team of economists who developed models of borrower default and prepayment behavior. He has published research on consumer credit and credit modeling as well as on the costs and benefits of community mediation. He received a PhD in economics from Johns Hopkins University, where he focused on the impact of technology on labor markets and income inequality. His bachelor's degree in economics is from the Honors College at Michigan State University.

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Economic & Consumer Credit Analytics

Moody's Analytics helps capital markets and credit risk management professionals worldwide respond to an evolving marketplace with confidence. Through its team of economists, Moody's Analytics is a leading independent provider of data, analysis, modeling and forecasts on national and regional economies, financial markets, and credit risk.

Moody's Analytics tracks and analyzes trends in consumer credit and spending, output and income, mortgage activity, population, central bank behavior, and prices. Our customized models, concise and timely reports, and one of the largest assembled financial, economic and demographic databases support firms and policymakers in strategic planning, product and sales forecasting, credit risk and sensitivity management, and investment research. Our customers include multinational corporations, governments at all levels, central banks and financial regulators, retailers, mutual funds, financial institutions, utilities, residential and commercial real estate firms, insurance companies, and professional investors.

Our web periodicals and special publications cover every U.S. state and metropolitan area; countries throughout Europe, Asia and the Americas; the world's major cities; and the U.S. housing market and other industries. From our offices in the U.S., the United Kingdom, the Czech Republic and Australia, we provide up-to-the-minute reporting and analysis on the world's major economies.

Moody's Analytics added Economy.com to its portfolio in 2005. Now called Economic & Consumer Credit Analytics, this arm is based in West Chester PA, a suburb of Philadelphia, with offices in London, Prague and Sydney. More information is available at www.economy.com.

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