Subprime Markets, the Role of GSEs, and Risk-Based Pricing

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

Visit PD&R's Web Site

www.huduser.org

to find this report and other sponsored by
HUD's Office of Policy Development and Research (PD&R).
Other services of HUD USER, PD&R's Research Information Service, include listservs; special interest, bimonthly publications (best practices, significant studies from other sources); access to public use databases; hotline 1-800-245-2691 for help accessing the information you need.

SUBPRIME MARKETS, THE ROLE OF GSEs, AND RISK-BASED PRICING

Prepared for:
U.S. Department of Housing and Urban Development
Office of Policy Development and Research

Prepared by:
Kenneth Temkin
Jennifer E. H. Johnson
Diane Levy
The Urban Institute

March, 2002

Acknowledgements

This report was prepared by The Urban Institute under a contract with the U.S. Department of Housing and Urban Development. It presents the ideas and opinions of many subprime mortgage market participants and observers. The authors gratefully acknowledge representatives of lenders, trade associations, Fannie Mae and Freddie Mac, rating agencies and other market experts who took the time to talk with us about the complex issues related to a larger GSE role in the subprime market. We also benefited from expert advice from HUD staff, including Harold Bunce, Theresa DiVenti and John Gardner. Eric Stein of the Self-Help Credit Union and Professor Cathy Mansfield of Drake University reviewed an earlier draft of the report, and provided invaluable assistance. Despite this generous help, any errors and omissions that may remain in this report are, of course, our own.

The Department of Housing and Urban Development routinely discloses past or current relationships that authors of its funded studies have had with Fannie Mae or Freddie Mac. Kenneth Temkin disclosed that he is a reviewer for the Fannie Mae Foundation's Housing Policy Debate and has received research support from the Fannie Mae Foundation. Jennifer Johnson’s spouse is a Fannie Mae employee. Diane Levy has no past or current relationships with either GSE.

FOREWORD

Despite the recent growth in the subprime mortgage market, little is known about subprime borrowers, their default experience, or subprime lenders' underwriting practices. This report will help to expand what is known by looking at lending practices in the subprime mortgage market and the current and potential role of Fannie Mac and Freddie Mac. The report is based on a review of relevant literature and a series of interviews with subprime and prime lenders and representatives of consumer groups, regulators, investment banks and trade associations.

The authors find that subprime borrowers are more likely to have low incomes or be members of minority groups than their primary market counterparts. Subprime borrowers in general also tend to be less financially knowledgeable and sophisticated and less comfortable dealing with banks. Underwriting standards in the subprime mortgage market vary from lender to lender and are not guided by secondary market standards as in the prime mortgage market. As a result, it is difficult for borrowers to determine whether or not a loan offered by a subprime lender is the best loan for which they qualify given their individual risk profiles.

Fannie Mae and Freddie Mac have stepped cautiously into the subprime market, largely targeting relatively high-quality subprime loans as they gain experience and accumulate the data they need to project default rates and establish pricing guidelines as their subprime programs grow. Some participants in the subprime industry welcome their presence while others in the industry question the need for their involvement.

As the study notes, the use of risk-based pricing and the development of automated underwriting systems are changing the mortgage lending environment, including the subprime market. Because of those changes and growth in that market, many people are raising questions about how lenders employ their additional business capacity, whether lenders provide borrowers with the best mortgage for which they qualify, and what procedures and policies apply to applicants who are not recommended for approval by automated underwriting systems. The authors look at these issues as well as the potential of entities such as Fannie Mae and Freddie Mac to bring greater efficiencies to the subprime segment of the mortgage market.

This study should be of value to policy makers, researchers, financial institutions, and anyone interested in subprime mortgage markets and the role of government-sponsored housing enterprises.

Lawrence L. Thompson

Lawrence L. Thompson
General Deputy Assistant Secretary for Policy
Development and Research

This page is intentionally left blank.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Subprime lending—originating mortgages to relatively risky borrowers—expanded during the 1990s. Market analysts estimate that lenders originated about $160 billion worth of subprime loans in 1999, up from $40 billion in 1994. A number of factors accounted for this growth: federal legislation preempting state restrictions on allowable rates and loan features, the tax reform act of 1986, increased demand for and availability of consumer debt, and an increase in subprime securitization. It is noteworthy that subprime lending grew in the 1990s largely without the assistance of Fannie Mae and Freddie Mac, the two Government-sponsored enterprises (GSEs) which purchase and securitize mortgage loans. This pattern will change. Both Fannie Mae and Freddie Mac have announced that they plan to increase their subprime mortgage purchases. Though the GSEs currently only purchase about 14 percent of subprime loans originated, market analysts expect that within the next few years the GSEs could purchase as much as 50 percent of the overall subprime mortgage volume.

The GSEs are increasing their business, in part, in response to higher affordable housing goals set by the U.S. Department of Housing and Urban Development (HUD) in its new rule established in October 2000. In the rule, HUD identifies subprime borrowers as a market that can help Fannie Mae and Freddie Mac meet their goals, and also help to establish more standardization in the subprime market.

Some subprime mortgage market participants do not think it is appropriate for Fannie Mae and Freddie Mac to participate in the subprime market. According to these participants, the higher costs paid by borrowers in the subprime market appropriately reflect the risks associated with extending credit to higher risk borrowers. It is unfair, claim these companies, for a GSE to enter into an efficient, private market that is providing a necessary service to credit-impaired borrowers. The opponents of a larger GSE subprime role argue that Fannie Mae and Freddie Mac can secure capital at cheaper rates, creating an unfair competitive advantage. As a result, some subprime lenders fear that a larger GSE role in the subprime market will drive a number of subprime mortgage market participants out of business.

The GSEs and some market observers dismiss the idea that Fannie Mae and Freddie Mac should not play a larger role in the subprime market. They argue that an expanded GSE role in the subprime market is consistent with Fannie Mae's and Freddie Mac's charters, and that borrowers will benefit from a larger agency role in the subprime market.

The purpose of this report is to provide HUD with a preliminary picture of the potential effects of a larger GSE role in the subprime market, and suggest an oversight and monitoring strategy that is appropriate given HUD's regulatory responsibility and its encouragement of a larger GSE role in the subprime market. It is important to emphasize that our analysis is not a definitive projection. Rather, we report the opinions and perceptions of key industry participants, including lenders, investment bankers, consumer groups, the GSEs, industry trade groups and regulators as well as information we read as part of a literature review of the topic. We present our main findings and our suggested monitoring strategy below.

Subprime Lending: A Different Business

Interviewees underscored the point that subprime lending is a different type of business when compared to prime lending. The borrowers that qualify for subprime loans tend to have lower credit scores, and cannot qualify for loans based on standard GSE underwriting guidelines. Subprime lenders pride themselves on their ability to originate loans to borrowers who require personalized, manual underwriting. This process, according to subprime lenders, allows such companies to identify and establish appropriate prices for borrowers who are more creditworthy than their relatively low credit scores suggest. Good subprime lenders are able to judge and price risks accurately according to standards different from those used in the prime market, and serve customers who would not be eligible for A credit. There is some degree of skepticism among lenders (both subprime and prime) that prime lenders will be able to increase their subprime origination volume in a profitable manner.

GSE Subprime Activities: A Slow Start, But Large Potential Market Share

Fannie Mae and Freddie Mac are moving into the subprime market in a slow and prudent manner. The GSEs are purchasing a modest amount of subprime loans in order to enhance their knowledge of subprime underwriting, servicing and outreach. The agencies will use the information they collect from their initial subprime purchase volume to improve their automated underwriting systems to the point where prime underwriters can use Desktop Underwriter® and Loan Prospector® to evaluate loan applications from borrowers who do not qualify for prime loans. Interviewees expect the GSEs to develop loan products to serve the least risky portion (A- borrowers) of the subprime market, which accounts for about 50 percent of the overall subprime lending originations.[1]

Potential Benefits of Larger GSE Role in Subprime Lending to Consumers

All of the interviewees—except some subprime lenders—said that the GSEs have the potential to bring lower prices, more standardization, and increased liquidity to the A- portion of the subprime lending market. Fannie Mae and Freddie Mac claim that the subprime market is not efficient, and point to evidence which indicates that subprime borrowers pay interest rates, points, and fees in excess of the higher costs associated with serving borrowers in the subprime market. The agencies suggest that they can make the subprime mortgage market more efficient by creating standardized underwriting and pricing guidelines in the subprime market. Subprime borrowers

---

[1] "Most Subprime Loans Fall in the Better Risk Grades with Lower Delinquencies." The Market Pulse. Spring 2000.

served by the GSEs may have access to information that makes it possible for them to compare loan prices and terms from different lenders, since these companies will increasingly use a common set of underwriting standards.

While most interviewees said that A- borrowers would benefit from an increased agency role, they also said that riskier borrowers (those classified as B and C credit risks) may actually pay higher prices. They claim GSE seller/servicers may serve the least-risky subprime borrowers, leaving traditional subprime lenders with a pool of riskier potential customers. Although all subprime borrowers pay higher rates than prime borrowers, interviewees stated that riskier subprime borrowers' rates are now being effectively cross-subsidized by other subprime borrowers with relatively good credit. This cross-subsidization—to the extent it exists—may change, as prime lenders "cream" most of the A- business away from subprime lenders. As a result, rates for B, C, and D borrowers may increase above current levels as the prime market captures A- borrowers.

Possible Effects on Fannie Mae and Freddie Mac

Based on their past experience in this type of business, Fannie Mae and Freddie Mac are likely to increase their subprime activities in a sound and prudent manner. Since subprime mortgages will account for a very small share of Fannie Mae's and Freddie Mac's overall book of business, the subprime business will increase GSE profits only slightly. Yet, a larger subprime role will expose the GSEs to more risk. Most interviewees thought that the GSEs will be able to manage these risks since subprime loans are expected to account for such a small portion of the agencies' overall business. Moreover, the GSEs have a proven ability to model and price risk. Subprime lenders we interviewed strongly dissented from this view. Representatives of subprime lenders said that they are skeptical that Fannie Mae and Freddie Mac can enter the subprime market without exposing themselves to a high level of risk. These lenders pointed out that the subprime industry is not highly automated; applicants receive specialized attention from underwriters who are not penalized if they deviate from written formal guidelines. It will be difficult, according to these interviewees, for the GSEs to develop automated systems that can accurately assess the risks associated with lending to subprime borrowers.

In addition, both prime and subprime lenders we interviewed emphasized the importance of proper servicing in successful subprime lending. These informants pointed out that subprime borrowers require more attentive and aggressive servicing than traditional prime borrowers. Fannie Mae and Freddie Mac, these respondents said, are not familiar with the subprime servicing costs and procedures used by subprime servicers to assure repayment. As a result, some subprime lenders have the opinion that Fannie Mae and Freddie Mac will not be able to develop servicing and repurchase guidelines that are appropriate for the subprime market. This, in turn, may act as a disincentive for some seller/servicers to originate subprime loans and sell them to the agencies.

Finally, subprime lenders and some other interviewees said that the GSEs' movement into the subprime market is inconsistent with their charters, which mandate that Fannie Mae's and Freddie Mac's purpose is to ensure liquidity, stability in and access to finance markets. These lenders argue that the subprime market already has an active and healthy secondary market without GSE participation: there is no need for the GSEs to enhance liquidity. Moreover, many subprime loans are cash-out refinance mortgages, which borrowers generally use for non-housing related consumption, rather than typical refinance mortgages, which provide borrowers with lower rates. Why should the GSEs, argue some subprime lenders, compete in this type of market?

Risk-based Pricing

The movement of the GSEs and prime lenders into the subprime market may be facilitated by the adoption of risk-based pricing. Under a risk-based pricing scheme, mortgages are priced based on the underlying risk of the borrower: borrowers with riskier profiles pay higher prices. Both industry participants and borrowers will be affected by this coming pricing paradigm. The line between prime and subprime lending will become increasingly blurred as prime lenders, and GSEs, are better able to serve all borrowers with risk-based pricing.

The magnitude of the impact of risk-based pricing cannot be predicted at this point with precision. Certain factors, such as industry and borrower willingness to accept this new pricing mechanism, will affect its adoption. For instance, industry willingness may be affected by a potential increase in fair lending scrutiny, to the extent that with risk based pricing, protected classes are charged higher interest rates based on objective measures of risk. Additionally, the adoption of risk-based pricing may be constrained by the limitations of the model used to predict risk: collateral risk is an important risk factor and is notoriously difficult to model. However, risk-based pricing will certainly be adopted to some degree in the mortgage market, and will certainly change the way the mortgage industry is structured and how borrowers shop for mortgages.

Recommendations

The GSEs are increasing their subprime mortgage purchase volumes. This expansion means that HUD must improve its ability to monitor the GSEs' subprime lending activities in order for the department to comply with its mandate, under the Federal Housing Enterprises Financial Safety and Soundness Act (FHEFSSA) of 1992 to set affordable goals for the GSEs and ensure that the agencies' underwriting and appraisal guidelines comply with fair lending laws. We recommend that HUD should take steps to examine the following three issues:

(1) Are subprime borrowers benefiting from a larger GSE role in the subprime market?

(2) Are the GSEs' subprime activities in compliance with fair lending laws? Would the subprime loans purchased by the GSEs violate fair lending

laws or the Real Estate Settlement Procedures Act (RESPA), Truth in Lending Act (TILA), and Home Owners Equity Protection Act (HOEPA)?

(3) Is a larger subprime role for the GSEs appropriate?

In order to accomplish these assessments, HUD should evaluate:

- *The terms of loans purchased by the GSEs.* In order to assess whether the GSEs are bringing more efficiency to the subprime market, HUD should consider monitoring changes in interest rates, terms and conditions and companies originating subprime loans, and the proportion of prime lenders originating subprime mortgages. This type of analysis could be conducted if the proposed changes to HMDA (which include reporting of APR) are implemented by comparing the contract interest rate in HMDA to prevailing rates for the particular year. Loans originated by prime lenders with significantly higher interest rates could be considered as subprime. Moreover, HUD should examine whether GSE subprime loan products do provide lower priced mortgages (in terms of contract interest rates, points and fees) for similarly qualified borrowers when compared to non-agency subprime loans.

- *Whether GSEs' Subprime Business Complies with Federal Fair Lending Laws.* HUD should examine the new GSE automated underwriting systems in order to ensure that the factors used by the system to evaluate loan applications do not have a disparate impact on protected classes of borrowers. In order to accomplish this review, HUD should examine (1) whether the systems are more likely to categorize minority borrowers into higher risk grades, thereby having a disproportionate effect, and (2) if any factors used in the system that have a disproportionate effect serve a business necessity.

  This review extends HUD's on-going assessment of the GSEs' automated systems. It should be conducted in order to examine the effects of any changes made by the agencies to their automated systems in order to assist their seller/servicers in originating subprime loans and, possibly, implementing risk-based pricing in the primary mortgage market.

  In addition, Fannie Mae and Freddie Mac should not purchase loans originated by companies that practice predatory lending. HUD, given its GSE oversight responsibility, should ensure that the GSEs do not provide liquidity for lenders that are in violation of the law and do not permit objectionable practices.[2]

- *The appropriateness of a larger subprime role for Fannie Mae and Freddie Mac.* Many of the interviewees contacted for this study questioned whether it is appropriate for Fannie Mae and Freddie Mac to increase their subprime book of business. To the extent that HUD agrees that this comment is pertinent, it would need to consider the appropriateness of a larger GSE subprime role within the procedural framework established in FHEFSSA.

Conclusion

Fannie Mae and Freddie Mac are expanding their subprime business, partially in response to the higher affordable housing goals established by HUD. Most interviewees believe that this move by the GSEs has the potential to improve the subprime market for consumers. The GSEs can bring more standardization into the subprime market, possibly resulting in lower prices for some subprime borrowers. In addition, the GSEs' larger subprime role may help to reduce the level of predatory lending, since Fannie Mae and Freddie Mac have set clear guidelines about the types of loans that they will not purchase.

In response to a larger subprime role, HUD should focus its regulatory efforts in three areas. The department should improve its ability to identify loans with features that prohibit them from counting towards the GSEs' affordable housing goals. Secondly, HUD should update its fair lending review of the GSEs' automated underwriting systems, since they now have modules which evaluate applications from credit-impaired borrowers. Finally, HUD should evaluate whether it is necessary to initiate a review of the appropriateness of a larger GSE subprime role.

---

[2] U.S. Department of Housing and Urban Development. HUD's Regulation of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac): Final Rule. Federal Register, October 31, 2000, pp. 65068-65071.

SECTION 1: INTRODUCTION

Subprime lending—originating mortgages to relatively risky borrowers—expanded during the 1990s. Market analysts estimate that lenders originated about $160 billion worth of subprime loans in 1999, up from $40 billion in 1994.[1] As detailed later in this report, a number of factors accounted for this growth: federal legislation preempting state restrictions on allowable rates and loan features, the tax reform act of 1986, increased demand for and availability of consumer debt, and an increase in securitization. It is noteworthy that subprime lending grew in the 1990s largely without the assistance of Fannie Mae and Freddie Mac.[2] According to *Inside B and C Lending*, Freddie Mac purchased $18.6 billion of subprime (mostly Alt A and A-) loans on a flow basis in 2000. In addition, Freddie Mac purchased another $7.7 billion of subprime loans through structured transactions. Fannie Mae's participation in the subprime market was much smaller: it only purchased about $600 million of subprime loans on a flow basis.[3] This pattern will change. Both Fannie Mae and Freddie Mac have announced that they plan to increase their subprime mortgage purchases. Though the GSEs currently only purchase about 14 percent of subprime loans originated, market analysts expect that within the next few years the GSEs could purchase as much as 50 percent of the overall subprime mortgage volume.

The GSEs are increasing their business, in part, in response to higher affordable housing goals set by HUD in its new rule established in October 2000. In the rule, HUD identifies subprime borrowers as a market that can help Fannie Mae and Freddie Mac meet their goals, and also help to establish more standardization in the subprime market.

A larger GSE presence in the subprime lending market will likely have a significant effect on the subprime market. Currently, most subprime loans are not purchased by the GSEs; the market's liquidity is overwhelmingly provided by affiliates of depository lenders and Wall Street investment banks through the issuance of private label mortgage backed securities. Moreover, lenders originating subprime loans typically do not issue a large number of prime loans. Indeed, subprime lenders believe that successful companies serving higher risk borrowers must have specialized expertise in outreach, underwriting and servicing: expertise lacking among most prime lenders.

The GSEs argue that borrowers will benefit from a larger agency role in the subprime market. Fannie Mae and Freddie Mac claim that the subprime market is not efficient, and point to evidence which indicates that subprime borrowers pay interest rates, points and fees in excess of

---

[1] Mortgage Market Statistical Annual for 2000. Inside Mortgage Finance Publications, Inc. Vol II:1-2.

[2] In this report we refer to Fannie Mae and Freddie Mac as either the GSEs (government sponsored enterprises) or the agencies.

[3] "Subprime Lenders Mixed on Issue of GSE Mission Creep." Inside B and C Lending. March 19, 2001.

the higher costs associated with serving borrowers in the subprime market.[4] Fannie Mae's analysis indicates that a high proportion (perhaps 50 percent) of borrowers in the subprime market could qualify for cheaper, prime mortgages, though it is unclear why such borrowers are in the subprime market.[5] The agencies suggest that they can make the subprime mortgage market more efficient by creating standardized underwriting and pricing guidelines in the subprime market.

Some subprime mortgage market participants do not think it is appropriate for Fannie Mae and Freddie Mac to participate in the subprime market. Officials of these companies do not believe that the subprime market is inefficient. According to these participants, the higher prices paid by borrowers in the subprime market appropriately reflect the risks associated with extending credit to higher risk borrowers. It is unfair, claim these companies, for a GSE to enter into an efficient, private market that is providing a necessary service to credit-impaired borrowers. The opponents of a larger GSE subprime role argue that Fannie Mae and Freddie Mac can secure capital at cheaper rates, creating an unfair competitive advantage. As a result, some subprime lenders fear that a larger GSE role in the subprime market will drive a number of subprime mortgage market participants out of business.

The purpose of this report is to provide the U.S. Department of Housing and Urban Development (HUD) with a preliminary picture of the potential effects of a larger GSE role in the subprime market, and suggest an oversight and monitoring strategy that is appropriate given HUD's regulatory responsibility and its encouragement of a larger GSE role in the subprime market. It is important to emphasize that our analysis is not a definitive projection. Rather, we report the opinions and perceptions of key industry participants, including lenders, investment bankers, consumer groups, the GSEs, industry trade groups and regulators as well as information we read as part of a literature review of the topic.

1.1: Methodology

The GSEs' plan to increase their role in the subprime market is controversial. As mentioned above, some current subprime market participants believe that Fannie Mae and Freddie Mac should not be allowed to increase their subprime loan purchases because the agencies enjoy lower costs associated with their status as government sponsored enterprises which subprime market participants believe creates an unfair competitive advantage. Many consumer groups and government regulators, however, welcome a larger GSE role in subprime lending; they believe such a move will benefit consumers through cheaper loan prices and more standardization.

---

[4]Lax, Howard, Michael Manti, Paul Raca and Peter Zorn. "Subprime Lending: An Investigation of Economic Efficiency." Mimeo. February 25, 2000.

[5]Fannie Mae. Remarks Prepared for Delivery by Franklin Raines, Chairman and CEO of Fannie Mae to the National Community Reinvestment Coalition*.* Washington, D.C. March 20, 2000*.*

Because there is no consensus about the GSEs' potential effect on subprime lending, we interviewed representatives of a wide array of stakeholders, using discussion guides. We did so in order to provide HUD with the ideas and opinions of as many interested parties as possible. As a result, we reviewed a wide range of relevant literature, and also contacted representatives of subprime lenders, prime lenders, industry trade groups, consumer groups, rating agencies, investment banks, government regulatory agencies and the GSEs.

Overall, we sent letters and followed-up with telephone calls to representatives of 42 organizations, including 13 subprime lenders. Unfortunately, many subprime lenders did not respond to our request to talk about the potential effects of the GSEs on their business. We believe that many of these lenders did not want to participate in this study because of the significant amount of negative publicity about subprime lending in the media at the same time we contacted subprime lenders and investment banks. In the end, we spoke with representatives of seven lending companies: three subprime and four prime. We also conducted interviews with representatives of 11 other organizations, including consumer groups, regulators, investment banks, and trade associations.

1.2: Report Structure

The remainder of this report is organized as follows. In Section 2, we review subprime loan products and borrowers, in Section 3 we present a brief overview of the factors which account for the subprime market's growth in the 1990s. Section 4 presents information about subprime lenders' underwriting and pricing techniques. In Section 5 we review the current role of the GSEs in the subprime market, and analyze the potential effects of an increase in their market participation. In Section 6 we discuss the effects of an increase in risk-based pricing. In Section 7, we present the results of research conducted as part of an add-on to the original study that provides a discussion of automated underwriting in today's lending environment. In this study we examined the potential effect of the GSEs' subprime automated underwriting on loans previously sent to manual underwriting. We conclude, in Section 8, with a recommended monitoring strategy for HUD to follow in response to the GSEs' intent to increase their subprime business.

SECTION 2: WHAT IS SUBPRIME LENDING AND WHO DOES IT SERVE?

Subprime lenders offer mortgages to people who represent a higher level of risk than borrowers who meet standard prime underwriting guidelines. In general, there are three different types of products offered to subprime borrowers:

- Home purchase and refinance mortgages targeted to borrowers with poor credit histories. Refinance mortgages account for a larger share of these loans: over 80 percent of loans originated to borrowers are for refinance purposes. In a majority of cases, borrowers refinance mortgages for an amount greater than the unpaid principal on the original mortgage, thereby taking “cash out” of the transaction;

- Alt A mortgages, typically originated to borrowers who cannot document all of the underwriting information in their application. Alt A loans can either be used to purchase a home or to refinance an existing mortgage. These borrowers have FICO scores similar to those in the prime market;

- High loan-to-value (LTV) mortgages, originated to borrowers with relatively good credit, but with LTV ratios that sometimes exceed 150 percent. These loans are refinance mortgages.

There is little reliable information on the contribution each of the three types of loans to the total subprime market. The GAO (1998) reports that high LTV lending is a relatively small component of the market; about $8 billion of such loans were originated in 1997. Alt A lending represents a larger share of the subprime market. According to the Mortgage Information Corporation (MIC, 2000), Alt A loans accounted for about 23 percent of all subprime loans securitized in the mortgage pools the company tracks as part of its LPS Securities software. While not an exact measurement, it indicates that credit-impaired lending is about 75 percent of all subprime loans (including Alt A and high LTV) originated.

While all three types of subprime loans have characteristics that make them more risky, not all products target borrowers who are credit-impaired. Fitch, Inc. reports that subprime mortgages, originated to credit impaired borrowers that receive A- and B ratings, typically are issued to borrowers with credit scores that range between the high 500s and low 600s.[6] This is in marked contrast to the credit profiles of Alt A borrowers. In 1998, nearly 43 percent of Alt A borrowers had a FICO score over 720, compared to almost 61 percent of A borrowers.[7] Similarly, high LTV

[6] Fitch IBCA. Securitization of 125 LTV Mortgages. March 4, 1998. <www.fitchibca.com>
[7] “Putting Alt A Loans Under the Microscope.” The Market Pulse. Fall 1999.

lending is targeted to borrowers with relatively good credit: the average FICO score for these borrowers is between 670 and 680.[8]

Fannie Mae and Freddie Mac are likely to serve the first two types of subprime borrowers. In fact, Fannie Mae and Freddie Mac recently expanded their product line to serve credit-impaired borrowers. The GSEs already offer Alt A and low-doc products. It is unlikely that the GSEs will play a large role in the high LTV market, since they cannot purchase loans with an LTV over 100 percent.

Borrowers use subprime loans for a variety of purposes, including home improvements, debt consolidation, and as an alternative source of consumer credit. Relatively few (16 percent) subprime mortgages are used for home purchase. According to a joint HUD-Treasury report, "by 1999 more than three out of every four loans in the subprime mortgage market were first liens….the vast majority of these subprime first lien mortgages—82 percent—were used for refinancing as opposed to purchasing a home. Of these refinance loans, a majority (59 percent) were 'cash out,' indicating that borrowers used these loans for home improvement, for making other consumer purchases or consolidating other forms of debt."[9]

2.1: Borrowers Served in the Subprime Market

Subprime lenders serve a much higher proportion of minority and lower income borrowers than prime lenders.[10] In 1998, African Americans (3.4 percent) and Hispanics (4.2 percent) accounted for less than eight percent of conventional home purchase mortgages in the prime market. In the subprime market, however, African American (11.7 percent) and Hispanic (7.6 percent) borrowers accounted for nearly 20 percent of subprime home purchase mortgages originated in 1998. This pattern is also evident for refinance mortgages. In 1998, African American (2.7 percent) and Hispanic (3.1 percent) borrowers accounted for about six percent of all prime conventional refinance mortgages. Yet, in that same year, African American (12.6 percent) and Hispanic (4.1 percent) borrowers received nearly 17 percent of subprime refinance mortgages.[11]

These racial differences, according to analysts, are evidence that residential finance markets are hypersegmented: African American homeowners, similar to African American homebuyers, are more likely to receive both home purchase and refinance mortgage credit from a subprime lender than whites. Using HMDA data, Immergluck and Wiles found that more than 50

---

[8] Ibid.

[9] U.S. Department of Housing and Urban Development/U.S Department of the Treasury. Curbing Predatory Home Mortgage Lending. Report. 2000. p.31.

[10] Canner, Glenn B. and Wayne Passmore. "The Role of Specialized Lenders Extending Credit to Low-Income and Minority Homebuyers." Federal Reserve Bulletin. November, 1999.

[11] Scheessele, Randall. 1998 HMDA Highlights. Working Paper No. HF-009. Washington, D.C.: U.S. Department of Housing and Urban Development, Office of Policy Development and Research. September 1999.

percent of refinance loans originated in predominantly black census tracts were originated by subprime lenders, while less than 10 percent of refinance mortgages in predominantly white tracts were originated by subprime lenders. In fact, subprime lenders accounted for nine out of the top 10 companies receiving refinance mortgage applications in predominantly black Chicago neighborhoods. In predominantly white Chicago neighborhoods, only two subprime lenders were among the top 10 companies that received refinance mortgages from area residents. These racial disparities are not solely due to income; in a multivariate analysis of subprime lending activity, Immergluck and Wiles found that the proportion of loans originated by subprime lenders in a given census tract was most affected by the tract's racial composition, irrespective of income.[12]

Other reports also find similar racial patterns. Analyzing 1998 HMDA data, HUD found that subprime loans accounted for 51 percent of the dollar amount of all refinance loans in predominantly black census tracts, compared with only nine percent of the dollar amount of refinance loans in mostly white neighborhoods.[13] In a recent study, Pennington-Cross, Yezer, and Nichols find that minority homebuyers are more likely to use subprime financing, even after controlling for credit-risk factors.[14]

Low- and moderate-income income families are also over-represented in the subprime refinance market. In 1998, subprime loans accounted for a little more than one-half of refinance loans originated to low- and moderate-income borrowers, about 16 percentage points more than the proportion of low- and moderate-income borrowers receiving refinance mortgages in the prime, conventional market.[15] Not surprisingly, subprime borrowers are also more likely to live in poorer census tracts: a little more than two-thirds of subprime loans originated in 1998 were in lower and moderate-income census tracts, compared to only 58 percent of prime loans.

[12] Immergluck, Daniel and Marti Wiles. Two Steps Back: The Dual Mortgage Market, Predatory Lending, and the Undoing of Community Development. Chicago: The Woodstock Institute. 1999.

[13] See, for example, U.S. Department of Housing and Urban Development. Unequal Burden: Income and Racial Disparities in Subprime Lending. 2000.

[14] Pennington-Cross, Anthony, Anthony Yezer and Joseph Nichols. Credit Risk and Mortgage Lending: Who Uses Subprime and Why? Washington, D.C.: Research Institute for Housing America. 2000.

[15] Scheessele, Randall. 1999.

SECTION 3: HOW DID WE GET HERE? A BRIEF HISTORY OF SUBPRIME LENDING

Subprime lending grew rapidly in the 1990s. Between 1993 and 1998, subprime lending increased 760 percent for home purchases and 890 percent for refinance mortgages; during the same period the prime market grew 38 percent and almost three percent, respectively.[16] The subprime market's growth can be attributed to a number of interrelated factors: these include federal legislation preempting state limits on mortgage terms, the national economy and attendant increases in property values, increased levels of consumer debt, technology development, changes in financial markets, and the search for increased profits. We discuss these factors, turn to the financial troubles of 1998 and their impact on the subprime market, and conclude with recent changes.

3.1: Legislation Affecting Subprime Lending

Two laws enacted in the early 1980s—the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) and the Alternative Mortgage Transaction Parity Act (AMTPA)—made it possible for lenders to originate mortgages with prices and features previously prohibited by individual states. We discuss the effects of these statutes below.

3.1.1: Depository Institutions Deregulation and Monetary Control Act (DIDMCA)

DIDMCA, adopted in 1980, helped set the stage for the growth of subprime lending by deregulating loan rates through the preemption of state interest rate caps for first lien loans on a borrower's house and through not setting an alternative rate cap.[17] The law also does not distinguish between purchase loans and loans made for other purposes that are secured by the borrower's home. "Although the [Congressional] debate focused entirely on purchase money home mortgages, the preemption apparently extended to any mortgage secured by a first lien on residential real property."[18] Upheld by the courts since 1980, this broad interpretation of DIDMCA is an important element in the subprime market's growth because it allows lenders which originate de facto second mortgages and consumer loans to make more expensive first lien loans, the most common types of subprime loans.

3.1.2: Alternative Mortgage Transaction Parity Act (AMTPA)

While DIDMCA provides a framework for higher interest rates, AMTPA—adopted in 1982—preempts state laws that restrict a number of alternative mortgage features that are important

[16] Immergluck and Wiles. 1999.

[17] Mansfield, Cathy Lesser. "The Road to Subprime 'HEL' Was Paved with Good Congressional Intentions: Usury Deregulation and the Subprime Home Equity Market." South Carolina Law Review. Spring, 2000.

[18] Ibid. p. 503

subprime lending elements. Its intent was to increase the volume of loan products that reduced the up-front costs to borrowers in order to make homeownership more affordable. Specifically, the legislation allows lenders to originate mortgages with features such as variable interest rates, balloon payments, and negative amortization in any "loan or credit sale secured by an interest in residential real property made, purchased or enforced by covered lenders."[19] AMTPA "allows lenders to make loans with terms that may obscure the total cost of a loan."[20] Some advocates believe that AMTPA is now out of date, and should be rescinded since the legislation provides a legal basis for more problematic subprime lending. The legislation is currently in litigation. The State of Virginia's State Corporation Commission filed suit challenging a finding in which a U.S. District Court judge ruled that the Virginia banking commissioner could not enforce a 2 percent limit on prepayment penalties because such rules are preempted by AMPTA. The ruling was upheld on appeal, and is now under consideration by the Supreme Court.[21]

DIDMCA and AMPTA provide the legal framework for subprime lending, except in states that opt out of the legislation. Together, they allow lenders to originate home mortgages with high interest rates and with features such as balloon payments and negative amortization. Even though these acts were not intended to facilitate subprime lending, they make it possible for lenders to originate loans with higher interest rates and a broader range of terms than previously allowed under the various state lending laws.

3.1.3: Tax Reform Act of 1986 (TRA)

The demand for home equity loans increased at the same time that DIDMCA and AMPTA were adopted; it is unclear whether these laws made it easier for lenders to respond to increasing demand for home equity loans, or that lenders created a market for such loans. In any event, rising home values in the 1980s increased the amount of homeowner equity in the United States. This asset became an attractive source of financing after the passage of the Tax Reform Act of 1986. TRA prohibited taxpayers from deducting interest on consumer loans, such as credit cards and auto loans, while it allowed them to deduct interest paid on mortgage loans secured by their principal residence and one additional home. This change provided an incentive for homeowners to take home equity loans and use the proceeds to pay off consumer debt, which usually has higher interest rates than home equity debt.[22]

Lenders' aggressive marketing of home equity mortgages as a relatively inexpensive way to retire existing unsecured debt tapped a large pool of potential borrowers. In 1998, almost 20 percent of households with an income between $15,000 and $25,000 paid more than 40 percent

---

[19]Ibid. pp. 510,511

[20]Ibid. p. 511.

[21]National Mortgage News. May 19, 2001.

[22]Ibid.

of their income for debt, up from only 15 percent in 1988.[23] Increasing numbers of homeowners are using their home equity to retire other forms of credit. The percentage of home equity loans used for debt repayment is greater than the percentage of such loans used to fund home improvements. In 1988, 35 percent of home equity loans were used to repay other debt compared to 45 percent of such loans used to pay for home improvements. By 1994, 68 percent of home equity loans were used to pay other debt while only 38 percent funded home improvements. These figures do not add to 100 percent, since some loans are used for more than one purpose.[24]

3.2: Excess Capacity Among Lenders

Legislative initiatives and aggressive lender marketing, combined with an increased demand for home equity mortgages as an alternative to unsecured consumer debt, drove the industry's growth in the 1990s. At the same time, technological developments, which increased originators' ability to meet the increased loan demand, made it easier for brokers and lenders to originate subprime mortgages.

Brokers and lenders began using computerized loan application intake and automated underwriting systems in the mid-1990s to assist them in prime loan transactions. These innovations allowed mortgage finance companies to originate the large volume of loans triggered by the demand for prime refinance mortgages. A large portion of loan volume is originated by brokers, many of whom established a strong retail presence among consumers through aggressive advertising and outreach efforts. According to an interviewee, many brokers use laptop computers, which enable them to take applications in customers' homes and transmit information to an underwriter, thereby reducing the fixed costs of screening applicants. As prime refinance loan volumes fell after the Federal Reserve increased interest rates in 1994, originators sought other markets to serve—the subprime market was an obvious choice. Brokers and mortgage companies started to originate a larger number of subprime mortgages in 1994 as a means to maintain profits and utilize existing capacity. One key informant interviewed for this study said, "[Lenders] took to subprime lending; it became a fad in 1995. There was a lot of euphoria about subprime lending's potential profits."

3.3: The Good Times Rolled: Subprime Lending in the Mid-1990s

Non-depository and monoline finance companies originate a large share of subprime loans, and mortgage backed securities (MBS) provide a large share of the market's liquidity. Subprime lending can only grow if investors are willing to purchase MBS with subprime collateral. This is exactly what happened in the mid-1990s as companies issued more MBS with certain structures that were acceptable to investors. Investors purchased the MBS because they contained elements

[23]U.S. Department of Housing and Urban Development/U.S. Department of the Treasury. 2000.
[24]Mansfield, 2000.

which insulated some purchasers from the increased level of credit risk from the underlying subprime mortgage collateral pool. Issuers of subprime MBS used a number of methods, including senior-subordinate structures, pool insurance and over-collaterialization, to ensure that a portion of the subprime MBS would receive relatively good credit ratings. There was no shortage of buyers for their mortgage backed securities. In 1997, investors purchased more than $60 billion of subprime mortgage backed securities, six times more than 1991's volume of $10 billion.

Given the increase in the subprime MBS market, originators had sufficient liquidity to increase their subprime lending volume and earned relatively large origination and servicing fees. Companies that issue subprime MBS also earned profits from securitization, especially by booking "gains-on-sale" for these transactions that "...records a stream of future unearned income [at the time] of securitization, with the result being an overstatement of earnings, when viewed on an economic basis."[25]

Analysts, in the mid-1990s, were optimistic about subprime lending. Demand for such loans was strong, originators were making many loans, and demand among investors for subprime MBSs insured a stable supply of liquidity. These favorable trends quickly reversed in the late 1990s, as the subprime market's default rates increased and the Asian debt crisis altered the market demand for subprime MBSs.

3.4: The 1998 Liquidity Crunch: The Party's Over

More firms, attracted by high profits, entered into subprime lending in the late 1980s and 1990s. In order to increase lending volume, lenders applied their underwriting criteria with greater flexibility, and originated loans to less creditworthy borrowers. By 1997, delinquency and default rates were higher than anticipated. Prepayment speeds for subprime loans also were faster than anticipated. Borrowers took advantage of lower interest rates and refinanced their mortgages after improving their credit scores.[26] Moreover, gains-on-sale accounting falsely inflated the industry's overall profits. Investors noticed these trends: MBS prices dropped sharply in 1998, and underwriters were unable to find investors for the riskier certificates issued as part of subordinate securities, creating a liquidity crunch. Without the connection to the capital markets through securitization, subprime originators had fewer sources of liquidity. Simultaneously, warehouse lenders, aware of the situation, called many of their lines of credit from the subprime originators, further limiting the liquidity available to originate subprime loans.[27]

---

[25] Thomas Foley. "Subprime Home Equity Industry Outlook: The Party's Over." Moody's Investor Service Global Credit Research. October, 1998, p. 6.

[26] Office of Federal Housing Enterprise Oversight. 2000 Report to Congress. 2000.

[27] "New Conduit Business Paradigm," National Mortgage News. <http://www.nmnews.faulknergray.com> 1999.

As seen in Exhibit 3.1, several large subprime lenders suffered from these trends. Some companies went out of business while others were purchased by mainstream lenders. Formerly exclusive prime lenders, such as First Union, were then able to offer more services to a broader array of customers and become, in effect, a one-stop shopping source for mortgage financing.[28]

Exhibit 3.1: Selected Events in the Subprime Mortgage Market

Company	Date	Event
Advanta Corp.	2/98	Sold credit card portfolio to Fleet Bank; focus primarily on subprime home equity
Green Tree Financial	6/98	Acquired by Conseco; significant writedown and subsequent equity infusion
The Money Store	7/98	Bought by First Union Corp.
ContiFinancial Corp.	9/98	Substantial 3Q 1998 loss due primarily to hedge loss; filed for bankruptcy in 5/00.
Homegold Financial Inc.	9/98	Significant credit losses; arranged financing with CIR group
MegoMortgage	9/98	Significant losses due to higher than anticipated prepayments
Cityscape Financial Inc.	10/98	Filed for bankruptcy
Southern Pacific Funding Corp.	10/98	Filed for bankruptcy
Amresco Corp	11/98	Discontinued subprime home equity originations
IMC Mortgage Co.	11/98	95% control sold to Greenwich Street Capital Advisors
New Century Financial Corp.	11/98	Nearly 19% of company purchased by US Bancorp
FIRSTPLUS Financial Group Inc.	12/98	Coast to Coast partnership failed to materialize; Firstplus Financial filed for bankruptcy in 2/99.
United Companies Financial Corp.	4Q/98	Selling noncore business to raise cash: filed for bankruptcy in 3/99
MCA Financial	3/99	Filed for bankruptcy
United Companies	3/99	Filed for bankruptcy
IMC Mortgage Co.	7/99	Selling servicing portfolio to CitiFinancial Mortgage, ending relationship with Greenwich
Pacific Thrift & Loan	11/99	FDIC closes lender
First Alliance	3/00	Filed for bankruptcy
The Money Store	6/00	Ceased operations
Conseco (Green Tree)	7/00	Conseco restructures subprime unit, formerly Green Tree Financial
Associates First Capital	9/00	Purchased by Citigroup

Sources: Fitch IBCA. 1999. "Subprime Home Equity: What Next?" Financial Services Special Report. April 27.
Inside B&C Lending (www.imfpubs.com). March, 1999; March 2000; May 2000; July 2000; and September 2000.

[28]Ibid.

The Asian financial crisis in late 1998 eroded investor confidence overall, which in turn reduced confidence in the subprime MBS market. The consequential reduction in liquidity of the capital market further limited lenders' access to other funding sources. This exacerbated liquidity problems for many subprime lenders, and even more companies filed for bankruptcy in 1998. Investors, in the meantime, sought out the less risky Treasury securities.[29] Prime lenders, in 1999, purchased more subprime lenders. As a result, most of the largest subprime lenders today are affiliates or subsidiaries of holding companies that own prime lenders. This trend means that mainstream lenders account for an increasing proportion of subprime lending volume. This may create more standardization in the subprime lending industry, as traditional prime lenders develop standards for their subprime affiliates and subsidiaries. However, this trend will depend on the extent to which prime lenders change the business practices of the subprime companies they acquire.

3.5: Under the Microscope: The Subprime Market and Predatory Lending

As the subprime market continues to develop, it is attracting more scrutiny from consumer groups and government regulators. These organizations are concerned that some lenders in the subprime market take advantage of borrowers by engaging in questionable marketing techniques and borderline or outright fraudulent business practices. Companies that employ these techniques have been accused of practicing *predatory lending*. While there is no common definition of predatory lending, government agencies and consumer groups are working to develop an applicable definition. According to a recent HUD report, predatory lending refers to a wide range of abuses. Typically, predatory lending involves practices in which lenders, brokers or home improvement contractors "engag[e] in deception or fraud, manipulating the borrower through aggressive sales tactics, or taking unfair advantage of a borrower's lack of understanding about loan terms. These practices are often combined with loan terms that, alone or in combination, are abusive or make the borrower more vulnerable to abusive practices."[30] In conducting public forums on predatory lending, HUD identified four frequent predatory practices: loan flipping, charging borrowers excessive fees and packing them into the loan amount, lending without taking into account a borrower's ability to repay and outright fraud and abuse.

The federal government and state legislatures are taking steps to assess the extent to which predatory lending is pervasive in the subprime market, and considering legislative measures that will make it more difficult for lenders to practice predatory lending. The Federal Reserve Board, HUD, and the Treasury Department convened meetings with industry stakeholders in response to a perceived increase in predatory lending. HUD issued a series of reports in 2000 which analyzed the extent to which subprime loans are originated to minority borrowers or in minority

---

[29]Office of Federal Housing Enterprise Oversight. 1999 Report to Congress. 1999.

[30]Bunce, Harold and Allen Fishbein. Overview Paper: Subprime Markets and Predatory Lending. U.S. Department of Housing and Urban Development.:7.

neighborhoods. Moreover, the House of Representatives' Committee on Banking and Financial Services held hearings in May 2000 on predatory home equity lending.[31]

Regulatory agencies are also increasing their oversight of the subprime lending market. Subprime companies purchased by depository prime lenders are subject to federal banking regulations. As a result, the Federal Reserve, Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency, and Office of Thrift Supervision, are starting to set policies, such as capital standards, that will affect more subprime lenders. As an example, the four banking industry regulatory agencies issued an interagency guideline on subprime lending in the spring of 1999, cautioning that the subprime market is highly volatile and the assets have higher risk than prime mortgages. These guidelines provide recommendations for the banks, from managing the risks of subprime lending to selling the mortgages.[32]

A number of states and localities are considering, or have passed, legislation to curb predatory lending practices. Two states whose actions have garnered considerable attention are North Carolina and New York. In 1999, the North Carolina legislature passed Senate Bill 1149, which went into effect on July 1, 2000. This bill identifies and prohibits certain loan terms and lending practices associated with high cost mortgages and places limits on discount points and fees that can be charged on all first lien loans. The New York legislature is also considering a bill, the "Home Equity Fraud Act," that would prohibit specified terms and practices associated with predatory lending. Other states are considering legislative proposals.[33] Moreover, the Mortgage Bankers Association of America developed and published a set of "best practices" for subprime lending, in an attempt to provide guidelines for member lenders.[34]

Fannie Mae and Freddie Mac have both issued guidelines that address predatory lending. Exhibit 3.2 summarizes the types of loans that will be ineligible for sale to the GSEs.

Exhibit 3.2. GSE Subprime Lending Restrictions

Guideline	Fannie Mae	Freddie Mac
Allowable APR	Will not purchase a loan with an APR in excess of the limit set by HOEPA, which is 10 percentage points over the Treasury bill rate for a certificate of a similar maturity.	Will not purchase a loan with an APR in excess of the limit set by HOEPA, which is 10 percentage points over the Treasury bill rate for a certificate of a similar maturity.

[31] Testimony of Professor Cathy Lesser Mansfield before the Committee on Banking and Financial Services, United States House of Representatives. May 24, 2000.

[32] Board of Governors of the Federal Reserve System, et al. "Interagency Guidelines on Subprime Lending." March 1, 1999.

[33] Mansfield. 2000.

[34] Mortgage Bankers Association of America. "The Non-Conforming Credit Lending Committee Working Group Report Subprime Lending & High Cost Mortgages: Recommended 'Best Practices' & 'Legislative Guidelines'." <http://www.mbaa.org/resident/lib2000/0525b.html>. 2000.

Exhibit 3.2. GSE Subprime Lending Restrictions

Guideline	Fannie Mae	Freddie Mac
Single Premium Credit Life Insurance	Will not purchase a loan with prepaid credit life insurance.	Will not purchase a loan with prepaid single premium life insurance.
Prepayment Premiums	Will only purchase a loan with a prepayment premium if it provides some benefit to the borrower, such as a rate reduction. The lender should also offer a borrower a choice of product with no prepayment premium. The lender must disclose prepayment premiums to the borrower. Moreover, Fannie Mae will not purchase loans in which the borrower is charged a prepayment premium when the mortgage debt is accelerated as the result of default.	A- product does not have a prepayment premium. According to Freddie Mac officials, the company will not purchase a loan through a structured transaction that has a prepayment premium that lasts longer than five years.
Credit Reporting	Seller/servicers must report the status of loans sold to the agency on a monthly basis to the three credit repositories.	Seller/servicers must report the status of loans sold to the agency on a monthly basis to the three credit repositories.
Steering	Lenders that offer both prime and subprime loans should not steer applicants to higher cost products if they can qualify for lower cost alternative, i.e., should be offered standard product line rather than subprime if they qualify.	
Underwriting	Lenders should take into account a borrower's capacity to repay a mortgage when underwriting a loan; they cannot rely solely on a borrower's equity in his or her house.	
Allowable Points and Fees	Will not purchase a mortgage if the total points and fees charged to the borrower exceed five percent of the loan amount, except in instances where this limitation would make it unprofitable for the issuer to originate the loan. Under this guideline, points and fees include origination fees, underwriting fees, broker's fees, finder's fees, and charges made by the lender as a condition of making the loan. Points and fees that are not counted against the limit include bona fide discount points, as well as fees paid for actual services rendered in connection with the origination process. These include attorneys' fees, notary's fees, and fees paid for appraisals, credit reports, surveys, title examination and extracts, flood and tax certification, and home inspections; the cost of mortgage insurance; title, hazard, and flood insurance policies; state and local taxes; and other miscellaneous fees that do not exceed 0.25 percent of the loan amount. Fannie Mae does not include credit risk price adjustments or escrow deposits for taxes and insurance.	Identical to HOEPA. Total points and fees cannot exceed more than eight percent of the total loan amount or $451.

Exhibit 3.2. GSE Subprime Lending Restrictions

Guideline	Fannie Mae	Freddie Mac
Source: Fannie Mae Lender Letter LL03-00: Eligibility of Mortgages to Borrowers with Blemished Credit Histories, April 11, 2000; Freddie Mac Industry Letter: Reports to Credit Repositories, February 22, 2000; Freddie Mac Industry Letter: Single-Premium Credit Insurance Products, April 21, 2000; and discussions with the authors.		

As indicated in Exhibit 3.2, Fannie Mae has explicitly restricted more practices in its lender letter than Freddie Mac through its industry letters. This does not mean that Freddie Mac will be less vigilant than Fannie Mae in screening out predatory loans for transactions in which the GSE will provide a credit enhancement for a mortgage backed security with subprime collateral. According to Freddie Mac officials, the company will scrutinize the business procedures and practices of companies that want to sell loans to Freddie Mac. In these examinations, Freddie Mac auditors will assess the extent to which lenders are using underwriting and marketing practices that are considered by Freddie Mac to result in originating predatory loans. Freddie Mac, according to an official, has already started this process. The company has completed audits on most subprime lenders (identified by Freddie Mac), since these companies have approached Freddie Mac to participate in structured transactions. Note that Freddie Mac will also offer subprime flow products through its existing channel of prime lender partners. Thus, Freddie Mac will be able to set guidelines about acceptable lending activities from its scrutiny of subprime lenders.

HUD's Final Rule on affordable housing goals addressed the issue of predatory lending by disallowing housing goals credit for mortgages having features that the GSEs themselves have identified as unacceptable.[35] Consistent with and combining restrictions already voluntarily undertaken by both GSEs, HUD's Final Rule restricted credit under the goals for purchases of high cost loans including mortgages with certain unacceptable terms and resulting from unacceptable practices. Specifically, the GSEs will not receive credit toward any of the Affordable Housing Goals for dwelling units financed by mortgages that are within HOEPA's thresholds for high cost mortgages, nor will they receive credit for mortgages with certain unacceptable features or resulting from unacceptable practices.

On June 20, 2000, HUD and the Department of the Treasury jointly released a report entitled "Curbing Predatory Home Mortgage Lending," which detailed predatory or abusive lending practices in connection with higher cost loans in the subprime mortgage market. The HUD/Treasury report recommended regulatory and/or legislative restrictions that would go beyond the matter of goals credit and would prohibit the GSEs from purchasing certain types of loans with high costs or predatory features altogether. These proposals stem from the concern that mortgages with predatory features undermine homeownership by low-and moderate-income families in derogation of the GSEs' Charter missions. As pointed out in the HUD/Treasury Report, "While the secondary market could be viewed as part of the problem of abusive practices in the subprime mortgage market, it may also represent a large part of the solution to the problem. If the secondary market

[35] Federal Register, October 31, 2000, pages 65043-65229.

refuses to purchase loans that carry abusive terms, or loans originated by lenders engaging in abusive practices, the primary market might react to the resulting loss of liquidity by ceasing to make these loans."

The Federal Trade Commission (FTC)—which enforces consumer laws—has prosecuted more predatory lending cases as the subprime market has expanded. Generally, charges are filed against subprime lenders because of allegations that these companies' practices violated the Truth in Lending Act (TILA), the Equal Credit Opportunity Act (ECOA), and the Home Ownership and Equity Protection Act (HOEPA). Locally, the FTC litigated a case against Capital City Mortgage in Washington D.C., which was found guilty of charging interest rates in excess of 20 percent to borrowers, misrepresenting the terms of a balloon payment-type loan, inflating monthly payments, and foreclosing on borrowers who were not in default. First Alliance, a large subprime lender, is now in a lawsuit with the FTC for TILA violations and violations of the Federal Trade Commission Act, 15 U.S.C. § 45(a).[36] In another case, Money Tree, a Georgia-based lender, is accused of requiring its customers to purchase credit insurance and other optional supplemental products.[37] In a recent action, the FTC filed suit against Associates, a subprime lender which is now a subsidiary of Citigroup. In its complaint, the FTC alleges that Associates misrepresented the benefits to customers of refinancing their mortgages, as well as other loan terms, used unfair collection practices, violated TILA, ECOA and Fair Credit Reporting requirements.[38]

[36]United States District Court, Central District of California Southern Division. Federal Trade Commission v. First Alliance Mortgage Company. Complaint for Permanent Injunctive Relief and Other Equitable Relief. 2000.

[37]Bernstein, Jodie. "Prepared Statement of the Federal Trade Commission before the Senate Special Committee on Aging on Home Equity Lending Abuses in the Subprime Mortgage Industry." March 16, 1998.

[38]United States District Court, Northern District of Georgia, Atlanta Division. Federal Trade Commission v. Citigroup Inc., Citifinancial Credit Company, Associates First Capital Corporation and Associates Corporation of North America. Complaint for Permanent Injunction and other Equitable Relief. 2001.

SECTION 4: SUBPRIME LENDING: UNDERWRITING AND PRICING PRACTICES

4.1: Underwriting

How do subprime lenders evaluate subprime borrowers? While subprime lenders classify borrowers into different risk grades, they do not use industry-wide underwriting guidelines. Recognizing this lack of consistency across lenders, Fitch, Inc. uses a matrix (Exhibit 4.1) of willingness to pay and ability to pay, to “quantify those individual characteristics of each lender’s underwriting guidelines that are most significant.”[39] Fitch uses this matrix to determine default probabilities of loans underwritten with different standards when rating mortgage backed securities with subprime collateral. Standard and Poor’s, another rating agency, uses a similar matrix in its assessment of subprime mortgage backed securities.[40]

Exhibit 4.1: Fitch Inc.’s Mortgage Underwriting Matrix

		Willingness to Pay							
		“A+”	“A”	“A-“	“B”	“B-“	“C”	“C-“	“D”
Credit History	Mortgage History: 12 months	0x30 0x60	0x30 0x60	1x30 0x60	2x30 0x60	3x30 0x60	4x30 1x60	5x30 2x60	6x30 1x90
	Installment Debt: 24 months	0x30	0x30	1x30	1x60	2x60	1x90	2x90	**
	Revolving Debt: 24 months	1x30	1x30	2x30	Max. 60	Max. 60	Max. 90	Max. 90	**
	Bankruptcy	None	Past 5 years	Past 5 years	Past 5 years	Past 3 years	Past 2 years	Past year	Within 1 year
Credit History	FICO Score	720	660-719	620-659	*	*	*	*	*
Effect of Default Probability	Increasing LTV	Very low	Low	Low to Mod	Mod	Mod to High	High	High to Very High	Very High
	Diminishing Ability to Pay	Very low	Low	Low to Mod	Mod	Mod to High	High	High to Very High	Very High

Source: Michele Loesch. 1996. “A New Look at Subprime Mortgages,” Fitch Research, December 16.
*Fitch gives most weight to scores when associated with higher credit quality loans. At the lower grades, credit scores are considered a qualitative or compensating factor.
** Revolving and installment debt delinquency guidelines vary widely for ‘D’ quality borrowers.

The guidelines in Exhibit 4.1 illustrate many of the items that some subprime lenders use to classify borrowers into different risk classifications. The credit history guidelines are expressed in terms of number of 30, 60 and 90 day late payments. For example, borrowers are classified as A+ risks if they have no 30 day late mortgage payments in the previous 12 months (0x30). A borrower can be classified as an A+ risk even if he or she has one late payment on a revolving debt account within the past two years.

---

[39]Loesch. 1996.

[40]Raiter, Frank and Scott Mason. Rating Subprime Mortgages: Presentation at the John Marshall Law School Fair Housing Legal Support Center. April 6, 2001.

In using this matrix, lenders classify borrowers with a FICO score less than 660 as an A-risk: slightly worse than prime borrowers. Borrowers who have been seriously delinquent in their mortgage payments, or have had a recent bankruptcy are more likely to be rated as B, C, or D risks. According to interviewees, subprime lenders use similar underwriting matrixes. In fact, a subprime lender we met with uses a nearly identical matrix.

Fitch's underwriting matrix shows that borrowers are categorized into risk buckets based on their credit history, LTV and ability to pay the loan. Some critics claim that subprime lenders do not take into account a borrower's ability to repay, and originate mortgages to borrowers with a large amount of equity in their properties. We cannot comment on the extent to which this type of asset-based underwriting is practiced, but some consumer advocates interviewed for this study were skeptical about the quality of underwriting in the subprime market.

One subprime lending respondent stated that his company gathered FICO credit scores for each borrower. This information was not used by the underwriter. Rather, the information was used by the rating agency when analyzing a security backed by these mortgages. In this company, underwriters assess each application, and weigh the borrower's housing payment history, other credit history, bankruptcy filings, debt-to-income ratios, and loan to value ratio. The underwriting standards used by this subprime lender correspond to standards of the rating agency to ensure each mortgage is appropriately categorized as A-, B, C, or D from the time the mortgage is approved to the time it is included in a security. This lender stated few exceptions to these underwriting guidelines are granted.

It is important to note that underwriting matrixes are not used by all subprime lenders as 'hard and fast rules.' According to many interviewees, underwriting guidelines are used by subprime lenders as a starting point when evaluating a loan application. However, subprime lenders frequently make loans to borrowers who do not meet the stated underwriting guidelines. One market participant said that it is common for exception loans—mortgages that do not conform to a standard underwriting matrix—to account for 50 percent of a lender's overall volume.

While subprime lenders do not adhere to rigid underwriting guidelines, there is evidence that, on average, more risky borrowers are categorized into higher-risk categories. In a study of subprime loans, the Office of Thrift Supervision (OTS) found that the median FICO score for A-loans was 630, 60 points higher than the median FICO score for B loans. The median FICO score was 550 for loans categorized as C and D loans.[41] This seems to indicate that subprime lenders categorize borrowers with lower FICO scores into higher risk grades, even though they do not rely on a common set of underwriting criteria.

---

[41]Office of Thrift Supervision. "What About Subprime Mortgages." Mortgage Market Trends. Vol 4(1). Research and Analysis, Office of Thrift Supervision. June,2000.

4.2: Pricing

As discussed earlier, there are no readily available sources of information about the rates charged by individual companies to borrowers that represent a particular level of risk. One subprime lending respondent maintained that the rates offered for their mortgage products do increase by a rough standard as the grade of loan decreases. The standard rate is based on current market conditions, and assumes an 80 percent loan-to-value ratio. An individual consumer's rate is derived from this standard rate, with any adjustments based on the loan-to-value ratio, type of documentation, occupancy type, property type, and size of loan. As in the prime mortgage market, borrowers can then buy down the interest rate by paying more points.

There is some published information about average subprime rates. Weicher, in his study of home equity lending, found that average rates charged to subprime borrowers by four large lenders in the mid-1990s ranged from around 11 percent to 14 percent.[42] In general, A- mortgages have a rate that is 200 basis points higher than an agency rate; B grade loans are 300 basis points; C grade mortgages 450, and D grade 600 basis points over agency conforming rates.[43] In its study of subprime loans, the Office of Thrift Supervision found that A- loans, in 1999, had an average coupon interest rate of 9.9 percent; the rate for B, C and D loans was 10.6, 11.5 and 12.6 respectively. In the same year, coupon interest rates for conforming loans ranged between seven and eight percent.[44] One subprime lender interviewed for this study confirmed this pricing scheme. The company charges A- borrowers a rate between 100 and 150 basis points above A borrowers; C and D borrowers receive a rate 350 basis points more than A borrowers.

Lenders argue that the higher interest rates charged to borrowers in the subprime market reflect the risks commensurate with lending to borrowers with poorer credit histories, higher loan-to-value, and/or front- and back-end ratios. Loan performance data may support such a view: 3.36 percent of subprime mortgages in the A- range were seriously delinquent as of September 30, 2000; and 21 percent of mortgages originated to borrowers in the D range were seriously delinquent as of that date.[45] These delinquencies are substantially higher than those in the prime market—only 0.54 percent of loans in the prime market were seriously delinquent as of that date.

Higher rates and fees charged to borrowers are also necessary, according to industry participants, because of the higher servicing costs associated with these mortgages. Advanta reports that their annual servicing cost per loan is $170 for a B/C loan, slightly higher than A loan

---

[42] Weicher, John. The Home Equity Lending Industry: Refinancing Mortgages for Borrowers with Impaired Credit. Indianapolis: The Hudson Institute. 1997.

[43] Ibid.

[44] Office of Thrift Supervision. 2000.

[45] The Market Pulse. 1999. Fall.

servicing costs of approximately $126 per year. This difference is due to higher delinquency and default rates for subprime loans, and the subsequent need for more servicing staff.[46]

That subprime borrowers pay higher prices (in terms of interest rates, fees and points) than those in the prime market is beyond dispute. What is not clear, however, is that the higher prices paid by individual borrowers accurately reflect their underlying risk. The subprime market may be inefficient because borrowers are paying interest rates that are in excess of the risks associated with the mortgage.

Moreover, some subprime loans are originated to borrowers with terms and conditions that are highly unfavorable: loans may have negative amortization, balloon payments, and high prepayment penalties. In addition, subprime refinance lending volumes have increased in all types of interest rate environments. This is a different pattern from prime market refinance volumes, which increase as homeowners take advantage of lower interest rates.[47]

Despite these findings, industry participants argue that their prices reflect the costs in serving higher risk borrowers, and the loan terms reflect the unique needs of subprime borrowers. We are aware of only one study, by Lax and his colleagues at Freddie Mac, that addresses the question: "Is the subprime market efficient?"[48] This study suggests that many prime borrowers are served by subprime lenders, and so pay higher costs for mortgages. In addition, some borrowers may pay prices that are in excess of the true costs associated with borrowers with more problematic credit. This does suggest that the GSEs, by entering the subprime market, may have the potential for lowering subprime borrowing costs, though this evidence is not conclusive.

[46] Weicher. 1997.

[47] Immergluck and Wiles. 1999.

[48] Lax, Howard, Michael Manti, Paul Raca and Peter Zorn. "Subprime Lending: An Investigation of Economic Efficiency." Mimeo. February 25, 2000.

SECTION 5: THE GSES AND SUBPRIME LENDING: CURRENT AND FUTURE ROLES

The subprime market presents an opportunity for Fannie Mae and Freddie Mac to increase loan purchase volumes. In 2000, Fannie Mae bought only $600 million of subprime mortgages, primarily on a flow basis. Freddie Mac, in that same year, purchased $18.6 billion worth of subprime loans, mostly Alt A and A- mortgages. Freddie Mac guaranteed another $7.7 billion worth of subprime mortgages in structured transactions.[49] These totals are small compared to the total size (about $160 billion) of the subprime market.

5.1: Agency Subprime Lending Products

Since the subprime market is a relatively untapped market for Fannie Mae and Freddie Mac, the agencies could increase their financial performance and meet investors' expectations by increasing their participation in this segment of the mortgage market. The agencies are increasing their presence in the subprime market by rolling-out new subprime mortgage products through updated versions of their automated underwriting systems. Fannie Mae seller/servicers now offer loan products to three groups of credit-impaired borrowers under two new programs.

Fannie Mae's Expanded Approval program allows lenders to approve borrowers who would have been formerly classified as 'Refer with Caution' Level I or Level II by Fannie Mae's Desktop Underwriter (DU). To offset the relatively higher risk of this credit-impaired borrower, Fannie Mae charges the lender a higher guarantee fee or makes loan-level price adjustments.[50] Lenders will more than likely pass these costs along to the borrower, resulting in a higher price for a higher risk borrower. One feature of Expanded Approval, Timely Payment Rewards, allows lenders to approve loans that DU classifies as 'Refer with Caution' Level III.[51] Loans originated under this program are offered a higher interest rate than the rate offered to A borrowers. The interest rate will be reduced by 100 basis points if the borrower makes 24 monthly payments without a delinquency.[52]

According to Fannie Mae, borrowers who receive its subprime loan products are charged interest rates that are lower than subprime borrowers who secure loans from other sources. Fannie Mae's subprime products are originated with lower points and fees when compared to other subprime loans. Moreover, neither of Fannie Mae's subprime products have a prepayment penalty; this also is different from most subprime loans.

---

[49] "Subprime Lenders Mixed on Issue of GSE Mission Creep." Inside B&C Lending. March 19, 2001.

[50] Fannie Mae. "Expanded Approval with Timely Payment Rewards." Single Family Products. <http:www.fanniemae.com/singlefamily/products/fixed/fixed_eawtpr.html> 2000.

[51] Ibid.

[52] Fannie Mae. "Fannie Mae Offers New Lower Cost Mortgage for Borrowers with Past Credit Problems." <http://www.fanniemae.com>. September 30, 1999.

The Expanded Approval products are recent innovations, and, according to Fannie Mae representatives, account for a relatively small portion of that GSE's book of business. Indeed, Fannie Mae seller/servicers originated only $100 million of Timely Payment Reward loans through July 2000.[53] At most, according to a Fannie Mae stock analyst, these subprime loan purchases will account for no more than five percent of that GSE's purchase volumes.

Freddie Mac also offers A- products that are similar to Fannie Mae's products. Under Freddie Mac's Affordable Merit Rate Mortgage, a borrower's interest rate will be reduced by 100 basis points if he or she remains current on a mortgage, similar to Timely Payment Rewards. Freddie Mac also offers an A- product that is available to borrowers who are classified by Loan Prospector as a caution, but with a special purchase eligibility code and message which reports: "500 Freddie Mac Eligible. LP A minus Offering."[54]

Freddie Mac purchased about $2.5 billion of subprime mortgages (including Alt A and A- loans) in the first quarter of 2000 on a flow basis.[55] In addition to these purchases, Freddie Mac participated in $5.3 billion worth of structured transactions in which Freddie Mac guarantees a portion of MBS issued with subprime collateral.[56] According to Freddie Mac representatives, the company is using information that it collects as part of these deals to enhance its automated underwriting system to assess subprime loan applications. Over the next year, Freddie Mac officials said they expect the company will purchase most of its subprime loans in structured transactions, rather than by purchasing loans on a flow basis.

5.2: Effects of Increased GSE Involvement in Subprime Lending

Most respondents favored an increased GSE role in the subprime market, so long as the agencies develop and enforce guidelines which prevent them from purchasing loans with predatory features. The main reaction against GSE involvement came from representatives of companies that GSE entry might negatively affect: subprime lenders. All consumer groups, regulators, and market analysts favored cautious subprime market entry by the GSEs, because they thought such a move will benefit consumers. Specifically, interviewees indicated that a larger GSE subprime role could affect:

- interest rates offered;
- standardization of mortgage products;
- available liquidity;

[53]"Despite Industry Fears, GSE Subprime Volume Lacking." Inside B&C Lending. July 31, 2000.
[54]Freddie Mac. "Loan Prospector's A-Minus Offering." "<http://www.freddiemac.com/sell/loanprospector/aminus.html. 1999.
[55]"Freddie Mac Expecting 31% Boost in Subprime Business." Inside B&C Lending. May 22, 2000.
[56]Ibid.

- incidence of predatory lending; and
- risk to the GSEs.

5.2.1: Interest Rates Offered

Most informants said that a stronger GSE presence in the subprime market will create lower priced mortgages for some subprime borrowers. Two types of borrowers are expected to benefit the most from the GSEs' move into subprime lending: A risk and near A risk borrowers. The first group consists of borrowers with risk profiles similar to A borrowers, but who receive mortgages from a subprime lender. Interviewees said that the GSEs' outreach and education efforts will make it more likely for A borrowers to use cheaper prime lenders for refinance mortgages, and reduce their reliance on subprime companies.

Informants also said that subprime borrowers who are near A credit risks will receive mortgages at lower prices because they will increasingly be served by GSE seller/servicers. The GSE-developed subprime loan products will offer lower rates than competing, non-agency subprime products, because the GSEs will use their cheaper costs of capital to offer more competitive prices for subprime loans. Some respondents cautioned that the entire spread between the new lower GSE rate and the former, higher subprime rate might not be passed through to consumers. Some of the difference may go to mortgage brokers, who would keep the spread and offer the higher rate to the consumer. Yet, a strong retail presence by lenders who offer the lower GSE price might eventually eradicate this inflated profit enjoyed by mortgage brokers, as consumers realize prices are higher through mortgage brokers.

These A and near A borrowers targeted by the GSEs account for roughly half of all borrowers served by subprime lenders, according to information collected by the Mortgage Information Corporation (MIC). Many informants expressed concern that the other riskier half of the market, those borrowers rated as B and lower, may pay higher prices as a result of the GSEs' involvement in the market. The reason is that subprime lenders typically serve a mix of borrowers with a range of credit risks. It is relatively easy and less costly for subprime lenders to underwrite and service loans originated to A and A- borrowers when compared to serving B and C customers. To a certain extent, these better credit risks cross-subsidize higher risk borrowers, though borrowers in the subprime market pay higher prices than borrowers in the prime market. Without these lower risk borrowers, subprime lenders may have to increase the prices charged to B, C, and D borrowers in order to maintain profitability. And, if as one industry analyst estimates, the GSEs retain between one third and one half of the better credit rated subprime borrowers, the effect on borrowers with poorer credit will not be negligible.

5.2.2: Standardization of Mortgage Products

An increase in GSE involvement in the subprime market, according to nearly all interviewees, is likely to standardize underwriting and pricing guidelines in the A- portion of the market. These people point out that loan prices, terms and standards differ across subprime lenders, making it difficult for borrowers to compare loan terms. A GSE subprime product will require lenders to use a common set of forms, eligibility standards, and pricing guidelines. Thus, the subprime market will operate more like the prime market does today, where borrowers can shop around for the best price from competing lenders, they said.

5.2.3: Available Liquidity

Most informants said that the GSEs, by increasing their subprime market role, will provide a more stable source of liquidity for subprime lenders. According to one subprime lender, the premium investors place on the GSE-guaranteed securities will lead to an increase in demand for subprime-backed securities, which will also drive an increase in liquidity.

Other industry participants said that the GSEs may eventually have a negative effect on liquidity. As the GSEs increase their subprime products available through prime lenders, the number of private conduits and lenders that specialize in subprime lending may decrease, since the GSEs enjoy lower costs of capital. The problem, according to these informants, is that Fannie Mae and Freddie Mac may choose to reduce their subprime purchases at a later date, especially if these loans create higher than anticipated losses. In such a scenario, the GSEs, by leaving the market, will create a vacuum and create severe disruptions in the market.

5.2.4: Incidence of Predatory Lending

Consumer groups contacted for this study maintained that the GSEs could help reduce predatory lending by creating standards and procedures for lenders to follow. While this may happen, the GSE representatives interviewed for this study stated they have not based their decision to enter the subprime market on an attempt to curb predatory lending. Indeed, the GSEs have stated that they do not intend to penetrate the subprime market deeply enough to have an appreciable effect on the extent to which lenders use predatory practices. Some consumer groups do caution that if the GSEs do not set and enforce appropriate predatory lending guidelines, the incidence of predatory lending may increase as the GSEs bring added liquidity to the subprime market.

5.2.5: Risks to GSEs

The subprime market provides a relatively untapped source for mortgages that can assist Fannie Mae and Freddie Mac to meet an increase in their affordable housing goals. Additionally, higher levels of subprime market activity have the potential to increase the GSEs' net profit margins, according to OFHEO. OFHEO cautions, "new types of lending may pose unusual risks and may not be as profitable as expected, however."[57] The reason is that subprime lending, as discussed earlier, is a different type of business from prime lending; it requires different servicing, underwriting and appraisal techniques. Subprime lending respondents have categorized the specific challenges to the GSEs as follows:

- *Servicing.* Subprime servicing is much different than the servicing associated with prime loans. Unless the GSEs establish subprime-specific servicing guidelines or service the loans themselves, the GSEs have opened themselves up for a high rate of loss from traditionally prime lenders' inability to service the subprime loans, according to representatives of subprime lenders.

- *Underwriting*. Some informants said that the GSEs' current underwriting standards cannot accurately assess a subprime borrower's risk of loss to the lender. According to these interviewees, the GSEs place too much weight on a borrower's FICO score (which may not be a good indicator for subprime borrowers' creditworthiness), and too little emphasis on the borrower's equity in the property. According to one informant, the GSEs do not re-underwrite all loans prior to purchase with the attention to detail that other subprime loan purchasers do. This lack of quality control can assist unscrupulous lenders in passing loans to the GSEs that may be predatory or fraudulent.

- *Appraisal review.* The property used as collateral in subprime mortgages is evaluated in the appraisal process. Although the GSEs do require appraisals for all prime mortgages, they do not subject them to a thorough review as is needed in the subprime market, according to one lender. Respondents maintain that appraisal fraud is rampant in the subprime market. Without intensive quality control over appraisals, the GSE could be purchasing loans collateralized by properties that may be overvalued, and thus the true loan-to-value ratio may exceed any loan-to-value ratio acceptable to the prime lender or the GSEs. As a result, any foreclosure on that property forces the holder of the mortgage to recover even less of their loss.

All interviewees said that an increase in GSE purchases of subprime mortgages will expose the agencies to higher risk loans. However, most informants agree that the GSEs will be able to manage these risks in an effective manner. At present, the GSEs purchase a relatively small number of subprime loans, and use the information on performance to assist in their efforts in developing new subprime products. Market analysts anticipate that subprime loans will account for

[57]OFHEO. 2000. p.27.

a very small proportion of the GSEs' book of business: subprime loans will account for no more than five percent of the GSEs' total purchase volume, according to one analyst. Therefore, even with a higher degree of risk, subprime lending volumes will not damage investors' overall perception of the GSEs.

This assessment is based on the expectation that the GSEs will "get it right" in pricing subprime loans, and the fees charged by the agencies will cover higher loss rates and costs. Of course, Fannie Mae and Freddie Mac may make a mistake and incur higher loss rates than anticipated. While a possibility, most informants said that this outcome is unlikely, given the relatively slow rate at which the GSEs are increasing their subprime loan purchases in order to achieve their longer term subprime volume objectives.

SECTION 6: AUTOMATED UNDERWRITING AND RISK-BASED PRICING

Prime lenders now use automated underwriting systems as a tool to help determine whether a mortgage application should be approved for financing. However, as the GSEs' automated underwriting systems are further adapted to facilitate risk-based pricing, these systems will be able to provide both underwriting recommendations and loan-level pricing. In this section we summarize current pricing practices in both the prime and subprime markets and discuss the potential effects of lenders increasing their use of automated risk-based pricing.

6.1: Current Pricing Policies

The vast majority of prime mortgage borrowers receive loan rates based on average cost pricing. In general, borrowers in the prime market currently receive about the same Annual Percentage Rate[58] (APR), irrespective of their risk of loss to the lender. The risk of all prime borrowers—from those with extremely low credit risk to those riskier prime borrowers—is averaged together, and the price is determined based on this average risk. In essence, prime borrowers with lower credit risk are cross-subsidizing the price for those borrowers with higher credit risk. If this risk averaging were not practiced and everyone received an APR based on their individualized risk profile, borrowers with higher risk would receive a correspondingly higher rate.

Prime market lenders currently are using some risk-based pricing practices. For example:

- *Loan-to-value ratio differentials.* Most borrowers are required by lenders to obtain mortgage insurance if their loan has a loan-to-value ratio higher than 80 percent. As the loan-to-value ratio rises, so does the fee charged for this insurance, creating higher monthly payments for higher risk borrowers.[59]

- *Product type differentials.* Borrowers pay higher rates for balloon mortgages or adjustable rate mortgages, which are deemed by the market to be riskier products, than they pay for 30 year fixed-rate mortgages.[60]

- *Property type differentials.* Loans for various property types, such as condominiums, that are determined to be riskier underlying collateral are sometimes charged a higher price as well.

---

[58]Annual Percentage Rate takes into account points, fees and the periodic interest rate.
[59]Steinbach, Gordon. "Making Risk-Based Pricing Work." Mortgage Banking. September, 1998.
[60]Ibid.

In the subprime market however, lenders routinely adjust the interest rate and points charged based on the risk of the borrower. This calculation may be crude, based on wide risk gradation, and denoted by letters such as A- (the least risky category), B, C, or D. Borrowers within each category are generally charged the same APR. Any difference in rate among borrowers in the same risk bucket is generally a function of the negotiating powers of the borrower or the mortgage broker, and certain risk indicators such as property type or ability to document income. Thirty five percent of A- borrowers that received a mortgage between 1990 and 1995 were charged between 100 and 200 basis points above conventional, conforming rates, 90 percent received a rate between 100 and 400 basis points over the conventional, conforming rate.[61] Some industry experts claim these rates are not precise estimates of the borrower's risk due to subprime lenders' subjective underwriting standards, and their inability to accurately predict prepayment and delinquency loss.[62]

6.2: Current Underwriting Practices of Prime and Subprime Lenders

Market stakeholders see an increase in the use of risk-based pricing caused, in part, by the underwriting technology that has taken hold of the prime market over the past few years. Prime lenders use automated underwriting as a basis to determine whether a borrower will be approved for a mortgage. Automated systems evaluate applications using algorithms based on statistical analyses of the relationships between underwriting guidelines and loan performance using previously originated mortgages.[63] Therefore, lenders have a great incentive to use these systems because they have the potential to be much more accurate and objective than manual underwriting in determining the riskiness of individual loan applications. These systems, created by Fannie Mae, Freddie Mac, and others, were developed according to typical risk profiles of prime borrowers, and as such, are used primarily by prime lenders.

Many subprime lenders, including the ones contacted as a part of this study, currently do not use automated underwriting systems. MIC's 1997 study of B and C lending reported that correspondent lenders, which also originated conforming loans, were the only subprime lenders using automated systems to underwrite subprime loans. This may be due to their participation in the conforming market, and their subsequent use of the GSEs' automated systems. On the other hand, MIC found that large wholesale lenders, as of 1997, did not use automated systems. These lenders believed that subprime mortgage underwriting involves making 'story loans,' in which underwriters must take into account factors beyond those that can be quantified.[64]

---

[61] Bear Stearns. Home Equity Loan Securities: Prepayment Modeling and Valuation. February, 1996.

[62] Kersner, Scott. "All Signs Said to Point to Increased Use of Risk-Based Pricing." National Mortgage News. August, 2, 1999.

[63] Fannie Mae. What are Credit Scoring and Automated Underwriting?: A Guide to Understanding the Tools Lenders Use to Evaluate Your Mortgage Loan Application. Washington, D.C.: Fannie Mae. 1998.

[64] Mortgage Information Corporation. B & C Market Study. 1997.

Some subprime lenders, however, believe that automated systems will eventually be used to underwrite more subprime loans and this trend will accelerate if rating agencies use such systems to evaluate MBS issuances.[65] Recent technological advances in automated underwriting create the opportunity for a higher degree of underwriting uniformity in the subprime market and an even larger secondary mortgage market for subprime loans. If this is correct, subprime borrowers' applications will increasingly be underwritten using industry-wide standards, rather than idiosyncratic guidelines of a particular lender.

6.3: The Adoption of Risk-Based Pricing

Automated underwriting systems used by prime and subprime lenders can be used as a tool to change current pricing practices in both markets. Risk-based pricing, once adopted as a widespread practice, will allow mortgage lenders to offer each borrower an individualized rate based on his or her risk. Prices could be set by the lender based on the default risk of the borrower, the probability of prepayment, as well as other characteristics of the loan or the underlying collateral. In this type of lending, borrowers that pose a lower risk of loss to the lender would be charged a comparatively lower price than those borrowers with greater risk. Instead of lower risk borrowers cross-subsidizing higher risk borrowers as with average cost pricing, the lower risk borrower is able to pay a relatively lower rate.

Lenders are likely to increase their use of risk-based pricing in response to GSE or other secondary market firm pressures. Currently, guarantee fees are negotiated by lenders and the GSEs on a bulk basis according to the volume of mortgages delivered, past performance of loan pools,[66] and the relationship the secondary market firm has with the primary lender. Under risk-based pricing, the GSE or other secondary market company could approve a loan through an automated underwriting system and individually set a guarantee fee for that specific loan. Lenders could price loans for all borrowers with one approximated guarantee fee incorporated in the rate. If the guarantee fee the GSE subsequently sets is higher than the approximated fee the lender used to price the mortgage, the lender would bear the burden of this cost. More likely, lenders will price a mortgage only after the guarantee fee is set by the secondary marketing firm, thereby reducing their cost exposure and passing the cost along to the borrower.[67]

The process of implementing risk-based pricing will create adverse selection for some lenders, assuming borrowers will 'shop' for a mortgage and select the lender that offers the lowest rate. As the first lenders begin to use risk-based pricing, borrowers who have less risk will be drawn to these lenders, since these borrowers will be offered loans with relatively low rates. Average cost pricing lenders, for a period of time, will offer riskier borrowers better rates than they

---

[65] Ibid.

[66] Beidl, Richard and Craig Focardi. "The Coming of Risk-Based Pricing." Mortgage Banking. May, 2000.

[67] Kling, Arnold. "Get Set for Loan-Level Pricing." Secondary Mortgage Markets. 1997.

could obtain from a risk-based pricing lender. Because these prices are initially lower, borrowers that pose greater risk to lenders will gravitate towards lenders still using average cost pricing. Eventually all better risk borrowers will realize the benefits of using a risk-based pricing lender, leaving only those borrowers with poor credit to the average cost lender. This adverse selection process will negatively affect the price and profits of lenders that lag the market in implementing risk-based pricing, since the better-risk borrowers will be "creamed-off" by other companies.[68] As a result lenders may quickly adopt some form of risk-based pricing.

The GSEs are now implementing risk-based pricing algorithms in their automated underwriting systems. Fannie Mae's Expanded Approval program, rolled out in July 2000, is a part of the current version of their automated underwriting system. For borrowers with less than A credit, this program provides guarantee fees based on three levels of borrower credit risk: this system could be used to facilitate loan-level pricing.[69] Freddie Mac also charges higher guarantee fees for its two A- products and has researched risk-based pricing's market potential and its ability to better serve a wider market.[70] These attempts by Fannie Mae and Freddie Mac to gain a better understanding of the subprime market and the potential use of new pricing indicate that the GSEs expect risk-based pricing to be used by more lenders.

The ability of these systems to set accurate prices is limited by the power of the underlying algorithm to determine risk. For example, automated underwriting has provided the necessary credit information needed for risk-based pricing. Based on previously originated mortgages, market participants estimate default probability for different borrower profiles, based on their characteristics and subsequent payment performance. These participants, including the GSEs, can use this information to develop statistical algorithms to price a new applicant's mortgage based on that applicant's level of risk. Those with higher probabilities of default are charged a higher rate. However, the precision of these systems to predict loss is limited by the representative power of the loan portfolios used to create the system. As the risk grade declines, fewer mortgages are originated and thus the pricing mechanism for these borrowers becomes less precise.

These systems have other estimation limitations as well. Steinbach points out that—for the mortgage market as a whole—collateral risk tends to outweigh credit risk in determining the likelihood of loss. Thus, any mortgage pricing algorithm is limited by the ability to forecast changes in collateral values, no matter how accurately it can distinguish among the credit-worthiness of individual borrowers. Experience shows that collateral risk is difficult to measure and is extremely difficult to forecast with any precision over the typical life of a mortgage.[71] Additionally, regional pricing disparities may occur if collateral risk is modeled in a risk-based pricing algorithm. This

---

[68]Carr, James. "Risk-Based Pricing: Automation's Benefits are Not Automatic." Neighborhood Works Journal. <http:\\www.nw.com> Summer, 1999.

[69]Desktop Underwriter. Presentation by Fannie Mae to the Urban Institute. December 6, 1999.

[70]Kling. 1997.

[71]Steinbach. 1998.

implies a continuation of cross-subsidization in some form, particularly by secondary market institutions like Fannie Mae and Freddie Mac, which purchase loans originated across the country, and have strong political incentives against regional pricing disparities.

6.4: Potential Effects on Industry Participants

Currently, a line exists in the marketplace between the subprime and prime mortgage markets, but this line will fade as risk-based pricing practices increase. Interest rates on prime mortgages, as previously stated, now are determined by average cost pricing, as are the interest rates on each class within the subprime market. Yet, if prime lenders were to adopt risk-based pricing, many may be willing to lend to a riskier subprime borrower, since that risk would be offset with an increase in price. As a result, this line that divides the market into prime and subprime may become increasingly blurred as prime lenders serve subprime customers.

In theory, a market which 'approves' mortgages at a price commensurate with risk, instead of setting a risk floor and approving no one beneath this level, will expand the market. In other words, the current prime market may not offer a mortgage to a high risk borrower. However, with risk-based pricing, the prime market can expand to serve borrowers who are currently in the subprime market.[72] Prime lenders, by increasing the market they are able to serve, can increase volume and profits with risk-based pricing in excess of their current risk-based pricing practices as identified earlier in this section. Companies that specialize in subprime lending may not be as profitable, since increased competition may drive down profit margins that now exist in the subprime market.

Risk-based pricing may also expand the prime lenders' market by allowing them to reach a new group of unserved customers. If the current subprime market offers credit-impaired borrowers a rate they can not afford, they are unable to participate in the mortgage market. But, if risk-based pricing prime lenders are able to offer a lower price to these borrowers through a GSE product that takes advantage of the GSEs' lower cost of capital, these borrowers can enter the market and provide prime lenders with a wider customer base.

However, risk-based pricing does have the potential to place restrictions on the mortgage market, because some borrowers may not be able to afford their risk-based price. Risk-based pricing could set finely tuned prices for each loan applicant, which may result in slightly lower prices for low risk borrowers, but more substantially increase rates for higher risk borrowers. If this was the case, more risky "A" borrowers (and those in the affordable housing market) that could have afforded the price charged under a average cost pricing scheme may be excluded from the new

---

[72]Bush, Vanessa. "Risk-Based Pricing Trend Could Make Mortgage lending More Efficient." America's Community Banker. October 1, 1998.

market if they could not afford the cost. As a result, risk-based pricing could shrink the mortgage market and have a negative effect on higher risk borrowers and the affordable housing market.[73]

Risk-based pricing will affect Fannie Mae and Freddie Mac: its use by lenders will allow the GSEs to refine their pricing models, and perhaps expand their markets to serve more subprime borrowers. However, OFHEO cautions in its 2000 Report to Congress that in addition to any inherent risk present when adopting a new way of business, "…automated underwriting and scoring have not been tested in a severe, nationwide downturn. Risk-based pricing would also heighten competition for high-quality loans, both between Fannie Mae and Freddie Mac and between the agencies and large lenders, which could lead to lower margins."[74]

Mortgage industry participants will have to develop new ways of advertising and educating their potential customers. The process of obtaining a mortgage is currently confusing for many borrowers. With the adoption of risk-based pricing, this process may become even more so, since consumers may not be able to shop around for rates using advertisements—no one rate can be advertised that would be offered for all borrowers. Rather, lenders will have to devise methods of how to inform borrowers about the cost of a mortgage that meets that borrower's specific profile.[75]

Risk-based pricing, if adopted as an industry-wide practice, will likely have an effect on homebuyer counseling. Currently, some borrowers receive counseling in order to prepare themselves to get prime loans.[76] With risk-based pricing, borrowers who receive counseling are likely to use it as a means to receive a loan for a lower rate, rather than as a way to prepare to receive a loan.[77] To offset this tendency, counseling, in a risk-based pricing environment, would have to emphasize the importance of credit reports and how to receive a lower rate,[78] instead of how to get approved.

While most industry analysts agree that risk-based pricing at the loan level will increase, currently it is not widely practiced. Lenders have enjoyed large mortgage volumes over the past few years, spurred by a strong housing market and low interest rates. This environment has left lenders with few available resources to dedicate to a movement to risk-based pricing, and little incentive to do so. Lenders may be more willing to use risk-based pricing systems in the future. If rates continue to increase and business volumes decline, lenders may use risk-based pricing as a way to increase their customer base and serve those borrowers currently classified as subprime.

---

[73]Steinbach. 1998.

[74]OFHEO. 2000.

[75]Steinbach. 1998.

[76]Madison. 1999.

[77]Ibid.

[78]Mahoney, Peter. "Counselling's New Role." Neighborhood Works Journal. <http:\\www.nw.com> Summer. 1999.

6.5: Potential Effects on Borrowers

Any move to an industry-wide standard of risk-based pricing will benefit some borrowers and disadvantage others. All borrowers will be quoted a price that is specific for their risk-level, reducing (if not eliminating) cross-subsidization between higher and lower risk borrowers. As prime lenders move towards using automated systems to price each loan individually, in theory, no applicant would be denied a loan based on their credit—he or she would only receive a higher price.

Some industry participants maintain most prime market borrowers will be offered mortgages at about the same rate as they would without risk-based pricing due to their relatively homogeneous credit profiles. The savings for A plus borrowers is estimated to be no more than 12 basis points.[79] However, underserved borrowers and those borrowers in the subprime markets may benefit from risk-based pricing. Borrowers who cannot currently qualify for conventional mortgages are either excluded from homeownership, or forced into the subprime market. Several industry analysts claim the subprime market does not accurately assess the risk of borrowers and subsequently offers inflated rates to their borrowers.[80] Borrowers offered these inflated rates are many times not able to qualify for the mortgage, or if they do, have trouble maintaining the high payment for the life of the loan.[81] Risk-based pricing would ensure the rate they received would be commensurate with their risk, and potentially be lower than the rate they would receive in the subprime market. Freddie Mac estimates that subprime borrowers would, on average, receive lower rates and save about 17 dollars a month.[82]

The impact on the affordable housing sector may or may not be so beneficial. Affordable housing products are developed for borrowers who may be creditworthy, but have lower incomes and lower savings. Below market interest rates make these loans financially feasible for the borrower. Currently, many below market rate loan programs are sponsored by local housing agencies or non profit organizations. These programs will be minimally affected by risk-based pricing. However, some below market rate loans offered by mortgage companies can achieve such low rates because they are cross-subsidized by lower risk loans. If these loans are assessed

---

[79] Steinbach. 1998.

[80] See for example:

Carr. 1999. and Kersner. 1999.

Lax, Howard, Michael Mani, Paul Raca, and Peter Zorn. "Subprime Lending: An Investigation of Economic Efficiency." Mimeo. February 25, 2000.

[81] Carr. 1999.

[82] Zorn, Peter, and Peter Mahoney. Mortgage Market Transitions and Their Implications for Fair Lending. Presentation at the Fannie Mae Foundation Research Roundtable. Washington, D.C. June 30, 1999.

through risk-based pricing schemes to be more risky, they may lose their price advantage.[83] As prices for these loans increase, many of these types of borrowers will no longer be able to afford the cost and be priced out of the market. On the other hand, current affordable products are providing lenders with data that can assist them in better understanding the credit risk of these borrowers. If historical data proves these loans to be creditworthy and the risk-based pricing model takes this fact into account, more affordable lending could occur, since it would be no longer constrained by the number of lower risk borrowers needed as an offset, as is the current practice.[84]

A market-wide adoption of an automated risk-based pricing system will have an uncertain effect on minority groups. Automated risk-based pricing will help erase the line between prime and subprime and create one mortgage market. The potential for lenders to steer minority borrowers to subprime products, when they are eligible for prime financing, may then diminish and the cost of financing for minorities may fall. However, critics are concerned that some automated risk-based pricing systems may "[institutionalize] risk factors that are correlated with race...but which may not be indicative of loan performance."[85] As automated underwriting systems become more transparent and better understood, this concern diminishes. If the automated pricing decisions are based on quantifiable characteristics, with respect to loan performance, the potential for spurious relationships between pricing and borrower characteristics, such as race, will decline. However, when risk factors correlated with race are predictive of loan performance, risk-based pricing may act to further increase racial disparities in the mortgage markets. If prime-credit minority borrower fall at the bottom of the prime market's distribution of risk, they may in fact receive higher interest rates if risk-based pricing becomes prevalent than they would have under an average pricing scheme.

The magnitude of risk-based pricing's effect on the range of these issues cannot be predicted at this point with precision. The adoption of risk-based pricing may be constrained by the limitations of the model used to predict risk: collateral risk is an important risk factor and is notoriously difficult to model. Certain factors, such as industry and borrower willingness to accept this new pricing mechanism will affect its adoption. Risk-based pricing may expose lenders to increased fair lending scrutiny, reducing the appetite for companies to quickly implement the practice without proper consideration. However, risk-based pricing will certainly be adopted to some degree in the mortgage market, and will certainly change the way the mortgage industry is structured and how borrowers shop for mortgages.

[83] Steinbach. 1998.
[84] Madison. 1999.
[85] Ibid.

SECTION 7: AUTOMATED UNDERWRITING SYSTEMS IN TODAY'S LENDING ENVIRONMENT[86]

7.1: Introduction

Lenders' use of automated underwriting systems (AUSs) has transformed the mortgage industry. Whereas mortgage companies used to rely on human underwriters to evaluate a mortgage's risk of loss to the lender, the lender now can apply underwriting criteria using an automated system that is not subject to human preferences and biases.

In addition to adopting these AUSs, the line that separates prime and subprime lending is blurring. Large, traditionally prime, lenders are acquiring subprime affiliates. Fannie Mae and Freddie Mac are offering subprime products targeted to A- borrowers, which traditional prime lenders can originate using the GSEs' automated systems. One goal of these products is to expand the market that is served by the GSEs. Some marginal borrowers, who formerly would have had no other option than to enter the subprime market can now qualify for a GSE product available through prime lenders.

Observers see automated systems, used in this changing lending environment, potentially having both positive and negative affects on borrowers. In theory, lenders could use these systems to serve more borrowers, lower the cost of obtaining a mortgage, and dedicate available resources to other aspects of the lending process. The new GSE A- products may allow prime lenders to serve a segment of borrowers that would have previously been served by the subprime market. Now, these borrowers could take advantage of lower rates provided by the GSEs' lower cost of capital, instead of having to turn to the subprime market for financing.

However, the convergence of AUSs and subprime product offerings in the prime market also may adversely affect borrowers. Prime lenders may have had a business incentive to manually underwrite a marginal borrower who is not approved by an automated system, to determine if compensating factors existed which would allow the lender to originate the mortgage. If this same lender now chooses to offer a GSE A- product and this same borrower is approved by the AUS for the A- product, the lender may immediately originate that loan as an A- mortgage and not manually underwrite the application for the original prime loan. In this case, the borrower would receive a mortgage with a higher rate than they would have if the application was manually reviewed and found to be eligible for a prime product.

---

[86]Section 7 is based on a separate research effort that was added by HUD to the larger scope of work documented in Sections 1-6. The interviews described section 7 were conducted separately from the interviews described in Section 7.1. Section 7's description and analysis is based solely on these interviews.

HUD requested that the Urban Institute explore automated underwriting and how lenders use these systems to approve borrowers, in light of the changing environment. The purpose of this section is to summarize anecdotal information Urban Institute collected from interviews with lenders. It examines three areas:

- how lenders have implemented automated underwriting and utilized the subsequent increase in business capacity;
- what policies lenders have in place to handle applicants that automated systems do not recommend for approval; and
- what incentives are in place to ensure each borrower gets the best mortgage he or she can.

In order to explore these issues, we conducted telephone discussions with mortgage lenders who are actively using some sort of automated underwriting system. During September and October of 2000, we sent nineteen letters to nationally and regionally based mortgage lenders, requesting interviews. The research team placed at least two follow-up calls to each lender in a attempt to schedule interviews. Six lenders were interviewed in Winter, 2000. The following exhibit details relevant characteristics of these lenders that will be referred to throughout this overview.

Exhibit 7.1: Lender Characteristics

	Type of Lending Institution	
	Independent	**Federally Insured**
Number interviewed	4	2
Uses a GSE AUS	3	1
Offers GSE A- product	2	1
Offers in-house subprime product	2	0
Offers subprime product thru affiliate	0	1

The discussion that follows is based on comments these lenders provided about AUS and how borrowers are approved. These lenders were not selected according to any sampling methodology and as such, their comments cannot be interpreted to represent the views or practices in the industry as a whole. Therefore, it is difficult to reach strong conclusions about how loans—specifically ‘referred’ loans—are treated in the mortgage market as a whole, based on this information. Rather, this study was undertaken to provide a first look at changing lender underwriting procedures and the underwriting process.

7.2: GSEs’ Automated Underwriting Systems

The GSEs developed their automated underwriting systems in the early 1990s in order to streamline the underwriting process, to cut lenders’ origination costs, and to more accurately predict the applicant's likelihood of default. Lenders are not required to use these systems. In fact, some lenders have developed their own automated underwriting systems that they use to inform the decision-making process. In general, automated systems review borrowers' credit factors, such as credit history and delinquencies. These systems also evaluate the applicant's loan-to-value ratio, the property type, and the borrower's liquid reserves.[87] Based on this information, these systems provide the lender with a quick recommendation as to whether that application meets a program's risk criteria. In theory, lenders can then dedicate resources that would have been devoted to manually underwriting every loan application, to improving and/or expanding their business. Moreover, lenders can provide customers with a quicker loan decision.

The GSEs' systems, Freddie Mac's Loan Prospector (LP) and Fannie Mae's Desktop Underwriter (DU), use statistical algorithms to predict the loan's risk of loss. Exhibit 7.2 demonstrates how these systems are integrated into the mortgage approval process. A lender who uses an AUS first inputs the details of the loan into the system. Based on this information, the systems provide recommendations to the lender. LP has three possible recommendations:[88]

- *Accept.* LP recommends the mortgage be approved. No further manual underwriting is required.

- *Caution.* Designation given for conventional mortgages only. Must be manually underwritten before it is approved.

- *Refer.* Designation given for government mortgages only. Must be manually underwritten before it is approved.

DU has similar recommendations which are broadly categorized as:[89]

- *Accept*. DU recommends approval because the application meets program eligibility requirements.

- *Refer.* DU does not recommend for approval based on data submitted.

---

[87]For a complete review of the fields GSE automated underwriting systems require the lender to complete before the system can generate a recommendation, refer to the user guides' for Loan Prospector (*Loan Prospector User Guide, Appendix A*) and Desktop Underwriter (*Underwriter User's Guide*). These documents can be obtained from Fannie Mae and Freddie Mac, or downloaded from the appropriate GSE's web site: www.fanniemae.com or www.freddiemac.com.

[88]The following is based on: Freddie Mac. "Loan Prospector User Guide." April, 2000.

[89]The following is based on: Fannie Mae. "Underwriter User's Guide." March, 1999.

- *Refer with Caution.* DU does not recommend for approval based on data submitted. Refer with Caution loans have a statistically greater credit risk than Refer loans.

- *Out of Scope.* DU does not contain the rules or models necessary to underwrite the loan.

Until recently, any mortgage that was categorized as Caution or Refer could not be immediately approved by the lender without being manually underwritten. Manual underwriting involves a human underwriter reviewing the mortgage application to determine if there are specific extenuating circumstances that the automated system may not have taken into account, which offset other risk factors. For example, a borrower may have had a life event, such as a severe illness, that caused a reduction in income or an increase in derogatory credit and it is unlikely to reoccur. If such factors exist, the manual underwriter can approve the mortgage. Otherwise, the application for the prime product is denied.

Once either the AUS recommends approval or a Caution or Refer decision is overridden by a manual underwriter, the loan is then subject to review by the lender. In general, this review involves a verification of the information provided by the borrower, such as employment history. After the borrower information is verified as correct, the mortgage can be originated by the lender.

Once a lender approves a mortgage according to GSE product guidelines and the loan closes, it can be sold to the GSEs. GSEs charge lenders guarantee fees for a bulk delivery of mortgages that are originated according to GSE product guidelines. Guarantee fees are negotiated by lenders and the GSEs according to the volume of mortgages delivered, past performance of loan pools,[90] and the relationship the secondary market firm has with the primary lender.

However, the GSEs recently have added new products and modified their automated underwriting systems that reflect their desire to serve more marginal borrowers. If a loan receives a Caution risk classification from the LP system, it now identifies if that loan is eligible for Freddie Mac's new A- offering. These A- mortgages may be co-mingled with other conventional conforming mortgages delivered to Freddie Mac, but they are charged an additional delivery fee.[91] Freddie Mac's LP system also has been modified to approve borrowers for the Affordable Merit Rate Mortgage. This offering allows borrowers with credit problems to qualify for a mortgage with an

---

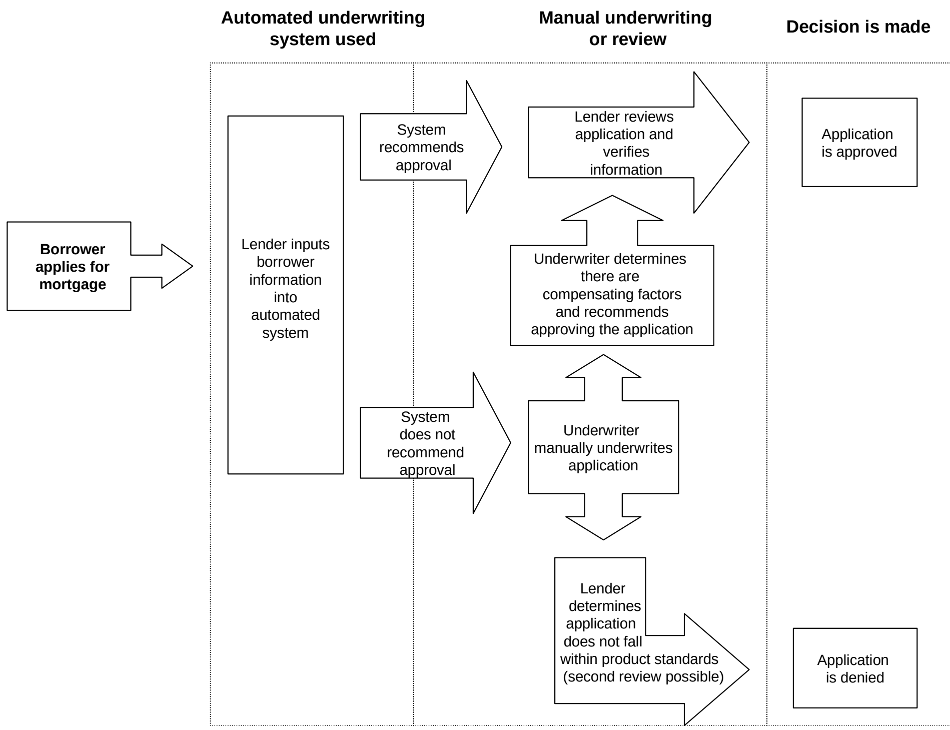
[90] Beidl and Focardi. 2000.

[91] These post-settlement delivery fees are paid by lenders to Freddie Mac and Fannie Mae in addition to the guarantee fees. These fees are found on a subset of products with more flexible underwriting guidelines—such as Freddie Mac's Alt 97 (See http://www.freddiemac.com/sell/alt97/alt97.htm) or and Fannie Mae's Flexible 97(See http://www.fanniemae.com/singlefamily/products/fixed/fixed_flex_97.html)—than the GSEs' standard loan products.

Freddie Mac. "Loan Prospector's A-Minus Offering." Loan Prospector Tools for Lenders. http://www.freddiemac.com/lp/aminus.html.

“initial interest rate lower than the usual subprime rate,”[92] but higher than the rate charged to prime borrowers. Borrowers then have four years within which they must make their mortgage payments on time for 24 consecutive months. Once this stream of on-time payments occurs, the interest rate is lowered one percentage point. Affordable Merit Rate Mortgages cannot be cash-out refinances.[93]

Exhibit 7.2. Example of Loan Application Flow



Fannie Mae’s DU sets three different risk levels for loans that are Referred with Caution. Refer with Caution Level I or Level II risk classifications are eligible for Fannie Mae’s A- product, Expanded Approval, and are charged either a higher guarantee fee or have a loan level price adjustment. Level III loans qualify for Timely Payment Rewards, a feature of Expanded Approval, which charges a higher interest rate for the borrower. This rate is reduced by 100 basis points if the borrower pays on time for 24 months. Level II Expanded Approval and Timely Payment Reward mortgages may not be cash-out refinances.[94]

Fannie Mae and Freddie Mac both discourage lenders from steering borrowers to subprime products, if the borrower qualifies for an A product Freddie Mac has publicly stated that lenders

[92]Freddie Mac. “Affordable Merit Rate Mortgage: a New A-minus Offering With An Incentive Rate Reduction.” Freddie Mac Product Fact Sheet. http://www.freddiemac.com/sell/factsheets/merit_rate.htm

[93]Ibid.

[94]Fannie Mae. “Expanded Approval with Timely Payment Rewards.” Single Family Products. http://www.fanniemae.com/singlefamily/products/fixed/fixed_eawtpr.html.

should not push qualified prime borrowers to subprime products.[95] Fannie Mae has explicitly stated in its Lender Letter 03-00 that not only should the lender refrain from steering, but the lender should offer a qualified borrower a prime product, even if that borrower sought a subprime loan through a subprime channel. However, the choice of which product to offer the borrower ultimately is up to the lender, even with regard to the lender offering the GSE subprime product. For instance, if LP recommends an application as, '*Freddie Mac eligible. LP A-minus offering,'* the lender may either approve the loan as an A- loan or manually underwrite the loan to determine if the application could qualify for Freddie Mac's A product.[96] This decision is left to the lender.

7.3: Lender Incentives in Manual Underwriting

Automated underwriting provides cost savings to lenders for those applicants who are either easily approved, or easily denied.[97] Manual underwriting for marginal borrowers is time consuming and costly when compared to automated underwriting. Manual underwriting allows the lender to closely review an application, to determine if some compensating factor existed that was not taken into account by the automated system. Approval could be granted based on a manual underwriting review.

For those borrowers that are not immediately recommended for approval by the AUS, lenders must make a decision either to manually underwrite that mortgage in an effort to approve the application, or deny the application. In some cases, the lender may see the relatively higher cost of manually underwriting the referred loan as unwanted and deny any applicant that is not recommended for approval by the system. In other instances, lenders may maintain the benefit of making the loan may outweigh the cost for the manual review, and conduct a manual review in an effort to increase the number of loans originated.

Now however, the business environment has changed and has diminished the incentives to manually review referred applicants. Two primary trends, or events, have caused this shift. First, many larger lending institutions have acquired subprime companies. Because of these acquisitions, new internal products could be available for lenders to offer applicants that do not qualify for a prime mortgage. These lenders must now decide what product, within a range of products, is most appropriate for a borrower. For instance, a lender with a subprime division could immediately send a borrower who the AUS does not recommend for approval to its subprime affiliate, or it could submit this borrower for manual review to determine if a prime product is more

[95]Freddie Mac. "Freddie Mac's Stance Against Predatory Lending Practices." Seller Industry Letter. December 28, 2000.

[96]Freddie Mac. 2000. "Loan Prospector Users Guide." April, 2000.

[97]Wayne Passmore and Roger Sparks. "The Effect of Automated Underwriting on the Profitability of Mortgage Securitization." Federal Reserve Board, Washington D.C., Finance and Economics Discussion Series, 1997-19. May, 1997.

appropriate. The benefit of reviewing marginal applicants by hand is therefore reduced, if the company can offer a loan to a borrower without the time intensive manual underwriting.

Secondly, the GSEs have rolled out new A- products. The GSEs' new subprime products have brought subprime lending to a new type of lender: seller/servicers that may or may not have subprime channels or products. The GSEs' new automated systems allow prime lenders to immediately approve more marginal borrowers for A- products without manually underwriting that application.[98] Now, not only do lenders realize automated underwriting's cost savings that can come from excellent or poor credit borrowers, but they can get these benefits from marginal, A- borrowers as well.

7.4: Adoption of Automated Underwriting

All lenders interviewed as a part of this study have implemented some form of automated underwriting (see Exhibit 7.1 for lender characteristics). Four lenders use LP, DU, or some combination of both systems. Three of these lenders offer the GSEs' A- products. The one lender who does not offer these products, yet uses a GSE automated system, maintains that the company does not have the expertise to service subprime loans, which require more aggressive servicing. The fifth lender chose to develop its own system and has obtained a limited waiver of representations and warranties from the GSEs for applications that are granted immediate approval by this system. This lender does offer GSE A- products through its prime channel, and other subprime products through its subprime division. The last lender uses another lender's automated system,[99] which has modules that can evaluate mortgages for GSE product (including the A- product) and other subprime product eligibility. These lenders maintain that automated underwriting has increased their business volume and streamlined their approval process. They also state they have retained some form of manual review for their loan applications.

Increased business volume. For three respondents, automated underwriting has facilitated an increase in business volume. Automated underwriting has reduced, on average, the staff time required to process an application. As a result, these lenders are able to originate more applications while keeping staffing levels fairly constant. These lenders state that not only have they been able to increase volumes, but they also have been able to focus underwriting resources on borderline applications. The ability to pay greater attention to these marginal applications has led to more of these applications being approved as well, according to one lender.

Streamlined process and increase efficiency. The interviewees asserted that automated

---

[98]Freddie Mac. "Loan Prospector Users Guide. April, 2000.
Fannie Mae. "Expanded Approval with Timely Payment Rewards."

[99]The majority of mortgages this respondent originates are sold to the lender that developed this automated system.

underwriting has streamlined the origination process and increased the efficiency of the staff. For example, one lender added a pre-underwriting step after the application is taken. In this pre-underwriting step, a lower level administrative staff person enters the applicant's information into the automated underwriting system before the loan is processed. This lender found the additional step streamlined both processing and underwriting, so all staff can dedicate their time to the harder-to-serve clients. Processors have an early indication of how much documentation will be required to process each specific application, and they can spend their time gathering only the documentation needed for that loan. Traditional underwriters still review all applications, but the reviews are cursory for those loans that the automated system recommends for approval. Experienced underwriters are used only for those cases that are not recommended for approval by the automated underwriting system. This case highlights how lenders, included in this study, have used automated underwriting to facilitate more efficient processing and underwriting.

Retained manual review component. Even with these automated systems, all lenders included in this study still rely on some level of manual review before they grant approval for a mortgage. These manual reviews range from an actual manual underwriting of the application, to ensure the mortgage is eligible for sale, to a verification of the information contained in the application. In one instance, a lender allows loan officers to approve immediately only very low credit risk borrowers who have been evaluated by an automated scoring system. These approved applications, along with those that are not granted immediate approval, are sent to a manual underwriter for review. For mortgages that are not immediately approved, the underwriter considers the property's appraised value, the applicant's credit report, income, and job security. For the mortgages that were immediately approved by the lender, the underwriter simply verifies the applicant's documentation and property information. This issue of manual review will be explored in greater detail in the following section, dealing with the treatment of Referred applications.

7.5: Referred Applications

The automated underwriting systems provide only recommendations to the lenders as to whether the application corresponds with certain program guidelines and risk levels. The systems do not deny applications. It is up to the lender to decide—based on the system's recommendations—to approve the application, manually underwrite the application, refer the applicant for another mortgage product, or some combination of these actions. The decision to approve or deny an application rests with the lender, even if the automated system does not grant immediate approval.

Manual underwriting prior to approving a prime product. If an automated system does not grant approval, lenders included in this study undertake different levels of manual underwriting before approving or denying an application. As explained previously, all respondents indicated that they have at least a cursory review of all mortgage applications to verify documentation, even if the applicants are approved by the automated system. Manual underwriting goes beyond this brief review of documentation, and varies among the lenders. Some lenders claim they 'do not do a lot of manual underwriting,' while others state they manually underwrite any loan that the automated system does not recommend for approval.[100] This more in-depth manual underwriting involves a thorough review of all the borrower's information in order to determine if there are compensating factors which will allow the loan to be approved. In one instance, the lender sells most loans to a private investor. This lender does manually underwrite marginal borrowers, but sends applications to the investor for their review if the lender does not feel comfortable making a final decision. The investor in these cases, makes the final decision to approve or deny. This process insures a marginal borrower gets every possible chance for approval, while also insuring the lender does not originate a loan the investor will not purchase.

Manual underwriting prior to offering GSE A- products. The interviewees also have developed different methods of handling applications that the automated system recommends ineligible for a prime product, but eligible for a GSE A- product. Five lenders in this study do offer the GSEs' A- products, if the GSE systems recommend that the applicant is eligible. Three of these lenders have a process in place that provides a manual review for all applicants that the automated system recommends for the A- product, before that product is indeed offered to the applicant. In other words, even if the system recommends A- product eligibility, these lenders still manually review the application to ensure the applicant does not have compensating factors such as extenuating circumstances that were beyond borrower control, that could allow them to qualify for the prime product.

For applicants recommended for a GSE A- product, a manual review for the initial prime product was not the standard for all lenders included in this study. Two lenders offer the applicant the A- product if the system determines they are eligible, without manually underwriting the application. These lenders do review the applications to ensure faulty or incorrect documentation was not the cause of the A- recommendation, but the review does not extend beyond this verification. One lender stated that they believe it is difficult to override a system recommendation, and thus they generally follow the automated system's recommendations. The other lender maintained that they are unwilling to shoulder the risk that the loan may not be eligible for purchase by the GSEs. This lender was concerned that the company may be open to error if a manual underwriter approves an applicant for a prime product and does not follow the automated system's A- recommendation. If the underwriter made a mistake and the loan is later determined by the GSE as ineligible for the prime product, that lender would have to repurchase the mortgage. Rather than take on this risk of repurchase, this lender maintains they generally follow the automated systems' recommendations for A- eligibility.

Manual underwriting prior to offering other subprime products. The interviewees do not

---

[100] Applications for affordable lending products typically have several reviews—one lender stated that two underwriter reviews and one review by a review committee are completed for all affordable lending product applicants.

immediately refer applicants to a non-GSE subprime mortgage product, if the automated underwriting system does not recommend approval. The two respondents that offer subprime mortgage products maintained that they refer applicants to a subprime product only after they have exhausted all levels of manual underwriting review for the prime product that the applicant initially sought.

One of these lenders stated that if the automated system and manual reviewers agreed that the applicant could not be approved due to credit issues, the lender resubmitted this application to their automated system again for subprime product approval and notified the applicant upon subprime product approval. The other lender considers its subprime product for the applicant only after it has determined the application cannot qualify for a prime mortgage. The lender that refers borrowers to its affiliated subprime arm also does so only after a full underwriting review for a prime mortgage.

7.6: Conclusions

In summary, interviewees found that automated underwriting has allowed them to shift segments of the underwriting process to different staff and concentrate underwriting resources on the more difficult client. For example, the responsibilities of these staff people would not have encompassed duties such as 'pre-underwriting' mortgage applications in a manual underwriting environment. However, the use of automated underwriting has not done away with the manual underwriter. On the contrary, lenders we spoke to still do at least a cursory review to validate application information even when they have been processed through an automated system. Many lenders still use manually underwriting as a tool to originate loans that are not recommended for approval by the automated systems. Automated underwriting also has allowed some lenders to increase business volumes.

The lenders included in this study reported that they developed their policies and procedures to ensure that the borrower receives the best mortgage, according to product eligibility. Most lenders interviewed that do offer GSE or other subprime products still perform a manual review if the system does not recommend prime product approval, prior to the subprime product being offered. These lenders did not openly state any intention of altering this process. Yet, automated underwriting can provide cost savings to lenders. Two lenders included in this study do not manually underwrite those applicants that are approved by AUS for a GSE A- product in an effort to streamline processing and ensure loans are eligible for purchase. In these cases, the application is approved for the GSE A- product, and not for the price and terms associated with the prime product, for which the applicant may have originally applied.

This study is conducted at a time when the GSEs' subprime products are relatively new to the marketplace. Likewise, the ability of prime lenders to refer applicants to a subprime affiliate is also relatively new. In the future, the economic benefits of relying solely on automated underwriting could encourage some lenders to establish policies that would approve marginal borrowers for subprime products without a manual review for a prime loan. Ongoing scrutiny is needed to determine if policies shift from manual underwriting for all, to instant subprime approval for some.

SECTION 8: POLICY ISSUES AND RECOMMENDATIONS

A larger GSE role in the subprime market has the potential to benefit many borrowers. Currently, subprime lenders typically do not use a common set of underwriting standards. Subprime lenders claim that this flexibility is good for borrowers: it allows individual lenders to evaluate each application individually, and work to approve every borrower at the cheapest possible rate. Consumer groups and other subprime market critics are not so sure. They believe that the subprime lenders charge higher interest rates, points and fees which are in excess of the costs associated with serving higher risk borrowers.

Given HUD's GSE oversight responsibility, it is important for the Department to enhance its monitoring systems in response to the agencies' increase in subprime loan purchases. Moreover, the new affordable housing goal states that the GSEs will not receive credit for loans that have certain features. We recommend that HUD acquire information in order to evaluate three important policy questions:

(1) Are subprime borrowers benefiting from a larger GSE role in the subprime market?

(2) Are the GSEs' subprime activities in compliance with fair lending laws and affordable goal restrictions? Do new versions of the GSE automated underwriting create a disparate impact? Do the subprime loans purchased by the GSEs violate fair lending laws, the Real Estate Settlement Procedures Act (RESPA), Truth in Lending Act (TILA), Home Owners Equity Protection Act (HOEPA) or features that preclude the GSEs from receiving affordable goal credit?

(3) Is a larger subprime role for the GSEs appropriate?

We detail the data needed to answer each question below.

8.1: Subprime Loan Features and Distribution

Fannie Mae and Freddie Mac claim that their increased presence in the subprime market will bring more efficiency and fairness to that segment of the mortgage lending industry. Therefore, HUD should collect data that will allow the Department to assess whether or not borrowers are better off with GSE subprime loan products. HUD now collects loan level information about the loans purchased by the GSEs. These data are inadequate to assess whether or not Fannie Mae and Freddie Mac are buying loans that have features prohibited by law, as well as the GSEs' own standards. Specifically, the loan level data do not report the loan's points and fees, APR, or whether the loan contains a prepayment penalty. Moreover, there is no information about whether the borrower was offered a different type of product, which is highly difficult to collect anyway.

Given these deficiencies, HUD should require the GSEs to collect and report to HUD at least: (1) points and fees charged at origination, (2) type (if any) of prepayment penalty, (3) initial lender contacted, (4) annual percentage rate, (5) note rate, (6) FICO score of borrower and co-borrower, and (7) back-end ratios.

By collecting this information from Fannie Mae and Freddie Mac, HUD will be in a stronger position to monitor the GSEs' subprime loan purchases. In addition, HUD should consider initiating an effort to augment information reported by lenders through HMDA. Currently, HUD uses HMDA data to evaluate the purchase activities of the GSEs in the prime market relative to the overall primary market. These analyses are an important component of HUD's oversight efforts. However, HMDA, with its existing variables, is not an adequate database for HUD to analyze the subprime market because it does not have information about the borrower's credit history, contract interest rate, and total APR. Therefore, the Department may want to work with the Federal Reserve Board in its efforts to add APR to HMDA.

With this information, HUD will be able to compare:

- The types of subprime loans purchased by the GSEs relative to all subprime mortgages originated. HUD could complete this analysis using HMDA, which has information about whether or not the originator was a subprime lender, and an enhanced GSE loan level data file;

- The prices of agency and non-agency subprime loans;

- The types of borrowers (in terms of income) receiving agency subprime loans versus non-agency subprime loans; and

- The proportion of agency subprime loans originated by prime lenders to the proportion of non-agency subprime loans originated by prime lenders.

By conducting these comparisons, HUD will be able to assess whether or not GSE subprime mortgage products are penetrating the market and creating a market for cheaper loans for different types of borrowers.

8.2: Fair Lending Review

HUD is conducting a fair lending review of the GSEs' automated underwriting systems that were in place as of the end of 1999. We recommend that HUD consider a fair lending review of the new GSE systems, and conduct such a review on an on-going basis as the GSEs make major modifications to their systems.

The new GSE automated underwriting systems have the potential to standardize underwriting and pricing procedures in the subprime market. If the GSEs are successful in penetrating the subprime market, the GSEs' systems will assess applications from a large share of subprime borrowers. As a result, it is important for HUD—as the agency responsible for ensuring that the GSEs' underwriting guidelines comply with fair lending requirements—to assess whether or not the new GSE automated underwriting systems:

- Have a disproportionate adverse effect on protected classes of borrowers, and,

if yes;

- If the factors that have a disproportionate effect on protected classes of borrowers serve a business necessity. Moreover, even if these factors do serve a business necessity, the system must not exclude factors that serve the same business necessity, but result in a smaller disproportionate effect.

A fair lending review is necessary even if, as the GSEs assert, the systems do not explicitly use prohibited factors, such as the borrower's race, ethnicity, age and gender. The GSEs' systems may have a disproportionate effect on protected classes. Borrowers who have less equity in a property and more credit problems are likely to be classified by the GSEs' systems in the groups offered mortgages with higher rates. Minorities tend to have poorer credit histories, lower incomes and less wealth when compared to non-Hispanic whites, all of which influence the GSEs' automated underwriting systems.[101]

Obviously, a finding that the systems have a disproportionate effect by itself does not mean that there is a discriminatory disparate impact. But any findings of a disproportionate effect mean that HUD must determine whether the factors that do have disproportionate effects on protected classes of borrowers serve a business necessity and whether less discriminatory alternatives are available. HUD is currently conducting a fair lending review of the GSEs' automated underwriting systems. This review is not sufficient for HUD to comment on whether or not Fannie Mae's and Freddie Mac's new systems comply with fair lending requirements, since these systems were developed with little information about subprime loans.

Moreover, HUD should monitor whether or not the GSEs purchase loans that are originated

---

[101]Johnson, Pamela. "Automated Underwriting: Its Purposes, Design and Operation." Presentation at The Role of Automated Underwriting in Expanding Minority Homeownership. Conference Sponsored by Fannie Mae, Warrenton, Va. June 8, 2000.

in a manner that violates the Fair Housing Act, FHEFSSA, and HOEPA. GSE seller/servicers, obviously, are prohibited from using illegal practices, and make representations and warranties to that point. Yet, there is some concern among industry analysts that some subprime lenders use predatory practices, many of which violate federal law. By purchasing more subprime loans, some interviewees worry that Fannie Mae and Freddie Mac could unwittingly increase the liquidity for predatory lending.

HUD needs to establish effective systems to monitor whether or not the GSEs are purchasing loans with features that Fannie Mae and Freddie Mac themselves prohibit (such as single premium credit life insurance), or from companies that are not in compliance with ECOA, RESPA and TILA. The GSEs will not receive credit towards the affordable housing goals when buying these loans. This creates a need for HUD to establish procedures to verify that the GSEs are not claiming credit toward the goals for loans outside the guidelines.

It is no small task to establish such a system, since most legal actions against subprime lenders are based on an extensive investigation of a company's business practices and loan files. Therefore, it may be difficult to collect this type of information on a loan-level basis. Rather, HUD may want to work with the GSEs to develop an effective system which will ensure that the GSEs are not purchasing predatory loans.

8.3: Potential New Program/Charter Review

Some stakeholders believe that it is not appropriate for Fannie Mae and Freddie Mac to increase their subprime market participation. We cannot comment on whether or not this assertion is correct. Nonetheless, we recommend that HUD examine whether or not a new program review is warranted, given the expected increase in the GSEs' subprime activities.

Our recommendations to HUD are based on our findings that a larger GSE role in the subprime market has the potential to make that segment of the mortgage industry more efficient and fairer. The Department should take proactive steps, as part of its regulatory responsibility, to assess whether the subprime market does, indeed, change for the better. Moreover, HUD should closely monitor whether the GSEs' systems used by lenders to serve subprime borrowers comply with fair lending laws, since minority borrowers account for such a large portion of subprime borrowers. Finally, the GSEs should not create liquidity for predatory lending; HUD should initiate a data collection or monitoring effort which will allow it to ensure that Fannie Mae and Freddie Mac do not unwittingly purchase loans with prohibited features.

REFERENCES

Bear Stearns. “Home Equity Loan Securities: Prepayment Modeling and Valuation.” Report. February, 1996.

Beidl, Richard and Craig Focardi. “The Coming of Risk-Based Pricing.” Mortgage Banking. May, 2000.

Bernstein, Jodie. “Prepared Statement of the Federal Trade Commission before the Senate Special Committee on Aging on Home Equity Lending Abuses in the Subprime Mortgage Industry.” March 16, 1998.

Board of Governors of the Federal Reserve System, et al. “Interagency Guidelines on Subprime Lending.” March 1, 1999.

“B of A Tops B&C Lending Charts in A ‘99 Marked by Mainstream Gains.” Inside B&C Lending. February 14, 2000.

Bunce, Harold. The GSEs’ Funding of Affordable Loans: A 1999 Update. U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Working Paper HF-12. 2000.

Bunce, Harold and Allen Fishbein. Overview Paper: Subprime Markets and Predatory Lending. U.S. Department of Housing and Urban Development. Report

Bunce, Harold L., Debbie Gruenstein, Christopher Herbert and Randall Scheessele. “Subprime Foreclosures: The Smoking Gun of Predatory Lending?” Paper presented at Housing/Policy Development and Research Conference. October 2, 2000.

Bush, Vanessa. “Risk-Based Pricing Trend Could Make Mortgage Lending More Efficient.” America’s Community Banker. October 1, 1998.

Canner, Glenn B., Thomas A. Durkin and Charles A. Luckett. “Recent Developments in Home Equity Lending.” Federal Reserve Bulletin. April 1998.

Canner, Glenn B. and Wayne Passmore. “The Role of Specialized Lenders Extending Credit to Low-Income and Minority Homebuyers.” Federal Reserve Bulletin. November, 1999. 723.

Carr, James. “Risk-Based Pricing: Automation’s Benefits are Not Automatic.” Neighborhood Works Journal.<http:\\www.nw.com>. Summer, 1999.

“Despite Industry Fears, GSE Subprime Volume Lacking.” Inside B&C Lending. July 31, 2000.

Fannie Mae. “Eligibility of Mortgages to Borrowers with Blemished Credit Histories.” Lender Letter LL03-00. April 11, 2000.

Fannie Mae. “Expanded Approval with Timely Payments Rewards.” Single Family Products. <http://www.fanniemae.com/singlefamily/products/fixed/fixed_eawtpr.html>.

Fannie Mae. “Fannie Mae Offers New Lower Cost Mortgage for Borrowers with Past Credit Problems.” <http://www.fanniemae.com>. September 30, 1999.

Fannie Mae. Presentation to Urban Institute regarding Desktop Underwriter. December 6, 1999.

Fannie Mae. Remarks Prepared for Delivery by Franklin Raines, Chairman and CEO of Fannie Mae to the National Community Reinvestment Coalition. Washington, D.C. March 20, 2000.

Fannie Mae. “Underwriter User’s Guide.” March, 1999.

Fannie Mae. “What are Credit Scoring and Automated Underwriting?: A Guide to Understanding the Tools Lenders Use to Evaluate Your Mortgage Loan Application.” Washington, D.C.: Fannie Mae. 1998.

Fitch IBCA. “Securitization of 125 LTV Mortgages.” March 4, 1998. <www.fitchibca.com>

Fitch IBCA. “Subprime Home Equity: What Next?” Financial Services Special Report. April 27, 1999.

Foley, Thomas. “Subprime Home Equity Industry Outlook: The Party’s Over.” Moody’s Investor Service Global Credit Research. October, 1998.

Follain, James, Vassilis Lekkas and H. Jane Lehman. “Refinancers Crave Cash on Top of Lower Monthly Payments.” Mortgage Market Trends. 1999: 28.

Freddie Mac. “Affordable Merit Rate Mortgage: New A- Offering with an Incentive Rate Reduction.” Freddie Mac Product Sheet. <http://www.freddiemac.com/sell/factsheets/merit_rate.htm>

Freddie Mac. “Freddie Mac’s Stance Against Predatory Lending Practices.” Seller Industry Letter. December 28, 2000.

Freddie Mac. “Loan Prospector’s A-Minus Offering.” 1999. <http://www.freddiemac.com/lp/aminus>.

Freddie Mac. “Loan Prospector User Guide.” April, 2000.

Freddie Mac. “Most Current Refinances are for Extra Cash. “ Press Release. August 16, 2000.

Freddie Mac. Remarks by Leland Brendsel, Chairman and CEO to Merrill Lynch Banking and Financial Services Investor Conference. September 12, 2000. <http://www.freddiemac.com>

Freddie Mac. “Single-Premium Credit Insurance Products.” Industry Letter. April 21, 2000.

“Freddie Mac Expecting 31% Boost in Subprime Business. “ Inside B&C Lending. May 22, 2000.

Goldstein, Deborah. “Understanding Predatory Lending: Moving Toward a Common Definition and Workable Solutions.” Cambridge, MA.: Joint Center for Housing Studies of Harvard University. October, 1999.

Immergluck, Daniel and Marti Wiles. Two Steps Back: The Dual Mortgage Market, Predatory Lending, and the Undoing of Community Development. Chicago: The Woodstock Institute. Report. 1999.

Johnson, Pamela. “Automated Underwriting: Its Purposes, Design and Operation.” Presentation at The Role of Automated Underwriting in Expanding Minority Homeownership. Conference Sponsored by Fannie Mae, Warrenton, Va. June 8, 2000.

Kersner, Scott. “All Signs Said to Point to Increased Use of Risk-Based Pricing.” National Mortgage News. August, 2, 1999.

Kling, Arnold. “Get Set for Loan-Level Pricing.” Secondary Mortgage Markets. 1997.

Lax, Howard, Michael Manti, Paul Raca and Peter Zorn. “Subprime Lending: An Investigation of Economic Efficiency. “ Mimeo. February 25, 2000.

Loesch, Michelle. “A New Look at Subprime Mortgages,” Fitch Research, December 16, 1996.

Madison, Juliette. “Risk-Based Mortgage Pricing: A New Approach Raises Old Concerns.” NeighborWorks Journal. Summer, 1999.

Mahoney, Peter. “Counselling’s New Role.” Neighborhood Works Journal. Summer, 1999.

Mansfield, Cathy Lesser. “The Road to Subprime ‘HEL’ Was Paved with Good Congressional Intentions: Usury Deregulation and the Subprime Home Equity Market.” South Carolina Law Review. Spring, 2000.

Mansfield, Cathy Lesser. Testimony before the Committee on Banking and Financial Services, United States House of Representatives. May 24, 2000.

Mortgage Bankers Association of America. “The Non-Conforming Credit Lending Committee Working Group Report Subprime Lending & High Cost Mortgages: Recommended ‘Best Practices’ & ‘Legislative Guidelines’.” <http://www.mbaa.org/resident/lib2000/0525b.html>. 2000.

Mortgage Information Corporation. B & C Market Study. 1997.

Mortgage Market Statistical Annual for 2000. Inside Mortgage Finance Publications, Inc.

“Most Subprime Loans Fall in the Better Risk Grades with Lower Delinquencies.” The Market Pulse. Spring 2000.

“New Conduit Business Paradigm.” National Mortgage News. 1999.

Office of Federal Housing Enterprise Oversight. Report to Congress. 1999.

Office of Federal Housing Enterprise Oversight. Report to Congress. 2000.

Office of Thrift Supervision. “What About Subprime Mortgages.” Mortgage Market Trends. Vol 4(1). Research and Analysis, Office of Thrift Supervision. June, 2000.

Passmore, Wayne and Roger Sparks. “The Effect of Automated Underwriting on the Profitability of Mortgage Securitization.” Federal Reserve Board, Washington DC. Finance and Economics Discussion Series, 19. May, 1997.

Pennington-Cross, Anthony, Anthony Yezer and Joseph Nichols. “Credit Risk and Mortgage Lending: Who Uses Subprime and Why?” Washington, D.C.: Research Institute for Housing America. Report. 2000.

“Putting Alt A Loans Under the Microscope.” The Market Pulse. Fall, 1999.

Raines, Franklin. Remarks made at the Sanford C. Bernstein Co., Inc. Strategic Investors Conference. June 6, 2000. <http://www.fanniemae.com/markets/stock/special/sanford/testimony1.html>

Raiter, Frank and Scott Mason. Rating Subprime Mortgages: Presentation at the John Marshall Law School Fair Housing Legal Support Center. April 6, 2001.

Scheessele, Randall. "1998 HMDA Highlights." Washington, D.C.: Department of Housing and Urban Development, Office of Policy Development and Research. Working Paper HF-009. September 1999.

Steinbach, Gordon. "Making Risk-Based Pricing Work." Mortgage Banking. September, 1998.

"Subprime Lenders Mixed on Issue of GSE Mission Creep. " Inside B&C Lending. March 19, 2001.

United States District Court, Central District of California Southern Division. "Federal Trade Commission v. First Alliance Mortgage Company. Complaint for Permanent Injunctive Relief and Other Equitable Relief." 2000.

United States District Court, Northern District of Georgia, Atlanta Division. "Federal Trade Commission v. Citigroup Inc., Citifinancial Credit Company, Associates First Capital Corporation and Associates Corporation of North America. Complaint for Permanent Injunction and other Equitable Relief." 2001.

U.S. Department of Housing and Urban Development. Unequal Burden: Income and Racial Disparities in Subprime Lending. Washington, D.C. Report. 2000.

U.S. Department of Housing and Urban Development. HUD's Regulation of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac); Final Rule. Federal Register, October 31, 2000, p. 65035.

U.S. Department of Housing and Urban Development/U.S. Department of the Treasury. Curbing Predatory Home Mortgage Lending: Report from the Joint Task Force on Predatory Lending. Washington D.C. 2000.

Weicher, John. The Home Equity Lending Industry: Refinancing Mortgages for Borrowers with Impaired Credit. Indianapolis: The Hudson Institute. 1997.

Zorn, Peter, and Peter Mahoney. "Mortgage Market Transitions and Their Implications for Fair Lending." Presentation at the Fannie Mae Foundation Research Roundtable. Washington, D.C. June 30, 1999.