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- **Effectiveness of Enforcement Actions**
- **National Depositor Preference**
- **Recent Developments**



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Financially Distressed Banks: How Effective Are Enforcement Actions in the Supervision Process?

*by Timothy J. Curry, John P. O'Keefe, Jane Coburn,
and Lynne Montgomery*

Page 1

This article investigates the effects of bank examinations and enforcement actions on the behavior of problem banks.

The Consequences of National Depositor Preference

by James A. Marino and Rosalind L. Bennett

Page 19

The authors examine the history of depositor preference laws and the potential costs and benefits of the national depositor preference legislation which was enacted in 1993.

Recent Developments Affecting Depository Institutions

by Lynne Montgomery

Page 39

This regular feature of the *FDIC Banking Review* contains information on regulatory agency actions, state legislation and regulation, and articles and studies pertinent to banking and deposit insurance issues.

Financially Distressed Banks: How Effective Are Enforcement Actions in the Supervision Process?

by Timothy J. Curry, John P. O’Keefe,
Jane Coburn, and Lynne Montgomery*

One major purpose of federal and state regulation of banks is to ensure that institutions maintain safe-and-sound business practices. The main tool used to achieve this goal is bank supervision in general—and bank safety-and-soundness examinations in particular. Regulators conduct on-site examinations to ensure that bank operations are consistent with sound banking practices. When on-site examinations identify unsafe, unsound, or illegal banking practices, regulators use a variety of supervisory enforcement actions to require institutions to take corrective measures. These enforcement actions are intended to accomplish several things, including: bringing about alterations in the practices and behavior that caused the problems, stabilizing the institutions, and averting potential losses to the deposit insurance fund. Violations of enforcement agreements are a serious matter—noncompliance often carries heavy penalties, including the termination of deposit insurance.

This article investigates the effects of bank examinations and enforcement actions on the behavior of problem banks. We provide information on the effectiveness of supervision of distressed institutions through the issuance of formal enforcement actions during the 1980s and 1990s, a period of greater stress and turmoil for U.S. financial institutions than any other since the Great Depression. The first section discusses the legal and regulatory framework for the application of formal enforcement actions. The second section focuses on the enforcement polices available to

the FDIC: kinds of actions, procedures used, and number and types of enforcement actions issued by the FDIC in recent decades. The third section reviews previous empirical studies and then discusses the methodology, the sample and data, and the model, variables, and results. The last section presents the conclusions.

Evolution of Bank Enforcement Powers

The Banking Act of 1933 gave the federal banking supervisory agencies limited powers to force banking institutions to follow agency directives.¹ It also granted the FDIC, as the insurer of commercial banks, the power to terminate federal deposit insurance for any institution found guilty of serious offenses.² Over time, however, the power to take deposit insurance away from a financial institution proved to be an in-

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¹ For an article on the statutory history of bank enforcement powers, see Huber (1988). Although most agencies have similar enforcement powers, this article focuses primarily on the Federal Deposit Insurance Corporation (FDIC). As deposit insurer, it is the only agency with the power to terminate a financial institution’s deposit insurance.

² The standard for terminating deposit insurance is a high one and must involve findings of unsafe and unsound banking conditions or practices, or violations of law or regulations.

flexible and impractical enforcement tool. The FDIC must move rapidly to deal with day-to-day issues involving unsafe or unsound banking practices or to remove dishonest and incompetent officials from the banks it supervises. Termination of deposit insurance involves a lengthy and complicated legal process, and a successful attempt is often tantamount to a death penalty for the institution.³ In other words, terminating deposit insurance is analogous to wielding a blunt instrument in a surgical procedure that requires a more refined tool. As a result, the FDIC and most other regulatory agencies used other methods of forcing changes in bank behavior.⁴ In summary, the early enforcement powers of the bank regulatory agencies were often ill-suited to dealing with institutions that were unwilling to cooperate with regulatory officials or had dishonest officers. As a consequence, the supervision of troubled banks was sometimes ineffective.

In response to what were perceived as weak bank enforcement laws, Congress passed the Financial Institution Supervisory Act of 1966 (FISA), which greatly expanded bank enforcement powers for all federal regulatory agencies. FISA permitted the banking agencies to issue cease-and-desist (C&D) orders against financial institutions to halt specific practices of the bank. C&D powers were broadly applicable and thus were flexible enough to be used against all aspects of a bank's business, from loan operations to internal controls. In addition to prohibiting certain practices, C&D orders usually required bank officials to take "affirmative actions" to correct conditions resulting from the violations or practices that provided the basis for the order.

But the procedures for rendering a permanent C&D order could lead to untimely delays in the implementation of such orders, often compounding supervisory problems. Thus, in the most serious cases FISA also permitted the banking agencies to issue temporary C&D orders that become effective immediately upon service. This authority improved the supervision of troubled banks: temporary C&D orders could help prevent further deterioration of the institution. Temporary orders were imposed when certain practices were likely to cause insolvency, dissipate the bank's assets or earnings, weaken the bank's condition, or otherwise prejudice the interests of the bank's depositors.⁵ Although the power to issue C&D orders would solve many of the earlier enforcement problems facing the banking agencies, such orders would not be effective in dealing with activities of dishonest officers and directors. Thus, an additional provision in FISA

authorized the agencies to remove individuals affiliated with commercial banks, including officers, directors, and employees, and to issue prohibition orders to bar their involvement with another federally insured bank.

Bank enforcement powers for the federal banking agencies were broadened further by passage of the Financial Institutions Regulatory and Interest Rate Control Act of 1978 (FIRIRCA). This Act gave the banking authorities the right to bring C&D orders not only against a bank but also against practices of individual officers and directors of a bank. Moreover, FIRIRCA granted the FDIC and the other agencies the authority to assess civil money penalties (fines) against both banks and individuals for failing to meet the terms of C&D orders, violating any written agreements, or willfully or flagrantly violating federal or state laws and regulations. Generally these fines were approximately \$1,000 per day, but under specific circumstances they could range up to \$10,000 per day.

In 1989, the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) further enhanced the FDIC's enforcement powers by granting regulators the right to apply all existing enforcement authority against not only the bank itself and the officers, directors, and employees or any individuals acting as agents of the bank, but also against other "affiliated parties" such as outside accountants, consultants, attorneys, or other contractors.⁶ Thus, cease-and-desist actions, removal or prohibition of individuals from the institution, and all other enforcement actions could be brought against anyone in this group. FIRREA also

³ Few attempts actually result in the removal of federal deposit insurance. However, just the threat to remove deposit insurance is a potent weapon in the attempt to force improvement in the condition of the institution and to obtain the institution's cooperation.

⁴ For example, the federal supervisory agencies in the past attempted to seek the cooperation of offending banks by conducting special examinations and lengthy regular examinations; and in some cases, all expenses were billed to the banks. To force compliance with agency mandates, the agencies also used their leverage in other areas: when institutions requested permission to open banking offices, to merge with other organizations, or to make bank holding company acquisitions, for example, supervisory authorities often conditioned their approval upon changes in the other aspects of the requesting banks' operations—aspects the agencies were concerned about, such as capital levels. See Huber (1988), 128–29.

⁵ For the FDIC, the standard for issuing a temporary C&D order is higher than for a regular C&D order. Temporary C&D orders can be issued only in the most serious circumstances, when the potential solvency of the institution is threatened.

⁶ To apply formal enforcement authority to outside or "affiliated parties" of the bank, such as contractors, the law sets up a higher standard for regulators to meet. Regulators must show that these parties "knowingly or recklessly" violated laws and regulations, thereby causing loss or damage to the institution.

significantly expanded the amount of civil money penalties that could be levied against both banks and individuals: these may now extend to \$1 million a day for knowingly violating laws and regulations and thereby causing substantial loss to the institution. The assessment schedule for fines depends on the seriousness of the infraction, which is weighted by such factors as the willfulness or recklessness of the conduct, the existence of violations of fiduciary duty, the presence of pecuniary gain or personal benefit, and the intentions of the perpetrating parties.⁷

The types of banking practices that could lead to the initiation of enforcement actions include the following, among others:

Management Problems

- unsatisfactory management
- poor loan administration
- insufficient corporate planning
- inadequate internal controls

Financial Problems

- inadequate capital
- inadequate loan-loss reserves
- large volume of subquality assets
- excessive asset growth
- undue concentration of loans
- failure to recognize or charge off losses
- operating losses or inadequate earnings
- poor liquidity
- unwarranted dividends or other insider payments
- failure to file with regulators, or filing of inaccurate reports

The FDIC's Enforcement Policies

In this section we focus on the enforcement policies of the Federal Deposit Insurance Corporation—the federal agency that regulates state nonmember banks. We survey the kinds of enforcement actions available to the FDIC, the procedures it uses, and the number and types of enforcement actions it brought during the period 1980–1996.

Kinds of Bank Enforcement Actions

Several types of enforcement actions are available to the FDIC. They are discussed here in ascending order of seriousness (from the informal to the formal; from those whose existence is not disclosed to the public to those whose existence is publicly disclosed; and from those that are not enforceable in court to those that are).

Bank Board Resolution. This is a declaration by a bank's board of directors outlining a plan to deal with the bank's safety-and-soundness issues. The resolution sets forth reforms and time frames within which the reforms should be completed. Regulators permit this less-harsh informal action when they believe that the institution is not in serious jeopardy of failure and that the institution's board and management are cooperating with supervisory officials. The declaration is not publicly disclosed and is not enforceable in a court of law. Thus, this type of action is categorized as informal.

Memorandum of Understanding (MOU). The MOU represents the next level in the enforcement action process. It is an agreement drafted by regulators and signed individually by each member of the board of the affected institution. It outlines specific actions the bank must take and establishes deadlines for reaching these goals. The existence of an MOU is not public information, nor is it enforceable in a court of law. Thus, this type of action also is categorized as informal.⁸

Cease-and-Desist Order. As mentioned above, all federal banking agencies may pursue cease-and-desist orders for actions that constitute (1) unsafe and unsound banking practices, (2) violations of federal or state laws and regulations, and (3) violations of any written directive entered into with a banking agency. Note that despite their name, cease-and-desist orders do more than prohibit certain types of practices; they usually require, as well, that banking officials take action to correct conditions resulting from the violation that provided the basis for the order.

C&D orders are issued after a hearing on the record, and they remain in effect until remedial actions have been taken. The hearing takes place between 30 and 60 days from the time the notice is served unless the institution requests an earlier date. The order takes effect 30 days after the hearing, and remains until it is set aside by a court order or is terminated by the agency. C&D orders are made public and generate adverse publicity for the institution. These actions and those in the following categories are classified as formal enforcement actions.

⁷ Under FIRREA, the FDIC was also granted back-up authority to issue enforcement actions against thrift institutions supervised by the Office of Thrift Supervision (OTS).

⁸ Nevertheless, securities laws affecting publicly traded companies may require that in all of an institution's public disclosures, it reveal the existence and terms of an MOU.

Suspension, Removal, or Prohibition of Individuals from a Federally Insured Depository Institution.

Bank regulators have the power to suspend, remove, or prohibit individuals from associating with an insured depository institution for specific violations of laws, regulations, or agreements. In addition, individuals who have been convicted of criminal violations of laws can be barred for life from working or associating with a federally insured institution.

Civil Money Penalties (CMPs). CMPs may be imposed for violations of laws, regulations, C&D orders, or other written agreements. As mentioned above, the amounts of the fines levied are proportional to the seriousness of the violations and can range from \$1,000 per day for simple violations to \$25,000 per day for reckless actions or breaches of fiduciary responsibility—and up to \$1 million per day if regulators find evidence of “knowingly” committed acts that cause significant loss to the institution or significant gain to individuals. Regulators use a matrix to determine the extent of the penalty, basing it on the intent of the violators and their history of infractions. Cooperation by bank officials is a mitigating factor in the assessments of CMPs. Penalties are assessed by written notice, and an aggrieved party may request a hearing on the penalty assessment within ten days of notice. The imposition of CMPs, like the imposition of cease-and-desist orders, is always accompanied by public notification of the event by regulators, and such notification may deter potential future violators.

Suspension or Termination of Deposit Insurance. Suspension or termination of deposit insurance is the most serious type of enforcement action the FDIC can bring. This type of action is brought as a last resort to force a bank to improve conditions in the institution by altering its banking practices, especially if officials are not cooperating with supervisory officials.

Placement in Conservatorship or Receivership. The chartering agencies for commercial banks and thrift institutions have the authority to place troubled and uncooperative or recalcitrant institutions into an FDIC conservatorship or receivership in preparation for the sale or liquidation of the institution. This type of action is the most severe inasmuch as it results in the termination of the charter, or the right of private parties to operate a financial institution.

Procedures Used

The FDIC’s enforcement action process begins when the agency notifies bank officials of any financial weaknesses, operational problems, or violations of

banking laws or regulations that were identified during an examination. Examiners assign an overall, or composite, safety-and-soundness rating on a scale of “1” to “5,” with a 1 rating the highest (representing a low level of supervisory concern) and a 5 rating the lowest, representing a critically deficient level of performance and thus the highest degree of supervisory concern. Composite ratings of 4 bestow “problem bank” status and require remedial actions on the part of the troubled bank.⁹ The safety-and-soundness ratings are also known by the acronym CAMELS, after the six areas examiners review: Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk.

Under FDIC procedures, if a bank emerges from the examination with supervisory concerns or problem-bank status, bank supervisors may notify bank officials that an enforcement action against the bank might be issued, usually within three months from the date of the examination. However, when the composite examination rating is 3, a less-stringent informal action is generally pursued, except in the circumstance noted below. The 3 rating implies that although failure is only a remote possibility, the bank has weaknesses that, if not corrected, could worsen and put the bank in a more severe situation. The informal action (in the form of a bank board resolution or an MOU) may be directed, for example, at persuading bank management to strengthen its underwriting policies or increase its reserves for future loan losses. Although informal actions communicate supervisory concerns and require a plan to address those concerns, they are not administratively or judicially enforceable in a court of law in the event the agreed-upon corrective actions are not taken. If the condition of the institution at the time of the 3 rating represents an improvement over earlier periods, informal actions may not always be issued.

The FDIC takes a more serious formal enforcement action, such as issuing a cease-and-desist order, when a bank’s prospects for failure are more than a remote possibility. As a general policy, at the time of the examination when the institution receives a 4 or 5 rating, FDIC examiners notify participants that a formal action will be pursued. (Again, regulators may choose not to issue a formal action when the current condition of the bank clearly reflects significant improvement resulting from earlier actions or when individual circumstances make this supervisory tool inappropriate. For example, the replacement of existing with new management may permit regulatory authorities the use of

⁹ Some 3-rated banks are also considered to be problem banks.

an informal MOU in place of the formal C&D order—although if the bank still warrants a problem-bank rating, the belief that bank management has recognized the problems and will implement a corrective action is not always a sufficient basis for precluding formal actions.) Formal actions are also brought when informal actions have been unsuccessful in addressing supervisory concerns, either because bank management has failed to abide by the agreements or because the institution continues, nonetheless, to deteriorate. As mentioned above, besides prohibiting unsafe or unsound practices and violations of law, the FDIC usually requires the institution to correct conditions resulting from such violations or practices. For example, if a bank is operating with an excessive amount of substandard loans, a cease-and-desist order may require the bank both to reduce the dollar volume of such loans to an amount specified in the order and to adopt sound lending policies and practices.

To eliminate the need for time-consuming formal hearings, the FDIC attempts to get the parties to agree to the order while waiving their right to an administrative hearing. In waiving this right, the institution neither admits nor denies wrongdoing. The institution's waiver reduces the time required to put the order in place. If an institution chooses to contest the order, the implementation of the enforcement action is delayed pending a hearing before an administrative law judge and the issuance of the final order by the FDIC Board of Directors.

If an organization fails to get relief at this level, it has the right of appeal in the federal courts. Under certain conditions, such actions can result in lengthy delays in the implementation of the formal actions. If regulators have serious concerns about the solvency of the bank, including concerns about fraud, dissipation of assets, or other matters that require immediate attention, they have the statutory authority to issue a temporary C&D order that becomes effective as soon as it is served. The bank has the right to appeal the temporary order to a federal judge within ten days of the action and request an injunction.

The FDIC monitors bank compliance with both informal and formal enforcement provisions by requiring timely progress reports, usually monthly or quarterly, and by scheduling subsequent examinations and visitations. If monitoring reveals that a bank is failing to comply with provisions of an enforcement action, regulators may assess fines for noncompliance. As with all regulatory actions, the lifting or cancellation of C&D orders is considered when the institution's overall condition has improved and the bank has substantially complied with the terms of the order. Enforcement actions requiring remedial measures generally remain in effect for approximately two years. However, in the more serious cases, actions can last up to three or four years and during this period are subject to amendments mandating further actions by the institution.

Number and Types of Formal Enforcement Actions Issued, 1980–1996

Table 1 shows the number of formal FDIC enforcement actions taken from 1980 to 1996. During the 1970s, when the number of problem banks was

Table 1
FDIC Formal Enforcement Actions by Examination Rating, 1980–1996

Year	Number	CAMELS Rating at Examination before Enforcement Action				
		1	2	3	4	5
1980	47	1	3	2	33	8
1981	40	2	6	2	23	7
1982	96	3	2	4	58	29
1983	244	0	3	5	170	66
1984	188	2	5	9	101	71
1985	284	1	9	6	164	104
1986	183	0	5	4	87	87
1987	203	2	2	9	90	100
1988	178	4	3	6	77	88
1989	164	0	5	6	80	73
1990	160	0	4	7	84	65
1991	244	0	9	12	127	96
1992	237	0	19	15	147	56
1993	161	2	13	31	71	44
1994	104	7	34	13	26	24
1995	71	3	26	8	20	14
1996	78	8	17	11	17	25
Total	2,682	35	165	150	1,375	957

Source: FDIC.

Note: Formal actions for safety-and-soundness purposes only issued against FDIC-supervised banks (state nonmember and mutual savings banks).

relatively small, the FDIC did not widely use formal supervisory enforcement actions. During the 1980s and early 1990s, however, as the problem-bank population increased dramatically, the number of formal enforcement actions issued by the FDIC increased accordingly, going from only 47 in 1980 to a peak of 284 in 1985. From 1986 through 1990, as the number of problem banks decreased, the issuance of formal actions also declined, with an annual average of approximately 178. But the growing number of problem banks in New England caused the number of FDIC formal actions to increase again, peaking at 244 in 1991 and gradually declining thereafter as the economy improved and commercial bank earnings rebounded.

The greatest proportion of actions were brought against 4-rated banks, which accounted for over half of all formal actions. Generally such institutions suffer from serious problems but are usually salvageable. An additional 36 percent of the total were issued against 5-rated banks, which are thought to have substantial risk of failing within one year. Actions against these banks are intended to correct the problems if possible, but if the institution is too ill to recover, the objective is to limit losses before failure. A small number of actions (200) were brought against highly rated (1- and 2-rated) banks. Over half of these actions dealt with the removal and suspension of officers and directors.

Table 2 shows the types of formal enforcement actions issued by the FDIC from 1980 to 1996. The largest number consists of cease-and-desist actions issued under Section 8(b) of the Federal Deposit Insurance Act (FDI Act), accounting for over 60 percent (1,637) of the total number of actions. These actions are generally issued to curb practices like insider abuses, unsound underwriting practices, inaccurate loan-loss reserve accounting, and unwise dividend policies and other types of unauthorized fund transfers. Other major formal action

categories, categorized by FDI Act sections where authorized, include Section 8(a) proceedings for termination of insurance and Section (8)(e) removals of officers, directors, and other principals; actions in those two categories accounted for an additional 33 percent (884) of the total. Miscellaneous actions make up the remainder.

Empirical Analysis of the Effect of Formal Enforcement Actions

Because information on formal actions was not publicly reported until 1989, few empirical studies have evaluated the effects of enforcement actions on bank behavior. The limited evidence that is available generally suggests that banks operating under formal enforcement actions alter their banking practices to a greater extent than banks not operating under formal actions. In two empirical studies of New England banks, Peek and Rosengren (1995, 1996) analyzed the effects that formal actions had on capital levels, commercial real-estate lending, and overall lending for the years 1989–1994. Over this period, more than one-third of the banks in New England had enforcement actions outstanding against them and were under intense pressure to raise capital and restrict certain types of real-estate lending. Peek and Rosengren’s findings showed that although poorly capitalized banks shrank their assets more than better capitalized institutions did to meet capital requirements, the reduction was more dramatic if regulators had imposed formal actions. In addition, banks that were operating under formal agreements cut their commercial real-estate lending as well as overall lending to a

Table 2
FDIC Formal Enforcement Actions by Type, 1980–1996

Section	Number	Description
8(a)	425	Termination of insurance
8(b)	1,637	Cease-and-desist order
8(c&b)	96	Temporary cease-and-desist order
8(e)	459	Removal, prohibition, suspension of individuals
8(a&t)	2	Temporary suspension of deposit insurance
8(g)	20	Suspension/prohibition of individuals for criminal acts misconduct
8(I)	2	Petition for enforcement of administrative order
ILSA*	13	Capital directives
PCA†	28	PCA directives
Total	2,682	

Source: FDIC.

Note: Formal actions for safety-and-soundness purposes only.

*International Lending Supervision Act.

†Prompt corrective action.

greater extent than did banks that were not under similar agreements.¹⁰

In another study, Curry et al. (1997) found that most financially distressed banks in the years 1980–1995 exhibited greater reductions in asset growth, larger restrictions on dividends, and higher levels of capital infusions during the periods before the examinations that reduced their supervisory examination ratings to 4. However, the *ex post* results were generally more pronounced if the banks were 4-rated and operating under a formal enforcement action.¹¹ Two other studies—Peek, Rosengren, and Jordan (1999) and Brous and Leggett (1996)—focused upon the “announcement effects” that formal actions have upon stock prices or shareholder wealth. Both found that the announcement effects of formal actions resulted in large negative abnormal stock returns for publicly traded organizations.

In our analysis, problem-bank behavior is related to the dates of regulatory intervention, specifically the date of the on-site examination that produced a formal enforcement action or a composite CAMELS rating downgrade to problem-bank status (that is, to a composite CAMELS rating of 4). It is important to point out that CAMELS downgrades may occur with or without formal enforcement actions, and actions may occur with or without CAMELS downgrades. We therefore attempt to control for potential overlap between these two types of intervention in the empirical tests. The intervention date is also referred to as the “event date.” Since banks report their financial condition at the end of each calendar quarter, the empirical analysis matches the exact event date to the quarter during which intervention occurred, henceforth referred to as the “event quarter.” We anticipate that bank management will react to the deteriorating financial condition of the institution before the bank examination that produces an adverse rating (or enforcement action) and will begin to make changes necessary for survival. However, we hypothesize that at the time of the on-site examination that produces the CAMELS downgrade or at the time of the issuance of the formal enforcement action, examiners might persuade or require management to make *additional* changes in the bank’s portfolio and operating policies. Thus, we anticipate that for these banks, significant changes occur during the event quarter. Another hypothesis to be tested is that formal enforcement actions are more effective than CAMELS ratings downgrades without formal enforcement actions in bringing about behavioral changes during the event quarter as well as during sub-

sequent quarters, because they are legal decrees and noncompliance often carries serious penalties. Thus, the most pronounced changes are expected for those banks that receive a formal enforcement action.

The empirical analysis is conducted in two stages. The first stage examines the effects of bank enforcement actions in a univariate framework, with a graphical presentation of key performance variables for the various time periods studied. The second stage presents estimates of regression models that test for behavioral differences between the banks that received formal enforcement actions and those that did not for the event quarter, as well as for subsequent quarters. As part of the regression analysis, we also address a potential sample selection bias by using the sample-selectivity estimation method of Heckman (1979) to test for sample selectivity bias. The Heckman method is a two-stage model that first uses probit analysis to estimate a selection model. The probit model yields estimates of each bank’s odds of being “selected” for some form of regulatory intervention (actions or downgrades). This variable, which controls for sample selectivity, is then included as an instrumental variable in the performance model (or behavioral model) which is estimated using ordinary least squares regression. The results of the Heckman model estimations are discussed in an appendix to this paper.

Sample and Data

To study the aforementioned relationships, we examined all commercial and mutual savings banks whose primary federal supervisor was the FDIC over the 1978–1998 period. FDIC-supervised banks constituted approximately 51 percent of all insured U.S. commercial banks and savings institutions and accounted for nearly 15 percent of industry assets as of year-end 1998.

Our measures of regulatory intervention include all but two categories of formal enforcement actions is-

¹⁰ During the New England recession of the early 1990s when banks were experiencing heavy losses in commercial real-estate lending, it was difficult for troubled banks to raise external capital to meet bank capital requirements. Thus, most banks had no option but to shrink their assets.

¹¹ In a nonstatistical case study of bank enforcement actions on 72 problem banks in 1991, the U.S. General Accounting Office (GAO) (1991) found that more-positive changes in bank behavior were associated with the more-stringent formal enforcement actions than with informal efforts by the regulators to work with the banks. The GAO recommended that regulators take early and more forceful regulatory action tied to specific unsafe and unsound banking practices.

sued by the FDIC (see table 2) plus all on-site safety-and-soundness examinations by the FDIC or state banking supervisors.¹² Excluded from our intervention measures are formal enforcement actions directed against individuals—Section 8(e), removal of individuals, and Section 8(g), suspension of individuals—since these actions can involve lengthy legal cases and are not generally expected to result in immediate performance changes at banks upon issuance. While formal enforcement actions are often directed at altering poor management practices, changes in these practices are very difficult to measure and document. Consequently, we focus on another goal of formal enforcement actions—altering poor financial performance. To measure financial performance, we use the quarterly reports of income and condition (Call Reports) that all insured banks are required to file with their primary federal regulator each calendar quarter end. These financial statements include standard income statements and balance sheets, as well as related reports such as those on nonperforming loans and sources of new equity capital.

To determine the stability of the relationships, we analyzed three different subperiods: (1) 1979–1985, (2) 1985–1990, and (3) 1990–1998. Each subperiod corresponds with one of the various regional banking crises in the United States that occurred over this entire period, including the Southwest banking crisis in the 1980s and the Northeast crisis in the early 1990s.

Before proceeding to the empirical analysis, we find it helpful to know the relative frequency with which problem banks that receive formal enforcement actions recover or fail. Table 3 follows the changes in composite CAMELS ratings for a sample of 1,212 FDIC-supervised banks that were initially CAMELS 4-rated and received formal enforcement actions. One year after receiving formal enforcement actions, 46 percent of the banks were still CAMELS 4-rated, approximately 26 percent had improved their CAMELS ratings, and 28 percent had deteriorated further or ceased operating (a relative-

ly high percentage, 10.6 percent, had been involved in FDIC-assisted mergers or liquidations, that is, had failed, and 4.5 percent had merged with other banks or been liquidated without FDIC assistance). Two years after receiving actions, 39 percent of the banks had improved their CAMELS ratings, while 34 percent had deteriorated further or no longer operated. Indeed, a very high percentage—17.2 percent—had failed after two years. These statistics indicate that although a substantial proportion of banks receiving formal enforcement actions are able to improve their condition, many fail. The remainder of the empirical analysis investigates banks’ responses to formal enforcement actions in more detail and the extent to which the responses accord with regulators’ expectations.

Univariate Results

In the first stage of the analysis, we studied bank behavior before, during, and after the event quarter by focusing on changes in several performance measures, including asset growth, external equity capital injections, net loan charge-offs, loan-loss provisions, the level of nonperforming loans, and profitability (return on assets). As mentioned above, the expectation is that as banks approach “problem” or troubled-bank status, they will be in retrenchment mode to avoid a condition that would threaten their solvency. Thus, under these circumstances banks should be reducing growth or shrinking assets, generating new equity capital, charging off bad loans, increasing loan-loss provisions, and fully recognizing nonperforming loans on financial reports. These reactions should be reflected in lower profitability during this period when the bank is on the way to recovery or failure.

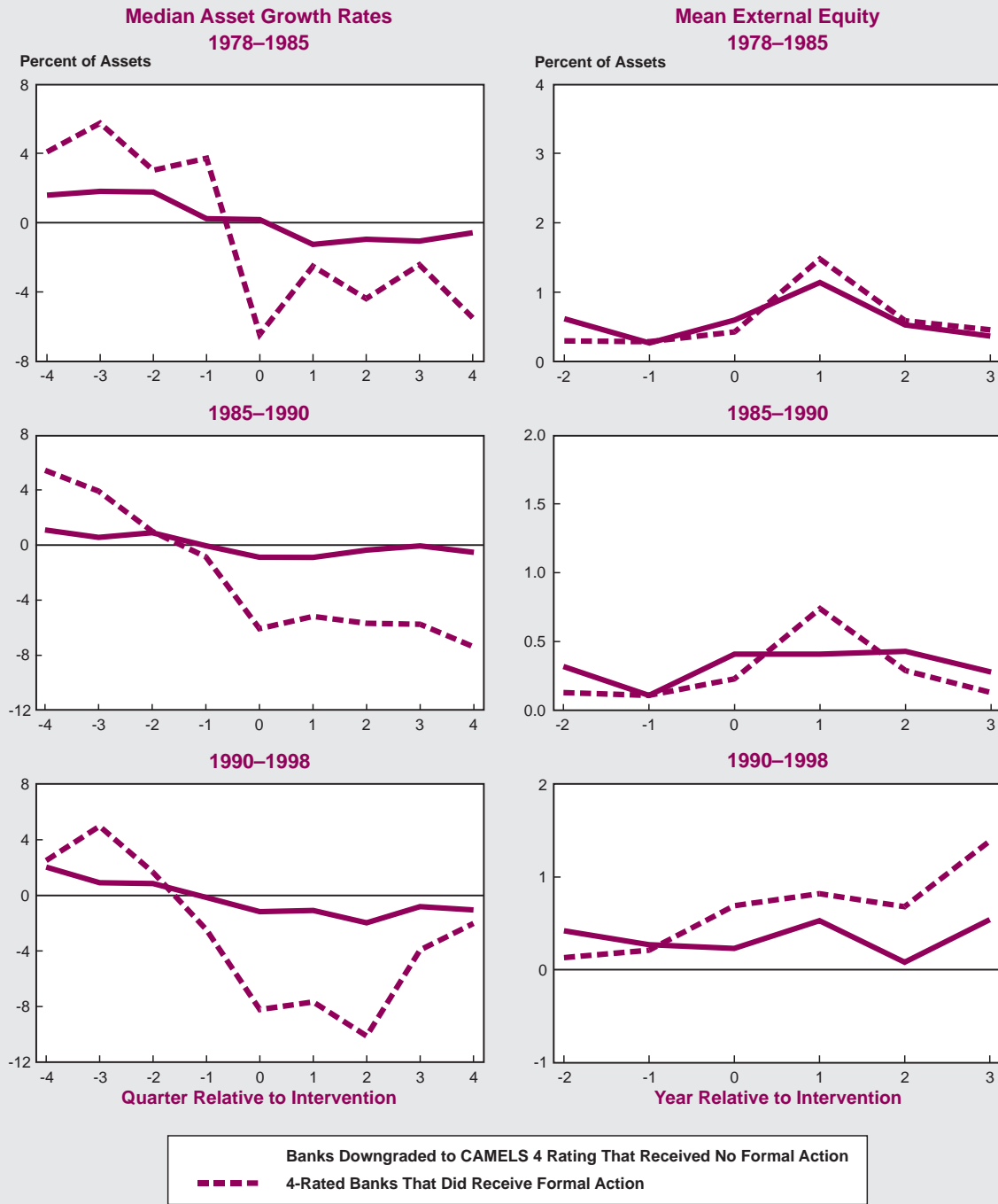
Figures 1–3 show the behavioral patterns for the selected performance measures, all measured as a percentage of bank assets, for two groups

Table 3
Changes in Composite Ratings of 4-Rated Banks Receiving Enforcement Actions

Composite CAMELS Rating	One Year after Action	Two Years after Action
1	0	4 (0.3%)
2	54 (4.5%)	204 (16.8%)
3	256 (21.1%)	268 (22.1%)
4	558 (46.0%)	326 (26.9%)
5	161 (13.3%)	104 (8.6%)
Assisted Mergers and Liquidations	128 (10.6%)	208 (17.2%)
Unassisted Mergers and Liquidations	55 (4.5%)	98 (8.1%)
Total	1,212	1,212

¹²All FDIC formal enforcement actions were tabulated and analyzed for the years 1980–1996 only. Call Report and bank examination data from earlier and later years were included to enable us to study behavior before and after the imposition of formal actions.

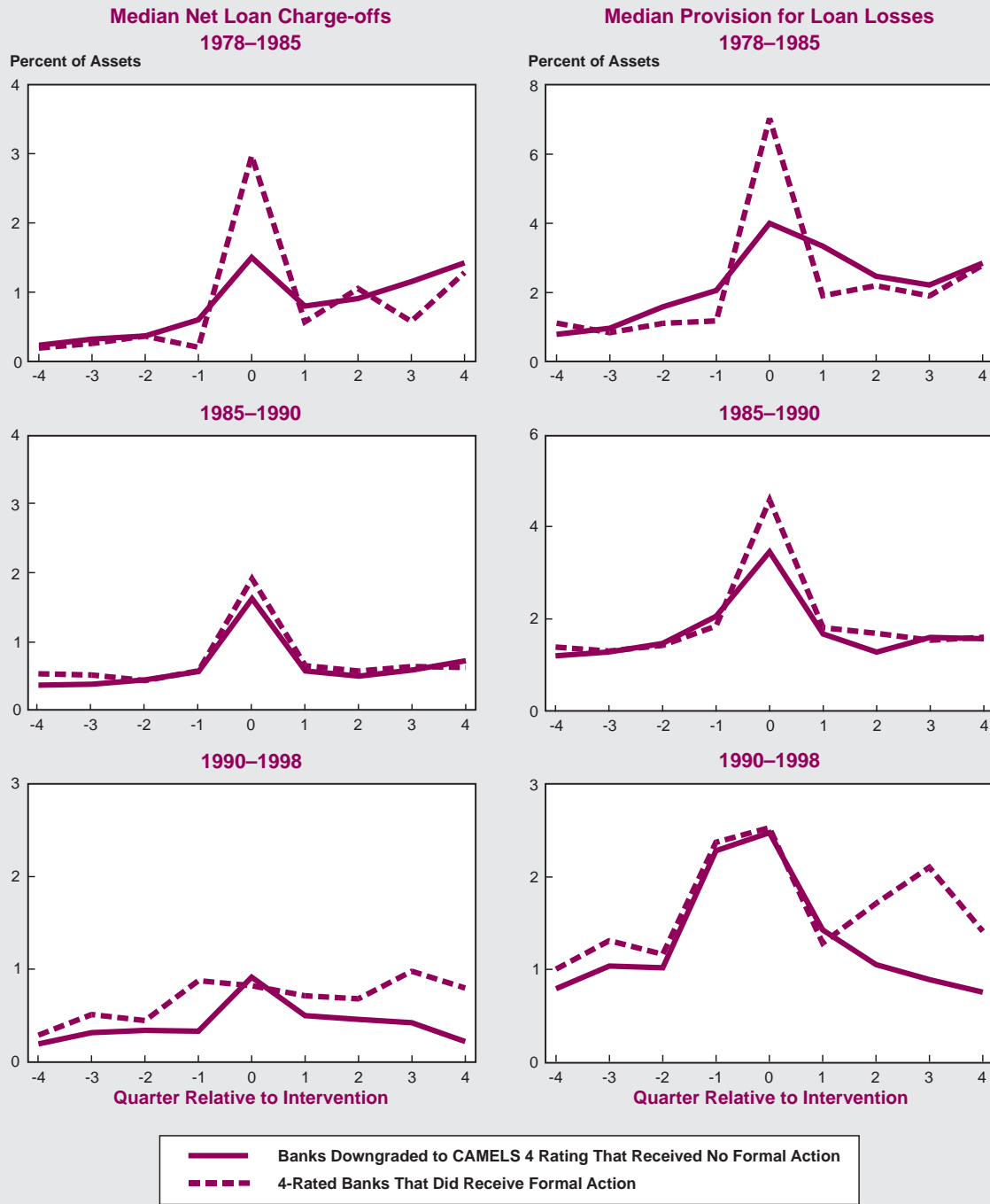
Figure 1
**Asset Growth Rates and Capital Infusions of CAMELS 4-Rated Banks
before and after Regulatory Intervention**



of banks before, during, and after intervention. The first group contains those banks that are CAMELS 4-rated as of the event quarter during which they received a formal enforcement action. Some of these banks may have also been downgraded to CAMELS 4 during the event quarter or during a prior quarter. The second group contains those banks receiving a down-

grade to CAMELS 4 rating during the event quarter without a formal enforcement action. The results for the selected performance measures generally show that both groups of banks start to change their behavior within a year before the event quarter and that those changes tend to accelerate during the event quarter. Furthermore, banks that received formal actions

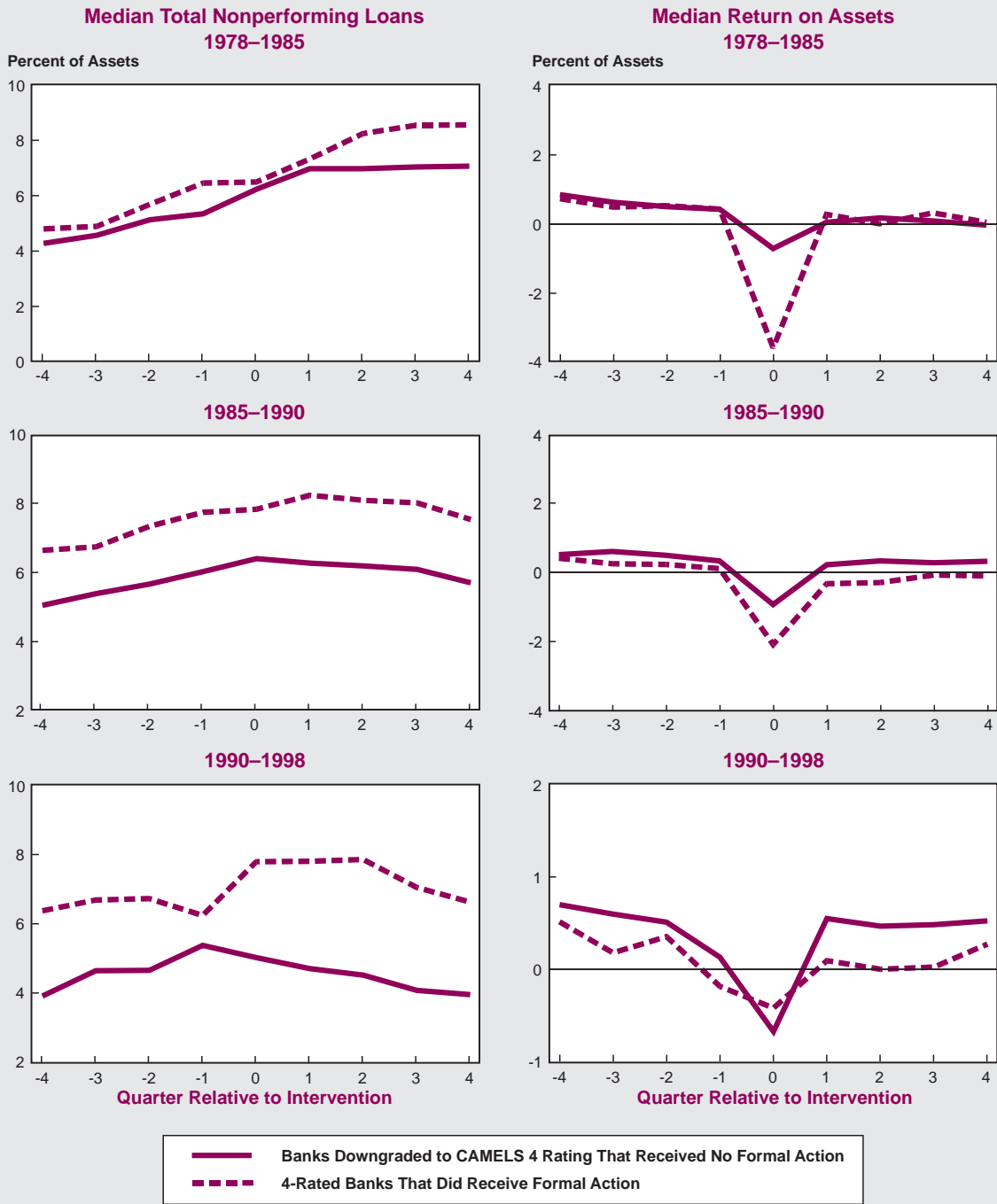
Figure 2
Net Loan Charge-offs and Provision for Loan Losses of CAMELS 4-Rated Banks
before and after Regulatory Intervention



generally had more pronounced changes in the performance measures during and after the event quarter than the downgraded bank group had. For example, changes in the median asset growth rates for banks receiving formal actions were generally much greater than those for the downgraded banks not receiving actions.

The other performance measures revealed similar trends. Mean external capital infusions began before regulatory intervention and generally accelerated in the first year after intervention; median net loan charge-offs and median loan-loss provisions also increased significantly in the quarter before and during the event quarter in anticipation of the examination and man-

Figure 3
 Nonperforming Loans and Profitability of CAMELS 4-Rated Banks
 before and after Regulatory Intervention



dates from the examiners.¹³ The median level of nonperforming loans also was increasing before and subsequent to intervention for both groups of banks, while profitability (ROA) was declining, reflecting the above-mentioned accounting changes in the balance sheets. For most measures and most time periods analyzed, banks receiving formal actions showed more

pronounced changes than did the downgraded bank group. It is also important to point out that these changes in the (annualized) *rates* of provisioning,

¹³ Most banks in our sample did not receive external capital injections, hence the median values for external capital injections were typically zero. However, mean external capital injections for our sample were higher the year after enforcement actions were received.

charge-offs, and profits are not due merely to the underlying changes (decline) in total bank assets used to scale the performance measures. The total dollar values of provisions and charge-offs rose during the event quarter as well. In general, the univariate results (figures 1–3) show that the reduction in asset growth indicates that moral hazard was being contained, and banks were not allowed to grow out their problems. In most cases, banks were actually shrinking assets. In the case of surviving institutions, increased capital injections and additional loan-loss provisioning helped restore equity positions and were instrumental in facilitating recovery. In the case of failed institutions, these actions helped reduce the costs to the deposit insurer.

Empirical Model

To analyze the effects of the two types of regulatory intervention more fully, a multivariate framework is required. We hypothesize that bank j 's performance during quarter t is dependent upon the bank's condition in the prior quarter, $t - 1$, and upon the incidence of regulatory intervention during quarter t . It is also possible that banks react to regulatory intervention gradually, correcting deficiencies over several quarters. Therefore, we include three lagged regulatory intervention measures.¹⁴ The behavioral model is as follows:

$$(1) \text{ Performance measure } (j, t) = a + b_1(\text{Nonperforming loans}) (j, t - 1) + b_2(\text{Performing loans}) (j, t - 1) + b_3(\text{Changes in nonperforming loans}) (j, t - 1) + b_4(\text{Other real estate owned}) (j, t - 1) + b_5(\text{Loan income earned but not collected}) (j, t - 1) + b_6(\text{Equity}) (j, t - 1) + b_7(\text{Allowance for loan losses}) (j, t - 1) + b_8(\text{Intervention dummy}) (j, t) + b_9(\text{Intervention dummy}) (j, t - 1) + b_{10}(\text{Intervention dummy}) (j, t - 2) + b_{11}(\text{Intervention dummy}) (j, t - 3) + \text{Error term } (j, t)$$

All performance and condition variables are measured as a percentage of bank assets in order to limit the effects of potential heteroskedasticity. Furthermore, those performance measures that were computed as quarterly financial flows—provisions for loan losses, net loan charge-offs, and asset growth—were all expressed as annualized rates. However, several performance measures were available only annually—external capital injections and cash dividends on common and preferred stock.¹⁵ We estimated equation 1 using ordinary least squares (OLS) regression on samples of FDIC-supervised banks that were CAMELS 4-rated as of a quarter end. In addition to controlling for bank condition through the asset-quality measures, we restricted the regression sample to all CAMELS 4-rated banks to further limit the potential for the regulatory intervention variable to serve merely as an instrumental variable for bank condition.

Variables

The performance measures tested include those areas often mentioned in formal enforcement actions: loan-loss provisions, net loan charge-offs, asset growth, external capital injections, and cash dividends on common and preferred stock. We hypothesize that these performance measures are dependent upon bank loan quality in the prior period as reflected in the levels of nonperforming and performing loans. *Nonperforming loans* are defined as all loans past due 30 days or more on interest and principal repayment plus all nonaccrual loans (loans no longer accruing interest income). *Performing loans* are included to incorporate the effects of general lending risks upon performance and are defined as total gross loans net of nonperforming loans. *Changes in nonperforming loans* are defined as the percentage change in nonperforming loans between periods t and $t - 1$ and are included to account for the effect of changes in loan quality over the period. *Other real estate owned* is included as another asset-quality measure

and is defined as all real estate owned by the bank, including real estate foreclosed on or acquired because of loan defaults. *Loan income earned but not collected* is the accumulated amount of earned but uncollected loan interest income and reflects both asset quality and potential overstatement of interest earnings by management. *Equity capital* reflects both the accumulated effects of prior performance upon earnings and, because of regulatory capital requirements, may be related to management's ability and desire to provide for loans losses, to charge off loans, or to increase asset size.

¹⁴ The reason we use only three lagged regulatory intervention measures is that problem banks are normally examined at least every four quarters. As a result, the significance of intervention measures lagged more than three quarters may be influenced by compounding events, such as subsequent examinations and subsequent formal enforcement actions.

¹⁵ For the performance models investigating the effects of regulatory intervention upon external capital generation and cash dividends, for obvious reasons we exclude prior-period equity capital as an explanatory variable.

The *allowance for loan losses* reflects the accumulated effects of prior loss provisioning and loan charge-offs, and may influence management's ability and willingness to provide for future loan losses, make charge-offs, and limit bank asset growth.

Regression Results

The results of estimation of equation 1 for loan-loss provisioning are shown in tables 4a and 4b. These tables report results for the two regulatory intervention measures, broadly defined as CAMELS downgrades to a 4 rating (with and without enforcement

actions) and formal enforcement actions (with and without CAMELS downgrades). The relationships between bank performance measures and prior-period condition variables were generally in agreement with expectations. For example, loan-loss provisions were significantly and positively related to the lagged values of nonperforming loans, performing loans, income earned but not collected, and equity capital. Loan-loss provisions were generally negatively related to both the lagged allowances for loan losses and, to a lesser extent, other real estate owned. Similar intuitively appealing results were found for net charge-offs and asset growth models. For the sake of brevity, these results are not discussed further.

We focus instead on the results for the regulatory intervention dummy variables for formal enforcement actions and for CAMELS downgrades to a 4 rating shown in tables 4a and 4b. The findings show that for all estimation periods, formal enforcement actions had a significantly positive effect upon both loan-loss provisions and net loan charge-offs during the quarter in which the formal actions occurred. However, the lagged intervention measures for formal enforcement actions were generally not significantly related to these two performance measures. In addition, formal enforcement actions were generally not significantly related to asset growth for any estimation period. Very similar results were found for the CAMELS downgrade dummy variable. In all estimation periods bank CAMELS downgrades to a 4 rating had a significantly positive effect upon loan-loss provisions and net loan charge-offs and no significant relationship with asset growth.

One can see the relative effect of both types of intervention upon performance by comparing dummy variable coefficients. Table 5 shows that enforcement actions had a larger effect upon loan-loss provisioning than did CAMELS downgrades for the 1978–1985 and 1985–1990 periods but not for the 1990–1998 period.

Table 4a
Effect of Formal Enforcement Actions on Provisions for Loan and Lease Losses

Ordinary Least Squares Regression of the Relationships between Provisions for Loan and Lease Losses and Regulatory Intervention

Explanatory Variable	Estimated Coefficients (Standard Errors)		
	1978–1985	1985–1990	1990–1998
Intercept	-5.5086** (0.4871)	-2.5056** (0.2197)	-0.8759** (0.1995)
Nonperforming loans and leases	0.2581** (0.0189)	0.2820** (0.0111)	0.0971** (0.0098)
Performing loans and leases	0.0559** (0.0073)	0.0324** (0.0032)	0.0243** (0.0031)
Change in nonperforming loans and leases	-0.0007 (0.0006)	0.0003 (0.0003)	0.0002 (0.0003)
Other real estate owned	-0.0898* (0.0410)	0.0079 (0.0163)	-0.0269* (0.0133)
Income earned but not collected	0.4944** (0.0878)	0.1518* (0.0655)	0.2048* (0.0911)
Equity capital	0.4260** (0.0351)	0.1541** (0.0165)	0.0287** (0.0093)
Allowance for loan and lease losses	-0.1766* (0.0763)	-0.2620** (0.0449)	-0.1700** (0.0367)
Enforcement action dummy for current quarter, t	2.8864** (0.3757)	2.7819** (0.2540)	1.1934** (0.2389)
Enforcement action dummy for t – 1	-0.8710* (0.3501)	-0.3585 (0.2505)	-0.1544 (0.2026)
Enforcement action dummy for t – 2	-0.3875 (0.3410)	-0.0119 (0.2450)	0.1025 (0.1908)
Enforcement action dummy for t – 3	-0.5685 (0.3457)	-0.0795 (0.2432)	0.5251** (0.1795)
Number of observations	4,042	8,907	3,865
R Squared	14.3%	11.4%	5.6%
F-statistic	62.52**	105.01**	22.02**

Note: Two asterisks, **, indicate significance at the 1 percent confidence level, while one asterisk, *, indicates significance at the 5 percent confidence level.

For example, for the 1978–1985 period the coefficients in the provisioning model are 2.8864 and 2.5229 for actions and downgrades, respectively. This means that among CAMELS 4-rated banks receiving enforcement actions, loan-loss provisioning rates were nearly 2.9 percent (annualized) greater for those receiving actions during the intervention quarter compared with 2.5 percent greater for downgraded banks.

Comparisons in table 6 indicate that enforcement actions had a somewhat larger positive effect upon charge-off rates in the 1978–1985 and 1985–1990 periods but not for the 1990–1998 period.

Next we consider the effect of regulatory intervention upon banks' efforts to generate new capital, from external as well as internal sources of funds. These results are shown in tables 7 and 8; formal enforcement actions were not significantly related to exter-

nal capital generation in any period. There may be two reasons for this latter result. First, these are problem banks operating during periods of crisis in banking markets. It is clearly difficult, if possible at all, to attract outside equity investors under such circumstances. Second, most FDIC-supervised banks are small community banks whose access to the capital market may be limited, hence, these banks may have had to rely upon dividend reductions to improve equity capitalization.

Formal enforcement actions led to statistically significant reductions in dividends, as a percentage of bank assets, in the year following actions for the 1978–1985 and 1985–1990 periods but not for the 1990–1998 period. Interestingly, results for the influence of CAMELS downgrades on dividend rates were not similar. Rather, downgrades were not significantly related to dividend reductions a year after the downgrade.

Adjustments to the Model

Because of the potential for some overlap between the two intervention measures—CAMELS downgrades and formal enforcement actions—we investigated the separate effects of downgrades without actions and actions without downgrades. This required re-estimating the performance models using alternative intervention dummy-variable specifications. Equation 1 was therefore estimated with six alternative intervention measures used in total: the original two measures discussed above plus four variations on those measures. The six measures are:

- A dummy variable for the quarter in which a bank received one formal action but no other actions during the time period used for model estimation (1978–1985, 1985–1990, or 1990–1998). See tables 5–8.
- A dummy variable for the quarter in which a bank was downgraded to a CAMELS 4 rating regardless of the

Table 4b

Effect of CAMELS Downgrades on Provisions for Loan and Lease Losses

Ordinary Least Squares Regression of the Relationships between Provisions for Loan and Lease Losses and Regulatory Intervention

Explanatory Variable	Estimated Coefficients (Standard Errors)		
	1978–1985	1985–1990	1990–1998
Intercept	-5.5020** (0.4817)	-2.4265** (0.2188)	-0.9574** (0.1983)
Nonperforming loans and leases	0.2681** (0.0187)	0.2795** (0.0110)	0.0960** (0.0097)
Performing loans and leases	0.0506** (0.0072)	0.0294** (0.0032)	0.0238** (0.0031)
Change in nonperforming loans and leases	-0.0010 (0.0006)	0.0002 (0.0003)	0.0001 (0.0003)
Other real estate owned	-0.0357 (0.0411)	0.0280 (0.0164)	-0.0095 (0.0135)
Income earned but not collected	0.4468** (0.0871)	0.1947** (0.0654)	0.1181 (0.0909)
Equity capital	0.3761** (0.0352)	0.1277** (0.0166)	0.0221* (0.0093)
Allowance for loan and lease losses	-0.0964 (0.0760)	-0.2374** (0.0448)	-0.1388** (0.0367)
CAMELS downgrade dummy for current quarter, t	2.5229** (0.2102)	2.0584** (0.1441)	1.4165** (0.1581)
CAMELS downgrade dummy for t – 1	0.6411** (0.2063)	0.0321 (0.1395)	0.2670 (0.1411)
CAMELS downgrade dummy for t – 2	0.1608 (0.2125)	0.0553 (0.1454)	0.1790 (0.1391)
CAMELS downgrade dummy for t – 3	-0.0704 (0.2253)	0.3696* (0.1544)	0.4384* (0.1366)
Number of observations	4,042	8,907	3,865
R Squared	16.1%	12.2%	6.9%
F-statistic	71.52**	113.72**	26.97**

Note: Two asterisks, **, indicate significance at the 1 percent confidence level, while one asterisk, *, indicates significance at the 5 percent confidence level.

Table 5
Effects of Alternative Intervention Measures on Provisions for Loan and Lease Losses

Alternative Intervention Measures Were Used in Full Provisioning Model (Equation 1)
 Comparative Ordinary Least Squares Regression Results for Intervention Variables

Intervention during Current Quarter (t = 0) Dummy Variable	Estimated Coefficients (Standard Errors)		
	1978–1985	1985–1990	1990–1998
All enforcement actions	2.8864** (0.3757)	2.7819** (0.2540)	1.1935** (0.2389)
All CAMELS downgrades to 4 rating in event quarter	2.5229** (0.2102)	2.0584** (0.1441)	1.4165** (0.1581)
Enforcement actions with no downgrades in event quarter	2.3338** (0.8370)	2.4302** (0.3521)	0.6895 (0.4076)
Enforcement actions and downgrades in event quarter	3.0032** (0.4177)	3.0950** (0.3639)	1.4171** (0.2913)
Downgrades in event quarter with an action during estimation interval	2.0533** (0.3450)	2.2631** (0.2645)	0.9681** (0.2252)
Downgrades in event quarter with no actions during estimation interval	2.2538** (0.2295)	1.7985** (0.1648)	1.5712** (0.2094)
Number of observations	4,042	8,907	3,865

Note: Two asterisks, **, indicate significance at the 1 percent confidence level.

Table 6
Effects of Alternative Intervention Measures on Net Loan and Lease Charge-offs

Alternative Intervention Measures Were Used in Full Charge-off Model (Equation 1)
 Comparative Ordinary Least Squares Regression Results for Intervention Variables

Intervention during Current Quarter (t = 0) Dummy Variable	Estimated Coefficients (Standard Errors)		
	1978–1985	1985–1990	1990–1998
All enforcement actions	2.0528** (0.3271)	2.1418** (0.2050)	0.7035** (0.2098)
All CAMELS downgrades to 4 rating in event quarter	2.0477** (0.1828)	1.6871** (0.1162)	1.0331** (0.1391)
Enforcement actions with no downgrades in event quarter	1.4683* (0.7271)	2.3675** (0.2836)	0.6858 (0.3577)
Enforcement actions and downgrades in event quarter	2.1905** (0.3635)	1.8619** (0.2941)	0.6765** (0.2560)
Downgrades in event quarter with an action during estimation interval	1.6660** (0.2999)	1.7626** (0.2135)	0.6550** (0.1978)
Downgrades in event quarter with no actions during estimation interval	1.8511** (0.1996)	1.5111** (0.1329)	1.1645** (0.1841)
Number of observations	4,042	8,907	3,865

Note: Two asterisks, **, indicate significance at the 1 percent confidence level, while one asterisk, *, indicates significance at the 5 percent confidence level.

issuance of a formal action during the estimation period. See tables 5–8.

- A dummy variable for banks receiving a formal action during the quarter but not a downgrade during the same quarter.
- A dummy variable for banks receiving a formal action and a downgrade to CAMELS 4 during the same quarter.
- A dummy variable for banks downgraded to a CAMELS 4 rating in a quarter and receiving one or more formal actions at any time during the estimation period.
- A dummy variable for banks receiving a downgrade to a CAMELS 4 rating during the quarter but not receiving a formal action during the estimation period.

The results from the six intervention measures are summarized in tables 5–8. Those results show that formal enforcement actions that occur without CAMELS downgrades still have a statistically significant, positive effect upon both loan-loss provisioning and net loan charge-offs. Similarly, CAMELS downgrades that occur without formal enforcement actions also have a statistically significant, positive effect upon loan-loss provisioning and net loan charge-offs—albeit often a lesser effect than do formal actions.

Conclusions

This article analyzes the effects that bank regulatory intervention had on the performance of distressed or troubled banks for the years 1978–1998. Regulatory intervention for troubled banks is measured as of the date of the bank examination that produced either CAMELS rating downgrades to problem status or the issuance of a formal enforcement action. The analysis uses both a univariate trend analysis and a regression model to analyze this issue. The results provide evidence on the effectiveness of the su-

Table 7
Effects of Alternative Intervention Measures on
External Capital Generation

Alternative Intervention Measures Were Used in External Capital Generation Model (Equation 1) Comparative Ordinary Least Squares Regression Results for Intervention Variables

Intervention during Prior Year (t = - 1) Dummy Variable	Estimated Coefficients (Standard Errors)		
	1978–1985	1985–1990	1990–1998
All enforcement actions	0.0904 (0.1870)	-0.0608 (0.1186)	-0.2102 (0.2053)
All CAMELS downgrades to 4 rating in event quarter	-0.2122 (0.1672)	-0.0462 (0.0842)	-0.3548 (0.1882)
Enforcement actions with no downgrades in event quarter	1.0504** (0.3626)	-0.040 (0.1518)	-0.0969 (0.3165)
Enforcement actions and downgrades in event quarter	-0.2156 (0.2102)	-0.0818 (0.1806)	-0.2481 (0.2452)
Downgrades in event quarter with an action during estimation interval	-0.1930 (0.1767)	-0.1254 (0.1244)	-0.2932 (0.2069)
Downgrades in event quarter with no actions during estimation interval	0.1275 (0.1685)	0.0322 (0.0994)	-0.1476 (0.2784)
Number of observations	1,162	2,151	820

Note: Two asterisks, **, indicate significance at the 1 percent confidence level.

Table 8
Effects of Alternative Intervention Measures on Dividends on
Common and Preferred Stock

Alternative Intervention Measures Were Used in External Capital Generation Model (Equation 1) Comparative Ordinary Least Squares Regression Results for Intervention Variables

Intervention during Prior Year (t = - 1) Dummy Variable	Estimated Coefficients (Standard Errors)		
	1978–1985	1985–1990	1990–1998
All enforcement actions	-0.0760* (0.0353)	-0.0907** (0.0224)	-0.0693 (0.0583)
All CAMELS downgrades to 4 rating in event quarter	-0.0351 (0.0314)	-0.0109 (0.0159)	-0.0121 (0.0532)
Enforcement actions with no downgrades in event quarter	-0.0712 (0.0685)	-0.0874** (0.0289)	-0.0541 (0.0898)
Enforcement actions and downgrades in event quarter	-0.0711 (0.0397)	-0.0839* (0.0342)	-0.0641 (0.0696)
Downgrades in event quarter with an action during estimation interval	-0.0729* (0.0333)	-0.0537* (0.0236)	-0.0705 (0.0587)
Downgrades in event quarter with no actions during estimation interval	-0.0201 (0.0317)	-0.0043 (0.0187)	-0.0163 (0.0782)
Number of observations	1,162	2,151	820

Note: Two asterisks, **, indicate significance at the 1 percent confidence level, while one asterisk, *, indicates significance at the 5 percent confidence level.

pervision of troubled banks during the most severe banking crisis in the United States since the Great Depression.

As expected, the overall findings show that both examiner downgrades in CAMELS ratings and the issuance of formal enforcement actions had important effects on the performance of distressed banks. In order to survive, banks began to change operating policies before the examination in which they were downgraded to problem-bank status or issued a formal enforcement action, but some of these changes became more pronounced if a formal action was issued at the time of the examination. The univariate trend analysis shows that after receiving formal enforcement actions many banks reduced their asset growth rates, increased the rate of external equity capital infusions, increased the rate of net loan charge-offs, increased the rate of loan-loss provisioning, increased nonperforming assets and reduced profitability. To this extent, the findings are consistent with earlier empirical work.

The regression model tests whether these aforementioned changes lead to statistically significant differences in performance between banks that received formal enforcement actions and those that did not. The regression model results show that, in general, in those areas over which bank management has control, enforcement actions lead to statistically significant differences in performance. The areas over which management has a high degree of control include loan-loss provisioning, net loan charge-offs, and cash dividends on common and preferred stock. Conversely, in those areas where bank management has relatively limited control and where external factors play a greater role, enforcement actions did not lead to statistically significant differences in performance. Those areas over which bank management has limited control include external capital injections, and to some degree asset growth. Hence, enforcement actions are more likely to be effective in correcting weaknesses that bank management can control.

Appendix: Sample Selection Bias

Although banks subject to formal actions generally showed the largest reactions to intervention, it is not clear from the preceding analysis how much these differences reflected banks' greater need to fall in line with formal actions as opposed to the possibility that banks receiving actions were in relatively poorer condition than banks that did not receive them. As noted, not all CAMELS 4-rated banks receive formal actions. The expectation is that the banks in the worst financial condition are more likely to receive enforcement actions than are other banks. Thus the post-action changes in bank performance may be more related to who gets served with an enforcement action than with the effects of the action *er se*.

To address this problem, we used the Heckman (1979) sample-selectivity estimation procedure involving two sequential equations. The first equation uses a probit model to identify which banks are selected to receive formal enforcement actions. That is, it is modeled as a bivariate discrete choice model where the event of getting an action for a bank over a given time interval is a function of the bank's financial condition at the start of the period. Alternative selection models were tested, and the most accurate model is as follows:

$$\begin{aligned} \text{Action}_{(j,t)} = & a + b_1 (\text{Annual asset growth rate})_{(j,t-1)} + b_2 (\text{Days since last exam})_{(j,t-1)} + \\ & b_3 (\text{Logarithm of bank assets})_{(j,t-1)} + b_4 (\text{CAMELS = 2 dummy})_{(j,t-1)} + \\ & b_5 (\text{CAMELS = 3 dummy})_{(j,t-1)} + b_6 (\text{CAMELS = 4 dummy})_{(j,t-1)} + b_7 (\text{CAMELS = 5 dummy})_{(j,t-1)} \\ & + \text{Error term}_{(j,t)} \end{aligned}$$

The second step in the Heckman model is to determine the *ex post* effects of enforcement actions on the financial performance of the bank. The effect of an action can be modeled as being dependent on the initial condition plus the probability of getting an action. The estimated probability of an action event is measured through lambda—which is derived from the first equation in the Heckman estimation. One can analyze changes in bank performance on the event date by focusing on changes in several performance measures, including the provision for loan and lease losses and net loan charge-offs. The behavioral model estimated with the use of ordinary least squares regression is as follows:

$$\begin{aligned} \text{Performance measure}_{(j,t)} = & a + b_1 (\text{Nonperforming loans})_{(j,t-1)} + \\ & b_2 (\text{Performing loans})_{(j,t-1)} + b_3 (\text{Changes in nonperforming loans})_{(j,t-1)} + \\ & b_4 (\text{Other real estate owned})_{(j,t-1)} + b_5 (\text{Loan income earned but not collected})_{(j,t-1)} + \\ & b_6 (\text{Equity})_{(j,t-1)} + b_7 (\text{Allowance for loan losses})_{(j,t-1)} + \\ & \mathbf{b_8 (\text{Estimated odds of action, or lambda})}_{(j,t)} + \text{Error term}_{(j,t)} \end{aligned}$$

The Heckman estimations were estimated over all FDIC-insured banks, including all CAMELS rating groups. The results for the provisioning and net loan charge-off models show that after the targeting of formal actions toward the weakest banks is controlled for, the odds of receiving an action had no significant effect upon loan-loss provisioning or net loan charge-offs. Another interpretation of this finding is that sample-selectivity bias is not a serious enough problem in our sample to prevent the use of ordinary least squares regressions.¹⁶

¹⁶ The results of estimation of the Heckman model are available from the authors upon request.

REFERENCES

- Brous, P. A., and K. Leggett. 1996. Wealth Effects of Enforcement Actions against Financially Distressed Banks. *The Journal of Financial Research* 19, no. 4:561–77.
- Curry, T., et al. 1997. Bank Examination and Enforcement. In *History of the Eighties, Lessons for the Future: An Examination of the Banking Crises of the 1980s and Early 1990s*. 2 vols., 421–75. Federal Deposit Insurance Corporation.
- Dahl, D., J. P. O’Keefe, and G. Hanweck. 1999. The Influence of Examiners and Auditors on Loan-Loss Recognition. *FDIC Banking Review* 11:10–25.
- Heckman, J. 1979. Sample Selection Bias as a Specification Error. *Econometrica* 44:153–61.
- Horn, C. M. 1993. *A Strategic Planning Guide for Bank Regulatory Exams*. American Bankers Association.
- Huber, S. K. 1998. Enforcement Powers of Federal Banking Agencies. *Annual Review of Banking Law* 7:123–79.
- Greene, W. H. 1993. *Econometric Analysis*. 2d ed., 706–14. Macmillan Publishing Company.
- Peek, J., and E. Rosengren. 1995. Bank Regulatory Agreements in New England. Federal Reserve Bank of Boston *New England Economic Review*, May/June: 15–24.
- . 1996. Bank Regulatory Agreements and Real Estate Lending. *Real Estate Economics* 24:56–73.
- Peek, J., E. Rosengren, and J. J. Jordan. 1999. The Impact of Greater Bank Disclosure amidst a Banking Crisis. *Working Paper Series no. 99-1*. Federal Reserve Bank of Boston.
- U.S. General Accounting Office (GAO). 1991. *Bank Supervision: Prompt and Forceful Actions Needed*, GAO/GGD-91-69.

The Consequences of National Depositor Preference

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In 1993, Congress passed the Omnibus Budget Reconciliation Act and adopted *national depositor preference*. Provisions of the legislation elevated the claims of domestic depositors on the assets of a failed bank over the claims of foreign depositors and general creditors. Congress believed that national depositor preference would result in substantial cost savings to the Federal Deposit Insurance Corporation (FDIC) when it resolved failed institutions, but the law may have had unintended consequences.

Studies suggest that even though national depositor preference may produce cost savings for the FDIC, it may also induce bank creditors and depositors to act in ways that significantly reduce the cost savings. In addition, the effect of national depositor preference on foreign depositors may induce foreign governments to act in such a way that the FDIC loses some control of the resolution process.

The expectation of cost savings to the FDIC from national depositor preference is based on empirical studies that focus on small banks. But national depositor preference has a potentially greater effect on large banks because they have substantial amounts of foreign deposits and other unsecured liabilities. And it is precisely this same balance-sheet structure that makes it possible for large shifts in funding to occur when a bank is in trouble, subverting the intended purpose of national depositor preference. To see how liabilities shifted just before failure, we studied six large banks that failed between 1984 and 1992. Most of these large banks, however, failed before the implementation of

either the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) or national depositor preference two years later. Thus, we also discuss the potential effects of the combination of FDICIA and national depositor preference on the cost savings to the FDIC.

Another possible unintended consequence of national depositor preference relates to its treatment of foreign depositors. Foreign—hence, uninsured—depositors are given the same liquidation priority as general creditors, whereas domestic uninsured depositors are given a higher priority. If foreign countries perceive this hierarchy as unfair, they may seize the assets of foreign branches of failed U.S. banks, considerably complicating the resolution of bank failures. Seizure of such assets is sometimes referred to as “ring fencing.” We discuss policy proposals that may alleviate the potential problem of “ring fencing”; one of the proposals may, in addition, decrease FDIC losses.

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Definition of Depositor Preference

At the time of failure, the assets and liabilities of the bank are transferred to a receivership.¹ The receiver's task is to maximize net present value of recoveries for the receivership claimants. The receivership distributes the proceeds according to a liquidation priority, which is established by contracts between the claimant and the institution or by the legal status of the claimant.

Secured claimants have the highest priority because they have a contract with the bank for a specific claim on assets. Secured claimants are followed by a much larger creditors class composed of depositors and other general creditors. Holders of subordinated debt, preferred shareholders, and common shareholders follow. Receivership law or regulation determines the priority of the receiver for its administrative expenses and the relative priority of groups of depositors and other general creditors.

In the United States, receivership law has traditionally given the highest priority to the receiver for its administrative expenses, even placing it ahead of secured claimants. Depositors and general creditors have received varying treatment. Under the Banking Act of 1933, insured depositors had a higher priority than uninsured depositors and other general creditors. The Banking Act of 1935 gave the same priority to all depositors and general creditors. Under the 1993 statute, all receivership claimants are subject to the following general preference scheme:

- administrative expenses of the receiver;
- secured claims;²
- domestic deposits, both insured and uninsured;
- foreign deposits and other general creditor claims;
- subordinated creditor claims; and
- shareholders.

It is important to be explicit about what types of deposits are included in each deposit class. Insured and uninsured deposits are defined by deposit insurance coverage. A “foreign deposit” is any deposit obligation of a U.S. depository institution that is payable at an office located outside of any U.S. state, the District of Columbia, or a territory of the United States.³ Because of the manner in which the Federal Deposit Insurance Act of 1950 defines a “deposit,” foreign deposits are not accorded the priority benefit of domestic deposits and are therefore paid with other general liabilities of an institution.

The national depositor preference statute which grants preference to “deposit liabilities” over other general creditors, requires domestic depositors, insured and uninsured, be paid *in full* before remaining creditors can collect their claims. Since the FDIC pays the insured depositors in full and then stands in their place to seek recovery, national depositor preference may lower FDIC losses.

To see how this works, suppose a receivership has assets with a book value of \$100. Total assets net of losses and administrative expenses are \$90, but total depositor and creditor claims on the receivership are \$100, a difference that implies a \$10 total loss (see table 1).⁴ Once the secured claims (\$20) have been paid, \$70 remains for distribution to the other claimants.

With no depositor preference, depositors and general creditors are given the same liquidation priority and receive their *pro rata* share of the proceeds. For example, uninsured depositors hold \$6 of the total amount of unsecured claims (\$80). They will receive their share ($\$6/\80 —see column two of table 1) of the net value of assets for distribution (\$70—see note “c” of the table), or \$5.25. Since their claim was \$6, the loss to uninsured depositors is \$0.75. Similar calculations are made for the FDIC and for general creditors. Without depositor preference, most of the \$10 total loss is imposed on the FDIC.

With depositor preference, however, the FDIC and uninsured depositors stand before the general creditors. In our example, because total deposits (\$76) are more than the net value of assets available for distribution (\$70), general creditors receive nothing. Uninsured depositors and the FDIC receive payments according to their share of the amount of their combined claims (\$76). Depositor preference thus shifts some of the burden of the \$10 total loss away from the FDIC toward the general creditors for a given liability structure.

¹ For a more detailed discussion of the bank-failure-resolution process, see Bovenzi and Muldoon (1990).

² Secured claims receive priority only for the value of the collateral securing the claim. If the value of the collateral is less than the amount of the claim, the unsecured portion falls into the priority scheme according to the type of claim.

³ The wording in the Federal Deposit Insurance Act, Sections (3)(1)(3), (3)(1)(5)(A), is the basis of this definition. The legislation specifically mentions the following territories of the United States: Puerto Rico, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Virgin Islands, and the Northern Mariana Islands.

⁴ For the sake of simplicity, in this example, all deposits are domestic deposits.

Table 1
Illustration of the Effect of Depositor Preference

Failed-Bank Assets				
Total book value				\$100
Total recoverable value (net of administrative expenses)				\$ 90
Failed-Bank Liabilities				
Secured liabilities				20
FDIC (as subrogee ^a for insured depositors)				70
Uninsured deposits ^b				6
General creditors				4
Total Liabilities				\$100
Net value of assets available for distribution ^c				\$ 70
Claimant Losses with No Depositor Preference				
	<u>Claim</u>	<u>Share</u>	<u>Payment</u>	<u>Loss</u>
Secured liabilities	\$ 20.00	NA	\$20.00	\$ 0.00
FDIC (as subrogee for insured depositors)	70.00	\$70/\$80 ^d	61.25	8.75
Uninsured deposits	6.00	6/80	5.25	0.75
General creditors	4.00	4/80	3.50	0.50
Total	\$100.00		\$90.00	\$10.00
Claimant Losses with Depositor Preference				
	<u>Claim</u>	<u>Share</u>	<u>Payment</u>	<u>Loss</u>
Secured liabilities	\$ 20.00	NA	\$20.00	\$ 0.00
FDIC (as subrogee for insured depositors)	70.00	\$70/\$76 ^e	64.47	5.53
Uninsured deposits	6.00	6/76 ^e	5.53	0.47
General creditors	4.00	NA	0.00	4.00
Total	\$100.00		\$90.00	\$10.00

NA = Not applicable.

^a The insured depositors are covered in full by the FDIC. As a subrogee, the FDIC substitutes for the insured depositors and retains all of their rights as creditors.

^b In this example, all deposits are domestic.

^c The net value of assets available for distribution is total recoverable assets (\$90) less secured claims (\$20).

^d When there is no depositor preference statute, claimants in a given class receive their *pro rata* share of the net value of assets available for distribution. In this example, the total amount of unsecured claims is \$80. The fraction of unsecured claims held by the FDIC is \$70/\$80. Thus, the FDIC receives 7/8 of the net value of assets for distribution ($\$70/\$80 \times \$70 = \61.25).

^e When there is a depositor preference statute, the insured depositors (represented by the FDIC) and the uninsured depositors have priority over general creditors. Since the sum of their claims is greater than the net value of assets for distribution, the general creditors will receive no payments. The FDIC receives insured depositors' share of the net value of assets ($\$70/\$76 \times \$70 = \64.47), and the uninsured depositors receive their share ($\$6/\$76 \times \$70 = \5.53).

As this example makes clear, with depositor preference the bank's liability mix at the time of failure—specifically, the proportion of liabilities that are secured—has a major effect on the proportion of loss borne by the FDIC. However, as shown below, when a bank is troubled its liability structure is bound to change, since depositor preference gives uninsured and unsecured claimants a powerful incentive to protect themselves from loss. They can do this by with-

drawing their funds or obtaining security, in both cases increasing the losses to the FDIC from failure.

Historical Background and Prior Research

As noted above, for most of the FDIC's history (that is, from 1935 to 1993), all depositors had the same liquidation priority as general creditors. Under the original deposit insurance law, the Banking Act of 1933, insured deposits were preferred over uninsured de-

posits and other creditors, but the Banking Act of 1935 overturned this preference and put into effect the scheme that remained in place until national depositor preference was implemented in 1993. The 1935 scheme gave depositors and general claimants of a failed bank the same liquidation priority, with one exception: if the failed bank was state-chartered, the state law (if one was in place) determined the relative standing of depositors and general creditors. By the time national depositor preference was enacted, nearly 30 states had depositor preference statutes (table 2), but most of the institutions to which these statutes applied were small.

In the early 1980s there was much talk of the desirability of increasing market discipline. And the Penn Square failure in 1982, which resulted in what was then the largest payoff in history, heightened concerns about a potential increase in costs to the FDIC. In this climate, the FDIC published a study (1983) arguing for national depositor preference, maintaining that it would increase market discipline by imposing greater losses on certain creditors, thereby enhancing their desire to monitor the condition of depository institutions.

The FDIC had another reason for favoring national depositor preference: in certain circumstances depositor preference would reduce the likelihood of a payoff and greatly facilitate the use of a purchase-and-assumption (P&A) transaction. The reason the FDIC preferred to use a P&A transaction was that a P&A met the two essential objectives of bank-failure-resolution policies most important to the FDIC at that time. The first objective was to minimize disruption to the community where the insolvent bank is located. The second is to minimize the role of the government in owning and managing bank assets.⁵ Passing all the deposits will achieve the first objective. Passing most of the assets will achieve the second. In a typical P&A, the FDIC does both of those. Therefore, the FDIC preferred to use a P&A transaction.

At that time, when the FDIC was under an obligation to treat all creditors in a particular class similarly,⁶ circumstances might have prevented it from using a P&A. Some failed banks, for example, had significant amounts of contingent claims, such as standby letters of credit, loan commitments, and other potential legal claims. Because those claims, if they materialized, would be considered general creditor claims, the FDIC would be obligated to treat them the same as deposits and, under a P&A,

Table 2
State Depositor Preference Statutes

State	Effective Date
Alaska	October 15, 1978
Arizona	September 21, 1991
California	June 27, 1986
Colorado	May 1, 1987
Connecticut	May 22, 1991
Florida	July 3, 1992
Georgia	1974 ^a
Hawaii	June 24, 1987
Idaho	1979 ^b
Indiana	1943 ^c
Iowa	January 1, 1970
Kansas	July 1, 1985
Louisiana	January 1, 1985
Maine	April 16, 1991
Minnesota	April 24, 1990
Missouri	May 15, 1986
Montana	1927 ^c
Nebraska	1909 ^c
New Hampshire	June 10, 1991
New Mexico	June 30, 1963
North Dakota	July 1, 1987
Oklahoma	May 26, 1965
Oregon	January 1, 1974
Rhode Island	February 8, 1991
South Dakota	July 1, 1969
Tennessee	1969 ^c
Texas	August 26, 1985 ^d
Utah	1983 ^c
Virginia	July 1, 1983
West Virginia	May 11, 1981

Source: Osterberg (1996) and state statutes.

^a Legislation became effective on either January 1 or July 1.

^b Passed by both houses of the state legislature on July 1; enactment date is unclear.

^c Neither the month nor the day of enactment is available.

^d Texas amended its law in the spring of 1993 and did not have depositor preference until national depositor preference was enacted in August 1993.

would have to ensure that they were paid in full. The potential cost associated with a large amount of contingent claims could make a P&A too expensive to justify it relative to the option of a payoff.

⁵ Bovenzi and Muldoon (1990), 1–2.

⁶ This obligation was established in *First Empire Bank, New York, et al. v. FDIC*. For a detailed discussion of this ruling, see FDIC (1998), 251.

The large amount of contingent claims was one reason the FDIC was not able to use a P&A transaction in the 1982 failure of Penn Square Bank, N.A., Oklahoma City, Oklahoma. Penn Square had total assets of approximately \$500 million. It had issued \$2.1 billion in loan participations that the FDIC believed could result in lawsuits, thereby creating a huge contingent liability for any potential acquirer and ultimately for the FDIC. Since the FDIC was unwilling to assume this risk, depositors of Penn Square were paid off. Had depositor preference been in effect, the FDIC would have been allowed to segregate contingent claims and subordinate them to deposit claims, thereby facilitating the use of a transaction type other than a payoff.

Silverberg (1986), too, argued in favor of depositor preference. At the time, the FDIC typically covered all depositors fully in most bank failures. But because of the FDIC's obligation to treat all creditors in a particular class similarly, depositors and general creditors had the same liquidation priority. Silverberg objected, maintaining that if depositors were covered in full, they should receive a preferred creditor position, and if they did not, in a P&A transaction other general creditors would be receiving the benefit of full protection without incurring the cost of an insurance premium.

In 1988, with national depositor preference not yet enacted, the FDIC developed a rationale for resolving bank failures that allowed it to avoid treating all creditors of a given class equally. The FDIC maintained that according to common law, depositors and creditors could be treated differently as long as nondeposit creditors received at least as much as they would have received in liquidation.⁷ This *pro rata* technique was used in the First Republic transaction, for example.

In a 1989 study the FDIC compared depositor preference with the new *pro rata* technique, restating its case for depositor preference but declaring a preference for the *pro rata* policy. The FDIC requested explicit authority to distinguish between depositor and nondepositor claims. The agency received such authority when Congress codified the *pro rata* approach in the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA). Once the FDIC was able to facilitate P&A transactions using its authority to distinguish between depositor and nondepositor claims, its interest in depositor preference largely vanished.

Not only did the FDIC no longer need depositor preference as a way of facilitating P&A transactions, but the expectation of cost savings to the agency from national depositor preference was also being chal-

lenged. In an empirical study, Hirschhorn and Zervos (1990) examined the effects of the 28 state depositor preference statutes on the thrift industry during the 1980s, comparing institutions operating with and without depositor preference. Although depositor preference laws appeared to create savings for the FSLIC by making nondepositor claimants worse off, the empirical analysis indicated that depositor preference materially increased the number of creditors who require collateral, thus increasing secured liabilities. This increase in secured liabilities shifts losses to all other creditors, including the FDIC (as subrogee for insured depositors), thereby increasing the FDIC's losses from failure.

In sum, by 1993 the FDIC's desire to promote depositor preference had evaporated: the passage of FIRREA had made depositor preference unnecessary in terms of distinguishing between depositor and nondepositor claims, and empirical analysis had shown that the cost savings to the FDIC might actually be short-circuited by creditors who would seek to protect themselves. Nonetheless, the national depositor preference statute was passed on August 10, 1993, without meaningful public debate. The main impetus behind passage was that it allowed Congress to project cost savings to the FDIC and use these projected savings to offset part of the projected U.S. budget deficit.⁸

When national depositor preference was enacted into law, the banking crises of the 1980s and early 1990s were at an end. Total assets of failed banks fell from \$44.2 billion in 1992 to \$3.5 billion and \$1.4 billion in 1993 and 1994, respectively. Although the budget planners might have expected more bank failures—and thus more cost savings—the failures never materialized. Since the enactment of national depositor preference, the largest bank to fail had total assets of only \$340 million.

Passage of national depositor preference therefore came at a time when conditions in the banking industry made it unnecessary. In addition, public commentators were quick to react, casting doubt on the assumptions underlying it. Kaufman (1997) suggested that the potential cost savings (which the Office of Management and Budget had estimated to be near \$750 million over five years) might be illusory. Since the long-run dynamic effects were uncertain, he concluded it was not clear whether national depositor pref-

⁷ FDIC (1989), 246–48.

⁸ FDIC (1997).

erence on the whole would be good or bad for the FDIC.

He also argued that in the long run depositor preference would cause foreign depositors and fed funds sellers to protect themselves. They can protect themselves in a number of ways: demanding higher interest rates, requiring collateral for their claims, using put options or acceleration clauses that require payment when a bank gets into trouble, or altogether refusing to provide credit to banks. These efforts could result in an increase in market discipline, but they might also increase the probability of runs at large failing banks.

Thomson (1994) reinforced the argument that non-deposit creditors will not react passively to the subordination of their claims. He held that under national depositor preference a significant number of non-deposit creditors might convert their claims to claims senior to deposits, thereby increasing the loss to the FDIC in the event of failure.

Silverberg (1993, 1994) stated that national depositor preference would result in increased market discipline and only marginal cost reduction to the FDIC. To support his claim, he compared the balance-sheet structure of failed banks at the time of failure with the structure several years before failure. He found that as the banks approached failure, depositors and creditors sought to protect their interests.

Silverberg (1994) also discussed the implications of depositor preference for a bank's off-balance-sheet activity. He noted that once the FDIC started imposing losses on unsecured creditors such as holders of standby letters of credit, off-balance-sheet activity fell in weak banks and rose in healthy banks. Further, any potential cost savings from derivative contracts probably would be minimized by a customer's ability to obtain collateral for any exposure. Silverberg conceded, however, that depositor preference would limit the FDIC's exposure to certain contingent claims arising from litigation.

Silverberg (1994) suggested that the shortcomings of depositor preference might also have several ramifications for foreign depositors and creditors which banks could try to contain in various ways. To protect foreign deposits and creditors, banks could incorporate foreign operations into separately capitalized banks. Or legislation could be enacted to insure foreign deposits and subject them to deposit insurance assessments. Going one step further, bank holding companies could create subsidiaries that include not only foreign operations but also off-balance-sheet activities.

Osterberg (1996) conducted a study of commercial bank failures similar to the Hirschhorn and Zervos (1990) study of thrift failures. For banks that failed before 1993, he compared those located in depositor preference states with those operating in states without such laws. He concluded that the portfolios of banks were similar with and without depositor preference. But although the portfolios were similar, the cost to the FDIC of resolving a failed bank between 1986 and 1992 was lower for banks with depositor preference. He concluded, however, that the proof provided by his evidence was not strong enough to show that depositor preference was achieving its intended benefits.

Shifting Liabilities in Large Banks

The crux of the debate, therefore, was whether the potentially significant cost savings to the FDIC would be shortcircuited by the behavior of uninsured depositors and unsecured creditors. National depositor preference gave them a greater incentive to protect themselves. Generally, an exposed creditor can either seek collateral or leave the institution, and both actions offer full protection. Table 3 lists the major types of bank assets and liabilities and specifies which liabilities are generally either secured or used for collateral.

During the normal course of business, some creditors require security. For a mortgage or other borrowing, for example, some premises and fixed assets may serve as collateral. By definition, securities sold under agreements to repurchase are secured. Federal Home Loan Bank advances are required by law to be collateralized by loans. The Federal Reserve requires collateral for any borrowings from the discount window.

However, limitations do exist on the extent to which a large bank can give collateral for its liabilities. Banking law and regulation typically prohibit the use of collateral for many liabilities—most notably non-public deposits. Public entity depositors usually require that highly marketable securities be used for collateral—but securities account for less than 14 percent of the assets of banks over \$10 billion. Moreover, this proportion would probably diminish as a bank got into trouble and was required to fund deposit withdrawals by selling securities.

Rather than requiring collateral, depositors and creditors can simply withdraw funds, which will drain liquidity. When faced with such a liquidity drain, a bank typically sells its highest-quality, most-marketable assets first. If a troubled bank exhausts its supply of high-quality assets, it must sell less-marketable

Table 3
Bank Assets and Liabilities

Balance-Sheet Item	Used for Security/ Can Be Secured?
Assets	
Cash and balances due from depository institutions	No
Securities	Yes
Federal funds sold	No
Securities purchased under agreements to resell	Yes
Loans and lease financing receivables	Yes, for Federal Home Loan Bank advances and discount-window borrowings, also some loans may be offset against deposits
Trading assets	No, but some subject to offset
Premises and fixed assets	Yes, primarily mortgages
Other real estate owned	No, although may be subject to a prior lien
Investments in unconsolidated subsidiaries	No
Customers' liability to this bank on acceptances outstanding	No
Intangible assets	No
Other assets	No
Liabilities	
Non-public deposits	No, ^a but some subject to offset against loans outstanding
Public deposits	Yes
Federal funds purchased	Generally not, but may be secured as bank weakens
Securities sold under agreements to repurchase	Yes
Demand notes issued to the United States Treasury	Yes
Trading liabilities	No, but some subject to offset
Other borrowed money (includes discount-window borrowings and FHLB advances)	Discount-window borrowings and FHLB advances are always collateralized; otherwise, generally not secured
Bank's liability on acceptances executed and outstanding	No
Subordinated notes and debentures	No

^a Some states allow non-public deposits to be secured.

assets, and selling these requires more time. In the past, regulators and the market afforded these institutions such time. It is not clear that the same amount of time will be available to large, troubled institutions in the future.⁹

As for how depositors and creditors have in fact reacted to depositor preference (state or national), empirical studies, such as those by Hirschhorn and Zervos (1990) and Osterberg (1996), are limited by a relative scarcity of data. As mentioned above, from 1935 to 1993 depositor preference applied only to state-chartered institutions, and these were relatively small. Thus, the studies were able to analyze only relatively small institutions. But in theory, the greatest potential for cost savings to the FDIC from national depositor preference rests with large banking institutions, none of which has failed since 1993.

A bank's liability mix at the time of failure determines the extent to which depositor preference lowers the FDIC's costs, and as table 4 shows, the liability composition of FDIC-insured banks varies dramatically according to total assets. Small banks, those with assets of less than \$500 million, tend to rely more heavily on insured deposits as a funding base. In these banks domestic deposits make up 93 percent of total liabilities; estimates indicate that 85 percent of these domestic deposits are insured deposits. In the largest banks, those with assets above \$10 billion, domestic deposits make up only about half of total liabilities, with insured deposits slightly less than 70 percent of domestic deposits. For these banks foreign deposits account for approximately

⁹ FDICIA, discussed below, requires the prompt closing of troubled institutions.

17 percent of liabilities, and other borrowing and other liabilities amount to 33 percent.

Since domestic deposits account for the overwhelming majority of small-bank liabilities, not surprisingly Osterberg (1996) found that for these institutions, depositor preference resulted in only modest cost savings to the FDIC. Further, since small institutions have few general creditors, it would be relatively easy for such creditors to flee or shift to a secured status before failure.

The data required to measure accurately the effect of national depositor preference on large banks are not always available. In particular, uninsured and unsecured balances of large banks at the time of failure are not always accurate, even in data supplied by the FDIC, because accurate data were not always needed. Before 1992, most large-bank failures were handled without loss to depositors and other creditors, so there

was no need for the FDIC to make an insurance determination. (The process of determining insurance requires detailed analysis of bank liabilities to determine those that are uninsured and unsecured. It is therefore extremely labor intensive and expensive, especially for a large bank.)

What is known is that liabilities may shift in large banks before failure, and figures 1–6 show the shifts in the balance sheets before failure for a set of large banks that failed between 1984 and 1992. This failure group consists of Continental Illinois National Bank and Trust (CINB),¹⁰ First Republic Bank (Dallas), MBank (Dallas), Bank of New England, Southeast Bank (Miami), and First City (Houston)¹¹. Balance-sheet

¹⁰ CINB did not fail, but received open-bank assistance from the FDIC. For the purposes of this study, a bank requiring financial assistance from the FDIC to cover losses is considered to have failed.

¹¹ The second failure of this institution, in 1992.

Table 4
Average Asset and Liability Composition by Asset Size of BIF-Insured Banks,
December 31, 1998 (\$Millions)

	Less than \$500 Million	\$500 Million to \$5 Billion	\$5 Billion to \$10 Billion	Over \$10 Billion
Number of banks	9,533	775	68	87
Total assets	\$103,990	\$1,356,388	7,021,725	\$46,084,166
Securities	26,794	343,485	1,367,901	7,292,407
as a percent of total assets	25.8%	25.3%	19.5%	15.8%
Pledged securities	7,659	111,549	444,217	2,988,051
	7.4%	8.2%	6.3%	6.5%
Unpledged securities	19,135	231,936	923,685	4,304,357
	18.4%	17.1%	13.2%	9.3%
Total liabilities	\$ 93,304	\$1,229,448	\$6,355,083	\$42,508,334
Total deposits	\$ 86,807	\$ 975,050	\$4,669,049	28,570,584
as a percent of total liabilities	93.0%	79.3%	73.5%	67.2%
Domestic deposits	86,730	962,176	4,598,675	22,173,579
	93.0%	78.3%	72.4%	52.2%
Foreign deposits	77	12,874	70,374	6,397,005
	0.1%	1.0%	1.1%	15.0%
Estimated insured deposits	73,919	758,784	3,463,074	15,336,257
	79.2%	61.7%	54.5%	36.1%
Estimated uninsured deposits ^a	12,812	203,392	1,135,601	\$ 6,837,322
	13.7%	16.5%	17.9%	16.1%
Brokered deposits	669	30,463	86,866	480,736
	0.7%	2.5%	1.4%	1.1%
Municipal deposits	1,736	8,163	48,009	214,556
	1.9%	0.7%	0.8%	0.5%

^a Includes foreign deposits.

data are from the Call Reports filed quarterly with federal regulators. Data reflecting the balance-sheet position on the date of closing (when available) are from the FDIC's Financial Information Management System (FIMS).¹²

The six figures show total liabilities and total deposits—broken down into foreign/domestic and insured/uninsured—for several years before failure. These data are merger-adjusted, so that data for merged institutions are included throughout the time series. In addition, the six figures identify capital-adequacy status of the banks, defined by the categories put forth in the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA): “well-capitalized,” “adequately capitalized,” “undercapitalized,” “significantly undercapitalized,” or “critically undercapitalized.”

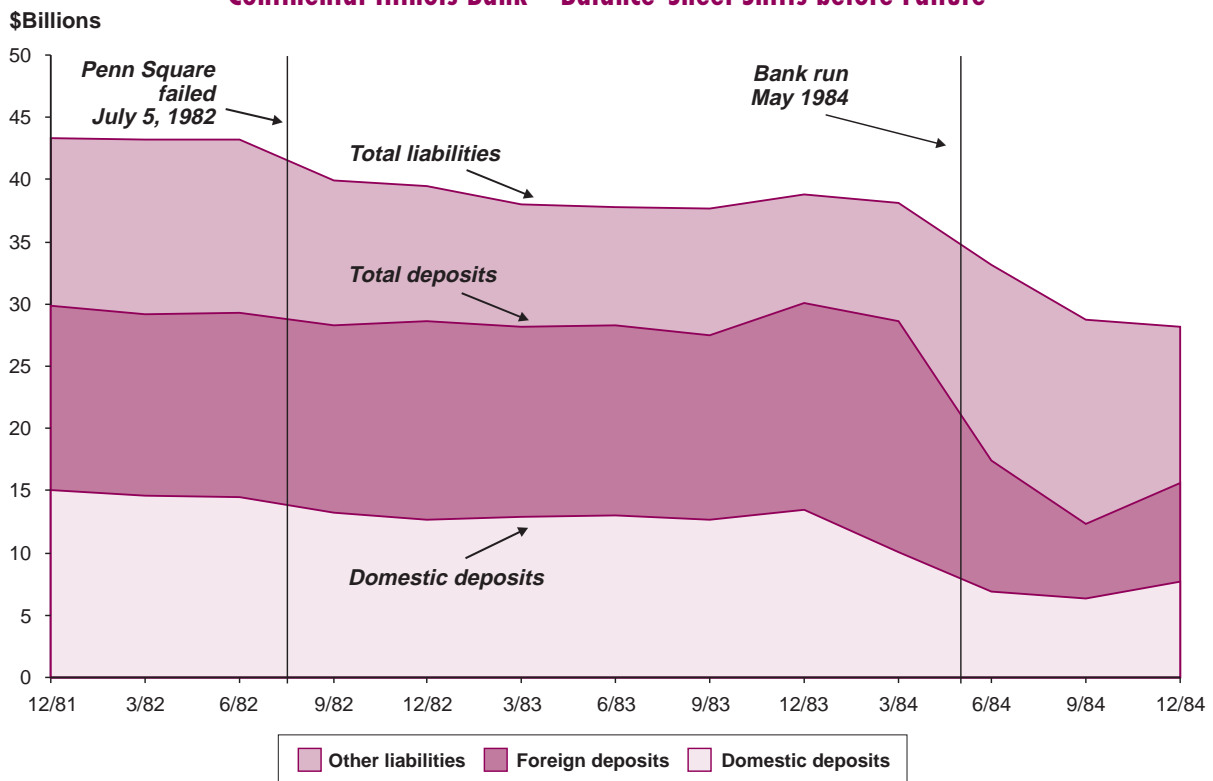
Estimates of insured deposits were not available for every period. Before March 1991, banks reported deposits over \$100,000 annually on the June Call Report; thereafter, banks reported them quarterly. These Call Report data can be used to estimate insured deposits, but these estimates are only that: estimates.¹³ In a few of the failed banks, insured deposits at the time of failure are available from FDIC FIMS data.

The identification of significant financial difficulties can occur long before failure. The six figures make it clear that in the case of Bank of New England, for example, financial difficulties were apparent in late 1989, but the bank did not fail until January 1991. Many of the banks in Texas struggled financially for even longer periods. The figures also make it clear that a troubled bank's liability structure changes considerably as it approaches failure. In all of these cases total liabilities decreased, uninsured and unsecured liabilities fell relative to insured deposits, and foreign deposits declined.

¹² FIMS data for insured deposits represent an initial estimate made at the time of closing. These estimates are rough, since only limited information on multiple accounts and pass-through coverage is available.

¹³ A sum of all deposits in a bank that are \$100,000 or less may result in either an over- or an underestimation of the true level of insured deposits. For example, depositors may have multiple accounts at a single bank, all of which are under \$100,000, such that the sum of these accounts exceeds the insurance limit. And loan customers may be able to offset loan balances against uninsured deposits. Such factors would mean that our estimate of insured deposits was too high. Alternatively, the FDIC grants pass-through coverage on certain large deposits in which multiple individuals have interests. This pass-through coverage would mean that our estimate of insured deposits was too low. Since data on multiple accounts and pass-through coverage are not available, appropriate adjustments cannot be made.

Figure 1
Continental Illinois Bank—Balance-Sheet Shifts before Failure



Although precise data on the uninsured and unsecured liabilities at the time of failure are unavailable, the data suggest that both types of liability generally declined rapidly just before failure. A notable exception was Continental Illinois. If these pre-failure trends continued in these large banks, unprotected depositor and creditor claims would have been small at the time of failure.

Of the six banks examined, all but Continental Illinois were large regional banks with a retail orientation. The evidence therefore suggests that large banks with a retail franchise can better weather a protracted period of financial deterioration before experiencing liquidity insolvency.

Continental Illinois, in contrast, was a wholesale bank that relied heavily on purchased money, especially foreign deposits. It relied about half as much on domestic funding—measured by domestic deposits as a percentage of liabilities—as the other banks in the group (table 5): Continental Illinois funded approximately 34 percent of liabilities with domestic deposits, whereas the comparable figure for the other banks was from 45 to 72 percent.

The financial difficulties facing Continental Illinois surfaced several years before failure. Troubles began with the collapse of Penn Square, a collapse that caused Continental Illinois to experience some funding difficulties because it had purchased a large amount of loan participations from Penn Square.¹⁴ But Continental Illinois was able to replace fleeing domestic deposits with foreign deposits. When rumors of more substantial problems at the bank surfaced in May 1984, its funding quickly collapsed and an FDIC-orchestrated bailout was required.

At the time of the bailout, as figure 1 shows,

Continental Illinois still held substantial amounts of foreign deposits. Of total deposits of almost \$30 billion, insured deposits were believed to be roughly \$4.5 billion. Clearly, had the FDIC followed the liquidation priority later required under national depositor preference, it would have imposed losses on foreign depositors, uninsured depositors, and general creditors and would not have lost money on this transaction.

Extrapolating from the data on these six banks, we can divide large banks into roughly two classes. The first group has characteristics similar to those of Bank of New England, MBank, and First City. These “retail” banks can use their substantial retail funding base to withstand considerable financial pressure. Even with depositor preference, creditors of these banks are likely to shift the majority of failure risk to the FDIC.

The second group consists of “wholesale” banks whose path to failure could more closely approximate that of Continental Illinois. Since “wholesale” banks rely more heavily on liabilities that have a lower liquidation priority, liquidity would quickly evaporate in the face of significantly bad press, although these banks would be able to withstand a moderate amount of bad news. In 1991, for example, Citibank, a large wholesale bank, announced large losses in the first quarter. Uninsured deposits fell from 12 to 9 percent of liabilities. Citibank, in contrast to Continental, was able to attract enough foreign deposits to maintain their total deposit base and avoid liquidity problems. When such institutions close because of liquidity problems, much of the risk of financial loss still rests with uninsured and unsecured creditors, especially under depositor preference.

¹⁴ For more detail about Continental Illinois, see FDIC (1997), chap. 7.

Table 5
Balance-Sheet Characteristics of Six Large Failed Banks before Failure

Institution	Assets	Liabilities	Deposits (\$Millions) and Deposits as a Percentage of Liabilities (%)									
			Total	Domestic		Foreign		Estimated Insured ^a		Estimated Uninsured ^{a,b}		
Bank of New England	\$21,346	\$20,264	\$15,740	78%	\$12,865	63%	\$ 2,875	14%	\$7,478	35%	\$7,666	36%
First Republic	25,445	24,262	15,912	66	10,857	45	5,055	21	3,678	15	7,179	30
First City	7,280	6,983	4,355	62	3,809	55	545	8	2,337	40	1,051	18
MBank, Dallas	8,906	8,586	6,801	79	6,232	73	568	7	2,383	27	4,363	50
Southeast	14,578	13,935	10,975	79	9,999	72	976	7	6,378	46	4,597	33
Continental Illinois	44,923	43,162	29,302	68	14,530	34	14,772	34	NA	NA	NA	NA

NA = Not applicable.

Note: Merger-adjusted.

^a Earliest figures available within the two years before failure.

^b Includes foreign deposits.

National Depositor Preference

Figure 2
First Republic Bank, Dallas—Balance-Sheet Shifts before Failure

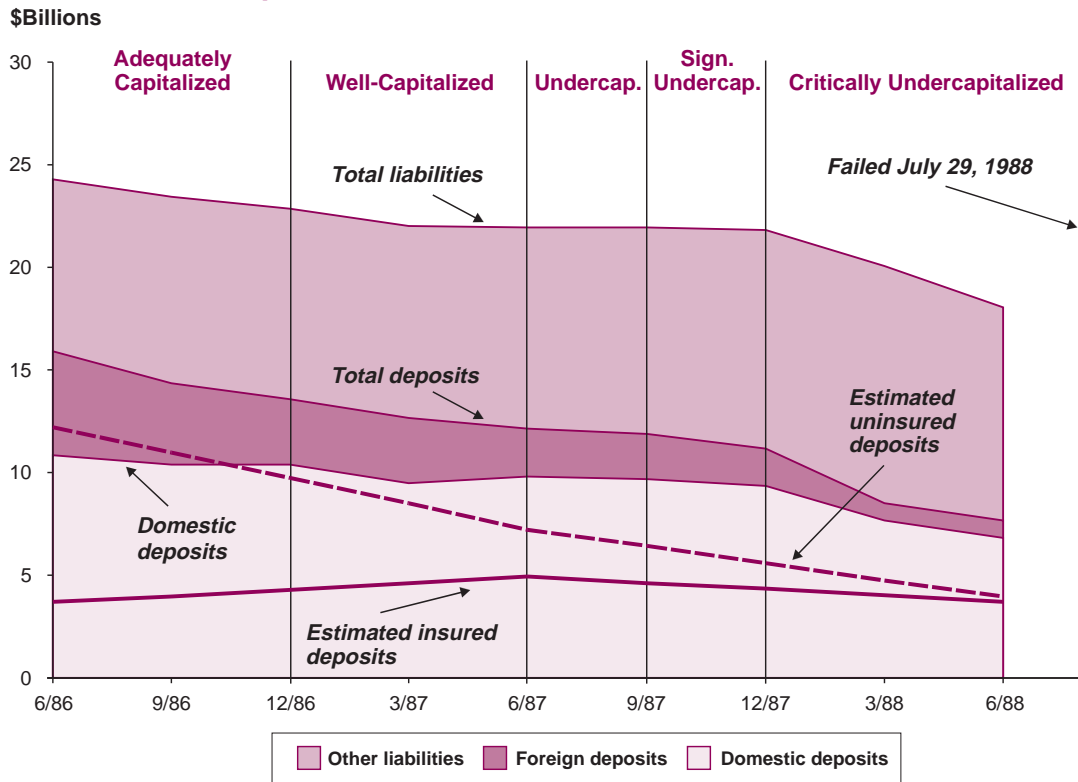


Figure 3
MBank, Dallas—Balance-Sheet Shifts before Failure

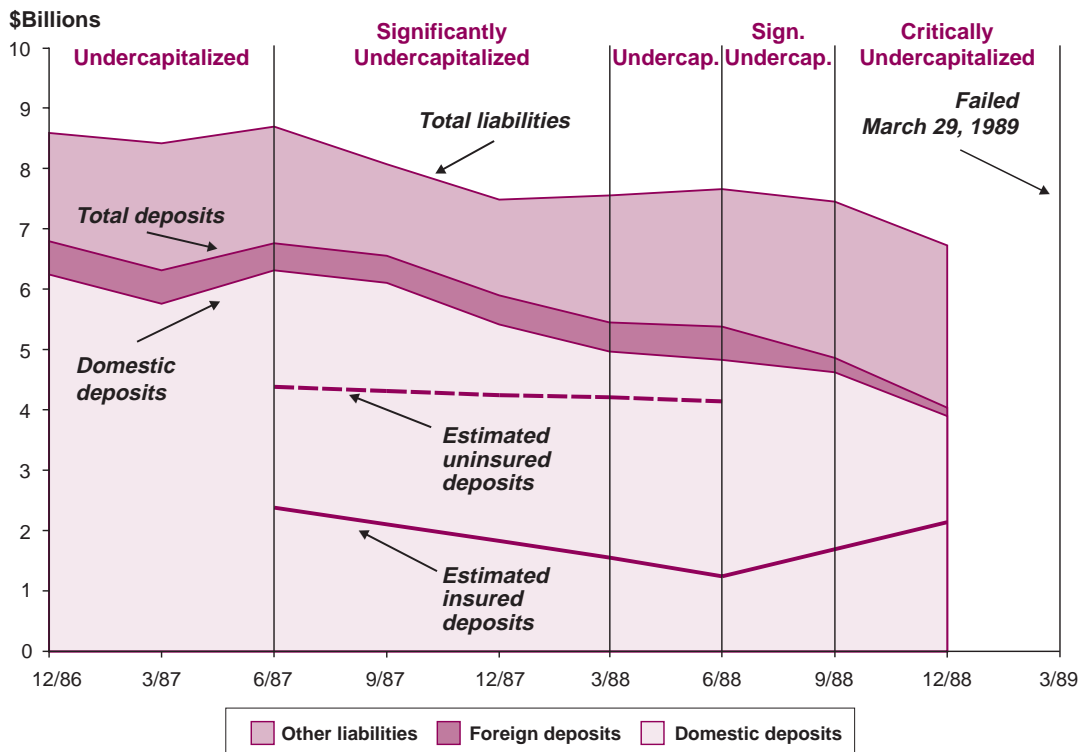


Figure 4
Bank of New England—Balance-Sheet Shifts before Failure

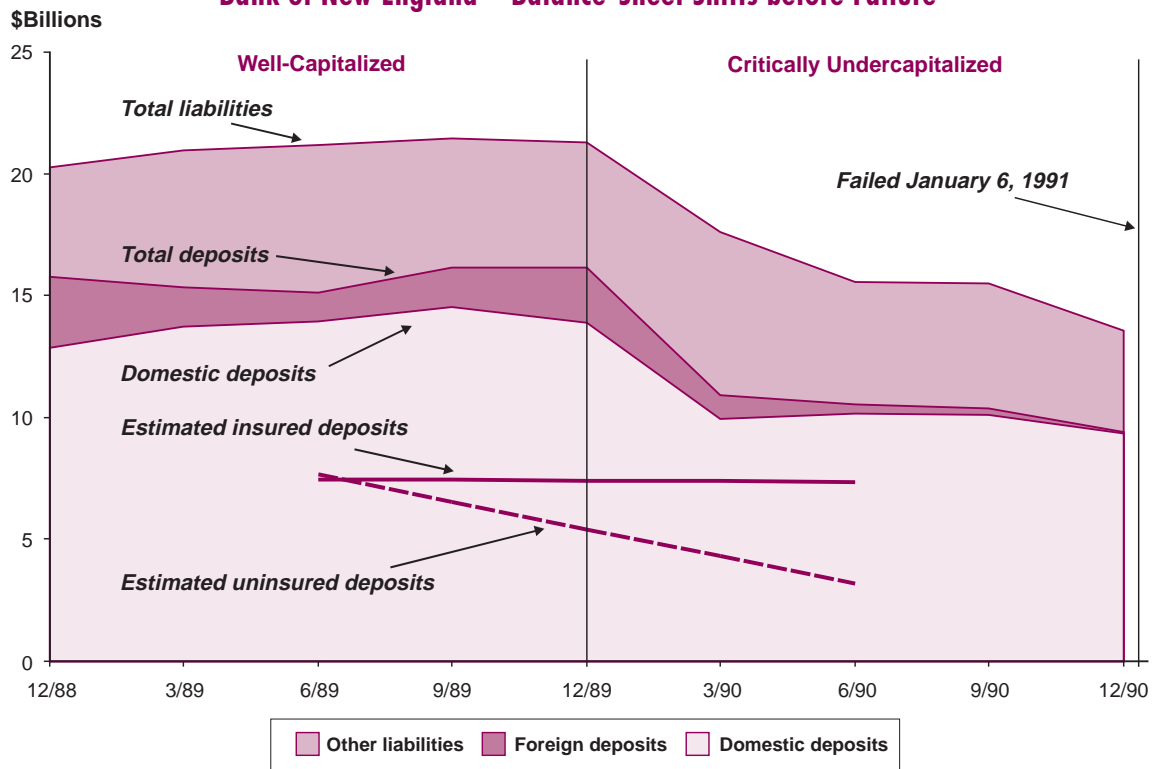


Figure 5
Southeast Bank, Miami—Balance-Sheet Shifts before Failure

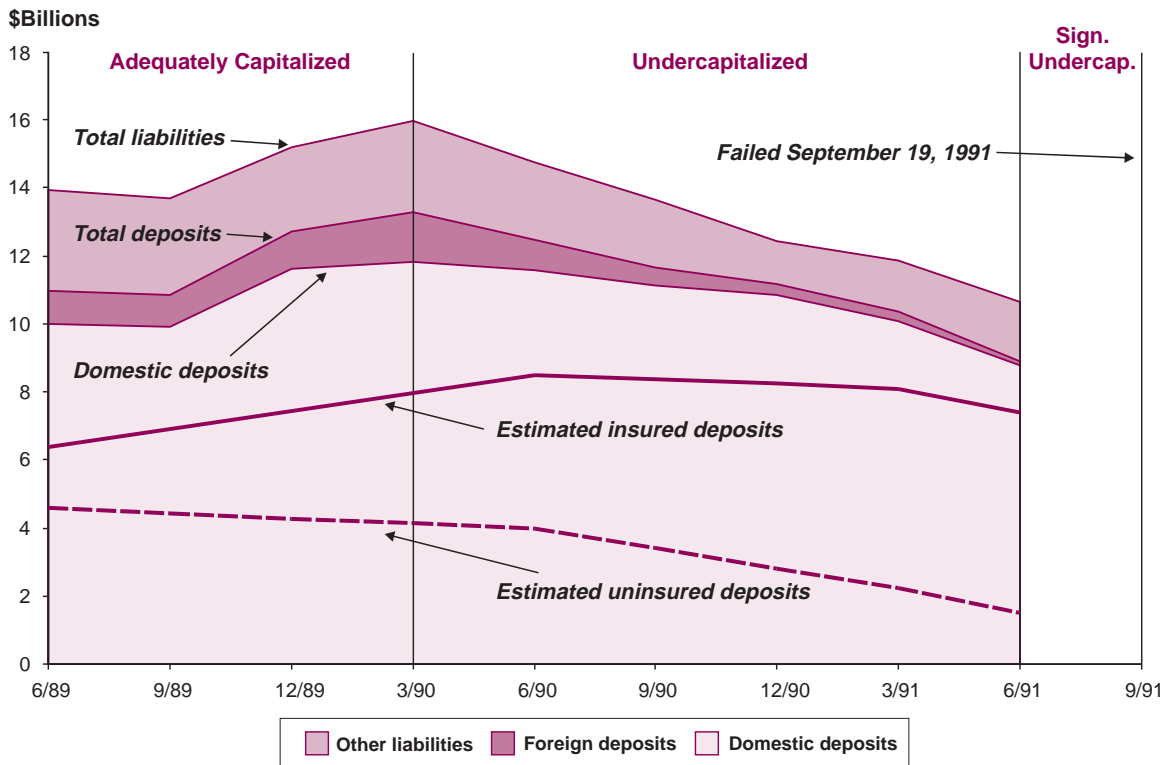
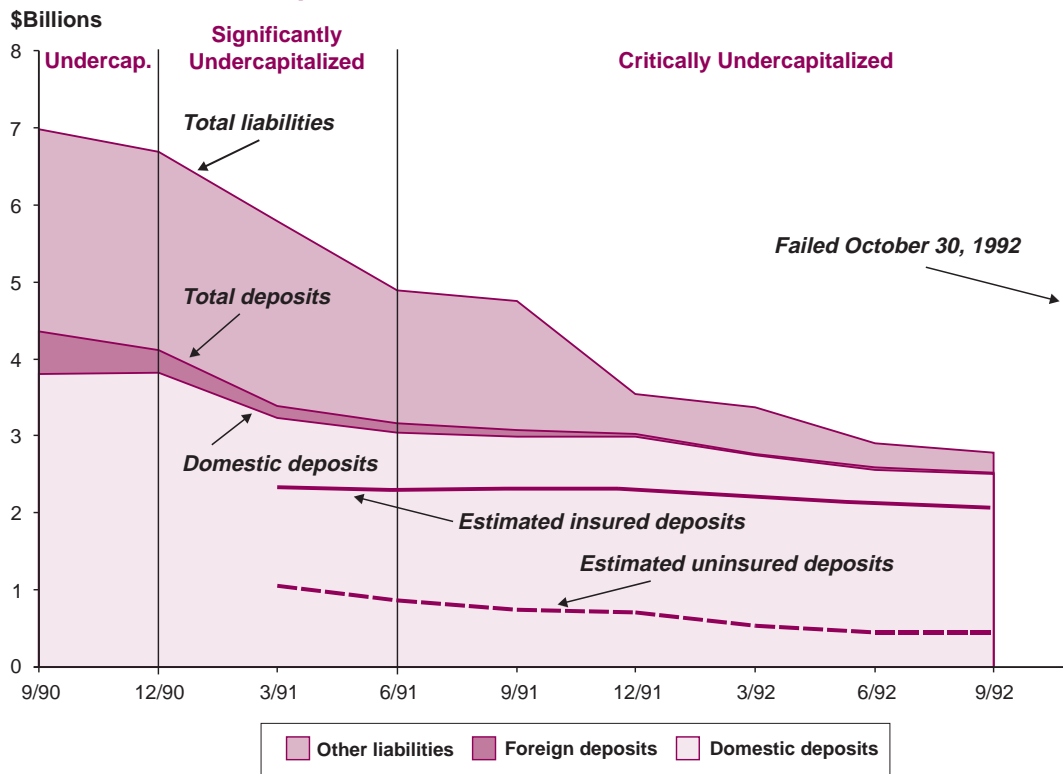


Figure 6
First City, Houston—Balance-Sheet Shifts before Failure



For the 50 largest BIF-insured institutions table 6 ranks the balance-sheet data as a percentage of total liabilities for the top and bottom 10 institutions in the ranking.¹⁵ The majority of the 50 largest institutions, especially the top ten, have a liability structure similar to that of the “retail” banks in the failure group. As mentioned above, their relatively stable funding base could allow them to weather relatively long periods of decline before failure. Certainly such a transition period would permit a considerable amount of liability shifting.

Some of the institutions at the bottom of the list appear to have a more “wholesale” structure. In these cases the FDIC might be able to benefit substantially from depositor preference. Yet (as discussed in the next section) these may be the very institutions most likely to have some or all of their claims covered in full because of the “systemic risk” provisions of FDICIA.

FDICIA, Systemic Risk, and National Depositor Preference

Historically, as shown above, large banks have experienced considerable balance-sheet shifting before failure. It is important to note, however, that these institutions were operating under a different set of

rules and market perceptions from the ones that exist today. Not only national depositor preference but also many other changes were enacted into law in the 1990s, all designed to reduce the exposure of the deposit insurance funds to failed banks.

FDICIA in particular contained numerous provisions concerning the treatment of financially distressed and failed banks that have implications for the consequences of national depositor preference. Foremost among these provisions was prompt corrective action (PCA), which raised the capital threshold for the determination of equity solvency.¹⁶ PCA also made it more difficult for federal and state regulators to delay closing capital-deficient institutions. Earlier closure, in turn, has the potential for reducing some of the liability shifting seen in past failures.

¹⁵ The figures are the sum of balance-sheet items of all of the FDIC-insured depository institutions in the bank or thrift holding company as reported on the Call Report. To the extent that transactions take place between banks within the holding company, the sum overestimates the amount reported on a consolidated balance sheet.

¹⁶ The PCA provisions of FDICIA define various capital categories for a bank, ranging from “well-capitalized” to “critically undercapitalized.” As a bank’s capital level diminishes and it falls into lower capital categories, federal regulators are generally required to take increasingly stringent action against the institution.

Table 6
Sum of Balance Sheets of 50 Largest Holding Companies, December 31, 1998

Ranked by Domestic Deposits to Liabilities (\$Millions)

Rank	Holding Company	Assets	Deposits as a Percentage of Liabilities				
			Total	Domestic	Foreign	Insured	Uninsured ^a
1	Union Planters	\$ 31,549	87%	87%	0%	74%	13%
2	Regions	38,739	85	81	3	61	20
3	First American	20,868	81	79	2	57	21
4	Firststar	40,326	79	78	1	58	20
5	Wells Fargo	195,809	81	77	4	56	21
6	Manufacturers	20,702	78	77	2	57	20
7	Mercantile	36,202	79	77	2	58	19
8	Summit	33,137	76	76	0	57	18
9	U.S. Bancorp	73,470	76	75	1	52	24
10	Marshall & Ilsley	21,557	81	75	6	56	19
41	Astoria	\$ 20,513	52%	52%	0%	49%	3%
42	California Fed	54,636	50	50	0	47	3
43	Bank of New York	61,343	81	50	32	23	27
44	Northern Trust	28,465	69	42	27	22	21
45	Chase Manhattan	355,483	66	40	26	18	23
46	Republic New York	47,155	78	31	46	24	7
47	State Street	43,184	68	27	41	2	25
48	Bankers Trust	105,844	42	22	20	5	16
49	Citicorp	370,397	66	18	48	11	7
50	J. P. Morgan	175,919	34	5	29	0	5

^a Includes foreign deposits.

Some students of the 1980s banking crisis were critical of delays in bank closings, and they attributed some of the delay to the extent to which large, already troubled, banks used Federal Reserve discount-window borrowings to stay afloat. Hence, FDICIA restricted the Federal Reserve's ability to lend to troubled institutions, viewing such lending as an attempt to delay bank closings.

Figures 7–10 show discount-window borrowings relative to total liabilities and total deposits for four of the six failed banks in our sample.¹⁷ Each of these institutions relied on discount-window borrowing, and it may have extended the life of the institution.

FDICIA also changed the cost test used by the FDIC to choose the method of failure resolution. Before FDICIA, the cost test required only that the chosen resolution method be less costly than a payoff. FDICIA's "least-cost test" requires that the resolution method chosen be less costly than *all* alternative methods. The least-cost test makes it substantially more difficult for the FDIC to structure resolution transac-

tions in which uninsured depositors are covered in full, since there will usually be the less-costly alternative method in which only insured depositors are covered in full.¹⁸

Some argue that the effects of the least-cost test will be minimal for very large banks—precisely the banks that offer the largest cost savings to the FDIC from national depositor preference—inasmuch as the test does not apply if there is a determination of systemic risk. A systemic-risk determination requires two-thirds of the members of the FDIC Board of Directors and two-thirds of the members of the Board of Governors of the Federal Reserve System to find that complying with the least-cost test would have serious adverse effects on economic conditions or financial stability; if they make that finding, they forward a written recommen-

¹⁷ Consistent data on discount-window borrowing for CINB and First City were not available.

¹⁸ For further discussion of the effect of the least-cost test on the choice of resolution method, see Bovenzi and Muldoon (1990).

National Depositor Preference

Figure 7
First Republic Bank, Dallas—Discount-Window Borrowings

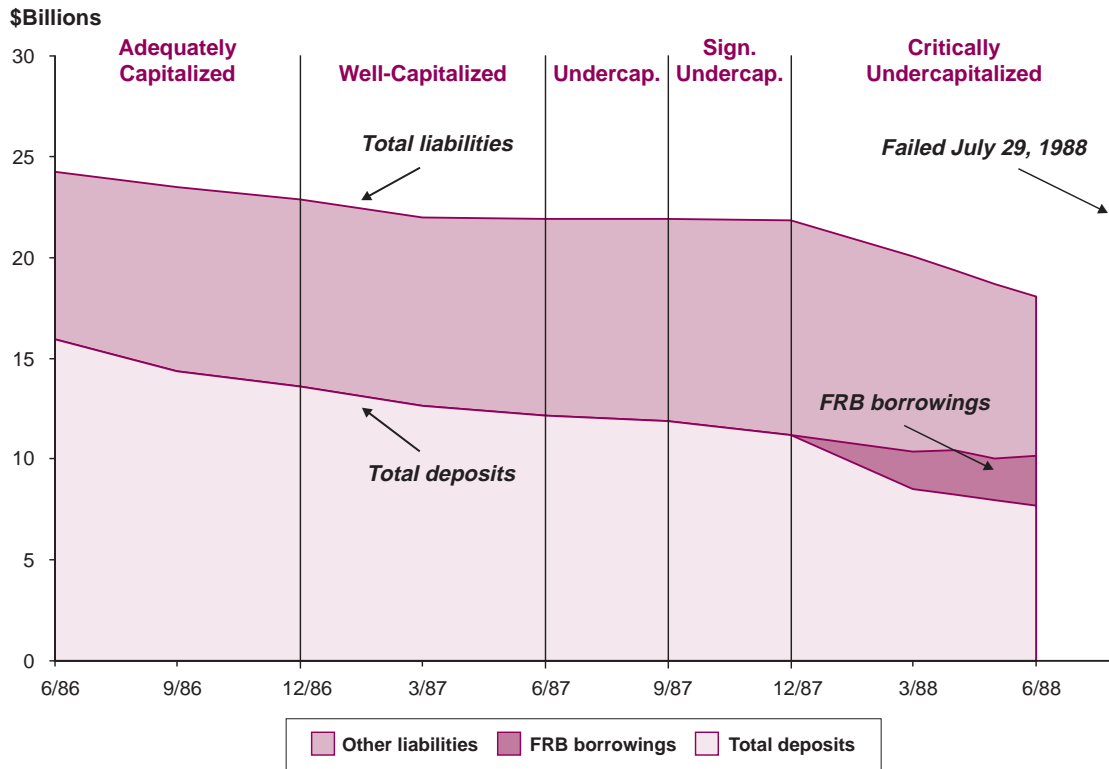


Figure 8
MBank, Dallas—Discount-Window Borrowings

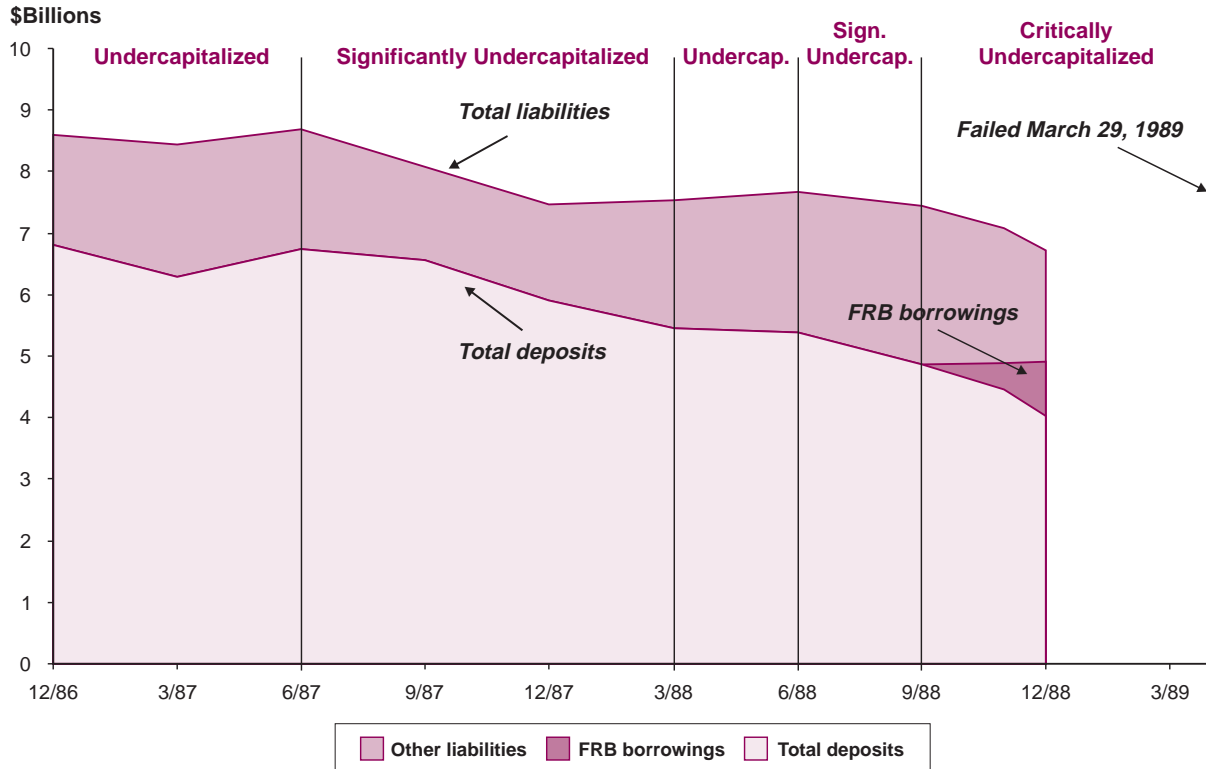


Figure 9
Bank of New England—Discount-Window Borrowings

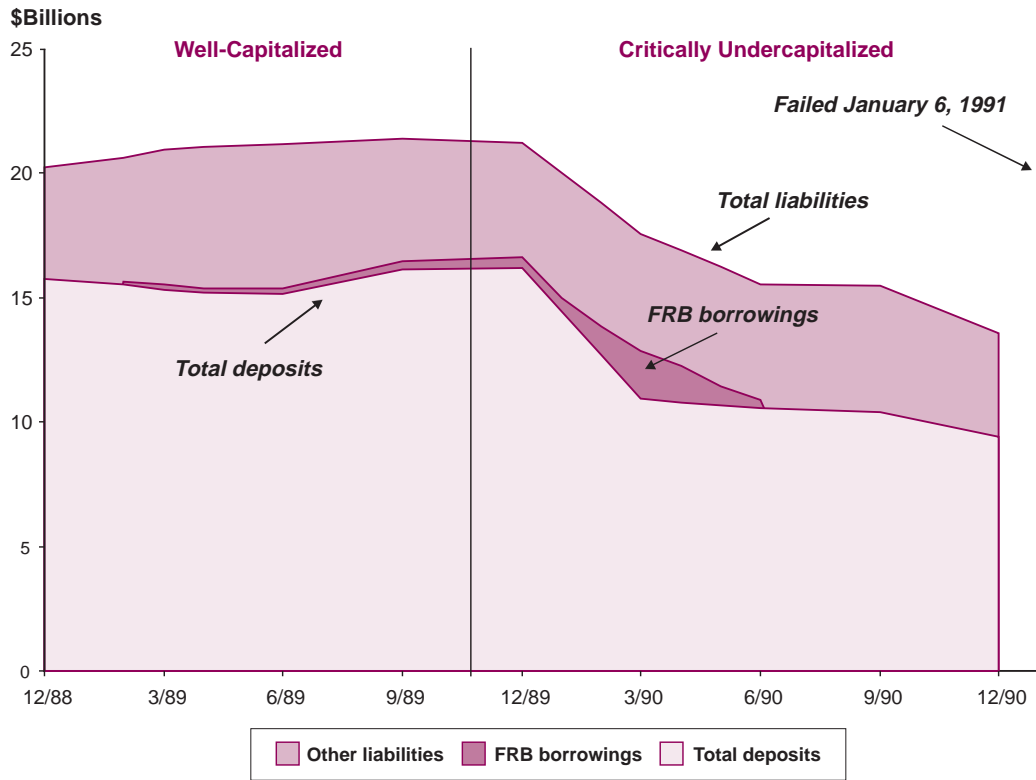
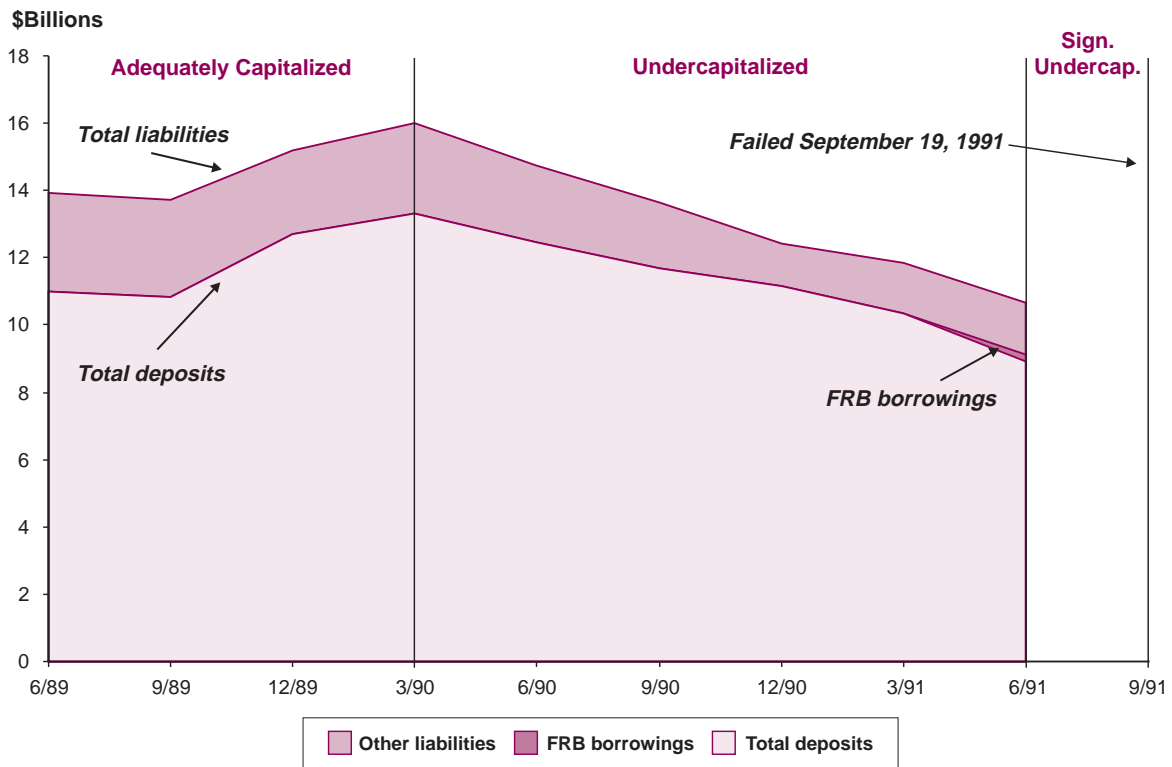


Figure 10
Southeast Bank, Miami—Discount-Window Borrowings



dation to the Secretary of the Treasury; who, in consultation with the President, must agree before the least-cost test can be waived.

Despite the intentions of Congress when it passed FDICIA, the least-cost test and the greater complexity of the systemic-risk determination process might produce additional market anxiety at the onset of future large-bank failures. Exposed creditors might be more skittish and therefore more prone to run or seek collateral. Uninsured depositors and unsecured creditors might move more aggressively to protect themselves. Thus, financially troubled banks might then face greater demands for collateral and be exposed to more aggressive runs.

On the one hand, such actions by exposed depositors and creditors will certainly cause a troubled institution to close earlier than under past rules. And earlier closure may cause earlier and more rapid shifting of risk to the FDIC. Thus, cost savings to the FDIC may end up being minimal. On the other hand, earlier closure may not give banks time to liquidate high-quality, but less-liquid, assets, and if higher-quality assets remain in the bank at the time of failure, the FDIC may lose less money when resolving a failed bank.

Treatment of Foreign Depositors and Proposals to Modify Depositor Preference

Doubts about the cost savings to the FDIC are one unintended consequence of national depositor preference. There is another, and possibly serious, implication for the FDIC. As noted above, national depositor preference does not extend to foreign depositors, who are treated the same as general creditors. This priority implies that the FDIC can impose losses on foreign depositors. But as Silverberg (1994) noted, if the FDIC attempts to impose such losses, it may lose control of the resolution process. If a country attempts to protect its depositors, it may decide to dispose—under its own laws—of the assets and liabilities of the domestic branches of a failed foreign bank (in this case the foreign bank would be a U.S. bank). Seizing such assets is sometimes called “ring fencing.” A country is more likely to protect its depositors and creditors with ring fencing if it believes the foreign country (for example, the United States) does not have a competent liquidation plan. In some countries, ring fencing is required by law. In this way, domestic depositor preference complicates the resolution of a large bank with a substantial presence abroad.¹⁹

Treating foreign depositors as general creditors increases the chances of ring fencing, but even without ring fencing, imposing proportionately larger losses on foreign depositors increases systemic risk and perhaps generates runs by foreign depositors on other large institutions. If the FDIC reduces the potential for ring fencing by offering to provide foreign depositors and creditors with more than would be dictated by receivership recoveries, it would be violating the least-cost test and would require a systemic-risk determination. Alternatively, legislative changes could be made so that foreign deposits were considered “deposits” for preference purposes while remaining uninsured. This change would decrease both the likelihood of ring fencing and the need for systemic-risk determinations.

Another way to decrease the incentive for ring fencing would be to enact insured depositor preference—the same liquidation priority as in the Banking Act of 1933. Under insured depositor preference, insured deposits would receive preference, and uninsured domestic deposits and foreign deposits would be treated the same as general creditors. Since foreign deposits (which are not insured) and uninsured domestic deposits would be treated alike, the fairness issue raised by foreign countries would have less merit.

Even though insured depositor preference has the advantage of possibly decreasing the incentive for ring fencing, proposals to enact it have had political opposition. Insured depositor preference would put small banks at a competitive disadvantage to the extent that depositors at some large institutions would be perceived as receiving *de facto* 100 percent coverage (because of the systemic-risk provisions of FDICIA) for their *uninsured* depositors, and these institutions would therefore be able to attract more depositors.

Insured depositor preference would do more than decrease the likelihood of ring fencing. It would also increase market discipline by shifting a greater amount of failure risk from the FDIC to other market participants. For the 50 largest bank holding companies ranked by insured deposits to liabilities, table 7 shows the deposit structure of the top and bottom 10 institutions. The highly wholesale-oriented institutions that have the smallest proportion of domestic deposits (table 6) also have the smallest proportion of insured deposits (table 7). There are also numerous large, re-

¹⁹ It is possible for a bank to change the nature of its foreign-deposit contracts by making the funds payable in the United States (thereby placing them within the definition of a deposit). Doing so would generate costs in the form of reserve requirements imposed by the Federal Reserve and deposit insurance premiums; the net benefits or costs are difficult to quantify.

tail-oriented banking organizations that have relatively low levels of insured deposits. In fact, in three large banking organizations insured deposits account for less than 5 percent of total liabilities. Even with the shifting of liabilities, these modest levels of insured deposits imply a larger pool of liabilities to share losses than is the case under the current system.

Summary and Conclusions

The FDIC's experience with depositor preference has varied. The agency initially operated under an insured depositor preference mandate but quickly recommended that all deposits have the same liquidation status as general creditors. This priority system was enacted in 1935 and (except for state-chartered institutions) remained in place until 1993, when Congress adopted a domestic depositor preference scheme.

Public commentators were generally critical of the adoption of national depositor preference, particularly

since it was passed with little public debate and discussion. Many large banks have substantial amounts of foreign deposits and other unsecured liabilities, and the commentators thought this balance-sheet structure might have misled federal budget analysts into believing that considerable cost savings were available from depositor preference. But uninsured depositors and unsecured creditors of troubled banking institutions always seek to protect themselves. At failure, the amount of uninsured deposits and unsecured liabilities is much less than it was in the months or years before failure.

In any case, given the healthy state of the banking industry since passage of national depositor preference, the supervisory and market-discipline changes brought about by the combination of national depositor preference and FDICIA (1991) remain untested. When a large bank fails, these revisions will very probably alter the behavior of market participants in meaningful ways. Uninsured depositors and unsecured creditors

Table 7
Sum of Balance Sheets of 50 Largest Holding Companies, December 31, 1998
Ranked by Insured Deposits to Liabilities (\$Millions)

Rank	Holding Company	Assets	Deposits as a Percentage of Liabilities				
			Total	Domestic	Foreign	Insured	Uninsured ^a
1	Union Planters	\$ 31,549	87%	87%	0%	74%	13%
2	World Savings	31,958	72	72	0	71	1
3	Dime Savings	22,294	66	66	0	63	4
4	Charter One	24,878	66	66	0	62	4
5	Regions	38,739	85	81	3	61	20
6	Huntington	28,271	76	74	2	60	15
7	AmSouth	19,833	73	73	0	58	15
8	Mercantile	36,202	79	77	2	58	19
9	Firststar	40,326	79	78	1	58	20
10	Summit	33,137	76	76	0	57	18
41	Mellon	\$ 52,354	74%	66%	9%	37%	29%
42	Union Bank	36,428	87	75	12	33	42
43	Republic New York	47,155	78	31	46	24	7
44	Bank of New York	31,343	81	50	32	23	27
45	Northern Trust	28,465	69	42	27	22	21
46	Chase Manhattan	355,483	66	40	26	18	23
47	Citicorp	370,397	66	18	48	11	7
48	Bankers Trust	105,844	42	22	20	5	16
49	State Street	43,184	68	27	41	2	25
50	J. P. Morgan	175,919	34	5	29	0	5

^a Includes foreign deposits.

will probably be more skittish. They will protect their interests more actively and thus precipitate a liquidity failure much more rapidly than has been the case in the past. They will do this because earlier closures have a greater potential for leaving foreign depositors and other creditors unprotected, to the benefit of the FDIC.

Another likely consequence of the current depositor preference system—because this system gives foreign depositors only the same status as general creditors—is the greater probability of a systemic-risk determination in the case of a bank with sizable foreign operations. For without a systemic-risk determination, the FDIC would be required to pay domestic depositors in full before foreign depositors received anything, and placing foreign depositors behind domestic depositors would create a strong incentive for foreign countries to intervene in the failure process. In the past, some countries intervened in the process by structuring their own liquidation plans for the domestic branches and operations of a failed foreign institution. This process, often called “ring fencing,” is designed to protect a

country’s depositors in foreign banks from loss when the foreign bank fails. Since the national depositor preference scheme gives other countries’ depositors a lower priority than U.S. uninsured depositors, other countries are likely to consider it unfair and be more willing to engage in ring fencing.

Therefore, a system that gives preference to domestic depositors may not be the best and most effective form of depositor preference. An alternative would be to change the statute to grant foreign deposits the same standing as domestic deposits. Another option, certainly more controversial, would be to move to an insured depositor preference system like the one in effect from 1933-1935.

Because only relatively small institutions have failed since the adoption of depositor preference in 1993, we have a unique opportunity to reopen the depositor preference debate. Other options—either preference for all depositors, foreign and domestic, or preference only for insured depositors—should be discussed and debated as viable alternatives.

BIBLIOGRAPHY

- Banking Act of 1933*. U.S. Public Law 73-66. 73rd Cong., 1st sess., May 17 to June 16, 1933.
- Banking Act of 1935*. U.S. Public Law 74-305. 74th Cong., 1st sess., April 19 to June 3, 1935.
- Bovenzi, John F., and Maureen E. Muldoon. 1990. Failure-Resolution Methods and Policy Considerations. *FDIC Banking Review* 3, no. 1:1–11.
- Federal Deposit Insurance Act of 1950*. U.S. Public Law 81-797. 81st Cong., 2nd sess., September 22, 1950.
- Federal Deposit Insurance Corporation (FDIC). 1934. *Annual Report*. FDIC.
- . 1983. *Deposit Insurance in a Changing Environment*. FDIC.
- . 1984. *The First Fifty Years: A History of the FDIC, 1933–1983*. FDIC.
- . 1987. *Mandate for Change: Restructuring the Banking Industry*. FDIC.
- . 1989. Deposit Insurance for the Nineties: Meeting the Challenge. Unpublished manuscript.
- . 1996. *Failed-Bank Cost Analysis*. FDIC Division of Finance.
- . 1997. *History of the Eighties, Lessons for the Future: An Examination of the Banking Crises of the 1980s and Early 1990s*. 2 vols. FDIC.
- . 1998. *Managing the Crisis: The FDIC and RTC Experience, 1980–1994*. 2 vols. FDIC.
- Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA)*. U.S. Public Law 102-242. 102d Cong., 1st sess., December 19, 1991.
- Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA)*. U.S. Public Law 101-73. 101st Cong., 1st sess., August 9, 1989.
- Hirschhorn, Eric, and David Zervos. 1990. Policies to Change the Priority of Claimants: The Case of Depositor Preference Laws. *Journal of Financial Services Research* 4:111–25.
- Kaufman, George G. 1997. The New Depositor Preference Act: Time Inconsistency in Action. *Managerial Finance* 23, no.11:56–63.
- Lutton, Thomas, and David Becher. 1994. Depositor Preference. Office of the Comptroller of the Currency memo dated March 24, 1994. Duplicated.
- Omnibus Budget Reconciliation Act of 1993*. U.S. Public Law 103-66. 103d Cong., 1st sess., August 10, 1993.
- Osterberg, William P. 1996. The Impact of Depositor Preference Laws. Federal Reserve Bank of Cleveland *Economic Review* 12:1–12.
- Silverberg, Stanley C. 1986. A Case for Depositor Preference. *FDIC Banking and Economic Review* 4, no. 4:7–12.
- . 1993. A Case for Broadening the Deposit Insurance Assessment Base. Unpublished manuscript. Independent Bankers Association of America.
- . 1994. Depositor Preference, Insurance Costs, and the Cost of Supervision. *The Golembe Reports* 1994–2.
- Thomson, James B. 1994. The National Depositor Preference Law. Federal Reserve Bank of Cleveland *Economic Commentary*. February 15, 1–4.
- U.S. Department of the Treasury. 1991. Modernizing the Financial System: Recommendations for Safer, More Competitive Banks. U.S. Department of the Treasury.

Recent Developments Affecting Depository Institutions

by Lynne Montgomery*

REGULATORY AGENCY ACTION

Interagency Actions

Year 2000 Planning Guidance

Federal banking and thrift regulators issued additional joint guidance on May 7, 1999, in an effort to help answer frequently asked questions on Year 2000 contingency planning. The release, *Additional Questions and Answers Concerning Year 2000 Business Resumption Contingency Planning*, is intended to supplement Year 2000 guidance issued by regulators through the Federal Financial Institutions Examination Council in December 1998. The 1998 guidance said that financial institutions should finish their business resumption contingency plans (which are plans to guide institutions in resuming their core business processes if their computer systems fail) and design methods to test the plans by June 30, 1999. The new guidance states that institutions may conduct these tests after June 30, but early enough to allow ample time to make essential changes and retest, if necessary. *BBR*, 5/17/99, p. 878.

Final Rule on Specific Market Risk

The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation (FDIC) adopted a final rule allowing

banks that meet certain criteria to use their own valuation models to determine how much capital must be held to protect against specific market risk in their investment portfolios. In order to determine whether a bank's internal models are adequate to set capital levels, regulators will measure the models against various criteria, such as whether the models measure risk in a way that adequately explains historical price variations in the institution's investment portfolio. The final rule, which contains no substantive changes from the interim rule that was published in the *Federal Register* on December 30, 1997, is intended to reduce banks' regulatory burden by ending the requirement that they use two methods to measure their risk exposure to price fluctuations of stocks and bonds in their trading portfolios. Banks whose internal valuation models fail to meet the rule's minimum adequacy standards will have to continue to hold capital at least equal to half of the specific risk charge calculated under the standardized approach developed by the international Basel Committee on Banking Supervision. *BBR*, 4/5/99, p. 611.

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Reference sources: *American Banker* (AB); *The Wall Street Journal* (WSJ); *BNA's Banking Report* (BBR); and *Federal Register* (FR).

Joint Working Group to Issue Guidance on Disclosure of Credit Losses

The federal banking and thrift regulators and the Securities and Exchange Commission issued a joint statement on March 10, 1999, announcing plans to work together to issue guidance on the appropriate disclosure of credit losses by banks and thrifts. The agencies plan to set up a Joint Working Group of agency representatives to understand more about the procedures and processes of credit loss allowances. The regulators hope to issue parallel guidance within a year on two issues on credit loss allowances. The first issue relates to the procedures and processes necessary for banks to reasonably assess losses inherent in their portfolios and ways to document the reported loan-loss allowance. The second relates to appropriate disclosures of loan-loss allowances and the credit quality of institutions' loan portfolios. The guidance will also address the need for institutions to disclose changes in risk factors and asset quality that affect allowances for credit losses. *BBR, 3/15/99.*

Federal Deposit Insurance Corporation

New Insurance Rules for Joint Accounts and Payable-on-Death Accounts

On March 23, 1999, the FDIC Board of Directors approved changes that are intended to simplify the deposit insurance rules for joint accounts and payable-on-death accounts. The maximum insurance coverage that a person can obtain for individual interests in joint accounts at one bank or thrift will remain at \$100,000. However, under the new rules, the maximum coverage for any joint account owned by more than one person is expanded from \$100,000 for each joint account to \$100,000 for each individual owner. The new rules for payable-on-death accounts add parents and siblings to the list of "qualifying beneficiaries," which already includes spouses, children, and grandchildren. *BBR, 3/29/99; PR-13-99, FDIC, 3/23/99.*

Bank Failures

On March 26, 1999, the FDIC closed Victory State Bank in Columbia, South Carolina, and took possession of the bank in its capacity as receiver. The

newly chartered South Carolina Community Bank in Columbia, South Carolina, assumed the deposits of Victory State Bank and also purchased \$12.2 million of the failed bank's assets. Victory State Bank's sole office was re-opened on March 29, 1999, as South Carolina Community Bank. The FDIC estimates this will be a no-cost resolution for the Bank Insurance Fund (BIF). *PR-15-99, FDIC, 3/26/99.*

On April 23, 1999, New Mexico's Director of Financial Institutions closed Zia New Mexico Bank in Tucumcari, New Mexico, and the FDIC was named as receiver. All the deposits of Zia New Mexico Bank were assumed by the First National Bank of New Mexico in Clayton, New Mexico, which also purchased \$6.0 million of the failed bank's assets. The FDIC estimates this transaction will cost the BIF \$1.6 million. *PR-20-99, FDIC, 4/23/99.*

Real-Estate Survey—April 1999

The April 1999 issue of the *Survey of Real Estate Trends* reported that the nation's real-estate markets rebounded in recent months after a slowdown in the late fall and early winter. The April survey included an increased number of respondents reporting the condition of their local housing market as better than three months earlier. The survey polled 292 examiners and asset managers from federal bank and thrift regulatory agencies about developments in their local markets in the preceding three months. The proportion of respondents reporting that housing markets were on the upswing during the three-month period increased from 29 percent in January to 48 percent in April. Only 13 percent noted excess supply, down from 15 percent in January. As for local commercial real-estate markets, 69 percent of the respondents characterized supply and demand as in balance. Higher sales levels and sale prices were also reported for commercial properties in the April survey.

The national composite index used by the FDIC to summarize results for both residential and commercial real-estate markets was 69 in April, compared to 61 in January. Index scores above 50 indicate improving conditions, while index scores below 50 indicate declining conditions. *Survey of Real Estate Trends, FDIC, April 1999.*

Report on Underwriting Practices

The April 1999 issue of the *Report on Underwriting Practices* reported a decrease in the occurrence of risky loan underwriting practices at FDIC-supervised banks during the six months ending March 31, 1999, compared with the previous six-month period ending September 30, 1998. The FDIC examiners reported a small proportion of banks with high risk in current underwriting practices, loan portfolios, and loan administration. Examiners did note concerns about the level of “carryover debt” at FDIC-supervised banks actively making agricultural loans. Carryover debt refers to loans that are not paid off at the end of the growing season and are subsequently carried over into the next growing season. The survey of loan underwriting practices is aimed at providing early warnings of potential problems in underwriting practices at FDIC-supervised, state-chartered nonmember banks. The focus of the survey is threefold: material changes in underwriting standards for new loans, degree of risk in current practices, and specific aspects of the underwriting standards for new loans. The April report includes surveys from 958 FDIC-supervised banks that were examined during the six months ending March 31, 1999. *Report on Underwriting Practices, FDIC, April 1999.*

Financial Results for 1998 and First-Quarter 1999

The FDIC reported that the Bank Insurance Fund (BIF) earned \$1.3 billion in 1998 and \$244 million in the first quarter of 1999. The Savings Association Insurance Fund (SAIF) earned \$468 million in 1998 and \$99 million in the first three months of 1999. The BIF closed the first quarter of 1999 with a balance of \$29.9 billion. The SAIF closed the quarter with an unrestricted fund balance of \$9.0 billion and \$978 million in the new SAIF Special Reserve, which was established on January 1, 1999, and contains the amount by which the SAIF exceeds the Designated Reserve Ratio of 1.25 percent. Revenue for the BIF totaled \$2 billion for 1998 and \$438 million for the first quarter of 1999. The fund’s investments in U.S. Treasury securities earned \$1.7 billion in interest in 1998 and \$429 million during the first quarter of 1999. Deposit insurance assessments

were \$22 million in 1998 and \$10 million in the first quarter of 1999. The SAIF earned \$584 million in revenue during 1998 and \$141 million in the first quarter of 1999. Almost all revenue for both periods was derived from interest on investments in U.S. Treasury securities. The low numbers of bank and thrift failures contributed to the strong financial results.

During 1998 and the first quarter of 1999, the FSLIC Resolution Fund (FRF) assets in liquidation were reduced by \$1.4 billion to a balance of \$930 million on March 31, 1999. *PR-31-99, FDIC, 6/3/99.*

Semiannual Agenda of Regulations

The FDIC published its semiannual agenda of regulations in the *Federal Register* in May 1999, to inform the public of the Corporation’s regulatory actions and encourage participation in the rulemaking process. Many of the actions are the result of the FDIC Board of Director’s ongoing efforts to reduce the regulatory burden on banks, simplify rules, improve efficiency and comply with the Riegle Community Development and Regulatory Improvement Act of 1994. The agenda contains 22 regulatory actions. Four actions have been completed and the remainder are in various stages of the rule-making process. *PR-23-99, FDIC, 5/11/99.*

Federal Reserve Board

Vice Chairman Resigns

Federal Reserve Board Vice Chair Alice Rivlin announced that she plans to resign from the Federal Reserve Board, effective July 16, 1999. Ms. Rivlin, who joined the Federal Reserve Board in June 1996, plans to return to the Brookings Institution and spend more time with her family. With Ms. Rivlin’s resignation, the seven-member Federal Reserve Board of Governors now has two vacancies. *FRB-PR, 6/3/99; BBR, 6/7/99, p. 1017.*

Regulation CC

On March 23, 1999, the Federal Reserve Board announced rule changes that will give banks involved in mergers more time to make software changes so that the banks can focus on correcting Year 2000 computer-related problems. The amend-

ments to Regulation CC affect banks that consummate mergers between July 1, 1998, and March 1, 2000. Banks involved in mergers during this period will be treated as separate banks for purposes of Regulation CC until March 1, 2001. Banks involved in mergers after March 1, 2000, will be subject to the regulation's normal one-year transition period for merging banks. *FRB-PR, 3/23/99; BBR, 3/29/99.*

Office of the Comptroller of the Currency

Information-Sharing Accord

On June 7, 1999, the OCC announced that it had reached an agreement with insurance commissioners from eight states to exchange information related to customer complaints about bank sales of insurance products. The agreement calls for the OCC and state authorities to send copies of complaints to each other and also to communicate on other matters, including regulatory and policy initiatives. The OCC and state commissioners have worked together over the years on matters of common concern, including consumer protection. In December 1998, the OCC signed an agreement to share information with the Oklahoma Insurance Department. The eight states involved in the new agreement are Delaware, Kansas, Kentucky, Louisiana, Maine, North Carolina, North Dakota, and Pennsylvania. *BBR, 6/14/99, p. 1067.*

Federal Housing Finance Board

Mortgage Financing Program

On March 10, 1999, the Federal Home Loan Bank of Atlanta announced that it is joining the FHLBanks of Chicago and Dallas in participating in the Mortgage Partnership Finance (MPF) program. The MPF program, which was started as a pilot by the Chicago FHLBank, provides new competition in the secondary mortgage market by permitting FHLBank members to sell loans to the FHLBank rather than to Fannie Mae or Freddie Mac. *BBR, 3/15/99.*

Fees Prohibited in Lieu of Stock Redemption

The Federal Housing Finance Board adopted an interim final rule on March 19, 1999, which prohibits

the Federal Home Loan Banks from charging or accepting a fee instead of redeeming a member's excess capital stock. The rule was adopted to eliminate a practice under which a FHLBank gave members the option to pay a fee to the FHLBank in lieu of redeeming each member's capital stock exceeding 115 percent of a member's minimum capital stock as set by statute. The Finance Board stated that the FHLBanks are more than adequately capitalized and they do not need the excess capital stock. In addition, the Finance Board believes that allowing the payment of such fees would detract from the agency's ongoing efforts and initiative to ensure that the FHLBanks carry out their housing and community investment mission. *BBR, 3/29/99.*

Federal Home Loan Banks' Investments Limited

On May 28, 1999, the Federal Housing Finance Board passed a resolution that would limit the Federal Home Loan Banks to make only investments that are tied to the system's housing-related mission. The Federal Home Loan Banks would no longer be permitted to invest in mortgage-backed securities purchased on the secondary market. The resolution was introduced because critics feel that Federal Home Loan Bank activities have extended beyond the mission of funding housing and community development. *AB, 6/1/99.*

National Credit Union Administration

Small-Credit-Union Program

On March 18, 1999, the board members of the National Credit Union Administration (NCUA) agreed to launch a small-credit-union program. The program covers federal credit unions in three categories: small credit unions, newly chartered credit unions, and low-income designated credit unions. The program also allows for regional directors to offer assistance to federally insured state credit unions after consultation with state supervisors. The program provides a flexible framework for providing financial and technical support to those credit unions that may need some additional assistance to better serve their members, expand their membership base,

and build capital. Further, the program works toward future goals by meeting some prompt corrective action requirements. *BBR, 3/22/99, p. 538.*

New Insurance Rules for Joint Accounts

On April 15, 1999, following the action taken by the FDIC, the NCUA voted to adopt an interim final rule to simplify insurance regulations on joint ownership accounts. Under the new rule, the maximum coverage for any joint account owned by more than one person is expanded from \$100,000 for each joint account to \$100,000 for each individual owner. However, the maximum insurance coverage that a person can obtain for individual interests in joint accounts at one bank or thrift will remain at \$100,000. *BBR, 4/19/99, p. 715.*

Member Business Loan Rule

On May 19, 1999, the NCUA approved a member business loan final rule, incorporating loan-limit

provisions required under the Credit Union Membership Access Act (CUMAA). The CUMAA laid out the definition of a member business loan as “any loan, line of credit, or letter of credit, the properties of which will be used for a commercial, corporate or other business investment property or venture or agricultural purpose.” In addition, the CUMAA imposed an aggregate limit on a federally insured credit union’s outstanding member business loans of \$50,000. Under the CUMAA and the NCUA’s final rule, loans under \$50,000 to credit union members are not counted as member business loans, with a few specific exceptions. The final rule states that a federally insured credit union may not grant a member business loan that would result in an amount outstanding that is higher than 1.75 times the actual net worth of the credit union or 12.75 percent of the credit union’s assets, whichever is less. *BBR, 5/24/99, p. 944.*

STATE LEGISLATION AND REGULATION

New York

On April 8, 1999, the New York State Banking Board approved regulations to remove the ceiling on the fee that state-chartered banks may charge customers for “bounced” checks. The regulations, which went into effect on April 28, 1999, remove the current \$15 limit on fees for checks written against insufficient funds. The state Banking Department said the regulations were necessary to keep state-chartered banks competitive with federal banks, which have no limits on the amount they can charge for insufficient funds. *BBR, 4/19/99, p. 707.*

Pennsylvania

On May 27, 1999, Pennsylvania Governor Tom Ridge nominated former banker David E. Zuern as the state’s top banking regulator. Mr. Zuern would succeed Banking Secretary Richard C. Rishel. Mr. Zuern retired last year after a 28-year banking career.

Most recently he was president and chief executive officer of PNC Bank’s northwestern Pennsylvania operations. Mr. Zuern also headed Governor Ridge’s transition team for banking and insurance in 1994. *AB, 5/28/99.*

Texas

On May 21, 1999, Texas Governor George W. Bush signed a bill that requires all banks and savings and loans doing business in Texas but domiciled in other states to pay corporate franchise taxes in the same manner as financial institutions domiciled in Texas. The bill, which becomes effective on January 1, 2000, is aimed at the growing number of banking corporations doing business in Texas that have not been paying franchise taxes on revenues earned in Texas because they are domiciled elsewhere. *BBR, 6/14/99, p. 1071.*

BANK AND THRIFT PERFORMANCE

First-Quarter 1999 Results for Commercial Banks and Savings Institutions

FDIC-insured commercial banks earned a record \$18.0 billion in the first quarter of 1999, which is \$2.1 billion higher than in the first quarter of 1998. The first quarter was marked by an absence of major merger-related restructuring expenses at large banks, which had depressed industry earnings in recent periods. Large-bank earnings also were boosted by improvements in international operations and a record quarter for trading income. Banks' annualized return on assets (ROA) rose to 1.32 percent, compared to 1.11 percent in the fourth quarter of 1998 and 1.26 percent one year previously. The number of problem banks dropped from 69 in the fourth quarter of 1998 to 64 in the first quar-

ter of 1999, and assets of problem banks were approximately \$4.7 billion at March 31, 1999. There was one bank failure during the quarter.

FDIC BIF-insured mutual savings institutions reported profits of \$2.7 billion in the first quarter, which is the third-highest quarterly total in the industry's history. The higher earnings were made possible by low expenses for credit losses and strong growth in interest-earning assets. The industry's ROA for the first quarter was 0.98 percent, slightly below the 1.01 percent average in the first quarter of 1998. For the tenth consecutive quarter, no federally insured savings institutions failed. The number of problem thrifts increased by one institution to 16 at the end of the first quarter. *FDIC Quarterly Banking Profile, First Quarter 1999.*

RECENT ARTICLES AND STUDIES

On April 16, 1999, the Federal Reserve Bank of Cleveland released a report stating that traditional financial institutions need to realize specifically what unbanked low-income individuals need in a financial institution in order to promote the advantages of banks compared to nonbank payment-service providers such as check cashers. The report, entitled *Bringing the Unbanked Onboard*, states that "community organizations need to get involved in promoting the advantages for building a financial and credit history, as well as in teaching the unbanked how to use and manage a checking or other transaction account." Barbara A. Good, a former payments system specialist for the Federal Reserve, authored the report. *BBR, 4/26/99, p. 752.*

A paper written by Joanna Stavins of the Federal Reserve Bank of Boston states that banks could boost revenue by reducing or eliminating some fees imposed on checking accounts. Consumers tend to

reduce the amount of cash in their checking accounts if banks impose per-item fees, charge for the return of checks, limit the use of tellers, or assess ATM surcharges. The paper, entitled *Checking Accounts: What Do Banks Offer and What Do Consumers Value?*, concludes that fees seem to deter bank customers and induce them to deposit their money elsewhere. As a result, banks have fewer accounts on which they can assess fees, leading to lower revenues. *AB, 5/28/99.*

Nicholas Leung, Jean-Marc Poulet, and Timothy Savers of McKinsey & Co. write that half of all Asian banks will be involved in mergers within two years. The analysts claim that Asian governments are forcing banks to recapitalize quickly, which will force them to look for outside investors and will lead to mergers. In their paper, entitled *Asian Banking: After the Storm*, they state that when the current Asian crisis has passed, a handful of banks will have emerged in each market as the leaders. *AB, 5/28/99.*

INTERNATIONAL DEVELOPMENTS

European Union

In order to help European Union banking institutions ensure a smooth transition into Year 2000, the European Union finance ministers declared that December 31, 1999, will be a banking holiday for all Euro transactions in the 15 European Union member states. The finance ministers believe that the shutdown is necessary in order give the financial industry sufficient time to complete a full back up of all systems before midnight on December 31, 1999. *BBR*, 4/26/99, p. 769.

The European Commission released a report on April 13, 1999, stating that the European Union should not move up the introduction date for Euro notes and coins to a date earlier than January 1, 2002, as requested by some member states. Some member states believe that setting the introduction date earlier than January 1, 2002 would help solidify public acceptance of the single currency. However, the Commission concluded that moving the introduction to an earlier date would pose numerous legal and technical problems. *BBR*, 4/19/99, p. 723.

Canada

Effective March 31, 1999, the Canada Deposit Insurance Corporation (CDIC) adopted a risk-based premium system that replaced the single premium rate that has traditionally been charged on deposits. The new, four-level system is based on assessment of a deposit-taking institution's risk profile and is expected to produce substantial premium reductions for many financial institutions operating in Canada. The new system establishes four categories of premium rates to be applied to an institution's insured deposits. The institutions are assigned to a category on the basis of their rating on the following criteria: capital adequacy, profitability and asset concentration, regulatory ratings, and adherence to CDIC's Standards of Sound Business and Financial Practices. *BBR*, 3/29/99.

Japan

Under a new approach scheduled to begin in July 1999, Japan's Financial Supervisory Agency (FSA) will establish a more regular schedule for inspecting financial institutions, and auditing foreign banks, brokerages, and insurers. Japanese banks generally would be inspected every year, but banks that are in a healthy financial and management condition could be inspected less frequently, possibly every two or three years. In addition, the FSA will cooperate far more closely with the public prosecutors and the Nation Tax Administration in auditing Japanese and foreign banks, brokerages, insurers, and other financial-service providers. *BBR*, 6/7/99, p. 1037.

On May 14, 1999, Japan's FSA took prompt corrective action against Japanese regional bank Kofuku Bank Ltd. in response to a sharp drop in the bank's capital ratio. It was the first time that the FSA has imposed the tough legal measure on a bank since the prompt corrective action system was established in April 1998. The FSA's order requires Kofuku to reinforce its paid-up capital, slash its operations substantially, or terminate its banking business. *BBR*, 5/24/99, p. 957.

Mexico

Mexico's bank bailout agency, the Instituto para la Proteccion al Ahorro Bancario (IPAB), began operations on May 21, 1999. The main functions of the IPAB will be to administer Mexico's bank protection fund, conclude efforts to improve the Mexican banking system, and sell nonperforming assets. The IPAB was established by the Mexican Congress in December 1998 as an agency designed to replace FOBAPROA, an emergency federal deposit insurance fund that was established after the collapse of the peso at the end of 1994 and early 1995. *BBR*, 5/17/99, p. 907.