Assessing the Necessity and Efficiency of the Community Reinvestment Act

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Abstract

A number of researchers have recently questioned whether the Community Reinvestment Act (CRA) is still needed. In addition, economic analysis has explored the efficiency of many regulations, but not the CRA. This article seeks to address both issues to shed light on the necessity and efficiency of the CRA.

On the basis of data from a survey on the performance and profitability of CRA-related lending activities, we reach three main conclusions. First, consistent with the view that the CRA is needed, we find evidence that the majority of surveyed institutions engaged in some lending activities that they would not otherwise have done in the absence of the law. Second, in terms of efficiency, the results are mixed: The vast majority of institutions increased credit flows profitably, but a significant minority incurred costs, albeit small ones. Third, quantitative evidence suggests that marginal CRA-related lending tended to be small.

Keywords: Banks; Community Reinvestment Act; Mortgages

Introduction

The Community Reinvestment Act (CRA) was passed in 1977 to encourage federally insured commercial banks and savings associations (banking institutions) to help meet the credit needs of their local communities, including those of lower-income areas, in a manner consistent with safe and sound operation. The legislative history indicates that the CRA arose out of concern that banking institutions were accepting deposits from households and businesses in their local community while at the same time ignoring qualified local loan applicants and lending elsewhere. Further, it was believed that the failure of

banking institutions to take advantage of sound lending opportunities in some of those neighborhoods accelerated the process of economic decay and inhibited private revitalization.

Recently, a number of commentators have questioned whether the CRA is still necessary (Gunther 2000; Lacy and Walter 2002). They argue, for example, that advances in information technology and the lifting of regulatory restrictions on banking have removed impediments to lending and that today's markets are sufficiently competitive to ensure that all creditworthy applicants receive credit at prices commensurate with the risks they pose. As evidence, they cite the substantial growth in mortgage lending to lower-income borrowers and neighborhoods in recent years—growth driven largely by lending institutions not covered by the CRA and by CRA-covered institutions in areas where they do not have CRA responsibilities (Avery et al. 1999; Joint Center for Housing Studies 2002; Litan et al. 2001).[1]

Others, however, believe that the CRA is necessary, contending that lending markets still have impediments that prevent some creditworthy borrowers from receiving loans (Goldberg 2002). They also believe that some borrowers are taken advantage of and pay higher interest rates or fees than they should. Those with this viewpoint note the relatively low levels of lending in lower-income neighborhoods—despite the recent growth in such lending—and argue that factors such as racial or neighborhood-based discrimination and information asymmetries still adversely affect the availability of credit (Federal Financial Institutions Examination Council 2001).

Even if the CRA is needed, there is still the issue of regulatory *efficiency*. Economists have long been interested in the efficiency of government regulation in a wide range of policy arenas. For example, much has been written on the benefits and costs of health and safety and environmental regulations (Blomquist 1988; Hanemann 1994; Luttner and Morrall 1994; Peltzman 1975; Viscusi and Hamilton 1999). While economic analyses comparable to those promoted by regulatory reform advocates have been conducted for a number of banking regulations (Elliehausen 1998; Office of Management and Budget, Office of Information and Regulatory Affairs 1997), the CRA has not received very much attention in this regard. Zinman (2002) is a notable exception.

This article seeks to address questions about the need for and the efficiency of the CRA by using data from a recent survey on the performance and

[1] Generally speaking, CRA responsibilities are focused on the CRA assessment area—the area or areas where a banking institution operates its branches and deposit-taking automated teller machines (ATMs) and any surrounding areas where it originates or purchases a substantial proportion of its loans.

profitability of CRA-related lending (Avery, Bostic, and Canner 2000). Our analysis first identifies the relevant dimension for evaluating the CRA—the profitability of the marginal lending activities associated with it—and conducts tests focusing on these dimensions to help shed light on the debate.

To determine necessity, the empirical analysis assesses whether, as a result of the CRA, banking institutions extend profitable loans they would not otherwise have made. On the question of efficiency, we evaluate the costs associated with lending activities undertaken in response to the CRA. We reach three main conclusions:

1. Consistent with the view that the CRA is needed, we find evidence that a majority of surveyed institutions engaged in some lending that they would not have done in the absence of the act.

2. Regarding the efficiency of the CRA, we find mixed results. On the one hand, the vast majority of institutions responding to the CRA reported that they were able to do so profitably. On the other hand, we also find that a significant minority incurred losses from some of their marginal CRA-related lending. Taken together, these results support the view that despite apparent increases in credit flows, accomplishing CRA goals has exacted a price.

3. Quantitative evidence suggests that marginal CRA-related lending, measured either by volume or by impact on profitability, tended to be small.

In the next section, we provide an overview of the CRA, including a discussion of the regulations that implement it. Following this, we outline the essential elements of the debate on the need for the CRA and identify the key analytical insights that drive our empirical approach. We then describe the data we used and the analytical tests to determine the CRA's necessity and efficiency. In the next sections, we present the results of these tests, as well as assess their robustness, and consider them in light of theory. We conclude by noting the limitations of our research and presenting a summary discussion.

Background

The CRA calls on federal supervisory agencies to use their authority to encourage each banking institution to help meet local credit needs in a manner consistent with safe and sound operation by (1) assessing the institution's record of meeting the credit needs of the entire community, including low- and moderate-income neighborhoods, and (2) considering the institution's CRA

performance when evaluating an application for a charter, deposit insurance, branch or other deposit facility, relocation, or merger or acquisition.[2]

Congress did not intend for the CRA to lead to government-imposed credit allocation. The expectation, rather, was that banking institutions would be proactive in seeking out viable lending opportunities in all sectors of their communities in a manner consistent with safe and sound operation.[3] The regulations that implement the law reflect these goals by providing for flexibility and directing that CRA performance be evaluated in the context of each institution's specific circumstances.

Implementation and enforcement of the CRA have evolved through a series of regulatory and legislative actions. Most significantly, the supervisory agencies issued joint regulations in April 1995 to revise the CRA evaluation process and make it more objective and performance oriented (Board of Governors of the Federal Reserve System 1995). The regulations provide distinct performance evaluation tests for three categories of banking institutions—large retail, small retail, and wholesale or limited-purpose institutions.[4] To promote consistent assessments, the statute and implementing regulations establish a uniform set of ratings criteria and four categories: "Outstanding," "Satisfactory," "Needs to Improve," and "Substantial Noncompliance." The significant dividing line is between "Satisfactory" and "Needs to Improve," since regulatory sanctions are imposed on institutions receiving the lowest two ratings. Nearly all institutions currently receive a rating of "Satisfactory" or better.

The regulations establish three performance tests for large retail banking institutions—lending, investment, and service.[5] The regulations do not estab-

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[2] The agencies are the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision.

[3] The CRA does not cover credit unions and other types of financial institutions. For a more expansive overview of the history of the CRA and of the issues associated with it, see Garwood and Smith (1993).

[4] Unlike retail institutions, wholesale and limited-purpose institutions can be evaluated based on their performance nationwide, as long as they have adequately addressed the needs of their assessment areas. Alternatively, each institution can choose to be evaluated under a strategic plan option in which the institution identifies and seeks to meet measurable objectives. See Board of Governors of the Federal Reserve System (1995).

[5] Under the regulation, a "large" banking institution is generally defined as an independent institution with assets of $250 million or more or an institution of any size owned by a banking institution holding company with assets of $1 billion or more. CRA regulations include additional provisions not discussed in this article. For example, smaller institutions have a more streamlined evaluation process. For a more complete discussion of these provisions, see Board of Governors of the Federal Reserve System (2000).

lish specific thresholds for obtaining a particular performance rating. The lending test involves measuring a variety of types of loans, including home mortgage, small business and small farm, and community development.[6] Among the assessment criteria are the geographic distribution of lending, its distribution across different income groups, the extent of community development lending, and the use of innovative or flexible practices to address the credit needs of low- or moderate-income individuals or areas. The investment test considers a banking institution's qualified investments that benefit the assessment area or a broader statewide or regional area that includes the assessment area. The service test considers the availability of an institution's system for delivering retail banking services and judges the extent of community development services and how innovative and responsive they are.[7] Under this scheme, lending is more heavily weighted than investments or services, so that an institution cannot receive a "Satisfactory" or "Outstanding" rating unless it is rated at least "Satisfactory" on lending. Finally, a large banking institution's performance under the three tests is evaluated by examiners in the context of information about the institution and its community, competitors, and peers.

The CRA thus provides incentives for banking institutions to demonstrate their commitment to the underlying goals of the law, and many institutions have taken explicit actions such as establishing special lending programs designed to serve the communities that are its focus (Avery, Bostic, and Canner 2000). In addition, in part to avoid adverse publicity or challenges to applications for mergers, some institutions have entered into agreements with local community organizations in which they pledge to extend a certain volume of loans to targeted communities (Bostic and Robinson 2003; Schwartz 1998).

The economics underlying the CRA debate

To address the question of whether the CRA is necessary, we evaluate the different predictions that emerge from economic theory under the two points

[6] For business loans, the maximum loan size reported is $1 million; for farm loans, it is $500,000. The regulation defines a community development loan as any loan whose primary purpose is community development and includes loans for affordable housing, multifamily residential housing for low- and moderate-income households, and other loans that promote economic development by financing small businesses or stabilizing low- or moderate-income areas.

[7] A qualified investment under the investment test is a lawful investment, deposit, membership share, or grant that has community development as its primary purpose. For the service test, among the assessment criteria are the geographic distribution of an institution's branches and the availability and effectiveness of alternative systems for delivering retail banking services, such as ATMs, in low- and moderate-income areas and to low- and moderate-income persons.

of view. Those who believe that the CRA is no longer needed argue that with full information, lending markets are essentially perfectly competitive. In this view, all lenders are price takers, the equilibrium is such that the price of each loan equals the marginal cost associated with extending it, and every creditworthy borrower gets a loan from the lender that can best provide it. If the CRA forces banks to extend additional loans, they will do so at a loss since they will be required to lend to borrowers who are not creditworthy.

In practice, this could occur in several ways. One example is a market where a certain lender does most of the lower-income lending because of economies of scale and specialization. CRA incentives might cause nonspecialty lenders to expand their CRA lending by "poaching" loans from the specialty lender and make them incur losses if they have higher costs than the specialty lender. Critics who believe that all creditworthy borrowers are already being served therefore argue that the CRA is not necessary and, to the extent that it imposes extra costs on lenders, is counterproductive.

Those who believe that the CRA is still necessary argue, by contrast, that lending markets do not operate in a perfectly competitive, full information fashion. Rather, they have imperfections that may result in some creditworthy borrowers not receiving credit. For example, some firms might have market power (a failure of competition), perhaps due to regulatory restrictions on entry.

Alternatively, lenders could lack important information on the credit quality of borrowers or could find obtaining information on borrowers from certain groups or areas particularly costly. Previous research has shown that either of these can lead to credit rationing, in which borrowers who would be viewed as creditworthy in a full information environment do not receive loans (Gruben, Neuberger, and Schmidt 1990; Lang and Nakamura 1993; Stiglitz and Weiss 1981). Also, the market might include behavioral constraints but still operate competitively. For example, until relatively recently, regulatory restrictions on branching and the ability to operate across state lines may have kept institutions from reaching an efficient scale. Finally, discrimination may lead to an equilibrium in which creditworthy borrowers do not receive credit (Becker 1971; Phelps 1972). For example, if all lenders discriminate against a particular group, it will result in reduced credit to that group even if the market is fully competitive.

In this view, the CRA helps overcome such market imperfections and thus induces an increase in lending such that creditworthy borrowers who were previously not served receive loans. There are various means by which this could occur. The CRA could reduce the prevalence of market power in underserved markets by causing lenders that are trying to bolster or maintain their performance ratings to compete more aggressively for business in areas they

had previously overlooked. Alternatively, the experience lenders gain from responding to the CRA could ultimately reduce the costs of serving the lower-income borrowers it targets. Finally, the CRA could help reduce the incidence of discriminatory behavior in the market. According to these arguments, then, the CRA enhances efficiency, since it helps reduce the cost of lending and improve the number and type of products available to consumers.

The main testable difference between the two views is whether CRA-induced lending is profitable. If the market is perfectly competitive with full information, the CRA's goals will be automatically achieved. The law should then induce no additional lending, or if it does, the lending would not be profitable. If the market is not perfectly competitive, theory suggests that there should be additional lending opportunities that would be profitable.[8] These differing implications serve as the foundation for our research.

Given this framework, it is clear that determining whether the CRA is necessary hinges on whether the loans originated in response to it are profitable. Finding new CRA-related lending to be profitable would support the view that the law remains necessary to overcome market failures. However, finding that marginal lending is unprofitable would support critics who argue that the CRA forces banks to go beyond the prudent extension of credit and should be repealed.

Even if our analysis finds evidence suggesting that the market is not perfectly competitive and that the CRA results in additional lending that is profitable (i.e., that the CRA is necessary), the question of economic efficiency remains. If the CRA were maximally efficient from an economic perspective, all additional lending should be profitable. By definition, unprofitable lending by some lenders would indicate a loss of efficiency. We examine the efficiency loss question by exploring whether some lending or programs initiated in response to the CRA are unprofitable.

This conception of efficiency is stylized, since there are a number of issues suggesting that looking at lender losses alone may not be sufficient to allow us to draw definitive conclusions. For example, some CRA loan programs involve arrangements in which a third party takes a subordinate position. An exclusive focus on losses would lead to the view that loans in which a lender did not incur losses but the third party did were efficient; this might not be

[8] In both views, CRA-related loans will generally be less profitable than other loans. However, there are circumstances in markets that are not perfectly competitive (e.g., where there is discrimination) in which the new lending can be as profitable or more profitable than other lending.

appropriate.[9] Similarly, it is widely known that some institutions purchase CRA-eligible loans from other institutions not covered by the law (such as independent mortgage companies) simply to gain CRA "credit."

This discussion has implicitly assumed that *all* institutions take some action in response to the CRA. However, this need not be the case, since some might not find it necessary to respond. These institutions might be able to achieve at least a "Satisfactory" performance rating in their normal course of business. Moreover, even for those institutions that do take some action in response to the CRA, how much they do will likely vary according to their particular situation.

Thus, the first step in our analysis involves establishing whether institutions did, in fact, originate loans solely as a result of the CRA. Only if we find that such loans have been made can we then proceed with tests to evaluate their profitability and the CRA's efficiency.

Data

The data we used for the empirical analysis are drawn from the "Survey of the Performance and Profitability of CRA-Related Lending," which was conducted by the Board of Governors of the Federal Reserve System (2000). The survey was undertaken in response to a November 1999 congressional directive to conduct a comprehensive study of the performance and profitability of CRA-related lending.[10] To this end, a special survey of the largest banking institutions was conducted to gather information on their lending experiences. The survey had two parts.

Part A focused on an institution's total lending and its CRA-related lending in the four major loan product areas in which such lending activity is tracked: one- to four-family home purchase and refinance lending, one- to four-family home improvement lending, small business lending, and community development lending. Consistent with the regulations that implement the law, the definition of CRA-related lending in the survey varied across product categories, but roughly corresponded to the group of loans given the most

[9] This issue is also relevant for considering the profitability of lending originated in response to the CRA.

[10] Section 713 of the Gramm-Leach-Bliley Act of 1999 (Public Law 106–95). For more information about the survey and its findings, see the report prepared by the Board of Governors of the Federal Reserve System and submitted to Congress in July 2000. The report and the survey questionnaire are also available on the board's Web site. For more detailed information about the survey in general and descriptive findings on CRA special lending programs in particular, see Avery, Bostic, and Canner (2000).

weight by regulators in evaluating institutions in the performance tests.[11] All community development loans were defined as CRA related. Respondents were asked to provide qualitative and quantitative profitability information for both overall and CRA-related lending (as appropriate) within each of the product categories. In addition, to more fully document lending activity, information was sought on various contextual items within each product area, such as loan origination and purchase volumes and portfolio composition. Respondents were also asked to provide balance sheet data, such as the dollar amount of loans outstanding as of December 31, 1999, and profitability and other flow data, such as the dollar volume of loan originations, for calendar year 1999.

Part B gathered extensive information on the experiences that lenders had with their CRA special lending programs in 1999. Such programs included any housing-related, small business, consumer, or other program that banking institutions established (or participated in) "specifically to enhance their CRA performance," even if the programs may have been established for other reasons as well (Board of Governors of the Federal Reserve System 2000, 30–31).[12] One example of a CRA special lending program is an affordable mortgage program that features flexible underwriting standards.[13] Because special lending programs may have been established for reasons other than

[11] For the two housing-related lending categories, a CRA-related loan was defined as any loan made *within* the banking institution's CRA assessment area to a low- or moderate-income borrower (regardless of neighborhood income) *or* in a low- or moderate-income neighborhood (regardless of borrower income). Low- and moderate-income neighborhoods and borrowers are defined as follows. A low-income neighborhood (typically a census tract) is one where the median family income of the neighborhood is less than 50 percent of the median family income for the broader area, such as a metropolitan statistical area (MSA) or the nonmetropolitan portion of a state, as measured in the most recent decennial census. In a moderate-income neighborhood, the median family income is at least 50 percent and less than 80 percent of the median family income of the broader area. Borrower income categories follow the same groupings as those for neighborhoods but rely on the borrower's income relative to that of the concurrently measured median family income of the broader area (MSA or nonmetropolitan portion of the state).

CRA-related small business loans were defined as any small business loan (as defined in the CRA regulations) made *within* the banking institution's assessment area to a firm with annual revenues of $1 million or less (regardless of neighborhood income) *or* located in a low- and moderate-income neighborhood (regardless of the size of the firm).

[12] A program was considered to be CRA related only if one of its documented purposes was to enhance the institution's CRA performance. Traditional government-backed lending programs, such as those offered by the Federal Housing Administration, the Department of Veterans Affairs, or the Small Business Administration, were not considered to be CRA special lending programs for the purposes of the survey unless an institution provided a special enhancement, such as credit counseling, a home buyer education program, or a waiver or reduction of loan fees.

[13] For more information on affordable mortgage programs, see Avery et al. (1996).

CRA requirements, the survey asked respondents to provide information on the full range of reasons why these programs were developed and the benefits derived from them. The survey collected information on many other aspects of these programs, including their loan volume and type, the populations they were intended to serve, the role of third parties, the features offered by participating institutions, and the loans' performance and profitability.

Designing a test that uses the survey data

The ideal test to assess necessity and efficiency would involve identifying those loans extended as a result of the CRA (that is, marginal loans) and then observing their profitability. A finding that institutions extended a significant volume of marginal loans profitably would support those who argue that the CRA is necessary and that market failures exist. A finding that some institutions lose money on marginal lending would support critics who contend that implementing the CRA has unintended consequences and inefficiencies.

Unfortunately, because the survey did not ask institutions to explicitly identify those loans made only as a result of the CRA, no single survey response could be used to conduct this ideal test. We therefore turned to an alternative approach—that is, using the survey to develop a variant of the ideal test. This alternative required overcoming two major hurdles: defining marginal lending and assessing profitability.

Defining marginal lending. The survey offered several options that could serve as a proxy for marginal CRA-related lending (table 1). First, all CRA-related lending could be used to represent marginal lending. However, much CRA-related lending is an integral part of bank lending and would occur even without the law. By our definition, this lending would not be considered marginal. Alternatively, one could treat loans originated under CRA special lending programs as marginal, since the survey defined them as those programs established to enhance CRA performance. A review of the reasons cited for program establishment or the current benefits institutions receive from them, however, suggests that using all programs as a proxy for marginal lending might be too broad. Institutions often cited multiple reasons for establishing CRA special mortgage programs or multiple benefits from them—some unrelated to the law. In addition, certain institutions cited neither a direct CRA-related reason for establishing some programs nor a CRA-related benefit, thereby raising questions about the extent to which these activities should be viewed as due to the CRA. Including these programs could potentially bias results and generate misleading implications.

Table 1. Potential Definitions of Marginal Lending Using the Survey

Scope	Potential Definition of "Marginal" Lending	Strength	Weakness
Broad ↓ Restrictive	All CRA-related lending	All loans satisfy CRA objectives	Many loans were likely originated in the absence of the law and thus were not on the margin
	All CRA special lending programs	Programs are *special initiatives* that satisfy CRA objectives	The category may be too broad; some programs were established for reasons unrelated to the law
	SAT CRA special lending programs (baseline)[a]	Programs are *special initiatives* specifically initiated in part to meet CRA objectives	The category may be too narrow; some lenders may make special efforts outside of particular programs

[a] SAT programs are programs reported by institutions to have been established or to be needed to achieve a "Satisfactory" CRA performance evaluation.

We thus used as a proxy for marginal CRA-related lending only those special lending programs that institutions reported were *established or needed to achieve a "Satisfactory" CRA performance evaluation* ("SAT" programs).[14] Such programs represent what a banking institution reported it needed to meet minimum CRA requirements or minimize the possibility that CRA considerations would adversely affect the institution's strategic decisions (mergers) or public image.[15] Any program that was either established in part to obtain a "Satisfactory" rating or currently needed to achieve such a rating was included in the group, regardless of whether other reasons were cited. It is important to recognize that this proxy is quite restrictive in that it omits loans originated outside of a CRA special lending program that might also have been extended as a result of the CRA.

Assessing profitability. Ideally, profitable loans would be defined as those for which an institution receives economic profits, where revenues exceed the opportunity cost for all factors of production, including labor and permanent

[14] All CRA special lending programs that were less than two years old were omitted from the analysis because of a concern that they were still establishing their long-run performance profile.

[15] Perhaps a more appropriate proxy would have been to include those programs for which CRA-related reasons were the only ones cited for establishment. However, since only one institution operated such a program, this proved to be too restrictive.

and working capital (sometimes called the hurdle rate). For the survey, respondents were asked to compute a profitability measure based on "all revenues and costs associated with origination, servicing, pricing, delinquency, default and losses, prepayment, loan sales and purchases, and related customer account business" (Board of Governors of the Federal Reserve System 2000, 27). This characterization was intended to represent economic (rather than accounting) profits, although the survey did not state this explicitly. Respondents were asked to provide a quantitative assessment of profitability using this definition expressed as a return on equity or ROE. Under this definition, a positive ROE would imply an economically profitable program.[16]

Discussions with banking institutions before the survey was implemented suggested that some of them might have difficulty calculating an ROE for particular loan programs. Consequently, the survey collected detailed qualitative information on profitability as well. Banking institutions were asked whether each individual CRA special program was "profitable," "marginally profitable," "break even," "marginally unprofitable," or "unprofitable." The same question was asked for overall CRA-related and total lending for each product area.

Unfortunately, in reviewing the responses to the survey, it appears that not all respondents used the concept of economic profit to report ROE. For example, some respondents characterized an ROE well above zero as "break even." For them, the reported ROE presumably does not reflect the costs of capital. Telephone conversations with respondents confirmed that the basis used for calculating ROE varied. More generally, it is difficult to verify that all respondents used all of the many components that are considered in calculating profitability.

For this reason, we use quantitative assessments of profitability in this article only in a very limited way and rely on qualitative responses instead. An assessment of "break even" or better was taken as an indication that a program was economically profitable. It should be noted, though, that the confusion about including capital costs could also have affected qualitative profitability responses. Some programs reported as "break even" may not earn

[16] There is no generally agreed-on measure of profitability, although ROE and return on assets (ROA) are both commonly used. ROA is used because it can often be more easily calculated at a given point in time. However, it cannot be used to compare programs that have varying propensities for selling their loans. For example, a banking institution that sells most of the loans it originates, and thus has few assets, may appear to be extraordinarily profitable when measured using ROA. Therefore, comparing the ROA across programs in which loans are sold at differing rates can be misleading.

enough to cover the opportunity costs of capital even though they do not incur accounting losses.[17]

The final test. Given these choices, the test was designed as a two-step process, in line with the sequential nature of the problem. Our procedure first classifies institutions according to whether they extended marginal loans. Institutions are classified for each individual loan product and then at a composite level, which indicates whether a particular institution extended marginal loans in any product category. Once they are so classified, we examine their experience in terms of the profitability of their marginal lending and use this experience as a basis for estimating the percentage of the 500 sampled institutions that had profitable or unprofitable marginal lending activities.

Survey response statistics

The sample of institutions asked to participate in the survey consisted of roughly the 500 largest retail banking institutions, including 400 commercial banks and 100 savings institutions (S&Ls and savings banks). The survey was conducted by mail, with telephone follow-up to clarify responses. The sample was limited to the largest banking institutions because they accounted for the vast majority (roughly 70 percent) of all the CRA-related lending in the nation in 1999.[18]

Survey participation was voluntary. Responses were received from 114 commercial banks and 29 savings associations (table 2, top panel). Respondent institutions accounted for about one-half of the assets of all U.S. banking institutions as of the end of 1999 and between 39 percent and 53 percent of all the CRA-related lending for various products in that year (bottom panel).

The 143 respondents offered or participated in 622 CRA special lending programs in 1999 (table 3). About 72 percent of the responding institutions offered at least 1 CRA special lending program; on average, the institutions with such programs offered about 6. Part B sought detailed information on

[17] The decision to rely on qualitative profitability responses was further supported by the relatively small percentage of respondents that could provide quantitative assessments (only 69 of the 341 special lending programs reported in the survey). However, qualitative assessments were provided for 275 programs (81 percent).

[18] Many large financial services organizations, such as bank or thrift holding companies, handle some or all of their loan originations and/or servicing, particularly for home mortgages, through separate entities that may be subsidiaries of the holding company and separate from the organization's banking institutions. CRA evaluations, however, are done at the level of the individual institution, not at the organizational level. Consequently, the sample consisted of individual banking institutions, some of which could be part of the same organization.

Table 2. Profile of Unsampled, Sampled, and Responding Institutions, by Number and by Proportion of Assets or Type of Lending

Category (By number of institutions)	Size of the Banking Institution (Assets as of December 31, 1999, in Millions of Dollars)				
	Less than $950	$950 to $4,999	$5,000 to $29,000	$30,000 or more	Overall
Not sampled					
Small institutions	9,576	0	0	0	9,576
Large institutions[a]	0	61	22	4	87
Total	9,576	61	22	4	9,663
Sampled					
Respondents	0	72	44	27	143
Nonrespondents	18	273	60	6	357
Total	18	345	104	33	500
Response rate	0.0%	20.9%	42.3%	81.8%	28.6%

Category (By percentage of assets held, loans outstanding, or loans originated[c])	Assets or Type of Lending						
	Assets	One- to Four-Family Mortgage Loan Outstandings	Small Business Loan Outstandings[b]	CRA One- to Four-Family Mortgage Loan Originations[b]	CRA Home Improvement Loan Originations[b]	CRA Small Business Loan Originations[b]	Community Development Loan Originations[b]
Not sampled							
Small institutions	18	23	43	19	25	24	12
Large institutions[a]	10	3	3	2	3	4	8
Total	28	26	46	21	28	28	20
Sampled							
Respondents	52	47	31	53	45	39	44
Nonrespondents	21	27	23	26	27	33	36
Total	72	74	54	79	72	72	80

[a] Includes large wholesale banks, special-purpose banks, banks headquartered outside the United States, and banks that were acquired after December 31, 1999.

[b] Figures for CRA lending are estimates based on preliminary 1999 Home Mortgage Disclosure Act (HMDA) data and on CRA data for small business, small farm, and community development lending; estimation of the extent of lending in a banking institution's local community draws on information on bank office location or reported CRA assessment areas.

[c] *Percentage of assets held:* assets held as of December 31, 1999, as a proportion of assets held by all U.S. banking institutions at that date. *Percentage of outstanding loans:* dollar amount of loans outstanding at the end of 1999 as a proportion of the dollar amount of loans held by all U.S. banking institutions at that time (estimated for small business loan outstandings by extrapolating data from the June 30, 1999, Bank Call and Thrift Financial Reports). *Percentage of loan originations:* dollar amount of loans originated during 1999 as a proportion of the dollar amount of loans originated by all U.S. banking institutions reporting loan origination data pursuant to HMDA or CRA during the year.

only the 5 largest of a banking institution's CRA special lending programs (measured by dollar volume in 1999), a restriction that produced detailed information for 341 programs,[19] which are estimated to account for about 97

[19] The survey also collected information on the lending activity and the performance and profitability of all of an institution's CRA special lending programs combined.

Table 3. Banking Institutions and CRA Special Lending Programs Covered in the Survey, by Size of Institution, 1999

	All Reporting Institutions	Size of the Banking Institution (Assets, in Millions of Dollars)		
		$950 to $4,999	$5,000 to $29,999	$30,000 or more
Institutions				
Number responding to the survey[a]	143	72	44	27
Offering at least one program				
Number	103	48	31	24
Percent	72	67	70	89
Number of programs				
Among the five largest at each institution[b]	341	138	116	87
Smaller than the five largest at each institution	281	31	139	111
Total number	622	169	255	198
Mean number per institution offering at least one program	6.0	3.5	8.2	8.3
Number of programs among the five largest at each institution, by type of loan offered				
One- to four-family home, purchase and refinance only[c]	247	98	83	66
Small business only	27	17	4	6
Other	67	23	29	15
One- to four-family home, home improvement only	17	7	6	4
Multifamily only	16	6	8	2
Consumer only	5	1	3	1
Commercial only	4	1	3	0
Other[d]	25	8	9	8

[a] Excludes one institution (in the middle category) that did not respond to the special lending portion of the survey.

[b] Institutions were asked for detailed information on only the five largest of their programs (measured by dollar volume of 1999 originations).

[c] Programs reported in this row and the remaining rows are from among the 341 reported by all institutions to be among their five largest.

[d] Programs identified as such by survey respondents and programs that offer more than one type of loan.

percent of the lending that respondent institutions extended under special programs in 1999. Nearly three-quarters of the CRA programs identified by survey respondents were focused on home purchase and refinance lending. The remainder focused on a wide range of other lending, including small business and various types of consumer loans.

Table 4 presents information showing the distribution of institutions according to the CRA special lending programs they operate; the programs are grouped according to the reason they were established and the benefits

Table 4. Use of CRA Special Lending Programs (Percent Distribution of Institutions)[a]

Institution	Home Mortgage/Refinance	Home Improvement	Small Business	Community Development[b]
At least one SAT program	30.2	4.0	4.5	49.9
No SAT program, but another CRA reason	19.2	3.5	3.7	16.1
No CRA reason, but some other reason	5.5	0.5	2.2	18.5
No program, but lending in the area	39.6	73.6	82.1	—
No lending	5.5	18.4	7.5	15.5
Total	100.0	100.0	100.0	100.0

Notes: This table shows how CRA special lending programs in the data are distributed by reason for establishment. SAT programs are those reported by institutions to have been established in part to obtain a "Satisfactory" rating or to be needed to achieve such a rating. Other CRA reasons are that the program was reported to be established to obtain an "Outstanding" rating or to minimize the likelihood of adverse public comment on an institution's CRA record.

[a] The data in this table and in tables 5 to 7 were weighted to account for a differential survey response rate for institutions of different sizes. A simple proportional weight based on the response rate for each size class was used to correct for the differential response rates. Under the assumption that size is the *only* determinant of response, the weighted responses in the table represent an unbiased estimate of how responses would have been distributed had all 500 surveyed institutions responded.

[b] The breakdown on the use of CRA special lending programs includes all community development lending.

currently received from them.[20] To indicate the restrictiveness of our proxy for marginal CRA-related lending, SAT programs are distinguished from programs established to receive an "Outstanding" CRA performance rating, to minimize the likelihood of receiving a CRA-related protest, or to meet some other objective. For this exercise, community development lending as a whole is treated as a special lending program.[21]

[20] The data in this table and all subsequent tables were weighted to account for a differential survey response rate for institutions of different sizes. More than 80 percent of the surveyed institutions with assets of $30 billion or more as of December 31, 1999 (27 out of 33 sampled institutions), returned a survey. By contrast, only 20 percent (72 out of 363) of the surveyed banking institutions with assets of less than $5 billion responded. Institutions with assets between $5 billion and $30 billion had a response rate of about 42 percent (44 out of 104). A simple proportional weight based on the response rate for each size class (i.e., 33/27 for the largest institutions, 104/44 for the next-largest class, and 363/72 for the smallest class) was used to correct for the differential response rates. The use of more complicated model-based weights (taking into account, for example, profitability, CRA rating, holding company status, and the size and scope of lending) was also explored, but had little impact on the results, since size was the dominant determinant of response rate. Under the assumption that institution size is the only determinant of response, the weighted responses in the table represent an unbiased estimate of how responses would have been distributed if all 500 surveyed institutions had responded.

[21] Survey respondents were instructed to treat community development lending as a distinct line of business. However, because such lending is often similar in character to CRA

Survey responses show significant differences across loan products. CRA special lending programs for community development and home purchases and refinancing were relatively common. The vast majority (84.5 percent) of institutions had a community development program, and a majority (54.9 percent) offered home purchase and refinance special lending programs. Moreover, for these two loan products, most institutions that offered CRA special lending programs offered at least one program that would qualify as marginal CRA-related lending. By contrast, only about 10 percent of institutions in the sample operated home improvement and small business special loan programs, with an even smaller percentage having programs that met our definition of marginal CRA-related lending.

The profitability distribution of groups of CRA special lending programs by loan product area is shown in table 5. The data show that a significant majority of programs involving marginal loans were reported to be at least marginally profitable. There does not appear to be much variability in the distribution of profitability across the different groupings. For example, among home purchase and refinance special lending programs providing profitability data, 19.6 percent of SAT programs and 25.9 percent of all programs were reported to be marginally unprofitable or unprofitable. The numbers for small business loan programs are less reliable due to their small number. Overall, the data show that programs involving marginal CRA-related loans do not perform much differently from programs that extend loans not viewed as marginal under our definition.

Results of the test

Table 6 shows the distribution of institutions according to whether they had marginal lending activities and, if so, whether any of those activities were

special lending programs, respondents were not asked to provide information on community development special lending programs. Despite this, respondents were asked whether community development lending as a whole was "needed to achieve a CRA rating of *'Satisfactory' or 'Outstanding'*" and to report profitability information for such lending (Board of Governors of the Federal Reserve System 2000, A4–2). Thus, it was possible to construct a SAT definition for overall community development lending similar to that used for CRA special lending programs. Nevertheless, several cautions should be raised about using such lending in our tests. First, community development lending is often not done through formal programs that can be identified as CRA related. Second, community development lending has long been a mainstay of banking, serving many purposes that predate the CRA. Thus, although community development lending is generally required for a "Satisfactory" or "Outstanding" CRA rating, it is less clear that it is truly marginal lending induced by the law.

Table 5. CRA Special Lending Program Profitability (Distribution of Programs)

	Home Mortgage/Refinance	Home Improvement	Small Business	Community Development
SAT programs (in percents)				
Profitability data given	65.2	100.0	100.0	61.2
Profitable	23.9	10.6	3.1	51.7
Marginally profitable	32.0	44.0	12.9	40.3
Break even	24.5	45.4	6.3	4.9
Marginally unprofitable	9.2	0.0	51.8	3.2
Unprofitable	10.4	0.0	25.9	0.0
Total	100.0	100.0	100.0	100.0
Missing profitability	34.8	0.0	0.0	38.8
Total	100.0	100.0	100.0	100.0
Number of programs	96	6	10	70
Programs with any CRA-related reason (in percents)				
Profitability data given	76.4	100.0	100.0	90.0
Profitable	25.9	5.3	43.5	50.2
Marginally profitable	35.0	44.4	13.0	43.5
Break even	15.5	45.1	3.1	3.8
Marginally unprofitable	14.3	5.3	27.5	2.5
Unprofitable	9.3	0.0	13.0	0.0
Total	100.0	100.0	100.0	100.0
Missing profitability	23.6	0.0	0.0	10.0
Total	100.0	100.0	100.0	100.0
Number of programs	191	11	19	94
All programs (in percents)				
Profitability data given	77.5	100.0	93.3	90.0
Profitable	28.9	4.9	55.7	54.8
Marginally profitable	31.7	43.5	10.2	38.3
Break even	13.5	44.2	2.5	3.6
Marginally unprofitable	15.7	4.9	21.6	2.0
Unprofitable	10.2	2.5	10.2	1.3
Total	100.0	100.0	100.0	100.0
Missing profitability	22.5	0.0	6.7	10.0
Total	100.0	100.0	100.0	100.0
Number of programs	226	14	27	122

Note: This table shows how CRA special lending programs, defined as those programs reported by institutions to have been established in part to obtain a "Satisfactory" rating or to be needed to achieve such a rating (SAT programs), are distributed by loan product type and by reason for establishment. Programs with any CRA-related reason include SAT programs, as well as programs reported to have been established to obtain an "Outstanding" rating or to minimize the likelihood of adverse public comment on an institution's CRA record. Columns may not sum to 100 percent because of rounding.

Table 6. Distribution of Institutions by Profits and Losses Associated with Their Marginal Lending

Distribution	Home Mortgage/Refinance	Home Improvement	Small Business	Community Development	Composite
By profitability [a]					
Some profitable lending	26.3	4.0	1.5	45.4	55.3
No profitable lending	3.9	0.0	3.0	4.5	4.5
No marginal lending	69.8	96.0	95.5	50.1	40.2
Total	100.0	100.0	100.0	100.0	100.0
By losses[b]					
Some loss	9.1	0.0	3.0	4.5	13.6
No loss	21.1	4.0	1.5	45.4	46.2
No marginal lending	69.8	96.0	95.5	50.1	40.2
Total	100.0	100.0	100.0	100.0	100.0

Note: This table reports the estimated proportion of the 500 largest banking institutions that had some marginal lending activity that was either profitable or incurred some losses. Marginal activity is defined as CRA special lending programs that were reported by institutions to have been established in part to obtain a "Satisfactory" rating or to be needed to achieve such a rating (SAT programs).

[a] An institution was deemed to have some profitable marginal lending in a loan product category if any one of its SAT programs in that category was reported to break even, be marginally profitable, or be profitable.

[b] An institution was considered to have some marginal lending losses in a loan product category if any one of its SAT programs in that category was reported to be marginally unprofitable or unprofitable.

profitable or not.[22] The table includes summary results for each loan product area, as well as an overall composite assessment that considers an institution's combined experience across all loan products. The profit and loss exercises were conducted separately, acknowledging that institutions could have mixed experiences because they operate in different product areas and different local markets. If *any* CRA special lending program in a product category was reported to be at least "break even," that institution was placed in the profitable category; if any program in a category was reported to be "marginally

[22] To present results at the level of the institution, it was necessary to deal with the problem of missing data. Approximately 35 percent of the home purchase and 37 percent of the community development special lending programs meeting our definition of marginal were missing quantitative profitability data. Where not provided by the institution, profitability data were imputed as follows: Programs were sorted into groups based on product area and the size of the institution (above $5 billion in assets or not). For each of these eight groups, the distribution of responses across the five possible quantitative profitability assessments (unprofitable, marginally unprofitable, break even, marginally profitable, and profitable) for each SAT special lending program with profitability data was computed and used to randomly assign a profitability response to each program with missing data. This process was done once for each program. Thus observations with missing data are assigned the same profitability value in each table in which they appear.

unprofitable" or "unprofitable," the institution was placed in the loss category.

The data indicate that most institutions explicitly responded to their CRA obligations, since almost 60 percent (55.3 percent plus 4.5 percent) reported some activity taken out of a belief that the actions were needed to obtain a "Satisfactory" CRA performance evaluation. Half were engaged in community development activities with this character, and about 30 percent (26.3 percent plus 3.9 percent) had such home mortgage purchase and refinance activities. A small percentage of institutions established home improvement or small business lending programs to meet their CRA obligations.

Of the institutions that did respond to the CRA, 92.5 percent of the 500 institutions in our sample frame, by our estimates, would have reported at least one profitable (break-even or better) SAT special lending program (derived from the Composite column in table 6). There is relatively little variation across product areas in the proportion of institutions reporting that at least some of their marginal CRA-related lending activities were profitable.

Over all the product areas, the profitable marginal CRA-related lending activities of these institutions are estimated to be about $6.5 billion ($23.5 million per institution) in 1999 loan originations, a figure that is approximately 0.9 percent of the aggregate 1999 home purchase and refinance, home improvement, small business, and community development loans extended by the 500 largest lending institutions sampled in the survey. We estimate that institutions conducting profitable marginal CRA-related lending earned on average $347,000 above their hurdle rate on this lending activity during 1999 (10 basis points when expressed as ROE).[23] These results for home purchase

[23] Quantifying profitability is not straightforward because, as noted earlier, most respondents did not provide quantitative profitability estimates. We therefore approximate ROE by assuming that the experiences of those institutions that did report quantitative data reflect those of the institutions with similar qualitative responses that did not. The methodology used to impute quantitative profitability measures was similar to that used to impute qualitative data. CRA special lending programs were placed in cells based on the type of program, size of the institution, and qualitative measure of profitability. Those observations with missing data were assigned the mean ROE of those in the cell with reported quantitative data. As discussed earlier, a few institutions did not fully account for the costs of capital in their ROE calculations. For example, an institution might report an ROE of 10 percent as "marginally unprofitable" because it fell below the hurdle rate. When it was clear that an institution had done this, reported ROEs were adjusted such that a zero return represented break even. When no other information was available, a hurdle rate of 13 percent was assumed in making this adjustment. This number was chosen because it reflects a rough estimate of the long-run return on equity and is a rate used to regulate public utilities. Overall, ROE was imputed for about two-thirds of the observations.

To compute a dollar loss, it is necessary to determine how much equity is associated with each loss by assuming that the share of total equity for a loan product area equals the share of total assets in that area, as measured by the outstanding balance as of December 31, 1999.

and refinance and community development lending provide evidence supporting the view that the CRA has been helpful in alleviating market failures.

Regarding losses, table 6 shows that 13.6 percent of institutions reported some loss associated with marginal lending in at least one product area as broadly considered here. This is primarily driven by home mortgage lending, particularly home purchase and refinance lending. About 9 percent of institutions reported at least some loss associated with their marginal home purchase and refinance lending. By contrast, for small business and community development lending, about one-half as many institutions (less than 5 percent) reported a loss associated with marginal lending as defined here. Despite this, the institutions that reported a loss in these areas appear to be different from those that reported a loss in their home purchase and refinance lending. Indeed, of the institutions that reported a loss in their marginal small business, community development, or home improvement lending, more than half (56 percent) did not report a loss associated with their marginal home purchase and refinance lending (data not shown). Thus, there is an important product-level cumulative effect, since the overall number of institutions reporting at least some loss is greater than the number reporting a loss in any individual category.

Using these assumptions, we estimate that the 13.6 percent of the largest retail banking institutions that reported some loss associated with their marginal lending activity in 1999 would have had an average annual institutional loss of about $160,000 on an estimated average SAT special lending program origination volume of $12.1 million ($820 million in the aggregate). Most of this loss (87 percent) is estimated to stem from home purchase and refinance lending. When expressed as a share of overall equity for these institutions, this implies a reduction in overall bank ROE of only 2 basis points (0.02 percentage points). As a basis for comparison, the typical large retail bank had a gross ROE (unadjusted for hurdle rate) of 21.8 percent in 1999.

We note that all of these calculations assume that profitability data for institutions or programs with missing data are distributed like data for similarly situated programs or institutions. However, the failure to report may be more complex than the simple imputation implies, since institutions that experienced losses may be more likely to track them and thus be better able to provide profitability information.

Robustness of the results

Given these results, an important consideration for any empirical analysis is the extent to which the results are approach dependent. Those in the previ-

ous section are based on particular definitions of marginal lending and economic profitability. In discussing our methodology, we noted that both definitions might be problematic. These concerns are addressed through the robustness checks summarized in table 7. Details on how the tests were conducted are included in the appendix.

Table 7. Robustness Checks

Concern	Test	Result
The definition of "marginal activities" is too restrictive	Expand the definition to include the activity of "proactive" banks without special lending programs[a]	This concern was not borne out
		More institutions still report some profit rather than no profit associated with their marginal activities
		More institutions still report no loss rather than some loss associated with their marginal activities
The definition of "economically profitable" is too broad	Include only special lending programs reported to be "profitable" or "marginally profitable" in calculations	This concern was not borne out
		More institutions still report some profit rather than no profit associated with their marginal activities, though the ratio is lower than the original result
	Include only special lending programs reported to be "profitable" in calculations	This concern has some validity
		Slightly fewer institutions report some profit rather than no profit associated with their marginal activities; 30 percent of institutions still report some profit
Profitability is due to factors other than the CRA motive for establishing the program	Regress profitability on indicators for various reasons for program establishment	This concern was not borne out
		Profitability is essentially unrelated to the reason a program was established

Note: Details of the first two sets of robustness checks are included in the appendix.

[a] An institution was considered to be "proactive" in a loan product area if it did *not* have an SAT special lending program in that area, received a "Satisfactory" CRA performance rating, and (1) had a distinct unit or department that specialized in CRA-related lending, (2) provided extra financial incentives to staff to promote CRA-related lending, or (3) had extra waivers of fees or interest rate discounts for CRA-related loans.

One test focused on the concern that the definition of marginal lending used in table 6 might be too restrictive, which could mean that our baseline estimates understate both the evidence supporting the existence of market failures and the evidence supporting the notion that the CRA has not been as efficient as possible. This test incorporated institutions that may have extended

loans in response to the CRA but did not originate them under a special lending program by determining the extent to which these institutions took explicit steps to promote CRA-related lending—steps that we label "proactivity."

When proactive institutions are included, the percentage of those deemed to have marginal CRA-related lending that was break even or better expands notably for the home mortgage and small business product areas, and overall there is a moderate increase in the percentage of institutions reporting at least one product area with profitable marginal lending. The estimated volume of profitable marginal lending expands slightly (from $6.5 billion to $7.5 billion), while total marginal profits for these institutions are estimated to expand from $96 million to $340 million.

By contrast, broadening the definition of marginal lending has a modest impact on the assessment of losses. Overall, the proportion of institutions reporting at least one product area with unprofitable marginal lending increases from 13.6 to 16.3 percent, and the total volume of 1999 lending in programs with losses increases from $820 million to $1.3 billion. The estimated loss per institution that lost money is $520,000, implying a total annual loss of $42.3 million resulting from this definition of marginal CRA lending for the 500 largest retail banking institutions in the United States.

A second set of tests examined how the results vary if more restrictive notions of economic profitability are imposed. Given that a number of institutions did not consider capital costs in reporting the quantitative profitability of their lending activities and given that it is possible that similar methods were used for some of the qualitative profitability responses, this might be desirable. The lending that some institutions reported as "break even," then, might actually be unprofitable, which would tend to bias the results in favor of finding evidence consistent with the existence of market failures.

In these tests, special lending programs reported as "break even" and "marginally profitable" were sequentially excluded. Removing "break even" from the definition of marginal lending activities has a measurable impact only on the percentage of institutions estimated to have profitable marginal lending, which fell by 6.7 percentage points for home mortgages, from 26.3 percent (table 6) to 19.6 percent (not shown). Going further and removing "marginally profitable" from consideration has a larger effect; the percentage of institutions that would be considered as having profitable programs falls by half from the levels observed when "break even" is excluded. However, even using the narrowest definition of profitable lending, 29.8 percent of institutions reported at least one profitable program at the composite level, 9.4 percent had a profitable home purchase and refinance lending program, and 22.1 percent had a profitable community development lending program.

A third test examined whether reasons other than CRA-based reasons for establishing special lending programs influence profitability; if so, this would suggest that our treatment of program profitability as indicating the impact of the CRA is incorrect. To test this possibility, home purchase and refinance CRA special lending program profitability was regressed on the reasons for program establishment, controlling for other program and banking institution characteristics.[24] The results indicated that profitability is essentially unrelated to the reason a program was established.

A number of additional robustness issues do not have obvious solutions. For example, the gains associated with marginal lending may have been understated for a number of reasons:

1. For some programs, two years may not have been long enough to generate loan volumes to cover start-up costs. These programs, which ultimately may be profitable, report as unprofitable in the current analysis.

2. A small number of institutions that reported losses for their marginal lending in a particular product area also reported losses for their overall lending in that area, implying that these losses are likely not due to the CRA.

3. Because nearly all programs were established for a multitude of reasons and very few were established *only* for CRA-related reasons, it might not be appropriate to attribute all the losses associated with a program to the CRA.

Similarly, the losses that an institution experienced in its marginal lending might have been understated for a number of reasons:

1. Many of the lending activities that we define as marginal, particularly CRA special lending programs, often include third parties that may shield the banking institution from exposure to losses (although it may be that from the standpoint of evaluating the marginal impact of the CRA alone, losses incurred by third parties are irrelevant).

2. As discussed previously, the framework for identifying marginal loans is imperfect, which could lead to the inappropriate inclusion of profitable nonmarginal loans.

3. Institutions were asked to report information on their experiences with lending in 1999, a year marked by strong economic growth and relatively few credit problems.

[24] This analysis was limited to home purchase and refinance CRA special lending programs because this was the only group that had sufficient numbers to conduct a statistical analysis.

Finally, because our analysis is based on voluntarily supplied responses to a survey in which less than one-half of the solicited institutions responded, there is concern about whether the data are representative. Questions might even be raised about the incentives for reporting institutions to report truthfully and accurately. Although we do not have a definitive answer to this concern, a detailed comparison of the characteristics of reporting versus nonreporting institutions—including lending patterns, CRA ratings, and overall profitability—reveals little evidence of difference other than size, which we account for by weighting. Indeed, results using more complicated weights are little different from those reported here.

Conclusions

Evaluations of the efficacy of government programs or rules are often made difficult by a lack of data on their costs and benefits. Assessments of the CRA, in particular, have been hampered both by an inability to identify those loans extended exclusively as a consequence of the law and by a lack of data on their performance and profitability. However, a recent survey undertaken by the Board of Governors of the Federal Reserve System (2000) on the performance and profitability of CRA-related lending provides a unique opportunity to overcome these difficulties. Survey responses allow for both the plausible identification of those marginal lending activities undertaken in response to the CRA and an assessment of their profitability. As a consequence, these data provide an unequaled opportunity to evaluate the necessity and efficiency of the CRA by assessing how it affects the profitability of banking institutions and quantifying the scope of its impact on lending markets.

This article identifies the relevant dimensions for evaluating the CRA—the profitability of the marginal lending associated with it—and conducts tests focusing on these dimensions to shed light on the debate that surrounds the law. Consistent with the view that the CRA is needed, we find evidence that a majority of surveyed institutions (55 percent) engaged in some profitable lending that they would not have done without the law. (It must be recognized, however, that the fact that an institution would not have undertaken marginal lending without the law does not necessarily mean that another institution would have acted similarly.)

In terms of efficiency, we find mixed results. The vast majority of institutions that reported responding to the CRA—more than 90 percent—indicated that they were able to do so without incurring a loss; three-quarters did not incur a loss for any of their marginal CRA-related activities. On the one hand, this evidence supports the view that the CRA continues to be useful in over-

coming market imperfections that impede the flow of credit to certain segments. On the other hand, we also find that a significant minority of institutions (slightly less than a quarter) incurred losses from some of their marginal CRA-related lending activities. Taken together, these results support the view that despite apparent increases in credit flows, there was a price to be paid for accomplishing the CRA's goals.

Finally, quantitative evidence suggests that although a majority of institutions responded to the CRA, those responses have been small. We estimate that about $7.3 billion in additional loans was generated in 1999 as a result of marginal CRA-related lending. This represents only about 5.6 percent of all the CRA-related lending originated in survey product categories by the 500 largest retail banking institutions in 1999 and about 1 percent of the total volume of such lending by those institutions for that year. The impact on profits is also small. The average additional profits generated by marginal CRA-related lending is only $347,000 per institution. The average loss for those institutions incurring losses was only $160,000 per institution or about $1,000 per loan originated. These figures are orders of magnitude smaller than the average overall profit for the typical large retail banking institution, which was $203 million in 1999.

It is tempting to put these pieces together to derive a net profit for this analysis. For example, two-thirds of institutions that incurred a loss from their marginal lending also operated a marginal CRA-related program that did not incur a loss, thereby suggesting that such an analysis would be possible. However, since the debate is about the competitive nature of individual markets, consolidating the results of disparate marginal CRA-related lending programs that operate in different geographic and product markets would mask the variation in the competitiveness of these markets and ultimately reduce our understanding of the dynamics of the CRA and its impact on the marketplace. In fact, the extent to which the data reported by respondents were aggregated before the survey already limits our ability to conduct such analyses. These concerns argue that we lack enough information to compute a precise quantitative estimate of the net costs of the CRA. Nevertheless, the survey evidence cited earlier is sufficient to draw the qualitative conclusion that the net effect of the law on the profits of banking institutions is likely to be small.

It is tempting to conclude that the CRA must be a "good" law that provides net benefits to society because it appears to impose relatively modest costs. This conclusion, however, is premature. Although we believe that these results represent a fairly accurate assessment of the direct costs and volume of lending undertaken as a result of the CRA, this information is only part of

what would be required to conduct a full cost-benefit analysis of the law. Information is available on the experiences of only the largest institutions. The experiences of smaller institutions, which account for most of those covered by the law and about half of CRA-related lending, may differ substantially. In addition, the analysis does not consider the investment or service activities institutions undertake to meet their responsibilities under the law, nor does it consider all of the costs, including compliance officers and administration, that banking institutions incur to comply. It also does not consider the costs borne by other parties, such as regulators or those that provide support for CRA lending, such as local government entities. Perhaps more important, it does not consider any of the benefits of CRA-related lending to consumers or the local community. Such benefits might include increased homeownership, increased access to goods and services through small businesses, and increased social cohesion through community development. A complete analysis would require putting all of these pieces together.

Appendix

Details of the robustness test

Proactivity test. An institution was considered to be "proactive" in a loan product area if it did *not* have a SAT special lending program in that area, received a "Satisfactory" CRA performance rating, and (1) had a distinct unit or department that specialized in CRA-related lending, (2) provided extra financial incentives to staff to promote CRA-related lending, or (3) had extra waivers of fees or interest rate discounts for CRA-related loans. This definition also included the overall CRA-related lending for institutions that did not have a special lending program needed to obtain a "Satisfactory" rating in a particular product area, but had more than five programs and thus could have had an applicable program that was not reported. Institutions meeting these criteria were included only if they had a "Satisfactory" CRA performance rating.

Adding the proactivity criteria raises the proportion of institutions deemed to respond to the CRA in at least one loan product area to more than 75 percent. There is variation across products in the extent to which institutions were proactive. For example, using our definition, 75 percent of institutions were proactive in their home purchase and refinance lending, while less than 25 percent were proactive in the other product areas. Using this definition instead of the preferred narrower one had no impact on the treatment of community development lending, since, by definition, it is considered part of a special lending program.

In calculating gains and losses for institutions judged to be proactive on the basis of the additional criteria, the profitability of their overall CRA-related lending was treated as a representation of their marginal lending experience. Profitability data for institutions that did not provide such information for overall CRA-related lending in a product area were imputed like the data used for SAT programs. Institutions were grouped into four categories for each product area: those with at least one SAT program; those with a program but not a SAT program; those that did not have a special lending program in the area, but were proactive; and those that did not have a program and were not proactive.

Within the category, institutions were further divided into large and smaller entities. For each of these eight groups, the distribution of responses across the five possible profitability assessments for those institutions providing data on their overall CRA-related lending was computed. This distribution was used to randomly assign a profitability response to each observation with missing data. This process was done once for each institution with missing data. In calculating loan volumes, it was assumed that institutions without special lending programs had the same ratio of marginal to total CRA lending as those institutions with special lending programs.

Economic profitability test. In this test, the data in table 6 were reconstructed by means of alternative definitions of economic profitability that use different qualitative thresholds. We explored the effects of two narrower definitions. The first required that for an institution to be included in the economically profitable category, at least one of its marginal lending activities had to be reported as either marginally profitable or profitable. The second variant was even more restrictive, since institutions were included in the economically profitable category only if at least one of their marginal lending activities was reported to be profitable. For this exercise, we used our baseline SAT definition of marginal lending.

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