



BRED Mortgage - More Money in your Pocket

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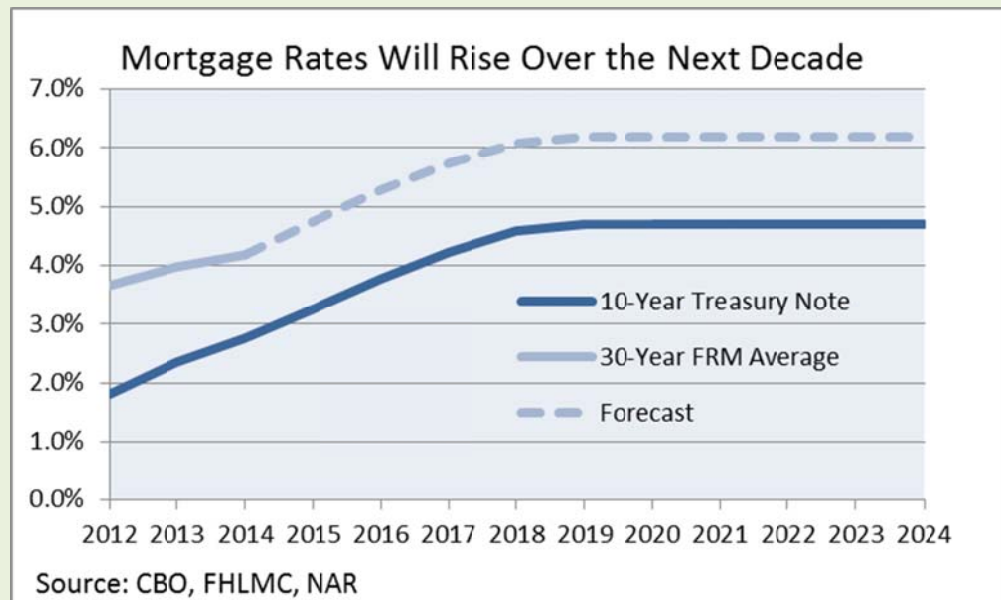
BRED Mortgage – More Money in Your Pocket

One of the important lessons learned in the great recession is that homeowners would benefit from the ability to build equity in their home faster. Equity helps a borrower to refinance during an economic crisis, to save for a trade-up purchase, to access a business loan, and to shape one's retirement. Furthermore, the market will experience changes in the near future that suggest a need for improved equity growth. Balancing the need for more equity with other consumer priorities like affordability is key. *This piece is intended to raise a discussion about looming changes in the market, the need for financial innovation in products and institutions, and one potential solution, but it is not an official NAR position or endorsement.*¹

Lessons Learned and Potential Challenges

A homeowner derives three types of equity from their home: the down payment, price appreciation, and principle payments. The homeowner has total control over the down payment, but it does not grow over time. Price appreciation is less certain, but principle payments are built into the structure of the mortgage and they are the focus of this concept.

Mortgage rates are expected to rise over the next decade² and rising mortgage rates can make it even more difficult to build equity as they cut into affordability, slowing housing demand and price growth. In addition, as affordability wanes some buyers will migrate to adjustable rate mortgage (ARM) products that have lower introductory fixed-rates and payments in order to purchase a home. These buyers often chose ARMs with the intent to refinance their mortgage before the rate resets following the fixed-rate period.



With these concepts in mind, the housing market would benefit from innovations geared toward building equity, even in a rising rate environment.

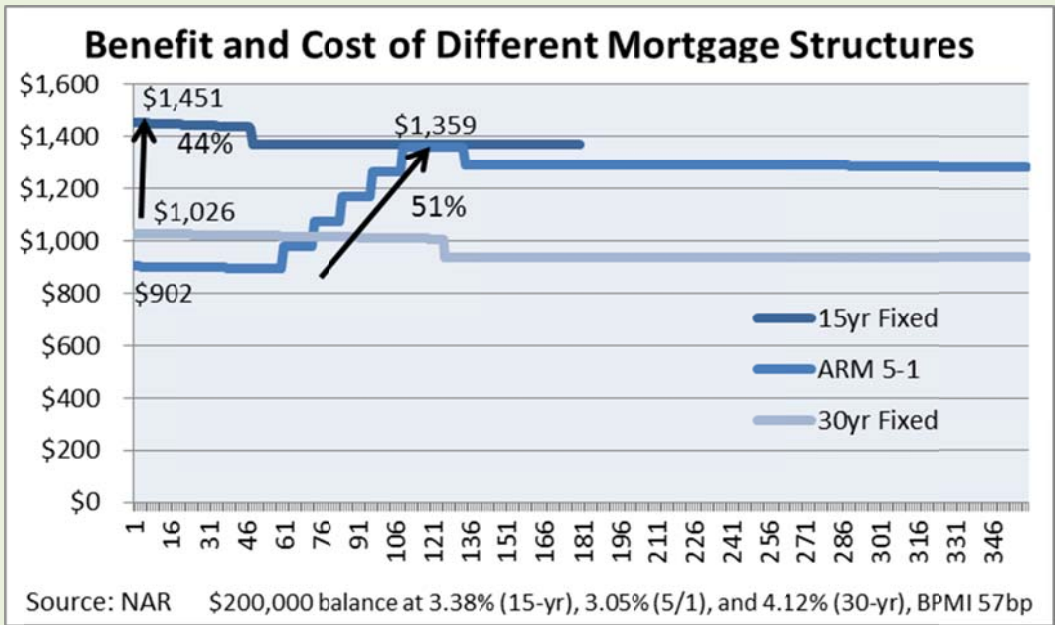
30-year FRM: A Popular Product

The dominant mortgage form in the United States is the 30 year fixed rate mortgage (FRM). Its popularity among consumers is well merited as the long 30-year amortization period stretches out the total payments making monthly payments among the lowest of all conventional products. In addition, the relatively low monthly payments are fixed for the life of the loan allowing the homeowner to budget effectively. Finally, the sheer size of the market and government support allow for liquidity and pricing advantages.

¹ A broader discussion of the BRED, other alternative mortgage products for a rising rate environment, and risks of this structure were shared during a presentation for Realtor University on September, 9th 2015

² This forecast is not official, but for illustration and generated by adding the historical spread between the 10-year Treasury and the average 30-year FRM to the CBO's forecast for the 10-year Treasury: <https://www.cbo.gov/publication/45066>

There are draw backs to the 30-year FRM, though. Because of the long 30-year amortization, the owner accrues equity slowly. Without sufficient equity a consumer could find it difficult to refinance a home, to sell a home without incurring a negative credit event, or to finance the purchase of a trade-up home.



Likewise, the other two popular conventional mortgage products, the 5/1 ARM and the 15-year FRM have benefits and drawbacks. The 15-year FRM builds equity rapidly and is paid off in 15 years, but the monthly payment is much higher than the 30-year FRM. Conversely, the 5/1 ARM has the lowest introductory payment, but after 5 years, the payments change

annually based on the prevailing interest rate with a possible increase in payment of 51%³ over the initial payment.

Each of these mortgage products can be financed through the government sponsored enterprises (GSEs), the Federal Housing Administration (FHA), as well as the private sector and have considerable pooling and pricing benefits as a result. The limited number of conventional products creates efficiencies and pricing benefits from large volumes of homogeneous mortgage product.

The challenge, then, is to create a product that retains the benefits of the 30-year FRM, low and stable monthly payments, while building equity, that has broad access for consumers over the housing cycle, and that leverages current efficiencies in the robust secondary mortgage market.

BRED: How it Works

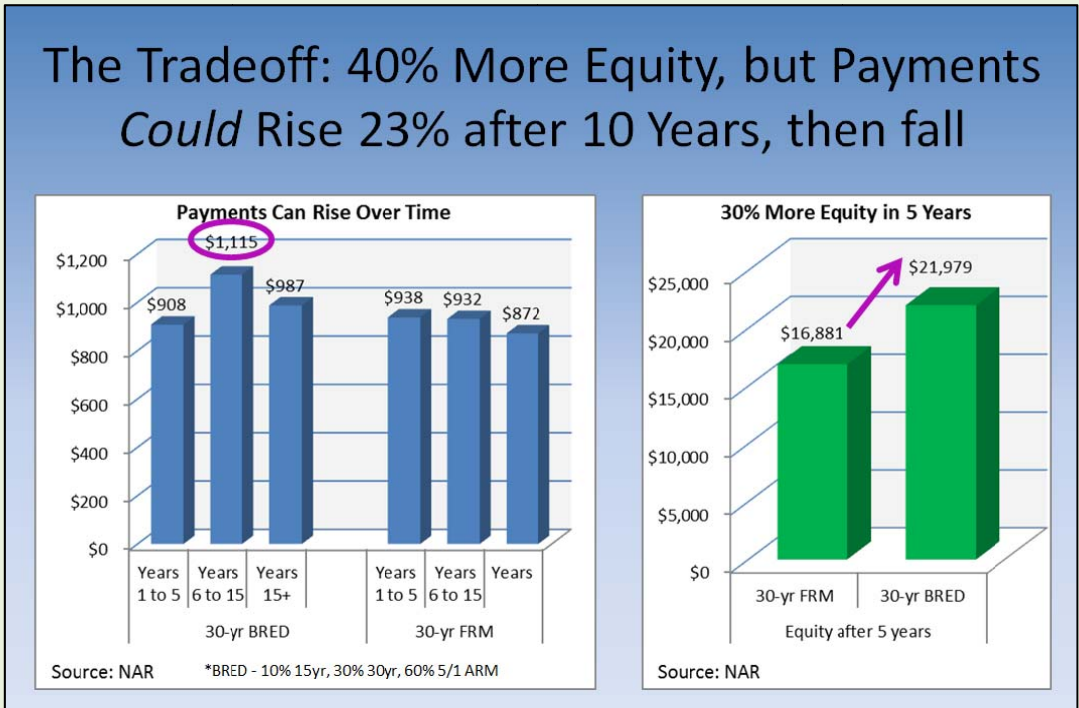
The method proposed here is to blend several common mortgage structures into one, taking the advantages of each, while minimizing the downside of each. This mixed rate mortgage or blended rate equity driver (BRED) combines the most dominant and liquid mortgage structures into a single first-lien mortgage: the 30-year FRM, the 15-year FRM, and the 5/1 ARM.⁴ The mixture can be tailored to the buyer, but in each case equity grows faster through principle payments.

For a first-time buyer who can afford a slightly higher payment, a BRED would incorporate 80% 30-year FRM and 20% 15-FRM. The payment on a \$200,000 home with 3% down payment is \$85 more a month than a 30-year FRM and implies that the consumer would need a slightly higher income. However, the consumer ends up with 40%⁵ more equity after five years aiding a trade up purchase. Rents have grown dramatically in today’s market and a

³ Here the user cost is defined as the principle, interest, and mortgage insurance
⁴ These ratios could be changed to meet different desired outcomes; lower payment, less volatility, etc.
⁵ The equity accrued is more than simply saving the difference in payment.

common complaint is that consumers can afford a mortgage payment but not the down payment. This product could be a natural fit in high-cost markets and help the buyer to build equity rapidly for an eventual trade-up.

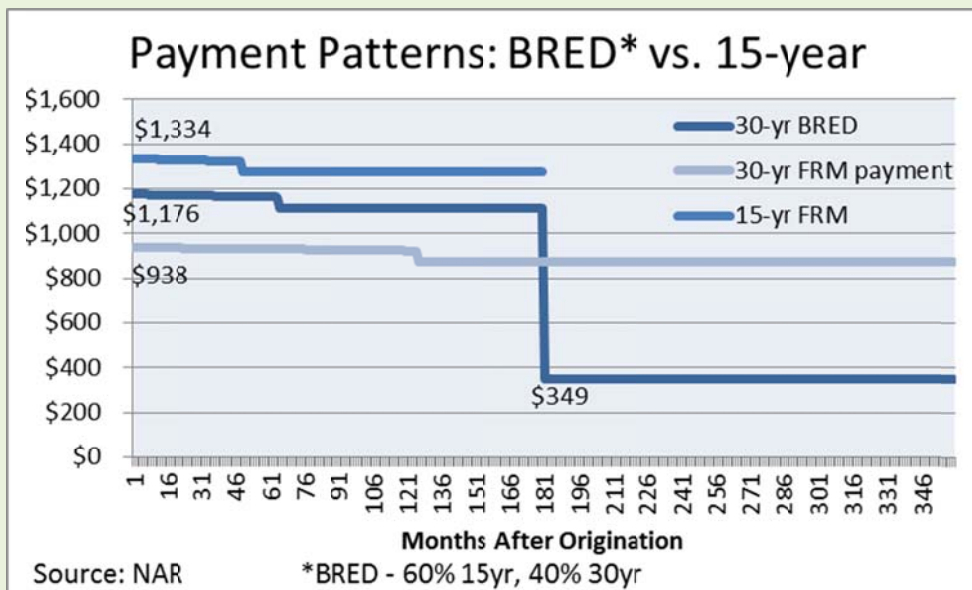
Alternatively for a trade-up buyer choosing between the low payment of an ARM and that of a 30-year FRM, the BRED could be structured with 60% 5/1 ARM, 30% 30-year FRM, and 10% 15-year FRM. The payment would be about \$20 less per month for a borrower with a 10% down payment on a \$200,000 home. As depicted below at the end of five years, the owner has roughly 30% more equity or more than \$5,000. However, from year six through 15 the payments float.



In a worst case, after 10 years the monthly payment would rise 23% above the initial payment and remain at that point through year 15. After 15 years though, the 15-year mortgage is fully paid and the payment falls closer to that of the 30-year fixed. Under a best case situation the monthly payment would not rise after year 5 and could fall below that of a 30-year FRM for the life of the loan.

While a 23% increase in payment under the worst case is significant, it is far less than the 51% of a 5/1 ARM. Furthermore, the additional 30% equity after five years increases the probability that the consumer can refinance

when the rate on their mortgage resets. Thus, the consumer can be viewed as paying slightly more for insurance against a potential payment shock if rates rise significantly, but still receiving a lower payment than a 30-year fixed.



For a consumer who would like to complete her payments in 15 years, but can't afford the high introductory payment of a 15-year FRM, the BRED could be structured to include 60% 15-year FRM and 40% 30-

year FRM. This mix would yield a payment nearly \$160 lower per month than a 15-year FRM and more than

double⁶ the equity accrued after 5 years compared to a 30-year FRM. Furthermore, as depicted below the payment would fall by nearly \$800 after 15 years compared to a 30-year FRM. This structure might appeal to a homeowner facing future college tuition payments or a partial retirement.

There are other important features of this mortgage worth pointing out. Since equity accrues faster in this structure, a mortgage with private mortgage insurance (PMI) would reach the 78% requirement detachment point faster than a 30-year FRM, reducing the borrower's total payment. Because PMI plays an important role in this structure, we include it as part of the user costs in all estimates.

BRED and the Secondary Market

The BRED is an odd duck when juxtaposed with the current market, a hybrid whose bones look familiar. Currently, the to-be-announced (TBA) market does not account for a mortgage of this structure. The TBA is a futures market for mortgage backed securities (MBS) that allows originators and securitizers to manage the production process with more certainty and reduces mortgage rates as a result. While there is an execution for hybrid mortgages, the most commonly traded products on the TBA market are vanilla 30-year FRMs, but all TBA eligible products are de-risked, pass-throughs with no tranches⁷. The BRED structure would share these characteristics. The TBA has developed over time and the BRED mortgage with its first lien and three pass-through components might eventually see its way into TBA pools.

But what investor would want to buy these pools with mixed payment structures and terms? In today's market CMOs and REMICs⁸ are used to cut pools of mortgages into different products based on their cash flows. Repackaging the tranches of BREDs as their fundamental pass-through products (e.g. 5/1 ARM, 30-year FRM, and 15-year FRM) could facilitate this specialization. To provide volume, multiple pools could be aggregated in a Megas security before repackaging. This path may limit watering down of the benefit of market volume with a completely new product.

Alternatively, a large enough lender could retain the mid-tier BREDs (those with the ARM component) in portfolio. The relatively low 40% share of FRMs in the mid-tier product would mitigate some of the rate risk. However, the lender could issue a covered bond or securitization for the fixed rate portion of the pool while retaining the ARM portion in portfolio. This structure would allow the lender to off load the interest rate risk, while using the ARM to retain a portion of the credit risk and to satisfy regulatory requirements.

Finally, the Federal Home Loan Banks could expand on this execution by acting as a conduit for smaller lenders to pool BREDs and funnel them to a selected special purpose vehicle for securitization. The lenders could retain some of the credit risk via the ARMs, while diversifying the interest rate risk through the securitization.

Regulation and a Rising Rate Environment

Depository lenders naturally gravitate to investments with terms that best match the terms of their liabilities. For lenders, shorter term mortgages or mortgages that adjust to market rates allow them to better match the interest rate payments they must make on their deposits with the income (interest) received on mortgages they own. If rates paid on deposits outpace the interest earned on assets, the mismatch can drain a bank of profits. This problem caused a surge in bank defaults during the savings and loan crisis of the 1980s.⁹

⁶ \$20,000 more equity after five years

⁷ While the BRED is segmented into three pass-through structures, it is not tranching to redistribute the timing of payments or to create credit enhancement. Per SIFMA U

⁸ The resulting securities would not be TBA eligible, though as they are a *share* of 1st lien mortgage unless TBA rules were altered.

⁹ https://www.fdic.gov/bank/historical/history/167_188.pdf

Rate mismatch was a relatively benign issue while mortgage rates fell for the last two decades, but rates are likely to climb in the future. Increased availability of more stable ARM products could provide lenders with a valuable asset and help to satisfy demand for tier-1 capital.¹⁰

Not Without Its Issues

The mortgage structure proposed here is not without its limitations. As with any potential mortgage product many unknowns must be overcome. Like alternative structures for introducing private capital into the market, introducing this or any new mortgage would entail a slow and gradual process of introduction and price discovery.

In addition to issues discussed earlier, investors, insurers, and originators will have to derive new techniques for modeling and pricing the structure. This structure will change consumers' incentives and as a result pre-payment and default propensities. Furthermore, the refinance and default propensities of different types of BREDs may vary. The same is true for a pass through security that is created by disaggregating a BRED compared to the same vanilla pass-through security. These differences may limit the ability to aggregate them and in turn raise rates.

For insurers the BRED structures should mute default risk and severity. This benefit will be offset in part by consumers reaching the 78% detachment point for insurance faster, though this may be ameliorated by slower priced growth in a rising mortgage rate environment. In addition, the private mortgage insurance industry is going through changes such as new capital and practice requirements from the new Private Mortgage Insurance Eligibility Requirements (PMIERS) which could change pricing and incentives. Finally, consumers may prefer the lender-paid option to the borrower-paid MI payments that are incorporated into these estimates and the FHA's permanent MI policy reduces the benefit of these structures.

How will investors respond to the BRED? By co-opting the refinance alternatives, the BRED should reduce refinance risk for investors. But, the secondary market structure proposed here would have multiple callers on the same collateral (the property). While a strong legal agreement and counterparty like a GSE might help to ameliorate this risk to the investor, concerns will remain. Furthermore, as alluded to earlier, TBA eligibility is critical and could prove a hurdle for broad acceptance.

Finally, the BRED is a significant departure from mortgages in the current market. It is more complex for the secondary market, the originator, and for the consumer. Costs may rise for originators and servicers while consumers may require a leap in financial literacy. Ongoing improvements in financial literacy courses may help as will clearer closing documents under TRID and on-line tools developed by the CFPB, but the complexity to the consumer in particular will create headwinds.

BRED and the 30-year FRM

The BRED is not a silver bullet to solve all problems and it does not replace the 30-year FRM. In fact, the 30-year FRM makes up a significant portion of the BRED's structure and is thus the backbone of the BRED. Furthermore, questions remain about the scalability of BREDs in the secondary market and the impact of changing incentives. What the BRED could do is provide home owners with more options, while putting more equity in their pockets. *If nothing else, the BRED may spark a discussion about homeownership, equity, and sustainability in a rising rate environment.*

¹⁰ Assuming the products were backed by the GSEs or FHA/GNMA