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Recommended Citation

Vincent D. Rougeau & Keith N. Hylton, *Lending Discrimination: Economic Theory, Econometric Evidence, and the Community Reinvestment Act*, 85 Geo. L.J. 237 (1996-1997).

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ARTICLES

Lending Discrimination: Economic Theory, Econometric Evidence, and the Community Reinvestment Act

KEITH N. HYLTON* AND VINCENT D. ROUGEAU**

INTRODUCTION

Although it has been settled law for almost two decades, there has been a heightened interest in the Community Reinvestment Act (CRA)¹ over the last several years. One factor driving this interest is the continuing economic decline of the inner cities and the consequent widening of the wealth gap between cities and surrounding suburbs in many areas of the country.² A second factor is the consolidation of the banking industry, which has encouraged expansion-oriented banks to improve their CRA ratings to gain the approval of regulators.³ A recent effort to enhance enforcement of the statute,⁴ in part the result of information made available under recent legislation, is a third factor.⁵ A fourth factor is the current wave of deregulatory talk in Washington, which has generated counter-proposals to weaken the statute.⁶

The stated purpose of the CRA is to remedy geographical imbalances in the allocation of credit,⁷ since many inner-city communities are thought to be

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1. 12 U.S.C. §§ 2901-07 (1994).

2. See John D. Kasarda, *Inner-City Concentrated Poverty and Neighborhood Distress: 1970 to 1990*, 4 HOUSING POL'Y DEBATE 253, 253 (1993) (noting that "[r]esults show that despite some encouraging individual city turnarounds in the Northeast . . . urban poverty concentration and neighborhood distress worsened nationwide between 1980 and 1990").

3. John R. Wilke, *Giving Credit: Mortgage Lending to Minorities Shows a Sharp 1994 Increase*, WALL ST. J., Feb. 13, 1996, at A1, A8.

4. See, e.g., A. Brooke Overby, *The Community Reinvestment Act Reconsidered*, 143 U. PA. L. REV. 1431, 1432-34 (1995) (discussing Clinton administration's efforts to enhance enforcement of statute).

5. The Home Mortgage Disclosure Act of 1975 ("HMDA"), 12 U.S.C. §§ 2801-09 (1994), was amended in 1989 to require disclosure of information on individual loan applicants. See, e.g., Glenn B. Canner & Dolores S. Smith, *Home Mortgage Disclosure Act: Expanded Data on Residential Lending*, 77 FED. RESERVE BULL. 859 (1991) (discussing implications of expanded HMDA data). The new data permit researchers and bank regulators to determine whether similarly situated white and minority applicants have the same prospects of receiving a residential loan. *Id.* at 861-63.

6. See Wilke, *supra* note 3, at A1.

7. S. REP. NO. 175, 95th Cong., 1st Sess. 33 (1977); see also H.R. REP. NO. 236, 95th Cong., 1st Sess. 2 (1977), reprinted in 1977 U.S.C.C.A.N. 2884; Jonathan R. Macey & Geoffrey P. Miller, *The*

underserved by banks and savings institutions.⁸ As many commentators have noted, however, the legislators' concerns about the geographic imbalances were based on evidence that they resulted from discrimination against certain borrowers or borrowers from certain communities.⁹ This behavior is the focus of our article. Using the economic theory of discrimination,¹⁰ we examine the plausibility of the lending market discrimination hypothesis. We also survey the econometric evidence on lending discrimination. By this, we mean the evidence based on multiple regression models.¹¹ We focus on this evidence because regression analysis is probably the best empirical tool for uncovering discrimination, and several commentators have argued that regression analysis provides persuasive evidence of discrimination in lending markets.¹² On the basis of our views of the relevant theory and empirical evidence, we offer reform proposals.

We conclude that the case *against* the CRA, if based on economic theory, is far from airtight.¹³ There are plausible discriminatory processes or mechanisms that might have generated the credit allocation pattern that motivated the CRA.

Community Reinvestment Act: An Economic Analysis, 79 VA. L. REV. 291, 337 (1993); Anthony D. Taibbi, *Banking, Finance, and Community Economic Empowerment: Structural Economic Theory, Procedural Civil Rights, and Substantive Racial Justice*, 107 HARV. L. REV. 1465, 1485 (1994).

8. See, e.g., ROBERT SCHAFER & HELEN F. LADD, *DISCRIMINATION IN MORTGAGE LENDING* 298-300 (1981) (finding mild support for hypothesis that applicants from older or largely minority neighborhoods are discriminated against by mortgage lenders).

9. See, e.g., Overby, *supra* note 4, at 1146-58 (discussing legislators' concerns that discrimination and geographic redlining by lending institutions resulted in community disinvestment).

10. See *infra* Part IIA-C. For a brief and insightful discussion of the economic theory of discrimination, see Robert Cooter, *Market Affirmative Action*, 31 SAN DIEGO L. REV. 133, 137 (1994).

11. For an introduction to regression analysis, see WILLIAM H. GREENE, *ECONOMETRIC ANALYSIS* 140-69 (2d ed. 1993). For details on regression analysis of lending discrimination, see *infra* Part IIIA2. Regression analysis is only one of several forms of evidence. For an overview of the different forms, such as use of testers or evidence from litigation, see, e.g., Cathy Cloud & George Galster, *What Do We Know About Racial Discrimination in Mortgage Markets?*, REV. BLACK POL. ECON., Summer 1993, at 101.

12. See, e.g., ALICIA H. MUNNELL ET AL., *MORTGAGE LENDING IN BOSTON: INTERPRETING HMDA DATA 2* (Fed. Reserve Bank of Boston Working Paper No. 92-7, 1992) [hereinafter *Boston Fed Study*]; Peter P. Swire, *The Persistent Problem of Lending Discrimination: A Law and Economics Analysis*, 73 TEX. L. REV. 787 (1995).

13. In this respect, we disagree with the conclusions of two recent papers that apply economic analysis to the CRA. See Macey & Miller, *supra* note 7; Lawrence J. White, *The Community Reinvestment Act: Good Intentions Headed in the Wrong Direction*, 20 FORDHAM URB. L.J. 281 (1993). For economic analysis taking a favorable view of the CRA, see JACK M. GUTTENTAG & SUSAN M. WACHTER, *REDLINING AND PUBLIC POLICY* 39 (1980) (concluding that CRA may respond to neighborhood externalities); William C. Gruben et al., *Imperfect Information and the Community Reinvestment Act*, ECON. REV., Summer 1990, at 27, 39-41 (concluding that CRA may respond to informational asymmetry); Leonard I. Nakamura, *Information Externalities: Why Lending May Sometimes Need a Jump Start*, BUS. REV., Jan.-Feb. 1993, at 3 (concluding that CRA may respond to information externalities); Swire, *supra* note 12 (offering several theories to explain persistent lending discrimination).

One may wonder what this paper could contribute to this literature. First, unlike other articles suggesting possible economic justifications for the CRA, we deal directly with the arguments set forth in the economic critiques. Second, and probably more important, we devote considerably more attention to the problems of interpreting the empirical evidence. Law review articles on this topic either ignore the empirical evidence altogether or restate the conclusions of only those empirical researchers that the commentator finds most persuasive (without even questioning their methods). In short, the law review articles in this area simply fail to take the empirical evidence seriously.

Although we find the empirical evidence on lending discrimination to be inconclusive, most of what is available suggests that minorities are discriminated against when they seek residential loans. However, we also conclude that the classical animus-based theory embodied in civil rights laws is unlikely to be an important factor. This suggests that care must be taken in characterizing the more likely processes as discriminatory.

The current evidence is inconclusive because the empirical methods employed do not adequately address important competing hypotheses.¹⁴ The results produced are often consistent with more than one hypothesis. In addition, the regression models typically employed fail to adequately control for certain *selection effects*.¹⁵ The most important of these effects is the possibility that minority residential loan applicants make market choices that differ from those of the typical white loan applicant.¹⁶ Among these choices are the decisions to seek a loan for a home in a certain neighborhood, from a certain lender, under certain terms, and so on. Unless one controls for these effects, it is difficult to reach a firm conclusion on the discrimination hypothesis.

More research needs to be carried out on the lending discrimination hypothesis. Economic theory and empirical evidence suggest that the benefits of the CRA's regulatory framework are uncertain. The costs, on the other hand, are clear. The CRA is, according to bankers, the most administratively burdensome of all bank regulations.¹⁷ More important, the CRA either fails to encourage or discourages regulated financial institutions¹⁸ and other parties from complying with its goals.¹⁹ The statute also encourages a game that politicizes bank

14. Some of the empirical studies cited in support of the lending discrimination hypothesis include warnings to this effect. See, e.g., Mitchell B. Rachlis & Anthony M. Yezer, *Serious Flaws in Statistical Tests for Discrimination in Mortgage Markets*, 4 J. HOUSING RES. 315, 316 (1993).

15. This term is used in a manner similar to its more familiar use in the theory of litigation. George Priest and Benjamin Klein used the term "selection effects" to describe the various decisions that distort the representativeness of a sample of disputes pursued to the point of judgment. See George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984). Under the Priest-Klein theory, disputes having predictable results would settle, so that those pursued to the point of judgment would involve either an unclear legal standard or a situation in which it was unclear whether the defendant complied with the law. These cases are not necessarily representative of the underlying pool of disputes. Thus, a legal researcher could mistakenly use a sample of trial outcomes to draw inferences concerning the general population. For an extension of the "selection effects" theory, see Keith N. Hylton, *Asymmetric Information and the Selection of Disputes for Litigation*, 22 J. LEGAL STUD. 187 (1993). A similar analysis applies in much of the empirical work on lending discrimination. Potential loan applicants make a number of decisions before seeking a loan of a particular type for a particular home. The single equation regression models used in the empirical literature generally fail to control for these pre-application decisions. See Rachlis & Yezer, *supra* note 14, at 317-22.

16. See *infra* text accompanying notes 125-26.

17. Anjan V. Thakor & Jess C. Beltz, *An Empirical Analysis of the Costs of Regulatory Compliance*, in PROCEEDINGS OF A CONFERENCE ON BANK STRUCTURE AND COMPETITION 549, 550 (Fed. Reserve Bank of Chicago ed., 1993); Macey & Miller, *supra* note 7, at 324-25.

18. Under the CRA, "regulated financial institutions" are insured depository institutions as defined by the Federal Deposit Insurance Company Act (FDICA). 12 U.S.C. § 1813(c)(2); *id.* § 2902(2). In other words, all institutions covered by federal deposit insurance are also regulated under the CRA.

19. See *infra* Part IVB.

mergers, driving up the cost of entry into the markets most underserved by banks. The costs associated with these perverse incentives are probably of greater significance than the administrative burden.

It is not our aim to say, as many commentators have,²⁰ that the costs of this regulatory framework outweigh its benefits. However, we think a shift toward a subsidy approach could generate the same or greater benefits at lower cost. A subsidy approach, in which lending institutions that comply with the CRA are treated favorably while others are unaffected, would make the administrative burden more tolerable and eliminate, or at least substantially reduce, the perverse incentives of the current regime.

Our purpose here is not limited to making policy recommendations. In our discussion of the plausibility of the lending discrimination hypothesis, we offer some extensions to the economic theory of discrimination. Too little attention has been given to the persistence of "statistical discrimination"²¹ and its implications for the observability of discrimination. We deal with these topics at some length.

The general contribution of this article is a sharpened framework for assessing evidence on lending discrimination. We show that economic theory is not only useful for assessing the plausibility of the lending discrimination hypothesis, but also for understanding the empirical evidence. The empirical evidence on lending discrimination is, of course, important; but the legal researcher should be aware that the numbers, even when presented as regression results, do not speak for themselves. Important issues of interpretation are identified and emphasized in this article.

We have also presented, in a form accessible to those with no training in statistics or econometrics, the serious econometric problems that arise in efforts to test for lending discrimination. The problems are known to econometricians working in the field, but few, if any, law review articles have attempted to bring these problems to the attention of a wider audience.²²

The problems observed in efforts to test for lending discrimination also make it difficult to monitor compliance with the goals of the CRA. We describe one way in which regression analysis could be used to monitor compliance, and provide an illustration with data from the Chicago lending market. If regulators developed a method of evaluating compliance based on regression analysis, the compliance review process would gain additional clarity and objectivity. However, because of the inadequacies of regression models used in this area, the results would have to be interpreted in a conservative manner. Regression

20. Macey & Miller, *supra* note 7, at 294 (arguing CRA "does more harm than good"); White, *supra* note 13, at 282 (arguing CRA is "fundamentally flawed").

21. I refer to a process in which the discriminator uses race to predict behavior or certain events, as opposed to a process in which the discriminator acts with animosity toward individuals of a certain race. For a more detailed discussion, see *infra* Part II A 1.

22. We are aware of none. Peter Swire thoroughly discusses the history and evidence on lending discrimination, see Swire, *supra* note 12, at 806-14, but fails to address the econometric problems.

analysis could be an important complement to the traditional monitoring process, which has been criticized as being too subjective.²³ The regression results would be particularly useful where traditional evaluation suggested that the bank had discriminated and the regression test rejected the discrimination hypothesis. Although we consider our analysis of the Chicago data far too preliminary to support firm conclusions, we did find this inconsistency between traditional evaluation and regression analysis in one famous incident involving the Northern Trust Bank of Chicago.

The article is organized as follows: Part I presents a general overview of the CRA. Part II discusses the economic theory of discrimination and applies the theory to the lending market. In this Part, we also discuss the plausibility of certain theories of discrimination. Part III reviews the econometric evidence on lending discrimination. In this Part, we discuss some of the general problems that make interpretation of empirical evidence based on regression analysis difficult. In Part IV we reconsider the goals of the CRA in light of the economic theory and evidence on lending discrimination before concluding.

I. OVERVIEW OF THE COMMUNITY REINVESTMENT ACT

The Community Reinvestment Act was enacted as Title VIII of the Housing and Urban Development Act of 1977. The legislation was generally viewed as a congressional response to the problem of "redlining" in the allocation of credit for the purchase of housing.²⁴ Financial institutions were known to outline entire metropolitan geographic zones in red to indicate to lending officers that no loans should be made for houses in those regions. These redlined areas were disproportionately located in minority and low- to moderate-income neighborhoods in central cities.²⁵ The problem of redlining, however, was just part of a broader issue that Congress hoped to address with the CRA: large-scale disinvestment in local, particularly inner-city, communities.²⁶ Supporters of the CRA wanted financial institutions to look locally for profitmaking opportunities in low- and moderate-income communities. They hoped to improve the condition

23. See, e.g., Macey & Miller, *supra* note 7, at 326-29 (criticizing subjectivity of CRA compliance standards).

24. See 123 CONG. REC. 17,630 (1977).

25. A number of empirical studies completed around the time of the passage of the CRA confirmed the existence of redlining in various communities. GEORGE J. BENSTON ET AL., AN EMPIRICAL STUDY OF MORTGAGE REDLINING 1-33 (1978) (summarizing studies).

26. On the problems addressed by the CRA, Senator Proxmire, the sponsor of the legislation, said:

[F]or more than 2 years the Banking Committee has been studying the problem of redlining and the disinvestment by banks and savings institutions in older urban communities.

By redlining let me make it clear what I am talking about. I am talking about the fact that banks and savings and loans will take their deposits from a community and instead of reinvesting them in that community, they will . . . actually or figuratively draw a red line on a map around the areas of their city, . . . sometimes in the older neighborhoods, sometimes ethnic and sometimes black, but often encompassing a great area of their neighborhood.

123 CONG. REC. 17,630 (1977).

of deteriorating inner cities by encouraging banks and thrifts to reinvest locally-collected deposits in those areas.²⁷

To accomplish the goal of ending redlining and increasing investment in low- and moderate-income communities, the CRA requires the appropriate federal banking regulators to "encourage . . . [financial] institutions to help meet the credit needs of the local communities in which they are chartered consistent with the safe and sound operation of such institutions."²⁸ Although the statute states specifically that low- and moderate-income neighborhoods are part of "local communities,"²⁹ other important operative terms in the statute remain undefined. How should the regulators "encourage" financial institutions to meet "credit needs?" What exactly are "credit needs?" How should "local communities" be defined and when can a financial institution determine that lending in certain communities is not "consistent with safe and sound operation?" The process by which the federal banking regulators are to enforce the CRA is also left unspecified.³⁰

Over the past sixteen years, federal banking regulators have developed standards to guide the activities of financial institutions subject to CRA scrutiny. For example, the Federal Financial Institutions Examination Council, an umbrella organization of federal banking regulators, has stated that the term "local community" refers to "the contiguous area surrounding each office or group of offices of an institution."³¹

The CRA provides that regulators should evaluate a financial institution's performance under the statute "when examining financial institutions" and that regulators may take an institution's CRA performance into account "in an application for a deposit facility."³² These provisions provide numerous opportunities for CRA evaluations of most federally regulated financial institutions, but, prior to 1990, CRA reviews were not taken very seriously by the regulators or

27. In its research prior to the passage of the CRA, the Senate Banking Committee found many examples of the type of disinvestment the CRA was designed to correct. *Id.* In New York City, only 11% of the money deposited in Brooklyn remained in the borough. In the District of Columbia, only 10% was reinvested in the community. Similar figures were found for Los Angeles, St. Louis, Indianapolis, and Cleveland. *Id.*

28. 12 U.S.C. § 2901(b).

29. "In connection with its examination of a financial institution, the appropriate Federal financial supervisory agency shall—(1) assess the institution's record of meeting the credit needs of its entire community, including low and moderate income neighborhoods . . ." *Id.* § 2903(a).

30. This lack of specificity is a hallmark of the CRA. The statute's legislative history indicates that Congress did not explicitly define the process by which the regulators would enforce the CRA beyond requiring them to "encourage [financial] institutions to help meet the credit needs of the local communities in which they are chartered consistent with the safe and sound operation of such institutions." *Id.* § 2901(b). Regulators are left to create standards and modes of enforcement from this ambiguous language. Richard Marsico, *A Guide to Enforcing the Community Reinvestment Act*, 20 *FORDHAM URB. L.J.* 165, 171 (1993).

31. *Community Reinvestment: Agencies Issue Q & A on Key Factors Involved in Compliance with CRA*, 11 *Banking Pol'y Rep. (P-H)* No. 11, at 9, 9 (June 1, 1992) (reprinting Federal Financial Institutions Examination Council's answers to 31 most commonly asked questions about the CRA).

32. 12 U.S.C. § 2903(a)(2).

the institutions that they supervised.³³

In 1989, the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA)³⁴ amended the CRA and mandated public disclosure of all CRA reviews.³⁵ Since July 1990, regulators have had to prepare a public, written analysis of an institution's CRA performance.³⁶ Yet, despite increased public awareness of CRA compliance after FIRREA, federal regulators did not take a particularly aggressive stance on CRA enforcement. For the most part, community organizations assumed the lead in using the CRA to improve lending access in low- and moderate-income communities.³⁷ The active involvement of community organizations in CRA enforcement caused some commentators, such as Professors Macey and Miller, to assert that the CRA had become a tool of community groups

extracting payments from depository institutions, either for their own maintenance and welfare or for their favored causes. The CRA works well for these purposes because it allows groups to bring pressure against depository institutions at a point of maximum vulnerability—when the institution has applied for permission to consummate a transaction and stands to lose both the costs of negotiating the transaction and the expected profits from the deal if the application is not approved.³⁸

33. Given the massive structural changes in the banking industry over the last 10 years, many institutions repeatedly became involved in activities that subjected them to CRA reviews. Examinations, of course, affect all regulated institutions on a regular basis. Despite these opportunities to scrutinize the CRA performance of many lending institutions, mergers or acquisitions were rarely denied on CRA grounds. Throughout the 1980s, CRA examinations were almost impossible to fail. Of the 26,000 CRA examinations conducted from 1985 to 1988, only 2.4% resulted in poor grades. Allen J. Fishbein, *The Community Reinvestment Act After Fifteen Years: It Works, but Strengthened Federal Enforcement Is Needed*, 20 FORDHAM URB. L.J. 293, 296 (1993).

34. Financial Institutions Reform, Recovery, and Enforcement Act of 1989, Pub. L. No. 101-73, 103 Stat. 183 (codified in scattered sections of 12 U.S.C.).

35. 12 U.S.C. § 2906(b).

36.

The public section of the written evaluation shall—

(i) state the appropriate Federal financial supervisory agency's conclusions for each assessment factor identified in the regulations prescribed by the Federal financial supervisory agencies to implement this chapter;

(ii) discuss the facts and data supporting such conclusions; and

(iii) contain the institution's rating and a statement describing the basis for the rating.

Id. § 2906(b)(1)(A). Institutions are rated according to one of four categories—outstanding, satisfactory, needs to improve, and substantial noncompliance. *Id.* § 2906(b)(2).

37. Marsico, *supra* note 30, at 171. Marsico indicates that community groups have pushed CRA enforcement forward in two ways: "by raising challenges to bank applications with the federal banking regulators on the grounds that the banks have not satisfied their CRA obligations; and by negotiating CRA lending agreements [directly] with banks." *Id.* at 171-72. Despite the publication of CRA ratings, the vast majority of institutions have done extremely well; 90% received an outstanding (10%) or satisfactory (80%) rating in 1992. A "Better Than Satisfactory" Grade?: *Fed's Advisors*, *Lindsey Concur on 5th CRA Rating*, AM. BANKER, June 15, 1992, at 10.

38. Macey & Miller, *supra* note 7, at 333-34. Lawrence White states: "The American political system persists in treating banks as all-powerful financial institutions that must be shackled economi-

Over the past several years, the combination of public disclosure of CRA evaluations and grass-roots activism eventually persuaded regulators and financial institutions to approach the CRA more seriously. Any bank interested in a merger, in an acquisition, or in establishing a new branch must be prepared to demonstrate and document CRA performance acceptable to the regulators and addressing the concerns of community groups. Thus, the CRA has become an essential part of business planning for any expansion-oriented banking organization. As a consequence of this increased emphasis on CRA performance, however, bankers and others have become much more insistent in their complaints that the CRA produces onerous regulatory burdens.³⁹ Despite the complaints, the Clinton administration made it clear when it assumed power that it expected serious enforcement of the CRA. In 1994, all major banking regulators came together and produced a complete overhaul of the CRA regulations.⁴⁰ The new regulations became effective in July 1995 and will be fully implemented by July 1997. They are designed to address the demands of the Clinton administration and community groups for more serious enforcement of the CRA, while addressing the banking industry's concerns regarding unnecessary bureaucracy.⁴¹ In essence, the new regulations walk a fine line between the demands of the banking industry and the goals of eliminating discrimination and disinvestment. They have managed to garner some support from all quarters, but dissatisfaction with the CRA remains widespread in the banking industry. Before the revised regulations could be implemented, legislation was introduced in both the House and the Senate to substantially curtail their enforcement.⁴²

cally and, simultaneously, as hugely wealthy institutions from which substantial tribute can be levied. . . . The major vehicle for exacting tribute is the Community Reinvestment Act of 1977." White, *supra* note 13, at 281. One might legitimately question, however, how beholden the federal banking regulators feel to various community groups as opposed to the industry they regulate—an industry that supplies many of the regulators and an industry to which many regulators return.

39. See generally White, *supra* note 13, at 283-87 (outlining variety of competitive pressures faced by banks).

40. See 12 C.F.R. § 25 (1996).

41. *CRA Reform Effort Complete, Bankers Score Major Victory in This Round*, BNA BANKING DAILY, Apr. 20, 1995. The General Accounting Office found agreement among the affected parties as to four major problems with the CRA: (1) the CRA relies too heavily on documentation of efforts and processes and too little on lending results, which leads to an excessive paperwork burden; (2) the regulators are inconsistent in conducting CRA exams; (3) examinations are often based on insufficient information and may not accurately reflect an institution's performance; and (4) regulatory enforcement of the CRA relies too heavily on protests by community groups who may not necessarily agree on how the CRA should be enforced. General Accounting Office, *Community Reinvestment Act: Challenges Remain to Successfully Implement CRA*, GAO REP., Nov. 28, 1995, at 11-12.

42. In June 1995, Representative Doug Bereuter (R-Nebraska) introduced legislation that would create a three-tiered approach to CRA evaluations. See The Financial Institutions Regulatory Relief Act of 1995, H.R. 1858, 104th Cong., 1st Sess. (1995). The first tier would encompass institutions located in communities with less than 30,000 people and with assets of less than \$100 million. These institutions would be exempt from the Act. The second tier would cover institutions with less than \$250 million in assets. If, during their last CRA review, these institutions achieved a rating of "satisfactory" or "outstanding," they would be allowed to "self-certify" their performance under the CRA, subject to a reasonableness determination by their regulator. The third tier would establish for the remaining

Apart from consistent complaints about the CRA's reporting burden, many bankers and other critics assert that redlining is not really a problem and that the focus on local markets in the CRA is anachronistic.⁴³ Yet, several widely reported studies conducted during the 1990s have demonstrated that serious racial disparities in lending continue to exist throughout the United States.⁴⁴ Because most Americans who are members of minority groups continue to reside in geographically and racially segregated communities, and because these communities are disproportionately economically depressed,⁴⁵ it seems likely that some de facto redlining is occurring in response to, or as a result of, lending discrimination. Nevertheless, the nature of this discrimination is unclear. Given the persistence of discrimination and the continuing problem of disinvestment in minority communities, the CRA's effectiveness in achieving its stated goals can, at best, be described as mixed. There has, however, been notable progress.⁴⁶ We begin our analysis of the CRA by reviewing some recent attempts to

covered institutions that a CRA rating of "satisfactory" or "outstanding" would be conclusive and not subject to challenge. Two amendments to the bill would exempt from the CRA any bank or holding company with assets of less than \$100 million and eliminate the enforcement mechanisms of the Act. A companion bill has been introduced in the Senate by Richard Shelby (R-Alabama) and Connie Mack (R-Florida). See The Economic Growth and Regulatory Paperwork Act of 1995, S. 650, 104th Cong., 1st Sess. (1995).

43. Macey and Miller argue that the

proponents of community reinvestment have never satisfactorily explained why the mere fact that funds are obtained from a particular locality ipso facto implies that these funds should be returned to the same locality. . . . [C]redit is allocated through a price system that directs the good to the user who values it most.

Macey & Miller, *supra* note 7, at 308.

On the issue of banking as a local industry, they note that "[l]ocalism has a nostalgic ring in American folklore, but it no longer characterizes the American banking industry—especially not the larger firms that have been the principal targets of CRA scrutiny." *Id.* at 303-04. Furthermore,

it is difficult to justify a normative preference for localism in banking markets under any coherent conception of public policy. The movement away from localism . . . has been generally beneficial for consumers. It has improved banking service, enhanced asset diversification, and allowed banks to take advantage of economies of scale. At the same time, it has seriously weakened, although not entirely broken, the ties that connect banks with their immediate local communities.

Id. at 307 (footnotes omitted).

44. See *infra* Part III.

45. See, e.g., DOUGLAS S. MASSEY & NANCY A. DENTON, AMERICAN APARTHEID: SEGREGATION AND THE MAKING OF THE UNDERCLASS 60-80 (1993) (showing high degrees of racial and economic segregation of black Americans).

46. A recent study by *The Wall Street Journal* of Federal Reserve Board data on lending to minorities in 1994 showed a sharp increase in lending by banks and savings associations in inner-city and rural areas heavily populated by minorities. Wilke, *supra* note 3, at A1. Part of the increase is attributed to the wave of mergers that have been taking place in the banking industry—a good minority lending record speeds regulatory approvals and discourages protests by community groups, but much of it does appear to indicate a real change in lending patterns by some banks. *Id.* Some say that this proves that the current CRA is working. Others, including Federal Reserve Board Governor Lawrence Lindsey, worry that the default rates for these loans may be relatively high, because much of this lending is on below-market terms and uses less stringent underwriting standards. *Id.*

develop empirical evidence documenting the problem of lending discrimination and local community disinvestment as it relates to enforcement of the Act.

II. THE ECONOMIC THEORY OF DISCRIMINATION AND ITS IMPLICATIONS FOR LENDING REGULATION

As its title suggests, the Community Reinvestment Act is a statute that aims to correct a geographical imbalance in the allocation of credit. Deposits by members of some communities are often loaned to businesses in other communities. This creates a need, in the eyes of some legislators, to restore symmetry to the picture. That symmetry is restored by encouraging banks to meet the credit needs of the communities in which they are located.

However, in spite of its title and its general language about meeting the needs of the community, it is well known that the CRA is aimed at eliminating a pattern that seems to be racially discriminatory. The statute is framed in nonracial terms, but interpretations by regulators and legislators consistently refer to minority groups.⁴⁷

The cause of this inconsistency is that geographic racial segregation and the "credit imbalance" go hand-in-hand. The areas in which banks are failing to serve the credit needs of the community happen to be inner cities inhabited by relatively poor minority groups.⁴⁸ If the entire minority population of the United States were dispersed so that its density in each area matched that of the country as a whole, the problem of geographical imbalance in credit allocation probably would not be controversial. Likewise, if the entire poor white population of the country were concentrated in inner cities, there would have been no perception of unfairness in banks lending largely to suburban homebuyers and businesses. It likely would have been determined that the decisions were economically motivated.

The upshot is that the CRA is aimed as much at racial discrimination as it is at curing a perceived geographic imbalance in the allocation of credit.⁴⁹ Any

47. See, e.g., H.R. REP. NO. 280, 104th Cong., 1st Sess., pt. 1, at 26 (1995) (House Budget Committee stating that under proposed amendments to the CRA, financial institutions are to consider minority ownership to be a positive factor when considering whether to lend to the institution); H.R. REP. NO. 193, 104th Cong., 1st Sess., at 14-15 (1995) (stating that financial institutions subject to the CRA are to consider minority ownership to be a positive factor when considering whether to lend to the institution); Continental Bank Corporation and Continental Illinois Bancorp, Inc. Order Denying Acquisition of a Bank, 75 FED. RESERVE BULL. 304 (1989).

48. This problem reflects the more general pattern observed in the relationships among poverty rates, crime rates, and minority concentration. See MASSEY & DENTON, *supra* note 45, at 2 ("No group in the history of the United States has ever experienced the sustained high level of residential segregation that has been imposed on blacks in large American cities for the past fifty years."); WILLIAM J. WILSON, *THE TRULY DISADVANTAGED: THE INNER CITY, THE UNDERCLASS, AND PUBLIC POLICY* 56-58 (1987) (emphasizing the "concentration effects" that tend to multiply the harmful effects of poverty in urban areas); Douglas S. Massey, *Getting Away with Murder: Segregation and Violent Crime in Urban America*, 143 U. PA. L. REV. 1203, 1203 (1995) (noting that the experience of black Americans is unique in this respect).

49. See Macey & Miller, *supra* note 7, at 337-40 (contending that purpose of CRA has shifted from encouraging investment in communities to serving "organized interest groups"); Overby, *supra* note 4,

discussion of the normative justifications for the CRA must therefore take into account the problem of discrimination.⁵⁰

A. THE ECONOMIC THEORY OF DISCRIMINATION

Although there are many theories of discrimination,⁵¹ two have received a great deal of attention from economists. One is the theory of *statistical* discrimination, which posits that racial discrimination reflects rational predictions of the behavior of the group subject to discrimination.⁵² The other theory is *taste* or *taste-based* discrimination, which holds that discrimination reflects a preference of one group not to deal with members of another group that is not based on experience or rational prediction.⁵³ In the employment context and other settings, both of these types of discrimination are illegal.⁵⁴

1. Statistical Discrimination

To see the difference between the two types of discrimination, consider an example. Suppose a waiter refuses to seat black patrons at a restaurant.⁵⁵ Under

at 1497-1505 (arguing that equality, rather than localism and community, provide the best justification for the CRA's involvement in the credit decisionmaking of financial institutions).

50. See Macey & Miller, *supra* note 7, at 347-48 (praising goals of CRA, but noting overall harmful effect of Act on inner-city poor); Taibi, *supra* note 7, at 1486 (observing interrelationships between redlining and discrimination in credit decisions of lenders); Anthony D. Taibi, *Race Consciousness, Communitarianism, and Banking Regulation*, 1992 U. ILL. L. REV. 1103, 1114-15 [hereinafter Taibi, *Race Consciousness*] (distinguishing "traditional civil rights" approach to fighting discrimination in bank lending policies from more activist "liberal" approach, which advocates actual bank lending in low-income areas).

51. See generally RONALD G. EHRENBERG & ROBERT S. SMITH, *MODERN LABOR ECONOMICS: THEORY AND PUBLIC POLICY* 532-79 (3d ed. 1988) (grouping theories of discrimination into three categories—personal prejudice, statistical prejudgment, and monopoly power—the third of which is a catch-all grouping of several different theoretical models of discrimination).

52. Dennis J. Aigner & Glen G. Cain, *Statistical Theories of Discrimination in Labor Markets*, 30 INDUS. & LAB. REL. REV. 175 (1977); Edmund S. Phelps, *The Statistical Theory of Racism and Sexism*, 62 AM. ECON. REV. 287 (1973).

53. GARY S. BECKER, *THE ECONOMICS OF DISCRIMINATION* 16-17 (2d ed. 1971). I will also include in the "taste" categories theories that are similar in many respects. See, e.g., Richard H. McAdams, *Cooperation and Conflict: The Economics of Group Status Production and Race Discrimination*, 108 HARV. L. REV. 1005, 1007-08 (1995) (theorizing that discrimination results from competition for status).

54. Title VII of the Civil Right Act of 1964, 42 U.S.C. § 2000e (1994), prohibits "disparate treatment" and "disparate impact" discrimination. The former refers to taste-based discrimination. The latter refers to methods that appear to be neutral, but have different impacts according to race or sex and are not closely related to job performance. See, e.g., *Griggs v. Duke Power Co.*, 401 U.S. 424, 431 (1971) (holding that intelligence test violated Act because it bore no "demonstrable relationship" to successful job performance).

55. To many, this is a familiar example. In a recent case, six black Secret Service agents sued Denny's because they were refused service at a Denny's restaurant. See *Black Agents Sue Denny's*, N.Y. TIMES, May 25, 1993, at A10. Subsequently, the chain was accused of racial discrimination in a federal class-action lawsuit and paid \$54.4 million to settle the case. See Howard Kohn, *Service with a Sneeer*, N.Y. TIMES, Nov. 6, 1994, § 6 (Magazine), at 43.

This is a familiar example to many because exclusion from a restaurant—on facts that suggest racial discrimination—is an experience shared by a large number of black Americans. Because the use of

the statistical discrimination theory, the waiter's decision could be a rational attempt to avoid the costs incurred by serving black patrons. If, for example, *all* of the previous black patrons had refused to pay for their food, or had completely trashed the restaurant, the waiter's experience might provide a sufficient body of evidence to justify the inference that future black patrons would do the same. The decision to refuse to seat them would be a rational attempt to avoid an injury, no different in principle from a driver slowing down at a dangerous intersection to avoid an accident.

Statistical discrimination may have some desirable properties. As long as the expected harms avoided are greater than the costs incurred in the avoidance efforts, statistical discrimination would seem to be economically efficient—a cheap way to avoid potentially large losses.

The statistical discrimination theory had great influence in the Chicago School of Law and Economics,⁵⁶ but enjoys much less support among economists today.⁵⁷ The notion that statistical discrimination is, as a general rule, economically efficient has been repudiated in the economics literature. A. Michael Spence's work on signaling in the market for education demonstrates that a statistical discrimination equilibrium is not necessarily desirable.⁵⁸ Discrimination based on external attributes sometimes causes people to alter their behavior in undesirable manners.⁵⁹ For example, in the case of education, someone who knows that a Ph.D. draws a higher salary will invest additional years in schooling even if the degree does absolutely nothing to increase that

personal experience is common in law reviews today, personal experience can serve as the reference here. Roughly three years ago, one of the authors of this article had his first taste of such discrimination on a family outing to the Ritz-Carlton in Dearborn, Michigan. After being assured over the telephone that plenty of tables were available for dinner, he arrived (after a fifteen-minute drive) to find that no tables were available, *but that there was "another room" where he could be served right away*. After rejecting the offer of a separate room and waiting for a long time, he eventually gave up and went to another restaurant. Of course, one could easily offer a nondiscriminatory account of this event, but the circumstances were suspicious (e.g., plenty of empty tables, no minorities), and Dearborn has a long history of this sort of exclusion. *See, e.g.,* DAVID L. GOOD, *ORVIE: THE DICTATOR OF DEARBORN* (1989) (recounting career of long-time mayor of Dearborn, Michigan).

56. *See, e.g.,* RICHARD A. POSNER, *ECONOMICS OF JUSTICE* 351-63 (1981) (providing economic analysis of discrimination); Richard A. Posner, *An Economic Analysis of Sex Discrimination Laws*, 56 U. CHI. L. REV. 1311, 1321 (1989) (concluding that sex discrimination is not substantial source of inefficiency in U.S. labor market).

57. *See* John J. Donohue III, *Is Title VII Efficient?*, 134 U. PA. L. REV. 1411, 1411-12 (1986) (arguing that legislation prohibiting employer discrimination may enhance, rather than impair, economic efficiency); John J. Donohue III, *Prohibiting Sex Discrimination in the Workplace: An Economic Perspective*, 56 U. CHI. L. REV. 1337, 1342-58 (1989) (critiquing Posner's theoretical attacks on antidiscrimination laws).

58. *See* A. Michael Spence, *Job Market Signaling*, 87 Q.J. ECON. 355 (1973) (outlining model for understanding interaction of "signals" in job market).

59. *Id.* at 368-74 (discussing informational impact of gender on employment decisions); *see also* George A. Akerlof, *The Economics of Caste and of the Rat Race and Other Woeful Tales*, 90 Q.J. ECON. 599, 603-06 (1976) (arguing that attempts to signal the existence of a desirable trait may lead to inefficient investment decisions).

individual's productivity. From society's point of view, the additional expenditure on education is wasted. Conversely, someone who knows that he will not be promoted because of the color of his skin will have little incentive to acquire the skills necessary for promotion.⁶⁰

Statistical discrimination should be distinguished from the precaution permitted or encouraged by tort and criminal law doctrines. Tort doctrine assumes that everyone will adopt the viewpoint of the reasonable person.⁶¹ Thus, as long as one acts within the boundaries of reasonableness delineated by tort law, one need not worry about liability, and one is entitled to assume that others will act within those same boundaries. In short, tort doctrine supports a set of expectations about the reasonableness of one's conduct and that of others, and within this set of expectations one can make plans. For example, a landowner can make investments in his property with the expectation that adjacent landowners will act within the boundaries of reasonableness. However, an individual who consistently encounters discrimination will find his expectations frustrated, and this persistent frustration is demoralizing.⁶² One who expects to be a victim of discrimination cannot rely on the same set of reasonable expectations regarding the conduct of others as one who does not.

Although the economics literature has focused on weakened incentives for skill investment, demoralization is a more general description of the problem.⁶³ For the party who adopts the viewpoint of a victim of discrimination, the incentive effects are probably broader and more worrisome than the skill-

60. Conversely, someone who knows that he will be promoted because of the color of his skin will have the same lack of incentives. A statistical discrimination equilibrium can have the undesirable effect of weakening skill-acquisition incentives for all parties. See Stephen Coate & Glenn C. Loury, *Will Affirmative-Action Policies Eliminate Negative Stereotypes?*, 83 AM. ECON. REV. 1220, 1225 (1993) (describing effects of discriminatory equilibria on employee's skill-investment decision); Shelly J. Lundberg & Richard Startz, *Private Discrimination and Social Intervention in Competitive Labor Markets*, 73 AM. ECON. REV. 340, 344 (1983) (describing worker training decisions in response to discriminatory equilibrium).

61. See WILLIAM L. PROSSER, *THE LAW OF TORTS* 149-63 (4th ed. 1971).

62. See Taibi, *Race Consciousness*, *supra* note 50, at 1103-04 (noting tension between common law's "reasonable person" standard and existence of racial discrimination).

63. One should note the analogy here between the incentives of a victim of discrimination and those of a property owner whose rights are not protected. Failing to protect property rights generates undesirable incentives for owners, which one may put into the category of "demoralization costs." See Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of Just Compensation Law*, 80 HARV. L. REV. 1165 (1967) (discussing analytical underpinnings of "just compensation" for government "taking"). The argument here can be viewed as follows: the "reasonable person" perspective encouraged by the common law creates a property right of sorts. Each individual makes certain investments on the basis of these expectations. A job seeker, for example, invests in skills with the assumption that he will be compensated for the skills at the prevailing market rate. A shopper invests in market-search activity with the assumption that he will receive the lowest available price. In a market in which discrimination is prevalent, certain job seekers and shoppers will find their investments receiving less than the expected market returns, weakening their incentives to invest. The weakened investment incentives, on the many different margins on which such decisions are made, may all be put into the category of "demoralization costs."

investment argument suggests.⁶⁴

2. Taste-Based Discrimination

In contrast to statistical discrimination, the theory that discrimination is driven by preference leaves little reason to believe, at least preliminarily, that it has desirable properties. To clarify the definition of taste-based discrimination, consider again our restaurant example.

Suppose the waiter refuses to seat black patrons, not based on some rational prediction of expected costs, but from a desire not to have anything to do with black people. Assume that this desire has no basis in experience, and is not based on a prediction of future events. The taste theory assumes that the waiter in our example simply has a preference for whites rather than blacks, just as many ice cream consumers might prefer strawberry to vanilla.

As this example suggests, taste-based discrimination is in no sense analogous to precautionary conduct on the part of a potential injury victim. Unlike the statistical discriminator, the taste discriminator does not use race to predict behavior or some future event. Thus, taste-based discrimination is not a cheap method of avoiding potentially large losses under this theory.

To the extent that it persists, taste-based discrimination will have demoralizing effects on the disfavored group. For example, as long as some fraction of potential employers discriminates, job seekers from the disfavored group will have weakened incentives to invest in job skills because these skills will be less likely to improve their chances of employment.

3. Persistence

Crucial differences between taste-based and statistical discrimination theories are observed when one asks how likely it is that discrimination will persist in a market setting.

Gary Becker argues that taste discrimination tends to be punished by competition until it is driven to extinction.⁶⁵ Although this general tendency is consistent with economic principles, commentators have noted that there is little reason to believe that taste discriminators are forced by the pressure of competition to exit the market. The taste discriminator will remain as long as he is

64. Although the economics literature has focused on the skill-investment disincentive generated by discrimination, one can easily see broader incentive problems. We have already referred to weakened incentives to search in the market for the best combination of price and product quality. Outside of the market sphere, one would imagine that someone who adopts the viewpoint of a victim of discrimination would view the transfers he receives from the government as an entitlement—as something he should receive as compensation for his status as a victim. See SHELBY STEELE, *THE CONTENT OF OUR CHARACTER: A NEW VISION OF RACE IN AMERICA* (1990) (exploring the problems generated by the adoption of victim's viewpoint). Of course, we should note that Steele suggests that recent civil rights legislation, rather than discrimination, is responsible for the victim viewpoint adopted by some members of minority groups. *Id.* at 118.

65. See BECKER, *supra* note 53, at 39-54 (discussing relationship between competition and workplace discrimination).

willing to pay for the inefficiency created by his behavior.⁶⁶ In any event, it is clear that taste discriminators sacrifice part of their wealth over time. Over time in a competitive sector, the taste discriminators should decline as a percentage of the relevant market.⁶⁷

On the other hand, statistical discrimination may be rewarded by the market. For example, if an insurance company uses race to predict the likelihood of a claim being filed and it suffers no loss in accuracy in choosing this attribute over gathering more detailed information on the insured, it will be able to operate with lower costs and outperform rivals who do not use racial information to price their policies. Thus, statistical discriminators may survive and even grow as a percentage of the relevant market. This will generally occur if the net benefit to the firm of using race as a predictive tool exceeds that of using other methods.

For example, suppose an insurer finds that race information leads to a less accurate prediction than could be obtained by gathering detailed information about the insured. The loss in accuracy costs the insurer \$100, as a result of setting the wrong price for the insurance contract. Suppose the cost of gathering additional information is \$200. The insurer gains \$100 from substituting race for more detailed information. If, on the other hand, the loss in accuracy costs the insurer \$300, he would lose by substituting race for more detailed information. A loss in accuracy might be costly to the insurer for two reasons: the insurer underprices the contract, resulting in losses on every contract (losses on each customer), or the insurer overprices the contract resulting in losses due to competition (losing customers).

As this example suggests, competition can place some restrictions on the ability of a statistical discriminator to substitute racial information for more detailed information on an employee or customer. If race is a poor proxy for the variables the discriminator is interested in measuring, its use as a substitute for more detailed information exposes the discriminator to rivals who may be better predictors. It follows that *if the cost of acquiring detailed information about an employee or customer is prohibitive for all firms, statistical discrimination may persist even if race is a poor proxy.*⁶⁸ However, *if the cost of acquiring detailed information is not prohibitive for some firms, the statistical discriminator will have to be reasonably accurate, or he will be punished by competition.*

66. See, e.g., Kenneth J. Arrow, *The Theory of Discrimination*, in DISCRIMINATION IN LABOR MARKETS 3, 24-26 (Orley Ashenfelter & Albert Rees eds., 1973).

67. For example, employees who demand a wage premium in order to work closely with black employees will find a smaller percentage of employers willing to hire them (or a smaller percentage of job slots open to them). The process should occur as follows. As nondiscriminators enter the market, decreasing the margin between price and unit cost, taste discriminators will find it more expensive to continue to discriminate. Those whose preferences are the least intense will stop discriminating or exit the market. The general pressure to abandon the discriminatory practice or exit the market remains. However, discriminators whose preferences are intense may remain in the market indefinitely.

68. Note that even though race is a poor proxy, it will be used because it is the best economically feasible predictive tool available. If the use of information on race is banned, firms will try to find other proxies that are correlated with their best identifiable predictive tool—race.

4. Observability

A second set of crucial differences between taste-based and statistical discrimination theories is exposed when one asks whether an empirical researcher will be able to find evidence of discrimination.

For example, an empirical researcher who looks for evidence of employment discrimination will try to compare similar white and black employees. If the employer is discriminating on the basis of taste, it should be clear that he is treating similar black and white employees differently.

The statistical discriminator presents a different picture. Recall that the statistical discriminator uses race as a cheap substitute for more detailed information about an employee or customer. Provided that the cost of obtaining the detailed information is not too high, the statistical discriminator avoids penalization by the market only to the extent that his predictions are accurate *ex post*. Thus, the statistical discriminator is likely to appear, in tests based on actual hiring performance, to be treating similar employees the same, even though he is using race to make promotion and tenure decisions *ex ante*. Similarly, an insurance company that uses race as a proxy for risk may appear to be treating similarly situated parties alike when its claims record is examined. *If race is a relatively good proxy for the information the statistical discriminator does not collect, then the more information an empirical researcher collects in order to test for racial discrimination, the less evidence there will be of discrimination.*⁶⁹

This is a paradox that has received too little attention in our view. Note that it suggests that it may be impossible to prove that the statistical discriminator has acted in a racially-biased manner.⁷⁰

If race is a relatively crude proxy for the information the discriminator did not collect and discrimination persists, two conclusions follow. First, the information that the discriminator did not collect must be expensive to gather. If it were cheap, a competitor would have used it to make more accurate predictions. Second, an empirical researcher, by collecting the additional information, may be able to demonstrate that the discriminator made racially biased decisions. Of course, this is unlikely to occur because the additional information will (by

69. Why? Assume the empirical researcher collects additional information that would help him distinguish between employees on the basis of important job-related characteristics—e.g., productivity and education. If race serves as a good proxy for these pieces of information, then the employer's decisions will appear to be justified after one takes into account the additional information. Suppose, for example, that the employer wishes to predict which workers are likely to show up late for work. Suppose it happens to be true, and is also well known, that employees who wear black shoes tend to show up late, and that those who wear brown shoes tend to show up on time. The employer does not know the shoe colors preferred by his employees, but he does know their race. If employees of one race wear black shoes and employees of the other race wear brown shoes, then race is a *perfect* proxy for the underlying information. A researcher seeking evidence of discrimination would find preliminary evidence of discrimination in the employer's hiring and promotion decisions. But once he collected additional information on the employees' shoe colors, he would find that the employer's decisions could be explained just as well by the shoe color evidence. For an elaboration, see *Appendix A*.

70. See *Appendix A*.

hypothesis) be difficult to collect. Alternatively, an empirical researcher could demonstrate that the statistical discriminator used race to make decisions *ex ante*, but only if the researcher has all of the information that was available to the discriminator at the time of his decision.⁷¹

B. APPLICATION OF THE ECONOMIC THEORY OF DISCRIMINATION TO LENDING

Is discrimination likely in the credit market? Although this is not the only question underlying any normative justification for the CRA,⁷² it is probably the most important. Answering this question is difficult because the CRA aims to alter a general pattern in the allocation of credit that does not depend on the presence of discrimination. The objectionable pattern could be observed in a market in which there is no discrimination. Conversely, a market in which discrimination is rampant might fail to generate the pattern that serves as the primary empirical justification for the CRA.

The pattern that gave rise to a demand for the CRA is simple, and it is evident throughout the United States. If one looks at virtually any major city in America with a substantial minority population and compares it with the surrounding suburbs, one is likely to find banks dealing with customers in the city and some or all of the nearby suburbs. Take for example, Detroit, Michigan and its wealthier suburban neighbors. It is generally thought that the relatively poor population of Detroit deposits its money into the bank, but sees little of it return in the form of residential or commercial loans.⁷³ The question addressed below is whether the observed pattern is the result of discrimination.

1. Taste-Based Discrimination

Consider first the theory that the credit outflow results from taste-based discrimination—the straightforward, blunt racial discrimination typical of what was practiced in the South until very recently.⁷⁴ This discrimination may occur in lending in two forms. One is discrimination against an individual applicant because of his race. The other is discrimination against an applicant because he seeks a loan for a minority enterprise or for a home in a minority neighborhood. The former involves a decision based on the individual applicant's *characteristics*, the latter a decision based on the applicant's intended *use* of the loan.

The case of discrimination based on the applicant's characteristics fits easily within the model of taste-based discrimination. The case of discrimination

71. *See id.*

72. It is not the only question because, as we have noted, the CRA is also justified as an effort to enforce some sort of geographical balance in the allocation of credit.

73. Of course, banks may issue credit cards and other forms of credit in a more geographically equitable way. But most people focus on mortgage and business lending as the major types of lending that effect economic development.

74. For a history of discrimination in the South (largely dealing with segregation), see generally RICHARD KLUGER, *SIMPLE JUSTICE: THE HISTORY OF BROWN V. BOARD OF EDUCATION AND BLACK AMERICA'S STRUGGLE FOR EQUALITY* (1987).

based on the applicant's intended use of the loan is more complicated. Consider, for example, a lender who discriminates against the applicant because the applicant seeks a loan for a home in a minority neighborhood. In this case, the taste theory implies that the lender based his decision on his distaste for lending to minority neighborhoods, presumably because the discriminator has an aversion to sending and receiving mail from minority neighborhoods. Although this is possible—one cannot disprove the existence of a preference—this is not a very plausible theory of discrimination. It seems appropriate, then, to assume that the taste discriminator usually acts in response to the race of the individual applicant.

Although the credit allocation pattern described above could have resulted from taste-based discrimination, this theory is hard to square with the evidence. The credit allocation pattern is observed so consistently and on such a massive scale that there would be enormous profit opportunities if taste-based discrimination were the central explanatory factor. There are minority-owned banks in many of the heavily minority-populated cities; if taste discrimination were the major factor behind the outward credit flow, one would imagine that minority-owned banks would capitalize on the opportunities and lend large amounts, and profit greatly as a result. But there is little evidence of this.⁷⁵ Table 1, which shows the ratio of in-city loans to total deposits for several Chicago-area banks, suggests that the minority-owned banks in the Chicago area follow lending policies similar to other banks of similar size.

The scale of the credit allocation problem is the fly in the ointment for a taste-based discrimination theory. For such a problem to appear consistently over such a long period would suggest that credit markets fail to operate competitively, and that the failure is quite serious. While it is unlikely that markets operate in a perfectly competitive manner in all instances, we think that the degree of failure implied by a taste-based discrimination theory is of such a large scale that the theory should be approached skeptically.

2. Statistical Discrimination

Could the credit allocation pattern be explained by statistical discrimination? Let us return to the distinction between discrimination based on the applicant's characteristics, and discrimination based on the use of the loan. A statistical discriminator uses information on borrower characteristics (such as race) to make predictions on the individual borrower's creditworthiness. On the other hand, a statistical discriminator who focuses on the use of the loan uses

75. In 1992, Chicago boasted five black-owned banks, making Chicago the city with the largest concentration of black-owned banks in the United States. However, of those five banks, the two largest, Seaway National Bank and Independence Bank, received CRA ratings of "needs to improve." See Susan Chandler, *Regulators Tell Seaway National Bank to Improve Lending*, CHI. SUN-TIMES, Aug. 17, 1993, at 43; Susan Chandler, *Poor Loan Grade May Derail Bank Merger*, CHI. SUN-TIMES, Oct. 11, 1993, at 43. For a more general examination of discrimination against black borrowers by black-owned banks, see Harold A. Black & M. Cary Collins, *Do Black-Owned Banks Discriminate Against Black Borrowers?* (unpublished manuscript, forthcoming 1996).

Table 1

Minority Bank	Total Lending	Total Deposits*	Lending %
Drexal	4,401	70,636,256	0.00623%
Independence	12,040	110,627,857	0.01088%
Seaway	21,426	78,767,750	0.02720%
Avg. = 0.01477			
Commercial Bank			
Albany	22,005	149,735,340	0.01470%
Chicago	6,669	132,118,546	0.00505%
Community	2,418	24,635,028	0.00982%
East State	7,846	83,769,529	0.00937%
First Commercial	30,342	58,190,374	0.05214%
Highland	6,669	39,528,666	0.01687%
Mid-America	16,195	49,405,448	0.03278%
NBD Chicago	40,516	29,945,331	0.13530%
South Chicago	8,767	125,456,084	0.00699%
South Shore	30,073	82,747,843	0.03634%
Avg. = 0.03194			

Notes: (1) All data is for calendar year 1991

*(2) 1991 Year End Balance

Source: CITY OF CHICAGO, CHICAGO'S 1993 MUNICIPAL DEPOSITORIES (1993).

information on the minority composition of the location to assess the likelihood of the loan being repaid. For example, in the residential market, a statistical discriminator who focuses on use would discriminate against borrowers who sought a loan for a home in a minority neighborhood if he believed that loans to minority neighborhoods were less likely to be repaid.

Even if statistical discrimination does explain the credit allocation pattern, it is still necessary to specify how the pattern is generated if one is to find an economic justification for regulation. The reason follows from our discussion of the basic theory: statistical discrimination of a persistent and long-lasting nature must be based on the most accurate and economically feasible predictions. Thus, one has to find a reason for thinking there is something wrong—to be precise, suboptimal—about the credit allocation pattern to find an economic justification for regulation. Below we consider economic theories that would justify the claim that the existing pattern is suboptimal.

a. Incentives to Appear Creditworthy. One argument is that statistical discrimination has harmful effects on the incentives of credit applicants. Peter Swire has

emphasized that black credit applicants, aware that their chances of receiving loans are lower because of statistical discrimination, have weaker incentives to establish good credit histories.⁷⁶ This is a special case of the general argument, noted earlier, that a statistical discrimination equilibrium may not be economically efficient because of undesirable incentive effects.

Swire finds mild support for his theory in regression results which show that after controlling for income, net worth, age, education, and other measures, blacks are less likely to hold checking accounts than whites.⁷⁷ He argues that this is probably due to the expectation of discrimination by the bank, although he admits that other factors may be the cause of this result. For example, blacks may have less demand for checking accounts or there may be relatively few banks in black neighborhoods.⁷⁸

Given the weakness of the support for Swire's theory (or, more precisely, the weakness of the test applied by Swire), the incentive hypothesis lacks empirical support. In light of the existence of minority-owned banks in many large American cities, one would expect that if discrimination were a major reason for the low percentage of black customers who maintain checking accounts (forty-five percent as opposed to eighty percent of white customers),⁷⁹ black customers would run in droves to open up checking accounts with minority-owned banks. Also, one would expect to find a higher percentage of blacks holding checking accounts in cities containing minority-owned banks. We are not aware of any direct empirical tests of these hypotheses. However, Swire's regression analysis indirectly sheds some light on these questions. He finds that residence in a metropolitan area has virtually no effect on the probability of holding a checking account.⁸⁰ If the presence of minority-owned banks is substantially more likely in a metropolitan area, residence should be positively correlated to the probability of holding a checking account. Further, the effect of race on the probability of holding a checking account should increase substantially once residence in a metropolitan area is taken into account, a result that is also not observed in his regression analysis.⁸¹

b. Neighborhood Externalities. Another theory condemning the credit allocation pattern is based on the notion of neighborhood externalities.⁸² Business and

76. Peter P. Swire, *Equality of Opportunity and Investment in Creditworthiness*, 143 U. PA. L. REV. 1533, 1537-41 (1995) (arguing that groups subject to discrimination, on average, will not invest as much in creditworthiness); see also Lundberg & Startz, *supra* note 60, at 342 (arguing that, in general, discrimination weakens incentives to invest in certain forms of human capital).

77. Swire, *supra* note 76, at 1558 (providing table of determinants of household checking accounts).

78. *Id.* at 1547-52.

79. *Id.* at 1545.

80. *Id.* at 1558 (providing table of determinants of household checking accounts).

81. *Id.*

82. The discussion in this Section draws from J. VERNON HENDERSON, *ECONOMIC THEORY AND THE CITIES* 99-117 (1977) (discussing externalities in context of urban pollution) and Michael Klausner, *Market Failure and Community Investment: A Market-Oriented Alternative to the Community Reinvestment Act*, 143 U. PA. L. REV. 1561, 1565-71 (1995) (examining impact of market imperfections on volume of credit reaching low-income neighborhoods).

land values are likely to be correlated within a geographic region. Successful local businesses bring in other businesses as suppliers and customers. Valuable land draws wealthy people to bid on it, raising the value of nearby land. On the other hand, a reverse spiral is also possible. If a person refuses to take care of his house, he lowers the value not only of his house, but of other houses on his block as well.

This theory can be applied to banks. Bank decisions may be rational and based on statistically sound evidence, but each private lending decision ignores its impact on other businesses and properties. In other words, each private decision ignores its social impact. When the private value to the bank of a loan is lower than its "social value," banks may have inadequate incentives to lend. In addition, one event that triggers a decline in property values could lead banks to beat a path to the exit from the mortgage lending market, when they would have been better off if they had held their ground and continued to lend.

The downward spiral doesn't necessarily end here. When banks refuse to lend, people have little incentive to buy or to put effort into starting businesses that will need loans from banks. Residential areas start sprouting weeds and vacant homes, and business districts disappear. In this scenario, the statistical discrimination equilibrium is far from optimal.

The theory is, at first glance, plausible. But it raises several questions: If banks acting alone are ignoring the social impact of their decisions, why don't they combine to make decisions jointly? Why don't banks set up a pool to make loans within a certain geographic area, aware that the probability of getting the money back is enhanced if more loans are made out of the pool? Why don't banks share information on lending?

Some banks have, in fact, responded by forming loan consortiums or by privately subsidizing loans in certain areas.⁸³ However, there are obstacles in the path to greater coordination in lending. The state and federal antitrust laws may pose one such obstacle. Sharing such information could generate a price-fixing claim.⁸⁴ And although they are in the process of being repealed, laws limiting the ability of banks to set up branches or expand into new markets may also discourage coordination.

The obstacles to coordination in lending could be more basic. Even without the threat of antitrust prosecution, cartels are hard to maintain; each member has

83. Board of Governors of the Federal Reserve System, Report to the Congress on Community Development Lending by Depository Institutions, Oct. 1993, at 35 (discussing private or "in house" subsidy programs) [hereinafter DC Fed Study].

84. Sharing information could facilitate collusion with respect to price, and, for that reason, may violate the Sherman Act. See *United States v. Container Corp. of Am.*, 393 U.S. 333, 337 (1969) (holding that exchange of price information by dominant sellers violated Sherman Act); *Maple Flooring Mfrs. Ass'n v. United States*, 268 U.S. 563, 586 (1925) (holding that gathering and dissemination of information by association did not violate Sherman Act); *American Column & Lumber Co. v. United States*, 257 U.S. 377, 411-12 (1921) (holding that exchange of information by competitors on prices, sales, and details of business violated Sherman Act).

an incentive to "free ride" off the others. Suppose, for example, that two banks must decide whether to make home equity loans to two individuals, Jack and Sam, to enable them to renovate their houses. Jack and Sam live on the same block. They have approached two different banks. If both banks make the loans, property values rise and the banks will easily get their money back with a nice profit. Suppose, however, that if only one bank makes the loan, the effect on property values is negligible. Under this scenario, no bank has an incentive to be the first to extend the home equity loan. The better policy is to wait for the other bank to move first.

The incentive to wait until others lend increases if one assumes that the property values start rising only after a certain threshold number of improvement projects have been carried out. Then, each bank would have a strong incentive to wait on the sideline until other banks had approved enough loans to raise the total number of projects up to the threshold. But if every bank does this, no bank makes loans. The end result is a statistical discrimination equilibrium in which banks fail to extend the optimal number of loans.

c. Market Disequilibrium. Another reason for thinking that the statistical discrimination equilibrium may be suboptimal is based on the notion of credit rationing. Suppose banks charge below-market interest rates on some loans in some geographic markets. Demand for loans will exceed supply in geographic markets where the bank charges below-market rates. If those markets happen to have larger percentages of minority credit applicants than others, then one will observe a pattern that seems to be discriminatory.

The hard part is explaining why banks would maintain below-market interest rates.⁸⁵ One possible explanation is reputation. Although banks do charge higher prices to higher-risk customers, it is generally conceded that there are limits on the amount of price adjustment they will make.⁸⁶ One reason for this may be that a practice of charging extraordinarily high interest rates to certain high-risk customers could generate customer complaints.⁸⁷ Banks may conclude that it is better to ration loans rather than suffer complaints from customers who feel they are being overcharged. A second possibility is informational asymmetry, specifically, "adverse selection."⁸⁸ The banks cannot always distinguish

85. We should note that state usury laws, the first explanation that comes to mind, are not influential. They have largely been preempted by federal law. See Frank S. Alexander, *Federal Intervention in Real Estate Finance: Preemption and Federal Common Law*, 71 N.C. L. REV. 293, 315 (1993) (noting that in 1980, Congress expressly preempted state usury laws relating to real estate finance).

86. DC Fed Study, *supra* note 83, at 34.

87. Cf. David D. Haddock & Fred S. McChesney, *Why Do Firms Contrive Shortages? The Economics of Intentional Mispricing*, 32 ECON. INQUIRY 562, 566-68 (1994) (arguing that reputational effects may compel sellers to set prices below short-run equilibrium levels).

88. The term is generally used in the insurance context, and refers to the following problem: once a firm offers to insure certain risks, parties that are most likely to suffer a loss will be the first to seek insurance. See generally KARL H. BORCH, *ECONOMICS OF INSURANCE* 319-25 (1990) (discussing the adverse selection problem in insurance markets). The classic treatment in the economics literature is

good borrowers from bad. A very high rate would attract bad borrowers (hence the term "adverse selection"). The bank may therefore rationally choose to offer a lower rate and to ration credit.⁸⁹

Note that credit rationing does not rule out taste-based discrimination. Indeed, taste-based discrimination is quite consistent with rationing: below-market prices create a queue of buyers, which enables the seller to discriminate among them on the basis of race.⁹⁰ But taste-based discrimination will still be penalized by the market. Using race to choose a loan applicant, when race is uncorrelated with the borrower's creditworthiness, will result in a poor choice of loan candidates. A competitor who refused to discriminate would make better choices and outperform the taste-based discriminator.

A statistical discriminator, however, may survive and prosper in this setting if use of the applicant's race enhances the accuracy of its assessment of creditworthiness or permits it to maintain roughly the same level of accuracy at a significantly lower cost.

We think it worthwhile to note here that in the credit rationing equilibrium, the appearance of discrimination can arise from two distinct processes. First, credit rationing itself generates a queue of loan applicants in markets in which loans are priced below market. If these markets contain a disproportionately large share of minority borrowers, then even if there is no discrimination by lenders on the basis of race, one will observe a pattern of lending that appears to be discriminatory. Second, if lenders use race to select among loan applicants in the queue, this will obviously generate additional statistical evidence of discrimination.

In any event, the question remains why the credit rationing equilibrium coupled with statistical discrimination may be suboptimal. If the reason for credit rationing is the adverse selection problem, then the resulting equilibrium is probably suboptimal. Credit rationing is equivalent to the closure of certain high-risk lending markets. There would be no need for lenders to exit these markets if applicants revealed more information on their creditworthiness. Since this information could presumably be revealed at a low cost, society would gain from the opening of these markets.

Michael Rothschild & Joseph Stiglitz, *Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information*, 90 Q.J. ECON. 629-49 (1976) (analyzing effects of imperfect information on competitive insurance markets).

89. See generally David Jaffee & Joseph Stiglitz, *Credit Rationing*, in 2 HANDBOOK OF MONETARY ECONOMICS 839 (Benjamin M. Friedman & Frank H. Hahn eds., 1990); Klausner, *supra* note 82, at 1566-68 (discussing asymmetric information and credit rationing); Joseph E. Stiglitz & Andrew Weiss, *Credit Rationing in Markets with Imperfect Information*, 71 AM. ECON. REV. 393 (1981) (describing adverse selection in bank lending); Stephen D. Williamson, *Costly Monitoring, Financial Intermediation, and Equilibrium Credit Rationing*, 18 J. MONETARY ECON. 159 (1986) (discussing link between equilibrium credit rationing and financial intermediation).

90. See, e.g., Mark F. Grady, *Politicization of Commodities: The Case of Cadaveric Organs*, 20 J. CORP. L. 51, 64-65 (1994) (discussing racial discrimination in rent control jurisdictions).

d. "New Style" Discrimination. Another type of discrimination can be identified, which, following Federal Reserve Board member Lawrence Lindsey, we call "new style."⁹¹ Consider mortgage lending. Suppose there are three types of applicants: unambiguously good risks, unambiguously bad risks, and borderline candidates. The "new style" theory posits that virtually all of the discriminatory action is observed in the third category, i.e., with respect to the borderline candidates.

How does this kind of discrimination occur? There is a great deal of discretion at the borderline. For example, consider the bank lending officer with two borderline couples applying for a mortgage: the Smiths, who are white, and the Joneses, who are black. Suppose the Smiths and the Joneses are alike with respect to all characteristics except race and suppose they are trying to buy houses next door to each other.

Because they are borderline cases, the bank officer need not worry about the final result. If they are both turned down, the officer will not be berated by his superiors; he will probably be praised for showing prudence. If the couples sue, there is enough evidence in its files for the bank to win hands down. Thus, an adverse decision will not expose the bank to liability for either a breach of contract or discrimination claim. The decision is pretty much in the hands of the officer. How will the officer decide?

There are reasons to think that the decision is likely to be in favor of the Smiths. The loan officer (who is likely to be white) may identify with the Smiths. It may be easy, on the other hand, for him to see the Joneses as something different; like the typically lazy, playful blacks on his television set.⁹² He is likely to realize that if the Smiths turn out to be bad risks, it will be much easier to argue that he made an honest mistake if they are white. His superiors might consider him foolish for letting the bank get burned on a risky loan to blacks.

On a more rational, calculating level, the loan officer may realize that the bank's reputation is enhanced by having people say good things about it. But the bank cannot approve every borderline applicant. So the best strategy is to approve only those borderline applicants who are likely to spread good news about the bank to a large pool of desirable customers. The Smiths are far more

91. Lindsey uses the term "old style" discrimination to describe traditional taste-based discrimination. See Lawrence B. Lindsey, Real Progress Without Unintended Consequences, Address to the Federal Reserve Bank of Cleveland's Annual Community Reinvestment Forum 6-8 (Sept. 24, 1993) (transcript on file with author). After rejecting the hypothesis that old-style discrimination explains racial differences in credit allocation, Lindsey describes an alternative discriminatory process in which loan officers exercise discretion over marginally-qualified applicants. *Id.* We refer to this alternative process here as "new style" discrimination.

92. ARMOND WHITE, THE RESISTANCE: TEN YEARS OF POP CULTURE THAT SHOOK THE WORLD 3, 7 (1995).

likely to have connections to a larger community of new customers than are the Joneses.

Is this process discriminatory? Not under the definition that most of us hold intuitively or that is reflected in interpretations of discrimination statutes. In this example, the loan officer is refusing to extend the same level of charity to the black applicants as he does to the white applicants. To try to eliminate this kind of behavior through a discrimination statute would be futile; no bank has a duty to ensure that marginally qualified candidates receive loans.

Are the Smiths and the Joneses likely to constitute a large part of the lending market? It is estimated that borderline candidates make up as much as eighty percent of the applicant pool for home mortgages.⁹³

"New style" discrimination is consistent with either a theory of taste-based or statistical discrimination. The reasons that would lead a bank to reject a marginal loan applicant are likely to be a combination of both. Still, the reason for the discrimination is worth considering, because it has important implications for the theoretical debate over the advisability of attempting to eradicate it.

The theory of taste-based discrimination suggests that discriminators are punished by the market. But it is not clear that punishment by the market will take place for "new style" discriminators. Banks are motivated to act charitably toward their customers in some instances to enhance their reputations and thereby attract more customers. But if the bank refuses to act charitably toward a subset of marginal black loan applicants, this will not clearly hurt its competitive position. Indeed, it is likely to help if the reputational benefit of extending charity to black loan applicants is negligible. Thus, whether based on preferences or statistical predictions, discrimination in the treatment of marginal loan applicants can be given a rational explanation and may persist in the market.

If the decision to concentrate charity on only white loan applicants is based on nothing more than a rational plan to maximize the bank's profits, the case for condemning this behavior would seem more difficult to make. No one is entitled to charity, so decisions of this sort cannot be said to encourage undesirable behavior on the part of the victims. Why not let this discrimination exist, since it is better to have some charity than none at all?

Discrimination in the granting of charity is objectionable because it defeats the expectations of its victims, and in this sense it is as demoralizing as any other form of discrimination.⁹⁴ Black customers are attracted to a bank by the reputational claims projected toward all customers. Those reputational claims

93. Boston Fed Study, *supra* note 12, at 12.

94. Indeed, one can argue that all customers make certain investments (e.g., market search activity) based on perceptions of how they will be treated by banks and other businesses. If a subset of customers is treated differently because of discrimination, the customers' market search incentives will be weakened, just as incentives to invest in job skills are weakened by employment discrimination. See Lundberg & Startz, *supra* note 60, at 344.

include the promise that the bank may extend some form of charity to the customer. Having created those expectations in all customers, and having relied on those expectations to attract customers of all races, the bank cannot then ration charity to only a subset of white customers.

C. IMPLICATIONS FOR BANKING REGULATION

We do not consider the normative case for the CRA an easy one. However, the normative case against it is also not easy, and is certainly not as easy as critics like Macey and Miller have made it seem.⁹⁵ We have identified several potential normative justifications based on theories of discrimination in the lending process. These economic theories of discrimination are reasonably plausible justifications for government intervention. Privately rational and statistically sound lending decisions may yield a suboptimal level of investment in minority communities when there are external effects or when credit is rationed. Furthermore, the high percentage of borderline applicants within the total loan applicant pool, especially in the mortgage lending market, suggests that there is considerable opportunity for discriminatory decisions to be made in the lending market.

One might think that discrimination in the lending market should be dealt with through enhanced enforcement of existing statutes prohibiting discrimination.⁹⁶ However, our argument suggests that the existing direct prohibitions of discrimination may be insufficient. The existing prohibitions aim primarily at taste-based discrimination.⁹⁷ But competition in the lending market is probably far too vigorous for taste-based discrimination to be a major determinant of the consistent credit outflow from the inner cities. To the extent that there is an undesirable form of discrimination at work, it is most likely of the statistical sort. And if discrimination in the allocation of credit is based on statistically defensible decisions, it would be hard to attack through the application of a civil rights statute.

The implication is that the CRA may be a practical means of curing the undesirable effects of discrimination in lending. The CRA can reach further than a discrimination statute by directly attacking a market failure resulting from a

95. See Macey & Miller, *supra* note 7, at 347-48.

96. See White, *supra* note 13, at 290 (arguing that enhanced statutory enforcement would be more direct and comprehensive).

97. Of course, disparate-impact discrimination law seems to cast a somewhat larger net. A bank that uses race in order to predict creditworthiness violates disparate-impact doctrine, even if the bank has no "distaste" for lending to blacks. See, e.g., Swire, *supra* note 12, at 791 (arguing that the use of race to maximize profit by lenders violates "the current law of disparate treatment"). However, we have in mind the case (which is appropriate) in which the race information is reasonably accurate *ex post*. Recall that this must be true in a competitive lending market, otherwise the statistical discriminator would be penalized by competition from lenders that used better predictive tools. Under these conditions, the statistical discriminator would be able to prove that there was a legitimate, objective, business-related purpose for denying a loan to an applicant.

series of rational, statistically sound decisions. The CRA can, unlike the traditional discrimination statutes, be used to encourage some measure of evenhandedness in the treatment of borderline loan applicants. At the theoretical level, the case against the CRA is not open and shut.

To be sure, the CRA can lend itself to overzealous and unwise enforcement decisions. The statute aims to alter a general pattern in the flow of credit that may, for all we know, be optimal. And even if the pattern were suboptimal, it may have resulted from a series of decisions that we would prefer people to have freedom to make without intrusion from the government. Suppose Ivan the Entrepreneur starts a business in Detroit and receives a loan from Local Bank of Detroit. After operating in Detroit for several years, he moves the business to a wealthy white suburb. The CRA rating of Local Bank falls. Is there any reason to be concerned? Is there good reason for the government to penalize Local Bank? We think the obvious answer is no. Local Bank could not have forced Ivan to stay in Detroit. Yet an unthinking regulatory bureaucracy, committed to enforcing a certain statistical picture, might think it appropriate to criticize, investigate, or penalize Local Bank for its poor CRA performance.⁹⁸

There are several other criticisms that can be leveled at the CRA. Impressive economic critiques of the CRA have been provided in one article by Jonathan Macey and Geoffrey Miller and another by Lawrence White.⁹⁹ Macey and Miller argue that the CRA is a bad idea for the following reasons: (1) it is based on the outdated notion that banks carry a responsibility to serve their local communities; (2) it assumes that regulators can somehow do better than banks at spotting wise investment decisions; (3) it forces banks to search unpromising areas for lending prospects; and (4) it introduces a regulatory burden that makes it harder for banks to compete against other credit providers.¹⁰⁰ The last argument is also made by Lawrence White.¹⁰¹ White argues, in connection with this point, that the Act forces banks to cross-subsidize lending in poor communities with profits from other activities. As competition becomes more vigorous, the scope of such cross-subsidization will diminish as regulated lenders exit relatively high-risk areas of lending or simply fail.¹⁰² We consider these arguments below.

98. The lesson suggested by this example is that the credit outflow pattern may result in part from a number of small decisions that people make. A business may start in a city and move its operations to the suburbs. If established businesses tend to move out of cities, then the result will be a decrease in city residents' demand for loans. To say that there are good start-up ideas in the cities is not a sufficient answer. Banks rarely lend to start-up businesses. For example, a survey by the accounting firm Coopers & Lybrand found that 8% of start-up businesses receive loans from banks, while 73% receive their money directly from "owners, friends, and family." Among established firms, only 48% depend on banks for loans. See Bulletin Board, CRAIN'S CHI. BUS., June 13, 1994, at 35.

99. Macey & Miller, *supra* note 7; White, *supra* note 13.

100. Macey & Miller, *supra* note 7, at 303-33.

101. White, *supra* note 13, at 286-87.

102. *Id.* at 285.

D. REEXAMINING CRITICS' NORMATIVE ARGUMENTS

1. Is Banking a Local Industry?: Of Banking and Iowa Corn

Macey and Miller's first argument against the CRA is that the notion of banking as a local industry is outdated.¹⁰³ The notion that banks should serve the communities in which they are located makes as much sense, they say, as requiring Iowa farmers to provide corn to Iowa residents.¹⁰⁴ Iowa farmers sell their corn in a larger geographical market, and everyone is better off as a result. Why can't this also be true of credit? Why should we not expect banks in communities that have a relatively high percentage of savers to lend to communities that have a relatively high percentage of borrowers?

Macey and Miller are quite right on this point. However, their argument fails to come to terms with the arguments of some CRA proponents. No reasonably sophisticated CRA proponent would argue that Iowa banks should be forced to do all of their lending in Iowa. The question is whether a depositor has any reason to think that his local bank is a particularly good place to seek a loan. Consider Hyde Park, a community of Chicago. Suppose two University of Chicago law professors own a laundromat in Hyde Park and do all of their banking at Hyde Park Local Bank, holding large deposits (greater than \$10,000) there. They approach the bank for a loan to finance expansion, and the bank turns them down. They discover that similar businesses in the northern suburbs of Chicago are actually receiving loans of the magnitude that they sought from Hyde Park Local Bank.

Would Macey and Miller think these professors have a reason to complain? We think so.

Consumers know that banks provide a number of services, and that the services are not necessarily restricted only to those living in the bank's community. A consumer who has a large deposit at a bank knows that the bank has earned a profit by lending his money to someone else. That consumer probably feels that he has a relationship with his bank, a relationship that will permit him to receive favorable treatment when seeking a loan. That consumer also knows that the bank is in a position to verify the consumer's reports of financial wealth and activities and that the bank is even in a position to treat his deposit as a form of collateral against the loan. All of these features of the relationship suggest that a consumer rationally would expect to receive somewhat favorable treatment from his own bank.

Banks, for their part, make expenditures that tend to foster those expectations on the part of consumers. They advertise locally and contribute to charitable

103. Macey & Miller, *supra* note 7, at 303-04. *But see* Overby, *supra* note 4, at 1483-91 (critiquing Macey and Miller's "anti-localism" argument).

104. Macey & Miller, *supra* note 7, at 308.

causes within the community. All of this tends to instill in local consumers the notion that the bank is making an effort to support the community in which it is based.

One does not need to prove that banking is or should be a local industry in order to argue that banks should be expected to perceive a certain duty to provide services to customers in their communities.

2. Missing Profit Opportunities

Macey and Miller also argue that the CRA is based on an assumption that regulators know the lending market better than banks.¹⁰⁵ Otherwise, they ask, why would banks consistently miss profitable lending opportunities?

To a great extent, we share their skepticism toward arguments suggesting that banks persistently miss opportunities to make easy money. Because it is facially implausible, the burden of proof should fall on the proponent of such an argument. However, we have suggested cases in which statistical discrimination equilibria may be undesirable in the sense that profit opportunities are missed: the case of neighborhood externalities, the case of credit rationing, and the case in which the market contains a large share of borderline loan applicants.

3. Fishing in the Wrong Lake

Macey and Miller further argue that the statute forces banks to search in relatively unpromising areas for good loan candidates for no purpose other than boosting their CRA ratings.¹⁰⁶ Good loan candidates may be found, but at some cost. Without any regulation, a bank would have an incentive to search until the expected benefits equalled the cost of searching.¹⁰⁷ The statute, if it has any effect at all, must be pushing banks to go beyond the optimal level of searching. It is, therefore, a hidden form of taxation.

However, it appears that many banks already engage in a substantial amount of trawling in unpromising waters. Some borderline candidates for mortgages are coached on how to improve their applications.¹⁰⁸ Occasionally, the coaching pays off, and these borderline candidates receive loans.

Why do bank officers coach some loan applicants? As we suggested earlier, this coaching, assuming rationality, is a form of investment in goodwill. The bank loses money in the short run, but helps to build its reputation as an

105. *Id.* at 320.

106. *Id.*; see also Klausner, *supra* note 82, at 1574 (noting that a bank's CRA rating is determined in large measure by the dispersion of its loans to low-income neighborhoods).

107. Macey & Miller, *supra* note 7, at 319.

108. See Lawrence B. Lindsey, Breaking Free from Some Outdated Myths, Address to a Community Reinvestment Conference sponsored by the Federal Reserve Bank of San Francisco and the Federal Home Loan Bank of San Francisco (Sept. 21, 1992) (transcript on file with author).

institution that supports the members of its community. A rational loan officer, however, might decide that it is a waste of money to direct such efforts toward blacks if he believes that they make up a minuscule percentage of the pool of desirable customers.

In light of this activity, the CRA might be understood as requiring banks to spread the goodwill investment around. If a bank officer is going to coach borderline applicants to improve their prospects of being approved for a mortgage, then he should treat whites and blacks alike. This is not an unusual burden, because the bank's investments in goodwill attract both white and black customers. In other words, through these investments the bank sends a signal to all its customers that there will be some degree of flexibility, forgiveness, or charity in the bank's dealings with them. This promise creates a reliance interest for both black and white customers.

4. Regulatory Burden

Finally, the economic critiques by White and by Macey and Miller make much of the regulatory burden imposed by the CRA. White refers to Congress's approach in this area as "shackle and exact tribute."¹⁰⁹ The data, though meager, suggest that the CRA is the most expensive of the many regulations applying to banks.¹¹⁰

One might argue that there is no such thing as a costless regulation. However, the burden imposed by the CRA raises three problems: (1) the costs create incentives to avoid compliance, (2) the costs may be greater than the benefits, and (3) the costs impose a special tax on banks from which other credit providers are exempt.

The avoidance problem is, in our view, the most serious flaw in the present design of the CRA. As several critics have noted, the current statutory framework provides little incentive for a bank located in a suburban area to open a new branch in an inner city, or any heavily minority-populated community.¹¹¹ To do so would expose the bank to claims that it was not doing enough for the community. It would also expose the bank to claims from community activists seeking funds for themselves or their favorite programs.¹¹²

The question of whether, in the end, the costs outweigh the benefits, cannot

109. White, *supra* note 13, at 283; see also Lindsey, *supra* note 108, at 5-6.

110. Thakor & Beltz, *supra* note 17, at 558-59; see Grant Thornton, *Regulatory Burden: The Cost to Community Banks*, WASHINGTON: GT, Jan. 1993 (industry-sponsored survey).

111. Macey & Miller, *supra* note 7, at 340; White, *supra* note 13, at 282; see GUTTENTAG & WACHTER, *supra* note 13, at 3-4.

112. Macey & Miller, *supra* note 7, at 333. Furthermore, Macey and Miller state: "Given the threat posed by activist groups, an institution faced with a CRA challenge is often well-advised to placate the protestant by funding its pet project rather than by adopting a more even-handed approach that would promote community development generally." *Id.* at 335.

be answered on the basis of speculation. The costs and benefits are hard to specify. Both White and Macey and Miller,¹¹³ however, claim that the costs outweigh the benefits.

The third problem—that the CRA taxes banks while allowing investment banking firms, pension plans, and other credit providers to go unregulated—is a serious flaw in the design of the current legislation. One response, of course, is to require other credit providers to meet the same requirements that are now imposed on banks.

The problem with this response is that: (1) it is partially unworkable, and (2) the part that is workable raises questions of constitutionality. Expansion of CRA requirements is largely unworkable because many other credit providers are not based in *any* community. For example, it does not make sense to contend that Goldman Sachs, an investment banking firm, owes a special duty to the New York City community in which its offices are located. As Macey and Miller note, to make sense of a CRA-like requirement in this area, Goldman Sachs would have to make sure that it provided a certain amount of credit to small or minority-owned businesses. Such a statute would certainly be feasible,¹¹⁴ but this approach would present constitutional difficulties. For example, statutes that required a private firm to set aside money for the benefit of women and certain racial and ethnic groups would likely be held unconstitutional.¹¹⁵

Feasibility and constitutionality, the two big obstacles to expansion of the CRA, are also important because they reveal deep problems within the existing enforcement framework. First, as banks expand across states, the notion of a community-based bank is fast becoming outdated. Even under the current framework, there is a large whiff of pure fantasy in the CRA ratings for multibranch banks. For a multibranch bank, the whole bank is rated, not its individual branches.¹¹⁶

The other problem is that the CRA itself rests on a shaky constitutional foundation. As we noted earlier, every agency interpretation offered to the public suggests that the statute requires banks to provide credit to minority-run entities. If the statute had simply said this in plain English, it would have been held unconstitutional. We have instead a statutory framework that has only this

113. Macey & Miller, *supra* note 7, at 347-48; White, *supra* note 13, at 282.

114. See Macey & Miller, *supra* note 7, at 313 (using Kidder Peabody as their example, a firm that existed when their article was published but no longer exists).

115. This is suggested by Supreme Court decisions on various minority set-aside programs, the most important of which is *Adarand Constructors v. Peña*, 115 S. Ct. 2097 (1995) (holding that all racial classifications, whether burdening or benefiting the targeted race, must be subjected to strict scrutiny, meaning that they must serve a compelling government interest and must be narrowly tailored to further that interest). See also *Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989); *Fullilove v. Klutznick*, 488 U.S. 448 (1980).

116. 12 C.F.R. § 25.3(b) (1996).

effect. The framework couples a statute that explicitly seeks to alter the geographical pattern of credit allocation with enforcement agencies that seek evidence of compliance by checking banks' records for providing credit to minority-run entities.

Is this really what Congress had in mind? The framework also raises a larger question: Can the Constitution be circumvented by creating an agency to regulate some area of the economy under a vaguely worded statute and then permitting that agency to adopt interpretations of its authority that, if stated expressly, would be unconstitutional?

III. EVIDENCE OF DISCRIMINATION IN LENDING

To this point we have only considered the normative case for the CRA. We turn now to the empirical evidence. As noted at the outset, the CRA's critics have avoided discussing the evidence of discrimination in the lending market.¹¹⁷ However, consideration of such evidence is crucial to any attempt to judge the wisdom or advisability of the CRA.

The empirical literature bearing on the amount of discrimination in the credit market is so large that it would be pointless to summarize every study, and useful summaries are already available.¹¹⁸ We aim in this section to: (1) provide a general overview of the types of studies, focusing on empirical approaches rather than individual articles; (2) summarize the results; and (3) offer a suggestion on the usefulness of certain data and empirical research designs as tools for determining compliance with the goals of the CRA.

A. TYPES OF STUDY AND PROBLEMS OF INTERPRETATION

1. Types of Empirical Study

Studies of discrimination in lending differ according to the type of data employed and the hypotheses tested. The studies use either data on the aggregate amount of lending within certain areas or data on decisions by banks to accept or reject a particular loan applicant at an individual level. Most of the data used for both types of studies were made available as a result of the Home Mortgage Disclosure Act (HMDA).¹¹⁹ Generally, older studies are of the aggregate variety. More recent studies have examined individual accept/reject deci-

117. A careful discussion of the empirical evidence is presented in Swire, *supra* note 12, at 806-29. However, Swire seems to be in favor of CRA enforcement, and almost certainly should not be labeled an opponent. As should be clear from the text, our discussion in this Section differs from Swire's in a number of important ways.

118. See, e.g., *id.*

119. Home Mortgage Disclosure Act, 12 U.S.C. § 2801-09. For a thorough discussion of the data made available by changes in the HMDA, see Canner & Smith, *supra* note 5.

sions. These studies became possible only after the 1989 amendments to the HMDA, which require lenders to report not only the location of loans made but also the gender, race, and income of applicants and whether the application was accepted or rejected.¹²⁰

One of two hypotheses is generally tested in the empirical studies: whether neighborhood racial characteristics influence the decision to lend, holding constant all other influences, or whether the individual applicant's race influences the lending decision, again holding constant all other influences. The former type of study examines evidence of "redlining," while the latter examines evidence of discrimination against individual applicants.

It follows from the foregoing that the studies can be placed into one of three categories. The first, "aggregate/racial geographic," uses aggregate data on lending, i.e., data on the total dollar amount or number of loans within an area, to determine whether the racial composition of the area affects the total number of loans made. Most studies fall in this category. The second category, "individual/racial geographic," examines whether individual accept/reject decisions are affected by the racial composition of the neighborhood in which the applicant lives. The third category, "individual/individual," uses data on individual accept/reject decisions to determine if the bank considered an individual's race in deciding whether to make a loan. One might imagine a fourth possible category, "aggregate/individual," in which individual level data are used to determine whether, in the aggregate, discrimination influences the total amount of lending to a certain area. However, there are no studies of this sort.

2. Interpretation Issues

The studies we will examine use regression analysis to test for discrimination in lending.¹²¹ This is the most powerful method of testing for discrimination in a sample of lending decisions, because it allows the researcher to isolate the influence of each factor on the decision to lend. A typical regression model might specify the total dollar amount of residential loans in a geographic market as a linear function of several variables, such as the average income of residents and the percentage of minority residents. Thus, if L = total loans in neighborhood j ($j=1, \dots, N$, where N is the number of neighborhoods), I = average income in neighborhood j , and R = percentage of minority residents in neighborhood j , a regression model would specify $L = b_1I + b_2R + e$, where b_1 and b_2 are coefficients and e is a random error.¹²² If the coefficient on R , b_2 , is negative

120. See, e.g., Boston Fed Study, *supra* note 12 (analyzing data collected for greater metropolitan Boston area).

121. See GREENE, *supra* note 11, at 140-69 (providing introductory discussion of regression analysis).

122. The error term arises from errors in measuring L or imperfections in the specification of the regression equation. See *id.* at 141.

and statistically significant,¹²³ then the data indicate that if one holds fixed the level of average neighborhood income, neighborhoods with high minority percentages receive less credit. If one believes that average neighborhood income should account for differences in the level of total lending to communities, with the combination of other influences having an essentially random influence, then this would be taken as evidence of discrimination.

At this point, the discrimination theories discussed earlier become relevant for interpreting the results. A zero (or statistically insignificant) coefficient estimate on the race variable would imply a rejection of the taste-based discrimination theory, but would not immediately imply a rejection of the statistical discrimination hypothesis.¹²⁴ If race is used by the statistical discriminator as a proxy for other variables included in the regression analysis, then one should expect the race measure to have a statistically insignificant coefficient estimate. This means that virtually any result could be reconciled with a theory of statistical discrimination.

The type of data used in the regression analysis may raise additional interpretative issues. It is difficult to draw reliable inferences from aggregate data on lending, because the aggregate studies cannot adequately separate demand- and supply-side influences on the lending decision. The more sophisticated studies that use regression analysis typically employ a "reduced-form" regression equation. This type of study describes the total amount of lending as a function of several variables influencing the demand and supply for loans. For example, a typical reduced-form equation would specify that the total lending to geographical area *X* is a function of the average income in area *X*, the unemployment rate in area *X*, the percentage of minorities in area *X*, and so on. The reduced-form equation assumes a market equilibrium, i.e., a market in which the demand for and the supply of loans are equal. Without independent information on the demand or supply equation, it is impossible to work from the reduced form equation to identify the way in which demand affects the lending decision independent of supply.

The upshot is that aggregate studies based on reduced-form equations cannot separate differences in lending levels to certain communities that result from discrimination by banks (supply-side discrimination) or from individual decisions to seek or not seek loans (self-selection). Of course, the individual decisions to seek loans could also be influenced by discrimination, so even if supply and demand influences could be separated and it could be shown that demand factors determined the outcome, the discrimination hypothesis still could not easily be rejected. Suppose, for example, that blacks seek fewer bank loans because they are "steered" by real estate agents to less desirable housing,

123. By "statistically significant" we mean that (assuming the error term is distributed normally) the probability of obtaining the coefficient estimate purely by chance is less than five percent. *See id.* at 124. Five percent is the customary cutoff. *See, e.g., id.* at 162.

124. *See Appendix A.*

or to housing that is less favored by lenders. In this case, the supply-demand framework might show that bank decisions had no influence on the racial and geographic pattern of lending. However, this would not prove that the entire process leading up to obtaining a mortgage was free from discrimination.

If demand-side influences are most important, then it is possible that the lower amount of lending to black applicants does not reflect discrimination. Suppose that blacks choose to shop for homes in areas where many other blacks live,¹²⁵ and that those areas tend to exhibit other characteristics which depress housing prices, such as a large percentage of apartment buildings and vacant homes. Blacks will have self-selected the market for riskier loans, leading to considerably higher rejection rates.¹²⁶ An alternative is to assume that demand-side influences are the same in each area and within each racial group. If this is true, then if lending is influenced by race, it is because of discrimination on the supply side.

Taking these problems into account, there are several ways in which the aggregate data studies should be interpreted. One approach is to say that the results show that the racial composition of the neighborhood has a significant influence on the total amount of lending, and admit agnosticism as to whether discrimination in lending has occurred. The results would only be enough to give some support to the multipart hypothesis that there is either (1) discrimination affecting the lending decision; (2) discrimination affecting the application decision; (3) evidence that factors influencing the demand for loans by blacks differ from those influencing the demand by whites; or (4) all of the above.

Yet another approach is to recognize that the market for lending may not be in equilibrium. The supply of loans may not equal the demand in every geographical market. If this is true, then additional care must be taken when interpreting the results of a regression based on either aggregate or individual-level data. In Part IIIB, we will consider an empirical example, based on Chicago data, that illustrates many of these issues.

3. Review of Empirical Studies

Table 2 below summarizes the results of several recent empirical studies. The results are mixed, with some studies suggesting discrimination and others showing none. Because of the problems associated with aggregate studies, the individual-level studies are perhaps the most informative.

125. See THOMAS C. SCHELLING, *MICROMOTIVES AND MACROBEHAVIOR* 135 (1978) (discussing neighborhood tipping model).

126. Another reason for high rejection rates is that areas with low home values will also be high-cost areas for lenders. Because of the costs of processing loans, lenders prefer areas where large loans can be made. Furthermore, small borrowers tend to be relatively worse off financially, and so they require more background checking and coaching than borrowers in areas where large loans are made. See Ralph T. King, Jr., *Skewed Marketing of Home Loans: Some Mortgage Firms Neglect Predominantly Black Communities*, WALL ST. J., Aug. 9, 1994, at A1, A6.

Table 2: Studies of Lending Discrimination

	Type of Data	
	Aggregate	Individual
Hypothesis		
Racial Geographic	DC Fed (1993) ¹²⁷ Cleveland Fed (1981) ¹²⁸ Schaffer and Ladd (1981) ¹²⁹ Bradbury, Case, Dunham (1989) ¹³⁰ Canner & Smith (1991) ¹³¹ Canner & Smith (1992) ¹³² Shlay (1989) ¹³³	Schill & Wachter (1995) ¹³⁴ Canner, Gabriel & Woolley (1991) ¹³⁵
Individual		Boston Fed (1992) ¹³⁶ Gabriel & Rosenthal (1991) ¹³⁷ Canner, Gabriel & Woolley (1991)

127. DC Fed Study, *supra* note 83. The results are discussed in the text accompanying notes 141-48.

128. Robert B. Avery & Thomas M. Buynak, *Mortgage Redlining: Some New Evidence*, ECON. REV., Summer 1981, at 18 [hereinafter Cleveland Fed Study]. The authors find that the number of residential loans is negatively related to the change in the percentage of black residents within a census tract. *Id.* at 31. However, the percentage of black residents within a census tract seems to have no influence on the number of residential loans. *Id.* at 30.

129. SCHAFER & LADD, *supra* note 8. This study applies regression analysis to data on lending decisions in New York and California. The authors conclude that "[d]iscrimination on the basis of the race of the applicant is widespread" in both areas. *Id.* at 300. The authors also state that "[t]he results are mixed with regard to allegations that lenders redline specific neighborhoods; some neighborhoods appear to be redlined and others do not." *Id.*

130. Katherine L. Bradbury et al., *Geographic Patterns of Mortgage Lending in Boston, 1982-1987*, NEW ENG. ECON. REV., Sept.-Oct. 1989, at 3-30. After controlling for income, wealth, and other variables, the percentage of black residents is negatively related to the number of residential loans within a "neighborhood statistical area," suggesting redlining. *Id.* at 19.

131. Canner & Smith, *supra* note 5, at 860. Examining cross-tabulations, Canner and Smith found that the percentage of minorities within a census tract and the percentage of residential loan applicants rejected were positively correlated. *Id.* at 872.

132. Glenn B. Canner & Dolores S. Smith, *Expanded HMDA Data on Residential Lending: One Year Later*, 78 FED. RESERVE BULL. 801, 802 (1992). The authors replicate the findings of their earlier study, *supra* note 5.

133. Anne B. Shlay, *Financing Community: Methods for Assessing Residential Credit Disparities, Market Barriers, and Institutional Reinvestment Performance in the Metropolis*, 11 J. URB. AFF. 201, 215 (1989). The author finds that the percentage of blacks in the neighborhood is negatively correlated to the number of residential loans. *Id.*

134. Michael H. Schill & Susan M. Wachter, *A Tale of Two Cities: Racial and Ethnic Geographic Disparities in Home Mortgage Lending in Boston and Philadelphia*, 4 J. HOUSING RES. 245 (1993). The authors reject the hypothesis that lending institutions redline minority neighborhoods. *Id.* at 272.

135. Glenn B. Canner et al., *Race, Default Risk, and Mortgage Lending: A Study of the FHA and Conventional Loan Markets*, 58 S. ECON. J. 249, 251 (1991). The authors reject the redlining hypothesis, but find that the minority status of an applicant decreases the probability of receiving a conventional loan. *Id.* at 260.

136. Boston Fed Study, *supra* note 12.

137. Stuart A. Gabriel & Stuart S. Rosenthal, *Credit Rationing, Race, and the Mortgage Market*, 29 J. URB. ECON. 371, 372 (1991). The authors find that after controlling for age, income, and other factors that proxy for default risk, black loan applicants are less likely to obtain conventional financing. *Id.* at 379.

Although the individual-level studies are generally more reliable because they do not suffer from the demand versus supply-side ambiguities discussed earlier, they are not entirely free of problems. Consider the Boston Fed study, which finds evidence of discrimination against black and Hispanic residential loan applicants.

a. The Boston Fed Study. The Boston Fed study examined whether the decision by a bank to provide a residential loan is influenced by the applicant's race, holding constant such factors as income and gender. Unlike the other studies, the Boston Fed study included information on the appraised value of the house for which the applicant is seeking a loan. This is an important factor because it provides a partial answer to the claim that blacks receive fewer loans only because they are self-selecting riskier markets. The Boston Fed study also included a measure of the ratio of rent to the value of the rental housing stock as a proxy for "neighborhood risk," i.e., risk due to the fact that the house is located in an area in which property values may fall.¹³⁸

One could argue that the Boston Fed authors did not do enough to control for the self-selection problem. As Mitchell Rachlis and Anthony Yezer have noted, the mortgage lending process involves several stages: the decision to approach a particular lender, the decision to seek certain mortgage terms, the lender's accept/reject decision, and possibly, the decision to default on a loan that has been approved.¹³⁹ The first two decisions were ignored in the design of the regression model used by the Boston Fed. Their failure to incorporate these decisions could have biased their results, though the direction of the bias is hard to predict.¹⁴⁰ One can easily construct a hypothetical that would explain how the Boston Fed results might be observed without any black applicants suffering discrimination. Suppose there are two lenders. One has a high rejection rate, the other low. Suppose black applicants, having heard that the lender with the high rejection rate does not discriminate, seek loans from that lender. Looking only at the applicant's personal characteristics, and ignoring the decision to approach a particular lender, one would observe results that suggest discrimination, even though black applicants had not actually been discriminated against by the high-rejection-rate lender.

The proxy for neighborhood risk may be ineffective for the simple reason that residential housing values may be far more sensitive to neighborhood characteristics than rental housing values. Schill and Wachter incorporate a larger set of measures of neighborhood risk and find no evidence suggesting discrimination.

138. The Boston Fed study authors assumed that rental values will be higher as a proportion of the value of the rental housing stock in riskier areas.

139. Rachlis & Yezer, *supra* note 14, at 315. For a nontechnical presentation of their argument, see ANTHONY M. YEZER, NATIONAL ECONOMIC RESEARCH ASSOCS., CORRECTING FLAWS IN STATISTICAL TESTS FOR MORTGAGE LENDING DISCRIMINATION (1996).

140. For a general discussion of the bias problem, see Rachlis & Yezer, *supra* note 14, at 319-20.

However, the Schill and Wachter study made no effort to test for discrimination in the individual accept/reject decisions. Schill and Wachter limited their study to testing for discrimination based on the racial composition of the applicant's area (i.e., the study examines the "redlining" hypothesis).

At a more general level, the very definition of discrimination must be handled with care. If the lending market is in equilibrium, and if the Boston Fed researchers did an adequate job of controlling for self-selection and neighborhood risk (and these are two very big ifs), then the results suggest that loan applicants are being discriminated against on the basis of race. To be precise, one cannot reject the hypothesis of discrimination on the basis of the Boston Fed's results.

On the other hand, if the market for residential loans is not in equilibrium in every geographic market, then the Boston Fed results could be interpreted as being consistent with a "statistical discrimination/credit rationing" theory. If banks are rationing credit, there will be unmet or excess demand for loans in some geographic markets. The amount of excess demand may vary across local lending markets. If the geographic markets in which excess demand is greatest are also those in which minority loan applicants constitute a substantial percentage of the total number of applicants, there will be a correlation between the probability of rejection and the race of the applicant.

b. The DC Fed Study. Another impressive study of HMDA data was carried out in 1993 by the Board of Governors of the Federal Reserve System (DC Fed). The DC Fed study did not specifically aim to test for discrimination. The authors noted at the outset that the purpose of the study was to investigate the risks and returns on lending in low-income, minority, and distressed neighborhoods. However, the study's conclusions, *as stated by the authors*, suggest that there is little if any discrimination in the lending market.¹⁴¹ The study concluded that "[a]n analysis of nonperforming loans held by commercial banks suggests that lending in black and Hispanic neighborhoods may be less risky, and lending in Asian neighborhoods more risky, than lending in white neighborhoods," but that generally "[t]he relationship between neighborhood racial or ethnic composition and lending risk is . . . unclear."¹⁴²

However, the DC Fed study can be interpreted as presenting evidence consistent with the discrimination hypothesis. The key piece of evidence is a regression of the percentage of nonperforming loans held by commercial banks and savings and loans on population, housing, and income characteristics for the census tracts to which the loans were made. The regression shows that the percentage of blacks in the census tract population is negatively correlated to the percentage of nonperforming loans. Put another way, banks tend to have fewer nonperforming loans in areas where there are large percentages of black

141. DC Fed Study, *supra* note 83, at 42, 49-50.

142. *Id.* at 3.

residents.¹⁴³

Why would banks tend to have fewer nonperforming loans in black areas? It is not an implausible answer that banks are taking relatively few risks in such neighborhoods. The alternative hypothesis—that black neighborhoods are actually less risky for lenders—is inconsistent with the results concerning Federal Housing Authority (FHA) guaranteed loans reported in the same study.¹⁴⁴ Those results suggest that the probability of default on an FHA loan is positively correlated to the percentage of black residents in the census tract. The overall picture is consistent with a simple explanation that seems to be borne out by other empirical studies:¹⁴⁵ banks take relatively few risks in black neighborhoods, ceding much of those markets to FHA loans.

In spite of the evidence suggested by the regression results, the DC Fed study downplays their statistical significance. The authors present a second table that tests the “robustness” of the result, or the sensitivity of the regression results to minor changes in the specification of the regression model.¹⁴⁶ The robustness analysis consists of removing one variable at a time from the regression equation and then examining the new regression results. If the result suggesting a negative relation between the percentage of blacks and the percentage of nonperforming loans fails to appear consistently in the new regressions, the implication is that the result is not robust. It may be an artifact of the specification of the regression model, or of the data, or both.

Surprisingly, the result remains statistically significant in almost all of the alternative regressions.¹⁴⁷ In only one important case does the result diminish to a level that is not statistically significant: the case in which the authors remove the percentage of blacks in the bank’s loan portfolio. The authors cite this as a reason for concluding that the result is not robust. However, their argument is unpersuasive. Their results do not indicate a lack of robustness; they merely show that omitting an important variable can bias the results of a regression.¹⁴⁸

143. For a more detailed and recent exploration of the relationship between race and mortgage default rates, see James A. Berkovic et al., *Mortgage Discrimination and FHA Loan Performance*, 2 CITYSCAPE 9 (1996). The Berkovic study rejects the discrimination hypothesis. For a critique of the study, see John Yinger, *Why Default Rates Cannot Shed Light on Mortgage Discrimination*, 2 CITYSCAPE 25 (1996).

144. DC Fed Study, *supra* note 83, at 20-21.

145. See, e.g., Cleveland Fed Study, *supra* note 128; Canner et al., *supra* note 135.

146. DC Fed Study, *supra* note 83, at 50-51.

147. DC Fed Study, *supra* note 83, at 50.

148. Let a be the regression coefficient on the percentage of blacks in the census tract. Let b be the regression coefficient on the percentage of blacks in the bank’s loan portfolio. Let c be the regression coefficient if the percentage of blacks in the census tract is regressed on the percentage in the loan portfolio. Omitted variable analysis indicates that the regression estimate on the percentage of blacks in the census tract, after omitting the percentage in the portfolio, is equal to $a + bc$. Since a and b have different signs in the DC Fed study, see DC Fed Study, *supra* note 83, at 50, and since c is likely to be positive, it is predictable that omission would push the regression coefficient toward zero—i.e., toward insignificance. For a general discussion of omitted variable analysis, see GREENE, *supra* note 11, at 245-48.

c. Summary. The empirical studies tend to support one of two theories: (1) banks are discriminating in granting mortgage loans to blacks, or (2) consistent with the "statistical discrimination-credit rationing" hypothesis, blacks are either self-selecting or concentrated in risky areas, where both the probability of default and the likelihood of rejection are higher.

B. TESTING FOR DISCRIMINATION AND EXAMINING CRA COMPLIANCE: AN ILLUSTRATION OF THE DIFFICULTIES

In this Section, we use data from Chicago (1) to illustrate some of the difficulties in interpreting studies based on aggregate level data; (2) to study evidence of redlining, and, perhaps most usefully; (3) to suggest a method of monitoring compliance with the CRA.

1. Reduced Form Approach and Problems

Before presenting the data and results, it may help to consider some of the problems that confront a researcher who relies on regression analysis. As we noted earlier, the regressions examined in most of the lending discrimination studies are "reduced forms." They are "reduced" in that they involve a single equation, rather than the two equations that are typically part of the expanded form. The expanded form is comprised of an equation specifying the supply of loans as a function of a number of variables and also specifying the demand for loans as a function of a number of variables. The reduced form is derived by assuming the market is in equilibrium and equating the supply and demand prices.

For example, suppose the demand for loans is given by the equation

$$Q_d = a + bR + cP_d,$$

where $c < 0$, and the supply is given by

$$Q_s = d + eR + fY + gP_s,$$

where $g > 0$, and where R and Y are variables that influence the quantity demanded. The reduced form is derived by equating $P_d = P_s$, which gives us:

$$Q = h + iR + jY,$$

where $h = (d/g - a/c)$, $i = (e/g - b/c)$, and $j = f/g$.

Suppose R = the percentage of blacks in the geographic area. A negative reduced form coefficient for the variable R means:

$$e/g < b/c,$$

which has two explanations. First, if $b = 0$, then $e < 0$, which means that banks

are discriminating against blacks in the market for loans. Second, if $e = 0$, then $b < 0$, which means that blacks tend to seek smaller loans, other things being equal. Note that both explanations could be valid simultaneously: $b < 0$ and $e < 0$.

Suppose the variable R has a positive reduced form regression coefficient. That is consistent with two theories: (1) banks discriminate in favor of black borrowers, and (2) other things being equal, blacks have a higher demand for mortgage loans, or are associated with a higher demand in their geographical area.

Thus, when reading reduced form equations, one must keep in mind that a negative coefficient on the percentage of blacks in the area may reflect either discrimination on the part of lenders or a tendency on the part of black home shoppers to select less expensive houses—and, of course, both explanations may hold. The discrimination hypothesis reflects a supply-side effect in the market for loans, while the “self-selection” theory reflects a demand effect. Because reduced form coefficients reflect demand and supply-side effects, they must be interpreted with care.

2. Data

The City Comptroller of Chicago collects information on loans made within seventy-seven community areas by municipal depositories and publishes this data annually.¹⁴⁹ The Chicago Department of Planning publishes *Social and Economic Characteristics of Chicago's Population*,¹⁵⁰ which is based on census data. The Planning Department publication provides information on income, housing, racial composition, and other characteristics for each of the seventy-seven community areas of Chicago.¹⁵¹

We used data from the two reports to run a reduced form regression of the logarithm of the total value of residential loans on the independent variables shown in Table 3.

3. Results

a. Redlining. The results of the reduced form regression are shown in Table 4. Each coefficient indicates the percent change in total residential loans caused by a small change in the independent variable. “T-statistics” are provided in parentheses below the coefficient estimates.

We will limit our discussion of Table 4 to those coefficients with T-statistics greater than two. The coefficients with T-statistics smaller than two are not significantly different from zero, under the usual statistical criterion. The signifi-

149. See CITY OF CHICAGO, CHICAGO'S 1993 MUNICIPAL DEPOSITORY (1993).

150. CITY OF CHICAGO, SOCIAL AND ECONOMIC CHARACTERISTICS OF CHICAGO'S POPULATION: COMMUNITY AREA PROFILES (1992).

151. *Id.*

cant coefficients are those for BLACK, INCOME, UECHANGE, UNEMP, and WHITE. The coefficients for INCOME, UECHANGE, and UNEMP all exhibit the expected signs: loans are positively related to income and negatively related to both the level and increase in unemployment.

The positive coefficient for BLACK suggests either that banks are loaning more in areas with larger percentages of black residents, or that the demand for loans is larger in those areas and that the additional demand is connected with the percentage of black residents. Under either scenario, little support is provided in Table 4 for the theory that banks are discriminating against blacks in the market for mortgage loans.

The possibility of redlining is somewhat obscured by the coefficient for WHITE, which measures the change in the percentage of white residents in the community. The positive and highly significant coefficient suggests that banks are lending more to community areas in which the percentage of whites is increasing. This is consistent with the type of discrimination reported in a study by the economists at the Federal Reserve Bank of Cleveland.¹⁵² This result is also consistent with a theory that the increasing percentage of whites—holding income and income growth fixed—is connected to an increase in the demand for loans.

b. Monitoring Compliance. We performed the same regression on four of the biggest mortgage lenders in the Chicago area: Northern Trust, Cole Taylor, First Chicago, and Harris. Although the reduced forms must be interpreted with some care because the local (or bank-specific) market for loans may not be in equilibrium, the results provide a useful means of measuring compliance with the CRA. The methods used by regulatory agencies are somewhat cruder. We should also note that these regressions are useful in that the differences among the banks can be attributed to their individual policies rather than demand effects. The results are reported in Tables 5-8.

The results suggest that, in terms of their compliance with the CRA during 1990, the banks can be ranked as follows: (1) Northern Trust, (2) Harris, (3) Cole Taylor, and (4) First Chicago. The results suggest that Northern Trust was lending more in areas with greater percentages of black residents, all other things being equal. The results are surprising in light of recent events. Residents of Chicago will recall that Northern Trust was severely embarrassed in 1993 by a Justice Department investigation into its lending policy.¹⁵³

152. See Cleveland Fed Study, *supra* note 128.

153. Northern Trust was subject to a 1993 Justice Department investigation concerning mortgage-lending discrimination. The Justice Department claimed that white and minority applicants received different assistance in negotiating the application process and that different standards were used to evaluate minority and white applications (for instance, overtime pay was included in determining the income of whites, but not for Hispanics and African Americans). According to one Justice Department official, minority applicants were also made to appear to have more of a debt problem and less income than white applicants with the same debt and income. In 1995, the claims against Northern Trust were settled with the establishment of a \$700,000 fund to redress mortgage loan discrimination against some

Because the results are inconclusive, we feel it would be unwise to engage in speculation. Our point is that traditional methods of measuring compliance can probably be improved. Regression analysis, though subject to the above problems, remains attractive because it permits the analyst to measure the distinct contribution of each influence on lending patterns. We have only scratched the surface of the econometric problems that underlie an effort to use regression analysis to monitor compliance with the CRA. But the problems are probably not insurmountable, and the final answer probably would be somewhat more reliable than the eyeballing of statistics that is currently used to monitor compliance.

IV. REASSESSING THE CRA

We have argued that the theoretical economic case against the CRA is not entirely persuasive. At the same time, the view that taste-based discrimination is responsible for the credit allocation pattern observed in urban areas is probably not valid. However, the statistical discrimination equilibria described in this article present a plausible description of the credit allocation pattern, and suggest ways in which the pattern may be suboptimal from an economic standpoint. Furthermore, the special kind of discrimination observed in a market in which the majority of applicants are borderline candidates may also partially contribute to the credit allocation pattern, because it is unlikely that this kind of discrimination would be driven to extinction by competitive market pressures.

A. UNCERTAIN BENEFITS

Given the theoretical ambiguity, the case for or against the CRA will have to be made on empirical grounds. Here, too, we find the picture muddled. Although the evidence from statistical analyses tends to suggest that minority applicants suffer discrimination in residential lending markets, the evidence is mixed and merits more careful assessments of competing hypotheses. Even if more careful assessments fail to reject the discrimination hypothesis, it is important to understand the process that generates the observed credit allocation pattern in order to fashion the most appropriate remedy.

Furthermore, the problem of measuring compliance seems to have received insufficient attention from regulators. Bankers have complained that the compliance standards are unclear, making it difficult for them to know in advance what must be done.¹⁵⁴ Closely connected to this complaint is the risk that, in the

63 African American and Hispanic families in 1992 and 1993. See John Schmeltzer, *Bank Settles Claims of Unfair Lending: Northern Sets Up \$700,000 Fund*, CHI. TRIB., June 2, 1995, at B1. Also, a 1992 study in *The Wall Street Journal* found that out of 9000 institutions, Northern Trust had the third highest difference between black and white loan application rejections. See Kenneth H. Bacon, *U.S. Investigates Northern Trust Units for Possible Bias in Mortgage Lending*, WALL ST. J., Dec. 30, 1993, at A3.

154. See Leonard Bierman et al., *The Community Reinvestment Act: A Preliminary Empirical Analysis*, 45 HASTINGS L.J. 383, 384 (1994) (discussing Macey and Miller's claim that CRA standards

absence of an objective, consistent method of determining compliance, the actual findings of CRA noncompliance have little impact on the goals of the statute. Should regression analysis be used to measure compliance? If not, how can one be sure that the comparisons among different banks are fair, and how can one limit the discretion of bank regulators? What should be done if an examination of the number of loans suggests that there may be discrimination within a certain lending market, while an examination of the total dollar-amount loaned does not? Should only residential loans be examined, or should the bank's entire loan portfolio be examined? If the latter, how should one determine the location of a commercial loan?

It is worthwhile to ask whether the benefits of the current regulatory regime outweigh the costs. Because the empirical evidence is inconclusive, it seems fair to say that it falls short of *proving* that the benefits provided by the current regime are substantial. This is not to say that the benefits are not substantial, for they may be. However, the evidence is simply ambiguous.

B. CERTAIN COSTS

Despite the ambiguity with respect to benefits, there are costs associated with the current regulatory framework, and some of them are substantial. They fall into two general categories: (1) administrative burden, and (2) perverse incentives.

The administrative burden has been documented in earlier studies and news reports, so we see little need to dwell on it here.¹⁵⁵ The CRA is generally thought to be the most administratively burdensome of the regulations imposed on banks.¹⁵⁶

Earlier studies have also noted the perverse incentives provided to lending institutions covered by the statute.¹⁵⁷ For example, what incentive would a bank have to open a branch in an area with a heavy minority population if its reward would be more rigorous scrutiny and the heightened possibility of penalization under the CRA?¹⁵⁸ One could answer that the bank would have an incentive to open such a branch if it had expansion plans. In that case, an outstanding CRA rating would give the bank an advantage when it sought to have a merger proposal approved by bank regulators. But what if the bank does not have expansion plans? What if the bank's expansion plans included only suburban,

are vague and subjective), Macey & Miller, *supra* note 7, at 326-29 (analyzing the regulatory imprecision of CRA ratings); Wilke, *supra* note 3, at A1 (reporting attorney describing CRA evaluation process as "a very subjective process, and there's inconsistency among the different examiners").

155. The CRA is probably the most costly of the regulations imposed on lending institutions. *See supra* note 17 and accompanying text. News reports discuss costly efforts to comply with the CRA. *See, e.g.*, 22 Fed. Reg. 156 (1995) (bankers arguing that CRA encourages banks to generate excessive paperwork at expense of providing loans to their communities).

156. Macey & Miller, *supra* note 7, at 324-25 (noting that bankers regard CRA as single most costly regulation they face); Swire, *supra* note 12, at 848.

157. Macey & Miller, *supra* note 7, at 340; White, *supra* note 13, at 287.

158. Macey & Miller, *supra* note 7, at 340; White, *supra* note 13, at 287.

relatively affluent areas, where the goals of the CRA are not of much concern? What if the bank saw no reason to expand further? In these cases, the statute would either have no effect or it would discourage efforts to set up a branch in an inner-city neighborhood.

In addition, there is the paradox of consolidation. As the banking industry consolidates, providing appropriate incentives, especially for the remaining small banks, may become more difficult. Banking analysts have described the industry as moving toward a "barbell" shape: several large banks and many small banks, with relatively few medium-sized ones.¹⁵⁹ The large banks may reach the point at which further expansion is not viewed as necessary, while the small banks will prefer to remain in their narrow markets. In this configuration, providing compliance incentives to banks on either end of the "barbell" would be difficult.

The more general statement of the problem is that the current regulatory framework encourages banks to compare the expected benefits from future mergers with the additional costs of providing lending services in inner-city communities. For those banks with no plans to expand through mergers, or for those that would like to expand but conclude that the costs outweigh the benefits, the statute provides no incentives to comply with its goals.

Of course, the government could prosecute banks that refused to move into inner-city neighborhoods to mitigate the perverse incentives of the CRA, as they did to Chevy Chase Federal Savings Bank of Maryland.¹⁶⁰ However, there are some obvious limits to this approach. The discrimination claim against Chevy Chase seemed plausible because the bank had branches in several areas that bordered on neighborhoods with large minority populations. What about the case in which the bank has no branches, or only one branch, near a minority neighborhood? Could the government use civil rights laws to force all banks to set up branches in minority neighborhoods? Probably not. What would the government do if the bank chose to go out of business rather than open a new branch?

Another important area of perverse incentives, noted by Macey and Miller, arises when community-based interest groups and local politicians seek payoffs from local banks in exchange for their blessings for CRA purposes.¹⁶¹ Bank mergers under the statute have become, in some instances, grand political theater, with interest groups and their local legislative benefactors parading through meetings and press conferences with bank officials. Indeed, politicians have incentives under the current regime to incite community group opposition so they can step in and solve a crisis, forcing a powerful financial institution to take the interests of the community groups into account.

159. See Nikhil Deogun, *Back to the Fray: Displaced by Mergers, Some Bankers Launch Their Own Start-Ups*, WALL ST. J., Mar. 4, 1996, at A1.

160. *United States v. Chevy Chase Fed. Sav. Bank*, No. 94-1824-JG, at 5 (D.D.C. Aug. 22, 1994).

161. Macey & Miller, *supra* note 7, at 332-33.

Thus, the current framework seems to encourage a self-perpetuating game in which a politician or regulator, who may be trying to develop a support base of minority voters, volunteers to resolve a "dispute" between a community interest group and a bank. This will usually involve the implicit or explicit threat of some penalty leveled against the bank by a state agency or office for refusal to participate in the game.

Although no one has attempted to estimate the costs of the perverse incentive effects, they probably outweigh the administrative burdens of the Act as a cost to society. To the extent that they are most likely to be associated with a merger in which a bank attempts to move into a minority neighborhood, they tend to increase the cost of entry into the most underserved lending markets.

C. A DIFFERENT APPROACH

A shift from a penalty approach to a subsidization approach offers the possibility of pursuing the goals of the CRA without incurring the above costs. Given the state of the empirical evidence and the costs associated with the current regime, a subsidization approach is appropriate. Lending institutions should be permitted to either opt for subsidization in advance through some sort of "safe harbor" treatment in exchange for meeting CRA compliance criteria, or the regulatory regime could subsidize lending institutions that demonstrate a solid record of high CRA ratings.

It is important to be clear about the central argument for a subsidization approach: *it is capable of achieving the same or even greater level of compliance with the goals of the CRA without generating perverse incentives, and with a probable reduction in administrative costs.* This proposition does not depend or rely on a claim that the CRA is not working, or that it is providing no benefits at all. Our point is that a subsidization approach is likely to be considerably less costly.¹⁶²

A subsidy approach would not eliminate administrative costs. However, it would make them a matter of choice for lending institutions. Those institutions that chose to seek subsidization would incur the administrative costs of proving compliance. Presumably, they would choose subsidization as long as the benefits of subsidization outweighed the administrative burden.

The perverse incentives for lending institutions covered by the statute would be reversed under a subsidization approach. Instead of having incentives to

162. One might argue that our proposal smacks too strongly of Derrick Bell's "discrimination tax" hypothetical. Bell posed the question whether Americans would vote in favor of a law that permitted individuals to discriminate against minorities at will as long as they paid a certain amount into a fund designed to benefit minorities. See DERRICK BELL, *FACES AT THE BOTTOM OF THE WELL: THE PERMANENCE OF RACISM* 47-64 (1992). Is our proposal just a version of this? No. First, we hope it is clear to the reader at this stage that we would reject the general discrimination tax scheme. Second, on the narrow question of lending discrimination, we hope it is also clear that there is a big difference between our proposal and one that gives the "green light" to lending discrimination. Our suggestion is merely to subsidize high CRA compliance.

avoid areas with high minority populations, banks would have incentives to enter these areas in order to take advantage of the subsidy. Similarly, for those banks whose incentives are unaffected by the current regulatory approach, a subsidization scheme would give them a continuing incentive to meet the statute's goals.

The interest group behavior associated with the current regime would also change. Under the current regime, interest groups become involved when the threat of penalization under the CRA becomes real, i.e., during merger negotiations between lending institutions when the acquiring firm is covered by the statute. But the point in time at which penalization may occur is not so clear under a subsidy regime. If a bank opted for subsidization in advance, there presumably would be little opportunity for interest groups to contest the decision. If the bank attempted to gain subsidization after compiling an impressive CRA record, the subsidization decision presumably would be based on the bank's record rather than on the charges of interest groups. Under the current regime, the moment the merger is about to occur, interest groups enter the scene with charges concerning the new bank's likely CRA performance. A subsidization regime would eliminate the merger itself as a major event around which interest groups could mobilize or be mobilized by local politicians. This would eliminate or reduce one barrier to entry into underserved lending markets.

Safe harbor proposals have been suggested before,¹⁶³ but we suggest an altogether different type of safe harbor. A simple alternative to the current framework is to allow banks to opt for safe harbor treatment in exchange for meeting high CRA compliance criteria. The reward for opting for safe harbor treatment would be subsidization. Perhaps the easiest type of subsidy would be a lessening of other regulatory burdens imposed on banks. For example, banks that opt for safe harbor status could be treated more favorably when they apply to expand or merge,¹⁶⁴ or they could be permitted to sell insurance from their large-city branches.¹⁶⁵

We have relatively little to say about the details of the safe harbor because the general shape is more important. Peter Swire has suggested a safe harbor alternative in which banks that opt for special treatment would automatically receive outstanding CRA ratings when they made regulatory applications sub-

163. See generally Peter P. Swire, *Safe Harbors and a Proposal to Improve the Community Reinvestment Act*, 79 VA. L. REV. 349 (1993).

164. This is true now, of course. Banks with high CRA ratings are, in effect, treated favorably in the regulatory process.

165. Section 92 provides that a national bank located and doing business in a town with fewer than 5000 residents can sell insurance. 12 U.S.C. § 92 (1994). In 1986, the Office of the Comptroller of the Currency (OCC) interpreted this to mean that banks located in towns of 5000 or more residents may sell insurance from their town to outside communities. Request by United States National Bank of Oregon to sell insurance from its branch in Banks, Oregon (population 439) to customers nationwide, Memorandum from Robert Dixon to Keith Hylton (July 31, 1996) (on file with *The Georgetown Law Journal*).

ject to CRA review.¹⁶⁶ Institutions that chose not to take advantage of safe harbor provisions would be subject to a case-by-case CRA review during the normal examinations, or when they applied to regulators for approval of plans for mergers, acquisitions, and new branches.¹⁶⁷

Swire's proposal is a combination of carrot and stick, with the stick being applied to institutions that choose not to take advantage of safe harbor status. It would have the beneficial effect of increasing CRA compliance by increasing the difference in benefits between compliance and noncompliance. However, the drawback is simple: it retains the current framework, and all of its costs. It *increases* the administrative burden, by introducing yet another consideration for regulators. Of course, as in our proposal, the choice to incur the administrative burden of proving a high level of CRA compliance would fall on the institution that chose safe harbor status. That part of the administrative burden can be discounted. However, the Swire proposal increases administrative costs by adding an additional layer of bureaucratic decisionmaking to the existing framework. More important, the Swire proposal would do nothing to reduce the perverse incentive effects of the current approach.

The pure carrot approach suggested here is preferable because the same (or even a greater) level of compliance can be achieved without creating the enforcement gaps and perverse incentives observed within the current framework.

D. SCOPE OF REGULATION

The subsidization framework suggested here would alleviate the controversy surrounding another problem: determining whether the statute should be applied to financial intermediaries other than banks. As several commentators have noted, banks and savings associations, which are subject to CRA regulations, are in competition with many other credit providers: investment banking firms, pension funds, life insurance companies, mortgage firms, credit unions, and other providers.¹⁶⁸ While competition reduces the ability of banks to charge supercompetitive interest rates, the statute burdens them with larger costs. The current framework, in effect, provides a competitive shield to lending institutions that are exempt from the CRA. This would be a desirable regulatory framework only if the ultimate goal was to shrink the size of the regulated sector.

The current approach also creates a highly reliable interest group in favor of maintenance of the regulatory status quo, regardless of whether it is successful. To the extent that nonregulated lenders benefit from the current approach, they have incentives to lobby in favor of it, appropriating the language of community interest groups in arguing for rigorous enforcement of the statute.

166. Swire, *supra* note 163, at 349.

167. *Id.* at 354.

168. See, e.g., Macey & Miller, *supra* note 7, at 312.

A subsidy regime would alter the incentives of firms in the nonregulated sector. Instead of promoting or remaining indifferent to enforcement against their regulated competitors, the nonbank lenders would have incentives to seek to qualify for subsidization themselves. To the extent that these decisions were voluntary, we would not worry about the administrative burden incurred in proving compliance with the goals of the statute.

There is an important drawback to the subsidy approach. There are banks and various lending institutions that have already made community investment a major priority. A subsidy approach might introduce a rush of new lenders seeking to enter markets in which some lenders are already operating.

This is a general problem observed in efforts to support economic development. Direct aid to foreign consumers can wipe out the market for local entrepreneurs, leaving the population dependent on donations from foreign aid.¹⁶⁹ Some sensitivity to this problem is desirable. There are individuals who are trying to operate businesses from community-based lending in impoverished inner-city neighborhoods.¹⁷⁰ CRA enforcement, whether under the current approach or a subsidization approach, runs the risk of putting these people out of business. In light of this, the best subsidization plan probably would be one that began by identifying firms that had committed themselves to a community-development-style lending program.

Strangely, this emphasis on local concerns brings us to a point of agreement with two critiques of the CRA: Macey and Miller's and Taibi's, although their critiques could not be more different. Macey and Miller view the statute as a burdensome form of affirmative action,¹⁷¹ while Taibi suggests that it does not go far enough, as it stops short of dealing with deeper failures of capitalism.¹⁷² However, both critiques suggest that community empowerment should be a major focus of the legislation in this area.

There is a paradox that these critics may not have noticed: community empowerment may be best promoted by a "do-nothing" approach. Perhaps Macey and Miller realized this but thought it impolitic to say it so bluntly. A regime in which major (white-owned) businesses refuse to operate in minority communities provides a golden opportunity for entrepreneurs within those communities. Conversely, a regulatory scheme that aims to force established

169. See ROBERT CASSEN ET AL., DOES AID WORK?: REPORT TO AN INTERGOVERNMENTAL TASK FORCE 130-35 (1994) (discussing incentive effects of food aid); see also Paul J. Isenman & H.W. Singer, *Food Aid: Disincentive Effects and Their Policy Implications*, 25 ECON. DEV. & CULTURAL CHANGE 205 (1977).

170. There are also examples of economic development programs that are quite similar in effect. See Ralph Reiland, *Mixing Religion and Business: Sometimes It Works*, COMMONWEAL, June 2, 1995, at 6-7 (discussing example of Greater Christ Temple in Mississippi, where successful economic development program resulted in creation of several local businesses); Rick Wartzman, *Dual Ministry: A Houston Clergyman Pushes Civic Projects Along with Prayers*, WALL ST. J., Feb. 20, 1996, at A1 (discussing Reverend Kirbyjon Caldwell's successful efforts to develop minority-controlled businesses in Houston area).

171. Macey & Miller, *supra* note 7, at 295.

172. Taibi, *supra* note 7, at 1468.

white-owned businesses into minority communities, as did the scheme at issue in the Chevy Chase litigation, does not appear to be the best way to promote grass-roots community development.

E. INEVITABILITY OF COMPLIANCE

Even the pure subsidy approach, although it may seem inordinately tame to CRA proponents, may be going further than necessary to encourage compliance with the goals of the CRA. At present, two forces are steadily pushing banks in the direction of greater compliance with the goals of the statute: the market and politics.

As mutual funds have grown in importance in the American economy, banks have seen their deposits fall, especially those placed by relatively affluent savers.¹⁷³ The credit market has also become increasingly competitive, reducing potential profits from lending.¹⁷⁴ The inner-city communities that apparently have been neglected by banks for many years are now a major source of new deposits and lending opportunities. The fact that only forty-five percent of black households maintain checking accounts, as opposed to eighty percent of white households, suggests that there is substantial room for growth within cities with relatively large minority populations.¹⁷⁵ Providing banking services to these communities may very well be a major source of growth for banks in the years ahead.¹⁷⁶

Local politics, coupled with the market, will also push banks toward compliance. The data made available by HMDA requirements will allow banks with outstanding CRA ratings to gain a reputational advantage over their lower-rated competitors. Consumers may be encouraged to take the ratings into account in deciding with whom they will bank, and this is likely to have a powerful appeal, given the state of the inner cities. Perhaps a more powerful force can be found in local government. Banks are enormously concerned with their status as municipal and state depositories. Large city governments place hundreds of millions of dollars on deposit in banks within their boundaries. In cities such as Chicago, where many banks operate within city limits, bank executives are keenly aware of the benefits that come from serving as municipal depositories. To the extent that high CRA ratings allow banks within these cities to justify their role as municipal depositories, they will have greater incentives to meet the goals of the CRA.

Indeed, much of the current federal regulatory framework probably could be scrapped and replaced by a system in which cities and states collect and provide data on community investment and choose municipal and state depositories on

173. See, e.g., JAMES L. PIERCE, *THE FUTURE OF BANKING* 5-9 (1991).

174. *Id.*

175. Swire, *supra* note 76, at 1558.

176. Marlene Lavelle, *Advocates for Poor Pounce When Banks Plan Mergers*, S.F. BUS. TIMES, Dec. 22, 1995, § 1, at 1; Daniel S. Levine, *Banks Cough Up Billions for CRA*, NAT'L L.J., Feb. 12, 1996, at B1; Wilke, *supra* note 3, at A1.

the basis of the data. For example, if the city of Chicago developed a formula in which the amount of municipal funds placed on deposit with a Chicago bank depended on the bank's community investment performance in Chicago, the result would be a tremendous incentive for banks to meet the goals of the CRA. Our guess is that very little else would be needed.

CONCLUSION

Economic analysis does not provide a clear answer as to the desirability of the CRA. If the question can be resolved, it will have to be on empirical grounds. And this is an enormously difficult task.

Though much has been written in law reviews about the CRA and lending discrimination, these articles generally take one of two approaches to the empirical evidence: they either ignore it entirely or rely solely on the studies that support the author's conclusion without questioning their validity. We have tried to avoid these extremes by bringing some of the interpretive issues to the surface. We hope that this emphasis stimulates a shift in legal research toward a more serious examination of the empirical evidence on lending discrimination.

Appendix A

The purpose of this Appendix is to provide a more detailed account of the difficulties of testing for the presence of discrimination when employers are statistical discriminators. We will show that under certain conditions, the discrimination hypothesis is very likely to be rejected, and it is at the same time virtually impossible to reject the hypothesis that the employer is a statistical discriminator.

Suppose the best predictor of whether an employee will be productive at work is the employee's shoe color: employees who wear black shoes are productive and the others are not. The employer observes the race and education level of each job applicant, but not the color of the applicant's shoes (or the shoes he will wear to work). Suppose employees of one race tend to wear black shoes and employees of other races tend not to wear black shoes. Let W = wage, E = employee's education level, R = employee's race (1 if minority, 0 otherwise), S = shoe color (1 if black, 0 otherwise). The relationship between wage and productivity indicators is as follows: $W = b_1E + b_2S + e$. The employer, however, uses information on R instead of S , because S can be predicted fairly well with information on R (i.e., the employer engages in statistical discrimination).

The empirical researcher uses the following regression model: $W = a_1E + a_2R + e$. He finds, consistent with the discrimination hypothesis, a statistically significant negative coefficient on R , suggesting that employers pay minority employees less than similarly educated white employees. However, the reason for this result is that R is highly correlated with S , which is the true productivity indicator. Thus, the researcher would be mistaken to conclude that the results indicated discrimination.

Suppose the empirical researcher examines the regression model $W = a_2R + e$. Here, two sources of bias would make the estimated coefficient on R (a_2) unreliable for inference purposes. One is noted above: R is correlated with the relevant productivity indicator, S . Second, the researcher has excluded E . If E is also correlated with R , the omission of E will also bias the regression estimate of a_2 .¹⁷⁷ Thus, if the researcher fails to use all of the information used by the employer in setting the wage, the regression estimates will be unreliable for inference purposes, unless the information excluded is not correlated with the race indicator.

Suppose the empirical researcher then collects information on shoe color and uses the following regression model: $W = b_1E + b_2S + b_3R + e$. The estimated coefficient on R will be zero (or statistically insignificant). Thus, the new model, which takes advantage of additional information, will reject the discrimination hypothesis. However, the only hypothesis that should be rejected is the taste-discrimination theory. It would be incorrect to say that the statistical discrimination hypothesis had been rejected, as it is assumed in this example that the employer is a statistical discriminator.

177. See generally GREENE, *supra* note 11.

*Appendix B***Table 3 — Variables**

LOGRLNS : Log of the total residential loans to the community area in 1991.

CHWHITE : The difference between the percentage of white residents in the community area in 1990 and 1980.

DEMOS*: The number of housing demolitions in the community area in 1991.

NEWHOUSE*: The number of new houses built in the community area in 1991.

ASIAN: The percentage of Asian residents in 1990.

UECHANGE: The difference between the unemployment rate in the community area in 1990 and 1980.

RENTERS: The number of renters in the community area in 1990.

POPCHANG*: The difference between the population in the community area in 1990 and 1980.

INCHANGE: The difference between median family income in the community area in 1990 and 1980.

LATINO: The percentage of Hispanics in the community area in 1990.

HOUSING*: Total housing units in 1990.

UNEMP: The unemployment rate in the community area in 1990.

BLACK: The percentage of black residents in the community area in 1990.

POP: Population in the community area in 1990.

INCOME: The median family income in the community area in 1990.

POVERTY: Percentage of households below the poverty level in the community area in 1990.

FEMHOUSE: The percentage of households headed by females in the community area in 1990.

*Source: CITY OF CHICAGO, CHICAGO'S 1993 MUNICIPAL DEPOSITORIES (1993). Remaining variables drawn from CITY OF CHICAGO, SOCIAL AND ECONOMIC CHARACTERISTICS OF CHICAGO'S POPULATION: COMMUNITY AREA PROFILES (1992).

Table 4 — Aggregate Residential Lending**Dependent Variable: LOGRLNS**

Variable	Est. Coefficient	T-statistic
CONSTANT	3.613	3.644
ASIAN	0.902	0.859
BLACK	0.978	2.148
DELTAINC	-1.262	-1.450
DEMOS	0.000728	0.162
FEMHOUSE	0.264	0.119
HOUSING	0.0000124	0.587
INCOME	0.0000458	2.563
LATINO	1.250	1.899
NEWHOUSE	0.001	0.367
POP	0.00000934	0.918
POPCHANGE	-0.00748	-1.107
POVERTY	2.568	1.622
RENTERS	0.633	0.851
UECHANGE	-0.064	-1.775
UNEMP	-0.0717	-2.297
WHITE	0.975	2.451

n=77

Adj. R²=0.5302

F=6.3598

**Table 5 — Aggregate Residential Lending
Northern Trust**

Dependent Variable: LOGRLNS

Variable	Est. Coefficient	T-statistic
CONSTANT	5.419	3.336
ASIAN	1.621	0.735
BLACK	2.222	3.293
DELTAINC	0.697	0.536
DEMOS	0.118	1.324
FEMHOUSE	-8.095	-2.413
HOUSING	0.0000147	0.566
INCOME	0.00000792	0.295
LATINO	1.639	1.770
NEWHOUSE	0.000706	0.209
POP	-0.00000520	-0.419
POPCHANGE	-0.00193	-0.227
POVERTY	5.001	2.735
RENTERS	-0.338	-0.307
UECHANGE	-0.0366	-0.697
UNEMP	-0.0567	-1.385
WHITE	0.899	1.480

n=47

Adj. R²=0.6301

F=5.8977

**Table 6 — Aggregate Residential Lending
Harris Bank**

Dependent Variable: LOGRLNS

Variable	Est. Coefficient	T-statistic
CONSTANT	1.0914	0.866
ASIAN	1.344	1.321
BLACK	1.781	3.234
DELTAINC	-3.165	-2.878
DEMOS	-0.000727	-0.169
FEMHOUSE	-0.0176	-0.007
HOUSING	0.0000338	1.668
INCOME	0.0000855	3.925
LATINO	1.746	2.395
NEWHOUSE	0.00156	0.566
POP	-0.00000925	-0.910
POPCHANGE	-0.0212	-3.035
POVERTY	2.0302	1.365
RENTERS	1.992	2.475
UECHANGE	-0.0201	-0.483
UNEMP	-0.0978	-3.228
WHITE	1.450	3.028

n=47

Adj. R²=0.6910

F=8.8283

**Table 7 — Aggregate Residential Lending
Cole-Taylor**

Dependent Variable: LOGRLNS

Variable	Est. Coefficient	T-statistic
CONSTANT	5.323	3.953
ASIAN	0.623	0.506
BLACK	0.069	0.099
DELTAINC	0.221	0.190
DEMOS	0.0108	1.960
FEMHOUSE	-3.179	-0.914
HOUSING	0.0000526	2.107
INCOME	0.00000206	0.087
LATINO	0.510	0.568
NEWHOUSE	0.000746	0.231
POP	-0.0000169	-1.395
POPCHANGE	0.00278	0.333
POVERTY	2.249	1.129
RENTERS	-0.786	0.903
UECHANGE	-0.0795	-1.516
UNEMP	-0.00429	-0.093
WHITE	-0.390	-0.688

n=66

Adj. R²=0.3013

F=2.7615

**Table 8 — Aggregate Residential Lending
First Chicago**

Dependent Variable: LOGRLNS

Variable	Est. Coefficient	T-statistic
CONSTANT	2.634	2.928
ASIAN	0.795	0.941
BLACK	0.135	0.306
DELTAINC	-1.548	-2.042
DEMOS	-0.00421	-1.156
FEMHOUSE	3.0665	1.461
HOUSING	0.0000191	1.063
INCOME	0.0000564	3.620
LATINO	0.736	1.299
NEWHOUSE	0.000743	0.334
POP	0.00000768	0.901
POPCHANGE	-0.00439	-0.746
POVERTY	3.368	2.637
RENTERS	0.236	0.385
UECHANGE	-0.0714	-2.278
UNEMP	-0.0817	-3.230
WHITE	0.752	2.120

n=73

Adj. R²=0.6378

F=8.9243