

**Risk-Based Pricing:  
Promise or Perdition for Affordable Home Ownership?**

Remarks

by

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My remarks today will review the pros and cons of risk-based mortgage pricing. Then I will suggest several principles that we should apply in implementing risk-based pricing in the home mortgage market. But before launching into our main topic, it is worthwhile to recognize where we are and where we've come from in our efforts to expand the opportunities for homeownership for Americans. Then we can talk about where we're going.

*Today's High-Water Mark*

Today we are at a high-water mark in homeownership. Between the start of 1993 and October, 1998, the number of homeowners climbed by 7.4 million, lifting the national homeownership rate at the end of the third quarter of 1998 to a record high of 66.8 percent.

During the four years ending in 1997, minorities accounted for 42 percent of the overall growth in homeownership. This growth is on top of a 36 percent share of the home ownership increase in the eight-year period between 1985 and 1993. In the four years through 1997, loans for homes in low- and moderate-income neighborhoods rose by 40.4 percent.

Despite these strides, the minority homeownership rate was more than 25 percentage points lower than the rate for whites. Homeownership in the center cities edged up less than two percentage points over the most recent three and three-quarter years to 50.5 percent at the end of September.

*Factors Contributing To Record*

To what should we attribute the recent rise in homeownership? There are many factors:

*First*, it is clearly a function of the economy. Years of low interest rates and low unemployment are paying off in not only the means, but also the confidence of a growing number of people to purchase homes. There is nothing more encouraging or comforting to the prospective home-buyer than both interest rates and the unemployment rate hovering at 30 year lows.

*Second*, we have a large, dedicated, better trained network of non-profit community organizations around the country. They are at the forefront of many revitalization efforts—helping produce hundreds of thousands of affordable homes and assisting low- and moderate-income families to manage their resources so they can achieve the dream of homeownership.

- Much of the work of non-profits has been done through private/public partnerships to leverage scarce public sector resources. The Neighborhood Reinvestment Corporation and its Neighborhood Housing Services affiliates are particularly adept at these types of partnerships. Investments by NeighborWorks organizations to revitalize communities across America have increased by 50 percent from 1994 to 1997, and now total over \$550 million.

A *third* factor sustaining the recent record pace in the growth of homeownership is that those in the business of financing homeownership, in both the primary and secondary markets, have dedicated increasing effort to the challenge of affordable housing. While the impetus has undoubtedly come from a variety of sources, I believe the Clinton Administration's emphasis on areas such as the Community Reinvestment Act, fair lending and the responsibilities of the Government Sponsored Enterprises has made a big difference. With this regulatory encouragement to make home-buying more accessible to low- and moderate-income households, financial institutions have revised their underwriting practices to make lending standards more flexible. Lower down-payment requirements, more liberal rules on contributions to closing costs and reductions in cash reserve requirements have helped lower the "wealth hurdle" to homeownership.

Finally, we should not overlook a *fourth* reason for growth in homeownership. In the past few years, technology has played a more visible role in fostering innovation in the housing credit markets and, thereby, in contributing to housing affordability.

- More sophisticated, empirically derived and statistically sound credit risk management systems have found their way into the home mortgage business. These systems allow lenders to streamline operations and pass reduced costs and increased responsiveness on to consumers.
  - One interesting illustration of this benefit was brought home to me when I worked at Fannie Mae. By using technology to help lenders make the loan origination process easier and cheaper, lenders can make smaller balance loans—precisely the size of loans that lower income families need for the housing they can afford.
- These systems have also been instrumental in providing private mortgage insurance efficiently, thereby enabling institutions to safely and soundly reduce down-payment requirements, an otherwise significant obstacle facing many first-time home buyers.
- Nor have these technologies been limited to the conventional housing market. As you've read and heard here again this morning, FHA and VA mortgages are coming within the purview of automated underwriting.

Pulling it all together, we have a picture of growing and affordable homeownership through a melding of market, governmental, community and technological forces. We have created an expanding array of mortgage products and choices that increase the opportunities for more people to afford their own homes.

### *Risk-Based Pricing: Technology's Next Step*

This brings us to our question about the future prospects for extending our record of expanding homeownership. Will technology's next step in the mortgage market have a similar favorable impact on choice and affordability? Does risk-based pricing of mortgages bring promise or perdition for affordable homeownership? As we explore this question, allow me to limit my remarks to the application of risk-based pricing to the home purchase-money mortgage market. In fact, much of what I have to say relates primarily to first-time home buyers. This is the area most relevant to today's forum. The sub-prime market for re-financings or home equity loans is a subject for another time.

### *Proponents of Risk-Based Pricing*

The proponents of risk-based pricing for home mortgages rightfully point out that credit risk has always been a factor in the pricing of home mortgages. Lenders, and more recently secondary market investors, have routinely factored into the price of credit the transaction and applicant characteristics most strongly correlated to default risk. These are factors such as mortgage term, loan-to-value ratio and the borrower's payment capacity. The introduction of empirically derived and statistically predictive credit scoring technology into the pricing equation is, they say, simply a more efficient and accurate way to reflect borrower credit risk. It is undeniable that credit scores have become an integral part of determining price in the investor market—important to buyers, sellers and rating agencies.

Yet, up to now, credit risk's impact on mortgage pricing has been broadly applied across loan portfolios. Generally speaking, this results in a conventional conforming mortgage price and a significantly higher price for the non-conforming, sub-"A" market on down. The promise, according to proponents of the new risk-based pricing, is the ability to use scoring technology to price mortgages on a "loan-level" basis: to better match price with the borrower's creditworthiness. This option, it is said, will mean lower mortgage costs for the sizable pool of home-buyers whose credit characteristics place them in the margin just below the current "A" market.

It has been estimated by some that this pool may amount to more than \$60 billion worth of loans being priced at up to 5/8s of a percentage point less than current financing opportunities provide. Is this a pricing difference with an impact? One rule of thumb is that for every one-half percentage point increase in interest rates, two million households are priced out of the market for a \$100,000 home.<sup>1</sup> In this light, a 5/8s percentage point decrease in the mortgage rate has the potential of helping millions of families who need

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<sup>1</sup> Steinbach, Gordon H., "Making Risk-Based Pricing Work," Mortgage Banking, September, 1998, p. 19.

help the most—those having modest incomes, high debt ratios and little-to-no (or blemished) credit who are buying entry level homes.

On the investor side of the housing finance equation, more robust pricing models reduce market uncertainty. This encourages greater confidence in the performance of that portion of the mortgage market just below the boundary of the present day conforming loan. This confidence translates to more capital at lower prices moving into the sub-A segment of the market.

For the proponents of risk-based mortgage pricing, the future holds the promise of expanding housing opportunity by changing the question from: Do you qualify to participate in the advantageous conforming loan market? to the question: At what competitive price can you access the advantages of a more accommodating, more expansive conforming loan market? In this sense, risk-based pricing is simply another tool to be used to generate additional mortgage product innovation and choice for both borrowers and lenders. If the past is prologue to the future, such innovation and choice will translate to making more homes affordable for more people.

#### *On the Other Hand: The Skeptics*

That is one view of the future with risk-based pricing. On the other hand, there are more than a few voices expressing skepticism. Some are more adamantly opposed than others, foreseeing serious effects on the ability of minorities, immigrants and those with lower incomes to continue their homeownership gains.

What are the concerns being raised against risk-based mortgage pricing? Let us take a look.

*First*, there is the continuing concern about the workings of the technology underlying risk-based pricing: that is, credit scoring—the proverbial “black box.” Consumers from all income levels distrust its complexity and lack of transparency. Sophistication in balancing the interaction of multiple variables gives credit scoring its predictive capacity. At the same time, that sophistication makes it difficult for an applicant or anyone assisting him or her to understand how his or her behavior is connected to the system’s judgment (or at least its advice) about their creditworthiness. Amazement, distrust and anger follow.

*Second*, credit scoring and its more inclusive cousin, automated underwriting or mortgage application scoring, continues to be challenged as a vehicle that disproportionately adversely affects minority applicants. Concerns are raised that the populations upon which the scorecards are developed are not sufficiently diverse and do not represent the favorable credit experiences of minorities. Another complaint has been that the variables used inappropriately disadvantage minorities. This is most often exemplified by pointing

to the supposed role that finance company credit experience plays in generating scores from the big three credit bureaus.<sup>2</sup>

- Developers, lenders and other users of these systems are sensitive to these allegations. Studies by Fair Isaac Co., Freddie Mac and others have demonstrated that empirically derived credit scoring and mortgage underwriting systems are predictive across minorities and income groups. Affordable housing programs outside the conventional market have adopted automated mortgage evaluation programs that include credit scoring to evaluate and sell their portfolios in the secondary market. Not only do the FHA and VA have ongoing projects to implement automated mortgage evaluation programs into their underwriting and portfolio management; Neighborhood Housing Services of America, Inc., the gateway for NeighborWorks mortgages to reach the secondary market, uses the pmiAura Mortgage Scoring System as a risk analysis tool when preparing NeighborWorks single family first mortgages for the secondary market.<sup>3</sup>
- Yet these assurances should not be considered to settle all concerns. Fair lending issues are far too important to be set aside so early in our experience with automated underwriting or risk-based pricing in the mortgage market. In particular, the studies do not answer the question whether and in what manner originator incentives have been or will be changed by credit scoring and automated underwriting. I will return to these concerns later in my remarks.

A *third* major objection to risk-based pricing of mortgages asserts that it will undermine the subsidy that so-called A plus borrowers now provide to the rest of the A market. Because the conventional conforming market contains a spectrum of credit risk from extraordinarily excellent to just plain, solidly good, full risk-based pricing of the A market at the loan level will, at its logical extreme, lead to a division of this market to the economic benefit of some and the detriment of many more. As is so often the case, the adversely affected applicants in such a situation are likely to be disproportionately minority, and/or of lower income. Without some intra-market subsidization, mortgages may actually become more costly for those at the margin of the conventional loan market. The people from Mortgage Guaranty Insurance Corporation have done some good work in thinking about this issue that I commend to your attention.<sup>4</sup>

There are two additional “contrarian” points that I will mention that are directed to the fallout risk-based pricing may have on mortgage portfolio management by lenders.

*First*, ever-narrower initial pricing judgments will naturally lead to an increased risk of future re-pricing. Although some people have called this increased interest rate risk, it is really the result of an interplay between interest rate risk and loan-level credit risk. Today we see something parallel to this at the margin between conventional conforming loans and jumbo loans. As that boundary is raised, or principal loan balances are reduced

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<sup>2</sup> Fishbein, Allen J., “Is Credit Scoring a Winner for Everyone?”, Stone Soup; Spring 1996, p.15.

<sup>3</sup> Press Release, October 27, 1996, PMI Mortgage Insurance Co.

<sup>4</sup> Steinbach, Gordon H., “Making Risk-Based Pricing Work,” Mortgage Banking, September, 1998.

through repayment, mortgages previously categorized as jumbos become eligible for participation in the GSE dominated conforming market where interest rates can be 25-50 basis points lower. Pressure to refinance inevitably ensues. Risk-based pricing has the potential for creating a series of such boundaries, generating numerous refinance decision points that will vary with the individual credit fortunes of the borrower. This means more risk for the portfolio manager.

A *second* lender-related point is the impact that risk-based pricing could have on lender financial health. The more efficient pricing becomes, the more the margin for error or for profit in each ever-narrower priced mortgage pool shrinks—especially at the initiating lender level. In particular, some institutions may experience competitive pressures to reduce prices on the best loans in their portfolios—the ones they depend on most to make their portfolio management financially successful. These circumstances put a premium on the soundness of the creditor’s risk-management capabilities and their ability to respond quickly to changed economic circumstances.

### *Principles For the Implementation of Risk-Based Pricing*

So what will it be? Promise or perdition?

I believe that as with most technologies, the answer to our question depends on whether we are masters of the technology or whether we let the technology master us. By implementing risk-based mortgage pricing within a framework of sound principles, I believe we can add innovation and choice to the home mortgage market in a way that will further expand affordable homeownership opportunities.

### *Four Principles Proposed*

I propose that the following four principles guide us in this endeavor:

1. Consumers must be educated about, and empowered to deal with, risk-scoring and its impact on their eligibility for, and the pricing of, a home mortgage.
2. Lenders must be accountable for managing their operations and outlets to assure ethical, non-discriminatory delivery of risk-based home mortgage financing.
3. Developers and users of risk-based pricing models must maintain the reliability of their systems’ performance and evolve to meet changing market conditions and consumer behavior.
4. All participants in the mortgage market must encourage the implementation of risk-based pricing as a means of improving service and affordability and must guard against the possibility of technology producing barriers to homeownership for minority or lower income families and individuals.

By following these four principles, I believe we can maximize our chances of realizing the promise of risk-based pricing while avoiding its pitfalls. Let me take a few minutes to explain how I see these principles being applied.

*Principle 1. Consumer Education and Empowerment.*

My first principle is directed at the need to have consumers understand what is going on in the risk-based mortgage market and how to interact with it. This will contribute to increased customer satisfaction, better prepared borrowers, and applicants who are able to more effectively respond to adverse actions.

Consumer education has lagged behind the rapid deployment of credit-scoring in the home mortgage market. I am happy to see that leaders in the industry are beginning to work together to reduce this gap. Efforts like that of the Mortgage Bankers of America and Freddie Mac in publishing their brochure, “Get a Running Start on Good Credit,”<sup>5</sup> and other similar endeavors, are helping to bring informative explanations and practical advice about credit management in a world of credit scoring to the potential new home-buyer. These initiatives deserve recognition, emulation and proliferation. I encourage proponents of credit scoring and risk-based pricing to reach out to organizations like NRC, and others with grass-roots networks in the affordable housing market, to help educate those who need it most.

But education alone is not enough. We must make that education useful. One step in this direction is to integrate education into the housing counseling framework. A better appreciation by counselors of the inter-relationship between consumer credit behavior and the credit scoring mechanism is immensely important to continuing the demonstrated success that housing counseling has had in enabling more families to demonstrate their readiness to finance a first home at a responsible price with a loan from a responsible lender. We must build bridges between counseling and the developers of credit-scoring. In this way we can dispel misconceptions and foster sound consumer credit management advice.

Further, we need to provide more information to applicants about what factors have caused them to be denied a favorable loan or required them to pay a higher interest rate. To this end, last May, OTS joined the OCC and other federal agencies to urge the Federal Reserve Board to require lenders to inform applicants receiving counter-offers why they did not qualify for the product or price they initially sought. OTS is also in the process of asking the Board’s staff to clarify its guidance on disclosing the reasons behind an applicant being made subject to one set of loan approval standards rather than another due to a credit score.

But lenders in the audience need not wait for the outcome of these governmental initiatives. You are free, and I urge you, to adopt these types of disclosures as customer-friendly “best practices.” Better informed customers mean better business.

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<sup>5</sup> Available from either MBA or Freddie Mac. This brochure is also posted on Freddie Mac’s Website.

## Principle 2. Lender Accountability

The second principle stresses forward-thinking application of creditors' fair lending and consumer protection obligations.

*First*, lenders must actively monitor and manage all their product delivery channels for discriminatory conduct. This includes brokers, dealers and other actors relied on by the bank in reaching the public with their credit products. This is especially the case when risk-based pricing is coupled with loan officer or broker discretion in setting loan terms in the affordable housing market. Such a combination heightens the possibility of borrowers being treated inconsistently. A thrift that does not manage these circumstances to avoid a pattern or practice of disparate treatment will be held accountable for its failure.

*Second*, lenders offering mortgages differentiated by price on a risk-scored basis need to exercise oversight on how applicants are tracked or "steered" to particular mortgage choices. Be alert to loan officers who react to stereotypes or make snap judgments about what is best for a particular applicant without giving him or her the due consideration accorded to other applicants whose qualifications and preferences are more carefully explored. They are engaged in a practice likely to lead to discriminatory treatment. Chances for such improper steering are greater the more numerous the product variations by price. If you, or you and your affiliate, are risk-based pricing, be extra vigilant about how applicants are treated wherever they first contact your business network.

*Third*, scrutinize the exceptions, or "overrides," you allow to be made to your credit-scoring or risk-based pricing system. These departures from your expensive, expert scoring model have a way of destroying your policy of treating similarly situated applicants the same. This area will be a featured focus of new interagency fair lending examination procedures for those who use credit scoring systems for underwriting or pricing decisions.

*Fourth*, to borrow the good advice of Jo Ann Barefoot at KPMG, "Tie loan pricing into an ethical framework."<sup>6</sup> Customers in the affordable housing market are often less sophisticated or experienced in dealing with financial institutions. First-time home buyers are often not accomplished negotiators. In such circumstances, customers can be taken advantage of through loans sold aggressively, priced at high rates or not properly explained. Lenders need to ensure that neither they, nor the people outside their organization engaged in the delivery of their mortgage products, use business practices that they would not want applied to their own sons or daughters.

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<sup>6</sup> Barefoot, Jo Ann S., "Navigating the fog between Alan and Deval," American Bankers Association Compliance Clinic, December, 1997. This is available at [www.banking.com/aba/compliance0896.htm](http://www.banking.com/aba/compliance0896.htm).



### Principle 3. Maintain Reliable and Up-to-date Pricing Models

Credit scoring and automated underwriting in the mortgage market are still in their infancy. Although the early returns are promising, our experience is limited to some of the most favorable economic circumstances imaginable. History puts lenders on notice that business cycles are just that and good times are not never-ending. Accordingly, my third principle's admonishment to maintain reliable and up-to-date pricing models has the following corollaries:

- As a matter of safety and soundness, lenders must monitor their risk-based pricing models to ensure their continued predictive powers and to anticipate changing conditions that may adversely affect their future reliability.
- As a compliance matter, lenders need to stay abreast of modeling developments. Better information or more powerful analytical techniques may result in scoring models that yield not only reliably predictive results, but also have a less disproportionate adverse impact on minorities or other protected characteristic borrowers.

### Principle 4. Employ Risk-based Pricing To Improve Affordability

My fourth and final principle may be the trickiest, and the most important, to apply. People can follow the first three principles completely and still fall short of the goal of expanding homeownership opportunities. Only by following the fourth principle—implementing risk-based pricing as a means of improving housing affordability—can we achieve true mastery over the technology. We must pursue this principle on several fronts:

*First*, we must heed the warning raised by MGIC not to sacrifice the benefits of subsidization available in broadly defined market segments for loan-level pricing that could result in displacing those on the bottom rung of today's conventional conforming mortgage market. Those with the market power to accelerate the risk-based pricing phenomenon need to approach their decisions at a deliberate pace and with foresight. Missteps here could lead (a) to the reversal of recent advances in housing affordability, (b) to a wasteful level of contentiousness and confusion among consumers, lenders and investors, and, ultimately, (c) to an expensive or cumbersome intervention by government to address an intolerable erosion of homeownership opportunities.

*Second*, we must take pains to use every benefit that credit scoring affords to expand homeownership opportunities. One of the most repeated promises made by proponents of credit scoring has been that the savings realized in processing the highest scoring applicants more efficiently will enable lenders to devote those resources to more thoroughly working the files of marginal applicants. All of us—lenders, community organizations, investors and agencies—should encourage the realization of this advantage of credit scoring. It can have a direct impact on the population of applicants most in need of assistance in the affordable housing market. Chasing easy volume or slapping the next

higher price on the marginal applicant in lieu of working that file for compensatory factors is reneging on the promise of credit scoring. It will result in another barrier to affordable homeownership for those already facing the most obstacles.

*Third*, and something of an extension of the previous point, we must help the borrower understand the consequences of their choices among the multitude of new financing options. Over the past several years, the home mortgage lending community in this country has developed a series of effective programs that allow low-income and minority families to get home loans at responsible interest rates by requiring the borrowers to participate in counseling that helps them understand how to be good homeowners and by servicing the loans aggressively, but with some understanding. I am seriously concerned that some real estate brokers, mortgage brokers and lenders may now be taking what appears to be the easier way out: simply give these folks a B or C loan at 200 or 300 basis points above the A level, and let them sink or swim, figuring that the risk to the lender will be made up in the price. And when they sink, we'll all be told that "these people are bad credit risks." There is a place for B or C lending—especially if risk-based pricing brings more competition to the setting of interest rates in that market—but I urge all of you to use whatever influence you have to make certain that the programs that are good for borrowers, lenders and communities are not jettisoned—or allowed to atrophy—under the guise of "more quickly increasing lending to low income households." We will have only ourselves to blame for the consequences if we do not continue to support these programs.

*Fourth (and finally)*, we must use the fundamental strengths of credit scoring technology to better capture the factors most relevant to the affordable housing sector of the mortgage market. One size does not fit all. Mortgage application scoring has been demonstrated to be more precise in its predictions about mortgage credit risk than broader, less specialized credit bureau scorecards. We are already witnessing the tailoring of the leading secondary market scoring models for application to the unique characteristics of FHA and VA loans. These developments show the way to building models that recognize different borrower characteristics and different information sources to address sub-populations of the housing market. There is no *a priori* reason why such factors as successfully completing a housing counseling program, or demonstrating a record of timely utility or rent payments, cannot be incorporated into a reliable risk scoring model. I do not wish to suggest that there are not real or substantial technical and empirical prerequisites to such a model. In fact, those prerequisites may require considerable time and expense to overcome. But it is important for us to take every feasible opportunity to increase the versatility and accuracy of this technology.

### Conclusion

In summary, I think it is safe to say that risk-based pricing is here to stay. The form it takes and the uses to which it is put are up to all of us to shape. Our challenge is to employ this new tool to continue our unprecedented run of expanding homeownership. Inadequate attention to all the potential consequences of risk-based pricing runs a real risk of reducing opportunities, particularly when interest rates rise, as they inevitable will. But

if we proceed by following the four principles I've outlined today, I believe it is possible to realize the promise risk-based pricing holds for producing the kind of innovation and choice that makes homeownership more affordable for more people.