

United States House of Representatives

Committee on Financial Services

**Hearing on
“Subprime Lending: Defining the Market and its Customers”**

March 30, 2004

Testimony:

**Prof. Michael E. Staten
Director, Credit Research Center
McDonough School of Business
Georgetown University
3240 Prospect St., NW
Washington, DC 20007
Tel: 202.625.0103
FAX: 202.625.0104
Email: statenm@msb.edu**

**United States House of Representatives
Committee on Financial Services
Hearing on “Subprime Lending: Defining the Market and Its Customers”
March 30, 2004**

**Testimony of Professor Michael E. Staten
Director, Credit Research Center
McDonough School of Business
Georgetown University**

I. Introduction

Good morning Mr. Chairman and members of the Committee. My name is Michael Staten. I am Professor of Management and Director of the Credit Research Center at the McDonough School of Business at Georgetown University. The Center is a non-partisan, academic research center devoted to studying the economics of consumer and mortgage credit markets. Over its 30-year history the Credit Research Center has generated over 100 research studies and papers, most of which examine the impact of public policy on retail credit markets. Throughout its history, the Center’s research program has been supported by a mix of grants from the public sector (e.g., National Science Foundation, Federal Trade Commission) and unrestricted private sector grants from foundations and corporations made to its host University on behalf of the Center. I have served as the Center’s director since 1990.

I understand and appreciate the Committee’s wish to gather information that describes the operation of subprime mortgage markets. Today I hope to contribute to the Committee’s efforts by presenting data on who uses subprime mortgage loans and the relationship between the loan price and borrower risk. The evidence that I will present reflects the product of joint work with my colleagues Gregory Elliehausen and George Wallace at the Credit Research Center.

The subprime mortgage market is a relatively new but significant segment of the mortgage industry. The availability of mortgage and home equity loans to borrowers with blemished credit histories, high debt levels, and irregular incomes (i.e., “subprime” borrowers) has soared over the past decade. Subprime mortgage lending by subprime lending specialists who are required to report under the federal Home Mortgage Disclosure Act rose from \$34 billion of originations in 1994 to over \$213 billion by

2002.¹ By 2002, subprime originations accounted for about 8.6% of all mortgage originations in the United States.

Subprime mortgage customers are primarily households for whom the cost of mortgage credit would be significantly higher (possibly several hundred basis points) than the prevailing “prime” rate in the conventional mortgage market.² One hallmark of the market that has evolved to meet the needs of these borrowers is the application of more flexible underwriting standards and loan contracts than those observed in prime markets.³ This means that subprime loan contracts tend to contain features not typically found in prime mortgage contracts (for example, prepayment penalties; balloon payments). Another characteristic of subprime loans is that they have a higher market share among low-to-moderate income households, as well as minority households, than is the case in the overall mortgage market.⁴

The higher pricing of subprime loans, the higher market share of subprime lenders (vs. prime lenders) in low-income and minority neighborhoods, and the higher credit risk of subprime loan customers have elevated concerns by consumer activist groups and regulators about the performance of loans and the incidence of abusive lending tactics and contractual features. Critics of subprime lending allege a significant failure in the marketplace, which they claim is characterized by excessive prices, unfair terms and so-called “predatory” practices. Proponents of subprime lending see a much narrower set of problems occurring in the context of a legitimate, efficient marketplace that generally provides significant benefits to most borrowers at an appropriate price.

¹ U.S. Department of the Treasury, 2003 MMSA, as reported in “Economic Issues in Predatory Lending,” OCC Working Paper, Global Banking & Financial Analysis, U.S. Office of the Comptroller of the Currency, July 30, 2003, p. 5.

² A blemished credit history is just one attribute that can tag a borrower as subprime. Banking regulatory agencies generally designate a subprime borrower as having one or more of the following credit history characteristics: two or more 30-day delinquencies in the past 12 months; one or more 60-day delinquencies in the last 24 months; a collection-related legal judgment, foreclosure, repossession, or account charge-off in the past 24 months; bankruptcy in the previous 5 years; a high default probability as measured by a Fair Isaac Co. (FICO) credit score of 660 or below; or a debt-service-to-income ratio of 50% or greater.

³ “Lenders use standards (payment-to-income ratios, loan-to-value ratios, and credit history) to limit credit and prepayment risks. Because FHA lending standards are more lenient than prime lending standards, wealth- and income-constrained borrowers are more likely to use FHA mortgage financing. Subprime financing is even less strict than FHA financing with respect to maximum front-end and back-end payment-to-income ratios. ... In total, the mortgage market has the ability to provide mortgages for a wide range of borrowers, as lenders use a variety of approaches to compensate for weaknesses of an application. This flexibility is most visible in subprime lending, where credit scores and down payments can compensate for unverifiable income and high debt ratios.” Anthony Pennington Cross, “Subprime Lending in the Primary and Secondary Markets,” *Journal of Housing Research*, Volume 13, Issue 1, 2002, p. 33.

⁴ Glenn B. Canner, Wayne Passmore, and Elizabeth Laderman, “The Role of Specialized Lenders in Extending Mortgages to Lower-Income and Minority Homebuyers,” *Federal Reserve Bulletin*, November 1999, pp. 718-719. The data used in this study are derived from Home Mortgage Disclosure Act (hereafter, “HMDA”) data. The Department of Housing and Urban Development Office of Policy Development and Research has likewise conducted a national study using HMDA data that finds similar results. Randall M. Scheessele, “Black and White Disparities in Subprime Mortgage Refinance Lending,” (Office of Policy Development and Research, Department of Housing and Urban Development, April 2002).

It seems that the resulting public policy debate has increasingly lost sight of the fact that there is little disagreement over ultimate goals. Most critics and most suppliers of subprime loans agree that credit should be available to as many borrowers as possible. Likewise, many agree that loans should be priced by the marketplace to reflect the actual risk of the borrowers. Major terms and conditions of the credit should be understood by the borrower and should provide flexibility, so that the credit product can be configured to provide the mix of price and repayment terms that best suits the borrower's desires and needs. There is also agreement that abusive and fraudulent practices should be effectively combated, although there appears to be some disagreement over what conduct should be viewed as "abusive" and "fraudulent."

The real disagreement is over the facts: How well the subprime market is working and the impact of some of the regulatory efforts recently implemented. The wide disparity in perception reflects a basic reality about subprime lending. Although lending to borrowers who do not qualify for "prime" credit has a long history in this country, subprime *mortgage* lending in its present form is only a decade old, and little careful empirical work has been done to identify its benefits and costs.⁵

Lack of Comprehensive Data

The fundamental obstacle to doing empirical work on subprime mortgage lending is that there is no comprehensive database of subprime loans. The universe of subprime loans is hard to define, in part, because there is no central collection point that captures all subprime mortgage lending activity.

By far, the most common data used in various studies of subprime mortgage activity are derived from reports by financial institutions to the government in compliance with the federal Home Mortgage Disclosure Act (HMDA). HMDA requires that depository institutions, bank holding company subsidiaries, and for-profit mortgage companies report certain information about their residential mortgage lending, whether prime or subprime, to the government. The resulting data are annually compiled and made publicly available.

HMDA mandates collection of mortgage application activity data in order to help public officials evaluate how well financial institutions are meeting the housing needs of their communities. Since 1989, covered institutions have been required to report the disposition of each mortgage loan application (both accepted and rejected) as well as the race, sex, and income of applicants and borrowers. These data have been used by regulators to identify potentially discriminatory lending patterns. Coverage of mortgage lending institutions has expanded several times over the past decade, so that for calendar

⁵ "Despite the recent growth in the subprime mortgage market, little is known about subprime borrowers, their default experience, or subprime lenders' underwriting practices." Lawrence L. Thompson, Foreword to Kenneth Temkin, Jenifer Johnson, and Diane Levy, *Subprime Markets, The Role of GSEs and Risk-Based Pricing* (U.S. Department of Housing and Urban Development, Office of Policy Development and Research, March 2002), at iii.

year 2002 there were approximately 31 million loan records reported by 7,771 financial institutions.

However, when used as a source of information about *subprime* mortgage lending activity, the HMDA database in its present form has a number of significant difficulties that sharply limit its accuracy and usefulness. First, despite apparently broad coverage, not all mortgage lenders have to report HMDA data, and many of those lenders not required to report (notably, finance companies) are quite active in the subprime mortgage business. Second, the HMDA database does not provide the interest rate (price) for the loan, or risk characteristics of the borrower other than the borrower's income. Thus, price and risk, the two factors that define whether a loan is subprime, are not reported. As a result, HMDA data cannot provide accurate information about what loans are subprime nor about whether subprime borrowers are paying more than their risk level warrants.⁶

Alternatives to HMDA Data

Two other databases with information at the individual loan level have been used by some researchers: the Loan Performance System (formerly Mortgage Information Corporation) subprime database; and the American Financial Services Association subprime mortgage database. Both of these databases were assembled with the cooperation of participating companies that agreed to supply loan-level data on a confidential basis. Loan-level observations from participating companies were pooled to form a database for benchmarking and analysis. Both databases contain several million loans originated over a period of several years.

The Loan Performance System (LPS) subprime database is now reported to cover 2.5 million subprime loans, compiling information from approximately 20 servicers over several years of originations but predominantly 1998 and thereafter. The information includes loan amount, interest rate, indices of credit quality of the borrower, as well as extensive information on delinquency and foreclosure.⁷ Information is not available on racial or ethnic identity of the borrower.

The LPS database is proprietary and its various analytical reports and products are widely purchased within the industry to develop and improve marketing and management decisions. It has been used at least once for published research on the regulatory issues

⁶ The usefulness of the HMDA data for analysis of subprime lending activity will improve substantially in the future. Starting in 2004, new regulations implemented under the Federal Reserve Board's Reg C will alter HMDA data collection so that virtually all mortgage lenders will be required to report. Equally important, reporting companies will be required to provide interest rate information for all first mortgage loans with an APR more than 3 percentage points over comparable treasuries, and for all subordinate mortgage loans with an APR more than 5 percentage points over comparable treasuries. However, these data will not be available to researchers until mid-2005.

⁷ See Dan Feshbach, "Trends in Mortgage Data and Analytics," www.loanperformance.com (February 21, 2002).

raised by subprime lending.⁸ The LPS database, however, does not purport to cover all subprime loan originations, nor does it appear to be representative of all subprime loans. Indeed, the group of researchers who used the LPS database to examine regulatory issues suggested that one weakness was that it failed to capture the riskiest loans that were being made.⁹

Still another view of subprime mortgage activity can be gleaned from the American Financial Services Association (AFSA) subprime mortgage database. Nearly three million loans in this database were collected from 10 AFSA-member companies. The data consist of all residential mortgage loans originated by the subprime units of the participating companies between July 1, 1995 and March 31, 2002. Data include both closed-end loans and open-end home equity lines of credit. Individual loan records provide the annual percentage rate (APR), the borrower's FICO risk score at the time of application, loan amount, property ZIP Code, whether the loan is a first or subordinate lien, information on delinquency, foreclosure and write off, prepayment, and other information.

Of the three loan-level databases (i.e., HMDA subprime, LPS subprime, AFSA subprime), which is most appropriate for analyzing subprime lending activity? There is some overlap across the three databases, but none of them captures the entire market. Based solely on the criteria of number of loans and scope of coverage there is no clear winner.

All three databases appear to capture 2.5 to 4 million subprime loans originated between 1995 and 2002. For example, the number of refinance loans in the AFSA database in 1999 is similar to the number of loans flagged by HUD as subprime refinance loans in the HMDA database for the same year. But, we know there is only partial overlap between the two databases, so that each provides only a partial snapshot of all subprime activity.

However, since the AFSA and LPS databases contain information on loan price, borrower risk, and loan performance, it is possible to inspect each loan to determine whether it is, indeed, subprime in terms of rate and/or credit risk. Consequently, the AFSA and LPS databases are more useful than the HMDA subprime database for examining various dimensions of the economics of subprime mortgage markets, such as the degree to which pricing correlates with loan risk.

In the remainder of my testimony, I present a variety of data that describes the operation of the large segment of the subprime loan market captured in the AFSA database.

⁸ See, e.g., F. Phillips-Patrick, E. Hirschhorn, J. Jones, and J. LaRocca, "What About Subprime Mortgages?" *Mortgage Market Trends*, Volume 4, Issue 1 (Research and Analysis, Office of Thrift Supervision, June 2000). The article provides a good description of the database as it existed as of end of 1999.

⁹ Phillips-Patrick et al. (June 2000).

II. Who Uses Subprime Mortgage Loans?

Income and Age of Subprime Borrowers

The AFSA database provides information on the income and age of subprime mortgage borrowers, which can be compared with population statistics on all mortgage borrowers in the United States from the Federal Reserve Board's 2001 Survey of Consumer Finances.¹⁰ The results of this comparison show that nearly all subprime borrowers are in moderate income and relatively young age groups, in which mortgage borrowing is generally prevalent. This finding contrasts sharply with much of the anecdotal evidence often cited by industry critics that creates the perception that subprime borrowers are poor or old.

At the outset of any discussion of subprime mortgage lending, it is important to recognize that subprime mortgage borrowers are homeowners. The economic circumstances of homeowners differ significantly from those of the general population. First, relatively few homeowners have low income. A bit more than 20% of U.S. homeowners had incomes less than \$25,000 in 2001, compared to nearly one-third of all U.S. households overall (see Table 1). Homeowners are predominately moderate and higher income consumers.

Since only a small percentage of homeowners have low incomes, it is not surprising that relatively few subprime mortgage borrowers have low incomes. Only 15.7% of borrowers taking out subprime first mortgages between 1997 and 2001 had incomes below \$25,000. During the same period, an even smaller proportion of borrowers obtaining subprime second mortgages (5.5%) had incomes below \$25,000.

Subprime mortgage borrowers are predominately from moderate income households. Between 1997 and 2001, 48% of subprime first mortgage borrowers had incomes between \$25,000 and \$49,999 (compared to 23.7% of first mortgage borrowers overall), and another 23.1% had incomes between \$50,000 and \$74,999 (compared to 24.1% for all first mortgage borrowers). Among borrowers who obtained subprime *second* mortgages during the same period, 37% had incomes between \$25,000 and \$49,999 (compared to 25.2% of second mortgage borrowers overall), and another 30.7% had incomes between \$50,000 and \$79,999 (compared to 21.8% overall).

These data belie the common belief that subprime mortgage borrowers are predominately poor or that subprime mortgage lenders "target" the poor. To be sure, some subprime borrowers have low incomes, but the percentage of low income borrowers in the subprime market is not much greater than in the mortgage market overall. Subprime mortgages are primarily a middle-class product.

¹⁰ Ana M. Aizcorbe, Arthur B. Kennickell, and Kevin B. Moore. "Recent Changes in U.S. Family Finances: Evidence from the 1998 and 2001 Survey of Consumer Finances," *Federal Reserve Bulletin*, (January 2003), pp. 1-32.

Relatively few subprime mortgage borrowers are old. Ten percent of subprime first mortgage borrowers and 5.6% of subprime second mortgage borrowers taking out loans between 1997 and 2001 were 65 years of age or older. These percentages are not much different than the proportion of all borrowers taking out new first and second mortgages of any kind during the same period and who were 65 years of age or older (6.4% and 5.2%, respectively).

Indeed, most recent subprime borrowers were young. A large percentage (38%) of all subprime first mortgage borrowers between 1997 and 2001 were less than 45 years of age. About 52% of subprime second mortgage borrowers during the same period were less than 45 years of age.

To summarize, these data do not support claims that lenders across the subprime mortgage market “target” the elderly. Like mortgage borrowers generally, some subprime borrowers are old. However, as we would expect, subprime mortgage lending is heavily concentrated in age groups in which life-cycle considerations create a high demand for credit. About 71% of subprime first mortgage borrowers and over 80% of subprime second mortgage borrowers between 1997 and 2001 were under the age of 55.

Table 1. Income and Age of Household Heads, Homeowners, and Mortgage Borrowers, 2001
(Percent)

	All households	Home-owners	Has first mortgage	Obtained first mortgage 1997-2001	Obtained subprime first mortgage 1997-2001	Has second mortgage	Obtained second mortgage 1997-2001	Obtained subprime second mortgage 1997-2001
Income								
Less than \$15,000	16.7	9.6	3.6	3.7	2.9	3.1	2.6	0.9
\$15,000-24,999	14.8	12.2	7.7	8.1	12.8	2.2	2.6	4.6
\$25,000-34,999	13.2	11.2	8.4	8.6	18.2	9.7	9.5	11.2
\$35,000-49,999	14.5	14.7	15.7	15.1	29.5	14.4	15.7	25.9
\$50,000-74,999	17.5	21.0	24.3	24.1	23.1	22.1	21.8	30.7
\$75,000 or more	23.3	31.3	40.3	40.4	13.5	48.5	47.8	26.7
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Age								
Less than 25	5.6	1.2	1.6	2.5	0.6	0.0	0.0	1.1
25-34	17.1	12.2	17.3	23.6	10.7	16.9	18.0	17.5
35-44	22.3	22.3	30.8	32.9	26.7	33.1	34.3	33.3
45-54	20.6	23.4	27.8	24.3	32.8	33.1	34.3	29.3
55-64	13.2	16.2	13.7	10.3	18.9	11.0	8.2	13.2
65-74	10.7	13.1	6.9	5.2	8.1	5.8	5.2	4.5
75 or older	10.3	11.6	1.9	1.2	2.2	0.0	0.0	1.1
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Federal Reserve Board, 2001 Survey of Consumer Finances; American Financial Services Association, Subprime Mortgage Database.

Home Value as an Indicator of Subprime Borrower Wealth

The home is the largest asset in most households’ portfolios.¹¹ Thus, evidence of the wealth of subprime borrowers is provided by the distribution of their house values.

¹¹ The median house value of all U.S. homeowners in 2001 was \$122,000. This amount was 71.1% of these homeowners’ median net worth. See Aizcorbe, Kennickell, and Moore (January 2003), pp. 7, 19.

Again, we use distributions for homeowners and mortgage debtors from the Federal Reserve Board's 2001 Survey of Consumer Finances as a benchmark.

The values of the majority of subprime borrowers' homes, on both first and second mortgages, were between \$50,000 and \$149,999 (see Table 2). Subprime first mortgage borrowers' homes were about as likely to have a value less than \$50,000 as homes generally, but subprime second mortgage borrowers' homes were much less likely to have a value less than \$50,000.

However, subprime mortgage borrowers do borrow more heavily against their houses than mortgage borrowers generally. Only about a fifth of subprime first mortgage borrowers from 1997 to 2001 had loan-to-house value percentages of 70% or less, compared to about half of all first mortgage borrowers during this period (see Table 3). Sixteen percent of subprime first mortgage borrowers had "high" loan-to-house value mortgages (loan was 100% or more of house value), which was about twice the frequency of such mortgages among all first mortgages obtained during the 1997-2001 period.

Table 2. Home Value of Homeowners and Mortgage Borrowers, 2001							
(Percent)							
	Home- owners	Has first mortgage	Obtained first mortgage 1997-2001	Obtained subprime first mortgage 1997-2001	Has second mortgage	Obtained second mortgage 1997-2001	Obtained subprime second mortgage 1997-2001
House value							
Less than \$50,000	12.3	6.2	5.4	11.3	3.5	3.3	4.5
\$50,000-74,999	12.4	11.6	12.2	21.9	6.9	6.7	9.5
\$75,000-99,999	14.8	14.5	14.5	20.4	10.3	9.4	15.9
\$100,000-149,999	20.1	22.8	21.6	24.1	20.8	20.3	28.3
\$150,000-199,999	12.7	14.2	12.3	11.7	15.2	13.7	17.1
\$200,000-249,999	7.3	8.1	9.4	5.5	11.5	11.8	9.1
\$250,000-349,999	9.2	9.7	9.0	4.3	16.3	18.5	9.2
\$350,000 or more	11.3	13.0	15.6	0.8	15.5	16.4	6.3
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sources: Federal Reserve Board, 2001 Survey of Consumer Finances; American Financial Services Association, Subprime Mortgage Database.							
Table 3. Loan-to-House Value Percentage							
	Has first mortgage	Obtained first mortgage 1997-2001	Obtained subprime first mortgage 1997-2001				
Loan-to-house value							
70.0% or less	59.0	49.1	20.8				
70.1-80.0%	16.1	19.7	27.5				
80.1-90.0%	11.4	13.4	26.0				
90.1-99.9%	7.6	10.6	9.9				
100.0% or more	5.9	7.3	15.9				
	100.0	100.0	100.0				
Sources: Federal Reserve Board, 2001 Survey of Consumer Finances; American Financial Services Association, Subprime Mortgage Database.							

Summary

Anecdotal evidence may have created an impression that subprime lending is concentrated among the poor and the aged. Examination of the characteristics of subprime borrowers in the AFSA database, which covers a large part of the subprime mortgage market, suggests that the anecdotal evidence is misleading. The subprime borrowers in the AFSA database are largely young or middle aged and have moderate incomes. The majority of subprime borrowers have moderately valued homes, but they borrow more heavily against their homes than mortgage borrowers generally.

III. How Closely is Subprime Mortgage Pricing Correlated with Risk?

At the core of the public policy debate over the incidence of abusive mortgage lending practices in subprime lending is the allegation that many subprime mortgage borrowers are overcharged for their loans. For example, federal Home Ownership and Equity Protection Act (HOEPA) regulations use loan pricing as a signal of *possible* abusive behavior that triggers additional restrictions on loans and lenders, although Federal Reserve Board officials have repeatedly noted that not all high-cost loans are abusive.

Community activists have apparently interpreted the observed higher incidence of subprime vs. prime mortgage lending in lower income and minority neighborhoods as a signal that these borrowers are being systematically overcharged. A recent study by Calvin Bradford on subprime lending patterns in 331 metropolitan areas found “widespread” racial disparities in subprime lending across the nation, regardless of income.¹² Specifically, a higher proportion of African-American homeowners had subprime mortgage loans in a given geographic area than did white homeowners, regardless of income. The title of a 2000 U.S. Department of Housing and Urban Development (HUD) report, “Unequal Burden: Income and Racial Disparities in Subprime Lending,” also appears to suggest that race and income are responsible for some groups getting less favorable loan pricing than others.¹³ Organizations such as the Association of Community Organizations for Reform Now (ACORN) explicitly define predatory lending as the act of targeting higher cost loans at certain categories of borrowers, many of whom would qualify for credit on better terms.¹⁴

Ironically, the positive aspects of the growth in subprime lending (i.e., increased availability of purchase-money and mortgage refinance loans to minorities and lower income households) are increasingly overshadowed by the suggestion that, because these higher priced loans are used more often by vulnerable or protected classes of borrowers,

¹² Calvin Bradford, “Risk or Race? Racial Disparities and the Subprime Refinance Market,” A Report of the Center for Community Change, Calvin Bradford & Associates, Ltd. (May 2002).

¹³ U.S. Department of Housing and Urban Development, “Unequal Burden in Atlanta: Income and Racial Disparities in Subprime Lending,” Washington, D.C., (April 2000).

¹⁴ “Separate and Unequal: Predatory Lending in America,” Association of Community Organizations for Reform Now (ACORN), (November 2002), p. 2.

these groups are being abused. And, even though the many studies that have observed higher incidence of subprime lending in minority and lower income neighborhoods seldom offer evidence that these borrowers' loans are unfairly priced, the suggestion that they might be has been enough to drive legislative action to curb predatory lending at the state and local level.

Empirical Evidence Linking Pricing to Underlying Risk

A study released in 2000 by the Office of Thrift Supervision research staff concluded that subprime loan pricing was consistently related to borrower risk. The study used the proprietary LPS database that provided performance information for approximately 1.8 million subprime loans up to the end of 1999. The price of subprime loans was correlated with the delinquency and default experience. Looking at pricing, delinquency rates, and the risk level at which the lender classified the loan using an A-, B, C, and D scoring system, the study concluded that "...most of the evidence from the [Loan Performance System] subprime data is broadly consistent with a well-functioning market. Coupon rates, for example, increase steadily as grade and credit scores decline."¹⁵

To these findings we now add evidence from the AFSA database. The following discussion and charts focus on the relationship between borrower risk and the loan price (APR), as well as the relationship between the loan price and subsequent loan payment performance. In an efficient, smoothly functioning market, competitive pressures will enable consumers to find loans at the lowest price appropriate for their risk. Thus, the price for a loan rises with measured borrower risk and will be positively correlated with measures of delinquency and foreclosure as the loan seasons over time. The AFSA database offers another opportunity to see if this describes the subprime mortgage market in recent years.

A. *Loan Price, Borrower Risk, and Payment Performance*

This analysis correlates the prices charged for subprime first mortgage loans in the AFSA database with the delinquency and default experience on those loans.¹⁶ Because mortgage interest rates vary over time with the overall cost of funds, unrelated to

¹⁵ Phillips-Patrick et al. (June 2000) at 12. The study did find that 16% of A- rated mortgages had FICO scores over 680, leading the study to observe that "...we cannot determine whether overpricing exists [in the loans with 680 score or higher], but the data certainly raise the issue." *Id.* at 10.

¹⁶ Although we focus here on delinquency and default costs, we of course recognize that lending involves other risks and costs that must be carefully managed if a lender is to be successful. It is important to note that subprime loans are not just prime loans with a higher price and somewhat more risk. They have a different cost structure. In part, this is because subprime loans have higher delinquency and default experience than prime loans. Delinquency increases servicing costs; default losses obviously also raise the cost of providing the loan. Subprime loans also prepay at a different rate than prime loans. They prepay not only when mortgage rates fall (like prime loans) but also when a borrower's credit risk profile improves. Prepayment risk raises the cost of funds for subprime loans relative to prime loans. Consequently, prepayment risk is an important factor in determining the price investors will pay to purchase subprime loans.

underlying borrower risk, the risk “premium” component of the loan price is the relevant focus for the analysis. In the following analysis, the risk premium for each loan was calculated as the difference between the loan APR and the yield on U.S. Treasuries of comparable maturity as of date of loan origination. Loans were grouped into pricing categories based on that difference. The risk premium on loans should be positively correlated to measures of borrower risk if the subprime market is operating efficiently.

One measure of risk is the FICO risk score.¹⁷ The FICO risk score is derived from a statistical model that uses information on credit use from credit bureau files to predict the likelihood that a consumer will have a serious delinquency, bankruptcy, or other major derogatory event in the next two years. The resulting risk score ranks consumers from highest risk (the lowest score) to lowest risk (the highest score).¹⁸

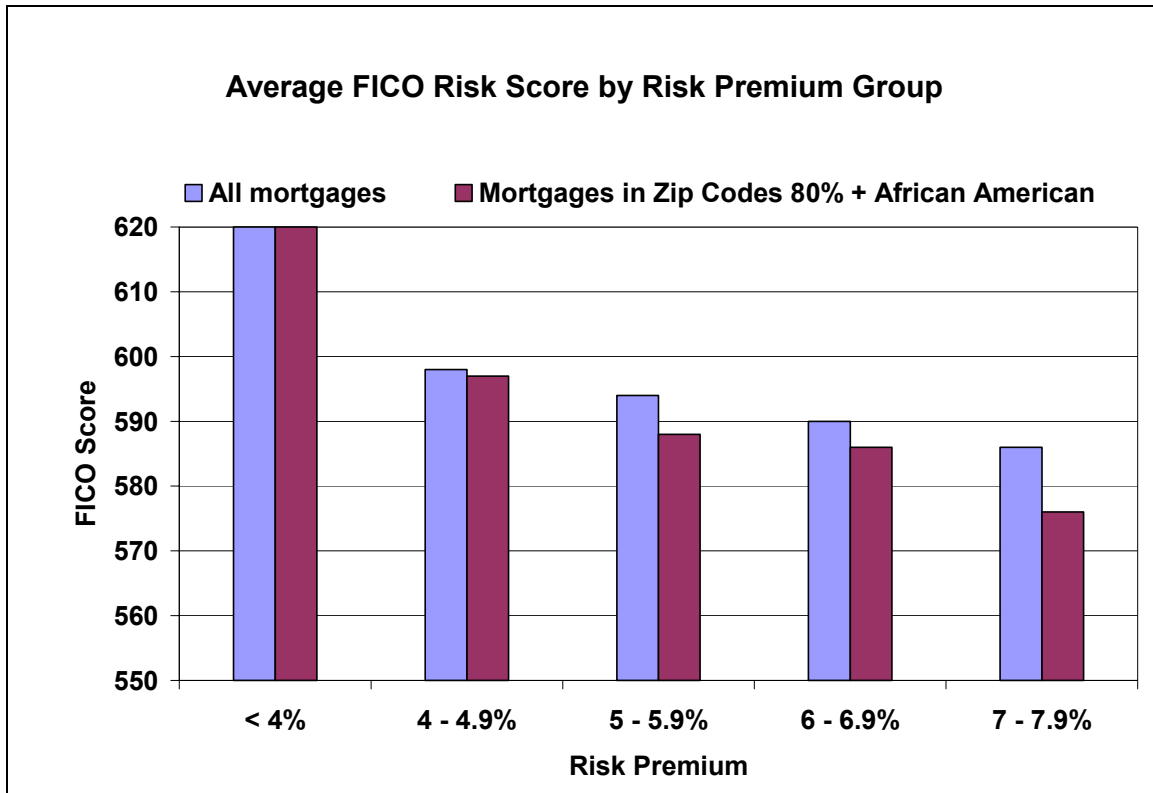
Figure 1 displays the relationship between the FICO risk score and risk premiums for over 900,000 subprime first mortgages originated nationwide between July 1995 and March 2002. The average FICO risk score falls (indicating increasing risk) from 620 in the lowest risk premium group to 585 in the highest risk premium group. That is, higher risk borrowers (as indicated by their lower FICO scores) received, on average, mortgages with higher risk premiums, a relationship that is consistent with risk-based pricing in a well-functioning mortgage market.

Figure 1 also provides some insight into loan pricing in minority neighborhoods. One limitation of the AFSA database is that it does not contain loan-level information about the borrower’s race. However, it does contain the ZIP Code of the collateral property securing each loan. We can, therefore, examine the relationship between risk and risk premiums in ZIP Code areas dominated by minority residents. Figure 1 displays the relationship between FICO risk score and loan risk premiums on approximately 50,000 first mortgage loans that were made in ZIP Code areas in which 80% or more households are black. The relationship between subprime borrower risk and loan pricing in predominately black neighborhoods is strikingly similar to that for all subprime loans nationwide.

¹⁷ A FICO risk score is a widely used statistical risk scoring product developed and sold by Fair Isaac Corporation.

¹⁸ See www.myfico.com for discussion of the FICO risk score.

Figure 1

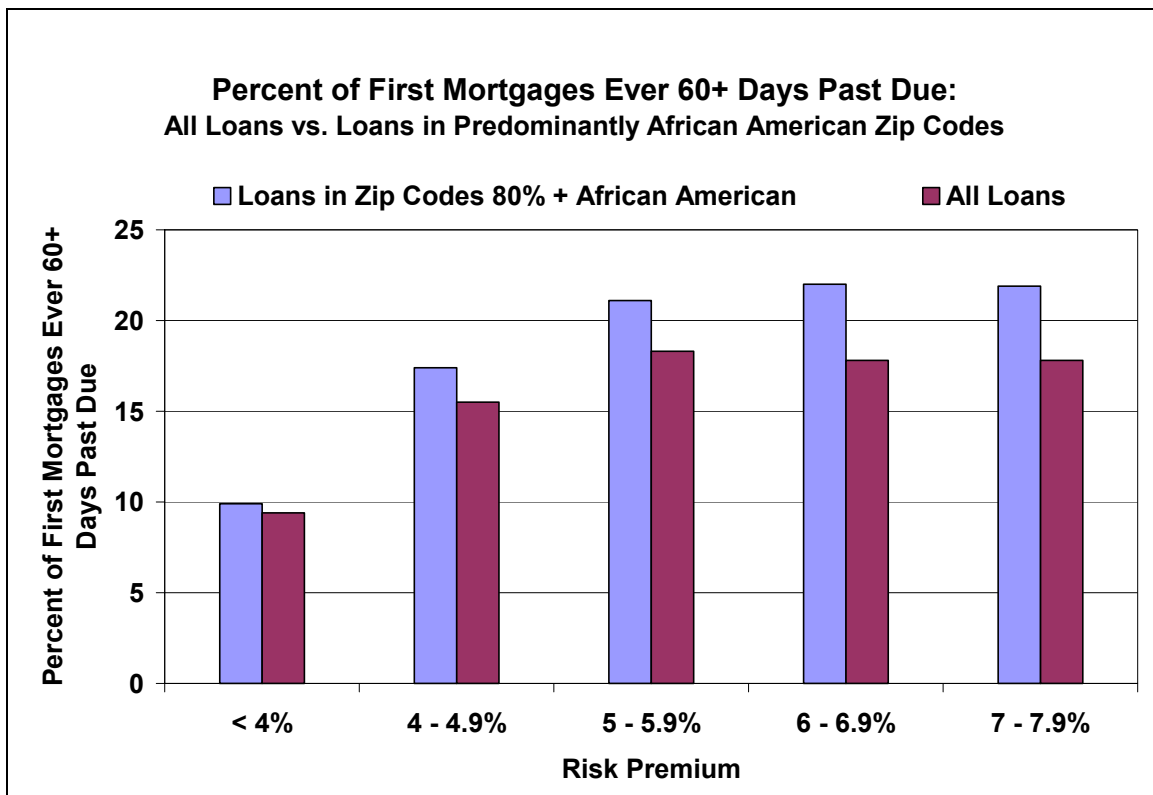


Next, consider the relationship between loan pricing and subsequent loan performance. The AFSA database reported the performance and current status of all loans as of March 31, 2002, providing nearly seven years of payment experience on the oldest loans in the database. The relationship between the loan pricing premium and subsequent loan payment performance provides insight into whether, over a period of years, the subprime mortgage lenders in this study were accurately pricing the loans they made relative to delinquency and foreclosure risk, as should be the case in an efficient marketplace. Weak or no correlation between the risk premium and subsequent performance is essentially the allegation of industry critics who claim that lenders often exploit vulnerable borrowers by opportunistically charging higher rates, regardless of the borrower's risk.

Figure 2 displays the percent of first mortgages ever 60 days or more delinquent over the life of the loan, for each risk premium category. Delinquencies of 60+ days are a widely recognized indicator within the industry of serious delinquency and a proxy for escalated servicing costs. Indeed, some of these loans resulted in foreclosures. The figure illustrates that the incidence of repayment difficulty across all loans rises with the loan risk premium. Moreover, even subprime borrowers with relatively low risk premiums experienced significant incidence of serious delinquency (9.3% of all such borrowers) sometime during the first few years of their loan.

Figure 2 also demonstrates that the same general pattern holds for loans in predominately black ZIP Code areas. That is, in predominately black neighborhoods there is a higher incidence of serious delinquency on loans with higher risk premiums, a sign of rational loan pricing. Interestingly, within a given pricing category, the incidence of serious delinquency on loans in predominately black neighborhoods is somewhat higher than the average for all loans in the database. However, it is possible that the clustering and distribution of loans within what is admittedly a fairly broad (100 basis points) price category accounts for the observed difference between the two groups in the level of serious delinquency. It is also possible that the incidence of less serious delinquencies differs. In any case, without more precise measures of the associated collection costs/losses (e.g., number of times and length of time delinquent; whether a foreclosure action was started; whether foreclosure was completed), no statement can be made about whether the difference in delinquency levels *within* a price category is meaningful.

Figure 2



B. Performance of Subprime High-FICO Loans

Despite the evidence that higher risk premiums are closely correlated with risk, the extension of credit by subprime lenders to borrowers with FICO risk scores that are above or near levels required to qualify for prime loans raises the question: Could these

borrowers have qualified for prime credit? To address this question, we compared performance of high-FICO risk score mortgages with that of all conventional mortgages, as reported in the Mortgage Bankers Association’s (MBA) National Delinquency Survey (NDS). For these purposes, conventional mortgages are essentially prime loans.

Table 4 presents the results for first mortgages.¹⁹ As one would expect, high-FICO subprime mortgages were less likely to be 60+ days past due or in foreclosure than subprime mortgages overall as of the first quarter of 2002. However, high-FICO subprime mortgages were far more likely to be 60+ days past due or in foreclosure than the conventional mortgages in the MBA’s NDS. It is also notable that about one in ten high-FICO subprime mortgages were 60+ days past due at some point during the life of the loan. Clearly even for subprime loan recipients who had relatively high FICO scores at the time they received their loan, repayment problems are common and much more frequent than for prime borrowers.

	<i>AFSA subprime mortgages</i>			<i>MBA, all mortgages</i>
	FICO score 640 or greater	FICO score 680 or greater	All	
<i>Open mortgages, Q1 2002</i>				
60+ days past due	4.7	4.1	7.5	0.7
In foreclosure	2.8	2.2	5.1	0.8
<i>All mortgages</i>				
Ever 60+ days past due	11.2	10.1	15.8	n.a.

n.a.: Not available
Sources: American Financial Services Association (AFSA) and Mortgage Bankers Association (MBA).

IV. Summary

Evidence from a large database of subprime loans indicates that the large majority of subprime borrowers are in moderate income and relatively young age groups—the same demographic groups in which mortgage borrowing is generally prevalent. This finding contrasts sharply with much of the anecdotal evidence often cited by industry critics, which creates the perception that the subprime borrowers are poor or old. In addition, the data indicate that the majority of subprime borrowers have moderately valued homes, but they borrow more heavily against their homes than mortgage borrowers generally.

Although critics of subprime lending have argued that many subprime mortgages are priced “too high,” our analysis of the AFSA subprime mortgage database finds that subprime mortgage prices correlate closely with delinquency and foreclosure experience,

¹⁹ Inclusion of second mortgages would not substantially alter the results shown in Table 4.

as we would expect in an efficient marketplace. Mortgages with relatively lower prices have, on average, a significantly lower delinquency and foreclosure experience than higher priced mortgages.

There is no evidence in the AFSA database that lower risk borrowers (as measured by FICO score at the time of application) are *routinely* paying more than borrowers who present significantly greater risk, as has been alleged by critics of subprime lending. Moreover, when we look deeper and examine only high FICO borrowers (borrowers with “prime” or “near-prime” FICO scores), again prices and actual delinquency and foreclosure experience closely track. When a high FICO borrower is charged at the upper end of the range for subprime loans, that borrower is generally part of a group of borrowers with a high incidence of delinquency and default. This reinforces the point that the riskiness of a loan is determined by more than just the borrower’s initial FICO score. Matters such as the value of the property, the extent of the borrower’s equity, overall debt load, job and income stability, and so on all play a role in the actual likelihood of the borrower repaying without difficulty.

The available evidence from this large database suggests that the subprime market is working as a competitive market should. To be sure, some people are charged more for loans than others, but all the evidence indicates that, on average, they have a higher risk of delinquency and foreclosure than borrowers who receive lower prices.

I thank you for the opportunity to share these results with you today and would be happy to answer any of your questions.