

FDIC Banking Review

Spring/Summer 1992

Vol. 5, No. 1

Table of Contents

Chairman
William Taylor

**Division of Research
and Statistics,
Director**
Wm. Roger Watson

Editor
George E. French

Editorial Committee
Frederick S. Carns
Gary S. Fissel
Arthur J. Murton

Administrative Manager
Detta Voesar

Editorial Secretary
Cathy Wright

Design and Production
Design and Printing Unit

- Resolution Costs of Bank Failures: An Update of the FDIC Historical Loss Model** page 1
by Richard A. Brown and Seth Epstein

The authors construct a financial model designed to measure the losses on assets placed into receivership by the FDIC. Corporation accounting data are then applied to the model in order to evaluate actual loss experience in receiverships between the years 1986 and 1990. In extending and updating previous work by Bovenzi and Murton, separate loss measurements are derived for six distinct asset types. Additionally, a cost accounting model is used to estimate expenses for each of the asset types. From these loss calculations a statistical model is developed to estimate losses in future bank failures as a function of the relative proportion of performing and nonperforming loans in the institutions' portfolios.

- Bank Failure Resolutions: Implications for Banking Industry Structure, Conduct and Performance** page 17
by John O'Keefe

This study examines the impact of failed-bank acquisitions upon acquirers' performance, and investigates the determinants of post-acquisition performance. Based upon a sample of recent failed-bank acquisitions, the study finds that the post-acquisition performance of the failed-bank acquirers was very similar to that of acquirers of nonfailed banks. Both groups of acquirers were able to improve asset quality and maintain profitability, on average, in the post-acquisition period. Neither group of acquirers appeared, however, to realize economies of scale or scope. Finally, while the FDIC often grants assurances to failed-bank acquirers, these assurances did not appear to result in a significant subsidy to failed-bank acquirers.

- Recent Developments Affecting Depository Institutions** page 36
by Benjamin B. Christopher

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.

The views expressed are those of the authors and do not necessarily reflect official positions of the Federal Deposit Insurance Corporation. Articles may be reprinted or abstracted if the *Review* and author are credited. Please provide the FDIC's Division of Research and Statistics with a copy of any publications containing reprinted material.

Single-copy subscriptions are available to the public free of charge. Requests for subscriptions, back issues or address changes should be mailed to: *FDIC Banking Review*, Office of Corporate Communications, Federal Deposit Insurance Corporation, 550 17th Street, NW, Washington, DC, 20429.

Resolution Costs of Bank Failures

An Update of the FDIC Historical Loss Model

by Richard A. Brown and Seth Epstein*

Between the years 1987 and 1990 there were 800 bank failures in the U.S. This development has focused considerable attention on the size and composition of resolution costs. Estimates of resolution costs are necessary to project future demands on the Bank Insurance Fund (BIF) and to evaluate particular resolution transactions. This study uses newly-available receivership data to estimate a model of loss on failed-bank assets.

This study does not represent the first attempt to model resolution costs. In the Fall 1988 issue of this *Review*, John Bovenzi and Arthur Murton published an article entitled "Resolution Costs of Bank Failures" that described a statistical model to predict loss on the assets of failed banks. It also described how loss estimates are used by the FDIC in applying the statutory cost test to proposed resolution transactions. The Bovenzi-Murton model has proved to be of continuing interest. Economists are interested in such a model because it provides evidence on the magnitude of bankruptcy costs in bank failures and identifies factors that influence

bankruptcy costs. Investment bankers and potential bank acquirers have used the model (or proxies for the model) to assist them in arriving at acceptable bids for failing institutions. FDIC policymakers routinely use the model to estimate failing-bank losses for the purpose of evaluating proposed resolution transactions.

This study extends and updates the Bovenzi-Murton model. In addition to bank failures that have occurred subsequently, there are other pressing reasons for an update at this time. The three-and-one-half years of additional receivership collections experience is important given the changing composition of problem institutions from energy and agricultural banks to banks with real-estate problems. Additionally, the availability of more detailed accounting data on the liquidation of failed-bank assets permits additional information to be focused on the problem of predicting loss.

The remainder of this article explains the development of the model, describes the results, and discusses applications. First, the use of loss estimates in the cost test is summarized, and the measurement of actual loss in

the aftermath of various transactions is discussed. Measurement issues influence both the definition of the sample of failed banks and how loss data are used subsequently. Next, a financial model of loss on assets is constructed and then used to evaluate the FDIC's experience in liquidating the assets of banks that failed from 1986-90. The final section describes a new statistical model based on the FDIC's liquidation experience that can be used to predict loss on assets in future bank failures.

Loss on Assets and the Resolutions Process

Use of Loss Estimates in the Statutory Cost Test

The role of the Bovenzi-Murton model in shaping FDIC resolutions policy has been narrowly defined. First, it generally has been regarded as a backup source of information to the on-site review performed by liqui-

*The authors are financial economists in the Division of Research and Statistics at the FDIC. We are grateful for numerous ideas and suggestions from Arthur J. Murton. We also thank the many others in the FDIC's Division of Research and Statistics and the Division of Accounting and Corporate Services who lent us their expertise.

dators. Second, neither the model nor the on-site estimate predicts total losses in the bank or loss to the FDIC insurance fund, but rather, *loss on assets*. This is the difference between the book value of assets at failure and the net value that can be recovered in liquidation. Third, the asset disposition scenario underlying both loss estimates assumes that the liquidation is conducted by the FDIC. This collection method may produce entirely different results than asset disposition by an acquirer or servicer who is fully or partially at risk of loss. Finally, the Bovenzi-Murton model is prone to relatively large prediction errors in the case of any one bank; however, these errors are expected to generally cancel each other out across large numbers of bank failures. The type and magnitude of prediction errors limit the ways in which any loss estimate can be applied.

Estimates of loss on assets are used in performing the statutory cost test for proposed resolution transactions. Prior to the enactment of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), the cost test required only that a proposed transaction be no more costly to the FDIC than a payout and liquidation. Under that rule, the FDIC could consider potential transactions in order of policy preference, and could select any transaction that satisfied the cost test. FDICIA requires that the FDIC consider all possible transaction types and choose the *least costly* alternative. This does not change the calculation of estimated costs for various transactions, but only how they must be compared.

The cost to the FDIC of a payout and liquidation is generally calculated by the following formula¹:

$$\text{Cost} = (\text{loss on assets} - \text{equity capital}) \cdot (\text{insured deposits} / \text{total liabilities}). \quad (1)$$

The first term in Equation 1 defines total expected loss in the bank as the loss on assets minus any remaining equity capital. The second term in parentheses accounts for the portion

of losses absorbed by uninsured depositors in a payout. By contrast, in a purchase-and-assumption (P&A) transaction, uninsured depositors are covered but a premium is paid by the acquiring bank. The cost test requires that this premium be at least as large as losses that would have been incurred by uninsured depositors in a payout. More in-depth treatments of FDIC resolutions policy and the cost test appear in Bovenzi and Murton (1988) and Bovenzi and Muldoon (1990). The measurement of *actual* loss on assets in the aftermath of a resolution transaction is discussed below.

Measuring Actual Loss for Various Resolution Transaction Types

Where Do Failed-Bank Assets Go?
Every resolution transaction divides the assets of the failed bank into as many as three parts:

A. *Assets assumed by the acquirer.* These assets may or may not be accompanied by one-time financial assistance or an option to later return the asset to the FDIC.

B. *Assets subject to a collecting pool or loss-sharing agreement.* These assets are managed and collected by the acquirer on behalf of the FDIC. Collecting-pool managers generally receive management fees and incentive fees, while loss-sharing generally exposes the acquirer to the risk of loss. These assets may or may not be carried on the books of the acquirer, and may or may not be funded by the FDIC.

C. *Assets assigned to the receivership.* These assets are managed and collected by FDIC liquidators on behalf of the claimants of the failed-bank receivership. Liquidators may, in turn, assign certain assets to subcontractors.

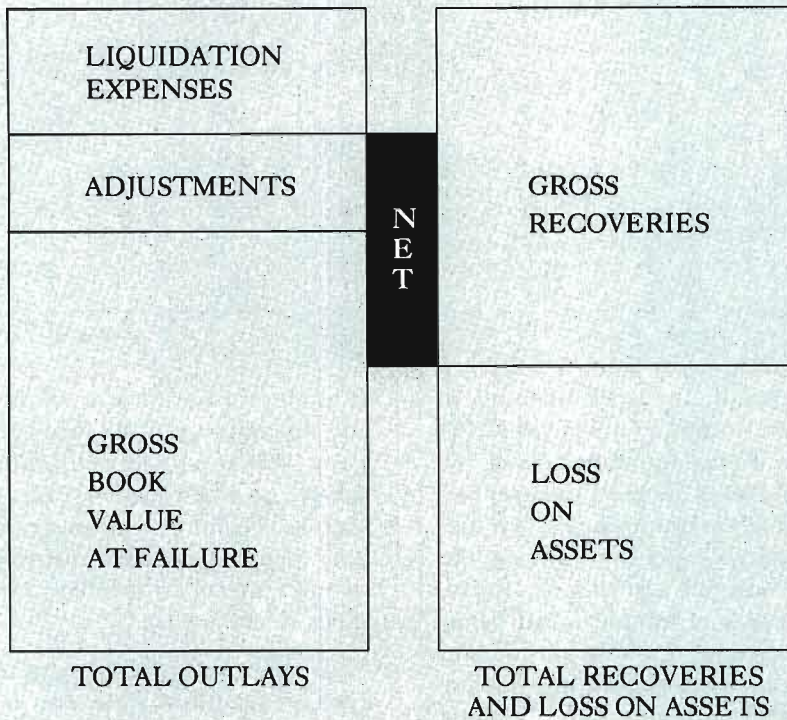
Aside from the treatment of uninsured depositors, FDIC resolution transactions are largely defined in terms of how failed-bank assets are handled. In a payout all assets gener-

ally are assigned to the receivership for liquidation (Category C above). In an effort to reduce losses, the FDIC has attempted to keep assets under private control whenever feasible and cost-effective. The FDIC's preferred way to keep assets in the private sector is by use of a total asset purchase-and-assumption (TAPA) transaction, whereby essentially all assets are assumed by the acquirer (Category A) in exchange for one-time financial assistance. The problem with this transaction is that uncertainty on the part of potential acquirers concerning the value of troubled assets often leads to requests for more financial assistance than the cost test can justify. This is not a problem if FDIC retains problem assets in receivership (Category C) and passes the "clean" assets to the acquirer (Category A), as is the case in a standard P&A transaction. While this effectively removes asset valuation as an issue, the FDIC has to dispose of the most difficult failed-bank assets.

Since 1988, two new types of P&As have been used to keep assets under private management while controlling the risk assumed by acquirers. Under a P&A incorporating a *collecting pool*, problem assets are managed by the acquirer under contract with the FDIC (Category B above). While the acquirer is not exposed to losses on these assets, the collecting-pool agreement provides the acquirer a management fee, reimbursement for asset-related expenses, and an incentive fee related to the level of recoveries. Examples of collecting-pool transactions include the acquisition of First Republic Bank by NCNB Texas in 1988 and the acquisition of the Bank of New England by Fleet/Norstar in 1991. The second type of structured P&A is based on *loss-sharing* between the FDIC and the acquirer on a specified pool of assets. Under the loss-sharing arrangement incorporated in the

¹The cost test is altered in the presence of secured and preferred liabilities or subordinated debt among the bank's liabilities, or if a depositor preference statute is applicable. See Bovenzi and Muldoon (1990).

Figure 1
Financial Components of Asset Disposition
by FDIC Liquidators or Acquirers/Service
of Failed-Bank Assets



1991 acquisition of Southeast Bank by First Union Bancorp, the FDIC will absorb 85 percent of charge-offs taken on qualifying failed-bank assets, with the acquirer picking up the remainder. Limited reimbursement of asset-related expenses incurred by First Union were also a provision of the Southeast transaction.

Under either of these arrangements, assets not assigned to a collecting pool or loss-sharing arrangement (Category B) are either retained by the receivership (Category C) or assumed outright by the acquirer (Category A). In order to measure the loss on assets in any transaction, one must track all of the assets to their ultimate destinations, summarized by Categories A, B, and C above. The next problem is the measurement of recoveries, expenses, and loss on these assets.

Measurement of Loss on Assets. Measurement of loss on assets consists of defining a standard for collections,

and then measuring net recoveries against that standard, as depicted in Figure 1.

The left-hand stack of Figure 1 represents total outlays by the FDIC with regard to failed-bank assets.² These are the sum of book value at failure (plus post-closing adjustments), and liquidation expenses. Total outlays represent the standard for 100 percent recovery of asset value. The right-hand stack in Figure 1 represents how well liquidators or acquirers did in recovering outlays. The sum of gross recoveries plus loss on assets is identically equal to total outlays. The shaded region between the stacks represents net asset recoveries, or gross recoveries minus expenses.

Implications of Data Availability for the Design of the Study. The design and implications of this study are shaped by the availability of data. Although the measurement of loss on assets is

conceptually the same no matter where the assets end up, available data on recoveries and expenses differ according to the mode of asset disposition. As a rule, detailed information on assets assumed or managed by acquirers is either not available or has only recently begun to be collected by the FDIC. For assets assumed outright by the acquirer (Category A), segregated data on failed-bank asset recoveries and expenses are generally unavailable. What is available is the gross transfer price of assumed assets. For standard P&A transactions, the assets pass at book value, implying 100 percent recovery of the asset. For transactions in which assets pass to the acquirer at a price lower than book value, the gross transfer price of assumed assets is known also. However, the specific markdowns for individual assets or types of assets are generally not available.³ For assets assigned to collecting pools or loss-sharing arrangements (Category B), data on recoveries and expenses are being collected currently. However, available data on past asset recoveries in collecting pools are generally incompatible with the receivership data this study utilizes.

Assets recovered by the receivership itself generate a detailed accounting record that facilitates measurement of net recoveries and loss on assets for several asset types. The Financial Information System (FIS) database of the FDIC tracks asset balances and cash flows for up to thirteen asset types.⁴ For the purposes of this study, asset portfolios are categorized into six asset types: installment loans, commercial and

² The term "outlays" is not to be confused with "cash outlays" which denotes the amount of cash assistance provided in a resolution transaction. Rather, the term is used here to describe the amount of cash and non-cash resources committed in taking over failed-bank assets and making recoveries.

³ For example, bids received for TAPA transactions reflect total financial assistance required for the assumption of the asset portfolio.

⁴ The thirteen asset types are: installment loans, commercial loans, student loans, failed-bank securities, mortgages, owned real estate, owned assets, mortgages in possession, charge-offs, other assets, judgments, serviced loans, and international loans.

Table 1
Sample of Failed Banks, 1986-1990
Including Payout, Insured-Deposit Transfer (IDTR), and
Purchase-and-Assumption (P&A) Transactions

Year of Failure	Asset Size (\$ in millions)			Charter			Region	
	Mean	Minimum	Maximum	National	State	Texas	Other SW ¹	Rest of US
1986	50.46	3.78	1,616.82	48	90	26	26	86
1987	38.61	3.33	529.98	59	105	46	40	78
1988	29.02	2.74	171.10	29	60	41	17	31
1989	50.77	1.57	854.86	54	69	77	15	31
1990	120.33	3.06	2,151.00	62	43	66	8	31
1986-90	56.00	1.57	2,151.00	252	367	256	106	257

¹ Located in the four states adjoining Texas.

industrial loans, securities, mortgages, owned real estate, and other assets.⁵

By using the detailed accounting data on receivership recoveries and expenses, a history of asset disposition by FDIC liquidators can be produced to capture the actual loss on assets for transactions in which all problem assets are disposed of by FDIC. These transactions include payouts, insured-deposit transfers, and standard P&A transactions. However, the available data are not sufficient to give the same treatment to transactions in which some or all of the problem assets were disposed of by the private sector. This means that TAPA transactions and P&As that involved a collecting pool or loss-sharing arrangement are omitted from the sample. Not only does this remove some of the largest recent bank failures, but it prevents analysis of how the private sector performs in disposing of assets. Data currently being assembled will facilitate future study of large-bank failures and private-sector disposition of failed-bank assets.

Sample. The sample consists of 619 banks that failed from 1986 through 1990. Specific samples analyzed in the following sections are derived from this group. Table 1 summarizes the financial characteristics of the

⁵The six asset types were arrived at to fold some of the minor categories (such as international loans) into other categories that were larger and more relevant to analysis.

overall sample. Sample banks range in asset size from \$1.57 million to \$2,151 million, averaging total assets of \$56 million. National banks represent 41 percent of the total sample. Ten mutual savings banks are among the state-chartered institutions. Forty-one percent of sample failed banks were located in Texas, while another 17 percent were located in adjoining Southwestern region states. Sample banks generally failed due to sector-specific credit problems with agricultural loans, energy loans, or real-estate loans.

Dealing with the Time Distribution of Collections. An important component of failed-bank asset disposition is the timing of recoveries. The FDIC seeks to market failed-bank assets immediately upon their assignment to the receivership; for many of the more marketable assets this is accomplished quickly. However, for less-marketable assets, time is needed to collect information, secure title to collateral if necessary, and to arrange the terms of sale. At the same time, periodic principal, interest, and operating income are received for notes, performing loans, and owned assets until the assets mature or are sold.

The time distribution of asset recoveries by asset type for failed-bank receiverships begun from 1986 through 1990 is characterized in Figures 2 through 7. The horizontal bars in each figure indicate the percentage

of total recoveries that occur in years one through five of the receivership, along with any projected future collections as of December 1991. Each horizontal bar indicates the aggregate time distribution of receivership recoveries for banks that failed during a single calendar year.

As might be expected, most recoveries on securities are made in year one of the receivership (Figure 2); this is also the case for installment loans (Figure 3), and to a lesser extent for the category "other assets" (Figure 7). Recoveries tend to proceed less quickly for commercial loans (Figure 4), mortgage loans (Figure 5) and, particularly, owned real estate (Figure 6). While banks closed during the early years of the sample have already realized most of their total projected recoveries (see the upper bars in each Figure), more recent receiverships (lower bars) have considerable unrealized collections. This raises the issue of how the as-yet-uncollected portion is estimated, and how reliable that estimation process is.

FDIC liquidators generate initial estimates of *gross cash recoveries (GCR)* for each asset when it is assigned to a receivership, and periodically update their estimates until the asset is fully recovered or written off. GCR consists of appraisals in the case of owned assets, cash-flow analysis for performing assets, and formulaic valuation of certain small-dollar-volume assets.

Receivership Asset Recoveries, Actual and Projected
Percent by Year

Figure 2
Securities

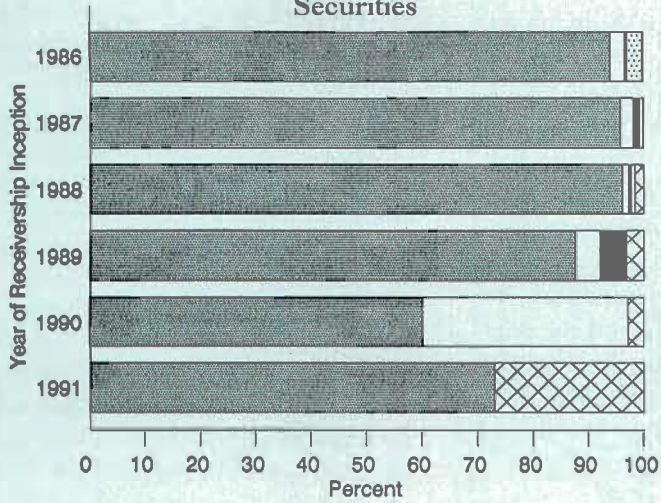


Figure 3
Installment Loans

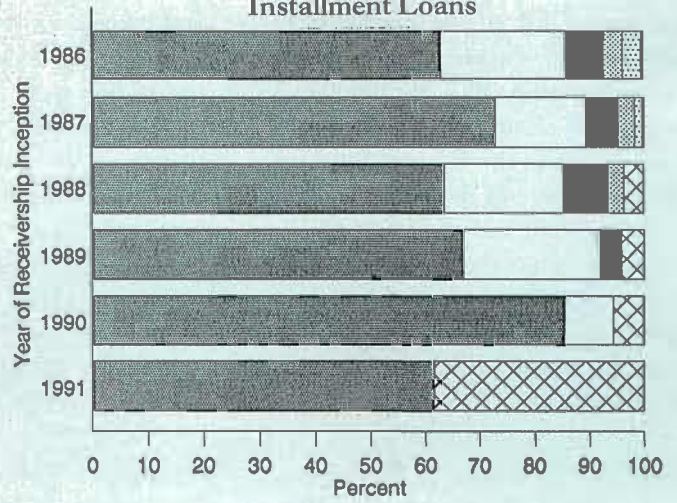


Figure 4
Commercial Loans

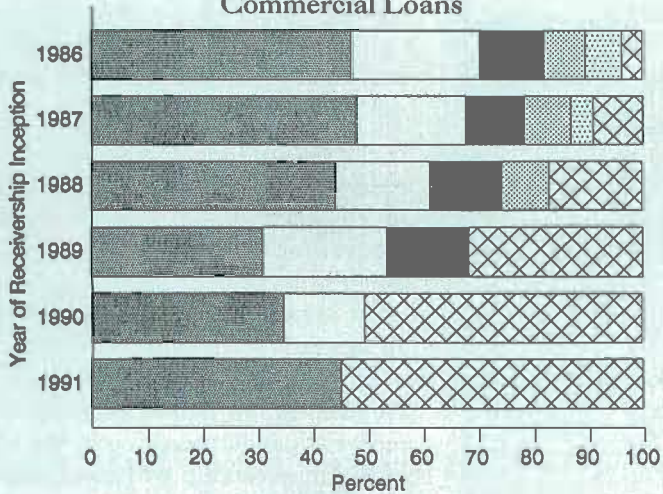


Figure 5
Mortgage Loans

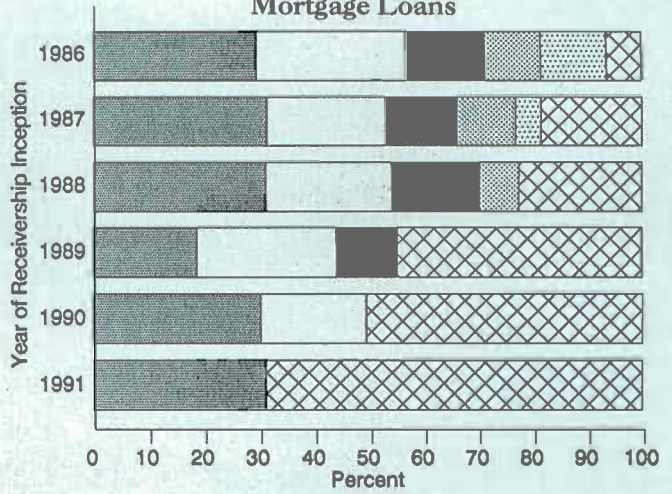


Figure 6
Real Estate Owned

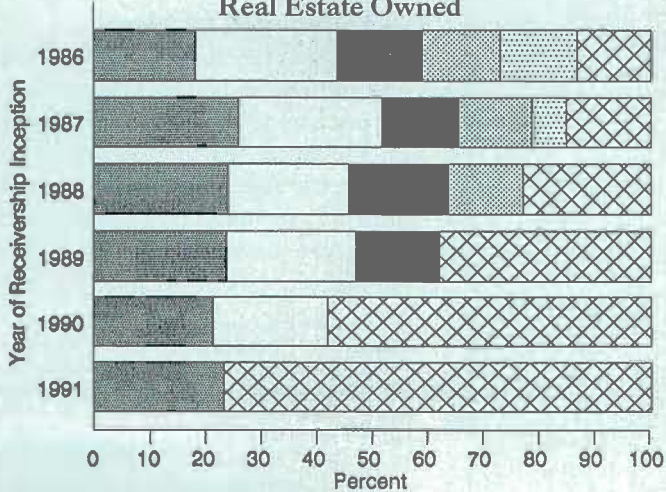
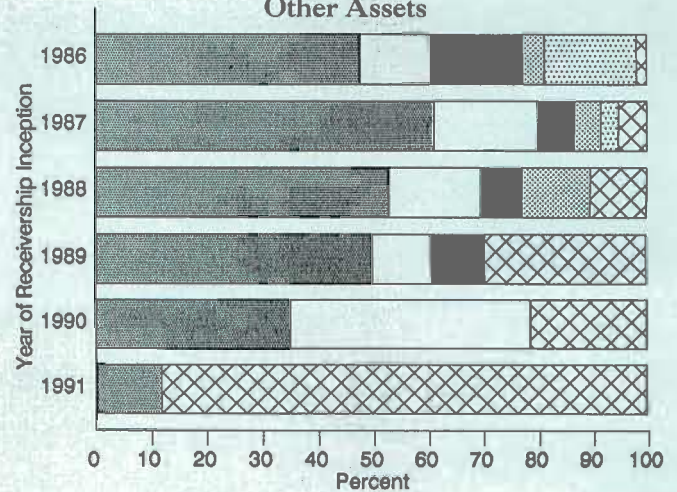


Figure 7
Other Assets



Cash Recoveries in Year 1
 Cash Recoveries in Year 2
 Cash Recoveries in Year 3
 Cash Recoveries in Year 4
 Cash Recoveries in Year 5
 Projected Future Recoveries as of 12/91

Because the measure of total projected recoveries for recent failed banks is highly dependent on GCR valuations in this study, an indirect test was conducted of the accuracy of GCR estimates made at the outset of the receivership. This test involves a comparison of the FDIC's initial estimate of loss to the Corporation (just after the failure of the bank) with an updated estimate as of December 31, 1990. For banks that failed between 1986 and 1988, the current estimate is based almost entirely on actual collections, while the initial estimate was based largely on GCR estimates.

Table 2 contains the results of this comparison. The sample includes all banks that failed between 1986 and 1990. Average initial loss estimates and average current loss estimates are presented by year of failure and by transaction type. The comparison indicates a tendency for loss estimates to rise on the order of three to five percent of total assets for failures that occurred between 1986 and 1988. Loss estimates for more recent failures show less of a tendency to change, due to their relatively brief collections experience. The overall tendency of loss figures to rise over

time is concentrated in the most difficult-to-collect receivership assets. This conclusion rests on the fact that any assets assumed by acquirers or sold at the outset of the receivership cannot be responsible for subsequent changes in FDIC loss estimates.⁶

The relative uncertainty in asset valuations for recently failed banks leads one to use loss estimates cautiously for those banks. However, because recent failures are also the most relevant cases to look to when predicting future bank-failure costs, a trade-off in quality *versus* relevance is implied. This study incorporates the recovery experience of bank failures through the end of 1990. Projected future recoveries as of the end of 1990 are measured as the GCR for that asset type as of the end of 1990. This represents the best available information concerning the value of receivership assets as of the time this study was undertaken.

The broad time distribution of recoveries also raises the issue of carrying costs for receivership assets during the recovery process. This study addresses this issue by incorporating an eight percent annual discount rate to all quarterly recoveries and expenses over the life of the receivership.⁷ Henceforth, all figures representing recoveries and expenses over the life of the receivership will incorporate this discount factor.

Liquidation Expenses

Expenses include direct expenses and indirect expenses (Equation 7). Direct expenses are incurred in the maintenance, management, and sale of specific assets. Examples of direct expenses include taxes, asset-related legal fees, brokerage fees, and asset management fees. In practice, they

⁶ Besides the value of assets, another uncertain factor in determining FDIC's loss is the amount and structure of receivership claims. However, because the FDIC predominates as a claimant to failed-bank receiverships, the effect of changes in non-FDIC claims is minimal.

⁷ While the choice of a discount rate is always controversial in this type of application (see, for example, Stiglitz (1982)), it is clear that the rate chosen is preferable to assuming a discount rate of zero.

Table 2
Average FDIC Reserve for Loss as a Percent of Failed-Bank Assets, by Transaction Type Just After Failure, and as of December 1990 for Banks Failing 1986-90

Year	Transaction Type	Number of Failed Banks	Average Initial Reserve	Average Final Reserve (12/90)	Average Change in Reserve
1986	Payout	21	36.6	34.4	-2.2
	IDTR	19	36.3	31.5	-4.8
	P&A	98	22.5	28.4	+5.9
	Total	138	26.5	29.8	+3.2
1987	Payout	11	31.0	36.2	+5.2
	IDTR	40	30.7	32.2	+1.7
	P&A	113	23.5	27.3	+3.8
	TAPA	19	15.6	16.6	+1.0
	Total	183	24.7	27.8	+3.1
1988	Payout	6	33.3	37.2	+3.9
	IDTR	29	40.9	35.4	-5.5
	P&A	54	23.2	31.2	+7.9
	TAPA	73	16.3	23.7	+7.4
	Total	162	23.7	28.8	+5.1
1989	Payout	9	38.5	35.2	-3.2
	IDTR	21	38.9	39.8	+0.9
	P&A	93	26.0	28.1	+2.1
	TAPA	44	20.2	18.4	-1.8
	Total	167	26.8	27.4	+0.6
1990	Payout	8	28.7	28.7	0.0
	IDTR	12	27.4	27.4	0.0
	P&A	85	23.1	23.0	-0.1
	TAPA (SLPA) ¹	62	23.3	23.3	0.0
	Total	167	23.8	23.7	-0.1

¹ SLPA indicates *Small Loan P&A* in which small-balance loss assets are purchased by the acquirer.

are almost entirely charged to owned real estate assets. Indirect expenses represent general liquidation expenses that cannot be charged to specific assets. This accounts for overhead associated with FDIC liquidation activities, including liquidator salaries, office expenses, and travel expenses. Although indirect expenses are not charged to specific receivership assets, a statistical procedure has been used to allocate them to asset-type categories. The results are incorporated in the model results that follow; further detail on expense definitions and allocation procedures appears in Appendix 1.

Summary of Results: FDIC Liquidation of Failed-Bank Assets, 1986-90

Net Recoveries on Receivership Assets.

The recovery experience of FDIC receiverships from 1986 through 1990 is summarized in Table 3. This analysis is based on the book value of assets assigned to receiverships from 1986 through mid-1988, plus those assigned to more recent receiverships that have been terminated. Net recoveries for this sample ranged from an average of almost 38 cents on the dollar for owned real estate to almost 88 cents on the dollar for securities. Much of the difference in net recoveries among asset types is due to differences in liquidation expenses. Direct expenses were almost exclusively confined to owned real estate assets, averaging almost nine percent of the receivership book value for that category. The statistical allocation of indirect expenses places them most heavily on the categories of installment loans (11.4 percent), owned real estate (8.3 percent), commercial loans (5.7 percent), and other assets (5.6 percent). The average level of gross recoveries across all asset types was 56.7 cents on the dollar, compared to 50.1 cents on the dollar after liquidation expenses.

The results in Table 3 indicate that for assets that end up in receivership,

Financial Model of Asset Liquidation

Accounting Identities

Seven accounting identities make up the financial model of asset liquidation. They appear in Equations 2 through 8 below:

$$\text{Total Assets} = \text{Assets Assumed} + \text{Assets Retained by FDIC.} \quad (2)$$

$$\text{Total Outlays} = \text{Assets Retained} + \text{Advances} + \text{Adjustments} + \text{Liquidation Expenses.} \quad (3)$$

$$\text{Gross Recoveries} = \text{Realized Recoveries} + \text{Estimated Future Recoveries.} \quad (4)$$

$$\text{Net Recoveries} = \text{Gross Recoveries} - \text{Liquidation Expenses.} \quad (5)$$

$$\begin{aligned} \text{Loss} &= \text{Total Outlays} - \text{Gross Recoveries.} \\ &= \text{Assets Retained} + \text{Advances} + \text{Adjustments} \\ &\quad - \text{Net Recoveries.} \end{aligned} \quad (6)$$

$$\text{Expenses} = \text{Direct Expenses} + \text{Indirect Expenses.} \quad (7)$$

$$\text{LOA} = (\text{Loss}/\text{Total Assets}) * 100. \quad (8)$$

where:

Total Assets	= Total failed-bank assets at closing.
Assets Assumed	= Assets assumed by acquiring bank in a P&A, net of putbacks.
Assets Retained	= Assets liquidated in receivership, including putbacks.
Advances	= Advances made to enhance/preserve asset value.
Adjustments	= Post-closing adjustments to closing-asset balances.
Direct Expenses	= Expenses incurred for specific assets.
Indirect Expenses	= All other liquidation expenses.
Realized Recoveries	= Principal, interest, late fees, offsets.
Future Recoveries	= December 1990 estimated value of assets remaining in receivership.
Loss	= Dollar value of loss in receivership.
LOA	= Loss as a percent of failed-bank assets.

book values tend to significantly overstate the value that can be recovered in liquidation. This difference is composed of two factors. The first is the difference between the true market value of the assets and the value recorded on the books of the failed bank, which is based on historical cost. The second factor is any dissipation of value that takes place from the forced liquidation of assets for which there are no well-developed markets. Although losses in receivership cannot be separated empirically into these two components using the available evidence, the sheer magnitude of losses suggests that neither component—acting alone—is likely to account for all of them.

Historical Loss on Failed-Bank Assets. Three assumptions are necessary for the translation of net recoveries in receivership into a measure of loss on total failed-bank assets. The first as-

sumption is that the taking of assets at book value by acquirers represents zero-loss disposition of assets from the standpoint of the FDIC. The second assumption is that liquidation expenses for assets assumed by acquirers were zero. The final assumption is that estimated indirect liquidation expenses for the 1986-88 sample (see Table 3) can be applied to all receiverships from 1986 through June 1990. The expense ratios in the Tables that follow express average expenses in receivership as a percent of the total assets of the failed bank.

More recent receiverships (mid-1988 through mid-1990) are included in the historical loss analysis due to the need for an up-to-date sample. These more recent cases tend to rely more on appraised value as a proxy for future collections, and therefore, as suggested by Table 2, may have a

Table 3
**Net Recoveries as Percent of Receivership Assets by Asset Type
 for All FDIC Failed-Bank Receiverships Begun 1986-1988
 and Terminated Receiverships Begun 1986-1990
 (as Percent of Inception Assets, by Type)**

Asset Type	Assets at Inception (\$ mill.)	Gross Collects. (%)	Direct Expenses (%)	Variable Indirect Expenses (%)	Net Recov. (%)
Installment Loans	679.4	60.1	0.08	11.4	48.6
Commercial Loans	4787.1	50.2	0.19	5.7	44.3
Failed-Bank Securities	433.7	87.9	0.00	0.0	87.9
Mortgages	2143.2	68.7	0.37	2.3	66.0
Owned Real Estate	896.7	55.0	8.91	8.3	37.8
Other Assets	826.3	46.0	0.34	5.6	40.1
Total Assets	9766.4	56.7	1.30	5.3	50.1

Table 4
**Weighted Average Loss on Assets
 for FDIC-Insured Failed Banks, 1986-1990 by Year of Failure
 (Loss as Percent of Failed-Bank Assets, by Type)**

Asset Type	1986	1987	1988	1989	1990	1986-90	1987-89
Installment Loans	29.4	30.6	35.6	29.1	27.9	29.7	31.3
Commercial Loans	47.3	41.4	43.6	38.9	40.8	42.3	40.8
Mortgage Loans	58.0	18.1	20.5	19.4	28.0	29.1	19.1
Failed-Bank Securities	24.9	3.5	2.0	2.0	6.5	8.4	2.6
Owned Real Estate	86.8	76.2	73.9	58.0	47.0	63.6	67.8
Other Assets	33.1	30.2	25.9	39.7	17.1	27.7	33.2
Total Assets	44.9	29.2	28.2	26.3	21.9	29.2	27.8
Number of Failures	136	161	89	117	91	594	367

tendency to slightly understate losses. However, they are included because they may be more representative of the losses the FDIC will face in upcoming failed-bank cases. Tables 4 through 6 summarize the historical loss results.

Loss on total assets by year (Table 4) appears to fall from 45 percent in

1986 to about 22 percent for 1990. However, the large figure for 1986 is principally the result of one large failure with high losses; the low figure for 1990 may reflect the as-yet-incomplete writedown of assets in relatively new receiverships. The best figure for comparison to the sample of Bovenzi and Murton is the average loss on as-

sets for banks that failed from 1987 through 1989, which is 27.8 percent.⁸ This is somewhat lower than the 32.8 percent average for Bovenzi and Murton's sample of 1985 and 1986 failures.

Losses measured in the years after 1986 were mostly lower than losses in 1986 across the six asset types. This is particularly the case for mortgage loans (58 percent loss in 1986 *versus* 19.1 percent in 1987-89), owned real estate (86.8 percent *versus* 67.8 percent), and securities (25 percent *versus* 2.6 percent). Losses for 1987-89 were slightly higher than losses in 1986 for installment loans and other assets.

Overall, the highest losses were measured for owned real estate (ORE). Losses measured 63.6 percent of the original book value of ORE for the entire sample period, and measured 67.8 percent for the 1987-89 sample period; average loss for individual years reached a high of 86.8 percent for 1986. However, losses measured for ORE suffer from a bias related to the process of foreclosure on real-estate loans. When a loan is foreclosed, our financial model treats the written-down value of collateral as a recovery to the loan category and as an outlay, or addition to book value, for ORE. If the full value of the collateral is not subsequently recovered, a corresponding loss then accrues to ORE—when it actually belongs to the original loan category. This tends to bias upward the measure of losses as a percent of *original* book value for ORE, and correspondingly to bias downward the measure for the loan category (primarily mortgage loans).

Among the loan categories, commercial loans averaged the highest losses (40.8 percent for the 1987-89 sample period), while installment loans (31.3 percent) and mortgage loans (19.1 percent) were also the source of substantial losses. Failed-bank securities (2.6 percent for 1987-

⁸ FIS records are not available for 1985, making a direct comparison to the entire Bovenzi-Murton sample impossible.

89) imposed the smallest losses of any category. Losses on other assets, which include all assets not accounted for in the other five categories, averaged 33.2 percent for the 1987-89 period.

For the period 1986-90, total loss on assets differed according to the type of resolution transaction (Table 5). Payouts averaged the highest loss on total assets (46.1 percent) and the highest for all individual asset types except mortgages and securities. Insured-deposit transfers averaged 32.4 percent loss on total assets, while P&As averaged only 26.8 percent. This difference may be the result of a difference in asset quality between these groups of institutions or, alternatively, the result of some acquirers assuming assets at book value that turned out to impose losses on them.

Analysis of LOA by asset size (Table 6) shows that losses do not differ systematically across size classes. The largest size class—over \$500 million in assets—showed above-average losses in mortgages and securities largely due to the influence of one institution. Beyond this effect, losses on securities still tended to grow with asset size. Otherwise, losses remained relatively constant across size groups.

Interpretation of Results. The ability to disaggregate the LOA ratio—from a single ratio to total assets to six individual ratios for six asset categories—provides a clear indication of how portfolio composition influences loss on assets for failed banks. Based on the results above, it appears that a failing bank whose balance sheet is heavily concentrated in commercial loans and ORE is likely to experience greater losses as a percent of total assets than a bank that primarily carries mortgage loans, installment loans, and securities. However, despite the marked differences in average loss ratios by category, still more information is needed in order to use these data for predictive purposes. For example, the mortgage category in-

cludes all loans secured by real estate, from one-to-four family mortgages to commercial office construction loans. The marked difference in the risk profiles of these two loan types suggests the need for a more detailed estimation process to explain loss for the mortgage category. Similarly, the tendency for measured losses on ORE to be biased upward suggests the need for a procedure to correct the problem before such a loss coefficient is applied to real-estate assets on the books of failing banks. The statistical model developed in the following section addresses these, and other, issues.

Statistical Model to Predict Loss

The previous sections described the methods by which historical losses are measured. This section uses the measure of historical loss on assets to estimate a statistical model that can be used to predict loss on assets for future bank failures. The model consists of equations that estimate loss for each of the six asset categories depicted in Tables 3 through 6. Total

predicted loss on assets can then be found by summing the loss estimates for the six asset types.

Structure of the Model

The model is designed to address three shortcomings of the average LOA ratios presented above. The first is the tendency of the measured loss ratios to overstate losses on ORE and understate losses on mortgage loans. This is addressed by jointly estimating the loss equations for these two asset types. The single estimated equation for loss on mortgages and ORE allocates loss to ORE according to statistical variation in the sample, rather than the accounting procedure that originally created the bias.

The second shortcoming of the simple averages is that they do not account for the quality of the loan portfolios nor their risk characteristics. Quality of the loan portfolios is incorporated in the model by estimating loss as a function of performing loans and nonperforming loans at the time of failure. The risk characteris-

Table 5
Weighted Average Loss on Assets
for FDIC-Insured Failed Banks, 1986-1990
by Type of Resolution Transaction
(Loss as Percent of Failed-Bank Assets, by Type)

Asset Type	Payout	P&A	IDTR	Total
Installment Loans	43.9	25.6	40.3	29.7
Commercial Loans	64.3	39.3	46.5	42.3
Mortgage Loans	22.7	31.0	25.5	29.1
Failed-Bank Securities	3.9	9.8	3.8	8.4
Owned Real Estate	78.3	59.5	75.8	63.6
Other Assets	60.7	20.8	29.8	27.7
Total Assets	46.1	26.8	32.4	29.2
Number of Failures	51	425	118	594

Table 6
**Weighted Average Loss on Assets
 for FDIC-Insured Failed Banks, 1986-1990**
 by Total Failed-Bank Assets
 (Loss as Percent of Failed-Bank Assets, by Type)

Asset Type	<\$25m	\$25m-\$50m	\$50m-\$100m	\$100m-\$500m	>\$500m	Total
Installment Loans	32.9	33.9	32.6	19.3	32.9	29.7
Commercial Loans	39.8	43.6	43.7	40.3	44.5	42.3
Mortgage Loans	18.1	17.1	15.6	19.9	46.2	29.1
Failed-Bank Securities	1.8	4.1	5.4	8.2	15.3	8.4
Owned Real Estate	59.7	69.3	61.4	64.1	62.9	63.6
Other Assets	18.8	25.6	26.0	42.9	16.9	27.7
Total Assets	25.6	28.7	27.4	28.8	32.7	29.2
Number of Failures	347	138	63	39	7	594

tics of the mortgage portfolio are accounted for by estimating mortgage losses also as a function of "risk real-estate loans," defined as the sum of land and development loans and commercial real-estate loans. These real-estate loans are hypothesized to pose a higher risk of loss in liquidation than the permanent residential loans that make up most of the remainder of the mortgages category.

This approach to loan quality and risk differs from that chosen by Bovenzi and Murton (1988) and James (1991), both of which estimated total loss on assets as a function of examination classifications. Despite the potential benefits of incorporating examiner evaluations in the loss equations, examination data were not available disaggregated into the appropriate asset types. The use of explanatory variables reflecting performing and nonperforming loans and high-risk mortgage loans provides alternative measures of loan quality and risk that are consistent with the disaggregated model.

⁹ "Other assets" made up 11 percent, on average, of the total assets of banks that failed between 1986 and 1990.

¹⁰ The expense model is described in Appendix 1.

The remaining specification issue is how to account for the recognition of loss by the bank prior to failure. Because charge-offs prior to failure reduce losses realized in liquidation—and because this recognition is highly discretionary—charge-offs are added back during the final year of operation to the loss equations for installment loans, commercial loans, mortgage loans, and other assets. This removes final-year loss recognition as a factor in determining loss on failed-bank assets. Final-year charge-offs are reintroduced to the loan equations by adding them to the left-hand-side variable (loss) and one right-hand-side variable (nonperforming loans). This assumes that all charge-offs are taken on nonperforming assets.

For securities and other assets, historical weighted averages serve as loss equations in the model. This approach was chosen due to the particular characteristics of these two asset types. Securities, consisting of a mix of mainly government-backed mortgage and Treasury instruments, are subject to interest-rate risk rather than credit risk. This has two implications for the estimation of a pre-

dictive model. First, the interest-rate environment during which sample securities were first issued, and finally disposed of, is not likely to be in effect for banks to which the model might be applied in the future. Second, because securities enjoy an efficient aftermarket, estimating the gain or loss on the securities of a failing bank in an on-site analysis will probably be inexpensive and highly accurate. However, for completeness the weighted average loss on securities is incorporated into the model.

The term "other assets" covers a mixture of assets remaining after the major loan categories are considered; these include non-real-estate-owned assets and fixed assets, international loans, and lease financing receivables. This diverse collection of assets does not lend itself to an estimation process such as that applied to the loan categories. Consequently, the loss coefficient in Equation 14 shown in the next section represents a simple historical average and does not result from a regression procedure.⁹ However, because charge-offs on lease financing receivables have the same potential effect on loss for this category as loan charge-offs do for the loan equations, the weighted average loss on other assets is taken on the value of loss plus final-year charge-offs on lease financing receivables.

Liquidation expenses are introduced to the model by including an expense coefficient that is applied to the book value of failed-bank assets for each category. These coefficients are based on the expense equation estimated for receivership net recoveries.¹⁰ Expense coefficients that were estimated as a percent of *receivership* assets are transformed into coefficients applicable to *failed-bank* assets for use in the predictive model. This is done by deflating them to account for failed-bank assets assumed by acquirers in the sample. By doing so, we make two assumptions about liquidation expenses. First, expenses on assumed

assets will be zero. Second, the level of assumed assets in resolution transactions for new failing-bank cases (to which the model is applied) will follow historical averages.

Results of Model

Regression results and summary statistics for the five estimated equations appear in Appendix 2. Based on these results, and the expense ratios from Appendix 1, loss for the six asset types can be predicted using the following six equations. Note that the final term in each equation is the beliefs regarding the bias associated amount of liquidation expenses for that category.

LOSS ON:

$$\text{INSTALL} = .27 * (P) + .43 * (\text{NP} + \text{CO}) - \text{CO} + .072 * (\text{INSTALL}). \quad (9)$$

$$\text{COMM} = .36 * (P) + .48 * (\text{NP} + \text{CO}) - \text{CO} + .049 * (\text{COMM}). \quad (10)$$

$$\text{MORT} = .094 * (P) + .19 * (\text{NP} + \text{CO}) - \text{CO} + .27 * (\text{RISK}) \\ + .021 * (\text{MORT}). \quad (11)$$

$$\text{ORE} = .41 * (\text{ORE}) + .162 * (\text{ORE}). \quad (12)$$

$$\text{SEC} = .046 * (\text{SEC}) + 0.0 * (\text{SEC}). \quad (13)$$

$$\text{OTHER} = .37 * (\text{OTHER} + \text{CO}) - \text{CO} + .032 * (\text{OTHER}). \quad (14)$$

where:

INSTALL, COMM, MORT, ORE, SEC, and OTHER are the book values of the six asset categories at failure, P is performing loans for that category, NP is nonperforming loans for that category, CO is charge-offs for that category, and RISK is risk real-estate loans (land and development plus commercial real-estate loans).

Interpretation of Results

Evaluating the Estimated Coefficients. The model results indicate that significant losses are experienced on the performing loans of failed banks, and that yet higher losses are associated with nonperforming loans at the time of failure. These nonperforming loan coefficients account for the negative effect of charge-offs prior to failure on losses experienced in liquidation. As for the loss coefficients on performing loans, the highest are registered on commercial loans (36 percent of performing loans), and the lowest are found for performing, non-risk real-estate loans (9.4 percent). These results reflect, on the one hand, the problems associated with disrupting commercial credit relationships, and, on the other hand, the relative success with which performing residential mortgages can be liquidated. The "risk real-estate" coefficient of 27 percent in the mortgage equation (11) reflects the additional losses experienced on land and development loans and commercial real-estate loans in excess of losses attributable to the performing and nonperforming coefficients. Joint estimation of losses on mortgage loans and ORE results in a loss coefficient for ORE after expenses (57.2 percent) that is lower than the sample weighted averages indicated in Table 4. This conforms to prior beliefs regarding the bias associated with real-estate loan foreclosures during the receivership.

The final two asset-type equations—representing historical weighted averages—indicate that the FDIC may expect credit losses of 4.6 percent for the securities portfolio (no charge-offs are included for this category), and 37 percent of loss plus charge-offs for other assets.

Applying the Model to New Failing Banks. Use of the model is straightforward. By way of example, suppose the book value of installment loans is \$1000, of which \$700 are performing, and that charge-offs over the past four quarters total \$100. Pre-expense loss is 27 percent of the value of performing loans (.27 * \$700 = \$189) plus 43 percent of the sum of nonperforming loans and charge-offs (.43 * \$400 =

\$172 minus charge-offs (.43 * \$400 = \$172) minus charge-offs (\$100). Pre-expense loss is therefore \$189 + \$172 - \$100 = \$261. Total loss for this category, including expenses, is found by adding an additional 7.2 cents per dollar of book value for expenses (.072 * \$1000 = \$72). Total loss for installment loans would therefore be \$261 + \$72 = \$333.

After predicted loss is found for all six categories in this fashion, summing across the six categories yields total predicted loss on assets.¹¹ This figure can be used in the statutory cost test to evaluate the cost of various proposed resolution transactions.

Summary and Conclusions

This study describes the measurement of loss on failed-bank assets and applies a financial model of loss on assets to a sample of banks that failed between 1986 and 1990. The results apply strictly to a scenario in which the problem assets of the bank are assigned to an FDIC-managed receivership for collection. Losses on assets assigned to receivership are found to average 50 percent overall, and to differ widely among the six asset-type categories. These results were translated back to the balance sheets of the banks prior to failure to arrive at average loss on failed-bank assets. Loss averaged 27.8 percent of total failed-bank assets for the most relevant sample period, ranging from 2.6 percent for securities to 68 percent for owned real estate. Loss figures for sample banks were used to estimate a predictive model of loss on assets which is based on separate equations for each of the six asset types.

The predictive model updates the model of Bovenzi and Murton (1988) which the FDIC has used to derive loss estimates for failing banks. This updated version has several advantages over the original model that are mainly attributable to improved data.

¹¹ The model also includes certain zero loss and total loss assets found in the Call Reports. For a more complete description of the use of the model see Appendix 3.

The first is a more up-to-date historical record of failed banks and receivership collections. The second advantage is the ability to separate liquidation expenses into direct and indirect expenses. Finally, liquida-

tion data are now available for individual asset types. The updated model accounts for the portfolio composition of failing banks in a way that previous statistical loss models could not. As more banks experiencing real-estate

problems in New England and the Middle Atlantic states appear on the FDIC's "Problem Bank List," the ability to incorporate portfolio composition in the model will be a decided advantage.

APPENDIX 1

The Treatment of Liquidation Expenses

All expense figures were derived using a sample of receiverships begun from 1986 through mid-1988, plus those begun from mid-1988 through the end of 1990 that have been terminated. This sample is intended to be representative of liquidation expenses across the entire life of a receivership, and therefore omits recent failures that have not been fully collected.

Direct Expenses

Most direct expenses were charged to specific asset types by liquidators. We used the average distribution of these charges to allocate the remaining direct expenses among the asset types. The average distribution across the sample was: installment loans 0.4 percent of direct expenses; commercial loans 7.2 percent; mortgage loans 6.3 percent; ORE 63.6 percent; securities 0.0 percent; and other assets 22.4 percent.

Indirect Expenses

Only a portion of indirect expenses were originally charged to specific receiverships. The remainder of indirect expenses during each quarter (including the salaries of Washington employees and other overhead) was distributed according to the distribution of total receivership assets for that quarterly period.

Few indirect expense items were charged to specific asset types by liquidators. A decision was made to allocate all indirect expenses to specific asset types by use of a statistical cost accounting model. The model is specified:

$$\text{INDIRECT} = B_0 + B_1 \cdot \text{INSTALL} + B_2 \cdot \text{COMM} + B_3 \cdot \text{MORT} + B_4 \cdot \text{ORE} + B_5 \cdot \text{SEC} + B_6 \cdot \text{OTHER} + e,$$

where the dependent variable is total indirect expenses over the life of each receivership and the dependent variables are the book value at failure for each of the six asset types. Estimation was made with all variables scaled by total assets at failure and with $B_5\text{SEC}$ omitted to prevent perfect collinearity on the right-hand side. The results appear in Table 1A.

Table 1A
Regression Results for Statistical Cost Equation

$$\begin{aligned} N &= 436 \\ R^2 &= .852 \end{aligned}$$

Estimated Coefficient	t statistic
B1	0.114
B2	0.057
B3	0.023
B4	0.083
B5	0 (by assumption)
B6	0.056

These coefficients appear as expense ratios in Table 3, Net Collections by Asset Type.

Application of Expense Ratios to Failed-Bank Assets

These direct and indirect expense ratios—estimated for receivership assets—probably overstate the liquidation expenses that would be incurred on assets that do not come to the receivership. Because the FDIC considers assets assumed by the acquirer to be liquidated at zero loss, a liquidation expense ratio of zero is appropriate for assumed assets. However, prior to failure there is no way to tell which assets, if any, will come to the receivership or be assumed by the acquirer.

In order to make the estimated expense ratios applicable to total failed-bank assets, they were reduced to reflect the amount of assets assumed by acquirers in sample cases. Table 2A shows how the estimated expense ratios for receiverships are transformed for application to failed-bank portfolios.

Table 2A
Transformation of Expense Ratios
for Application to Asset Portfolio

	Receivership Expenses as % of Receivership Assets	Receivership Assets as % of Failed-Bank Assets	Receivership Expenses as % of Failed-Bank Assets
INSTALL	11.5	62.5	7.2
COMM	5.9	83.5	4.9
MORT	2.7	80.4	2.1
OREO	17.2	94.2	16.2
SEC	0.0	20.0	0.0
OTHER	5.9	53.6	3.0

APPENDIX 2

Estimation of Pre-Expense Loss Equations

Estimation of loss as a function of loan performance and charge-offs is the basis of the statistical model. Model coefficients were estimated using five such equations. These equations—with their estimated coefficients and summary statistics—appear in Table 3A.

Table 3A
Regression Results for Pre-Expense Loss Equations
(t statistics in parentheses)

$$\text{(LOSS ON INSTALL + CO)} = .2669 \cdot P + .4291 \cdot (\text{NP} + \text{CO}). \quad (1A)$$

(12.98) (12.46)

$$R^2 = .55$$

$$F = 210.97$$

$$N = 354$$

$$\text{(LOSS ON COMM + CO)} = .3555 \cdot P + .4772 \cdot (\text{NP} + \text{CO}). \quad (2A)$$

(19.61) (29.39)

$$R^2 = .84$$

$$F = 904.37$$

$$N = 351$$

$$\begin{aligned} \text{(LOSS ON MORT + CO)} &= .0937 \cdot P + .1926 \cdot (\text{NP} + \text{CO}) & (3A) \\ \text{+ LOSS ON ORE)} & & \\ &+ .2681 \cdot \text{RISK} + .4117 \cdot \text{ORE}. \\ &(3.54) \quad (5.93) \end{aligned}$$

$$R^2 = .70$$

$$F = 159.35$$

$$N = 276$$

$$\text{(LOSS ON SEC)} = .0459 \cdot \text{SEC}. \quad (4A)$$

$$\text{std. dev.} = .0721$$

$$\text{(LOSS ON OTHER + CO)} = .3588 \cdot (\text{OTHER} + \text{CO}). \quad (5A)$$

$$\text{std. dev.} = .3698$$

APPENDIX 3

Application of the Model

Application of the model requires data to be input from the last Call Report prior to failure, and from the preceding three Call Reports. All assets from the Call Report will ultimately be placed in either one of the asset types described in the paper, or in the Zero Loss or Total Loss categories described below.

Model Asset Type	Call Report Items
INSTALL	Loans to Individuals Credit-Card Loans
COMM	Commercial & Industrial Loans plus Farm Loans Not for Agricultural Production
MORT	Loans Secured by Real Estate
ORE	Owned Real Estate plus Fixed Assets
SECURITIES	Securities

For INSTALL, COMM, and MORT the value of nonperforming assets is provided in the Call Report, with the value of performing found by subtracting this amount from total book value. Charge-off data are also provided and must be located in the four Call Reports prior to failure; loss for INSTALL and COMM may be estimated by application of the model coefficients to these values.

For MORT the additional information regarding the risk real estate is necessary. The Call Report items necessary are:

- Loans for RE Construction and Land Development; and
- Loans Secured by Nonfarm, Nonresidential Properties.

Loss for MORT should include the model coefficient for RISK applied to this value.

For ORE and SECURITIES, neither nonperforming nor charge-off data are necessary, and loss may be estimated by application of the model coefficients to the appropriate book value.

Zero Loss Assets

Certain assets are assumed to have zero loss in liquidation; the Call items associated with these are:

- Cash and Fed Funds Sold; and
- Loans to Other Financial Institutions.

Total Loss Assets

Certain assets are assumed to have 100 percent loss in liquidation; the Call items associated with these are:

- Income Earned but not Collected;
- Goodwill;
- Other Intangible Assets; and
- Deferred Taxes.

Other Assets

This asset type includes Call items that do not fit clearly into one of the above categories. These items are entered here. In addition, the Call Report contains both nonperforming and charge-off data for "Lease Financing Receivables." This should be entered, and the model coefficient applied to the total will yield predicted loss.

Expenses

Expense ratios are always applied to the book value of the relevant asset type. No expenses exist for Zero Loss and Total Loss Assets, or for Securities.

REFERENCES

Bovenzi, John F. and Maureen E. Muldoon, "Failure-Resolution Methods and Policy Considerations," *FDIC Banking Review* (Fall 1990): 1-11.

_____, and Arthur J. Murton, "Resolution Costs of Bank Failures." *FDIC Banking Review* (Fall 1988): 1-13.

James, Christopher, "The Losses Realized in Bank Failures," *Journal of Finance* (September 1991): 1223-42.

Stiglitz, Joseph E. "The Rate of Discount for Benefit-Cost Analysis and the Theory of the Second Best," in *Discounting for Time and Risk in Energy Policy*, edited by F.R. Ruskin, Johns Hopkins University Press, 1982.

Bank Failure Resolutions

Implications for Banking Industry Structure, Conduct and Performance

by John O'Keefe*

This study reviews the performance of acquirers of failed banks and ascertains the determinants of post-acquisition performance. Acquisitions may substantially increase acquirers' scale and scope of operations. Therefore, the study's first objective is to determine the extent of operating cost savings acquirers may have achieved through economies of scale and scope. In addition, acquirers of failed banks often receive assurances from the FDIC, which may result in failed-bank acquirers having distinct advantages over acquirers of nonfailed banks. Therefore, a second objective is to determine whether these assurances resulted in significant subsidies to failed-bank acquirers. Finally, acquisitions may increase acquirers' share of local banking markets, as well as increase overall market concentration. Therefore, a third objective is to learn whether resolution of bank failures has led to undue concentration of market power.

The dramatic increase in bank and thrift failures in recent years has had a significant effect upon the structure of the U.S. banking industry. Between 1984 and 1990, 1,204 FDIC-insured commercial and mutual savings

banks failed or received FDIC open-bank assistance.¹ These institutions comprise over 86 percent of all failed banks since 1970 and represent 9.4 percent of the number of commercial and mutual savings banks in existence at year-end 1990.

Upon the failure of an insured bank, the FDIC is appointed receiver, and is responsible for both compensating creditors and disposing of the failed bank's assets. In an effort to reduce the costs associated with failure resolutions, Congress has given the FDIC the authority to use a wide variety of methods to dispose of failed-bank assets and compensate bank creditors. Historically, failure resolutions have involved the sale of some portion of the failed bank's deposits and/or assets to a healthy former competitor.²

Given the FDIC's growing role in the redistribution of failed banks' real and financial resources, it is important to understand the impact failed-bank acquisitions have had upon acquirers' performance. Moreover, equally important questions arise concerning the determinants of post-acquisition performance. Therefore, this study focuses on two specific and related questions: Did failed-bank acquirers

benefit from the acquisition and, if so, what were the sources of these benefits? If it can be shown that failed-bank acquirers benefited through real efficiency gains, then resources may well have been put to a "better" use. If, however, acquirers' performance was impaired by the acquisition, or acquirers benefited at the expense of their competitors, then resources were not put to a "better" use.

The next section analyses the post-acquisition performance of failed-bank acquirers and attempts to determine the extent of cost savings that acquirers may have achieved as a result of the increases in scale and scope of operations resulting from acquisitions. Lastly, the determinants of post-acquisition performance are investigated, including whether increases in market share, as well as

* John O'Keefe is a financial economist in the FDIC's Division of Research and Statistics. The author thanks Kevin Brown, George French, and Jay Golter of the FDIC's Division of Research and Statistics for useful comments and information.

¹ Individual member banks of failed multibank holding companies were counted as separate bank failures.

² A thorough discussion of the policy considerations and choice criteria used by the FDIC in selecting the method of failure resolution is contained in "Failure-Resolution Methods and Policy Considerations" by John Bovenzi and Maureen Muldoon, *FDIC Banking Review*, Fall 1990, pp.1-11.

FDIC assistance, play a role in determining acquirers' performance.

The Performance of Failed-Bank Acquirers

Bank performance is typically assessed by peer group comparisons of financial performance indices on capital adequacy, asset quality, earnings and liquidity. In assessing the performance of failed-bank acquirers there are at least two useful comparisons to be made. First, comparisons of the pre- and post-acquisition performance of failed-bank acquirers allow one to see the direct effect acquisitions have on performance. In addition, it is useful to know if the experience of failed-bank acquirers is typical of banks involved in mergers and acquisitions.

Sample Selection

The 1,204 bank failure and assistance transactions occurring between 1984 and 1990 resulted in 1,024 (85.1 percent) FDIC-assisted mergers, consolidations, and absorptions, hereafter denoted as assisted acquisitions. These transactions involve several forms of governmental assistance. First, the FDIC solicits bids on failed banks' assets and/or deposit liabilities. Second, the FDIC negotiates with bidders and ultimately selects the winning bidder (acquirer). Finally, acquirers of failed-bank assets often receive additional assurances from the FDIC, through the ability to return to the FDIC any acquired assets which become nonperforming over some period of time after the acquisition. For these reasons, acquirers of a failed bank's deposit franchise and/or asset franchise are referred to as "assisted acquirers."³

Assisted acquisitions involved the formation of *de novo* banks, as well as the assumption of failed-bank deposits and/or assets by existing banks. In the majority of FDIC failure resolutions, the failed bank's assets and/or deposits were acquired by another local bank. Table 1 shows that 99.9 percent of assisted acquirers were located in the same state as the failed

bank and 55.2 percent were located in the same county as the failed bank.

In some cases, the same acquirer was associated with several failed banks. This can occur when an acquirer of a failed multibank holding company consolidates operations or acquires several failed banks over time. Further, acquirers of failed banks often have been involved in acquisitions of nonfailed banks without governmental assistance (unas-

Table 1
Proximity of Acquirers to
Acquired Failed Banks
1984-1990

Number of Acquisitions	Percent	
Within State	1,023	(99.9)
Outside of State	1	(0.1)
Within County	565	(55.2)
Outside of County	459	(44.8)
Within City	378	(36.9)
Outside of City	646	(63.1)

sisted acquisitions). When a bank has made several assisted and/or unassisted acquisitions over time, it is difficult to assess the impact of individual acquisitions upon the acquirer's performance. Therefore, acquisitions occurring on differing dates within three years of one another were excluded from the sample. In a few rare instances, multiple acquisitions can take place on the same date, as occurs when an acquirer consolidates operations. Because such consolidations can be treated as one event, they were included in the sample.⁴ This restriction yields three-year periods, both before and after each acquisition, during which no other bank acquisition event takes place. The resulting group of assisted acquisitions taking place on or after March 31, 1984, consisted of 489 assisted acquirers.

De novo banks, unlike established banks, will not have a pre-acquisition performance history against which to judge post-acquisition performance. Therefore, *de novo* banks were excluded from the sample. Moreover,

because the performance of *de novo* banks typically differs from that of established banks, those acquirers that had been in existence for less than nine years prior to the acquisition were excluded from the sample.⁵ Further, to ensure that a reasonably lengthy performance record existed, an additional requirement was that acquirers report financial data for at least two years before and after the acquisition. Finally, in order to obtain consistent financial reports, the sample only included commercial banks. The resulting sample of assisted acquirers consisted of 123 banks.

A firm's performance typically is judged relative to that of its peers, or banks of similar size, location, and asset composition. Mergers and acquisitions can result in substantial changes in bank size and portfolio composition, making it difficult to use these attributes in historical performance evaluations. Because this study is concerned primarily with assessing the impact of assisted acquisitions upon bank performance, comparisons are made with a peer group of banks involved in nonfailed-bank acquisitions, *i.e.*, acquisitions made without governmental assistance. Such comparisons will reveal

³Accordingly, assisted acquirers are banks involved in FDIC-assisted mergers, consolidations, and absorptions, occurring at the time of a bank's failure. Subsequent to the failure resolution, the FDIC must liquidate any remaining failed-bank assets not assumed by assisted acquirers. Purchasers of remaining failed-bank assets put into liquidation are not treated as assisted acquirers.

⁴Such consolidations are infrequent in the samples used here. Two such cases, involving the acquisitions of two failed banks by one acquirer on the same date were included in the final sample of 123 failed-bank acquirers. Among unassisted acquirers, there were 44 such cases (out of 346 events) which were included in the final sample. For clarity, such acquirers are counted once in the sample.

⁵This ensures that banks included in the sample have been operating for at least seven years before their financial data are used in this study. This seven-year maturity period was chosen (somewhat arbitrarily) because newly established banks have less stable financial ratios than established banks. For an example of a study using similar maturity criteria see "Comparison of Failed and Healthy Banks' Capital Ratios" by James Marino, *FDIC Economic Outlook*, Vol. 2, No. 11, November 1984. Marino uses a three-year maturity criterion.

whether assisted acquirers' performance histories are typical of banks involved in acquisitions. Applying the same criteria to the selection of unassisted acquirers resulted in a comparison sample of 346 banks.

The requirement that acquirers, both assisted and unassisted, be involved in only one acquisition during a six-year period may be viewed by some as leading to a biased sample. Specifically, it may be that these acquirers were not involved in other acquisitions over a six-year period because the initial acquisition did not proceed smoothly. If this bias were present, then one may not find the cost savings and efficiency gains that may come with successful acquisitions. It is difficult to know why the sample of acquirers were not involved in other acquisitions over the period studied.

The number of acquisitions a bank makes will be determined by the number of available acquisition targets, the acquirer's financial condition, as well as the growth objectives of acquirers. A review of the intervals between acquisitions for all banks, between March 1984 and December 1990, indicated that approximately 35 percent of the acquisitions took place within six years of one another. Nearly 65 percent of the acquisitions were made by banks involved in only one acquisition between 1984 and 1990. While it remains unclear why the sample of acquirers made only one acquisition during a six-year period, the sample is not biased in the sense that the acquisition frequency of acquirers in the sample is typical of the majority of acquirers.

Sample Characteristics

The data suggest that many banks in the samples may have had the ability to reduce operating costs in the post-merger period by closing redundant branch offices, as well as to achieve other economies due to overlaps in markets. For the samples in this study, a majority of the acquisitions were made by banks operating

in the same geographic markets as the acquired bank. Approximately 56 percent of the assisted acquirers operated in the same county as the assumed bank, while 27 percent operated in the same city. Among the sample of unassisted acquirers, 59 percent operated in the same county as the assumed bank, and 24 percent operated in the same city.

The relative size of the acquired bank is another important consideration. If a failed-bank acquisition is to significantly impact the acquirer's

performance, the acquired assets must represent a significant increase in the acquirer's size. As shown in Tables 2 and 3, for the majority of the cases included in the samples, the acquisitions increased bank size substantially.

The composition of acquired assets will affect also post-acquisition performance. Assisted acquirers have distinct advantages over unassisted acquirers with regard to acquired assets. In assisted acquisitions, acquirers typically do not take on a

Table 2
Percentage Change in Acquirer Assets
Due to the 123 Assisted Acquisitions¹

Percentage Change in Bank Assets	Frequency	Percent	Cumulative Percent
0 to -5	5	4.1	4.1
0 to 5	7	5.7	9.8
5 to 10	7	5.7	15.4
10 to 15	10	8.1	23.6
15 to 25	28	22.8	46.3
25 to 50	31	25.2	71.5
50 to 75	19	15.4	87.0
75 to 100	10	8.1	95.1
100% or more	6	4.9	100.0
Total	123	100.0	

¹The percentage change in an acquirer's assets associated with a bank acquisition was computed as the change in the acquirer's assets during the quarter in which the acquisition took place. Data on bank assets were obtained from the Reports of Condition and Income (Call Reports) banks are required to file with their federal bank regulator each quarter. (Call Reports show bank finances as of the end of each calendar quarter.) It is expected that some of the change in bank assets, as measured here, is unrelated to the acquisition. However, most of the large increases in assets found here are associated with the acquisitions.

Table 3
Percentage Change in Acquirer Assets
Due to the 346 Unassisted Acquisitions

Percentage Change in Bank Assets	Frequency	Percent	Cumulative Percent
-5 to -10	4	1.2	1.2
0 to -5	7	2.0	3.2
0 to 5	26	7.5	10.7
5 to 10	29	8.4	19.1
10 to 15	33	9.5	28.6
15 to 25	51	14.7	43.4
25 to 50	74	21.4	64.7
50 to 75	38	11.0	75.7
75 to 100	27	7.8	83.5
100% or more	57	16.5	100.0
Total	346	100.0	

Table 4
Composition of Acquired Assets in Bank Acquisitions
As a Percent of Assets Acquired

Assumed Assets	All Assisted Acquirers	The 123 Assisted Acquirers	The 346 Unassisted Acquirers
Securities	30%	37%	11%
Installment Loans	10	12	15
Commercial Loans	23	27	22
Real-Estate Loans	18	8	29
Other Real Estate Owned	3	1	1
All Other Assets	15	14	22

majority of the assets of the failed bank. Any assets not assumed by the acquirers are liquidated by the FDIC. If the liabilities assumed by assisted acquirers exceed acquired assets, the difference is made up with cash or notes from the FDIC. Finally, acquirers of failed banks also may have additional assurances in the form of governmental guarantees, such as the right to return some acquired assets to the FDIC if the assets become nonperforming. These "putback" provisions are usually limited to a pe-

riod of less than one year after acquisition.

Available data on the composition of assets assumed in assisted acquisitions are presented in Table 4. For all assisted acquisitions occurring between 1986 and 1990, approximately 42 percent of failed banks' assets were acquired by assisted acquirers. For the sample of 123 assisted acquirers, approximately 46 percent of failed banks' assets were acquired by assisted acquirers; about 47 percent of the assumed assets were loans, while

securities comprised 37 percent of acquired assets, on average.⁶

Information on the assets acquired in unassisted acquisitions was not readily available. However, approximations can be made using reported financial data. Specifically, changes in unassisted acquirers' asset composition were measured for the quarters ending immediately before and after acquisitions using data from bank Reports of Condition and Income filed with federal bank regulators. Although some changes in portfolio composition may be unrelated to the acquisitions, given the relatively short time span involved and the relatively large magnitudes of the acquisitions, most of the asset fluctuations should be related to the acquisitions. As shown in Table 4, the 346 unassisted acquirers acquired more loans and fewer liquid assets than did assisted acquirers. Approximately 66 percent of the estimated acquired assets of unassisted acquirers were loans, while 11 percent were securities.

Bank performance also is influenced by national and regional business cycles, as well as by local and national bank regulations, *e.g.*, state branching restrictions. Further, studies have shown that performance differs significantly across bank asset-size groups, primarily because asset size is a proxy for differences in bank operations, funding, and loan portfolio composition. One can expect that these same factors will influence the performance of bank acquirers. In light of these considerations, Tables 5 through 7 further characterize the samples.

Table 7 indicates that both the assisted and unassisted acquirer samples were comprised mostly of relatively small banks. Approximately 92 percent of the sample of assisted

⁶ The author is indebted to Richard Brown and Seth Epstein of the FDIC's Division of Research and Statistics for supplying data on the composition of assets assumed by assisted acquirers. Data on the assets of failed banks (which are either assumed by assisted acquirers or liquidated by the FDIC) are contained in the FDIC's Financial Information System maintained by the Division of Accounting and Corporate Services.

Table 5
Location of Acquirers¹

Region	Number of Banks Acquirer Group		Assets Following Acquisition Acquirer Group (\$ Billions)	
	Assisted	Unassisted	Assisted	Unassisted
Central	5	109	\$1,442	\$45,023
Midwest	37	83	2,310	14,761
Northeast	1	30	4,292	39,807
Southeast	5	55	1,452	14,064
Southwest	57	43	7,297	14,652
West	18	26	6,384	65,234

¹ The geographic regions were defined along state lines as follows:

Northeast - Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Puerto Rico, Rhode Island, and Vermont.

Southeast - Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

Central - Illinois, Indiana, Kentucky, Michigan, Ohio, and Wisconsin.

Midwest - Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

Southwest - Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

West - Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

Islands - Pacific and Atlantic Islands not included in other regions. (No banks in the samples fell within the Islands region.)

Table 6
Timing of Acquisitions

Date of Acquisition	Number of Banks Acquirer Group		Assets Following Acquisition Acquirer Group (\$ Billions)	
	Assisted	Unassisted	Assisted	Unassisted
1/86 - 6/86	8	24	\$9,016	\$51,014
7/86 - 12/86	18	58	2,638	22,743
1/87 - 6/87	32	58	3,375	44,440
7/87 - 12/87	28	61	3,292	17,166
1/88 - 6/88	19	76	3,688	25,389
7/88 - 12/88	18	69	1,168	32,788

Table 7
Post-Acquisition Asset Size of Acquirers

Asset Size	Number of Banks Acquirer Group	
	Assisted	Unassisted
Over \$10 Billion	0	3
\$3 Billion to \$10 Billion	1	8
\$1 Billion to \$3 Billion	4	22
\$500 Million to \$1 Billion	4	21
\$300 Million to \$500 Million	1	29
\$100 Million to \$300 Million	31	124
\$50 Million to \$100 Million	44	80
\$25 Million to \$50 Million	24	43
\$10 Million to \$25 Million	13	15
Under \$10 Million	1	1

acquirers had post-acquisition assets under \$300 million. Among assisted acquirers, 76 percent had post-acquisition assets under \$300 million. In addition, both samples of acquirers included acquisitions dispersed over the 1986 to 1988 period, with the largest number of acquisitions taking place in 1987. The two groups of acquirers differ substantially, however, in geographic composition. Due to restrictions on interstate branch banking, acquirers are normally located in the same state as the bank acquired (see Table 1). Because of the high concentration of recent bank failures in the Southwest, and Texas in particular, the highest proportion of assisted acquirers are located in the

Southwest. The sample of unassisted acquirers, however, is more varied geographically. These differences in the regional composition of the two groups of acquirers make direct comparisons of post-acquisition performance difficult. A regression approach is used later to control for the influence these factors have upon bank performance. Despite these limitations to direct comparisons of performance between both groups of acquirers, it is still instructive to compare performance trends.

Asset Growth

Assisted and unassisted acquisitions can increase bank size substantially very quickly. This was indeed the case for the acquisitions studied

here (see Tables 2 and 3). Figure 1 shows that the median quarterly asset growth rate among the 123 assisted acquirers was over 30 percent during the quarter of acquisition. For the 346 unassisted acquirers, the acquisitions increased the median quarterly asset growth rate to nearly 31 percent. It should be pointed out that Figures 1 and 2, as well as all the succeeding Figures, present median values of the groups' financial ratios to avoid possible distortion of the averages by very high or low ratio values in the samples.⁷

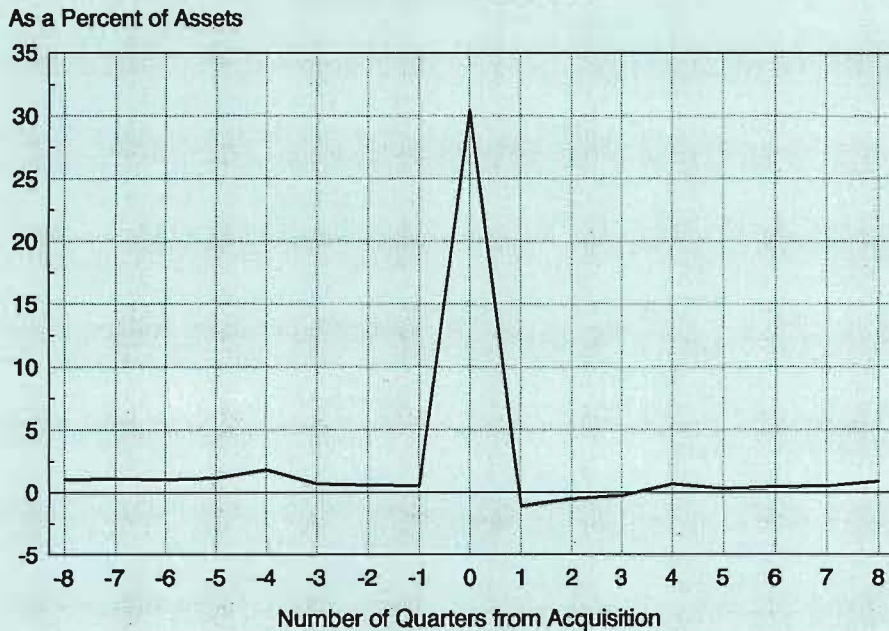
In order to know whether acquirers were oriented toward rapid growth by internal means as well, the median quarterly asset growth rates for a four-year period surrounding the acquisitions were reviewed. Figures 1 and 2 indicate that neither group of acquirers appeared to be growth-oriented. Moreover, asset growth rates among both groups declined, on average, following acquisitions.

Capitalization

The large increase in bank assets associated with these acquisitions may result in some acquirers increasing equity capital, either to ensure compliance with regulatory capital requirements or to meet the banks' internal policies. Among both assisted and unassisted acquirers, new capital would come from the acquirers. In assisted acquisitions, acquirers typically receive some portion of the failed bank's performing assets, along with any assumed liabilities. If assumed liabilities exceed acquired assets, the FDIC will inject cash and FDIC notes sufficient to cover the shortfall. Assisted acquirers are expected to adequately capitalize the combined organization. It is possible that the acquiring bank may choose to rely heavily upon its existing capital base in making the acquisition, thereby lowering post-acquisition capital-to-assets ratios.

⁷A comparison of medians and arithmetic averages of the financial ratios gave very similar results for all financial trends presented in this study.

Figure 1
Median Quarterly Asset Growth Rates
The 123 Assisted Acquirers



Figures 3 and 4 indicate that while unassisted acquirers tended to maintain capital-to-assets ratios after acquisitions, assisted acquirers reduced capitalization. This reduction may be due to three factors. First, acquirers' post-acquisition capital levels are related to the final capital levels of acquired banks and relevant accounting treatment in acquisitions. In purchase acquisitions, the acquiring bank may not include the existing retained earnings of the acquired bank in the combined institution's retained earnings. However, factors such as the creation of goodwill (the excess of the purchase price of acquired assets over their market value) can add to the combined institution's capital. In a pooling of interests, the acquirer is permitted to add the assumed bank's accumulated retained earnings to its capital. In failed-bank acquisitions, however, the acquired institution is insolvent, so that these accounting issues are unimportant.⁸ Second, the

⁸ Open-bank assistance resolutions are one exception to this statement. In open-bank assistance transactions the assisted bank is not declared insolvent at the time assistance is granted and technically has not failed. The sample of 123 assisted acquisitions included four open-bank assistance transactions.

⁹ Nonperforming assets are defined here to include all loans and leases past due 90 days or more, plus all nonaccrual loans and leases.

nine percent median pre-acquisition capital ratios of assisted acquirers were relatively high compared to the median of 7.6 percent among unassisted acquirers. This may mean that assisted acquirers wished to move post-acquisition capitalization in line with other banks. Indeed, the capital-to-assets ratios of assisted acquirers were similar to those of unassisted

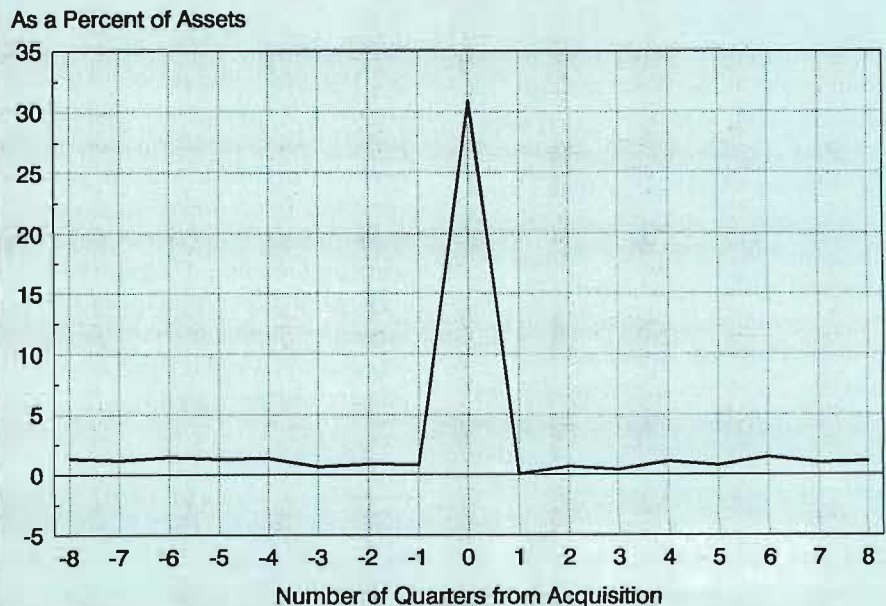
acquirers two years after the acquisitions. Third, assisted acquirers have distinct advantages over unassisted acquirers in terms of selection of assumed assets, which enabled assisted acquirers to assume higher proportions of low-risk, liquid assets (see Table 4). Indeed, asset-quality trends, presented next, indicated asset quality for assisted acquirers improved following acquisitions. As a result, assisted acquirers may not have needed to maintain the same capitalization rates in the post-acquisition period.

Asset Quality

Asset quality improved following acquisitions for both assisted and unassisted acquirers. Among unassisted acquirers, median nonperforming assets, as a percent of bank assets, declined 17 percent two years after acquisition. Assisted acquirers experienced a 19 percent reduction.⁹ As stated previously, among assisted acquirers the improved asset quality is due, in part, to the ability to put back acquired nonperforming assets to the FDIC.

As with nonperforming assets, net loan charge-offs should be scaled by bank assets to control for changes in

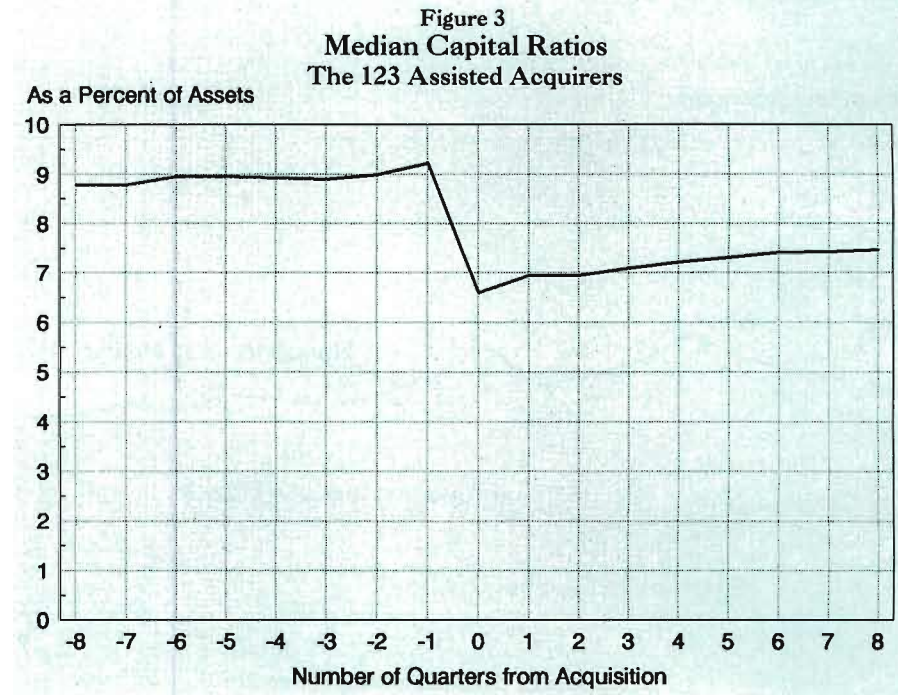
Figure 2
Median Quarterly Asset Growth Rates
The 346 Unassisted Acquirers



bank size following acquisitions. Because annualized income and expense values are more intuitively appealing, Figures 5 and 6 present the annualized values of quarterly net loan charge-offs and provisions for loan losses, as a percent of bank assets. This same procedure was used to measure all income and expenses in subsequent Figures.

Profitability

Noninterest Expense. One frequently-cited motive for acquisitions, both within and outside of banking, is improved operating efficiency. In bank acquisitions, the acquirer may be able to reduce noninterest expense by eliminating overlap in branch offices, personnel, and information and computer systems. Additional benefits may come from synergies in combining operations. These efficiency gains may not, however, appear immediately after acquisition. Reductions in staff may require severance pay, early retirement costs, and payment of accrued personnel benefits. Elimination of redundancies in operations, such as overlapping branch offices, may be delayed due to leases. After a reasonable period, however, noninterest expense should decline,



as a proportion of bank earnings, if redundancies are removed and synergies are realized.

Figures 7 and 8 show that for both groups of acquirers studied, there was no evidence of efficiency gains in the two-year period following acquisitions. Acquirers' expenses on salaries and benefits, as well as on premises, remained relatively unchanged. How-

ever, the financial report category "all other noninterest expense" rose somewhat following acquisitions. There are two components of other noninterest expense that may increase as a result of mergers: losses resulting from the sale of assets, including fixed assets, and amortization expenses on goodwill. It is possible that losses were incurred from the sale of redundant fixed assets following acquisitions. Further, in the purchase method of acquisition, additional goodwill (equal to the amount by which the purchase price exceeds the market value of the acquired bank) may be created, leading to higher amortization expenses.

There are several problems with the measurement of acquirers' income and expenses during the immediate post-acquisition period that need to be discussed. Specifically, the fluctuations in all income and expense ratios seen during the quarter in which acquisition takes place (quarter 0) are due to a combination of accounting issues, and acquisition expenses. From an accounting perspective, there are two general types of mergers: pooling of interests and outright purchases. In outright purchases, the acquired bank's assets

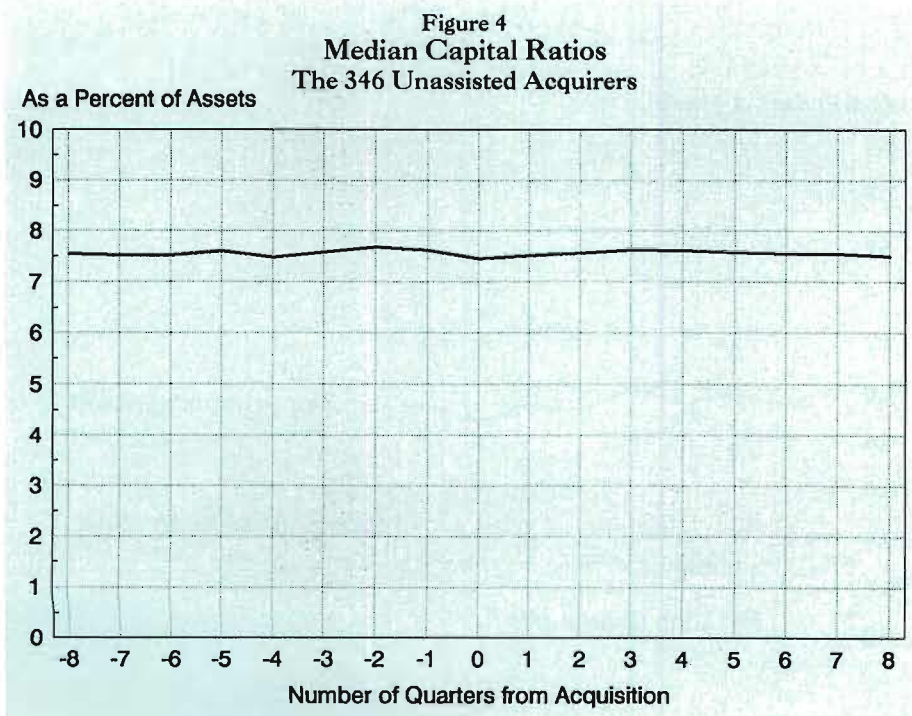
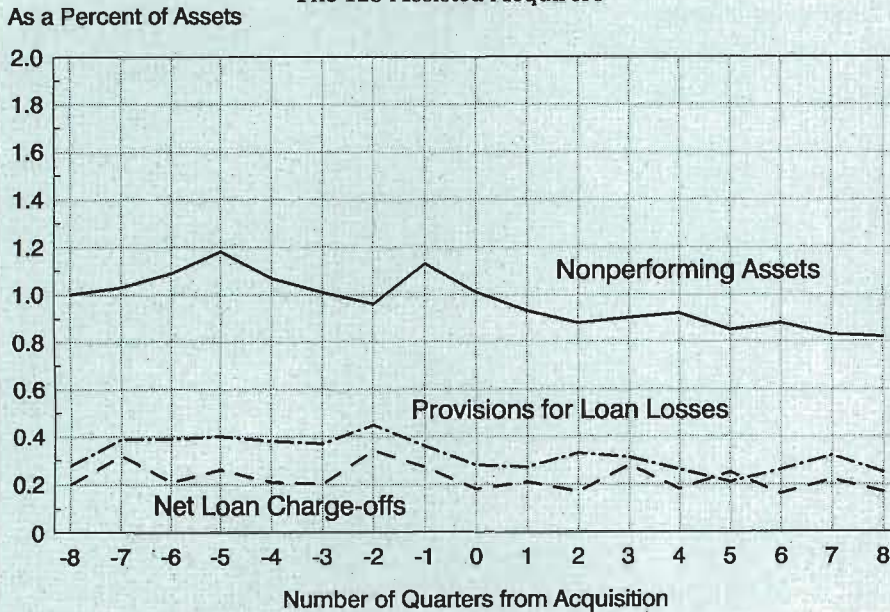


Figure 5
Trends in Asset Quality
The 123 Assisted Acquirers



bank's income statements for the quarter in which the acquisition takes place. As a result, computations of acquirers' quarterly income and expenses are distorted (biased upward) for the quarter in which acquisition occurs.¹¹ Fortunately, both these accounting biases are eliminated for quarters following acquisition (quarters 1 through 8 in the Figures) by the use of quarterly net income and expense ratios.

Finally, there are extraordinary financial expenses that occur shortly after acquisitions that may temporarily increase noninterest expenses, specifically, expenses associated with cutbacks in personnel and operating capacity. While the acquirer may incur unusually high noninterest expenses soon after acquisitions, due to these cutback expenses, such expenses should not continue.

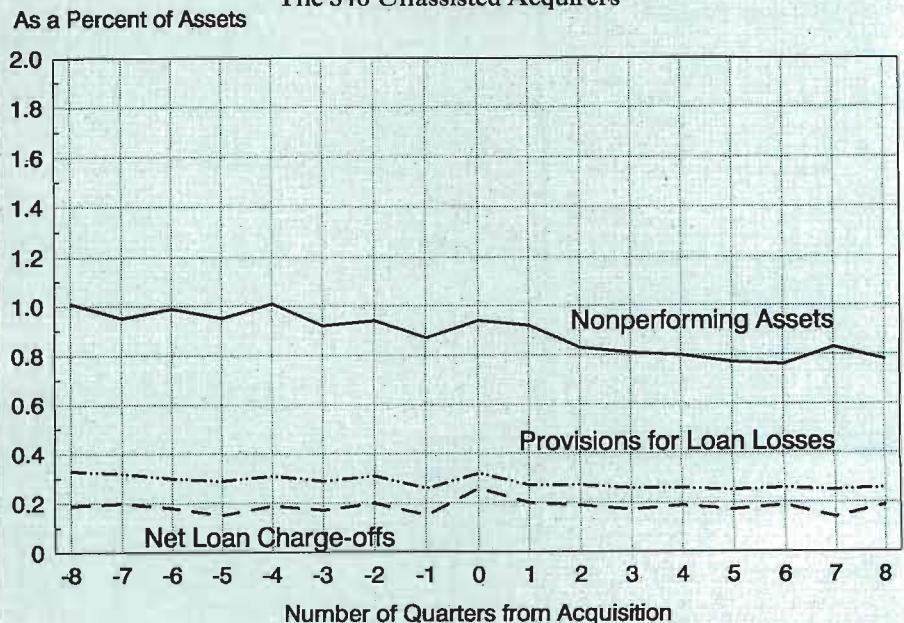
In sum, one may attribute trends in income and expenses in quarters one through eight to real economic and financial events, while fluctuations during the quarter of acquisition should be ignored.

Net Interest Income. Another frequently-cited motive for bank mergers is improvement of market shares

are marked to market values and added to the assuming bank's balance sheet. However, in the purchase method of accounting, none of the acquired bank's year-to-date earnings or expenses are carried over to the acquirer's income statements.¹⁰ As a result, under the purchase method of accounting, during the remainder of the year after acquisition, the acquiring bank's year-to-date income and expenses, as a percent of bank assets, will be biased downward. One means of eliminating this bias (used here) is to compute quarterly income and expenses, and then annualize the data. Computation of quarterly income and expense, however, can eliminate only the downward bias created in income and expense ratios for the quarters subsequent to acquisition, not for the quarter in which acquisition takes place.

In a pooling of interests, the acquired firm's year-to-date earnings and expenses are carried over to the assuming bank's income statements. Therefore, the downward bias does not appear. Unfortunately, the downward bias is replaced by an upward bias because the acquired bank's *entire* year-to-date income and expenses are carried over to the assuming

Figure 6
Trends in Asset Quality
The 346 Unassisted Acquirers



¹⁰ Specific criteria must be met by acquirers who wish to use the pooling of interests accounting treatment of mergers. For a brief description of these criteria see *Commercial Bank Financial Management in the Financial Services Industry*, Third Edition, by Joseph F. Sinkey, Jr., (Macmillan Publishing Company, 1989).

¹¹ The direction of the bias for financial statistics which deduct expenses from revenues, e.g., net income, cannot be anticipated easily and will depend upon the relative size of the biases created in expenses and revenues.

and enhancement of the acquirer's franchise value. Increased access to core deposit funding, as well as improved lending opportunities, should improve the acquirer's net interest income. Core deposits, *i.e.*, small consumer and commercial deposit accounts, are a stable and low-cost source of funds. A significant increase in core deposit levels should lower interest expenses. For the sample of acquirers studied here, however, there was little evidence of increased core deposit funding following acquisitions. Among the 123 assisted acquirers, median core deposit balances rose from 86 percent of liabilities, two years prior to acquisition, to 87 percent of liabilities two years after acquisition. Median core deposit levels among the 346 unassisted acquirers remained at approximately 87 percent of liabilities.¹² This lack of improvement may explain why interest expense did not fall after acquisitions (see Figures 9 and 10). Moreover, there was no evidence of improved interest income following acquisitions.

Return on Assets. The combined influences of changes in operating efficiency, asset quality, and market

share will be reflected in bank profits. Figures 11 and 12 combine information on these three factors and show the trend in bank profits, as measured by return on assets. While there was some evidence of improvement in asset quality for both assisted and unassisted acquirers, there was a lack of savings in both interest and noninterest expense. As a result, profitability

did not improve, on average, following acquisitions.

Return on Equity. Figures 13 and 14 present trends in the median return on equity among assisted and unassisted acquirers. Among assisted acquirers the downward trend in return on equity prior to the acquisition was reversed in the post-acquisition period. This improvement was, however, primarily due to a reduction in capitalization, and not an improvement in earnings. Among unassisted acquirers one finds little change in the median return on equity after acquisitions.

Operating Cost Savings from Acquisitions?: Additional Considerations

While the trends in noninterest operating expenses presented in Figures 7 and 8 indicate little change in costs, as a percentage of bank assets in the post-acquisition period, additional tests were undertaken to respond to potential shortcomings in the analysis. First, information on the distribution of cost changes is useful in

¹² Core deposits were defined as the sum of all transaction accounts, money-market deposit accounts and other savings deposits, plus all time deposits of less than \$100,000.

Figure 7
Median Noninterest Expenses
The 123 Assisted Acquirers

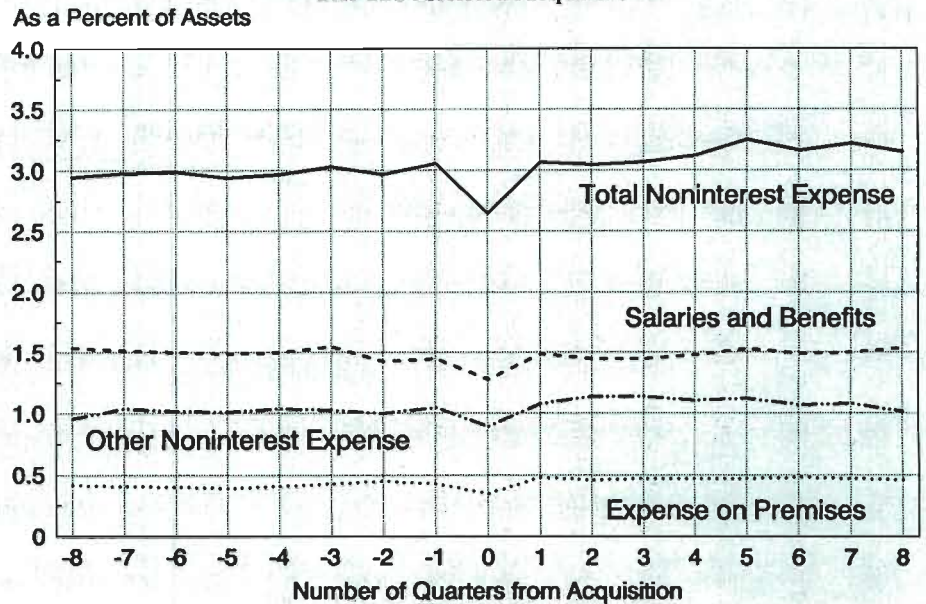


Figure 8
Median Noninterest Expenses
The 346 Unassisted Acquirers

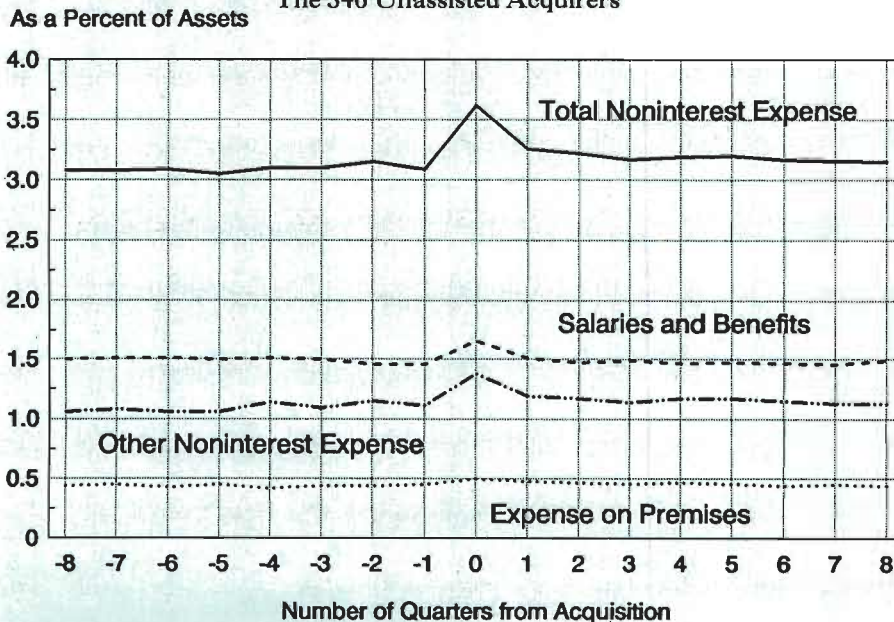
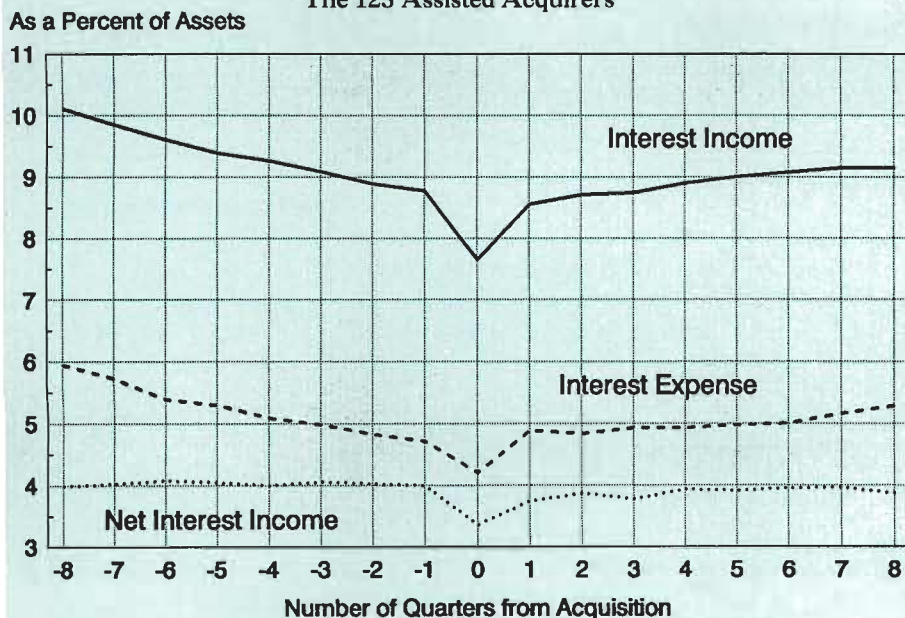


Figure 9
Median Interest Income and Expense
The 123 Assisted Acquirers



assessing evidence on cost economies because it may take several periods before operating cost savings can be realized. Therefore, changes in operating costs were measured over an interval beginning eight quarters before acquisitions were made and ending eight quarters after the acquisitions.¹³ To control for the effect of changes in bank asset size upon dollar operating costs, all cost data were measured as a percentage of bank assets (as was done in Figures 7 and 8). Changes in operating costs were measured separately for employee compensation and expenses on premises. For both categories of costs, approximately half

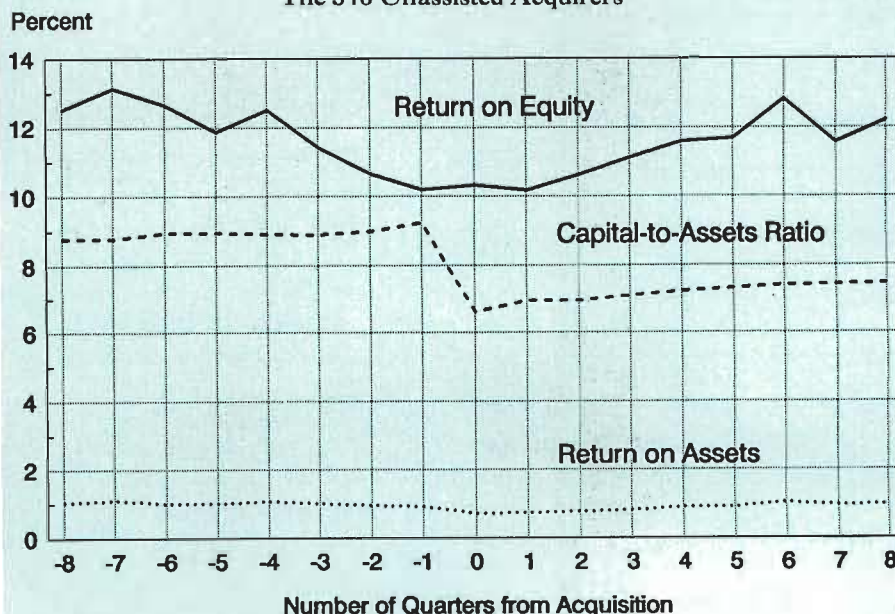
of the sample of assisted acquirers experienced a reduction in costs. Very similar results were found for the sample of unassisted acquirers. Moreover, the distributions of proportional cost changes were fairly dispersed.

Approximately 95 percent of both assisted and unassisted acquirers experienced percentage changes in expenses on salaries and benefits of

between -50 percent and 50 percent over the four-year interval. Similarly, approximately 72 percent of both assisted and unassisted acquirers experienced percentage changes in expenses on premises of between -50 percent and 50 percent over the four-year interval. As a result, neither group of acquirers experienced the significant reductions in expenses on employee compensation and on premises in the post-acquisition period that would be realized from economies of scale. In fact, there was a small but statistically significant increase in average expenses on premises over the four-year interval studied for both groups of acquirers.¹⁴ Similar tests of the percentage changes in average expenses on salaries and benefits indicated no significant changes in these costs for both group of acquirers.¹⁵

A second potential criticism of the financial trend analysis is that the trends included some banks that may not be expected to achieve the cost savings normally associated with acquisitions. This may be true of acquisitions where the amount of assumed assets was relatively small. To test for the importance of this factor, tests of

Figure 10
Median Interest Income and Expense
The 346 Unassisted Acquirers



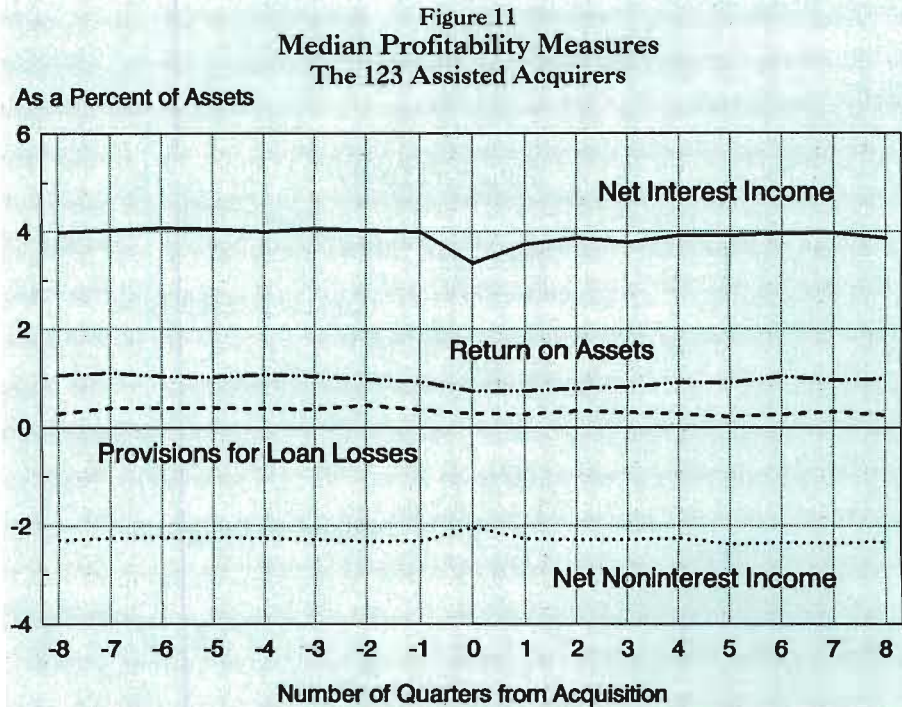
¹³ The starting point of two years prior to the acquisition was chosen, somewhat arbitrarily, to control for the possibility that acquirers made operating changes in anticipation of acquisitions. The tests were repeated using an interval starting one quarter before acquisitions and ending eight quarters after acquisitions. The conclusions of this section were unchanged by this shorter interval.

¹⁴ The mean percentage change in expenses on premises was 11.61 for the sample of assisted acquirers and 13.68 for the sample of unassisted acquirers. The Student's t statistic for the hypothesis that the mean percentage change in expenses on premises is zero was 8.03 for assisted acquirers and 14.75 for unassisted acquirers.

¹⁵ The Student's t statistic for testing the hypothesis that the mean percentage change in expenses on salaries and benefits is zero was -1.49 for the sample of assisted acquirers and 1.32 for the sample of unassisted acquirers.

the size and significance of cost changes were repeated, with the averages weighted toward those acquisitions that increased bank size the most.¹⁶ The results from these latter tests were similar to the results based on unweighted averages, so that conclusions about cost savings were unchanged.

The proximity of the assumed bank to the acquirer may also influence the degree of potential cost savings that banks realize from acquisitions. For example, if there is a high degree of overlap in branch office locations for the merging banks, large cost savings may be realized with the elimination of redundant offices. Therefore, the analysis was repeated on groups of assisted and unassisted acquirers that operated in the same county as the assumed bank. As before, all averages were weighted toward those acquisitions that increased bank size the most. The results indicated a significant increase in expenses on premises among both assisted and unassisted acquirers, rather than a decline in costs the prior example suggests might occur. In addition, while similar tests of expenses on employee compensation indicated



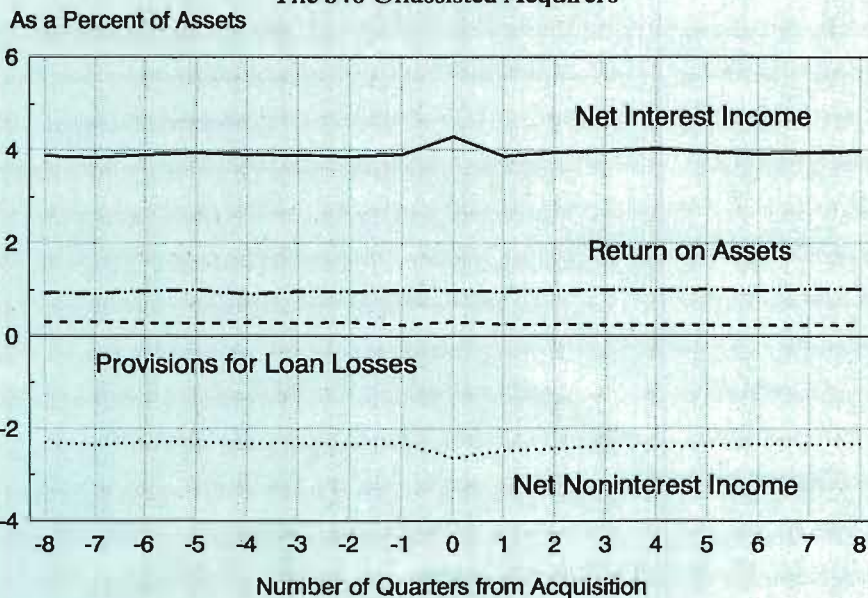
a significant decline in such costs for unassisted acquirers, there were no significant changes in these expenses for assisted acquirers.

A third possible shortcoming of the financial trend analysis is that it does not control for general trends in industry operating costs. It is possible that cost reductions achieved through acquisitions were offset by general up-

ward trends in noninterest expenses during the periods studied. In order to investigate this possibility the samples of acquisitions were divided into groups with similar acquisition dates and financial trends were obtained.¹⁷ Next, comparisons were made to the trends in industry noninterest expenses over the same time periods for groups of banks whose asset size was similar to that of the samples of acquirers. For brevity, these additional trends are not presented here. In general, the data indicate that expenses on premises and employee compensation, as a percentage of bank assets, were relatively stable between June 1984 and December 1990. Therefore, it does not appear that cost savings from acquisitions were offset by industry trends.

In conclusion, the apparent lack of post-acquisition cost savings seen in

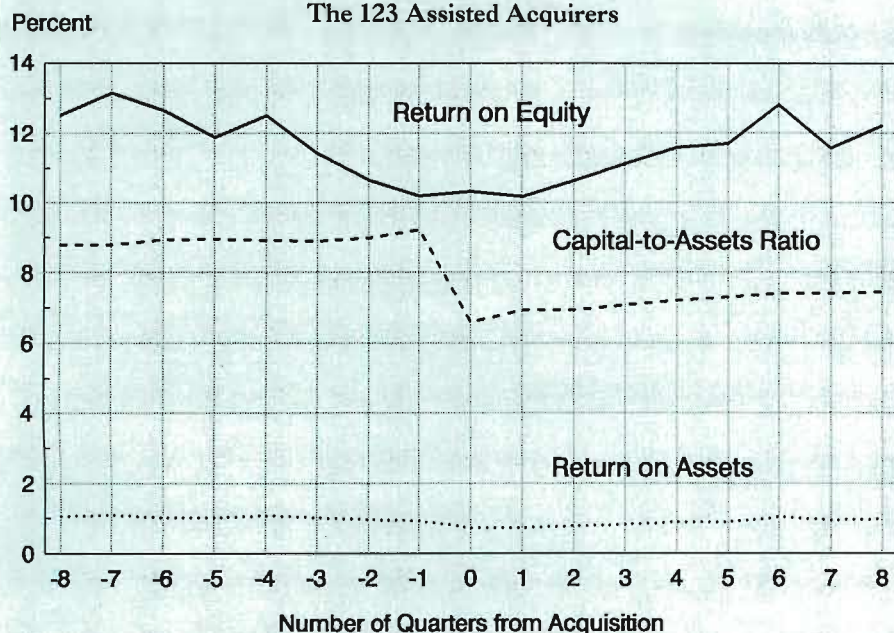
Figure 12
Median Profitability Measures
The 346 Unassisted Acquirers



¹⁶ Specifically, weighted mean percentage changes in expenses on premises, as well as employee compensation, were computed by weighting the percentage change in costs by the proportion of asset growth an acquisition represented relative to the combined percentage change in assets associated with all acquisitions.

¹⁷ Subgroups were formed of acquisitions taking place within six months of each other. The periods investigated were for the latter half of the calendar years 1986, 1987, and 1988.

Figure 13
Median Return on Equity
The 123 Assisted Acquirers



Figures 7 and 8 is supported by the additional tests discussed above.

The Determinants of Performance

The financial performance trends presented in the prior section were used to assess the relative post-acquisition performance of assisted and unassisted acquirers. The main finding was that operating efficiency did not improve for either assisted or unassisted acquirers. This finding argues against the presence of economies of scale and scope among the acquirers studied here.

While intuitively appealing, comparisons of group financial trends may be hindered by differences in the composition of each group in terms of geographic location, asset size, and the dates of acquisition. Statistical regression analysis is one technique that can be used to control for the effect these differences in group composition have upon bank performance. In addition, the regression approach can

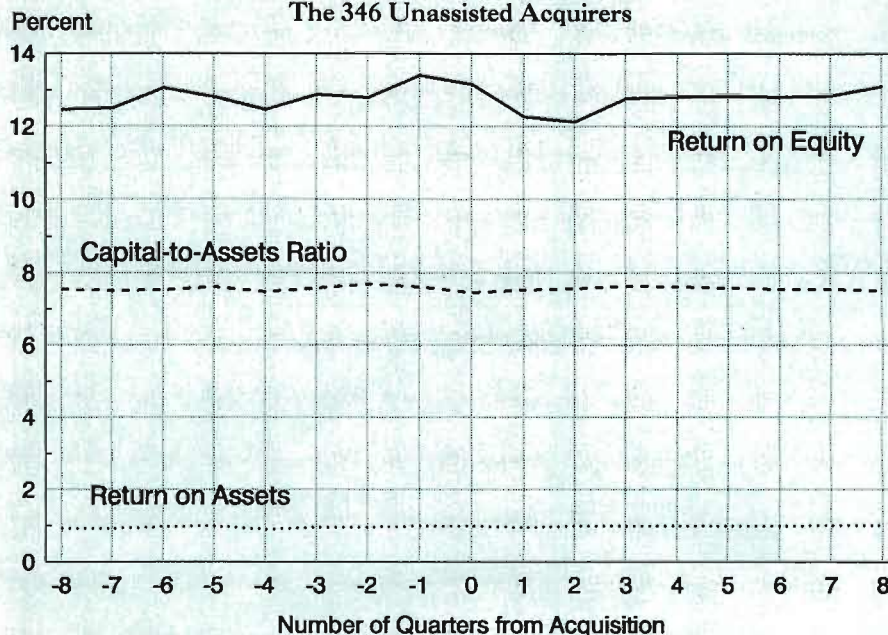
¹⁸ More specifically, standard economic theory is based upon the assumption that firm managers, acting in the interest of firm owners, seek to maximize the value of the firm, *i.e.*, the present discounted value of future profits. Consequently, managers are assumed to take a long-run view of the firm and consider not only the level and riskiness of profits, but also the timing of profits.

be used to investigate the extent to which performance is influenced by the level of competition that acquirers face, as well as by the composition of bank assets and liabilities. Moreover, regression analysis can determine whether the assurances given by the FDIC to assisted acquirers resulted in a significant subsidy to acquirers. Consequently, this section uses re-

gression analysis to further characterize the performance of acquirers, as well as to investigate some determinants of performance. It should be pointed out that this section does not attempt to test again for efficiency gains associated with acquisitions. If such gains were prevalent in the sample, they would have been seen in the financial trends presented earlier.

An analysis of the determinants of an acquirer's financial performance requires consideration of a wide range of factors. To facilitate the analysis, one can distinguish between two general categories of determinants. The first category consists of those factors that affect performance, yet are largely beyond the control of bank management. These factors include regional and national business cycles, federal and state bank regulation, tax laws, the level of bank and nonbank competition, and available production technology. After forming expectations about these basic conditions, bank management attempts to select that asset and liability composition and method of operations which yield the maximum profit levels for an accepted level of risk.¹⁸ Therefore, the second category of determinants is

Figure 14
Median Return on Equity
The 346 Unassisted Acquirers



comprised of those factors over which bank management has some control, although the degree of control can vary. For example, a decision to alter the composition of the loan portfolio will require some time to implement and may be limited by state and federal bank regulations, as well as the available customer base. In addition, the distinction between what management can and cannot control will depend upon the time frame of the analysis. This study reviewed quarterly bank performance for two-year periods before and after acquisitions. Therefore, changes in asset and liability composition certainly fall under the heading of managerial decision variables.

Basic Market Conditions

The trends in financial performance presented earlier combined the experiences of banks from different geographic locations, time periods, and asset size. To control for the influence of regional business cycles the country was divided into six geographic regions and this information was included in the regression analysis using dummy variables.¹⁹ The six regions were the Northeast, Southeast, West, Southwest, Central, and Islands regions (see Table 5).²⁰

To control for the influence of national business cycles upon industry performance, information on the year in which performance was measured was included in the regressions, again by dummy variables. As a result of the requirement that banks have at least eight quarters of financial data (four

quarters before acquisition and four quarters after acquisition), both assisted and unassisted acquirer samples included information for the calendar quarter-ends between June 1984 and December 1990. This period covers much of the last regional recession in the Southwest associated with the fall in energy prices. Moreover, this time span incorporates the rapid buildup and subsequent decline in residential and commercial real-estate markets in many markets in the Southwest and Northeast.

The financial data presented in Figures 1 through 14 show the condition of acquirers in terms of the number of quarters from the acquisition date. These figures, therefore, combined information from all calendar quarters. Some financial data, however, exhibit seasonal trends.²¹ In order to control for this possibility, dummy variables indicating the calendar quarter used were included in the regression analysis.

The level of bank and nonbank competition also is an important determinant of bank performance. Banks facing little competition can be expected to outperform peers operating in highly competitive markets. Traditional economic theory states that both the number and size distribution of competitors are important determinants of the level of competition in a market. Consequently, a bank's market share is only a partial measure of its market power. To put market share into perspective one can include a summary measure of market

concentration. This analysis used the Herfindahl-Hirshman Index (HHI) as an indicator of overall market concentration. The HHI is defined as the sum of squared market shares of all competitors operating within a market.²² The determination of a bank's market(s) is, unfortunately, more difficult because the market will vary with bank size, types of loans, population demographics, and state branching laws. For the majority of small banks, the market for most of a bank's services, both as a lender and deposit taker, is geographically limited. As a matter of convenience, counties were used as geographic markets. While county delineations will not be appropriate in all circumstances, the regression analysis will still be able to detect whether high (low) market shares and concentrations are associated with higher (lower) bank profitability. The only data available on banking activity across cities and counties are deposits at branch offices.²³ Therefore, this analysis used deposit market shares as indices of the level of competition. Market shares were computed as the percentage of deposits held by an individual bank within a county, where the market was defined to include all banks and thrifts operating within a county.²⁴

The notion that market share and concentration are related to firm profitability is based upon traditional economic theory which states that the structure of a market will influence the conduct of business rivals, and subsequently their performance. This

¹⁹ Dummy variables are used to indicate whether a condition or situation is present or not for an observation (bank). Therefore, dummy variables take on a value of one if the condition is present, and zero if it is not. For example, all banks located in Massachusetts will have a value of one for the dummy variable indicating location in the Northeast, and values of zero for all other regional dummy variables.

²⁰ If dummy variables for all the regions were included in regression equations of the type estimated in Tables 8 and 11, (*i.e.*, regressions with an intercept term included), the well-known problem of perfect collinearity would occur. Therefore, it was necessary to delete a dummy variable for one region from the regression equations. Similar adjustments were necessary for other factors felt to influence profits that were introduced through dummy variables, such as the time period, type of branching restrictions, and presence of FDIC assistance.

²¹ For example, banks generally make greater provisions for loan losses in the fourth calendar quarter.

²² The HHI will increase as the number of firms operating in a market falls, and as the distribution of market shares becomes more uneven. For example, the HHI for a market comprised of ten firms, each with market shares of ten percent, is 1000. If market shares were altered, such that nine firms had shares of five percent, while the dominant firm had a 55 percent share, the HHI would be 3250. In a monopolized market, the HHI is 10000.

²³ Commercial and mutual savings banks, as well as savings associations, are required to report branch office deposit data as of the end of June, annually. Bank and thrift branch office deposit data were obtained from the FDIC's Summary of Deposits databases.

²⁴ Commercial banks offer a variety of services as deposit takers and creditors, many of which are available at thrifts and nonbank institutions such as credit unions and finance companies. Unfortunately, data on the activity of credit unions and nonbank competitors were not available for this analysis. Therefore, the level of competition is measured with some error.

traditional view of these relationships is known as the Structure-Conduct-Performance (SCP) Paradigm. However, an alternative view, known as the Efficient Structure Hypothesis (ESH), states that market concentration merely reflects that combination of firms that have achieved an efficient scale and scope of operations. If higher profits accrue to firms with large market shares, it is because these firms are more efficient, not necessarily because they are exerting market power. Moreover, there may be a tendency for more-efficiently-run firms to accrue greater market shares over time, particularly if efficiency can be maintained over a wide range of operating scales. As a result of these differing theories, interpretations of the relationships between market structure and firm performance will not be unambiguous. In addition, under either view, the decision to acquire a competitor alters market shares and concentration. Therefore, it appears that bank management can exercise some control over market share and, to a lesser extent, concentration. The next section considers those factors over which bank management has more direct control.

Finally, state branching restrictions may influence bank performance in several ways. First, branch banks may have different operating costs than banks with limited or no branching abilities. Second, the ability to enter markets through branch offices may affect the level of competition banks face. Therefore, dummy variables indicating varying levels of branching restrictions were used in the regression analysis. Specifically, those states that prohibit branch banking were designated as unit banking states. States that permit limited branching, *e.g.*, branching in counties contiguous to the location of the main office, were designated as limited branching states. Finally, those states that permit unlimited statewide branching were designated as statewide branching states.

Bank Characteristics

Bank asset and liability composition influence overall profitability in three ways. First, net interest income will be determined by the maturities of assets and liabilities, as well as the riskiness of assets and volatility of liabilities. Second, lending standards and loan concentrations will, in part, determine asset quality as reflected in the level of nonperforming assets, loss provisioning, and loan charge-offs. Third, the level and composition of bank assets and liabilities characterize the scale and scope of operations, thereby influencing noninterest operating costs such as employee compensation and expenses on fixed assets.

Given these factors affecting profitability, one can expect that the relationship between certain categories of assets and bank profitability will vary across geographic regions and over time. For example, high loan concentrations in certain economic sectors such as agriculture, energy, commercial real estate, and loans to lesser developed nations have varied widely in profitability over time. Conversely, the influence of several other categories of assets and liabilities on profitability can be expected to be fairly stable. For example, increases in non-earning assets, such as repossessed real estate, should always negatively impact profits. The inclusion of information on geographic regions and the year of analysis should partially control for these variations in influence. However, because of the likelihood that the relationship between certain loan concentrations and profitability will be highly dependent upon the location and year of analysis, detailed information on loan portfolio composition was not included in the regression analysis. Instead, broader categories of bank assets and liabilities, which were expected to have a more stable influence on profitability, were used. In addition, in order to distinguish between asset composition and asset quality, separate information on asset quality, as measured

by the level of nonperforming assets, was included in the analysis.

If economies of scale and scope exist in banking, one also can expect that the effect of some categories of assets and liabilities upon profitability will vary across banks, depending upon a bank's size and portfolio composition. For example, if information about a commercial loan applicant's deposit activity is available to the bank, this may improve credit analysis and reduce the costs of reviewing loan applications. As a result, the profitability of commercial loan portfolios may vary with the level of commercial deposit accounts, assuming it is these depositors who seek loans. No attempt is made here to measure the influence of the scope of operations upon profitability.

Finally, assisted acquirers may have distinct advantages over unassisted acquirers. The ability to put back acquired nonperforming assets to the FDIC for a period after acquisition, as well as other governmental assurances, may significantly reduce the risks involved in assuming assets. In order to test for these advantages, a dummy variable indicating whether the acquirer was assisted was included in the regression analysis.

Regression Methodology

The regression analysis used a "pooled" data set that combined data on many banks for several time periods. Although the pooling of cross-sectional and time series data increases the information available, and hence the efficiency of the estimates, several problems may arise. Specifically, if the relationship between profitability and its determinants changes over time, and/or varies across groups of banks, this variation must be accounted for in the estimation procedure. As a result, the analysis employed a variance-components model which attempts to correct for such variations. This model permits the regression model intercept to vary across banks, and over time periods.²⁵ For comparative purposes, ordinary

least squares estimates are presented as well. The ordinary least squares procedure does not correct for the aforementioned potentially changing relationships and, therefore, is less precise.

As stated above, profitability was related to broad categories of bank assets and liabilities felt to influence performance systematically. In order to test the sensitivity of results to the asset groupings chosen, two specifications were used. The first specification was based upon the standard groupings of assets used in bank balance-sheet statements (see Table 8A). Balance-sheet classifications are generally related to the degree of liquidity and riskiness associated with the assets, and therefore served as a good starting point for the analysis. In addition to these asset groupings, performance was related to the two liability measures felt to reflect volatility and the use of high-cost funds: brokered deposits and deposit balances over \$100,000. Finally, asset quality was measured by the level of nonperforming assets, defined as loans and leases past due 90 days or more plus nonaccrual loans and leases.

In the second specification, somewhat broader asset classifications were used, based upon risk and asset-quality considerations. Total bank assets were partitioned first into nonrisk assets and risk assets. Nonrisk assets were defined as all cash assets, securities, federal funds sold, and balances due from depository institutions. Subsequently, nonrisk assets were partitioned into noninterest-bearing and interest-bearing groups. All remaining assets, which were designated risk assets, were partitioned into two groups: performing and nonperform-

²⁵ More specifically, the variance-components model (also known as the error-components model) decomposes the regression model residuals into three components: a time-series component, a cross-sectional component, and the unique residual associated with an individual observation. For the estimates presented in this paper, variance-components regressions were estimated using generalized least squares estimators which employed the fitting of constants method of estimating the residual components.

Table 8A
Regression Analysis of Determinants of Return on Assets
Assisted and Unassisted Acquirers
(Quarters 1 through 8)

Model	Coefficient Estimates	
	Ordinary Least Squares	(t Statistics) Variance-Components
Intercept	-2.764 (-1.147)	-6.094 (-2.080)
As a Percent of Assets:		
Noninterest-Bearing Balances	0.011 (0.416)	0.036 (1.093)
Interest-Bearing Balances	0.060 (2.405)	0.089 (2.933)
Investment Securities	0.048 (1.940)	0.082 (2.745)
Federal Funds Sold and Repurchase Agreements	0.032 (1.290)	0.071 (2.394)
Net Loans and Leases	0.051 (2.100)	0.086 (2.884)
Assets Held in Trading Accounts	0.090 (1.213)	0.081 (0.921)
Premises and Fixed Assets	-0.062 (-1.797)	-0.039 (-0.840)
Other Real Estate Owned	-0.405 (-12.965)	-0.397 (-9.931)
Brokered Deposits	-0.093 (-3.967)	-0.057 (-1.993)
Deposits of \$100,000 or More	-0.012 (-2.836)	-0.015 (-2.489)
Nonperforming Assets	-0.255 (-12.129)	-0.255 (-9.912)
Dummy Variables:		
Second Quarter	-0.161 (-2.303)	-0.159 (-2.504)
Third Quarter	-0.138 (-1.959)	-0.140 (-2.166)
Fourth Quarter	-0.407 (-5.621)	-0.417 (-6.194)
Statewide Branching ¹	-0.123 (-1.114)	-0.115 (-0.685)
Unit Banking	-0.117 (-1.558)	-0.110 (-0.972)
Northeast	-0.089 (-0.771)	-0.090 (-0.511)
Southeast	0.086 (0.952)	0.112 (0.818)
Midwest	0.042 (0.480)	0.038 (0.284)
Southwest	0.102 (1.006)	0.171 (1.123)
West	0.529 (4.341)	0.607 (3.300)
Year 1986	-0.283 (-1.583)	-0.177 (-0.963)
Year 1987	-0.246 (-2.577)	-0.201 (-1.905)
Year 1988	-0.106 (-1.238)	-0.070 (-0.783)
Year 1989	-0.001 (-0.008)	0.022 (0.275)
<i>Assisted Acquirer</i>	0.118 (1.726)	0.121 (1.178)
Adjusted R Squared	0.36	
Regression Mean Squared Error	2.27	1.86

¹ State bank branching laws changed over the sample period in many states. In order to include branching information in regressions that combined data from many periods, states were categorized based on the branching laws in existence over a majority of the sample period.

ing. Performing risk assets were defined as risk assets minus the sum of past due and nonaccrual loans and leases, other real estate owned, and intangible assets (other than mortgage servicing rights). Those broader asset groupings expected to be systematically related to performance are presented in Table 8B. The liability groupings were unchanged in the second specification.

Finally, because the use of deposit market share information in the regression analysis required that some banks be deleted from the sample, the relationships among market share, concentration, and profitability were studied separately (see Tables 11A and 11B).

Results

Tables 8A and 8B present estimates of the relationships between acquirers' performance and the aforementioned factors (except market share and concentration) over the two-year period following acquisitions. Table 8A gives the results for the first specification, which employs the somewhat narrower asset categories. The estimated relationships between these asset and liability groups and profitability were much as one would expect. Variance-components model estimates indicate significant²⁶ positive relationships between returns on assets and all categories of earning assets (except assets held in trading accounts).²⁷ Similar results were obtained using ordinary least squares estimation; however, investment securities and federal funds sold and repurchase agreements were no longer significantly related to profit-

ability. The nonearning assets, other real estate owned, and nonperforming assets were found to be significantly negatively related to profitability under both estimation procedures.²⁸ Similarly, increases in the two measures of high-cost funds also were found to reduce profitability. In addition, the results in Table 8A for the nonfinancial determinants of profitability were very similar under both

estimation procedures. State branching restrictions did not appear to be significantly related to profitability. More importantly, both estimation procedures failed to find a statistically significant subsidy to the sample of failed-bank acquirers. Although the coefficient on the dummy variable used to indicate whether an acquisition was FDIC assisted was relatively large and positive, the estimated coef-

Table 8B
Regression Analysis of Determinants of Return on Assets
Assisted and Unassisted Acquirers
(Quarters 1 through 8)

Model	Coefficient Estimates	
	Ordinary Least Squares	(t Statistics) Variance-Components
Intercept	-3.075 (-2.890)	-3.504 (-2.486)
As a Percent of Assets:		
Interest-Bearing Nonrisk Assets	0.049 (4.486)	0.054 (3.709)
Performing Risk Assets	0.053 (4.682)	0.057 (3.817)
Nonperforming Assets and Other Real Estate Owned	-0.309 (-20.398)	-0.313 (-15.203)
Brokered Deposits	-0.100 (-4.442)	-0.070 (-2.459)
Deposits of \$100,000 or More	-0.011 (-2.546)	-0.013 (-2.176)
Dummy Variables:		
Second Quarter	-0.156 (-2.212)	-0.157 (-2.467)
Third Quarter	-0.142 (-1.997)	-0.147 (-2.261)
Fourth Quarter	-0.414 (-5.681)	-0.420 (-6.249)
Statewide Branching	-0.155 (-1.403)	-0.151 (-0.893)
Unit Banking	-0.159 (-2.118)	-0.147 (-1.283)
Northeast	-0.018 (-0.158)	-0.028 (-0.158)
Southeast	-0.014 (0.158)	0.001 (0.008)
Midwest	0.023 (0.260)	0.014 (0.107)
Southwest	-0.016 (-0.160)	0.028 (0.188)
West	0.485 (4.028)	0.524 (2.854)
Year 1986	-0.206 (-1.153)	-0.126 (-0.690)
Year 1987	-0.197 (-2.061)	-0.165 (-1.582)
Year 1988	-0.070 (-0.813)	-0.041 (-0.453)
Year 1989	0.004 (0.041)	0.025 (0.311)
<i>Assisted Acquirer</i>	0.149 (2.223)	0.130 (1.273)
Adjusted R Squared	0.35	
Regression Mean Squared Error	2.30	1.87

²⁶ The term significant is used here in the usual statistical sense to mean that the coefficient estimates obtained from the regressions were found to be significantly different from zero. For this analysis, a Student t statistic of 1.96 or more indicates that one can reject the hypothesis that the coefficient estimate is not significantly different from zero at the 95 percent confidence level.

²⁷ The earning-asset categories consist of interest-bearing balances due to the bank, investment securities, federal funds sold and repurchase agreements, net loans and leases, and assets held in trading accounts.

²⁸ The nonearning-asset categories consist of non-interest-bearing balances, premises and fixed assets, and other real estate owned (which includes repossessed real estate).

Table 9
Changes in Deposit Market Share Upon Acquisition
Assisted Acquirers

Period	Deposit Market Share		Market Concentration (HHI)	
	Mean	Median	Mean	Median
-1	21.7%	12.7%	2792	1955
0	31.1	19.5	3271	2137
1	30.5	20.4	3204	2092

ficients were not statistically significant. Finally, the regression mean square error for the variance-components model (1.86) was lower than that obtained from ordinary least squares estimation (2.27), indicating the variance-components model was somewhat more precise.

Table 8B presents the results of the regression analysis using the second approach to grouping assets. The second specification uses somewhat broader classifications of assets, where the groupings were based upon risk and performance considerations. The second specification resulted in a stronger relationship between profitability and asset groupings than found under the first approach. Performing risk and nonrisk assets were significantly positively related to profitability under both estimation methods. In addition, increases in nonperforming assets and other real estate owned, as well as high-cost funding, were found to reduce profitability. The most interesting result in Table 8B is that ordinary least squares estimates indicated a significant positive subsidy to failed-bank acquirers. However, estimates obtained from the variance-components model did not show a statistically significant subsidy. In addition, the variance-components model estimates appear to be more precise than the ordinary least squares estimates, as indicated by the

²⁹ The 1984 Department of Justice Merger Guidelines define three levels of concentration, based upon the Herfindahl-Hirschman index (HHI) of deposit market concentration. Those markets with an HHI of 1800 or more are considered to be highly concentrated, while markets with an HHI between 1000 and 1800 are considered to be moderately concentrated and markets with an HHI under 1000 are considered to have low concentration.

lower regression mean square error under the variance-components model. Therefore, there does not appear to be strong evidence of FDIC subsidization for this group of acquirers.

Before presenting estimates of the relationships among market share, concentration and bank profitability, it would be useful to know what impact acquisitions had upon market share and concentration. Tables 9 and 10 present estimates of the changes in deposit market shares associated with acquisitions. Market share data are available each June. Hence, the pre-acquisition period -1 was defined as the June prior to acquisitions, period 0 as the first June after acquisitions, and period 1 as the second June after acquisitions. The geographic markets used were counties.

Tables 9 and 10 include only those acquirers operating in the market prior to acquisitions. Acquisitions that expanded geographic markets were excluded.

Table 9 indicates that among this group of assisted acquirers, median market shares rose approximately 40 percent, from 12.7 to 19.5 percent,

after acquisitions. In addition, median market concentration levels for assisted acquirers increased by 182 points, based upon a scale of 1 to 10000.²⁹ Among the group of unassisted acquirers, median market shares increased 25 percent after acquisitions, while median market concentration fell. This decline in concentration is due to offsetting changes in the market shares of competing banks. While this measure of market shares is not precise, Tables 9 and 10 show that for these groups of acquirers, market shares may have increased significantly with acquisitions.

Estimates of the relationships among market share, concentration and bank profitability are complicated by the fact that many banks operate in several banking markets. In these situations one cannot associate a particular measure of market share with bank profitability. This problem was solved by examining banks that operate in only one geographic market. Because the geographic markets used here are counties, the sample of one-market banks may tend to be biased toward smaller banks, as well as banks operating in states that restrict branching. The restriction that banks operate in only one market reduced the sample of assisted acquirers from 123 to 61, and the sample of unassisted acquirers fell from 346 to 151.

Tables 11 A and B present estimates of the relationships between acquirers' profitability and market share and concentration, as well as the previously discussed financial and

Table 10
Changes in Deposit Market Share Upon Acquisition
Unassisted Acquirers

Period	Deposit Market Share		Market Concentration (HHI)	
	Mean	Median	Mean	Median
-1	12.8%	9.1%	1745	1561
0	14.8	11.4	1720	1477
1	14.7	11.1	1730	1481

nonfinancial factors. Data for two periods before and after acquisitions were used so that the effect of increased market share upon profitability could be investigated.³⁰ The results indicate a weaker relationship between profitability and several of the asset and liability categories previously found to affect profitability. Interest-bearing nonrisk assets, performing risk assets, and deposits of \$100,000 or more, were not significantly related to returns on assets for the sample of one-market acquirers. It is possible that these weaker results were due, in part, to the substantial decline in the number of banks included in the sample (from 469 to 212). Moreover, market share and concentration were, in general, found to have no significant effect upon profitability. This latter result is somewhat surprising, given the large increase in market share some assisted acquirers achieved (see Table 9). One should keep in mind, however, that all the acquisitions studied here had to meet antitrust standards meant to maintain market competition, in order to be approved by bank regulators. Therefore, all attempts to measure potential market power in banking are limited by the operation of antitrust law.

Comments and Conclusions

The experience of the sample of assisted acquirers appears to be very similar to that of unassisted acquirers. Both groups of acquirers appear to have managed the often substantial increase in bank size that occurred with acquisitions without major problems. Indeed, asset quality improved, on average, following acquisitions and acquirers were able to maintain profitability. Despite these positive

³⁰ Data on deposit market shares are only available as of the end of June. Therefore, it was not possible to include more than four periods in the sample. In addition, because all data are for the second quarter of the year, the dummy variables controlling for the calendar quarter were no longer needed.

Table 11A
Regression Analysis of Determinants of Return on Assets
Assisted and Unassisted Acquirers Operating in One Market
(Data for two periods before and after acquisitions)

Model	Coefficient Estimates	
	Ordinary Least Squares	(t Statistics) Variance-Components
Intercept	-25.299 (-3.503)	-26.007 (-3.458)
As a Percent of Assets:		
Noninterest-Bearing Balances Due	0.264 (3.508)	0.268 (3.409)
Interest-Bearing Balances Due	0.274 (3.735)	0.282 (3.679)
Investment Securities	0.268 (3.663)	0.275 (3.616)
Federal Funds Sold and Repurchase Agreements	0.258 (3.526)	0.266 (3.490)
Net Loans and Leases	0.287 (3.903)	0.294 (3.842)
Assets Held in Trading Accounts	0.386 (1.297)	0.289 (0.956)
Premises and Fixed Assets	0.087 (0.934)	0.116 (1.162)
Other Real Estate Owned	-0.139 (-1.580)	-0.168 (-1.835)
Brokered Deposits	-0.416 (-5.169)	-0.344 (-4.176)
Deposits of \$100,000 or More	-0.011 (-1.243)	-0.012 (-1.197)
Nonperforming Assets	-0.358 (-8.145)	-0.373 (-8.170)
<i>Market Share</i>	0.015 (1.966)	0.013 (1.503)
<i>Market Concentration (HHI)</i>	-0.0001 (-1.205)	-0.0001 (-0.889)
Dummy Variables:		
Statewide Branching	-0.778 (-1.079)	-0.877 (-1.044)
Unit Banking	-0.198 (-1.032)	-0.208 (-0.932)
Northeast	-0.139 (-0.289)	-0.151 (-0.271)
Southeast	0.092 (0.369)	0.089 (0.308)
Midwest	0.398 (1.819)	0.401 (1.584)
Southwest	0.177 (0.767)	0.232 (0.875)
West	0.828 (2.746)	0.927 (2.661)
Year 1985	0.007 (0.022)	0.0002 (0.0006)
Year 1986	0.051 (0.188)	0.047 (0.176)
Year 1987	-0.312 (-1.193)	-0.328 (-1.290)
Year 1988	-0.130 (-0.497)	-0.140 (-0.548)
Year 1989	0.111 (0.412)	0.120 (0.464)
<i>Assisted Acquirer</i>	0.344 (2.057)	0.322 (1.663)
Adjusted R Squared	0.40	
Regression Mean Squared Error	3.22	2.89

Table 11B
Regression Analysis of Determinants of Return on Assets
Assisted and Unassisted Acquirers Operating in One Market
(Data for two periods before and after acquisitions)

Model	Coefficient Estimates Ordinary Least Squares	(t Statistics) Variance-Components
Intercept	-0.289 (-0.163)	-0.428 (-0.215)
As a Percent of Assets:		
Interest-Bearing Nonrisk Assets	0.014 (0.746)	0.015 (0.738)
Performing Risk Assets	0.028 (1.496)	0.030 (1.413)
Nonperforming Assets and Repossessed Real Estate	-0.383 (-12.784)	-0.407 (-12.470)
Brokered Deposits	-0.390 (-5.054)	-0.322 (-4.074)
Deposits of \$100,000 or More	-0.009 (-0.948)	-0.009 (-0.856)
<i>Market Share</i>	0.015 (1.994)	0.012 (1.403)
<i>Market Concentration</i>	-0.0001 (-1.387)	-0.0001 (-0.984)
Dummy Variables:		
Statewide Branching	-1.061 (-1.467)	-1.159 (-1.359)
Unit Banking	-0.314 (-1.637)	-0.320 (-1.415)
Northeast	-0.008 (-0.016)	-0.019 (-0.033)
Southeast	-0.020 (-0.078)	-0.022 (-0.075)
Midwest	0.374 (1.713)	0.365 (1.424)
Southwest	0.039 (0.172)	0.103 (0.385)
West	0.769 (2.534)	0.872 (2.456)
Year 1985	-0.048 (-0.157)	-0.026 (-0.085)
Year 1986	0.048 (0.177)	0.084 (0.319)
Year 1987	-0.309 (-1.178)	-0.291 (-1.151)
Year 1988	-0.130 (-0.493)	-0.108 (-0.422)
Year 1989	0.063 (0.234)	0.103 (0.395)
<i>Assisted Acquirer</i>	0.253 (1.532)	0.231 (1.186)
Adjusted R Squared	0.39	
Regression Mean Squared Error	3.30	2.91

achievements, the acquirers do not appear to have been able to realize economies of scale or scope from the acquisitions. While there are examples of banks that have achieved cost savings through mergers, such savings may be difficult to achieve. Therefore, in evaluating the probable effect of an acquisition upon bidders for failed banks, the FDIC should carefully review bidders' cost-savings projections. If the success of an acquisition is predicated upon the realization of economies of scale and scope, there may be substantial risk involved.

Tests for the presence of an FDIC subsidy to failed-bank acquirers yielded somewhat mixed results, with the evidence leaning against subsidization. Variance-components model estimates, which showed greater precision than ordinary least squares regressions, did not indicate statistically significant subsidization. It is possible, however, that this result might change for a different sample of assisted acquirers.

Finally, assisted acquisitions were found to result in substantial increases in market shares. Large increases in market share have the potential, in theory, to result in the attainment of market power. For the acquisitions studied here, however, market share and concentration were not significantly related to profitability.

Recent Developments Affecting Depository Institutions

by Benjamin B. Christopher*

Regulatory Agency Actions

Federal Deposit Insurance Corporation

Proposals for Higher Assessment Rates and Transitional Risk-Related Premium System

The FDIC proposed raising the Bank Insurance Fund (BIF) and Savings Association Insurance Fund (SAIF) rates from 23 cents per \$100 of domestic deposits to 28 cents per \$100. Separately, the agency proposed to implement a transitional risk-related system starting January 1, 1993, a year ahead of the January 1, 1994, statutory deadline for adopting a permanent system.

The premium increase proposals are intended to raise the reserves of the BIF and SAIF. The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) requires the FDIC to increase insurance fund reserves to \$1.25 for every \$100 of insured deposits. Official audits of the BIF and SAIF are still being conducted, but the most recent information indicates that the funds' ratios are substantially below the target levels. The BIF is likely to have finished 1991 with a deficit of about \$7 billion, while the

SAIF's reserves at year-end 1991 were approximately zero.

The separate proposal for risk-related premiums is intended to make the deposit insurance system fairer to well-run institutions and encourage weak institutions to improve their condition. Currently, all FDIC-insured institutions pay the same premium (now 23 cents per \$100 of domestic deposits) regardless of the riskiness of their operations. However, in December 1991, the Congress enacted the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) that requires the agency to implement a permanent, risk-related premium system by January 1, 1994.

Under the transitional risk-related system, the FDIC would place each insured institution in one of nine risk categories based on their level of capital and other relevant information. There would be a six basis point spread between the highest and the lowest premiums. Based on the proposed premium increase to 28 cents per \$100, the strongest would pay 25 cents per \$100 and the weakest would pay 31 cents per \$100. However, FDIC staff expects to recommend that the permanent risk-related premium system, to be implemented in 1994, incorporate a wider differential as well as semiannual or annual

increases in premium rates for high-risk institutions.

Each insured institution would be assigned to one of three capital groups (well-capitalized, adequately capitalized or less than adequately capitalized) to be defined by the federal banking agencies. Within the capital groups, the FDIC then would assign each institution to one of three sub-groups based on its evaluation of the risk posed by the institution. The FDIC would base this judgment on evaluations by the institution's primary federal or state supervisor, statistical analyses of financial statements and other information relevant to gauging the risk posed by the institution. These supervisory evaluations would be used to modify premium rates within each capital group.

The FDIC is asking for comment on all aspects of the proposal, including: whether to begin a transitional risk-related system prior to January 1, 1994; how an appeals process should be established for institutions wishing to challenge their risk classification; whether risk-related premiums

*Benjamin B. Christopher is a financial economist in the FDIC's Division of Research and Statistics.

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

should be assigned to institutions by purely statistical factors, without any room for supervisory evaluations; and whether the FDIC's risk assessments for each institution should be kept confidential. *PR-77-92, FDIC, 5/12/92.*

Brokered Deposits

The FDIC proposed a regulation to implement amendments to the Federal Deposit Insurance Act contained in FDICIA, regarding the acceptance of brokered deposits by insured depository institutions, and the imposition of certain recordkeeping and reporting requirements. *FR, 4/3/92, p. 11442; FIL-31-92, FDIC, 4/10.*

Prior to FDICIA, "troubled" institutions were prohibited from accepting, renewing, or rolling over brokered deposits. The FDIC could, by waiver, permit such institutions to accept brokered deposits. FDICIA provides that: a) "well capitalized" insured depository institutions may accept, renew, or roll over brokered deposits without first obtaining a waiver from the FDIC; b) those that are "adequately capitalized" are prohibited from accepting, renewing, or rolling over brokered deposits unless they first obtain a waiver from the FDIC; and c) "undercapitalized" institutions (including those that have previously obtained a waiver) are prohibited from accepting, renewing, or rolling over brokered deposits. "Adequately capitalized" (including those that obtain a waiver) and "undercapitalized" institutions are prohibited from soliciting deposits by offering interest rates that are significantly higher than the prevailing rates on insured deposits in their normal market area or in the market area where such deposits would otherwise be accepted.

To implement FDICIA, the FDIC proposed that institutions with two key capital ratios (leverage capital and risk-weighted capital) between one-and-two percentage points higher than is otherwise required and are

highly rated on the interagency system for safe-and-sound operations ("1" or "2" rated) would be considered "well capitalized." These institutions could accept brokered deposits without limit and are not subject to interest-rate restrictions. Institutions that fail to meet the definition of "well capitalized" but still are above the minimum levels of required capital would be considered "adequately capitalized." These institutions could accept brokered deposits subject to an FDIC waiver and interest-rate restrictions. Institutions that fail to meet either of the two capital ratios would be considered "undercapitalized" and therefore barred from accepting brokered deposits.

Deposit brokers also would be required to register with the FDIC and to maintain information that the agency could obtain upon request. The proposal would not require brokers to file regular reports with the agency. *FIL-3-92, FDIC, 1/9; PR-48-92, 3/24.*

Capital Maintenance

In order to promote consistent and uniform treatment of intangible assets among the federal banking regulators, the FDIC proposed that limited amounts of purchased mortgage servicing rights and purchased credit-card relationships would be recognized for purposes of calculating Tier 1 capital under the agency's leverage capital and risk-based capital standards. All other intangible assets, including goodwill and core deposit intangibles, would continue to be deducted in determining the amount of Tier 1 capital.

The aggregate amount of PMSRs and PCCRs that could be recognized for regulatory capital purposes will be limited to no more than 50 percent of core capital. In addition, the amount of PCCRs would be subject to a sub-limit of no more than 25 percent of core capital. Certain other conditions and restrictions pertaining to these intangibles would also apply. *FR, 4/1/92, p. 11005.*

Capital for Multifamily Housing Loans

The FDIC proposed to amend its guidelines to implement a provision of the Resolution Trust Corporation Refinancing, Restructuring, and Improvement Act of 1991 which requires the federal banking agencies to assign a 50 percent risk weight to multifamily housing loans that meet certain prudential criteria and to securities collateralized by such loans. Currently, the risk weight for these loans is usually 100 percent. Among the criteria are that a loan be secured by a first lien on a property generating a specified minimum ratio of net income to debt service, has a maturity between seven years and 30 years, and has had timely principal and interest payments for at least one year. *FIL-29-92, FDIC, 4/10; FR, 4/1, p. 11010.*

Loans to Bank Executive Officers

Under a recent statutory amendment, insured nonmember banks are prohibited from making loans to their executive officers for purposes other than financing the education of the officers' children or financing the purchase, construction, maintenance or improvement of the officers' homes except to the extent authorized by the FDIC.

The FDIC amended its regulations to allow an insured nonmember bank to make extensions of credit to its executive officers for any other purpose if the aggregate outstanding balance on such loans (loans other than education or home finance loans) to the executive officer do not exceed the higher of 2.5 percent of the bank's capital and unimpaired surplus or \$25,000, but not to exceed \$100,000. *PR-66-92, FDIC, 4/21; FR, 3/4/92, p. 7670; 4/28, p. 17847.*

Notice Requirements for Closing Branches

FDICIA requires an insured institution to give notice of any proposed branch closing to its

appropriate federal banking agency no later than 90 days prior to the date of the proposed branch closing. The required notice must include a detailed statement of the reasons for the decision to close the branch and statistical or other information in support of such reasons. It also requires insured institutions to give notice of any proposed closing to their customers. Finally, insured institutions must post a notice in a conspicuous manner on the premises of the branch to be closed at least 30 days prior to the proposed closure. *FIL-05-92, FDIC, 1/10/92.*

Pending the adoption of a final rule, and to encourage acquirers to provide banking services to a community during the transition period after the failure of an insured institution, the FDIC will not take any action against an FDIC-supervised bank for non-compliance with advance notice requirements, provided that the bank meets certain requirements, among which are that it temporarily operates, but does not purchase or lease, one or more branches of a failed institution; during the option period, makes its "best efforts" to give that branch's customers, and the FDIC, as much notice as is reasonable under the circumstances; and closes the branch within 90 days after notifying the FDIC of its intention to close the branch. *FIL-30-92, FDIC, 4/10/92.*

Interagency Statement on Review of Commercial Real-Estate Loans

The Office of the Comptroller of the Currency (OCC), FDIC, the Federal Reserve Board (FRB) and the Office of Thrift Supervision (OTS) issued a joint policy statement on the review and classification of commercial real-estate loans. To ensure that regulatory policies and actions do not inadvertently curtail the availability of credit to sound borrowers, the four federal regulators of banks and thrifts have taken a number of steps to clarify and communicate their policies, in-

cluding the present statement. In the spring of 1991, the four agencies issued general guidelines on supervisory policies that discussed the workout of problem loans, lending by under-capitalized institutions, and the valuation of real-estate loans (see this *Review*, Spring/Summer, 1991, p. 36).

The most recent policy statement emphasizes that the evaluation of real-estate loans is not based solely on the value of the collateral, but on a review of the borrower's willingness and capacity to repay and on the income-producing capacity of the properties. It also provides guidance on how supervisory personnel analyze the value of collateral. Among the specific topics covered are the general principles that examiners follow in reviewing commercial real-estate loan portfolios, the indicators of troubled real-estate markets, and review of individual loans, including the use of appraisals and the determination of collateral value. *News Release, OCC, 11/7/91.*

FDIC Will Manage Savings Bank in Receivership Case

The OTS placed CrossLand Savings, FSB, Brooklyn, N.Y., in receivership and chartered a new federal mutual institution, CrossLand Federal Savings Bank, which will assume certain assets and liabilities of CrossLand Savings. The receivership does not affect CrossLand's wholly owned savings association subsidiary in Utah. CrossLand Federal, whose accounts are insured by the BIF, will operate under the management of the FDIC. The FDIC will provide \$1.2 billion initially to enable CrossLand Federal to meet its capital requirements. Shareholders in CrossLand Savings, which was a federally chartered stock institution, will retain no interest in the new thrift.

CrossLand's condition is due primarily to a high level of nonperforming assets and an over-concentration of high-risk loans. The institution had been operating under regulatory loan and investment restrictions since December 1990.

OTS Director Timothy Ryan said that "Congress has mandated that regulators seek the least cost means to resolve failing banks and thrifts. . . The FDIC decided that the least costly alternative available is to recapitalize the institution and operate it under new management and FDIC oversight until a final resolution can be effected. . . Our main objective is to protect the deposit insurance fund and save taxpayers' money, and I endorse the action the FDIC has taken to achieve that goal." *NEWS, OTS, 1/24/92.*

Supervisory Definition of Highly Leveraged Transactions

The FDIC, the OCC, and the FRB intend to phase out the definition of highly leveraged transactions and discontinue the reporting of HLTs by banking organizations after June 30, 1992. The definition has largely accomplished its original purposes, such as encouraging financial institutions to focus on the need for internal controls and ways to monitor this type of transaction, and the need to structure HLTs in a way that is consistent with the risks involved.

Until the phaseout is complete, the supervisory definition and the reporting requirements will continue, with certain changes that include shortening the time period that companies are considered to be in HLT status if they meet certain performance standards or other criteria, and excluding loans secured by cash or cash equivalents from the definition. *FIL-14-92, FDIC, 2/18; FR, 2/11/92, p. 5040.*

Appraisal Regulations

FDICIA postponed until not later than December 31, 1992, the date when federally regulated depository institutions must use state-certified or state-licensed appraisers in connection with certain real-estate transactions. Part 323 of the FDIC's regulations, which includes appraisal standards and other related provisions

that took effect on September 19, 1990 remains in force (see this *Review*, Spring/Summer, 1991, p. 37).

The use of certified or licensed appraisers in specified transactions was mandated by FIRREA. The extension to December 31, 1992, helps facilitate an orderly, nationwide implementation of FIRREA by giving the states additional time to implement their appraiser qualification standards. Although the new federal law would permit institutions to use any qualified appraiser until December 31, 1992, states are allowed to make their licensing and certification programs effective before the federally mandated deadline. *FIL-4-92, FDIC, 1/13/92.*

The FDIC approved amendments to its regulations that increase from \$50,000 to \$100,000 the loan amount that will trigger certain existing requirements. Transactions below \$100,000 remain subject to active federal supervision. Any real-estate transaction not covered by the regulations still must be supported by an appropriate estimate of value prepared in accordance with existing guidelines for real-estate appraisals and review procedures.

Also approved are certain exemptions from the appraisal requirements, among which are a loan that has received an appraisal in connection with a guarantee or insurance by an agency of the federal government, such as the Veterans Administration, and a 1-4 family residential mortgage loan to be sold by the bank to the secondary market and meeting the underwriting standards of the Federal National Mortgage Association or Federal Home Loan Mortgage Corporation.

The amendments, effective March 16, 1992, are similar to existing or proposed rules at the other federal bank and thrift regulatory agencies. *PR-37-92, FDIC, 3/10/92; FR, 3/16, p. 9043.*

Applications for Deposit Insurance

FDIC adopted a policy regarding deposit insurance applications, updat-

ing policies first issued in 1980 and 1987. The policy covers applications from existing institutions operating without federal deposit insurance as well as proposed new banks in organization, including institutions being formed for the sole purpose of acquiring a failed bank or thrift.

One major change increases from \$750,000 to \$2 million the normally expected minimum initial capitalization for proposed new institutions seeking federal insurance. The FDIC will consider approving an application with a lower amount provided there are "compelling circumstances." In addition, the initial capital must be sufficient to provide a projected ratio of Tier 1 leverage capital of at least eight percent at the end of the third year of the institution's operation. New institutions proposing operating plans that rely on high-risk lending, niche marketing, significant funding from sources other than core deposits or that otherwise diverge from traditional banking will require extensive documentation as to the suitability of the activities.

There are other significant changes or clarifications, among which are that organizers, including holding companies, demonstrate the ability to support the new institution's operations and provide capital, and institutions must agree to obtain an independent audit for at least the first five years after insurance coverage is granted. Effective when published in the *Federal Register*. *PR-59-92, FDIC, 4/7.*

Deposit Insurance Coverage for Participants in 457 Plans

The FDIC will amend its regulations to conform to provisions of FDICIA which require that each participant in a 457 plan, which is a deferred compensation plan mainly for state and local government employees and tax-exempt organizations, be covered up to the statutory limit of \$100,000 of federal deposit insurance.

Previously, FDIC regulations restricted deposit insurance for 457 plans to \$100,000 per plan, rather than per participant. Those regulations were scheduled to go into effect on January 29, 1992, or in the case of a time deposit, the first maturity date thereafter. The new legislation essentially cancels that effective date and permits per-participant coverage to continue uninterrupted. The statute requires, however, that beginning December 19, 1992, the FDIC will not provide pass-through insurance if at the time the deposits are accepted the institution is prohibited from accepting brokered deposits because it does not meet minimum capital requirements, or it is adequately capitalized but has not applied to the FDIC for permission to accept brokered deposits. *PR-192-91, FDIC, 12/20/91.*

Restrictions on Deposit- taking Activities of Foreign Banks

FDIC-supervised financial institutions were notified, in a statement released jointly by the OCC, FRB, and FDIC, of provisions of FDICIA that restrict the deposit-taking ability of foreign banks operating in the U.S. The statement provides guidance to foreign banks until the agencies can promulgate rules or issue clarifying interpretations.

The new legislation amends the International Banking Act of 1978 to provide that after the date of enactment a foreign bank may accept or maintain deposit accounts having balances of less than \$100,000 only through an insured U.S. subsidiary bank. A grandfather provision permits insured branches of foreign banks in existence on the date of enactment to continue their operations. Foreign banks may not establish new insured branches after the date of enactment.

The statement also notes that there are unresolved questions concerning the scope of the new legislation. *FIL-1-92-92, FDIC, 1/2.*

Ownership Reports and Trading by Bank Officials

The FDIC is adopting amendments to its rules regarding the filing of ownership reports by officers, directors, and principal security holders, of insured state-chartered nonmember banks, and the exemption of certain transactions from the short-swing profit recovery provisions of Section 16 of the Securities Exchange Act of 1934.

The amendments make the FDIC's securities disclosure requirements substantially the same as those of the Securities and Exchange Commission in accordance with Section 12(i) of the Securities Exchange Act of 1934. Among the new requirements are that each registered bank annually disclose the name of each person who failed to file, or filed late, the required form for reporting securities transactions. The amendments are effective March 9, 1992, with some provisions having delayed effective dates. *FIL-15-92, FDIC, 2/19; FR, 2/7, p. 4699.*

Reporting of Bank Officers' Indebtedness

The FDIC distributed information to banks for their compliance with Title VIII of the Financial Institutions Regulatory and Interest Rate Control Act of 1978 (FIRIRCA), which requires each bank's executive officers and principal shareholders to submit an annual report to their board of directors on their indebtedness and that of their related interests to correspondent banks. Also, under the FDIC's regulations, a bank must disclose to the public, upon request, the names of its executive officers and principal shareholders who have indebtedness to their own bank or to correspondent banks which exceeds a specified amount. *FIL-58-91, FDIC, 12/9/91.*

Regulatory Review

The FDIC is soliciting public comment on which of its regulations and programs impose unnecessary or excessive costs or burdens and what changes can be made to reduce those

costs or burdens. This action is being taken to comply with President Bush's request that federal regulatory agencies evaluate existing regulations and programs and identify and accelerate action on initiatives that will eliminate any unnecessary regulatory burden.

Section 221 of FDICIA requires the Federal Financial Institutions Examination Council (FFIEC) to conduct a study on regulatory burden with respect to insured depository institutions. The FFIEC must submit a report to Congress describing the identified revisions not later than December 19, 1992. *FR, 3/9/92, p. 8282.*

Negligence Criteria for FDIC Lawsuits

A panel of the U.S. Court of Appeals for the 10th Circuit in Denver upheld the FDIC's right to sue bank officers and directors on the basis of simple negligence under state law. The Court ruled that FIRREA allows a state to impose a higher standard than the gross negligence standard explicitly provided for in federal law. The ruling appears to be the first for the FDIC based on simple negligence. Other courts have consistently held that a gross negligence standard must be violated by a bank officer or director. *Texas Banking, 1/92, p. 25.*

The full Court for the 10th Circuit vacated the ruling and agreed to hear the case. *AB, 4/24/92, p. 2.*

Minorities and Women Outreach

The FDIC adopted a rule, as authorized by FIRREA, to maximize the participation of minorities and women in all contracts it awards, effective May 26, 1992. In February 1990, the FDIC adopted an interim program to ensure such participation. The final rule provides for: identification of minority and women-owned firms capable of providing goods and services to the FDIC; certification of identified firms; promotion of the program; guidelines for the solicitation of contracts that promote the participation of minority- and

women-owned firms in FDIC contracting; and oversight and monitoring of the program. *FR, 4/24/92, p. 15004.*

Fair Housing

The FDIC revised its fair housing regulation to comply with recent amendments to the Home Mortgage Disclosure Act (HMDA) and the Federal Reserve's Regulation C. The changes eliminate duplicative reporting of information on home loan log-sheets, enabling the banks to maintain a HMDA register in the Reg C format by recording data as to race or national origin, sex, and income for all applicants, and entering all required information on the register within 30 calendar days after final disposition of the loan application. *FIL-52-91, FDIC, 10/31/91; FR, 10/3, p. 50034.*

Claims Against Officials and Advisors of Failed Institutions

With respect to banks that failed since January 1, 1985, the FDIC filed 150 lawsuits against their former directors and officers and 19 suits against their attorneys and accountants through December 31, 1991. In addition, the FDIC received from the Federal Savings and Loan Insurance Corporation (FSLIC) or instituted as manager of the FSLIC Resolution Fund (FRF) approximately 276 lawsuits against former directors, officers and professional advisors of failed savings institutions. At the end of 1991, 133 lawsuits filed by the FDIC were pending against former directors, officers and professional advisors of failed banks and their insurers, and 163 lawsuits were pending against former directors, officers and professional advisors of failed thrifts, excluding suits filed directly against bankers' blanket bond carriers.

Since 1985, the FDIC recovered \$1.1 billion from all professional liability claims. An additional \$34.1 million was recovered by the FDIC Legal Division for the RTC.

The FDIC's lawsuits against directors and officers generally are tort claims for breach of fiduciary duty. As

with any litigation, the FDIC confronts some difficulties in pressing its D&O claims, one of which is matching its potential claims with collectible assets, or potential sources of recovery. Perhaps the most potentially serious difficulty confronting pursuit of D&O claims by the FDIC is the so-called "regulatory exclusion" in many D&O liability insurance policies. The exclusion purports to avoid insurance coverage for any suits brought by the FDIC or by any other governmental agency, even though the same or similar suit would be covered if it were instituted by another claimant, such as former shareholders of a failed institution. The FDIC has vigorously opposed the regulatory exclusion. *Testimony of A.J.T. Byrne, General Counsel, FDIC, before U.S. House Subcommittee on General Oversight and Investigations, 2/20/92.*

Banks Examined for Community Reinvestment

The FDIC issued a consolidated list of all state nonmember banks evaluated for compliance with the Community Reinvestment Act of 1977 (CRA) since FIRREA mandated public disclosure of an evaluation for each bank. The consolidated list, covering the period July 1, 1990 through August 1991, includes the rating assigned to each bank examined during that period. The decision to release the rating for each institution was made jointly by the financial institutions regulatory agencies. *PR-157-91, FDIC, 10/25/91.*

FDIC-State Coordination of Bank Examinations

The FDIC and the Conference of State Bank Supervisors (CSBS) agreed on how cooperative examinations will be undertaken between state authorities and the FDIC. This agreement will significantly ease the regulatory burden for the nation's 7,200 state-chartered nonmember banks. FDICIA mandates annual full-scope examinations for all banks over \$100 million in assets and permits the

FDIC to accept state examinations on an alternating year basis.

Each state will enter into individual agreements with the FDIC, thus allowing states and the FDIC to take full account of local economic and industry conditions as they plan their examinations. The model agreement provides that the states and the FDIC would examine highly rated banks (CAMEL rating 1 or 2) on an alternating basis, subject to local conditions and the current condition of the bank. The FDIC and state authorities would coordinate the timing of their examinations to the maximum extent possible. For banks rated 3, 4, or 5, examining authorities would confer regularly and agree on the most effective examination schedule in order to properly monitor a bank's safety and soundness. Examinations could be on an alternating, independent, joint or concurrent basis, depending on the severity of a bank's problems. *PR-65-92, FDIC, 4/21/92.*

Guidelines for Outside Legal Assistance

The FDIC's Legal Division issued a Guide to inform outside law firms as to the eligibility requirements for providing legal services to the FDIC. The Guide also sets forth the policies and procedures governing the Legal Division's relationship with outside counsel. Among the many topics covered are conflicts of interest, rate structure and expenses, conduct of litigation, billing, staffing, travel and other expenses, and ethical considerations. *Guide For Outside Counsel, FDIC, December 1991.*

Survey Finds Housing Markets Improving, Commercial Segment Lagging

Conditions in many housing markets improved into the new year but problems persist in the commercial real-estate sector, according to the FDIC's quarterly survey. The survey

is based on nationwide interviews with nearly 500 senior examiners and liquidators at federal bank and thrift regulatory agencies, and represents the assessment of trends in real-estate market conditions between late October and late January.

The survey's composite index for both residential and commercial real-estate markets nationwide was 60 in January—up from 57 in October, but lower than for last July (64). Values above 50 indicate that more respondents said local real-estate conditions were improving than cited a decline, and values below 50 indicate the opposite. On a regional basis, the strongest results during the survey period were reported in the South (68) and West (61), while the Midwest (54) and the Northeast (54) were somewhat weaker.

Housing markets continue to rebound, with the national index at 69 in January. Nationwide, 47 percent of respondents said housing market conditions improved in their local areas during the three previous months, with only 11 percent reporting worse conditions. These signs of improved housing conditions appeared in all regions of the nation. Two-thirds of the respondents in January still said that excess supply existed in their local housing markets—virtually unchanged since April 1991. These percentages ranged regionally from 39 percent (Midwest) to 90 percent (Northeast).

Few respondents reported improvements in commercial real-estate markets. The national index stood at 46 in January. Sixty-two percent of respondents reported no change, while 21 percent reported deterioration and 17 percent noted gains in activity. Negative reports in this sector outweighed positive ones in all regions except the South. All regions are suffering from commercial overbuilding, with the proportion of respondents reporting oversupply ranging from 69 percent in the Mid-

west to 96 percent in the Northeast. *Survey of Real Estate Trends, FDIC, January 1992.*

Resolution Trust Corporation and Thrift Depositor Protection Oversight Board

Resolution Trust Corporation Refinancing, Restructuring, and Improvement Act of 1991

The President signed legislation on December 12, 1991, which, among many other provisions, removed the FDIC as manager of the RTC, to be replaced in that capacity by the Chief Executive Officer of the RTC. The Board of Directors of the RTC was abolished. The FDIC's Board of Directors had served as the Board of the RTC.

The legislation redesignated the RTC Oversight Board (OB) as the Thrift Depositor Protection Oversight Board (TDPOB), and expanded its membership from five to seven. The Secretary of Housing and Urban Development was removed from membership, and the Chairman of the Board of Directors of the FDIC, the Director of OTS, and the Chief Executive Officer of the RTC were added.

Establishing Prices in Auction Sales

The RTC in February 1992 ratified an earlier statement of policy that allows the agency to sell properties absolute at auctions if the property has an established market value less than \$100,000 and if the property has been widely exposed to the market. All other properties may be sold at auctions with reserve prices as specified. While the policy for establishing prices applies generally to properties sold by auction, the pricing flexibility allowed under the general policy on the sale of real estate may be used for auctions if necessary to set appropriate reserve prices below the minimum reserve prices allowed under the auction pricing policy.

Thus, for auctions, the pricing policy that yields the greatest flexibility may be used. *FR, 2/20/92, p. 6143; 3/16, p. 9155.*

Policy on Offering Portfolios of Assets for Sale

The RTC will negotiate sales of \$100 million or more of hard-to-sell assets under either of the following conditions: 1) The specific asset pool, or criteria for identifying an asset pool, has been advertised and proposals have been widely solicited; 2) the present-value sales price exceeds the sum of the minimum acceptable sale prices for the individual assets. The policy is being re-published to include the comments submitted by the OB.

The RTC, through the National Sales Center, will publicly solicit, evaluate and competitively select purchase offers for portfolios of qualified assets on a pilot basis. Under this pilot program, total sales of up to \$8.0 billion (net present value of expected proceeds) are authorized. The assets (either specific assets or classes of assets) to be included in these portfolios will be identified in advance, by either the RTC or the buyer. RTC financing may be offered to qualified purchasers of these portfolios. The RTC will reserve a position to share in any upside asset appreciation upon sale or refinancing where appropriate. In all cases, the RTC will employ competitive procedures designed to provide fair and consistent treatment of all offerors and maximize the present-value returns from the transactions. To ensure that the process is fully open to scrutiny, the RTC will disclose to the public the details of all completed transactions on a timely basis. *FR, 11/29/91, p. 61065.*

Operations Update

In February 1992, the amount of assets under RTC management, including both conservatorships and receiverships, dropped from \$128 billion to \$123 billion, and over the last

eight months RTC-managed assets have decreased by \$45 billion.

The \$123 billion of assets under RTC management consisted of: \$16 billion in cash and securities, \$21 billion in performing 1-4 family mortgages, \$26 billion in other performing loans, \$28 billion in delinquent loans, \$15 billion in real estate, \$7 billion in investments in subsidiaries, and \$10 billion in other assets.

Conservatorships, of which there were 84 at the end of February, held \$44 billion in gross assets. Of the total, cash and securities (including a substantial amount pledged as collateral against borrowings) represented 25 percent; performing 1-4 family mortgages, 20 percent; other performing loans, 21 percent; delinquent loans, 13 percent; real estate, 11 percent; investments in subsidiaries, 3 percent; and other assets, 6 percent.

The 602 receiverships held \$79 billion in assets on February 29, excluding approximately \$10 billion in assets accumulated from receivership collections. Because many of the relatively marketable assets have been sold before an institution enters a receivership, most of the assets retained by the RTC in receivership consisted of lower-quality, less-marketable assets. Thus, real estate and delinquent loans represented 41 percent of receivership assets, while cash, securities, and performing 1-4 family mortgages represented only 22 percent. A substantial amount of the securities and performing mortgages in receivership were junk bonds or pledged for secured borrowings or substandard loans.

Thrift closings have totaled 602 from the establishment of the RTC in August 1989 through February 1992. These thrifts held \$186 billion in assets at the time of closure. Of the total, \$41 billion of assets, or 22 percent, were sold to acquirers (after taking into account assets returned thus far to the RTC under putback provisions of resolution transactions).

Additional assets may be returned to the RTC in future months.

Estimated resolution costs for the 602 closed thrifts amounted to \$78.3 billion, 36 percent of their total liabilities at the time of resolution. If the insured deposits of all 602 institutions had been paid out to depositors, the estimated resolution would have been \$80.9 billion.

Sales and principal collections since the RTC's inception through February totaled \$242 billion, net of putbacks to date. The RTC collected \$79 billion through conservatorship sales, \$63 billion in other conservatorship collections, \$41 billion in resolution sales (net of putbacks), and \$58 billion in receivership sales and principal collections.

The amounts collected included \$107 billion from securities, \$70 billion from 1-4 family mortgages, \$27 billion from other mortgages, \$20 billion from nonmortgage loans, \$8 billion from real estate, and \$10 billion from other assets. *RTC Review, RTC, April 1992.*

S&Ls' Losses on Government Securities Trading

The RTC provided information to a Congressional subcommittee updating previously submitted data regarding government securities activities by savings and loan associations that have come under the jurisdiction of the agency.

Since the previous report in May-June 1991, the RTC surveyed 632 associations under its control for securities activity and potential claims. The purpose was to identify patterns and practices that might lead to claims against brokers and investment advisors.

Findings of the analysis include: a) approximately 50 associations have reflected large losses associated with U.S. Treasury instruments, and 19 of them were engaged in trading with broker/dealers that are no longer in business; b) 26 associations reported significant losses from derivative

products used for hedging purposes or speculation; c) 39 associations had significant losses on futures operations related to interest-rate risk management operations; d) 28 showed losses as a result of the use of options for hedging interest-rate risk; and e) 95 reported losses arising from mortgage-backed securities (both government and commercially packaged). These losses appear to have resulted from interest-rate movements and prepayment risk. *Staff Report, RTC, 3/6/92.*

Affordable Housing Program

The RTC completed the largest sale to date under its Affordable Housing Disposition Program, with the acquisition of 26 multifamily properties, located primarily in Texas, for approximately \$75 million by an affiliate of General Electric Capital Corporation.

In the transaction, 1,956 of the 5,590 units purchased will be made available for between 40 to 50 years for low-income households with limits on rents. The program confines sales of multifamily housing projects to buyers willing to maintain restricted rents on at least 35 percent of the units. Rents are controlled through deed restrictions, which are enforced for at least 40 years. The RTC adjusts the price of the property to reflect the restricted income flow and investment value resulting from these deed restrictions.

The RTC is currently marketing approximately 50 multifamily properties with more than 4,000 units through the affordable housing program. The program has resulted in sales of over 13,000 residences to low- and moderate-income households. *PR-491-91, RTC, 11/25/91.*

The RTC adopted a new rule aimed at bolstering and improving its Affordable Housing Disposition Program. The rule enables non-profit groups and public agencies to negotiate directly with the RTC on affordable housing properties outside of the traditional clearinghouse

process. The rule also expands upon the RTC's policies on giving preference to certain bidders on multifamily properties. In evaluating substantially similar offers, the RTC now will impute additional value and assign it to a potential purchaser who reserves the highest percentage of units for occupancy by lower-income families. In considering comparable offers on single-family houses, preference will continue being given to lower-income bidders.

The new rule also provides for, among other things, the sale of single-family affordable housing properties in conservatorship; also, intensified marketing of single-family affordable homes to families with members who are lower-income veterans.

The interim final rule takes effect upon publication in the *Federal Register*, following which a 60-day comment period is provided. *News Release, RTC, 3/24/92; FR, 5/6, p. 19500.*

Contracting Goals for Minority- and Women-Owned Businesses

The RTC has established new goals under its Minority and Women Outreach and Contracting Program, wherein all RTC offices, except the Division of Legal Services (DLS), will be expected to allocate a minimum of 30 percent of their contracts and fees to minority- and women-owned businesses. DLS is expected to allocate 20 percent of its budgeted fees for new assignments to minority- and women-owned law firms, and ten percent of new-assignment fees to minorities and women in non-minority or non-women-owned law firms. All lead contractors with estimated or actual fees of \$200,000 or more, including those using legal services, will be required to subcontract at least 25 percent of substantive work and commensurate fees to minority- and women-owned businesses and 20 percent to minority- and women-owned legal firms.

Since the RTC's creation in August 1989, 87,206 contractors have

registered, of which 12.4 percent (10,892) are minority-owned firms, and 18.8 percent (16,458) are women-owned firms. As of February 1992, the RTC has awarded 60,226 contracts with fees totaling \$1.73 billion. Minority-owned firms received 8.6 percent of the contracts, and 9.5 percent of the fees, while the figures for women-owned firms were 20.9 percent and 17.7 percent, respectively.

The RTC's new goals require that performance evaluations for contractors include their successes in meeting goals under the Program. Under the new guidelines, the Program will intensify its outreach and evaluation efforts in areas that have historically been underrepresented by minority- and women-owned businesses. *News Release, RTC, 3/13/92.*

Government Is Liable for S&Ls' Loss Under Rule Change

A U.S. claims court judge, in a case involving the supervisory treatment of goodwill prior to FIRREA, ruled that the government may repudiate its contract terms relating to accounting for goodwill, but said that S&Ls should be compensated for the loss from the required change in accounting. Reportedly, numerous such cases are pending, and the ruling could have far-reaching implications with respect to thrift resolutions.

In the 1980s, thrift regulators in contracts with buyers of failing savings institutions permitted them to count the negative net worth of the failing institution as goodwill, and include such goodwill in the buyer's net worth. This regulatory policy was prohibited by FIRREA. *WSJ, 2/25/92, p. A2.*

Agency Plans Downsizing

Albert V. Casey, President and Chief Executive Officer of the RTC, has approved a plan for further streamlining and beginning the phase-down of the agency's operations. Regional offices in Atlanta, Dallas, Denver, and Kansas City will be

phased out by June of this year, and their operations will be merged into RTC consolidated offices in the same cities. Existing consolidated offices in Phoenix, Tampa, Baton Rouge, Minneapolis, Tulsa, and San Antonio are expected to be closed by January 31, 1993. Offices in Chicago, Houston, and Somerset (N.J.) are expected to be closed by September 30, 1993.

The planned downsizing will achieve a reduction of approximately 50 percent in the number of employees in the field by September 30, 1993, leaving a staff of less than 4,000. While most of these employees are temporary contract hires, permanent employees are beginning the transition back to the FDIC. Approximately 400 to 500 permanent employees in the field will return to the FDIC starting in July 1992, and by year-end their reassignments will be completed. *News Release, RTC, 3/23/92.*

Federal Reserve Board

Capital Guidelines

The FRB proposed to revise its capital-adequacy guidelines for bank holding companies and state member banks to provide explicit guidance on the types of intangible assets that may be included in (not deducted from) the Tier 1 capital calculation for risk-based and leverage capital purposes. The proposal is consistent with international capital standards. It was developed in conjunction with the staffs of the four federal financial institutions regulatory agencies, and is aimed at achieving greater consistency with respect to the capital treatment of intangible assets. In addition, certain aspects of the proposal are intended to implement provisions of FDICIA.

Under the proposal, purchased mortgage servicing rights (PMSRs) and purchased credit-card relationships (PCCRs) would be includable in the Tier 1 capital computation, if in the aggregate they do not exceed a limit of 50 percent of Tier 1 capital

and PCCRs do not exceed a sublimit of 25 percent of Tier 1 capital. PMSRs and PCCRs in excess of these limits, as well as core deposit intangibles and all other intangible assets, would be deducted from the sum of the core capital elements in determining Tier 1 capital. *Press Release, FRB, 2/19/92; FR, 2/26, p. 6563.*

The FRB amended its risk-based and leverage capital guidelines, effective January 17, 1992, to remove the limit on the amount of noncumulative perpetual preferred stock bank holding companies may include in Tier 1 capital. Cumulative perpetual preferred stock will continue to be included in Tier 1 capital for bank holding companies, up to a limit of 25 percent of Tier 1 capital. This change to the guidelines will afford banking organizations greater flexibility in raising capital. *Press Release, FRB, 1/14/92; FR, 1/17, p. 2010.*

The FRB requested comment on proposed modifications to its risk-based capital guidelines that would lower the risk weight from 100 percent to 50 percent for multifamily housing loans meeting certain criteria. This change was directed by a provision of the RTC Refunding Act of 1991. Also proposed is reducing the risk weight from 20 percent to zero for certain transactions collateralized by cash and OECD central government securities, including U.S. Government agency securities, if the transactions meet specified criteria. This change would put U.S. banking organizations on a more equal basis with foreign banks regarding the capital treatment of such transactions. *Press Release, FRB, 4/10/92; FR, 4/20, p. 14362.*

Foreign-Bank Supervision

The FRB issued an interim regulation, amending its Regulation K, to carry out provisions of the Foreign Bank Supervision Enhancement Act of 1991. The Act stemmed from a recommendation by the FRB last year during its investigation of the Bank of Credit and Commerce International. The interim regulation is effective

immediately, with a 60-day comment period.

The law requires that a foreign bank applying to operate in the U.S. must be subject to comprehensive supervision or regulation by its home country authorities on a consolidated basis. The Act also contains discretionary standards to be considered by the FRB in deciding on applications, and these are set forth in the regulation. The bank must supply any information to the FRB that is needed to assess the application adequately.

In making a determination on consolidated home country supervision, the FRB will assess, among other factors, the extent to which the home country supervisor: a) ensures that the foreign bank has adequate procedures for monitoring and controlling its worldwide operations; b) receives information on the condition of the foreign bank outside its home country, whether through examination, audit reports or otherwise; c) obtains information on the dealings and the relationship between the foreign bank and its affiliates; d) obtains financial reports that permit analysis of the condition of the foreign bank on a consolidated basis; and e) evaluates prudential standards, such as capital adequacy, on a worldwide basis.

The interim regulation also details the procedures to be used in the filing of applications by foreign banks to operate in this country, and addresses other matters, in part including termination of offices of a foreign bank, examination of offices and affiliates of foreign banks, and the limitation on loans to one borrower. *Press Release, FRB, 4/8/92; FR, 4/15, p. 12992.*

The FRB amended its Regulation Y, implementing the FBSEA of 1991, to require that foreign banking organizations acquiring more than five percent of the shares of a U.S. bank or bank holding company file an application with the FRB under the Bank Holding Company Act. The interim rule is effective April 15, 1992. *FR, 4/15/92, p. 12992.*

Review of Bank Holding Company Applications

The FRB issued an interim rule, amending its Regulation Y, to implement requirements of FDICIA. The FRB is required to disapprove any application under Section 3 of the Bank Holding Company Act if: a) the company fails to assure the FRB that the company will make available such information on the operations or activities of the company, or any of its affiliates, as the FRB determines to be appropriate to enforce compliance; b) in the case of an application involving a foreign bank, the foreign bank is not subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in the bank's home country. FDICIA also provides that the FRB's consideration of the managerial resources of a company or bank shall include consideration of the competence, experience, and integrity of the officers, directors, and principal shareholders of the company or bank. *Press Release, FRB, 4/8/92; FR, 4/15, p. 13002.*

Relocation of Subsidiary Bank to Another State

The FRB rescinded its policy requiring applications for relocations of a subsidiary bank to another state, effective March 23, 1992. Accordingly, the FRB will not require the filing of an application for its approval under the Bank Holding Company Act for bank relocations except in situations in which the FRB has found an evasion of the BHC Act. *FR, 3/23/92, p. 9973.*

While the National Bank Act permits relocations within 30 miles with the approval of the OCC, the FRB had taken the position that such a relocation to an adjoining state was in effect an "acquisition" of a bank, and thus its approval was required under the BHC Act. The FRB's position was rejected in a decision of a D.C. circuit court of appeals in December. *Legal and Regulatory Update, N.Y. State Bankers Association, 3/13/92, p. 2.*

Securities Activities

The FRB revised its policy on banking institutions' securities activities, effective February 10, 1992. The policy was developed under the auspices of the FFIEC. The policy statement recommends procedures to be used in the selection of a securities dealer. It discusses the need to document and implement prudent policies and strategies for securities that are held for investment, trading or sale, and to establish effective internal controls. Certain securities trading and sales practices are viewed as being unsuitable when conducted in an investment portfolio.

The substance of securities activities determines whether securities reported as investments are, in reality, held for trading or for sale. Securities held for trading must be reported at market value and securities held for sale must be reported at the lower of cost or market value.

The policy encompasses high-risk mortgage securities that are not suitable investment portfolio holdings. These securities may only be acquired to reduce an institution's interest-rate risk and must be reported in the trading account at market value, or as assets held for sale at the lower of cost or market value. Examiners may seek the orderly divestiture of high-risk mortgage securities that do not reduce interest-rate risk. The statement also addresses excessive holdings of long-term zero-coupon bonds that are considered an imprudent investment practice. Such holdings will be subject to criticism by examiners who may seek their orderly disposal. *Press Release, FRB, 1/10/92.*

Loans to Bank Officials

The FRB proposed to revise its Regulations O and Y to conform to Section 22(h) of the Federal Reserve Act as amended by Section 306 of FDICIA. In general, Section 22(h): a) requires a bank's board of directors' approval before any extension of credit can be made to an insider or a related interest in excess of a

threshold amount; b) prohibits any extension of credit to an insider or a related interest on preferential terms; c) limits the amount a bank may lend to each of its executive officers and principal shareholders and their related interests; and d) prohibits overdrafts to executive officers and directors (but not to principal shareholders).

Section 306, in part: a) requires that, when lending to an insider, a bank follow credit underwriting procedures that are "not less stringent than those applicable to comparable transactions by the bank with persons outside the bank; b) subjects directors to the same aggregate lending limit currently applicable to executive officers and principal shareholders; c) creates a new limitation on the total amount a bank may lend in the aggregate to its insiders, which in general is equal to the bank's unimpaired capital and surplus; and d) tightens the definition of principal shareholder for banks located in small communities, making applicable an existing ten percent definition to all banks, regardless of the size of the community where the bank is located.

Press Release, FRB, 2/13/92; FR, 2/20, p. 6077.

FRB Approves Large-Bank Mergers

The FRB approved the merger of Chemical Banking Corp. and Manufacturers Hanover Trust Corp., that would create the nation's third largest banking organization, with \$135.4 billion in assets. The institution, to be called Chemical Bank, will meet certain terms, including maintaining branches in low-income neighborhoods. Fourteen of 91 branches located in low- and moderate-income neighborhoods in the New York City area will be closed; however, the number of teller employees and automated teller machines will be increased in those neighborhoods. Chemical also will provide \$750 million over five years for housing and community development loans in low- and moderate-in-

come communities in New York, New Jersey and Texas.

The merger of NCNB Corp. and C&S/Sovran will create a \$118.2 billion banking institution, called NationsBank, fourth largest in the U.S. in terms of assets. The FRB noted acceptable CRA ratings by the institutions, and CRA-related initiatives and commitments, among them a ten-year, \$10-billion commitment to community development lending. As in the Chemical case, the FRB emphasized capital adequacy, saying bank organizations having expansion proposals are expected to maintain strong capital substantially above the minimum levels set forth in the agency's risk-based capital guidelines. While NCNB and C&S/Sovran compete directly in 33 banking markets in five states, the FRB said there were antitrust problems in only five markets in South Carolina. The banks agreed to divest several branches in four of those markets. In the fifth market, the merger would result in higher-than-normal concentration, but the FRB noted as offsetting factors the vigorous in-market competition, full competition from thrift institutions, and the attractiveness of that market for new entrants. *BRR, 12/9, p. 921; 12/16, p. 1013; WSJ, 12/2, p. A14.*

The FRB granted approval for the merger of BankAmerica Corp. and Security Pacific Corp., as a result of which BankAmerica would be the second largest banking organization in the U.S., with \$191.9 billion in assets. In the transaction, BankAmerica is required to divest branch buildings, deposits and small-business and consumer loans in 116 Western markets where the two banks had competed. The largest divestiture in a state would occur in Washington, involving 87 branches and \$3.3 billion in deposits, about half of which are in Seattle. The approval also is contingent upon BankAmerica improving its record of lending to low-income neighborhoods. Another contingency involved BankAmerica's projected

level of capital following the merger. *WSJ, 3/24/92, p. A3.*

Banc One Plans Acquisition of Valley National

Banc One Corp. has agreed to the purchase of Valley National Corp., Phoenix, a deal that would increase Banc One's assets to \$71.7 billion, making it the eighth largest U.S. banking firm. When pending transactions are completed, almost half of the Ohio-based holding company's assets would be in Arizona, Colorado, Texas and Utah. *AB, 4/15/92, p. 1.*

Court Allows Citicorp to Sell Insurance

The U.S. Supreme Court declined to hear an appeal by the insurance industry of a federal appeals court decision overturning an order by the FRB that barred Citicorp from marketing insurance under a Delaware law. The state's law, enacted in 1990, permits banks to underwrite and sell life, health, and other insurance products nationwide through subsidiaries chartered in the state. FDICIA generally prohibits state bank units from underwriting most insurance, but provides for certain exceptions for bank holding companies that were authorized to write insurance as of November 21, 1991. The 1991 law, however, does not prohibit state-chartered banks from selling insurance nationwide. *AB, 1/14/92, p. 1; WSJ, 1/14.*

Home-Equity Lending Disclosure Rules

The FRB requested public comment on whether to revise its Regulation Z (Truth in Lending) dealing with disclosure of any discounted initial rate, and payment examples, for home-equity lines of credit. The rules relate to the Home Equity Loan Consumer Protection Act of 1988, which requires creditors to provide consumers with information for open-end credit plans secured by the consumer's dwelling. Regulation Z does not require the stating of the

discounted rate in the preprinted early disclosures; however, it requires disclosure of related aspects of "teaser rates," including that the initial rate is discounted and the time period the rate would be in effect. The second issue involves the statutory requirement for disclosure of three types of home-equity loan payments, and the disclosure of representative examples of the various payment options under Regulation Z.

The approach adopted by the FRB for disclosure of the discounted initial rate, and certain payment examples, was examined by a U.S. court of appeals, and remanded to the FRB for further consideration. *FR*, 12/30/91, p. 67233; *ABA Bankers Weekly*, 1/7/92, p. 6.

Home Mortgage Disclosure

The FRB published revisions to its Regulation C, requiring financial institutions to begin using 1990 census tract numbers to identify and report property locations, beginning on January 1, 1992. The regulation, which implements HMDA, requires depository and nondepository financial institutions that have over \$10 million in assets and have offices in metropolitan statistical areas (MSAs) to disclose annually their originations and purchases of mortgage and home improvement loans, as well as applications they have received for such loans. *FR*, 11/26/91, p. 59853.

Commodities Activities Requiring FRB Approval

The FRB issued an interpretation of its Regulation H that states that engaging in certain activities relating to commodities, including commodity- or equity-linked activities such as commodity or stock-index swaps, will be considered to be a change in the general character of a bank's business, and state member banks must obtain the FRB's approval to engage in such activities. Under Regulation K, this approval requirement also will apply to certain commodity swap activities when undertaken outside of the United

States by U.S. banking organizations, effective December 4, 1991. *FR*, 12/4/91, p. 63406.

Community Reinvestment Act Examination Ratings

The FRB will publish its CRA examination ratings of state member banks on a weekly basis, as recommended by the FFIEC. The published information will contain the names of the institutions, their city-state addresses, and the date of each examination. A cumulative list of all CRA examinations of state member banks conducted since July 1, 1990 is being made available. *Press Release, FRB*, 12/10/91.

Truth in Savings

The FRB issued a proposal for a regulation to implement the TIS Act. Under the Act, depository institutions are required to disclose fees, interest rates and other terms concerning deposit accounts to consumers before they open accounts, and to provide periodic statements to consumers to include information about fees imposed, interest earned and the annual percentage yield, on those statements. The institutions are subject to substantive limitations on the methods by which they determine the balance on which interest is calculated. The law also includes rules dealing with advertisements for deposit accounts. *FR*, 4/13/92, p. 12735.

Availability of Funds

The FRB adopted changes on an interim basis to its Regulation CC to conform to amendments to the Expedited Funds Availability Act contained in FDICIA. The amendments allow banks to extend holds, on an exception basis, to "next day" and "second-day" availability checks, and allow one-time notices of certain exception holds. Comments were requested.

The FRB's regulation establishes availability schedules to limit the holds banks can place on deposits to transaction accounts and requires

banks to disclose their funds availability policy to their customers. Nonlocal checks must generally be made available for withdrawal on the fifth business day after deposit, local checks on the second business day, and certain "low-risk" checks, such as government, cashier's, certified, and teller's checks, on the next business day. Under the exceptions, the depository bank can extend the hold for a reasonable period of time. Among the categories to which the exception holds apply are deposits to new accounts, daily aggregate deposits in excess of \$5,000, and checks deposited to an account that has been repeatedly overdrawn. *FR*, 1/29/92, p. 3277.

Report on the Terms of Credit-Card Plans

The FRB announced the availability of a report which the Federal Reserve System collects and publishes every six months on the terms of credit-card plans offered by financial institutions. The two-part report includes such credit information as the annual percentage rate (APR), annual fee and length of any grace period, applicable to each creditor's largest credit-card plan. To further assist the consumer in shopping for the best terms, the report indicates whether the credit-card plan is available throughout the country or only in certain states. The report includes a telephone number that may be used to contact the creditor to obtain an application. *Press Release, FRB*, 3/16/92; *Statistical Release*, 3/16.

Office of the Comptroller of the Currency

Court Denies Banks' Right to Sell Insurance

The U.S. Court of Appeals for the District of Columbia ruled that national banks do not have the right to sell insurance from small towns. While federal law generally prohibits banks from selling most types of insurance, a 1916 law authorized banks to sell insurance in towns with populations

of 5,000 or less. The Appeals Court ruled that legislation enacted in 1918 repealed the insurance power granted two years earlier.

Traditionally it has been accepted that in passing the 1916 legislation it was Congress' intention to facilitate the marketing of insurance in the smaller localities where it otherwise might often not be readily available. In 1986, the OCC ruled that national banks in towns of 5,000 could sell insurance nationwide. *WSJ*, 2/10/92, p. A3.

The Eastern District Court of Kentucky has decided not to accept automatically the D.C. Appeals Court decision, and will rule on whether the law allowing national banks to offer insurance in small towns continues to exist. The case in Kentucky involves the refusal by Kentucky's Insurance Commissioner to provide licenses to three national banks located in towns with populations of 5,000 or less. *ABA Bankers Weekly*, 3/3/92, p. 4.

Holding Company Subsidiary Can Offer Free Insurance

The OCC said subsidiaries of an Atlanta-based bank holding company may offer their customers free accidental-death-and-dismemberment insurance. Coverage of \$1,000 that is underwritten by an insurance company would be provided by the bank, which would also make the insurer's brochures available to customers, supply customer lists to the insurer, and provide billing services for the collection of premiums. The bank would receive a fee from the insurer for services rendered, but would not receive a commission based on the number of policies provided to customers. *Interpretive Letter No. 566, OCC*, 12/2/91; *ABA Bankers Weekly*, 1/28/92, p. 3.

Banks' Authority to Offer Annuities Upheld

A U.S. district court in Texas, in a case brought by the Variable Annuity Life Insurance Co., supported the OCC's determination that the sale of annuities is "within the power of na-

tional banks to broker financial-investment instruments." The OCC had approved an annuity program of a subsidiary of the North Carolina National Bank, Charlotte, ruling that annuities are primarily financial-investment instruments, because they lack the basic insurance characteristics of indemnification against risk of loss. The court said that Congress had not specifically addressed annuities, and the regulatory agency's opinion is controlling "unless it is arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law." *ABA Bankers Weekly*, 12/10/91, p. 1.

Capital Guidelines for Certain Residential Loans

The OCC proposed to amend its risk-based capital guidelines, implementing a section of the Resolution Trust Corporation Refinancing, Restructuring, and Improvement Act of 1991, to include in the 50 percent risk-weight category certain loans to builders to finance the construction of presold, 1-4 family residential properties. These loans are currently weighted 100 percent. *FR*, 4/9/92, p. 12218.

Capital Treatment of Intangible Assets

The OCC proposed to amend its minimum capital ratio (leverage ratio) and risk-based capital guidelines for the treatment of intangible assets held by national banks. The proposed changes would bring greater consistency in the capital rules of the OCC, FDIC, FRB, and OTS. These changes are expected to increase the total amount of purchased mortgage servicing rights and purchased credit-card relationships that a national bank may include in its regulatory capital. *FR*, 4/9/92, p. 12214.

Office of Thrift Supervision

Early Resolution/Assisted Mergers

With the OTS' programs for conservatorship and accelerated resolution (ARP) in place and dealing with a dwindling number of Group IV

thrifts, the agency is now turning attention to the resolution of those Group III thrifts that are considered most vulnerable. Several Group III institutions, those considered by OTS to be troubled, have large problem-asset portfolios. Some will be unable to meet their fully phased-in capital requirements without government assistance.

Under a concept program called "Early Resolution/Assisted Mergers" (ER/AM), the government would enter the resolution picture even earlier than with ARP. The objective is to facilitate a merger with a healthy acquirer while the institutions may still be solvent and even profitable. The earlier a troubled institution can be resolved, the less its condition will deteriorate, and thus it will lower the ultimate cost to the taxpayer.

ER/AM is a voluntary process for troubled institutions seeking recapitalization. Institutions would work with potential acquirers to formulate a transaction structure that would be acceptable to all stockholders, including the government. To ensure an open and competitive process, the FDIC then would market the institution, using the agreed upon structure and RTC and FDIC procedures and standards.

Funding for ER/AM would come from the SAIF, which currently has no available liquid assets and would have to be given the resources for this purpose. Unlike ARP resolutions, shareholders are not necessarily wiped out by early resolution, although their stock holdings would be diluted. They, as well as debt holders, would be expected to make substantial concessions in order to effect the acquisition.

OTS states that early resolution as a process gained the backing of Congress which included in 1991 banking legislation a Sense of the Congress statement fully supporting and encouraging early resolution as the RTC, FDIC and OTS have envisioned it. *NEWS, OTS*, 12/11/91.

Minimum Standards for Unassisted Transactions

The OTS set forth minimum capital standards for significant voluntary transactions for federally insured savings associations, including acquisitions of control, mergers, mutual-to-stock conversions, and branch purchases, that do not require government financial assistance. The issuance does not apply to simple holding company reorganizations.

The principal difference from earlier policy is that proposals and applications to consummate a significant transaction are no longer required to demonstrate that the acquired or resulting association will meet the fully phased-in capital requirements upon consummation of the transaction, but rather the currently applicable minimum capital requirements. An acquired or resulting association that meets only the current minimum capital requirements must submit a business plan that describes how the association will achieve compliance with the fully phased-in capital requirements by January 1, 1995. *Thrift Bulletin 38-3a, OTS, 11/19/91.*

Branching by Federal Savings Associations

Amending its rule, effective May 11, 1992, the OTS deleted current regulatory restrictions on the branching authority of federal savings associations to permit nationwide branching to the extent allowed by federal statute. The amendment is intended to facilitate consolidation and geographic diversification among federal savings associations, and thereby foster safety and soundness, and to improve the quality of services available to customers.

Section 5(r) of the Home Owners' Loan Act (HOLA), applicable to federal savings associations since enactment of the Garn-St Germain Act of 1982, permits a federal savings association to branch outside of its home state if the association meets

certain tests of the Internal Revenue Code for tax purposes. Through the HOLA, the OTS states, the Congress has given the OTS and its predecessor, the Federal Home Loan Bank Board, exceptionally broad authority to regulate the branching operations and other activities of federal thrifts. On numerous occasions the courts have confirmed that the OTS's authority in this respect is plenary and not bounded by any restrictions of state law. Pursuant to this authority, therefore, federal savings associations may be allowed to branch on an interstate basis. Since 1981, amendments to the branching policy gradually have expanded the branching authority of federal thrifts in recognition of the emerging national market for depository institution consumer services and to encourage the acquisition of failing associations. *FR, 12/30/91, p. 67236; 4/9/92, p. 12203; NEWS, OTS, 4/12.*

Supervisory Conversions

The OTS proposed to amend its regulations to expand the number of capital-deficient mutual savings associations eligible to undertake voluntary supervisory mutual-to-stock conversions. The proposal would permit voluntary supervisory conversions, which allow the sale of stock to a limited number of investors, if associations fail to meet any of their current minimum capital standards and demonstrate that it is not feasible for them to attain compliance with their minimum capital requirements by undertaking standard conversions. The conversion would require, among other things, a determination that the converting or resulting association will meet its current minimum capital requirements after conversion and that the conversion is in the best interests of the association, its account holders, the federal deposit insurance system and the public. The Director of OTS may determine that factors particular to an association, its conversion, or its acquirors, require an infusion of capital into the association in excess of that amount. *FR, 1/17/92, p. 2061; NEWS, OTS, 1/17.*

Risk-Based Capital Amendments

The OTS is revising its risk-based capital regulation to include in the 50 percent risk-weight category certain construction loans to finance the building of presold, 1-4 family residences. To qualify, the loans must satisfy specific prudential criteria and conservative underwriting standards. Among the requirements is that the builder must have substantial equity at risk in the construction project, and the homes generally must be sold under firm contracts to purchasers who have obtained firm commitments for permanent qualifying mortgages. Effective May 13, 1992. *FR, 4/13/92, p. 12706.*

The OTS proposed amending its risk-based capital regulation. *FR, 4/13/92, p. 12761.*

Securities Activities

The OTS issued guidelines on savings associations' securities activities, effective February 10. The guidelines, which are the same as those being issued for banks and credit unions by their respective federal regulatory agencies, have been approved by the FFIEC. *NEWS, OTS, 1/10/92; Thrift Bulletin 52, OTS, 1/10.*

Operating Subsidiaries and Service Corporations

The OTS proposed authorizing federal savings associations to establish and acquire "operating subsidiaries." These units would be distinguishable from service corporation subsidiaries, and would engage exclusively in activities authorized for all federal associations.

The agency also proposed amendments affecting service corporations, among which is to require that "problem associations" apply for permission before they may make an investment in service corporations. *FR, 4/9/92, p. 12226.*

Geographic Distribution of Lending for CRA

The OTS adopted a policy statement on the analysis of geographic distribution of lending for CRA purposes, as recommended by the FFIEC.

The policy statement affirms that financial institutions need to analyze the geographic distribution of their lending patterns as a part of their CRA planning process, indicates what the agencies expect of the institutions they supervise, and gives guidance on how financial institutions can meet these expectations. *Thrift Bulletin 47-2, OTS, 1/20/92.*

Business Transactions with Officials

The OTS proposed a new regulation to govern business transactions, other than extensions of credit, between savings associations and their insiders. This proposed rule would be substantially similar to regulations recently proposed by the FDIC (see this *Review*, Fall 1991, p. 38). *FR, 4/9/92, p. 12232.*

Executive Compensation

The OTS issued a guidance for regulatory review of employment contracts and unsafe and unsound practices in savings associations relating to executive compensation.

As a general rule, OTS defers to the savings association's board of directors concerning executive compensation arrangements, provided the association is not a problem association, and the compensation arrangements do not present safety-and-soundness concerns. OTS requires the board of each association to conduct an annual documented process of review and justification of employment contracts and compensation arrangements for the senior executives. Problem associations are subject to written agreements that require them to submit employment contracts for senior executive officers and directors to the OTS Regional Director for prior review.

Several illustrations are provided of compensation provisions considered to be unsafe and unsound, among which are: a) compensation arrangements that provide incentives contrary to the safe-and-sound operation of the association, b) compensation arrangements that provide for excessive compensation when compared with that paid to others with similar duties in other institutions with similar characteristics, c) contracts that contain automatic renewals or extensions of the contract without providing for explicit review and approval by the board of directors, d) contracts that provide for an excessive term—a term exceeding three years is generally objectionable, and e) contracts that have severance pay arrangements greater than the individual's annual salary for the preceding year. *Regulatory Bulletin 27, OTS, 11/8/91.*

Savings Association Membership in FHLBank System

The OTS proposed to require Federal Home Loan Bank membership for all savings associations. It would apply equally to federally and state-chartered savings associations regardless of whether an association's deposit insurance is explicitly conditioned upon FHLBank membership. The proposal is intended to address issues involving the interrelationship between thrift safety and soundness and FHLBank membership. *FR, 3/12/92, p. 8732.*

Applications Restructuring

The OTS adopted a comprehensive restructuring of its applications procedures. The purposes are, in part, to: eliminate or streamline the existing application or notice requirements for many types of transactions or activities; establish "standard" and "expedited" application and notice processes that increase the flexibility of savings associations with satisfactory MACRO, Community Reinvestment Act and Compliance ratings to engage in certain new activities; and discourage applications by associa-

tions with lower ratings to engage in new activities unless the proposed activity would clearly improve their condition or performance. *FR, 4/20/92, p. 14329.*

Supreme Court Lets Stand Restriction on Goodwill

The U.S. Supreme Court declined to review an appeal by Franklin Federal Savings Bank, Morristown, Tennessee, of a U.S. appeals court decision that reversed a district court and upheld an OTS action preventing Franklin from counting goodwill as capital.

FIRREA permitted the inclusion of only a minimal amount of supervisory goodwill in core capital which could be not less than three percent of assets. Under an earlier 1989 agreement with the Federal Home Loan Bank Board, Franklin was allowed to account for the negative net worth of Morristown Federal Savings & Loan Association, which it acquired, as supervisory goodwill over a 25-year period. Franklin, and other thrifts that have filed similar suits, argued that the government should not be allowed to renege on these commitments. *AB, 11/5/91, p. 1.*

Thrifts Monthly Reporting to Stop

The OTS will eliminate the monthly Thrift Financial Report as of January 1, 1993. Currently, savings institutions must prepare and submit both monthly and quarterly financial reports to OTS. Some monthly requirements will remain, specifically the collection of data necessary to preserve and maintain various adjustable-rate mortgage indexes. In addition, OTS Regional Directors will continue to have the authority to require specific reports from problem institutions. *NEWS, OTS, 4/2/92.*

Review of Third-Party Contracts

An OTS issuance states that in regard to savings associations' employment of outside professionals, such as lawyers, for services not usually

required in the normal course of business (for example, in connection with proposed mergers, or capital-raising efforts), a review of these contracts at failed institutions indicates that frequently they have been a waste of scarce resources. Such contracts require justification and approval by the board of directors of the savings association and, where the association has a MACRO rating of 4 or 5, prior review by the OTS Regional Director.

Among the guidelines for regulatory review of such contracts are: a) the services must be clearly identified and related to the association's approved business or capital plan, b) evidence that fees to be paid and terms of payment are within prevailing market norms and are consistent with the interests of the insurance fund, and c) inclusion in reimbursable expenses of only necessary costs directly related to the service provided. *Thrift Bulletin 50, OTS, 11/19/91.*

Thrift Examiner Accreditation Programs

Two new thrift examiner accreditation programs will recognize specialists in the fields of compliance with consumer and non-discrimination laws and electronic data processing. To qualify for the programs, an examiner must have a minimum of two years relevant work experience, must complete certain courses, and pass a written test of new competence. A newly accredited examiner will be designated either a Federal Compliance Regulator (FCR) or a Federal Information Systems Regulator (FISR), qualifying the individual to lead examinations of institutions in the compliance or EDP areas. The specialized accreditation programs will be fully implemented by April 1, 1992. Subsequently, only accredited examiners or those exempted from the program because of a high level of prior experience will be allowed to conduct thrift compliance

or EDP examinations. *NEWS, OTS, 12/19/91.*

Federal Financial Institutions Examination Council

Securities Activities

The FFIEC recommended that its five member agencies adopt revisions to a policy first adopted in 1988 regarding depository institutions' securities activities. The earlier statement emphasized the importance of knowing the securities firms with whom a depository institution does business, and also dealt with concerns pertaining to speculative and other activities improperly carried out in an institution's investment portfolio. It also identified risks associated with stripped mortgage-backed securities, residuals, and zero-coupon bonds and concluded that they may be unsuitable investments for depository institutions.

The new Statement of Policy provides additional information on portfolio policies, strategies, and practices that are inappropriate for an investment account, and whether the reporting of an institution's investment portfolio holdings is consistent with its intent and ability. In addition, this policy statement establishes a framework for determining when a mortgage derivative product is a high-risk mortgage security; and, once a mortgage derivative product is determined to be high-risk, it must be held in a trading or for sale account. *Press Release, FFIEC, 12/3/91; FR, 2/3/92, p. 4028.*

Geographic Analyses of CRA Lending

For compliance with the Community Reinvestment Act, the FFIEC approved, and recommended for adoption by the FRB, FDIC, OCC and OTS, a policy statement on the need for institutions to analyze the geographic patterns of their CRA lending, what the agencies expect of the institutions they supervise, and how the institutions can meet these expectations.

As an integral part of effective CRA management, analyses of the geographic distribution of credit applications, credit extensions, and credit denials should be appropriately documented and made readily available to examiners. The key to the analyses is the demonstration of lending activities in response to identified credit needs within the institution's delineated community. The statement notes that the type and sophistication of the analysis will vary depending on the size of the institution, the number and types of products it offers, and other factors. The agencies do not intend to prescribe a data system that is appropriate for every institution in every setting, but to provide guidance on systems the institutions might consider when initiating such a program.

Press Release, FFIEC, 12/17/91.

Prescreening Under the Fair Credit Reporting Act (FCRA)

The FFIEC approved a policy statement concerning prescreening by financial institutions under the FCRA. In prescreening, a consumer reporting agency (credit bureau) compiles or edits a list of consumers meeting specific credit-granting criteria provided by an institution, and provides the list to the institution or a third party acting for the institution for use in soliciting specific consumers for credit products.

The policy statement addresses several concerns not covered in a Commentary issued by the Federal Trade Commission in May 1990. For example, the statement provides that an institution may withdraw an offer of credit if a significant change, such as foreclosure, or garnishment, takes place between the prescreen and the consumer's acceptance of the credit offer. However, the FFIEC believes an institution may not condition or withdraw a credit offer if the consumer fails to meet a specified income level or debt-to-income ratio. *FIL-62-91, FDIC, 12/13/91; Press Release, FFIEC, 11/22.*

Withdrawal of Proposed Requirement for Electronic Submission of Call Reports

The FFIEC is withdrawing its recently proposed timetable under which banks would have been required to file their Reports of Condition and Income (Call Reports) electronically. Under the proposal, banks with \$100 million or more in total assets would have been required to start transmitting their Call Reports electronically as of March 31, 1992, with other banks required to begin doing so over the following two years (see this *Review*, Fall 1991, p. 49).

The FFIEC continues to strongly urge all banks to consider the merits of transmitting their reports electronically. *FIL-09-92, FDIC, 1/31/92.*

Community Reinvestment Act

To help financial institutions meet their CRA responsibilities and to increase public understanding of the regulations and examination procedures, the staffs of the FRB, FDIC, OTS, and OCC have prepared answers to the most commonly asked questions about community reinvestment. The answers should not be regarded as official interpretations, but rather to provide useful information to agency personnel, financial institutions and the public. *FR, 3/21/92, p. 10899.*

National Credit Union Administration

Investment and Deposit Activities

The NCUA is requiring each federal credit union to establish written investment policies, and is restricting credit unions' access to certain high-risk investments. The rule permits, in respect to investments so restricted, their acquisition for the sole purpose of reducing an institution's interest-rate risk. CUs that purchase the high-risk investments are required to have a monitoring and reporting system in place that will document the performance of the securities. Federal CUs are prohib-

ited from purchasing zero-coupon securities with remaining maturities of more than ten years. There is a "grandfather" provision for existing holdings of certain securities, though if NCUA finds they constitute a significant threat to an institution's soundness the agency will seek the disposal of the securities. Effective December 31, 1991 and (part) March 1, 1992. *FR, 10/31/91, p. 5600; BBR, 10/21, p. 654.*

State Legislation and Regulation

Qualifying for City Deposits

District of Columbia: The D.C. Council passed legislation authorizing the Mayor to remove some restrictions on depositing city funds in neighborhood bank branches threatening to close. Banks agreeing to keep open branches in low-income or economically depressed neighborhoods would be eligible to receive city deposits even though under other rules a bank would not qualify. For purposes of receiving city deposits, banks are rated in a system that takes into account employment practices, the percentage of loans to city residents and businesses, and the percentage of loans to women and minorities. *The Washington Times, 1/8/92.*

Insurance Law Upheld

Florida: An appeals court upheld the state's law that prohibits banks, with some exceptions, from acting as insurance agents. In a divided opinion that upheld a lower court decision, the appeals court said the law is related to legitimate state goals such as "prevention of coercion, unfair trade practices and undue concentration of resources." Thrift institutions that brought the suit claimed the law violates equal-protection and due-process provisions of the Constitution. *ABA Bankers Weekly, 10/22/91, p. 5.*

Multistate Taxation

Illinois: A new law, effective September 23, 1991, imposes financial

reporting requirements on non-resident financial institutions domiciled in states that impose out-of-state taxes on Illinois financial institutions. Such institutions must file an extensive activity report annually with state authorities. Currently, Indiana, Iowa, Minnesota, Tennessee, and West Virginia impose out-of-state bank taxes. *Illinois Banker, 12/91, p. 18; ABA Bankers Weekly, 10/15/91, p. 7.*

West Virginia: A recently enacted law, similar to ones in effect in Indiana and Tennessee, imposes taxes on out-of-state financial institutions that transact business in West Virginia. A franchise tax is put on capital derived from West Virginia, and a net income tax on income derived from the state. In general, institutions are subject to the taxation if they solicit or do business with 20 persons or more in West Virginia, or their annual gross receipts from sources in the state are at least \$100,000. *ABA Bankers Weekly, 10/15/91, p. 7.*

Holding Company Services Expanded

Illinois: A new law, effective July 1, 1992, will allow customers within a multibank holding company to cash checks, make deposits and make payments on existing loans at other affiliates owned by the same holding company. *Northwestern Financial Review, 2/8/92, p. 10.*

Interstate Banking

Connecticut: A recent statutory amendment allows banks in the state, including those owned by out-of-state holding companies, to acquire the assets, as well as the stock, of state-chartered banks. Previously, out-of-state holding companies were allowed to purchase only the stock of a Connecticut bank. The amendment enabled Chase Manhattan Bank of Connecticut to take over the \$132.4 million-asset Fairfield County Trust Co. Fairfield was too small to qualify under a federal law that permits the FDIC, for failed banks with assets over \$500 million, to preempt state laws and transfer the bank's assets to

a bank owned by an out-of-state company. *BBR*, 4/20/92, p. 683.

Illinois: Banks in Illinois and Iowa will be able to acquire banks in each other's state beginning on January 1, 1992. An Iowa law that prevents ownership of state-chartered banks by out-of-state banks and holding companies will expire at the beginning of the year. *ABA Bankers Weekly*, 11/12/91, p. 10.

Intrastate Branching

Illinois: The Governor signed legislation extending to two years the six-month relocation permitted for former branches purchased by banks from the RTC. The "grandfathered" branching rights are extended to all banks within a bidding consortium. *Illinois Banker*, 12/91, p. 18.

Senior Citizen Banking

Illinois: Under a new law effective January 1, 1992, banks may provide off-premises banking services to persons residing in nursing homes, retirement homes and long-term-care facilities. Such locations will not be considered a branch. *Illinois Banker*, 12/91, p. 18.

Court Upholds Card Late-Payment Charges

Massachusetts: A federal judge upheld a state law that prohibits out-of-state banks from imposing late charges on credit-card customers in Massachusetts.

The case involved Greenwood Trust Co., a Delaware subsidiary of Sears Roebuck Co., which issues the Discover card. Greenwood's agreement with its credit-card customers specifies that it is governed by the state of Delaware and applicable federal laws, under which it imposed a \$10 charge for late payments. Massachusetts' law prohibits late-payment charges on open-end credit-card accounts.

The Depository Institutions Deregulation and Monetary Control Act of 1980 provided that state banks may charge interest at the same maximum rate allowed for national banks,

i.e., one percent above the Federal Reserve discount rate, but permitted states to enact legislation within a three-year period to override the federal preemption of state usury laws. Massachusetts is among the 15 states that have enacted such legislation. *BBR*, 11/4, p. 735.

Appraiser Licensing

New York: The State Board of Real Estate Appraisal on an emergency basis adopted qualifying standards for licensing and certifying appraisers, effective February 1, 1992. The new rules include, in part: provision for reciprocal licensing for appraisers from another state, provided they meet certain requirements; establishing education requirements for taking the qualifying examination; content of the qualifying examination; and minimum standards for an appraisal, consistent with those prescribed by the Appraisal Foundation. *Legal and Regulatory Update, New York State Bankers Association*, 3/13/92.

Fees for Thrift Checking Accounts

New York: A new law permits state-chartered savings banks and savings and loan associations to charge fees for checking accounts, a power already granted to state-chartered commercial banks and federally chartered thrifts. The law was effective immediately. Many thrifts in the state have offered negotiable order of withdrawal (NOW) accounts, for which they may charge a fee, instead of free checking. NOWs usually require higher minimum balances. *BBR*, 4/27/92, p. 733.

Credit-Card Provisions

New York: The Governor signed a law that is aimed at making the state's banks more competitive. It permits credit-card issuers to immediately charge penalty fees to customers who are late in their payments—currently there is a ten-day delay period. Eliminated for variable-rate cards is a requirement that the minimum and maximum interest rates be equally

below/above the introductory rate. The new law, which was effective immediately, expires on the same date, June 30, 1993, as a law that deregulated interest rates on retail installment credit. *BBR*, 2/24/92, p. 307.

Virginia: The legislature passed a bill, requested by the Governor, that will permit issuers of credit cards to impose a fee on late payments. *The Washington Post*, 4/16/92, p. A16.

"Lifeline" Law Claimed Applicable to National Banks

New Jersey: New Jersey's Banking Commissioner disagrees with an interpretation by the OCC that the state's "lifeline" checking account law is preempted by federal law which expressly makes the offering of such accounts voluntary. The state law would require banks in the state to offer consumer checking accounts for which the initial deposit could be \$100 or less, the minimum balance to maintain the account would be no more than \$25, and eight free withdrawals by check permitted in a given cycle. *ABA Bankers Weekly*, 4/21/92, p. 6

Banks Can Be Licensed as Insurers

Ohio: The state Supreme Court, in the case of Independent Insurance Agents of Ohio *vs.* Fabe, ruled that the state's insurance statutes do not prohibit banks and their affiliates from obtaining insurance licenses. In 1989, the Department of Insurance issued rules and started to accept applications for licenses, in response to which the insurance agents filed the lawsuit. *ABA Bankers Weekly*, 4/21/92, p. 3.

State Farm-Bank Loan Program

Oklahoma: More than 200 banks in the state are participating in the Agricultural Linked Deposit Program, started in 1988. Under the program, the State Treasurer purchases a certificate of deposit having an interest rate of three percent less than the daily rate on Treasury notes. A bank can lend the funds at a rate up to 5.5

percent above what it is paying on the CD. The maximum loan is \$350,000 for some kinds of farming, and for others it is \$1 million. Typically the loans are for two years, but may be extended for another year. *ABA Bankers Weekly*, 10/15/91, p. 7.

Deposits Paid in Closed Credit Unions

Rhode Island: The Governor signed legislation that provides for payment of the deposits of remaining credit unions that closed on January 1, 1991, after the Rhode Island Share and Deposit Indemnity Corp. was declared insolvent (see this *Review*, Spring/Summer 1991, p. 51). Most of the 45 credit unions and loan and investment banks that closed were able to obtain federal deposit insurance, while others were liquidated or merged. Ten institutions remain closed, of which six are in the process of being acquired by other financial groups. *ABA Bankers Weekly*, 3/31/92, p. 6.

Bank and Thrift Performance

BIF-Insured Banks' Net Income Higher in 1991

Insured commercial banks earned \$18.6 billion in 1991 (preliminary data), up by 15 percent from \$16.1 billion in 1990. More than 89 percent of the institutions were profitable in 1991, increasing from 86 percent in 1990. In the fourth quarter, banks' net income totaled nearly \$3.7 billion, up \$2.8 billion from the fourth quarter of 1990.

Except for gains from sales of investment securities of nearly \$3.0 billion in 1991, aggregate net income would have been lower than in 1990. Gross interest income was down by 9.7 percent in 1991; however, interest expense was 18.4 percent lower, resulting in a \$6.4 billion (5.6 percent) rise in net interest income to \$121.9 billion. Noninterest income was 8.4 percent higher in 1991. The major offsetting expense increases were noninterest expenses, up by 7.6 percent, to \$124.5 billion, and a 5.7 percent

increase in provision for loan losses. Banks in the West accounted for most of the increase in loan-loss provisioning, while banks in the Northeast reported a lower amount compared to 1990.

Commercial banks' equity capital totaled \$232.2 billion at year-end 1991, increasing to 6.77 percent of assets from 6.46 percent a year earlier. Net charge-offs were 1.60 percent of loans in the year, up from 1.44 percent in 1990 and 1.16 percent in 1989. At year-end, noncurrent loans and leases plus other real estate owned were 2.99 percent of assets, increasing from 2.90 percent in 1990 and 2.26 percent in 1989.

BIF-insured savings banks reported an aggregate net loss of nearly \$1.2 billion in 1991, an improvement from the \$2.6 billion loss in 1990. The loss in the fourth quarter was \$423 million, down from \$1.2 billion in the same 1991 period. To a significant extent the better results in 1991 reflect the resolutions by the FDIC of nineteen failing savings banks in the year.

Assets of BIF-insured savings banks shrank by 8.3 percent in 1991 to \$237.4 billion. Their equity capital declined by \$1.1 billion to \$16.0 billion; however, equity capital was a slightly higher percentage of assets, 6.74 percent, compared to 6.62 percent the year before. Past-due and noncurrent loans and leases were 8.99 percent of total loans and leases at the year-end, increasing from 8.81 percent at year-end 1990. *The FDIC Quarterly Banking Profile, Fourth Quarter, 1991.*

Bank Capital Raising Stronger in 1991

A survey showed that U.S. commercial banks issued nearly \$3.3 billion in common stock in 1991, and \$4.2 billion in preferred stock, both counting as Tier 1 capital. Banks also issued \$21.4 billion in new bonds in the year. These amounts were well above the \$1.8 billion of stock, and \$7.7 billion in debt issued, in 1990.

Analysts believed that much of the funds raised in 1991 would be applied to strengthening the banks' capital positions. The FDIC reported for U.S. commercial banks that the average equity capital-to-assets ratio as of September 30, 1991 was 6.71 percent, up from 6.45 percent on December 31, 1990. *Investors Business Daily*, 1/7/92; AB, 1/6, p. 1.

Number of Bank Failures Declined in 1991

Failures of BIF-insured institutions fell from 168 in 1990 to 124 in 1991, the lowest number since 1985. One hundred three of these cases were resolved by the purchase-and-assumption method, 17 by insured-deposit transfer, and four by deposit payoff. In addition, there were 28 non-failure cases requiring the FDIC's disbursements, including 25 handled as whole bank P&As, and three were open-bank assistance transactions.

Assets in cases requiring FDIC disbursements were considerably higher than in 1990. Eleven banks with assets over \$1 billion were resolved in 1991, of which nine were in the New England states, while only two \$1 billion banks closed or needed assistance in 1990. Failures in Texas dropped from 103 in 1990 to 31 in 1991.

Thrifts' Performance Improved in 1991

The nation's private-sector thrifts reported net income of \$893.6 million in the fourth quarter of last year, and \$1.97 billion for the year, making 1991 the first year since 1985 that the industry was profitable in every quarter, and the first profitable year as a whole since 1986. In 1990, the industry had losses of \$1.5 billion in the last quarter, and \$2.9 billion in the year.

The 2,096 private-sector thrifts operating throughout 1991, and remaining in the private sector, reported profits of \$2.3 billion in the year. Eighty-six percent of these institutions were profitable in the fourth quarter.

The profitability of the industry in the last quarter of 1991 is attributable to several factors, including: a) continued decline in interest rates, resulting in a greater reduction in interest expense than in interest income; b) continuing transfer of failed institutions and their resolution through the Accelerated Resolution Program; and c) gains from the sale of assets, reflecting a strategy of many institutions of downsizing to meet capital requirements.

Tangible capital of the private-sector thrifts rose to 4.89 percent at the close of 1991 from 3.76 percent at year-end 1990. The number of insolvent thrifts, based on tangible capital, declined to 33, or 1.57 percent of the industry at year-end 1991, from 112 a year earlier. Supervisory groupings of the private-sector thrifts at the close of 1991 consisted of: 983 well-capitalized and profitable thrifts (Group I); 676 thrifts that meet or are expected to meet their capital requirements (Group II); 372 institutions considered by OTS to be "troubled" (Group III); and 65 institutions expected to require federal assistance (Group IV). Since the end of 1991, 10 Group IV institutions have been transferred to the RTC, leaving 55, with assets totaling \$35 billion, in this Group. *NEWS, OTS, 3/10/92.*

Credit Unions' Growth Continued in 1991

Assets of federally insured credit unions totaled \$227.1 billion at year-end 1991, about 63 percent held by 8,229 federally chartered credit unions, and 37 percent by 4,731 state-chartered credit unions. The industry continued to experience strong overall growth, as aggregate assets rose by 14.6 percent in the year, although loans increased by only 4.1 percent.

Insured credit unions had \$21.4 billion in gross income in 1991, 5.9 percent more than in 1990. Their net income increased by over 33 percent to \$1.8 billion, representing an increase in return-average assets from .8 percent to one percent.

Key financial ratios give further evidence of an improvement in the industry's performance in 1991; for example, delinquent loans declined to \$2.1 billion from \$2.2 billion and as a percentage of assets these loans fell to 1.59 percent from 1.70 percent in 1990. Total capital-to-total assets rose to 8.5 percent from 8.2 percent. *Year-end Statistics for Federally Insured Credit Unions, 1990 and 1991, NCUA.*

Supermarket Banking Continues Growth

In the first nine months of 1991 the number of full-service branches in supermarkets nationwide increased by 187 locations to 1,108, with a predicted rise to 1,500 in-store branches by the end of 1992. Supermarket branches now combine deposit and loan activities, contrasting to the 1970s when they were mostly check-cashing facilities, and the 1980s when the emphasis on using them was for deposit-taking. Supermarket branches are more convenient in respect to banking hours, are less expensive to build and maintain, and can attain profitability in much less time than a free-standing branch typically requires. *Northwestern Financial Review, 11/9/91, p. 26.*

ATM Usage Increasing

About 35 percent of bank customers now use automated teller machines, the first time usage has exceeded one-third, according to the American Bankers Association. Each teller machine on average in 1991 was used for 6,403 transactions per month, up from 5,980 (7.1 percent) in 1990 and 5,638 (13.6 percent) in 1989. One reason for the growing use of the machines is the service being offered; for example, a customer wanting to locate the nearest ATM on the CIR-RUS network can call a toll-free telephone number, enter the area code and the exchange prefix of the telephone they are using, and receive by recorded message the machine's location and its hours of operation. *Northwestern Financial Review, 12/14/91, p. 2.*

Recent Articles and Studies

Quantifying the Role of Management

This article by Thomas F. Siems presents a model for computing a quantitative measurement for management efficiency that uses "data envelopment analysis" (DEA), a linear programming technique which has had numerous applications outside the banking industry.

The role of bank management is viewed as that of integrating policies and techniques for managing the organization's money position, providing liquidity, lending profitably, and investing rationally in a practical asset/liability framework. The most efficient banks do this by controlling operating expenses, managing interest-rate sensitivity, utilizing risk-management techniques, and strategically planning for the bank and its markets for the future. DEA computes a bank's efficiency in transforming inputs into outputs, relative to its peers. Because managers make vast numbers of decisions, a multiple-input, multiple-output model, the writer states, is more suitable and understandable than quantities of numbers presented in single input-output ratios, in which one ratio may show a highly efficient bank and another may show an inefficient operation.

In stage one of the model, which is attracting deposits, the inputs are the number of full-time equivalent employees, salary expenses, other noninterest expense, premises and fixed assets, total interest expense, and purchased funds. The output of this stage is total deposits. In stage two, which is making loans and investments, the inputs consist of the first four inputs above, and the outputs are earning assets and total interest income. To test the usefulness of DEA, average scores of a group of failed banks were compared with the scores of surviving banks. The surviving banks—611 institutions randomly selected—were institutions in operation from 1984 through 1989, and the

failures were 319 banks declared insolvent by a regulatory agency between 1986 and 1988.

The study concludes that long before failure occurs there appear to be significant statistical differences between the quality of management for banks that fail, and those that survive. It is recognized that the efficiency measure is highly sensitive to the variables selected; however, those identified here differentiate effectively between surviving and failed banks. The model has many applications to banking, including use for an early-warning model, and use by regulators in identifying the most inefficient banks that require the greatest attention, and for constructing a hypothetical efficient banking operation to help an institution focus on its problem areas, such as overutilized inputs. *Economic Review, Federal Reserve Bank of Dallas, 1st Quarter 1992, pp. 29-39.*

Size of Banking Markets

In this study, Stephen A. Rhoades examines whether local market concentration and other local market conditions have a systematic influence on mortgage interest rates, that is, on the price of mortgages. It also tests the price-concentration relationship, a much debated issue in general antitrust analysis.

Of all banking services, mortgage lending may be the most affected by developments tending to widen geographic markets. Such loans represent by far the largest and longest-term financial service purchased by most consumers, and thus consumers presumably would be willing to incur greater transactions costs in searching for a low-cost mortgage than they would in obtaining other financial services. This should generally expand the size of the geographic market and drive mortgage interest rates toward a competitive level. Furthermore, in recent years, mortgages have been packaged as the basis for mortgage-backed securities, which are sold in national markets, as are the mortgages themselves. These arguments sug-

gest that mortgage rates should provide a relatively stringent test of the proposition that the market for banking services is local.

The study analyzes more than 13,500 observations of mortgage interest-rate terms and noninterest-rate terms covering a 16-week period for 20 U.S. cities from late 1987 through early 1988. The sample included all the major types of mortgage originators in the United States—commercial banks, savings and loan associations, savings banks, credit unions, and mortgage banks.

The models indicate that local market conditions influence mortgage interest rates. Market growth and per capita income are the most important variables, but the Herfindahl index, a measure of market concentration, also plays a role after controlling for costs. These results suggest that analyzing bank competition within local geographic markets is still appropriate. Moreover, the results suggest that market concentration, as measured by the H-index, affects the prices charged in local markets for mortgages. This would appear to support the traditional market-power explanation for the market structure-performance relationship. *Federal Reserve Bulletin, February 1992.*

Cost Savings from Bank Mergers

In this article, Aruna Srinivasan and Larry D. Wall address the issue of whether bank mergers will result in substantial cost savings due to improved efficiency.

The study examines the change in noninterest expenses of mergers during the period from 1982 to 1986. Noninterest expenses are defined as salaries, premises, and other expenses. The main reasons for the choice of period were that the trend toward decontrol of deposit interest rates had been well-established and sufficient cost data were available to adequately analyze the post-merger experience of the combined organizations. The

analysis is limited to those mergers in which the acquirer and target had assets of at least \$100 million at the end of the year prior to the merger. Among other criteria was that the two organizations were previously unaffiliated. There were 240 merger transactions completed within the period which met those criteria.

Two specific limitations in respect to applying the results of the study to "current megamergers" are cited: a) none of the merger pairs in the sample is as large as some of the proposed combinations, and b) many of the acquirers during this period may not have planned on realizing any cost savings.

On the whole, the results offer no support for claims of significant cost savings from bank mergers. "Our results," the authors say, "should add a healthy dose of skepticism to the claims being made about the cost savings associated with bank mergers. Investors and regulators should carefully scrutinize cost savings claims before bidding up stock prices or approving otherwise questionable mergers." *Federal Reserve Bank of Atlanta, Working Paper 92-2, February 1992.*

Deposit Insurance Reform

This study by Panos Konstas finds that the present system of *de facto* full insurance coverage of deposits encourages banks to take on highly risky assets. A plan is presented for adding market discipline and an alternative structure for the deposit insurance system.

Under the proposal, private, for-profit companies called "deposit intermediators and guarantors" (DIGs) would have an essential role as insurers of bank deposits and as deposit intermediators. DIGs could be single-entity firms devoted entirely to deposit insurance, or units of larger and more diversified insurance organizations. As insurers, DIGs would offer insurance only for demand deposits, and on amounts in excess of what government deposit insurance will cover, currently \$100,000 per

depositor. The FDIC would continue to insure deposits (other than those of DIGs) up to the statutory limit per depositor, and would retain its existing supervisory and regulatory authority and functions with respect to federally insured depository institutions. As intermediators, DIGs would be at risk (up to the level of their capital) for losses on their deposits with banks. They will price their deposits and insurance coverage to reflect the risk factors in each bank.

Funding for DIGs would come in part from market borrowings. This borrowing could be done on an individual basis, or through a common financing arrangement, such as the Federal Financing Bank. The debt would be fully guaranteed by the FDIC, enabling the DIGs to borrow at a virtually risk-free rate.

DIGs would be regulated by the FDIC, which should rely primarily on capital requirements and limiting the amount of funds which each DIG could deposit or insure in any one bank.

Through the market-determined interest rates for their deposits, by their monitoring of the performance and outlook for depository institutions from the perspective of protecting their own investments (uninsured deposits), and as insurers of excess deposits, DIGs would bring important additional market discipline to bear on the system. As proposed, the FDIC's role in protecting deposits in excess of the statutory limit of insurance per depositor would be vastly reduced. These reforms, the author suggests, could improve the depository institutions' safety and soundness, reduce their regulation by government, and decrease the costs to the federal deposit insurance fund and the public. *Journal of Retail Banking, Spring 1992, pp. 16-24.*

Market-Value Accounting

This article by Thomas Mondshean discusses issues involving the costs and benefits of market-value accounting (MVA) for commercial banks,

and offers suggestions for improvements in the absence of a fully developed MVA system.

The analysis of unsettled issues consists primarily of the views and conclusions found in the literature on these topics. There is a discussion of how the current historical cost accounting system misrepresents the true economic value of financial institutions, and how a MVA system would work; also, whether the cost/benefit trade-off of MVA is different for large banks than for smaller institutions, and major criticisms raised about MVA.

The writer suggests several changes related to MVA that would improve the ability of regulators and investors to monitor the safety and soundness of the banking system and to measure bank performance. Banks should be required to report the expected future cash flows (repayment of principal and interest) on their fixed-rate loans and time deposits as a function of the time when repayment is made. Currently, banks are only required to report the value of assets and liabilities which fall into different time periods. This information would greatly assist regulators in examining interest-rate risk. Banks should not have as much discretion to choose the time to realize gains or losses as they currently do.

In particular, accounting rules for reporting nonperforming loans and for increasing loan-loss reserves need to be strengthened, and changes in credit risk must be reported sooner to regulators. Also, deposits held in foreign offices should be reported in the same detail as domestic deposits. Finally, greater public disclosure is necessary to enable investors to estimate bank net worth more accurately. Healthy banks would benefit from more disclosure, as reduced uncertainty would raise their stock prices and lower their cost of capital. On the other hand, less well-capitalized banks would be subject to greater market discipline and thus have a

stronger incentive to improve their net worth positions. *Economic Perspectives, Federal Reserve Bank of Chicago, January/February, 1992, pp. 16-31.*

Report on Government

Asset-Disposition Activities

A "fact sheet" prepared by the U.S. General Accounting Office (GAO) presents a summary of assets being held for disposition by federal agencies as of September 30, 1990, and describes the extent of the government's involvement in asset-disposition activities. GAO compiled the report from information obtained in a questionnaire sent to each agency and follow-up inquiries. Generally it did not independently verify the information.

Twenty-two agencies were identified as being involved in asset-disposition activities. A total of \$192.8 billion in assets were held for disposition as of September 30, 1990, of which the RTC held \$142.2 billion, or 73.7 percent, and the FDIC held \$32.4 billion, 16.8 percent (as of November 30, 1990). Over 72 percent of the total assets were financial assets, and these were held predominantly by the RTC and the FDIC.

No government-wide standard exists for valuing the properties subject to disposition, the report said. The methods commonly used for this purpose include: (a) acquisition cost, (b) book value (acquisition cost less depreciation), (c) appraisal value, and (d) market value (sales prices of similar assets). Of the eight agencies that held financial assets, seven used market value, or market value combined with one or more other methods. Almost half of the 17 agencies holding real property used the appraised value method, and about the same number used acquisition cost. For personal property, about half of the agencies holding such assets used acquisition cost, and slightly under a third used market value, appraised value or book value.

Most of the agencies said they coordinate asset disposals with one or more other government agencies.

All of them stated that they have internal controls to prevent conflicts of interest.

The numerous statutes governing asset disposition and the wide range of

agencies holding such assets have given rise to fragmented Congressional oversight of asset disposition. Twenty-five Congressional committees were identified as having jurisdiction for federal-agency asset-dispo-

sition activities. In addition, appropriation and budget committees have general jurisdiction over all the agencies. *Asset Management - Government-wide Asset-Disposition Activities, U.S. General Accounting Office, September 1991.*