The Color of Credit

Mortgage Discrimination, Research Methodology, and Fair-Lending Enforcement

Stephen Ross and John Yinger

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regression specification does not exactly accurately reflect a lender's actual underwriting standards. Second, it can show up in the estimated coefficients of the credit characteristics and therefore will not be recognized as discrimination in a loan approval regression. This analysis also shows that a lender may be able to disguise disparate-treatment discrimination by transforming it into disparate-impact discrimination.

The first of these two possibilities needs to be considered because it helps to show why looking for disparate-impact discrimination is so important. As explained in chapters 5 and 6, disparate-impact discrimination may show up in the minority status coefficient whenever the lender's underwriting standards contain elements that are not reflected in the specification of the loan approval regression. Hence, an investigator following the Federal Reserve procedures (or a lender responding to them) might be able to reduce apparent discrimination, as indicated by the minority status coefficient, by adding these elements to the specification of the regression. In particular, this step could shift the effect of disparate-impact discrimination from the minority status coefficient to the coefficients of credit characteristics, where it will not be observed. Thus, the search for the "correct" specification, that is, the specification most accurately portraying a lender's underwriting criteria, a search that is central to the logic of the Federal Reserve's regression procedure, can be seen as a way to ensure that disparate-impact discrimination is ignored.

The problem runs even deeper than this, however. As shown in such a compelling fashion by Buist, Linneman, and Megbolugbe (1999) and Blackburn and Vermilyea (2001), lenders may be able to hide disparate-treatment discrimination by transforming it into disparate-impact discrimination. In this case, the Federal Reserve's regression procedure could miss discrimination altogether, even when it is severe. Indeed, we believe it is inappropriate—if not irresponsible—for these agencies to use a procedure that violates the Inter-Agency Fair Lending Examination Procedures (Federal Financial Institutions Examination Council, 1999) by assuming that disparate-treatment discrimination is the only kind worth looking for.

10.6 Conclusions and Recommendations

In our judgment, the current fair-lending enforcement system is seriously inadequate. As demonstrated by several high-profile cases against large lenders, this system does uncover some cases of discrimination in loan approval that take the form of disparate treatment (see Siskin and Cupingood, 1996; Lee, 2001). The analysis in this chapter shows, however, that this system also is likely to miss other cases of loan approval discrimination that take the form of disparate treatment and is incapable of identifying loan approval discrimination that takes the form of disparate impact. In addition, little is known about the application of this system to automated underwriting systems or to the setting of interest rates. These limitations could all be overcome with relatively straightforward procedures.

The problems in the current enforcement system can be traced to the way enforcement agencies select lenders for further investigation and to the way they use statistical procedures. The selection methods employed focus on only a subset of possible discrimination indicators and therefore insulate some discriminating lenders from further investigation, which is clearly an inappropriate outcome. Moreover, these methods may have the ironic consequence of placing an unfair enforcement burden on minority-owned lenders.

The federal financial regulatory agencies have recently improved the fair-lending enforcement system by introducing multivariate statistical procedures. The current use of these statistical procedures causes two sorts of problems, however. First, at the Federal Reserve, these procedures are often treated as an initial test for discrimination that can be overruled by the subsequent judgment of investigators based on limited information from selected file reviews. In this setting, there is no reason to believe that investigators can accurately distinguish between discriminatory and nondiscriminatory denial of minority households' loan applications. More satisfactory approaches include investing more in the initial data collection and study design phase, as the OCC has done, or treating file reviews as sources of information to be incorporated into the statistical procedures.

Fair-lending laws require lenders to use the same underwriting standards for all applicants, regardless of their group membership. Allowing lenders to evaluate applications on the basis of idiosyncratic factors and to place unobservable weights on these factors in making their underwriting decisions would eviscerate these laws, because such a step would make it impossible to determine whether common standards are applied to all applicants. Thus, fair-lending

laws cannot be enforced unless each lenders is held to a standard of equal treatment based on an available and objective method, namely, a multivariate analysis of the lender's loan denial decisions.

Second, the existing statistical procedures at all fair-lending enforcement agencies, along with the less formal enforcement procedures, are explicitly designed to find only disparate-treatment discrimination. This is a serious problem, because disparate-impact discrimination may be quite common. It can easily be built into an underwriting system, for example, even when that system is based on seemingly group-neutral statistical procedures. In addition, lenders may be able to transform disparate-treatment discrimination, which might be detected by the existing procedures, into disparate-impact discrimination, which will escape detection altogether under those procedures. The laws pertaining to fair lending outlaw discrimination whether it takes the form of disparate treatment or of disparate impact, and we can think of no justification for an enforcement system that ignores one of these forms altogether.

We propose four steps for improving the fair-lending enforcement system. These steps are designed to be consistent with existing legal requirements for disparate-impact discrimination cases. Moreover, they all could be codified in a set of regulations for enforcing fair-lending legislation.

1. *The fair-lending enforcement agencies should come up with the resources needed to make certain that they are not missing a large share of existing disparate-treatment discrimination.* In selecting lenders to investigate, they should develop new strategies that do not rule out large classes of potential discriminators. They also should provide enough resources so that multivariate regressions conducted to identify discriminators can be based on virtually complete information and loan file reviews can be treated as a method for improving regression analysis, not overruling it.

2. *The fair-lending enforcement agencies should implement the new enforcement tool developed in section 10.3.2.1, namely, a loan approval regression based on applications submitted to a large sample of lenders.* This tool, which recognizes both the complexity of underwriting standards and the possibility that these standards vary across lenders, makes it possible to estimate the extent of discrimination by each lender in the sample, regardless of whether that discrimination takes the form of disparate impact or of disparate treatment. The courts have made it clear that FaHA and ECOA prohibit disparate-impact discrimination as well as disparate-treatment discrimination, and it is irresponsible for the fair-lending enforcement agencies to use procedures that ignore one of these forms.

Moreover, because it is based on a large, random sample, this tool does not exempt any discriminating lenders from investigation, provides precise estimates of the weights placed on a wide range of underwriting variables, yields an estimate of discrimination even for lenders that are too small for current regression procedures, and eliminates the arbitrary separation of lenders based on the agency that regulates them. In short, this tool provides the best possible lender-specific estimate of discrimination that is available without loan performance information and is an ideal way to determine if there is a prima facie case for discrimination for any lender in the sample. The standards required to establish a prima facie case using this method are, of course, much more stringent than the standards implicit in the four-fifths rule used in employment cases.

3. *The fair-lending enforcement agencies should also implement the new enforcement tool developed in section 10.3.2.2, namely, a performance-based analysis of loan approval decisions, to supplement the first tool.* This tool requires an enforcement agency to estimate a model of the factors that determine loan performance. More specifically, this tool compares the minority composition of the applications that have the highest predicted loan performance based on this loan performance model with the minority composition of the applications a lender actually approves. Discrimination exists if more minority applications would be approved on the basis of predicted performance than are actually approved on the basis of the lender's underwriting standards. This tool requires loan performance information, which the fair-lending agencies have, so far, been reluctant to obtain, but it does not require the investigator to know the details of a lender's underwriting standards, and it could easily be implemented if the required data were available. This tool, like the other one we propose, captures both disparate-impact and disparate-treatment discrimination.

This second enforcement tool would yield more precise answers about discrimination than the first one, but it would obviously be more costly to implement. Loan performance is observed by the institution servicing a loan, which may not be the same as the

institution that issued the loan. To examine discrimination in underwriting, therefore, regulators must develop procedures that link loan performance information with information about the issuing lender.[61] This issue arises even for large lenders that originate and then continue to service many loans. After all, these lenders also sell some of their loans on the secondary market, and the sample of loans they retain is not a random sample of the loans they originate.

In the short run, therefore, we recommend that regulators collect loan performance information from institutions that service a large number of loans, including information on the lenders that originated the loans. These data should then be used to estimate loan performance models for various types of loans, such as conventional home purchase loans. These loan performance models will provide the basis for an evaluation of discrimination at any of the lenders that originated a significant number of loans in the sample. The lenders to be investigated could be determined randomly, perhaps with sampling weights based on minority/white denial ratios or other information from HMDA.

In the long run, we recommend a new Home Mortgage Disclosure Act for Loan Performance Information (HMDA-LP). This act would require all institutions servicing loans to report to the federal government on certain standardized performance indicators, loan characteristics, and originator identifiers. Just as the HMDA data provide a foundation for a detailed analysis of loan approval, these HMDA-LP data could provide a foundation for a detailed analysis of loan performance. Specifically, samples of various types of loans could be drawn from these data, and further information on applicant, loan, and property characteristics could then be collected for each sample. This HMDA-LP data set, supplemented with additional information, would make it possible for regulators to estimate a loan performance model for each type of loan. In the final step, the results of these models could be used to test for discrimination by a (weighted) random sample of the lenders represented in the HMDA-LP data for each type of loan.[62]

Although our second and third recommendations would require lenders to provide information from their loan files, they are designed, in part, to protect lenders from unwarranted charges of discriminatory behavior. Recall that we recommend stringent standards for establishing a prima facie case for disparate-impact discrimination, based on a multivariate procedure. Regulators should make it

clear that the random selection of a lender for further investigation, even if that selection is guided by weights based on an adjusted minority/white denial ratio, does not imply that the regulator has already built a prima facie case for discrimination by that lender. Just as an income tax audit does not imply that a taxpayer has cheated on his taxes (even if it is guided by variables correlated with cheating), a lending investigation does not imply that a lender has practiced discrimination. Instead, a lender is charged with discrimination only if a statistical procedure finds a minority-white disparity after controlling for all legitimate underwriting variables. With these procedures, a lender who does not discriminate has nothing to worry about.

4. *The fair-lending enforcement agencies should develop performance-based tools designed to test for discrimination in the scores that come out of automated underwriting systems and in loan pricing.* To the best of our knowledge, these agencies have paid little attention to discrimination in these types of behavior. This neglect is unfortunate. Automated underwriting systems are now a central element of the mortgage market, and pricing according to risk is replacing credit rationing in many settings. Moreover, in some cases, lenders may be able to increase their profits by discriminating in the design of automated underwriting systems or loan-pricing policies. Such discrimination is not likely to take the form of disparate treatment, but disparate-impact discrimination can impose just as serious a burden on minority borrowers. It is imperative that the fair-lending enforcement agencies develop tools that recognize the possibility of discrimination in these activities and are capable of recognizing discrimination regardless of the form it takes. The tools we propose in this chapter fulfill these requirements. Moreover, these tools do not require the release of proprietary information about the formulas that define an automated underwriting system.

For some reason, unknown to us, the fair-lending enforcement agencies have decided not provide the public with any credible evidence on the current extent of discrimination in mortgage underwriting.[63] As a result, neither we nor anyone else knows how much of this type of discrimination still exists. According to the best available evidence, however, extensive underwriting discrimination existed in 1990, and there is no more recent evidence to show that this discrimination has gone away. Moreover, black and Hispanic

households continue to have homeownership and loan approval rates far below the rates attained by white households, even after controlling for income and other factors.

Under these circumstances, this nation cannot begin to live up to the important principles embodied in its fair-lending laws without actively searching for mortgage discrimination in all its possible forms using the most accurate tools possible. The current fair-lending enforcement system does not even come close to meeting this standard.

It does not have to be this way. More comprehensive and accurate enforcement tools that build on a large body of scholarly research and are consistent with legal standards are readily available. We strongly urge the fair-lending enforcement agencies to make these tools a regular part of their enforcement activities. We also urge interested citizens, community groups, academics, lenders and other participants in the mortgage market, and public officials to work for improvements in the fair-lending enforcement system. Every American household should be able to enter the mortgage market without fear of discrimination.

Appendixes