Making Judgments About Mortgage Lending Patterns

by Robert B. Avery

In the mid-1970s, there was considerable public debate about whether financial institutions engaged in redlining—the practice of refusing to lend to, or limiting the number of home mortgage loans made in, poor or predominantly minority neighborhoods. Congressional concerns about such practices were a major factor in the passage of the Home Mortgage Disclosure Act (HMDA) in 1975 and the Community Reinvestment Act (CRA) in 1977.

Concerns about redlining have resurfaced in the past few years as a result of increased CRA-related protests of bank applications and several investigations of alleged discrimination in mortgage lending patterns in several cities. Partly as a result of these concerns, Congress recently enacted a law that substantially expands several features of the HMDA and CRA.

The HMDA requires financial institutions to publicly disclose the number and dollar amount of their mortgage loans by geographic location. Due to recent changes in the law, institutions will be required to report the distribution of their mortgage applicants by sex, race, and income within each geographic area they serve. HMDA reporting requirements will also be extended to previously uncovered mortgage companies.

The CRA establishes regulatory processes to encourage institutions to meet the credit needs of their entire community, including low- and moderate-income areas, in a manner consistent with safe and sound practices. Evaluation of an institution's record in meeting such needs is a routine part of the bank examination process and is used as a factor in deciding the merits of applications for bank charters, deposit insurance, mergers, branches, and for other regulatory actions. CRA compliance ratings and a summary of the compliance examination now will be made public for all covered institutions.

In addition, federal regulators issued a joint CRA statement on March 21, 1989, encouraging financial institutions to expand their management of, and attention to, CRA responsibilities, including procedures for information dissemination and recordkeeping.

Before any further extensions to the HMDA and CRA are undertaken, it would be desirable to evaluate the existing statistical evidence on redlining and to determine whether the weight of evidence is strong enough to reach definitive conclusions. This paper evaluates the general methodology used in some of the statistical studies. These research methods, which are employed to examine overall lending patterns across neighborhoods, are then compared with compliance procedures followed by regulators concerned with the performance of individual financial institutions.
Changes were particularly apparent in home mortgage lending. The growing acceptance of mortgage-participation securities led to a substantial rise in FHA-insured and VA-guaranteed loans and to an increased role of FNMA and FHLMC as guarantors of conventional mortgage loans. The use of variable-rate mortgages and private mortgage insurance also became widespread. The net effect of these changes has been to standardize the mortgage application process and to make it much easier for firms that did not want to hold mortgages for their own portfolios to specialize in originating mortgages. Capital evidence suggests that mortgage markets have become more competitive as the number of players has increased.

The value of these studies depends critically on the selection of control variables. If other relevant factors included in the analysis adequately control for mortgage demand and appropriate lending risk, for example, it can be argued that the residual relationship between race and lending reflects the inappropriate actions of lenders. If other relevant factors are not adequately controlled for, then it cannot be argued that the residual relationship reflects purely supply factors. This is a potentially critical weakness of virtually all redlining research to date, since adequately capturing the demand for credit is extremely difficult.

The types of control variables used in HMDA-based studies have varied considerably. In some studies, only the number of residents or the number of owner-occupied houses in a neighborhood has been used as a control for mortgage demand. Yet, household mobility and property turnover differ considerably across neighborhoods and over time. For example, the amount of new construction, the age of the housing stock, property tax rates, condominium conversion rates, and the size and value of typical homes are all likely to vary with income and to affect mobility and mortgage demand. Attempting to account for these factors, the researchers through studies have used information on the number of housing transfers within a neighborhood. Many HMDA-based studies have also tried to control for various lending risks that may vary geographically. These risks are extremely hard to measure, and it is by no means clear how they should be regarded. Research studies typically have used the condition of the housing stock, foreclosure rates, and vacancy rates as representative of neighborhood risk to help explain lending patterns across neighborhoods.

When studies show that lending patterns differ among neighborhoods after demand and risk factors are accounted for, inappropriate lender actions are likely to be responsible. However, some controversy exists about the interpretation of lending risk variables in these studies. It is clear that lenders have a right to be concerned about the credit quality of each loan. It is also clear that some lenders believe property values in some neighborhoods are less stable than in others, and therefore may have used this information in making lending decisions. What is not clear, however, is exactly how or whether lenders can legally incorporate such neighborhood factors into their lending decisions.

What do these studies overall? Almost uniformly, studies with little or no control for demand factors have found that predominantly white and high-income neighborhoods receive more mortgage loans per home than minority and lower-income neighborhoods.

The homogeneity of these conclusions starts to break down, however, when more complex control variables are introduced or when the activity of different types of lenders is examined. The gap between lending patterns in minority and white neighborhoods narrows considerably when property transfers are controlled. Although this gap does not always disappear entirely. However, even when overall differences in lending activity disappear after demand factors are controlled for, studies have generally found persistent differences in the type of lender servicing the neighborhoods.

This finding seems to be constant both over time and over space. For example, a study of mortgage lending in Cleveland between 1977 and 1979 concluded that commercial banks and S&Ls were considerably less likely to be the source of mortgage financing in integrated and all minority neighborhoods than in predominantly white areas with otherwise similar characteristics. However, the study also found that minority and integrated areas were considerably more likely to be served by mortgage bankers offering FHA and VA loans and by home improvement loans from all lenders. Over all, these factors offset one another, with the net flow of housing-related financing to minority and all-white neighborhoods being about the same.

A recent study of mortgage lending in Atlanta by the Atlanta Constitution reported similar findings. Using a matched sample of middle-income white and minority neighborhoods, the author concluded that banks and S&Ls extended four to five times as many new mortgage loans per single-family housing unit to the predominantly white areas than to comparable minority areas. However, this disparity is cut in half when property transfers are controlled for. Although they did not perform a systematic analysis of lending patterns by nonbank lenders, the Correlation reports evidence that mortgage bankers are considerably more active in minority areas than in white neighborhoods, tend ing to corroborate the results found for Cleveland.

Several factors could explain this relatively tranquil period. Community development corporations and other similar organizations were established in the early 1980s with the intent of providing financing and banking assistance to special areas of need within low- and moderate-income neighborhoods. It is also clear that the CRA has been developed primarily as a mechanism for encouraging development corporations and other neighborhood businesses. It is clear that the CRA has been primarily as a mechanism for encouraging development corporations and other neighborhood businesses. It is clear that the CRA has been developed primarily as a mechanism for encouraging development corporations and other neighborhood businesses.
Control variables included the number of owner-occupied houses, the growth in the number of housing units since 1970, median household income, the median value of owner-occupied housing, the median age of the housing stock, and the percentage of housing stock older than 40 years. Although imperfect, these variables were included to attempt to control for differences in the demand for home loans across neighborhoods, as well as for the differing risks of lending in various neighborhoods.

On the surface, results from this study look similar to those of earlier redlining studies. Controlling only for the number of owner-occupied housing units, census tracts with under 10-percent minority population had an average of almost twice the number of new mortgage loans per housing unit as all-minority areas. However, these results changed markedly when other variables were controlled for and when examined at the larger SMSA level.

Tracts with over 80-percent minority population were projected to have fewer mortgages per unit than predominantly white tracts in 65 of the 100 SMSAs when other factors were controlled for. These differences were statistically significant in only nine cases, however, and in four SMSAs, predominantly minority areas were found to receive proportionately more mortgage credit than similar white neighborhoods. When dollars of mortgages per dollars of housing value were examined, all-minority areas were projected to have fewer dollars than all-white areas in 52 of the 100 SMSAs.

How do these findings compare with the studies for individual cities? Three major weaknesses were evident in the data used for the national analysis: (1) there was no information on housing transfers; (2) no loan-risk or foreclosure data were used; and (3) information on most mortgage banker lending was not used.

The effect of these omissions is quite apparent when comparing the conclusions of this study with those of the Cleveland study reported earlier and with another comprehensive analysis for the Boston area. Compared with earlier findings that incorporated these factors, The Federal Reserve Board study would have overestimated the differential in lending by banks and S&Ls between minority and other areas. It also would have underestimated total lending in minority areas by all lenders.

These omissions are not easily remedied. Title-transfer information is not collected in a systematic way and is costly to obtain. In the Cleveland study, it was necessary to take address data from the county transfer files and use maps and "geo-coding" programs to assign transfers to census tracts. Foreclosure data had to be put together in a similar way. In some cities, these data may be extremely difficult to obtain in a usable format.

It does not appear that the recent extension of HMDA reporting requirements by Congress will fully remedy these kinds of problems faced by researchers. Congress did extend HMDA coverage to independent mortgage companies, which addresses a serious weakness in the current reporting system. Institutions will now also be required to file information on the distribution of mortgage applicants by sex, race, and income within each census tract. In addition, lenders must report whether the application was approved. While perhaps useful in individual compliance cases, however, this additional information is unlikely to say much about neighborhood risk or demand.

Compliance

The CRA directs regulators to "encourage" financial institutions to meet the credit needs of their entire community. However, the act provides no guidance as to how credit needs are to be determined. Moreover, only those institutions seeking regulatory actions, such as mergers, are subject to any penalties for not meeting their community's needs.

These vague directives have led regulatory oversight to focus primarily on procedure. Institutions are required to state publicly how they themselves define their community and the services they provide. Compliance examiners then determine whether an institution's procedures appear to treat all neighborhoods falling within its self-defined community on an equitable basis. Historically, examiners have paid particular attention to marketing and loan processing procedures in determining whether neighborhoods are treated equitably.

Evidence reported by the regulatory agencies suggests that virtually all financial institutions are in compliance with current CRA procedures. On the surface, this seems inconsistent with the evidence found in the redlining studies that the racial (or income) composition of neighborhoods appears to be related to aggregate lender activity in some areas. Again, however, compliance is focused on the procedures of individual institutions, whereas the statistical studies focus on aggregate market conditions.
Since the CRA provides for the consideration of safety and soundness, a fair and comprehensive evaluation of neighborhood credit needs would also have to take into account the risk attached to lending. As indicated previously, lending risk can arise from a variety of sources and at times can be a legitimate factor in the mortgage lending decision, as it is in other kinds of loan transactions.

Institutions also have different market definitions. Consideration may have to be given to cost differentials and differences in market emphasis. Even if one believed that currently available HMDA and census data could be used to provide measures of appropriate risk-adjusted demand across neighborhoods, application of these data to the evaluation of individual institutions is likely to be costly and difficult.

### Conclusion

It is clear that research and debate on the redlining issue is important and should continue. Although the nationwide pattern of mortgage loan disparity is probably not as great as is commonly thought, when important factors such as mortgage demand and lending risk are taken into account, there is evidence that the racial composition of neighborhoods is related to aggregate lender activity in many areas. The reasons for this, however, are neither well understood nor agreed upon.

On the other hand, it appears that virtually all financial institutions follow lending and marketing procedures that are in compliance with current regulatory rules. It is entirely possible that individual institutions could all follow regulatory guidelines, yet collectively be part of an environment in which some neighborhood needs appear not to be met.

The likely reason for these apparently contradictory circumstances is that compliance efforts have focused on individual institutions’ procedures, whereas most statistical studies have dealt with aggregate behavior. The regulations, and the CRA legislation behind them, are designed to ensure that regulated lenders act as good citizens in their communities. Since regulated lenders comprise only a subset of the parties involved in the determination of housing patterns, even good citizenship on the part of all regulated lenders—as necessary as it is—may not be sufficient to ensure that all neighborhoods experience comparable amounts of mortgage lending.

Attempts to change this outcome through increased reliance on financial institution regulations are likely to be difficult, controversial, and expensive. The lack of a consensus view about the causes and conditions associated with redlining argues strongly that such an approach should not be undertaken without further study.

### Footnotes


2. The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 was enacted on August 9, 1989.


4. These acronyms describe, respectively, the Federal Housing Administration, the Veterans’ Administration, the Federal National Mortgage Association, and the Federal Home Loan Mortgage Corporation.


9. The HMDA requires each institution to report its total annual mortgage and home improvement loans by census tract. Census tracts are areas designed to contain a relatively homogeneous population, typically about 4,000 people. The 100 SMSAs used in the study average more than 210 tracts apiece.


11. In 1981, mortgage bankers were estimated to originate an average of 29 percent of the new mortgages in the 100 SMSAs used in the study. Their share ranged from a high of 68 percent to a low of 2 percent.

### Notes

- Federal Reserve Bank of Cleveland
- Research Department
- P.O. Box 6387
- Cleveland, OH 44101

Address Correction Requested: Please send corrected mailing label to the above address.