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## Evaluating the Role of Race in Mortgage Lending

by *David K. Horne*

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A statistical analysis by the Federal Reserve Bank of Boston of mortgage-lending patterns in the Boston area suggests that mortgage lenders discriminated against minority applicants. Examination of the loan files that comprised the statistical data uncovered a number of factors that may systematically bias the model's estimates of the race effect. As a consequence, it cannot be determined whether the higher rejection rates observed for minority applicants reflect these factors or result from lending discrimination.

## Risk Measurement, Actuarially-Fair Deposit Insurance Premiums and the FDIC's Risk-Related Premium System

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The author compares the FDIC's risk-related premium system with independent risk classifications derived from a proportional hazards model (PHM). The PHM estimates actuarially-fair insurance premiums based on econometric estimates of expected time-to-failure. The paper concludes that the FDIC's relative risk rankings are generally consistent with those of the PHM as well as with historical failure rates. The premium rate spread between high- and low-risk institutions, however, is considerably narrower than what is suggested by the PHM.

## Bank Powers and the Separation of Banking from Commerce: An Historical Perspective

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The author provides an historical perspective on bank powers and the lines of separation between banking and other activities. This separation has taken the form of both prohibitions on bank activities and affiliations, and "firewalls" intended to prevent inappropriate flows of capital, funds and information between affiliates. The scope of permissible bank activities has evolved over the course of American banking history, changing in response to economic incentives, technological innovations and political interests. As such change is likely to continue, the debate on appropriate lines of separation between banking and other activities should remain lively.

## Recent Developments Affecting Depository Institutions

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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.

# Evaluating the Role of Race in Mortgage Lending

by David K. Horne\*

The controversy concerning racial discrimination in mortgage lending has intensified since the release of the 1990 Home Mortgage Disclosure Act (HMDA) data. Although data on mortgage lending have been collected since HMDA was enacted originally in 1977, lenders were not required until 1990 to report applicant characteristics such as race, ethnicity, sex, age and income. The aggregate data reveal large discrepancies in loan outcomes by race. Approximately 35 percent of black applicants, 28 percent of Hispanic applicants, and 24 percent of American Indian/Alaskan native applicants were denied mortgage loans in 1991, *versus* the 16 percent rejection rate for white applicants.<sup>1</sup> These differentials persisted when rejection rates were compared for applicants within income categories. Similar patterns were observed in the 1990 data as well.<sup>2</sup> To many observers, the large and persistent difference in rejection rates provides compelling evidence that mortgage-lending institutions discriminate against minority applicants.

Numerous federal regulatory agencies have responsibility to ensure that banking institutions comply with laws that expressly prohibit lending discrimination, including the Fair Housing Act and the Equal Credit Opportunity Act. Compliance examinations, which are conducted by bank regulators on a regular basis, are one means of evaluating whether lenders are extending credit in an un-

biased manner. The HMDA data are one source of information that is evaluated in the compliance examination process. HMDA reports are examined to determine whether the number of minority applications appears reasonable, given the demographics of the lender's market area. Compliance examiners also inspect the minority rejection rates to determine whether these may indicate disparate treatment on the basis of race or ethnicity. If evidence suggests that further investigation is warranted, examiners may analyze different aspects of the lending program, such as whether the types of products offered are appropriate to meet the needs of the community and whether these products are marketed to reach all segments of the community. Compliance examiners also scrutinize individual loan application files to determine whether applicants are treated fairly without regard to race, ethnicity, or other protected factors.

Approximately 90 percent of banking institutions receive compliance ratings of satisfactory or better, apparently indicating that the substantive provisions of the antidiscrimination regulations are satisfied.<sup>3</sup> Rarely have compliance examinations provided sufficient data to support a conclusion that an institution has engaged in discriminatory lending practices. Thus, the compliance ratings given by bank regulatory agencies are not consistent with widespread racial discrimination suggested by the HMDA data.

In order to explore this inconsistency, the Federal Reserve Bank of Boston (hereafter referred to as the Boston Fed) surveyed lending institutions in the Boston area to supplement the 1990 HMDA data. Many valid underwriting criteria that lenders consider when evaluating potential default risk, such as assets, debt,

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<sup>1</sup>Asian/Pacific Islander applicants, in contrast, experienced denial rates (18 percent) nearly equal to those of white applicants. These statistics are based on the final 1991 HMDA data for owner-occupied housing, excluding multifamily units for the purpose of this comparison.

<sup>2</sup>For an extended analysis of the preliminary HMDA data in 1990 and 1991, see Glenn B. Canner and Dolores S. Smith (1991), and Canner and Smith (1992).

<sup>3</sup>In 1992, 90 percent of the 5,602 banking institutions examined for compliance with CRA received outstanding or satisfactory ratings (according to the July 20, 1993 *American Banker*, referencing statistics reported in the *CRA/HMDA Update*), while 58 received the lowest rating of "substantial noncompliance." In the first half of 1993, 93 percent of the institutions received outstanding or satisfactory ratings and 0.4 percent (ten out of 2,606 lenders) were judged to be in substantial noncompliance.

net worth, credit history, and employment record, are not reported under HMDA. If one or more excluded factors are correlated with race, different rejection rates observed across racial groups would not imply necessarily that race is the causal factor. For example, lack of accumulated wealth is a primary barrier to homeownership. Net worth is substantially different across demographic categories: the median net worth of families headed by whites in 1989 was \$58,500, compared to \$4,000 for families headed by nonwhites and Hispanics.<sup>4</sup> The Boston Fed study tried to determine whether factors such as these could explain the observed differences in mortgage loan denial rates.

Data were provided by all lending institutions in the Boston area that had a minimum of 25 mortgage applications in 1990. The Boston Fed requested information on all black and Hispanic applicants and a sample of the white applicants. Altogether, data on 38 additional variables were collected, representing "all the financial, employment, and demographic information that lenders may include in their determination to approve or deny a loan application." After accounting for these factors, the Boston Fed found that minority applicants were still more likely to be rejected than were white applicants.<sup>5</sup>

The Boston Fed report was the primary motivation for investigations by Massachusetts' Attorney General and the U.S. Department of Justice, and prompted probes by virtually all of the federal regulatory agencies responsible for enforcing antidiscrimination statutes. FDIC staff reviewed the loan applications at FDIC-supervised institutions that were included in the Fed study. Compliance examiners scrutinized the Boston Fed data and examined individual mortgage loan files in order to identify institutions that may have discriminated against minority applicants. In addition, information was collected that might explain why past examinations had not detected lending bias.

The purpose of this paper is to investigate the paradox raised by the

different conclusions arising from the two different approaches. The methodology and findings of the Boston Fed study are evaluated in light of the FDIC file reviews and other analyses. Because the Boston Fed database and the results of the statistical models were available to bank examiners to use in selecting loan files for further examination, the predictions of the statistical model for specific applicants could be compared to the data in the applicants' loan files. This paper evaluates whether the conclusions of the Boston Fed study are supported by evidence from the loan files. The paper does not address the broader question of whether racial lending discrimination exists. Racial discrimination may take many forms, such as the prescreening of applications, that may not be apparent in an analysis of loan outcomes.

This paper concludes that it is not possible to establish whether the race effect identified in the Boston Fed study reflects racial discrimination by lenders, or results from methodological problems with the statistical approach. In particular, there are four problems with the statistical model that are discussed in this paper: (1) The Boston Fed data were subject to a substantial number of errors; (2) the independent variable in question, loan outcome, in certain circumstances did not accurately reflect either lender decisions or the ability of an applicant to purchase a home; (3) a number of important factors influencing the ability to purchase a home were misspecified or insignificant; and (4) other aspects of the model specification did not adequately reflect the underwriting process. More research is required to determine whether statistical models corrected for the deficiencies described in this paper can be useful in detecting racial lending discrimination.

The first section of this paper discusses the Boston Fed study documented in Munnell *et al.* The next section describes the applicant file examinations conducted by FDIC staff, reports the findings, and enumerates problems with the statistical model.

Subsequently, the model fit is discussed. The final section contains the conclusions and policy recommendations.

### *Background and Description of the Boston Fed Study*

The HMDA data reveal significant differences in rejection rates across racial and ethnic groups, although the data provide insufficient detail to identify the factors responsible for these differences. Mortgage lenders are required to report information on such factors as the race, sex and income of applicants, the amount of the loan and price of the property, the type of loan, loan purpose, type of property, occupancy status, the census tract location of the property, and loan outcome. However, most of the primary factors that are evaluated by underwriters are not reported, including such characteristics of applicants as liquid assets, net worth, credit history, and employment experience. Property characteristics such as appraised value and physical condition also are not reported.

Analysis of HMDA data and examination of loan files are a standard part of the compliance examination process for bank regulatory agencies. In theory, the ability to access all of the data in loan files should help to identify instances of lending discrimination. In practice, it is generally not possible to locate files of white applicants with characteristics that are sufficiently similar to the characteristics of denied minority applicants to support a finding of racial discrimination, especially at institutions with a small number of minority applicants. When dissimilar files are compared, the determination of how much weight to give different applicant attributes requires the application of subjective judgment by examiners who may have limited expertise in mortgage

<sup>4</sup>Statistics are from the *Survey of Consumer Finances*, discussed in Kennickell and Shack-Marquez (1992).

<sup>5</sup>Munnell, Browne, McEneaney and Tootell (1992), p. 18.

underwriting. As Munnell *et al.* maintain, "under existing examination procedures, examiners can be expected to uncover only the most flagrant abuses."<sup>6</sup> The use of a statistical approach to examine the influence of race has several potential advantages as compared to existing examination procedures. Statistical analyses may be applied to investigate broad lending patterns, and the weights that are assigned to the important factors used in the underwriting process can be estimated using a statistical model. The Boston Fed incorporated additional variables and applied a statistical methodology to control for important factors that influence loan underwriting.

The Boston Fed surveyed mortgage lenders in the Boston area to supplement the 1990 HMDA data. Their sample consisted of 3,062 applications for residential mortgage loans that were either approved or denied, including 722 minority applications and 2,340 white applications. Information was requested for 38 additional factors that mortgage underwriters and lenders indicated were important in evaluating applicant creditworthiness, including: net worth, liquid assets, total assets, liabilities, proposed housing expenses, total proposed obligations, credit history, purchase price, loan amount and appraised value. Data were collected on the age, years of schooling, marital status, number of dependents, and years employed in the line of work and in the current job for both applicants and co-applicants. Detailed information on job position and type of business was requested. The survey also addressed loan characteristics, including whether the loan was fixed or adjustable, the loan term, type of property to be financed, whether private mortgage insurance was sought and approved, whether a gift or grant was included in the down payment, whether the loan was co-signed by someone other than the applicants, and whether information could not be verified. The property location data were used to obtain information about characteristics of the neighborhoods such as the ratio of rents to the value

of rental housing stock. Of these, 13 variables were included in the final model.<sup>7</sup>

The Boston Fed data confirmed that differences between minority and white applicants existed over a wide range of variables. White applicants had higher incomes, higher net worth, and better credit histories. White applicants also had lower loan/appraisal ratios, were less likely to apply for private mortgage insurance, were less likely to purchase multifamily homes, were more likely to be married, and were less likely to have dependents.<sup>8</sup> On the other hand, minority applicants appeared to have housing expenses and debt obligations relative to income that were similar to those observed for white applicants. The lending disparities in the aggregate HMDA data were replicated in the Boston Fed sample. Excluding withdrawn applications, 28.1 percent of minority applicants were denied mortgage loans *versus* 10.3 percent of white applicants.<sup>9</sup>

The effect of minority status, which encompassed both black and Hispanic applicants, was estimated in a multivariate regression framework to measure the impact of race, holding other factors constant.<sup>10</sup> The model estimates were generated using a logit regression approach, measuring the impact of race through the use of a dummy variable. The impact of race was found to be statistically significant, although the inclusion of the other variables in the model reduced the size of the effect of minority status by about half relative to the effect indicated by the unadjusted rejection rates. The study concluded that "race does play a role as lenders consider whether to deny or approve mortgage loan applications . . . A black or Hispanic applicant in the Boston area is roughly 60 percent more likely to be denied a mortgage loan than a similarly situated white applicant. This means that 17 percent of black or Hispanic applicants instead of 11 percent would be denied loans, even if they had the same obligation ratios, credit histories, loan to value, and property characteristics as white applicants."<sup>11</sup>

The race effect reflects the difference in denial rates between white and minority applicants not captured by the other variables in the model. To the extent that the model is correctly specified and includes all relevant variables, this race differential may be attributable to discrimination because the model would indicate disparate treatment of minority individuals, controlling for other attributes. The authors of the Boston Fed study argue that all important factors considered by loan underwriters were considered in constructing the model, the race coefficient is stable with respect to different model specifications, the model fits the data well, and the race effect persists when underwriting standards or size of the institution are held constant.

### Results of File Reviews

The Boston Fed study produced results that appear to be inconsistent with the findings of previous compliance examinations. Prompted by the conclusions of the study, FDIC staff examined the loan files at FDIC-supervised institutions included in the Boston Fed study in order to identify instances of discriminatory lending behavior. In addition, the reviews provided an opportunity to obtain information to evaluate the statistical model. The examiners were asked to check the accuracy of the data used in the study, to search for factors that were important in the loan-decision process that were not captured by the model, and to determine whether the data were interpreted consistently and appropriately.

The examiners had access to the loan files at those institutions for

<sup>6</sup>Munnell *et al.*, p. 4.

<sup>7</sup>The factors included in the model are provided in Table 2, with model coefficients and t-statistics. All the factors are statistically significant, with the exception of net wealth.

<sup>8</sup>Munnell *et al.*, Table 4, p. 24.

<sup>9</sup>Munnell *et al.*, Table 2, p. 21.

<sup>10</sup>Under HMDA reporting requirements, "Hispanic" is characterized as a racial category.

<sup>11</sup>Munnell *et al.*, pp. 43-44.

which the FDIC was the primary federal bank regulator. Of the 131 institutions participating in the Boston Fed survey, the 70 FDIC-supervised institutions accounted for 45 percent of the mortgage applications in the Boston Fed sample. The FDIC, which has responsibility for enforcing regulations that prohibit discrimination at these institutions, evaluated lending patterns at these institutions using the Boston Fed data. Of these 70 institutions, 23 lenders reported no minority applicants; 24 lenders reported minority applications but no rejections of minority applicants. These 47 lenders were excluded from further consideration for the purpose of the file reviews because the lending bias results in the Boston Fed study are based on rejections of minority applicants.

The denial probabilities generated by the statistical model were used to identify loan files for scrutiny by bank examiners. The Boston Fed provided the FDIC with a report listing denial probabilities for those rejected loan applications where the probability of denial produced by the statistical model was 50 percent or less, after omitting the race variable from the model. This list, which was referred to as the exception list, was intended to highlight applicants who were denied despite appearing to be relatively more qualified. Of the 23 institutions of interest, four institutions did not have any rejected minority applications that appeared on the exception list. Examiners reviewed every application on the exception list (minority and white) at the remaining 19 institutions, with the exception of seven files that had been destroyed or could not be located. A total of 95 applicant files listed in the exception report were reviewed, of which 62 corresponded to minority applicants and 33 to white applicants. For comparison purposes, it may be useful to note that 99 of 293 minority applicants (33.8 percent) were rejected at all 70 FDIC-supervised institutions *versus* 106 of the 1,100 white applicants (9.6 percent).

The next step was to identify for further review those institutions with

approved loan files comparable to the denied applications on the Boston Fed exception list. Such files were identified at five of the 19 institutions in which the excepted files had been reviewed. Where few approved files could be located, examiners reviewed more-recent loan application files that were not in the original sample.<sup>13</sup>

The author selected a small number of additional loan files for review where applicants had been approved despite obvious weaknesses such as high obligation ratios, poor credit histories, and inadequate liquid assets and net worth, according to the Boston Fed data. These selection criteria were used, in part, because (1) one indication of lending bias is whether white applicants with relatively weak applications are approved, and (2) model probabilities did not appear to reflect the creditworthiness of the applicants when file reviews were conducted. These reviews could be useful to determine whether the loan approvals represented exceptions to underwriting standards or were based on important factors that had been omitted from the statistical model.

The process of reviewing the files and comparing the strength of the applications to the probabilities generated by the Boston Fed model demonstrated that the probabilities did not reflect the extent of problems that appeared in the files in many cases. Serious weaknesses often existed for applications whose denial probabilities were quite low. The file reviews indicated the importance of numerous problems that could influence the estimated coefficients in the model. These data problems are summarized in Table 1.

The errors summarized in Table 1 refer only to those rejected applications on the exception list that were reviewed by examiners. Although many of the loan files revealed multiple problems, each of the 95 loan files is categorized according to the description that appears most appropriate from the perspective of the model specification to avoid double counting. The first three error types refer to problems with the loan outcome

**Table 1**  
**Data Problems Revealed by**  
**Examiners' File Reviews**

Types of Errors	Minority	White
Approved	3	2
Withdrawn	6	2
Counteroffer	6	0
Overqualified	5	0
VA Rejection	1	0
PMI Rejection	1	0
Incorrect Data	15	13
No Problem	25	16
<b>Total</b>	<b>62</b>	<b>33</b>

variable. Of the 95 loan files reviewed, five had been approved, eight had been withdrawn and six applicants received counteroffers. Five applications were rejected from special affordable housing programs because they were overqualified. One application was rejected after the lender was informed that the VA would not approve the loan. Another application was rejected after the lender was unable to obtain PMI approval (the PMI variable was incorrectly coded in the Boston Fed data). Examiners noted data problems in 28 of the remaining applications that would be sufficiently serious to influence the denial probability generated by the model. Overall, 57 percent of the applicant files contained serious data errors, including those where critical information could not be verified. Examiners carefully inspected the values of variables that related to the reasons for denial, but generally did not scrutinize all the data elements for each file. As a result, Table 1 may underestimate the magnitude of the serious data problems.

The following discussion examines the implications of these data problems in terms of the following categories: (1) data errors, (2) specification of the dependent variables, (3)

<sup>12</sup>Institutions are required to keep the denied loan applications for 25 months. Because examiners reviewed the 1990 applications in 1993, it was surprising that such a large proportion of the files was still available.

<sup>13</sup>Many of the approved files could not be located because a large proportion of mortgages originated in 1990 has since been refinanced.

measurement of applicants' financial resources, and (4) other model specification problems.

### *Data Errors*

The Boston Fed data, including the variables incorporated in the statistical model, appear to suffer from a substantial amount of reporting error. Errors associated with the variables in the statistical model alone were noted by examiners in 57 percent of the loan files on the exception list, although there was substantial variation in the extent of these errors. Many coding errors appeared to be random. The quality of the data varied across institutions as well; the data reported by some institutions were so poor that the estimated denial probabilities did not provide useful information regarding the characteristics of the actual loan applications. Confusion regarding the units of measurement that were to be reported may have contributed to some data problems, particularly where institutions were required to report numbers in thousands or to convert months to years. For example, one couple who applied for a mortgage were legal aliens who had been in the country for one year and had two months' work experience in the United States, although the Boston Fed data indicated a two-year work history.

Several examiners reported that the Boston Fed data appeared to reflect the data listed on the original application rather than the final, verified data upon which lending decisions were based. The final data considered by lenders can differ significantly from data reported in the original application, depending upon how lenders treat different sources of income and whether assets, income, employment or other information are verified. Examiners found applications where applicant debt was underreported, income figures were inaccurate, assets could not be verified, or other information became available during processing that influenced the primary ratios or other factors. In addition, when lenders uncover deficiencies with the application that are sufficient to warrant a

denial, other factors may never be verified because processing is terminated. In contrast, all relevant information normally will be verified for applications that are approved. For these reasons, the creditworthiness of rejected applications is likely to be systematically overstated relative to approved applications.

### *Interpretation of the Dependent Variable*

The reviews revealed that the classification of an application as "denied" was incorrect or questionable in certain circumstances. Five applications that were coded as rejections had actually been approved by lenders. Of these, three mortgages were originated as a result of applicants accepting counteroffers and another application was withdrawn subsequent to the loan approval. The remaining loan was never originated due to serious property title problems, although the loan had been approved and a commitment letter was issued by the lender before the title problems arose. Proper classification of this application is somewhat ambiguous because the decision to finance the mortgage was rescinded. The loan approval and letter of commitment could be considered to indicate clearly that the lender was willing to provide funds based on the applicant characteristics. However, the actual coding (as a denial) is consistent with HMDA reporting requirements.

Although the Boston Fed intended to delete withdrawals, the reviews showed that eight applications on the exception list (coded as denials) had actually been withdrawn. Withdrawals were caused by a variety of factors. In one case, the application was really a pre-application. No fee or deposit was paid, and the applicants subsequently informed the institution that they had decided not to purchase the property. Another application was unsigned and incomplete, and the applicant did not respond to requests for additional information. A third application was never completed because the buyer and seller could not agree on sale terms. Four applications were withdrawn after institutions re-

quested additional documentation to verify financial information. A number of these applications could be regarded as incomplete, but the distinction between an incomplete and a withdrawn application is ambiguous. In each case the decision not to proceed was made by the applicants.

Another instance of a loan outcome that could be considered to be a withdrawal involved an applicant who had previously been rejected by one institution and who subsequently submitted an incomplete application to a second institution. The application at the second institution was rejected because additional documentation was not provided by the applicant. This application appeared to have been motivated by the applicant's desire to recover the deposit. Two rejections may be considered sufficient evidence that a potential buyer cannot obtain financing, in which case the individual is entitled to a refund of the deposit. This hypothesis is supported by the observation that the second institution later approved a mortgage loan on another property for this same applicant based on a complete application.

The designation of loan outcomes as lender decisions may be inappropriate when counteroffers are involved. When a lender rejects the original loan application but subsequently extends a counteroffer, the loan outcome is characterized as an approval if the applicant accepts the loan. If the counteroffer is refused, the outcome is characterized as a lender rejection. Onerous counteroffers can be used to discriminate against minority applicants. In such cases it is appropriate to treat rejected counteroffers as lender rejections. For reasonable counteroffers, in contrast, the final loan outcome is the result of a series of decisions by both applicants and lenders. It is not obvious how counteroffers should be treated in a model intended to explain lender behavior, because the terms of counteroffers cannot be evaluated without a considerable amount of detailed information. The classification of such counteroffers as lender

rejections may be inconsistent with how the model results have been interpreted, *i.e.*, (1) rejections represent lender decisions and (2) rejections deny individuals an opportunity to own a home. The loan outcomes were characterized as denials in each of these instances when applicants rejected these offers. Single-equation estimation may be an inappropriate procedure to identify the effect of race in these circumstances.<sup>14</sup>

Six of the excepted files could be characterized as counteroffers (excluding those counteroffers coded as denials that actually were accepted as described above). Counteroffers that are accepted would be reported as approvals under HMDA. Counteroffers were made for a variety of reasons. In one case an individual applied for a fixed-rate loan with no points. The applicant was informed that the lender did not offer this product and was offered an available zero-point adjustable-rate mortgage (ARM). In one instance when a condominium unit was too small to meet secondary market standards the lender offered ARM financing. ARMs mitigate lenders' interest-rate risk when lenders intend to hold the mortgages in their own portfolio. A separate application that involved a property that had been illegally converted to three units was approved, conditional on conversion to a two-unit property. Two individuals submitting applications regarded as marginal were informed that the lender would finance the mortgage loan if the loan amount were reduced to 90 percent from 95 percent. One lender offered to work with an applicant to reevaluate their credit history. In each of these cases the applicants did not accept the counteroffers.

A number of individuals who applied to participate in special affordable housing programs were ruled to be ineligible because they exceeded specified program limits for income, assets, or other criteria. Of the 95 files reviewed, five applicants (all minority applicants) were rejected because they were overqualified for these programs (although a high obligation ratio was also cited as a problem in one

instance). It is precisely because these applicants would be expected to qualify for conventional mortgages that they are rejected from these special programs. The counting of these applications as lender rejections exaggerates minority denial rates because (1) several of the applicants were better qualified in many respects than the average white or minority applicants who were approved (with monthly incomes as high as \$7,000), and (2) minority applicants in the Boston Fed sample were more likely to apply for mortgages through these special programs.<sup>15</sup>

Lenders who also plan to sell their mortgages in the secondary market tend to evaluate mortgage applications on the basis of underwriting guidelines of the intended purchaser, such as Fannie Mae or Freddie Mac. However, the file reviews documented one instance where a lender apparently was willing to provide loan financing for a Veterans Administration (VA) mortgage, but the application was rejected by the VA after the documentation had been submitted by the lender. The application was reported as a denial, consistent with HMDA guidelines, but the interpretation of this as a lender denial is questionable. If a lender demonstrates a willingness to originate a loan but the purchaser subsequently overrides the approval, it is not accurate to characterize this decision as a lender denial. Similarly, it would seem inappropriate to interpret a race effect resulting from such outcomes as the result of discrimination by lenders. This issue is central to the debate over the role of race. It is precisely because lenders' decisions to originate mortgages for resale in the secondary market cannot be distinguished from whether applicants qualify according to the underwriting criteria imposed by the secondary market participants that the statistical model is used to attempt to control for the impact of such factors.

As discussed by the authors, private mortgage insurance (PMI) presents an additional model estimation problem. Applications typically are not submitted for PMI unless a lender

intends to approve the loan application. To the extent that the PMI rejection does not reflect lender behavior, it is incorrect to interpret a loan rejected for PMI as a lender denial. For lenders that require PMI for all mortgages, it may be appropriate to exclude PMI rejections from the model estimation. However, proper treatment of PMI rejections is complicated by the fact that lenders could choose to forego PMI requirements for mortgages that they intend to hold in their own portfolio. Lenders could discriminate against marginal applicants by selectively requiring PMI on the basis of an applicant's race. This effect would not be captured by either including PMI as an explanatory variable in the model or by excluding PMI rejections altogether. Examiners could investigate this potential source of disparate treatment by scrutinizing whether a lender exempts applicants from standard PMI requirements and the process by which such applicants are selected.

<sup>14</sup>G.S. Maddala and Robert P. Trost (1982) show how model estimates vary when supply and demand equations are specified separately. Others, including Galster (1991) and Yinger (1993), discuss problems interpreting estimates from single-equation models of mortgage lending discrimination when outcomes reflect decisions by both applicants and lenders. Perle, Lynch and Horner (1993) demonstrate that reduced-form estimates of the race effect using HMDA data are sensitive to model specification. One way that the model could be modified to reflect counteroffers is to classify counteroffers as separate loan outcome categories and use a multinomial logit regression to estimate the model, *e.g.*, Schafer and Ladd (1981). This approach may not capture the complex nature of counteroffers, although rejections and approvals would be more appropriately defined. However, counteroffers are not reported separately under HMDA.

<sup>15</sup>Munnell *et al.* estimate that between 12 and 16 percent of whites (depending upon loan outcome), *versus* about 40 percent of minority applicants, applied through special loan programs (Munnell *et al.*, Table 4, p. 24). Examination of this category revealed such programs as Jumbo Mortgages and 15-Year Mortgages, sale of real estate held by the bank, and other categories hardly consistent with affordable housing or first-time homebuyer programs. After eliminating programs that could not be identified as affordable housing and first-time homebuyer programs, participation in special programs appears much lower. Between six and seven percent of whites, *versus* 31 to 34 percent of minority applicants, applied for mortgage loans through these special programs.

This selection issue would not be relevant for the many institutions that sell all of their mortgages to the secondary market.

The Boston Fed compared several models with alternative treatment of the PMI variable. Exclusion of the observations for which PMI was denied (and for which the PMI rejection was correctly coded) had no effect on the magnitude or significance of the race effect, according to the Boston Fed report. Applications with PMI rejections would not be expected to appear on the exception list: the probability of denial exceeds 0.5 when PMI is denied because, as the authors note, "the denial of private mortgage insurance virtually precludes attaining a mortgage."<sup>16</sup> However, one application with a PMI rejection incorrectly coded was found during the file reviews.

Several cases involved what might be considered rejections with special considerations. For example, one rejection was reversed by an institution one week after review of the initial decision, but the applicant already had obtained alternative financing. The applicant declined the offer. Without additional information about the particular circumstances, it is difficult to determine whether the subsequent decision to provide financing was made in good faith. Given the amount of time that had elapsed before the decision was reversed, the denial may well be the appropriate characterization of the loan outcome.

The impact of the factors discussed above on the model results is likely to be significant. Of the 62 minority applications reviewed by examiners, three were approved, six refused counteroffers, six were withdrawn, five were rejected because they were overqualified for special housing programs, one was approved by the lender but was turned down by the intended purchaser, and one was rejected on the basis of PMI. In all, 22 of the 62 minority applications on the exception list (35 percent) represent instances whereby the loan outcome variable is either incorrect or may not reflect the decision of the lender. Another ten (16 percent)

were found to contain errors that would influence the parameter estimates of the model. The quality of the data for white applicants also exhibited problems. However, only four of the 33 white applicants (12 percent) represented instances whereby the loan denial was found to be interpreted either incorrectly or ambiguously.

Given the purpose and interpretation of the model, the loan outcome variable (accept *versus* reject) should be specified to reflect lender decisions. If denials result from decisions made by applicants (in the case of some counteroffers), mortgage insurance companies (when PMI is rejected), or parties other than the mortgage lender, it is inappropriate to conclude that higher minority rejection rates necessarily reflect racial discrimination by lenders. It is inappropriate to interpret PMI rejections as lender denials if the lender does not influence this decision. The appropriate treatment of withdrawals is less clear because withdrawals may occur as a result of actions by either applicants or lenders. Applicants rejected from special loan programs because they are overqualified should be excluded from the model because these applicants may be qualified for conventional mortgages and the denial does not imply that lenders are unwilling to provide a loan. Reasonable counteroffers might be counted as approvals regardless of whether the loan is originated because (1) applicants have an opportunity to accept or reject the offer, and (2) accepted counteroffers currently are reported as approvals. Unfortunately, it is difficult to determine whether a counteroffer is reasonable. Nevertheless, to the extent some counteroffers are reasonable, an approach that classifies all rejected counteroffers as lender denials is likely to exaggerate the race effect to the extent that minorities receive a disproportionate number of counteroffers.

### *Measurement of Applicants' Financial Resources*

Neither net worth nor liquid assets were found to have a statistically sig-

nificant influence on loan outcome in the model. The authors suggest that the effect of liquid assets may be captured by the loan-to-value ratio. There are a number of other possible explanations, however, for the finding that liquid assets were statistically insignificant. A number of factors pertaining to the measurement of applicants' financial resources were either omitted from the final model or suffered from measurement problems. In particular, the liquid asset measure does not reflect other potential sources of funds. In addition, lenders provided information on reported rather than verified assets in some cases, and the applicants' financial resources were measured in absolute terms rather than relative to closing costs. These and other problems discussed below may have contributed to the model results that liquid assets had no statistically significant impact on the probability of denial.

As acknowledged by the authors, it is puzzling that liquid assets did not appear statistically significant. Underwriting guidelines generally require that borrowers have sufficient funds at closing to cover the down payment, closing costs, and prepaid items.<sup>17</sup> Typical sources include: deposit on sales contract, checking and savings accounts, gifts or grants, proceeds from sale (or anticipated sale) of currently owned home, bridge loans, net withdrawal from IRA/Keogh accounts, securities, and trust accounts.<sup>18</sup> These sources of funds include both liquid assets as reported on application forms (typically cash and savings) as well as assets that are potential sources of cash because they

<sup>16</sup>Munnell *et al.*, p. 31.

<sup>17</sup>Prepaid settlement costs specified by Fannie Mae include: "interest charges covering any period after the settlement date; real-estate taxes covering any period after the settlement date; hazard insurance premiums; and the escrow accruals required for renewal of the mortgage insurance premium (unless the premium is being financed as part of the mortgage amount)." *Fannie Mae Selling Guide* (Part VI: Underwriting Guidelines), p. 637.

<sup>18</sup>See, for example, "Sources of Borrower's Funds," *Fannie Mae Selling Guide* (Part VI: Underwriting Guidelines), pp. 640-44.

may be liquidated before the closing. In addition, gifts that have been pledged but not yet received are not included in applicants' assets. The file reviews appeared to confirm that the inability to supply sufficient funds at closing was a factor considered important by lenders; in 26 of the 95 rejected applications reviewed, applicants did not have sufficient funds. In some cases the lack of funds was extreme. For example, in one case the applicants did not have sufficient funds to pay for the appraisal, let alone the down payment and other closing costs. Verification was also a problem. Of the 26 applications with problems relating to funds, 13 applications reported assets that could not be verified. The importance of sufficient funds is consistent with other research on potential homebuyers. Apgar *et al.* (1990) note that, for the 11 million households headed by individuals aged 25 to 34, "upfront cash cost is clearly the more difficult hurdle for these young prospective homebuyers: 81 percent did not have the accumulated wealth to make the down payment."<sup>19</sup>

The review of approved files demonstrated the importance of home equity for applicants who currently own property. There is no variable that directly indicates whether the applicant is a first-time homebuyer or a current owner, although homeowner status may be inferred from the mortgage credit variable. No variable reflects the amount of home equity available to applicants. Equity is included in total net worth estimates, but net worth includes items such as personal property, automobiles, home furnishings, and other assets that are difficult to verify and that are not typically liquidated to provide cash at closing. Indeed, as reported by the authors, lenders generally indicate that they do not place much weight on net worth in making mortgage lending decisions.

Approximately 17 percent of the applications reported by FDIC institutions relied on gifts or grants to finance part of the down payment. A review of a number of files corre-

sponding to applications that were approved despite apparent financial weaknesses revealed that some first-time homebuyers relied upon financial gifts from relatives to finance down payments and closing costs. These gifts ranged from several thousands of dollars to as much as \$68,000. The importance of gifts in this sample is consistent with survey research that indicates that 28 percent of first-time owners rely on gifts from parents.<sup>20</sup> Although the Boston Fed data include a dummy variable to indicate whether the applicant is relying on a gift, there is no information on the magnitude of the gift. Moreover, the variable indicating reliance on a gift was not always reliable. Examiners noted in three of the rejected applications reviewed that gifts could not be verified or were not forthcoming.

To some extent, gifts may be used by applicants to reduce their loan-to-value ratio, a variable that is included in the model. However, some applicants — particularly first-time homebuyers — may depend on gifts just to meet minimum financing requirements. For these borrowers, a gift may make the difference between not getting a loan at all *versus* getting a loan at the maximum allowable loan-to-value ratio.

The omission of gifts and home equity from the statistical model could bias the estimated race effect by underestimating the financial resources of white applicants relative to minority applicants. The limited information on gifts in the model may bias the race estimates if white first-time homebuyers have access to larger gifts than do minority applicants because of existing disparities in wealth between white and minority households. Similarly, because homeownership rates are higher among whites, white applicants are more likely to rely on home equity to qualify for a new mortgage. Survey data show that "whites were twice as likely as blacks to use equity from a previously owned home."<sup>21</sup>

The measurement of applicants' financial resources may also be subject to a certain amount of systematic

error. In particular, lenders sometimes provided reported rather than verified assets. When applications are rejected on other grounds, lenders have no reason to continue to process the application and to verify assets that have not already been confirmed. Such errors would tend to systematically overestimate the assets of denied applicants.

Finally, lenders do not require a fixed dollar amount of assets. Rather, potentially-liquid assets are compared to the down payment and closing costs to determine whether the applicant has sufficient funds to finance the purchase of the property and to meet several months of mortgage payments and other prepaid costs. Future research in this area might include modelling assets as a dummy variable to indicate whether sufficient assets were available to meet the financing requirements, or as a ratio of available funds to financing requirements, rather than as a continuous variable reflecting total assets.

### *Other Specification Problems*

Many other types of problems found in the file reviews are difficult to characterize in summary fashion, let alone capture in a statistical model. For example, several applicants lost their jobs after the applications were submitted. The reviews documented one instance where a co-applicant who had recently immigrated to the U.S. had not obtained a work permit. One applicant relied on a co-signer who had been sued for damages that exceeded the co-signer's net worth. Each of these instances represented good credit risks according to the statistical model; each application was assigned a low probability of denial.

The file reviews indicated that property characteristics were a potentially important factor omitted from the Boston Fed model. A number of applications were rejected because of problems with the property. Three

<sup>19</sup>Apgar *et al.*, p. 16.

<sup>20</sup>National Association of Realtors (1992).

<sup>21</sup>*Ibid.*, p. 27.

condominiums were rejected by lenders because the units were in buildings with low rates of owner-occupancy. As a result, the mortgages would not meet secondary market requirements. Secondary market standards were particularly important in these instances because each of the lenders sold all originated mortgages in the secondary market. One application involved a special 99-year lease program and the collateral value in case of foreclosure was questionable. Several properties were uninhabitable or required substantial renovations. Even when the appraised value exceeds the loan amount, in these circumstances lenders require that applicants have sufficient experience and resources to ensure that the renovations will be completed. In one case an applicant applied for a 30-year mortgage to finance a property that was determined to have a useful life of 20 years.

Credit history was a common problem among rejected applicants. Almost half of the rejected applications that were reviewed suffered from serious credit problems such as charge-offs, defaults, collections, repossessions, tax judgments, and multiple accounts overdue at least 60 days. Serious credit problems may be considered sufficient grounds to reject a mortgage application because these problems may indicate an unwillingness or inability of the applicant to meet debt obligations. However, the model results imply that applications with serious credit problems were likely to be approved. Applications with serious credit problems that were accompanied by a public record of default, foreclosure, or bankruptcy were less likely to be approved because a public record, according to the Boston Fed, "is considered especially damaging to the borrower."<sup>22</sup> One potential explanation for this relatively small credit history effect is that the consumer credit and mortgage credit variables appeared to be poor measures of the severity of credit problems from the perspective of loan underwriters. In addition, the linear specification of the model has limited intuitive ap-

peal, and the mortgage credit variable may reflect homeownership status. It should be noted, however, that the linear specification did not appear to influence the results: alternative specifications had little impact on other coefficients in the Boston Fed model.

Some distinctions that appeared to be important to underwriters were not captured by the credit variables in the model. Lenders had institutional knowledge that was used in evaluating the seriousness of credit reports. For example, late-payment reports from several firms were discounted because the companies are notorious for reporting errors. In addition, if an applicant's credit report revealed evidence of past problems that had since been resolved, reasonable explanations were generally considered sufficient. Such one-time events as financial difficulties due to medical expenses, finishing college or graduate school, or family problems generally were not considered obstacles to obtaining a mortgage if the debts had been settled. Although the variable in the model does not distinguish between one-time credit problems resolved in the past and similar credit problems that are persistent and involve current accounts, lenders appeared to treat these cases differently.<sup>23</sup>

Munnell *et al.* suggest that minority applicants tend to be rejected when credit history is marginal, in part because such applicants are not provided assistance or credit counseling, or that white applicants tend to be given the benefit of the doubt when credit problems arise.<sup>24</sup> To the extent that lenders engage in such behavior, evidence of this phenomenon should be evident in this sample of applications because the exception list should represent the most creditworthy of rejected applicants. The file reviews did not support this thesis. Those applicants rejected on the basis of credit problems generally had extremely serious credit problems as well as other negative factors, with few if any compensating factors. There was not a single instance where

a few late payments, several credit-card delinquencies, or other minor credit problems appeared to raise concerns to the lenders or generated an adverse loan outcome. Most of the applications rejected on the basis of poor credit also suffered from other types of problems such as excessive obligations or housing expenses relative to income, or insufficient assets.

To accommodate differences in applicant circumstances, underwriting guidelines are not interpreted as strict limits. For example, lenders specify standards for the housing expense and total obligation ratios, but these standards may be exceeded if other "compensating factors" indicate an applicant's ability or willingness to meet mortgage payments, or

<sup>22</sup>Munnell *et al.*, p.15.

<sup>23</sup>Fannie Mae guidelines, for example, specifically require that: "Any judgments, garnishments, or liens must be paid in full before closing . . . A bankruptcy must have been discharged fully and the borrower must have re-established good credit and demonstrated an ability to manage financial affairs . . . Generally, we will not purchase or securitize a mortgage if the borrower(s) has been a defendant in mortgage foreclosure proceedings that were completed in the past three years. However, if the foreclosure was the result of extenuating circumstances beyond the control of an owner-occupant borrower — such as a serious, long-term illness; death of the principal wage-earner; or loss of employment because of factory slow-downs or shutdown, reductions-in-force, *etc.* — we will purchase or securitize the mortgage as long as the lender's underwriting confirms that the borrower has re-established good credit and has demonstrated an ability to manage financial affairs." *Fannie Mae Selling Guide* (Part VI: Underwriting Guidelines), pp. 650-51.

<sup>24</sup>One explanation for the observed disparities in mortgage lending is that white applicants receive more coaching than minority applicants, referred to as the "thicker file" phenomenon. Loan officers might provide more assistance to white applicants by requesting more documentation for weaknesses in the application (such as credit problems) or rearranging finances (such as paying off certain debts) to meet primary underwriting criteria. As a result, white applicants would appear to be more qualified than similar minority applicants when evaluated on the basis of information in the loan file, regardless of whether the applications were analyzed by examiners or by the use of a statistical model. Examiners were asked specifically to inspect the loan files for evidence of additional assistance or coaching that may have been furnished to white applicants, but found no evidence that whites were provided with more assistance than minority applicants.

if lenders obtain more protection against potential loss. The role of compensating factors is explicitly recognized by Fannie Mae underwriting guidelines and are consistent with guidelines used by many lenders.<sup>25</sup>

Munnell *et al.* note that underwriting benchmarks may be exceeded when compensating factors are documented.<sup>26</sup> The importance of compensating factors was evident in the file reviews when "comparable" files were identified at an institution, particularly when a rejected application was compared to an approved application with similar characteristics. Applications with above-normal obligation ratios were approved, for example, if applicants held relatively high levels of equity in the property (which minimizes the potential exposure of the lender, in addition to increasing the incentive for the owner to avoid defaulting on the property). This example illustrates that lenders may not consider some of these compensating factors unless other variables (such as obligation ratios) exceed standards but are below upper limits that would automatically disqualify the applications. It is difficult to model the effects of compensating factors because the underwriting guidelines imply complex interactions among numerous factors where the relative importance of one variable depends upon the value of other variables and whether these values exceed specific thresholds. The Boston Fed model is not specified to reflect these interactions; this may be a fruitful area for future research.

The file reviews demonstrated many of the problems with the Boston Fed data. In theory, it would be possible to reestimate the race effect using the FDIC sample after correcting for many of the data errors discussed above. Although this effort might be useful to demonstrate the sensitivity of the parameter estimates, the resulting estimate of the race effect could not be considered an accurate measure of potential lending discrimination for several reasons. First, information is not available for a number of omitted variables. For

example, the degree to which approved applicants relied upon gifts cannot be determined because only a small sample of approved applications was examined. Similarly, corrected information is unavailable for those items not verified when application processing was discontinued because the application was rejected on the basis of other data. Second, the file reviews conducted by examiners included only rejected applications, for which minorities are over-represented, but excluded approved applications, for which whites are over-represented. To correct for just those applications that appeared on the exception list, therefore, could itself induce a race effect.

### Model Fit

A number of potential measures of goodness of fit have been proposed for models with discrete dependent variables (known as qualitative response models). The dependent variable in the Boston Fed model, loan outcome, takes only two values (1 or 0) corresponding to denied or approved, but the predicted values generated by the model reflect the probability of denial. As a result, the  $R^2$  measure reflecting the proportion of variance that is explained in a conventional regression model is not applicable to the loan outcome model. One measure of the predictive ability of qualitative response models is the proportion of correct predictions, where an observation is predicted to equal 1 if the estimated probability exceeds 0.5. However, this fit measure is flawed. For example, if a sufficiently large proportion of values in the sample equals 1, one might obtain a higher prediction rate by assuming that all observations equal 1. The fact that a naive model may result in a higher prediction rate does not imply that the model is defective. Similarly, a high prediction rate itself does not necessarily indicate that the model is correctly specified or meets other goodness of fit criteria.<sup>27</sup>

Munnell *et al.* note that 89 percent of loan outcomes are correctly categorized based on a comparison of actual

loan outcomes against predicted outcomes, where a predicted outcome is determined by whether the denial probabilities exceed 50 percent. Models with alternative specifications reported by the Boston Fed, including models that exclude PMI rejections, generate similar proportions of correct predictions. However, if one were to assume that all applicants are approved, 85.5 percent of applicants would be correctly categorized (given the 14.5 percent rejection rate for the entire Boston Fed sample). Using a slight variation of this naive model, if one assumed that applicants are approved unless PMI is denied, 89 percent of all applicants would be categorized correctly without any additional information simply because most mortgage applications are approved unless the PMI is rejected.

A more detailed view of the goodness of fit measure used by Munnell *et al.* can be seen by comparing the predictions with actual outcomes for the sample corresponding to FDIC-supervised institutions. The numbers are provided in Table 2. The proportion of applications denied, 14.7 percent, is close to the 14.5 percent rejection rate for the entire Boston Fed sample. Of the 205 applications denied, 139 (67.9 percent) had denial probabilities below

<sup>25</sup>"A higher monthly housing expense-to-income ratio or a higher total obligations-to-income ratio (or both) may be acceptable for mortgages that have loan-to-value ratios of 90 percent or less if the borrowers: are making a large down payment toward the purchase of the property; have a demonstrated ability to devote a greater portion of income to basic needs like housing expenses; have a demonstrated ability to accumulate savings and to maintain a good credit history or a debt-free position; have a potential for increased earnings and advancement because of their education or job training, even though they have just entered the job market; have net worth substantial enough to evidence their ability to repay the mortgage." *Fannie Mae Selling Guide* (Part VI: Underwriting Guidelines), pp. 655-56. This listing represents a selection of the compensating factors that are listed.

<sup>26</sup>Munnell *et al.*, p. 3.

<sup>27</sup>Problems with this goodness of fit measure are discussed in detail by Amemiya (1981) and Greene (1990).

50 percent. Most of these observations appeared on the exception list distributed by the Boston Fed. The remaining 66 denied applications (32.3 percent) were associated with denial probabilities above 50 percent. In other words, approximately two-thirds of the applications that were denied were predicted to be approved on the basis of a 50 percent probability threshold.

Table 2  
Actual Versus Predicted Outcomes

Number	Predict: Approve	Predict: Deny	Total
Actual Denied	139	66	205
Actual Approved	1172	16	1188
Totals	1311	82	1393

The role of PMI in the distribution of probabilities generated by the Boston Fed model is particularly interesting. Forty-nine of the 66 applications correctly categorized as denials were in fact denied on the basis of PMI. Of the remaining 156 rejected applications where PMI was not a factor, 17 (66 minus 49) had denial probabilities greater than 50 percent and 139 had denial probabilities of 50 percent or less. In other words, excluding PMI rejections, the model correctly categorized 17 of 156 mortgage rejections, an 11 percent successful prediction rate for this group.

Table 3  
Estimated Denial Probabilities

Circumstances	Probabilities
Well-qualified applicant	3.5%
(a) Zero net worth	3.4%
(b) Delinquent credit	28.0%
(c) Insufficient income	6.9%
(d) Combined deficiencies	43.6%

Closely related to the issue of model fit is the question of how well the probabilities generated by the model correspond to the underwriting process. The file examinations demonstrated that many of the rejected applications that were associated with low denial probabilities, applications that appeared on the exception list produced by the Boston Fed, exhibited numerous serious deficiencies. This is particularly important given the use of statistical models to identify applications that have been rejected wrongfully. In some cases the low denial probabilities are attributable to data errors. In others, the parameter estimates from the statistical model give relatively little weight to important factors that might be sufficient to justify a rejection. The influence of underwriting factors on the denial probabilities are illustrated in Table 3. The numbers suggest that the probabilities generated by the model do not appear to be consistent with underwriting guidelines.

The impact of different categories of loan application weaknesses can be illustrated by calculating the denial probabilities from the coefficient estimates in the Boston Fed model. For example, a white applicant with average values for most variables in the model (including housing expense at 22 percent of income and debt obligations at 33 percent of income), with above-average credit history (with one or two "slow pay" accounts and no late mortgage payments), purchasing a single-family house with an 80 percent loan-to-value ratio (for which PMI would not be required) would be assigned a denial probability of 3.5 percent. As expected, the probability that this application would be denied is quite low.

To illustrate how well the model reflects the underwriting process, denial probabilities were generated using the coefficient estimates for four additional applicants with identical attributes except for the following: (a) zero net worth, (b) delinquent credit, (c) insufficient income, and (d) a combination of all of these problems. The resulting probabilities are illustrated in Table 3.<sup>28</sup>

The applicant used as the point of reference in the comparisons is unlikely to be denied, given the denial probability of 3.5 percent. Individual (a) reports a net worth of zero. The denial probability for this application is not significantly influenced by the lack of assets because the model coefficients on the net wealth/liquid assets variables are not statistically different from zero.<sup>29</sup> Individual (b) has overdue balances on seven credit cards, a student loan in the process of collection, a car loan in default, serious delinquencies with 90 days past due and numerous late mortgage payments. (The consumer credit and mortgage credit variable values in this case are 6 and 4 respectively, the worst possible scores.) The impact of these factors is that the denial probability increases to 28.0 percent. Despite the magnitude of such credit problems, the model implies that an application with these deficiencies will be approved more than two out of three

<sup>28</sup>The estimated probability of denial ( $\hat{p}_i$ ) associated with a set of values for the explanatory variables ( $x_i$ ) can be calculated for the logit model from the parameter estimates  $\hat{p}_i = \exp(\beta'x_i) / [1 + \exp(\beta'x_i)]$  (see Maddala, 1983). The probabilities were calculated using the mean values of the explanatory variables unless otherwise indicated. The parameter estimates from the Boston Fed model are provided in the appendix.

<sup>29</sup>However, if the point estimate in the model were used, the denial probability would fall to 3.4 percent with the decrease in net worth (although one would expect a decline in net worth to increase the probability of denial).

times. If consumer credit problems are reported in public records, the denial probability increases to 56.3 percent. Individual (c) has insufficient income, which is demonstrated by two ratios. In this case, the housing expense/income ratio rises to 50 percent (well-above the Fannie Mae benchmark of 28 percent) from 20 percent and debt obligations rise to 50 percent of income (compared to the Fannie Mae 36 percent obligation ratio benchmark) from 30 percent.<sup>30</sup> The denial probability projected for this individual rises to only 6.9 percent. Large increases in these ratios have little impact on the likelihood of denial.

Finally, individual (d) reflects a combination of these problems: zero net worth, credit history and mortgage credit scores observed in (b), and the housing expense and obligation ratios specified in (c). Given all these problems combined, each of which would normally be expected to produce a lender denial, the denial probability generated by the model is 43.6 percent. This implies that an application with these characteristics would be accepted more than half of the time; thus, the application would appear on the Boston Fed's exception report if denied.

Two circumstances that generate high rejection probabilities in the model are (1) a public record in conjunction with poor credit history and mortgage credit, and (2) PMI rejection. If the application characterized in (d) were supplemented by a public record of credit problems (defaults, foreclosure or bankruptcy), the denial probability would increase to 72.0 percent. Alternatively, if the application were identical to (d) except for a PMI rejection, the probability of rejection would rise to 98.8 percent.

The illustrations suggest that even when the primary factors clearly appear to warrant a denial, the effect on the denial probability is relatively weak except when serious credit history problems and late mortgage payments are accompanied by a public record, or when PMI is rejected. The probabilities generated by the model

do not appear to reflect our understanding of the underwriting process; based on these probabilities, many applicants with serious problems would be likely to obtain mortgage loan approvals.

The race effect observed in the statistical model could be caused by a number of factors other than lending discrimination. First, the reviews demonstrated the substantial magnitude of the data errors. Some of these errors appear likely to introduce systematic bias into the model. The creditworthiness of rejected applicants is likely to be overstated because (a) some institutions reported the original, unverified data on the original application, regardless of loan outcome or receipt of additional information, and (b) the verification process is normally terminated after sufficient deficiencies are found to justify a rejection. Second, the loan outcome variable in some circumstances does not accurately reflect the willingness of a lender to provide financing. The loan outcome is reported as a rejection if an applicant is overqualified for an affordable housing program, if PMI is not obtained, or if the applicant rejects a lender's counteroffer. Third, a number of important variables were not adequately captured in the statistical model, including the amount of financial gifts and home equity. For the reasons discussed in this paper, these factors may result in an overestimation of the race effect on the lending decision. Finally, the model specification does not reflect the complex functional forms and interactions among variables implied by underwriting guidelines, particularly to the extent that compensating factors are evaluated for marginal applicants. The misspecification may produce biased coefficients, although the direction of the bias on the race estimates is indeterminate. Many of these problems are common to all of the alternative model specifications presented by the authors. As a result, the extent to which the race effect generated by the models reflects lending discrimination is uncertain.

## Conclusions and Policy Recommendations

As Munnell *et al.* have observed, it is difficult to identify lending discrimination through existing examination procedures. FDIC examiners reviewed rejected applicant files on the Boston Fed exception report to determine whether the rejections were justified, and compared rejected minority applications to white applicants with similar applicant characteristics where possible. No evidence of discrimination was found. However, in many instances comparable files could not be identified, making it difficult to determine whether the applicants' race influenced the underwriting decision.

The regression approach can be used to estimate the weights that apply to each factor considered by lenders, holding the influence of other factors constant. The statistical analyses performed by the Boston Fed identified a race effect that appeared to be consistent with lending discrimination. However, the reviews of loan files uncovered a number of problems with the statistical model. These considerations imply that there is insufficient information to determine what factors are responsible for the higher minority rejection rates identified by Munnell *et al.* These problems need to be addressed in future research to determine whether the race effect indicates lending discrimination, or whether the effect is an artifact of data and specification problems.

Given the difficulties in determining lending bias from a detailed statistical analysis of complete HMDA data supplemented by additional survey information, it is doubtful that rejection rates alone can identify institutions that discriminate based on race.

<sup>30</sup>Note that the impact of a housing expense ratio of 31 percent is no different from a ratio of 99 percent because the dummy variable for the ratio is 1 when the ratio exceeds 30 percent. The obligation ratio is included as a percent. This alleviates the problem of the high correlation between the housing expense ratio and the total obligation ratio (which includes projected housing expense).

In some instances relatively high rejection rates reflect active community outreach programs, not lending bias. For example, 47 percent of all minority rejections (47 of 99) at the 70 FDIC-supervised institutions participating in the Boston Fed study were attributable to a single minority-owned institution. However, despite this institution's high minority rejection rate (50 percent of all minority applicants were rejected at the institution), racial discrimination would appear to be an unlikely factor given that (1) the institution was the only minority-owned institution in the Boston area, and (2) 82 percent of mortgages approved by this institution were for minority applicants.

The methodological problems associated with evaluating the role of race in mortgage lending also apply to many other types of financial services. Legislation recently has been introduced to require banks to disclose information on small-business applications received from minority-

owned businesses, for example, which essentially would extend HMDA reporting requirements to small-business lending. Analysis of lending based on race without adequately controlling for the appropriate financial information that reflects lending risk is subject to the pitfalls identified in this paper. Similarly, the questions concerning what data to collect and how to model lending decisions remain unanswered.

This paper has shown that the use of statistical analysis of loan files to infer racial discrimination is quite difficult. This suggests that investigation of loan files may be especially important in the compliance examination process. Comparisons between the demographic composition of an institution's market area and the racial and ethnic mix of loan applications reported by that institution may raise questions that require further investigation by a compliance examiner. Scrutiny of loan files may reveal whether the loan documentation is

appropriate, whether reporting is accurate, and whether loan decisions are consistent with underwriting guidelines. Moreover, a detailed examination of individual loan files is likely to be necessary to confirm evidence of lending discrimination that may arise from statistical analysis of an institution's mortgage-lending data. In addition to data errors, which never will be completely eliminated, many loan decisions are influenced by factors that are difficult to capture in a statistical model. This may be a particular problem for lenders processing relatively few minority applicants, because the rejection ratios can change dramatically in response to a small number of loan outcomes. Although appropriately-specified statistical models may prove to be useful to indicate potential lending problems, the statistical results may not be sufficiently reliable to shed light on the creditworthiness of individual applications.

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**APPENDIX****Determinants of Mortgage Loan Denials:  
Boston Fed Model Coefficients**

Variable	Coefficient	t-Statistic
Constant	-6.61	-17.0
Housing Expense/Income	.47	3.2
Total Debt Payments/Income	.04	6.6
Net Wealth	.000081	1.1
Consumer Credit History	.33	9.8
Mortgage Credit History	.35	3.0
Public Record History	1.20	7.0
Probability of Unemployment	.09	3.3
Self-employed	.52	2.8
Loan/Appraised Value	.58	3.2
Denied PMI	4.70	9.6
Rent/Value in Tract	.68	3.5
Multifamily Home	.58	3.6
Race	.68	5.0

The coefficients from the Boston Fed regression are provided in the left-hand column of numbers. The statistics in the right-hand column illustrate the statistical significance (where significance at the 95 percent level is indicated by a t-statistic greater than 2). The estimated probability of denial ( $\hat{p}_i$ ) associated with a set of values for the explanatory variables in the logit model, ( $x_i$ ), is calculated for an individual applicant by multiplying each of the coefficients from the model ( $\hat{\beta}_i$ ) by each value of the explanatory variables that correspond to the individual application. Care must be taken to use the same scales as the model. For example, the housing expense is 0 if the housing expense ratio is less than .30 and 1 otherwise. In contrast, the debt payment (or obligation) ratio is included as a percentage\*100 (e.g., 33.46, the mean obligation ratio). The sum of the products (coefficients times variable values), indicated by the notation  $x_i$ , is substituted in the following formula to obtain the denial probability for the individual:

$$\hat{p}_i = \exp(\hat{\beta}'x_i) / [1 + \exp(\hat{\beta}'x_i)].$$

# Risk Measurement, Actuarially-Fair Deposit Insurance Premiums and the FDIC's Risk-Related Premium System

by Gary S. Fissel\*

One of the important deposit insurance reforms required by the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) is the establishment of a risk-related pricing system. Under such a system, an insured institution's deposit insurance premium is related to the degree of risk that it poses to its insurance fund. The FDIC's risk-related system went into effect on January 1, 1993.

For the first 60 years of the FDIC's existence, all insured depository institutions were assessed at the same flat rate for their deposit insurance coverage. Under a flat-rate system, institutions can increase their risk to the insurance fund without incurring any additional premium expenses. This has two undesirable effects. The first is an equity issue. Well-managed, well-capitalized institutions subsidize the deposit insurance coverage of riskier institutions. This is in contrast to most private insurance arrangements whereby lower-risk groups are rewarded with lower premium rates. Secondly, under a flat-rate system, depository institutions do not have to compensate either the insured depositors or the deposit insurer for taking additional risk. As a result, there is an incentive for greater risk-taking and depository institution failures can be more frequent and more costly to the FDIC.<sup>1</sup>

There is widespread agreement that a properly designed risk-related premium system would mitigate the inequities and the incentives toward greater risk-taking associated with the flat-rate pricing system. The risk-related system offers the possibility of improving the deposit insurance system by acting as a complement to other measures that limit the risk-taking behavior of insured depository institutions.

The success that a risk-related deposit insurance pricing system has in attaining these objectives can be evaluated in two ways. In the ideal case, each institution's premium would be actuarially fair so that expected premium revenues equal expected costs. It is also possible that the objectives described above can be attained to some degree by a premium system that correctly ranks insured institutions in terms of their relative riskiness. This paper estimates actuarially-fair premiums and evaluates the existing FDIC risk-related premiums, both in absolute terms and as a ranking of relative risk. The analysis indicates that the existing eight basis point spread between the lowest and highest premium rates is too narrow to accurately reflect the range of risk confronting the FDIC. In terms of ranking relative risks, however, the FDIC system performs fairly well.

The FDIC's risk-related premium system is presented in the next section. The degree of equity in the deposit insurance pricing system is directly related to how well the system is able to measure the riskiness of insured institutions and the degree to which the measured risk is reflected in the differential pricing between institutions. Subsequently, a proportional hazards model (PHM) is presented, which is used to estimate the expected time-to-failure for insured institutions, from which actuarially-fair premiums are derived. Next, the FDIC's risk-related premium system is compared to these actuarially-fair deposit insurance premiums. Concluding statements are made in the final section.

\*Gary S. Fissel is a financial economist in the FDIC's Division of Research and Statistics. The author thanks Arthur Murton, George French and Frederick Carns for their insightful comments during the development of this paper. The author also thanks Jennifer Eccles for her help on issues dealing with the BIF recapitalization. Finally, the author would like to thank Cathy Wright for her secretarial assistance.

<sup>1</sup>See Blair and Fissel (1991) for a detailed discussion of the conceptual framework for a risk-related deposit insurance premium system.

## The FDIC's Risk-Related Premium System

The risk-related premium system developed by the FDIC measures risk in two dimensions. One is capital and the second is supervisory judgment. Insured institutions are assigned to insurance risk groups on the basis of these two risk measures.

Capital is important to the insurer because it provides a cushion against adverse changes in a depository institution's asset quality and earnings. In this sense, capital is a deductible for deposit insurance. Therefore, the more capital an institution has, everything else being equal, the lower is its probability of failure. This result has been supported in numerous bank-failure and early-warning studies.<sup>2</sup>

Capital is a static view of an institution's risk at a moment in time, gauging its ability to survive negative shocks to its balance sheet over the near term. However, capital by itself does not give a complete picture of a depository institution's risk to its insurance fund. An institution's ability to survive is dependent also on its ability to maintain its capital base. Thus, capital needs to be complemented by other views of an institution's balance sheet and operations, such as asset quality, earnings, overall portfolio risk and management quality. These factors are consolidated into a risk measure referred to as a supervisory evaluation.

The capital categories are defined by a set of three capital benchmarks per category, as outlined below.

Capital Group	Benchmarks		
	Tier 1 Leverage Capital Ratio	Tier 1 Risk-Based Capital Ratio	Total Risk-Based Capital Ratio
1	ge 5% and	ge 6% and	ge 10%.
else 2	ge 4% and	ge 4% and	ge 8%.
else 3	lt 4% or	lt 4% or	lt 4%.

Note: 'ge' is 'greater than or equal to'; 'lt' is 'less than.'

An institution must meet all three benchmark ratios to be admitted to its corresponding capital group. Given this, institutions are assigned to the highest-level capital group for which they qualify.

Within their respective capital groups, institutions are assigned to one of three supervisory subgroups, based on all of the information available to the FDIC and the primary federal regulator. The supervisory subgroups are defined as follows:<sup>3,4</sup>

**Subgroup 'A'.** Institutions that are financially sound with only a few minor weaknesses. This generally corresponds to a composite CAMEL/MACRO rating of 1 or 2.

**Subgroup 'B'.** Institutions with weaknesses that, if not corrected, could result in significant deterioration of the institution and increased risk to the insurance fund. This generally corresponds to a CAMEL/MACRO rating of 3.

**Subgroup 'C'.** Institutions that pose a substantial probability of loss to the insurance fund unless corrective action is taken. This generally corresponds to a CAMEL/MACRO rating of 4 or 5:

Table 1  
1993 FDIC Risk-Related Premium Rates\*

Capital Rating	Supervisory Rating		
	A	B	C
1	23 bp	26 bp	29 bp
2	26 bp	29 bp	30 bp
3	29 bp	30 bp	31 bp

\*These risk-related premium rates were approved by the FDIC's Board of Directors for the first and second assessment periods of 1993.

Table 1 shows the risk-related premium system's insurance groups. Each institution is assigned to an insurance group based on its capital group and supervisory subgroup. The rate table is a three-by-three matrix in which the higher-risk institutions are placed in insurance groups that are to the south and/or east of their lower-risk counterparts.

As an initial check on the risk measures used in the risk-related premium system, the failure rates of commercial banks for each cell of the matrix are presented in Table 2. Using reported financial information and composite CAMEL ratings as of December 31, 1987, banks were placed in their respective insurance groups. The failure rates are the percentage of institutions in a particular cell that failed by December 31, 1992.

The measurement of risk for the risk-related premium system is supported by the FDIC's experience with bank failures over this period of time. For every insurance group in Table 2, panel A, the adjacent cell to the east and/or south has a substantially higher failure rate. This is consistent with the higher premium

<sup>2</sup>See Whalen (1991), Lane, *et al.* (1986), Marino (1984), Bovenzi, *et al.* (1983), Sinkey (1978), and Santomero and Vinso (1977).

<sup>3</sup>These definitions can be found in the *Federal Register*, Volume 57, No. 191, October 1, 1992.

<sup>4</sup>In accordance with the Inter-agency Uniform Financial Institutions Rating System, each institution is assigned a rating based on an evaluation of pertinent financial and operational standards, criteria and principles. To aid in implementing the uniform rating system, five key performance dimensions are assessed and assigned a numerical rating. The rating for each dimension is through the use of a numerical scale of "1" through "5" in ascending order of supervisory concern; "1" indicates the highest rating and least degree of concern, while "5" is the lowest rating and the highest degree of concern. The performance dimensions are identified by the acronym "CAMEL": Capital adequacy, Asset quality, Management, Earnings and Liquidity. An assessment of these performance dimensions and their interrelationships represents the essential foundation on which the composite CAMEL rating is based; it is not simply an arithmetic average of the individual performance dimension ratings.

rates paid as institutions move to the south and/or east in the table.

Table 2, panel B presents a more disaggregated breakdown of the supervisory subgroups into the composite CAMEL rating categories. Panel B also shows the supervisory risk evaluation to be consistent with the ultimate failure of institutions. With the exception of two cases, groups 21 and 31 (capital group-safety rating subgroup) where movements to the adjacent cell to the east lead to a decrease in the failure rates, a movement from any cell to an adjacent cell to the south and/or east leads to an increase in the failure rate.

The failure rates in Table 2 provide evidence regarding the variations in risk across the various capital and supervisory classifications. As discussed above, panel A shows that commercial bank failure rates increase when institutions' capital group or supervisory subgroup is downgraded leaving the other rating unchanged, or when both the capital group and supervisory subgroup are downgraded. The remaining direction to be explored relates to a downgrade of institutions' capital group or supervisory subgroup and the upgrade of the other, representing a movement to the southwest and northeast, respectively. As indicated in Table 1, banks pay the same premium rate along the southwest-to-northeast diagonals of the rate matrix. Equity considerations would suggest that failure rates for these cells should be the same. There are only four moves from southwest to northeast that can be made in panel A, three of which result in failure rate decreases that average 2.058 percent and one increase of 3.033 percent. In short, changes in failure rates along these diagonals are not substantial.

Overall, the data on commercial bank failure rates presented in Table 2 are consistent with the measures of risk that are used by the FDIC in the risk-related premium system. As the capital groups and supervisory subgroups are currently defined, failure rates from 1988 through 1992 increase for higher-risk institutions designated as having higher risk under the premium system.

Table 2  
Commercial Bank Failure Rates: 1/1/88 through 12/31/92<sup>\*,\*\*</sup>  
Panel A

Capital Rating	Supervisory Rating		
	A	B	C
1	1.078%	3.648%	12.320%
2	5.479%	13.218%	27.143%
3	10.185%	30.588%	49.898%

Panel B

Capital Rating	Composite CAMEL Rating				
	1	2	3	4	5
1	0.379%	1.383%	3.648%	11.373%	33.333%
2	7.143%	5.163%	13.218%	23.936%	54.545%
3	16.667%	9.375%	30.588%	38.768%	64.186%

\*The sample includes only BIF-insured commercial banks that were active as of December 31, 1987.

\*\*The supervisory ratings are based on composite CAMEL ratings as of December 31, 1987, and the capital ratings are based on reported capital as of December 31, 1987.

### "Actuarially-Fair" Deposit Insurance Premiums

A general principle underlying most insurance pricing schemes is that an insured is assessed a premium over the life of the insurance contract such that the expected revenue collected by the insurer from the insured is at least equal to the expected cost to the insurer from the insured's claims.

$$(1) E(\text{Cost}) \leq E(\text{Revenue})$$

An actuarially-fair premium is defined in this paper as the premium at which equation (1) holds with equality. That is, an actuarially-fair premium is one in which the discounted value of the premiums paid in every period over the life of the contract is expected to generate revenues for the insurer that will equal the expected discounted costs to the insurer from claims made by the insured over the life of the contract.

To illustrate this point, consider the following example. An insurance contract is written with the following characteristics: (i) the contract is written for the life of the insured, (ii) the insured is assessed a premium that is paid at the beginning of every period over the lifetime contract, and (iii) the insurer makes a lump-sum payment to a beneficiary at the end of the assessment period during which the insured dies. In addition, we know the following characteristics about the insured's lifetime: (a) the insured will not live beyond two assessment periods, and (b) the insured has a 50 percent probability of not surviving past the first assessment period. Rewriting equation (1) for this contract yields:

$$(2) \left\{ \frac{C(1)}{(1+r)} + \frac{C(2)}{(1+r)^2} \right\} \times .5 = \left\{ [R(1) \times .5] + \left[ R(1) + \frac{R(2)}{(1+r)} \right] \times .5 \right\}$$

where C(t) is the insurer's cost (lump-sum payment) at the end of period t, R(t) is the insurer's assessment revenue received at the beginning of period t, and r is the periodic discount rate. The left-hand side of equation (2) is the present discounted value (PDV) of the insurer's expected cost for this insurance contract and the right-hand side is the PDV of the insurer's expected revenue. If the lump-sum payment is \$100 and the periodic discount rate is three percent, then, setting R(1)=R(2)=R in equation (2) and solving for R, the actuarially-fair premium in each period would be \$64.41.

The deposit insurance contract that the FDIC makes with a depository institution has features similar to the stylized life contract presented above. First, the deposit insurance contract generally extends over the lifetime of an insured institution. There are few cases in which the FDIC has withdrawn deposit insurance from an existing institution. Second, insurance premiums are owed to the FDIC at the beginning of each assessment period. Third, upon the failure of an insured institution the FDIC effectively makes a lump-sum payment to the insured creditors, and possibly other creditors, of the failed institution. With this deposit insurance contract, the condition for an actuarially-fair insurance premium is presented in equation (3).

$$(3) \sum_{t=1}^{\infty} \left\{ \left[ \frac{C(t)}{(1+r)^t} \right] \times f(t) \right\} = \sum_{t=1}^{\infty} \left\{ \left[ \sum_{k=1}^t \frac{R(k)}{(1+r)^{k-1}} \right] \times f(t) \right\}$$

where  $f(t)$  is the probability that the insured institution fails during period  $t$ .

A depository institution's premium is set as a fraction of its assessment base in each assessment period. This fraction is referred to as the premium rate. In addition, the FDIC's insurance cost for a failed institution can be measured as a fraction of the institution's assets at the time of failure. Equation (3) is expanded to incorporate these conditions for the case in which the assessment base is gross assets.

$$(4) \sum_{t=1}^{\infty} \left\{ \left[ \frac{\alpha \times A_0 \times (1+\theta)^t}{(1+r)^t} \times f(t) \right] \right\} = \rho \times \sum_{t=1}^{\infty} \left\{ \left[ A_0 \times \sum_{k=1}^t \frac{(1+\theta)^{k-1}}{(1+r)^{k-1}} \right] \times f(t) \right\}$$

where  $\alpha$  is the ratio of the FDIC's loss to the book value of assets at the time of failure,  $A_0$  is the book value of the insured's gross assets at time 0,  $\theta$  is the insured's asset growth rate, and  $\rho$  is the actuarially-fair premium rate. The assumption that the assessment base is assets is for ease of estimation and presentation. However, it is not expected that alternative specifications would alter the conclusions of this paper.

Solving equation (4) for  $\rho$  gives the premium rate that the deposit insurer must charge the insured institution in every assessment period in the future so that the expected cost of the insured's failure equals the expected revenue collected by the insurer. While differences in any of the parameters in equation (4) for two institutions will lead to different premium rates for those institutions, the premium rate should reflect the fundamental riskiness of each institution to the insurer, which is captured by its probability of failure for each period in the future,  $f(t)$ . The distribution of each insured institution's time-to-failure, *i.e.*, its *lifetime distribution*, is estimated in this paper using a proportional hazards model (PHM).

### Proportional Hazards Model

Depository institutions have unique financial and other characteristics that determine their risk of failure, and thus affect their lifetime

distribution. A PHM is a way to explicitly recognize the dependence of institutions' lifetime distributions on these characteristics ("covariates") and to estimate the relationship between them.<sup>5</sup> This relationship between the covariates and a bank's lifetime is examined using a parametric regression model in which its lifetime has a distribution that is dependent on the covariates. This model is expressed in log-linear form by equation (5).

$$(5) y = \beta_0 + \beta_2x_2 + \dots + \beta_7x_7 + \sigma Z$$

where  $y$  is the natural logarithm of the time-to-failure,  $(x_1, x_2, \dots, x_7)$  are the attributes of the bank that serve as the explanatory variables for the model,  $(\beta_1, \beta_2, \dots, \beta_7)$  are the corresponding coefficients of the model, and  $Z$  is the natural logarithm of a *baseline lifetime* that comes from the Weibull distribution. Essentially, the term  $\sigma Z$  corresponds to the role played by an error term in more-conventional regression models. Equation (5) is a general

specification of the estimating equation from which estimates of  $\beta = (\beta_0, \beta_1, \beta_2, \dots, \beta_7)$  and  $\sigma$  are derived. These estimates of  $\beta$  will be denoted by  $b = (b_0, b_1, b_2, \dots, b_7)$  and the estimate of  $\sigma$  will be denoted by  $s$ .

Increases in the value of  $(\beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_7x_7)$ , hereafter denoted by  $x'\beta$ , correspond to increases in the financial health of the bank. Having estimated the  $(\beta_0, \beta_1, \beta_2, \dots, \beta_7)$ , and using the assumed distribution of  $Z$  in equation 5, one can compute for any given values of  $(x_1, x_2, \dots, x_7)$  the probability that the time-to-failure will exceed any given value (see Appendix A). The resulting "survival function" plots, for each time  $t$ , the probability that the bank will survive beyond  $t$ . Figure 1 shows the survival function for the average failed and nonfailed banks in the estimation sample, which is discussed in the following section.<sup>6,7</sup>

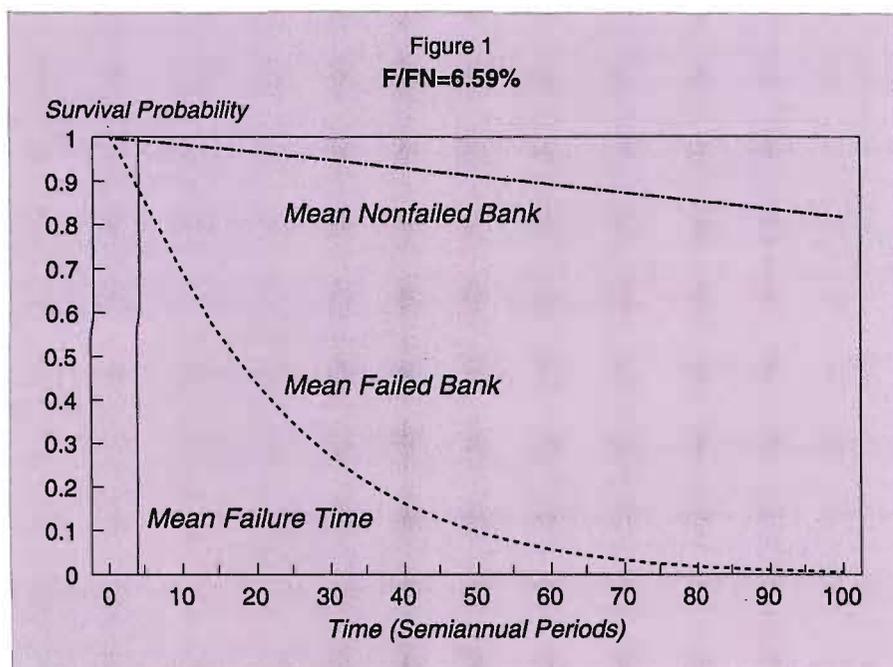
### Specification of Model and Sample

As mentioned above, parameters are estimated for the linear form of the PHM, shown by equation (5). The dependent variable of this PHM is the time-to-failure as recorded by the FDIC. Two specifications of a depository institution's failure have been used in the literature. One specification is that failure is identified at the time of insolvency, an economic event, and the second specifies failure at the time of closure, a regulatory event. The latter is chosen for this paper, and so it is the regulatory closure rule that is modeled here. The dependent variable is a bank's time-to-failure measured in semiannual units of time from January 1, 1988 to its closure on or before December 31, 1992 for failed banks, or to

<sup>5</sup>The PHM is derived in greater detail in Appendix A.

<sup>6</sup>'Bank' hereafter refers to a BIF-insured commercial bank.

<sup>7</sup>It should be noted that because the model is estimated using five years of data, survival probabilities for times greater than ten semiannual periods are extrapolations that should not be taken too seriously.



a designated censoring date, January 16, 1993 for nonfailed banks.<sup>8</sup>

A concise set of explanatory variables is used to specify the time-to-failure model. The selected covariates represent factors on the balance sheet that identify a bank's current financial status, its ability to survive any current problems in its portfolio, and the expectations for the bank's regional economy. These covariates are:

(i) a "problem bank" dummy variable that takes a value of 1 for banks with a CAMEL rating of 4 or 5;

(ii) a significantly or critically undercapitalized dummy variable that takes a value of 1 for banks that are *significantly* or *critically* undercapitalized according to the prompt corrective action regulation required by FDICIA;

(iii) ratio of Tier 1 capital to gross balance-sheet assets;

(iv) portfolio risk ratio: ratio of risk-weighted balance-sheet and off-balance-sheet assets to gross balance-sheet and off-balance-sheet assets;<sup>9</sup>

(v) ratio of noncurrent assets minus loss reserves to gross balance-sheet assets;

(vi) annualized return-on-assets; and

(vii) leading indicator for regional economy: percentage change in residential housing permits from the previous year, measured at the state level.

Covariates (i) and (ii) identify institutions that are under a relatively large amount of financial stress, and thus whose failure is more likely than their healthier counterparts. Covariate (iii) is a measure of capital, which serves as a buffer against failure for asset quality and earnings problems. Covariate (iv) is a measure of the risks embedded in an institution's asset portfolio, and (v) is a measure of asset-quality problems relative to the reserves for losses set aside for these problems. Covariate (vi) is a measure of a bank's profitability. If earnings are positive, they can be added to the bank's loss reserves and/or to its capital base, and if negative they will drain capital. Finally, covariate (vii) is a leading indicator for state economic performance, and is intended to measure the anticipated future strength of the local economy. While many banks operate in markets beyond their state economies, it is believed that this local market captures a primary segment of banks' business activities.<sup>10</sup> The covariates are measured as of December 31, 1987.

The sample of banks that was used for estimating the PHM consists of the largest bank within a holding company, the other institutions within a holding company that have assets of \$500 million or more, and individual institutions that have no holding company affiliation. In addition, these banks must be insured by the Bank Insurance Fund (BIF), they must have been active as of December 31, 1985, and must have either failed or remained active as of December 31, 1992. The sample selection rule that applies to the largest institutions within a holding company is used to remove failures of smaller banks within a holding company that often appeared to be healthy from their financial reports, but that failed because of their affiliation and financial integration with the lead bank(s). This was the case particularly in Texas, which was a unit banking state until 1987.<sup>11</sup> The subordinate banks within a holding company essentially served as deposit-gathering branches for the lead bank(s). The inclusion of subordinate bank failures of this type in the estimation sample could significantly bias and diminish the fit of the model.<sup>12</sup>

<sup>8</sup>Nonfailed institutions are treated as right-censored observations by the PHM.

<sup>9</sup>Risk-weighted balance-sheet and off-balance-sheet assets are estimated using the algorithm developed by the Federal Financial Institutions Examination Council (FFIEC).

<sup>10</sup>As pointed out in Whalen (1991), a better approach for measuring anticipated future local economic performance might be to use forecasts of local economic conditions from separate models.

<sup>11</sup>Texas branching laws were changed in 1987, to allow for limited consolidation of banks within the same holding company. Consolidation was subsequently done to varying degrees by the multibank holding companies in the state.

<sup>12</sup>The difficulty with subordinate bank failures has been dealt with in a variety of ways. Some authors have not incorporated any adjustments in their sample or model for the subordinate banks. Some have added holding company variables to the bank-failure equations; for example, see Gajewski (1989) and Thomson (1989). Whalen (1991) adjusted the sample to exclude the smaller subsidiaries, less than or equal to \$500 million, of the large Texas holding companies.

The final estimation sample includes all of the failed and nonfailed banks that satisfied the selection criteria discussed above. There are 571 failed and 8,864 nonfailed institutions in the sample. Thus, the ratio of failed-to-nonfailed banks equals 6.59 percent.

As in most failure-prediction studies, an institution is predicted to fail if its estimated probability of failing over a specified period of time exceeds the ratio of failed-to-nonfailed banks in the sample.<sup>13</sup> Thus, institutions with estimated five-year survival probabilities of less than 93.41 (*i.e.*, 1 - 6.59) percent are designated as failures. Figure 1 shows that the mean failed bank is predicted to fail within five years under this criterion, while the mean nonfailed bank is predicted to not fail: the five-year survival probabilities for the mean failed and nonfailed banks are approximately 69 percent and 98 percent, respectively.

### Estimation Results

The PHM fit and the estimated coefficients for covariates (i) through (vii), discussed above, are presented in Table 3. These are the coefficients that were used to construct Figure 1.

All of the estimated coefficients have the correct sign and are significant at the one percent level. For example, Tier 1 capital has a positive sign indicating that banks with more capital today have a higher probability of survival at every point in the future, while portfolio risk has a negative sign indicating that banks with greater risk on their balance sheets have a lower probability of survival, and thus a shorter expected lifetime. For the PHM with a five-year failure horizon, the data show that banks' portfolio

<sup>13</sup>In this paper, the sampling rates for failed and nonfailed banks are 100 percent for both types of institutions. The estimated parameters, particularly the intercept term, are affected by the sampling proportions in the sample. A higher ratio of failed-to-nonfailed banks in the estimating sample will cause the estimated survival probabilities of healthy institutions to be underestimated relative to what they would be with a lower ratio. See Maddala (1983, pp. 90-91) and (1986) for a discussion of unequal sampling rates for two groups.

Parameter	Estimate	Std. Error	Chi Square	Pr > Chi Sq
Intercept	9.96458460	0.397094	629.6973	0.0001
(i) Problem Bank dv	-1.08630100	0.106065	104.8947	0.0001
(ii) Undercapitalized dv	-0.55224400	0.123324	20.0526	0.0001
(iii) Tier 1 Leverage	0.03197010	0.012494	6.5476	0.0105
(iv) Portfolio Risk	-0.06788730	0.004827	197.7644	0.0001
(v) NonCurr-Res	-0.08689180	0.012130	51.3121	0.0001
(vi) ROA	0.06405025	0.011595	30.5144	0.0001
(vii) H. Permits	0.02777508	0.002436	130.0181	0.0001
s	0.88474607	0.031622	—	—

Likelihood Ratio Test		Goodness of Fit		
$H_0: b_1 = \dots = b_{vii} = 0;$ $H_A: \text{not } H_0.$		Adjusted R-squared*: 35.569%		
		In-sample Failure Classification Accuracy** (5-year horizon)		
$LR_{\text{statistic}} = 998.8 \sim \chi^2(7)$ (significant at the .0001 level).		Actual Failure		
			TRUE	FALSE
		TRUE	81.4361%	Type 2 error: 11.6921%
Predicted Failure	FALSE	Type 1 error: 18.5639%	88.3079%	
		Percentage of Banks Misclassified: 12.12%		

\*The pseudo-R<sup>2</sup> measure, McFadden (1974), is equal to 1 minus the ratio of the log-likelihood value for the full model and the log-likelihood value for the model with all of the parameters for the explanatory variables, (i) through (vii) above, equal to zero.

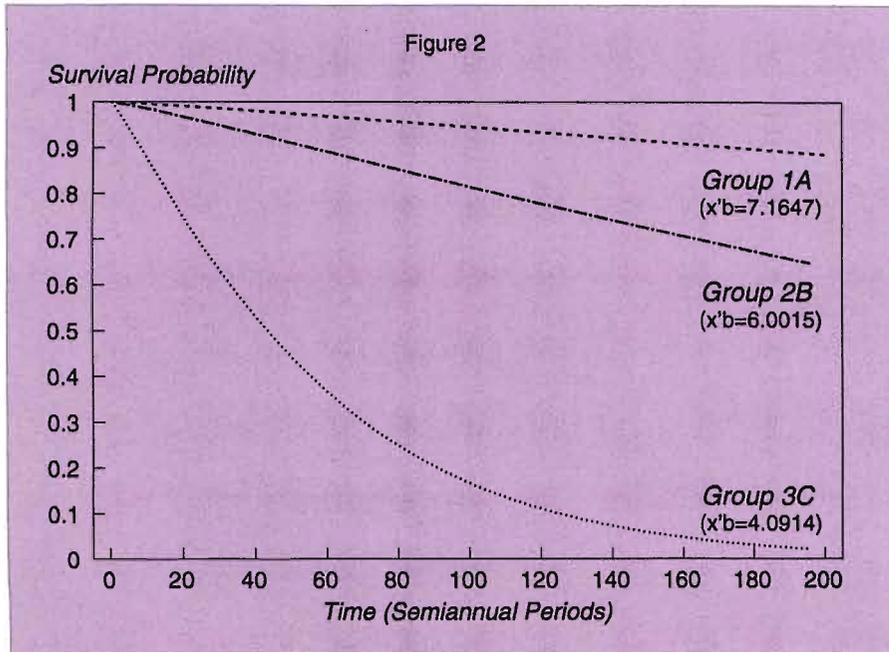
\*\*The classification criterion is approximately equal to 1 minus the ratio of failed-to-nonfailed banks in the sample, or 93 percent. Any bank having a probability of failure greater than seven percent, or a probability of survival less than or equal to 93 percent, at the five-year horizon is predicted to fail. This classification criterion is a standard approach in the bank-failure literature

risk (iv) is the most important factor, based on the chi-square statistic, in explaining their failure time. This is followed by the asset-quality measure (v) and the problem-bank dummy variable (i), both of which are inversely related to a bank's expected lifetime, and the proxy for future local economic activity (vii), which is positively related to a bank's expected lifetime.

The time horizon over which failures are estimated is an important factor in determining the variables that are most significant in the model. Similar to what has been discussed by Thomson (1991), over a short failure time horizon, say, two years, capital and earnings, along with the problem-bank dummy variable, are the most significant variables. However, over

a longer horizon of five years, portfolio risk and asset-quality measures become the most significant explanatory variables. In a broad sense, both portfolio risk and the volume of troubled assets are measures of the downside risk of banks' portfolios. The former is a measure of the total inherent risk and the latter is the realized risk of these portfolios at some point in time.

The overall fit of the PHM is good with a likelihood ratio statistic of 998.8, which is significant well beyond the 0.01 percent level, and an adjusted R<sup>2</sup> of 35.569 percent. The model has a type 1 error, not predicting failure when failure occurred within a five-year failure time horizon, of 18.56 percent and a type 2 error, predicting failure when no failure occurred, of 11.69 percent.



The complements to these type 1 and type 2 error rates are the correct prediction rates for failed and nonfailed banks in the sample, respectively. The model correctly predicted 81.44 percent of the bank failures that occurred within the five-year horizon, and the model correctly predicted 88.31 percent of the banks that did not fail.<sup>14</sup>

Consider the survival profiles of the three banks shown in Figure 2. The mean values for the covariates in insurance groups 1A, 2B and 3C are used with the estimated parameters of the PHM to generate their survival profiles. As one would expect, the estimated survival probability of the

mean 1A bank is above that of the mean 2B bank, which is above the survival probability of the mean 3C bank. These mean values are shown in Table 4, along with the resulting  $x'b$  value.

The financial characteristics of the mean 1A, 2B and 3C banks presented in Table 4 are directly related to the survival profiles that are shown in Figure 2. The mean 1A bank is a lower-risk institution than is the mean 2B bank, which is a lower-risk institution than the mean 3C bank. Comparing the average 1A and 2B banks for each of the covariates in Table 4, the 1A bank has a higher capital ratio, lower portfolio risk, a lower level of noncur-

rent assets that are uncovered by reserves, a higher return-on-assets, and is from an area where economic trends appear more favorable, as measured by the change in housing permits. The same can be said for the average 2B bank when comparing it with the average 3C bank. The risk of these institutions is summarized by their values for  $x'b$ , in which a larger value denotes a lower-risk institution, and results in a lower estimated premium rate. The FDIC's risk-related premium system is now examined in light of the premiums that are derived from the PHM.

### A Comparison of Risk Measures

This section estimates actuarially-fair insurance premiums using equation (4). The premium differentials between banks are driven primarily by the estimated probability of their failure time,  $f(t)$ , and the ratio of the FDIC's loss to the book value of assets at failure,  $\alpha$ . The earlier a bank's estimated failure time and/or the greater is  $\alpha$ , the larger will be the premium rate for that institution. In this paper, the FDIC's loss ratio is assumed to be the same for all institutions, namely 14.479 percent, which is the (asset-weighted) average ratio of FDIC loss to the book value of gross assets from January 1, 1986 until December 31, 1992. In addition, the semiannual discount rate is assumed to be 3.865 percent, which is the average semiannual return on the FDIC's investments in U.S. Treasury debt instruments from 1986 through 1990, and the gross asset semiannual growth rate,  $\theta$ , is assumed to be 1.5 percent. For simplicity, the assessment base in equation (4) is the bank's gross assets,  $A_0$ . This specification differs from the FDIC's actual assessment base of domestic deposits.

The results are presented in Table 5. Panel A compares the actuarially-fair premium rates estimated by the

<sup>14</sup>The type 1 and type 2 error rates depend on the level of the classification criterion that is used to define a predicted failure.

Table 4  
PHM Estimates of the Mean Value Bank for Selected Insurance Groups

Covariate	Insurance Group		
	1A	2B	3C
(i) Problem Bank dv	0.00	0.00	1.00
(ii) Undercapitalized dv	0.00	0.00	0.4803
(iii) Tier 1 Leverage	9.3357	5.5951	2.9481
(iv) Portfolio Risk	55.6293	67.0817	68.7772
(v) NonCurr-Res	-0.2244	0.2664	2.0689
(vi) ROA	1.1874	0.2872	-2.1192
(vii) H. Permits	20.9760	15.3669	13.2746
$x'b$	7.1647	6.0115	4.0914

**Table 5**  
**Premium Rates for BIF-Insured Commercial Banks**  
**Panel A**

Capital Rating	Supervisory Rating					
	PHM-Derived Mean Rates (Basis Points of Assets)			Actual Rates*		
	A	B	C	A	B	C
1	4.58 bp (8929)	5.21 bp (1568)	17.82 bp (433)	23 bp	26 bp	29 bp
2	6.63 bp (96)	7.52 bp (75)	26.53 bp (183)	26 bp	29 bp	30 bp
3	2.12 bp (2)	8.63 bp (6)	69.27 bp (133)	29 bp	30 bp	31 bp

**Panel B**

Capital Rating	Supervisory Rating					
	PHM-Derived Mean Rates (Basis Points of Assessable Deposits)**			Actual Rates* Minus Implicit "Recapitalization Tax" (Basis Points of Assessable Deposits)***		
	A	B	C	A	B	C
1	7.12 bp	8.08 bp	27.66 bp	12 bp	15 bp	18 bp
2	10.29 bp	11.68 bp	41.17 bp	15 bp	18 bp	19 bp
3	3.29 bp	13.39 bp	107.51 bp	18 bp	19 bp	20 bp

**Panel C**

Capital Rating	Composite CAMEL Rating				
	PHM-Derived Mean Rates (Basis Points of Assets)				
	1	2	3	4	5
1	4.07 bp (2428)	4.78 bp (6501)	5.21 bp (1568)	17.99 bp (410)	14.78 bp (23)
2	3.95 bp (5)	6.78 bp (91)	7.52 bp (75)	26.56 bp (152)	26.37 bp (31)
3	— (0)	2.12 bp (2)	8.63 bp (6)	48.42 bp (60)	86.41 bp (73)

\*The actual premium rates are the rates used on the first and second assessment schedules of 1993 and are the same as the rates in Table 1.

\*\*The mean PHM-derived premium rates based on assets are converted to rates based on the current assessment base by dividing the premium rates in panel A by 0.644, the current BIF average ratio of assessable deposits-to-assets. This procedure ensures that equal revenue will be collected by the mean PHM-derived premium rates in panels A and B.

\*\*\*The implicit "recapitalization tax" of 11 basis points is the premium necessary to increase the BIF from its current balance to the target ratio of 1.25 percent of insured deposits in the absence of any insurance losses, based on the estimated year-end 1993 balance of the BIF and a recapitalization by 1998.

Notes: (i) The number of banks is listed parenthetically for each insurance group.

mium rates charged by the FDIC and those estimated by the model. The left side of panel B presents the PHM-derived premium rates as basis points of domestic deposits instead of assets. This adjustment is not done on a bank-by-bank basis, but by increasing all PHM-derived premium rates by the equal proportional amount that would be needed to generate the same FDIC revenue from the smaller assessment base of domestic deposits rather than assets. The right side of panel B displays the results of subtracting, from the actual premium rates charged by the FDIC, an estimate of the implicit "tax" currently imposed on BIF members to recapitalize the BIF to 1.25 percent of insured deposits. This recapitalization component of the insurance premium rates is currently estimated to be about 11 basis points of domestic deposits.<sup>15</sup> The result of this subtraction is an estimate of what the FDIC is currently charging insured institutions for "going-forward" risk.

In short, the premium rates on the left and right sides of panel B can be compared legitimately. The FDIC's implicit risk-related premiums (that is, after the estimated recapitalization component is subtracted) generally are greater than the actuarially-fair premiums estimated by the model, but not by much. The average premium rate for the right side of panel B is 13.4 basis points, as compared to 10 basis points for the PHM-derived premiums on the left.<sup>16</sup> Subgroups A and B pay somewhat more than their estimated actuarially-fair premium rates, while subgroup C pays considerably less.

Table 5 also indicates that the risk rankings implied by the model are

<sup>15</sup>One can estimate the amount of the recapitalization "tax" as the premium necessary to build the BIF from its current level to the required 1.25 percent of insured deposits, assuming no bank-failure losses. Naturally, this amount depends on the speed with which the target is reached. For example, if recapitalization occurs in 1997, the recapitalization component of the premium is estimated to be 14 basis points, whereas if recapitalization takes the full 15 years from 1991 that is allowed by FDICIA, the amount is 4.3 basis points.

<sup>16</sup>The average premium rate equals the average rate weighted by the assessment base.

model (left side) with the rates charged by the FDIC (right side). This comparison indicates that the rates charged by the FDIC are generally higher than the actuarially-fair premium rates estimated by the model. Care is needed in making such a comparison, however, because the premium rates in panel A are not directly comparable. In particular, the rates charged by the FDIC are

expressed as basis points of domestic deposits, while those estimated by the model are basis points of assets. Moreover, the rates charged by the FDIC for 1993 and 1994 reflect, in part, the need to increase the BIF to the required ratio of 1.25 percent of insured deposits.

Panel B of Table 5 displays the results of adjustments designed to facilitate comparisons between the pre-

consistent with those used by the FDIC. The actual premium rates increase for movements to adjacent cells to the east and/or south. This reflects the increase in failure risk that is expected to characterize the institutions in the insurance groups to the east and/or south. In general, the PHM-derived premium rates increase for movements to the east and/or south along the schedules in panels A and B.<sup>17,18</sup> Thus, the PHM-derived premium rates are qualitatively consistent with the actual premiums in terms of risk rankings. However, there are differences between the two schedules in panel B in terms of the magnitude of the premium rate spreads between insurance groups.

For the PHM-derived premium rate schedule in panel B, the rates range from 7.12 basis points for the lowest-risk insurance group, 1A, to 107.51 basis points for the highest-risk group, 3C. The implication here is that the average bank in group 3C has a risk of failure that is about 15 times greater than the average 1A bank, and so the actuarially-fair premium rate would differ by the same order of magnitude, everything else being held equal. The spreads between the actual adjusted premium rates for the insurance groups range from 12 to 20 basis points. Thus, the rate for the 3C bank is only 1.67 times the rate for the 1A bank, a very small spread relative to the spreads for the PHM-derived rates.

While a greater spread in premium rates in the FDIC's risk-related premium system appears to be supported from an actuarial perspective, the rate spreads may need to be constrained from a broader cost-minimization perspective or due to public-policy considerations. That is, there may be an upper bound on the level of premium rates that the FDIC would want to charge to insure weak institutions. Deposit insurance premium assessments that are so expensive that they become the primary cause of bank failures would likely increase the number of failures beyond what it might otherwise be, and so inflate

**Table 6**  
**Ordinal Risk Rankings (in ascending order) of Insurance Groups**

Risk Measures	Insurance Group								
	Rankings Adjusted for Small Sample Sizes**								
	1A	1B	1C	2A	2B	2C	3A	3B	3C
Actual Premium Rates*	1	2	4	2	4	6	—	—	7
PHM-Derived Premium Rates	1	2	5	3	4	6	—	—	7
Failure Rates	1	2	4	3	5	6	—	—	7

\*See Table 1.

\*\*These ratings for insurance groups 3C and 3B are based on only two and six observations, respectively.

costs for the FDIC, as well as cause unnecessary disruptions to the banking system. Nevertheless, there may be some room in the current FDIC premium rate schedule to increase the premium rate spreads between the lower- and higher-risk insurance groups, given the limitations noted above. Such an increase in spreads would have the benefit of lessening the deposit insurance pricing subsidies to high-risk institutions and increasing the overall equity of the system.<sup>19</sup>

Panel C of Table 5 breaks the supervisory subgroups in panel A into their underlying composite CAMEL rating components. In general, the PHM-derived rates illustrate the same increase in risk for insurance groups that are in adjacent cells to the east and/or south. This is similar to what was shown in panel A. In addition, it is interesting to compare the mean PHM-derived premium rates for the different composite CAMEL rating columns that have the same capital group rating. For every capital group, the average institutions in CAMEL rating categories 4 and 5 are significantly more risky than the average category 3 institution. There appears to be a distinct qualitative difference in the risk levels between these banks, and so this result supports the collecting of 4- and 5-rated institutions into their own supervisory subgroup, subgroup C. This contrast in rates is not as clear-cut for the average 1-, 2- and 3-rated institutions. However, it can be said that the estimated rate differences between the mean 1- and 2-rated banks are slightly

larger than that between the mean 2- and 3-rated banks.

Table 6 presents the ordinal rankings of the risk-related insurance groups by the actual and PHM-derived premium rates (Table 5, panel A) and by failure rates (Table 2, panel A), all adjusted for the small sample sizes of insurance groups 3A and 3B.<sup>20</sup> A higher ordinal ranking corresponds to a higher premium rate and higher risk. The PHM-derived premium rates and the failure rates are consistent with one another, with only the ordinal rankings of 4 and 5 being interchanged for insurance groups 1C and 2B for the two risk measures. Moreover, both of these risk measures are consistent with the actual premium rate structure for the FDIC's risk-related premium system. Because the actual premium rate structure is designed to be symmetric with

<sup>17</sup>There is only one exception to this result. Insurance group 3A has a lower relative rate than any adjacent insurance group. Group 3A contains only two banks, and so not much confidence should be placed in the estimated mean relative rate for this cell.

<sup>18</sup>Excluding insurance group 3A, there are only three movements to the northeast, representing a trade-off between a capital group upgrade and a safety rating downgrade, that can be made for PHM-derived rates in Table 5, panel A. These are from group 2B to 1C and from group 3B to 2C, which result in increases in the average estimated premium rates and risks, and from group 2A to 1B, which results in a decrease in the average estimated premium rate and risk.

<sup>19</sup>See Blair and Fissel (1991).

<sup>20</sup>The unadjusted rankings are presented in Appendix B.

regard to capital and safety ratings, its ordinal rankings of risk contain ties that are compatible with the rankings for the other risk measures.

### *Conclusion*

The FDIC's risk-related premium system is an improvement over the traditional flat-rate pricing system for deposit insurance. The risk-related system moderates the pricing inequities that exist under the flat-rate system, and imposes financial costs on depository institutions for increased risk-taking. The ability of a risk-related pricing system to realize these benefits is ultimately dependent upon its ability to evaluate the riskiness of insured institutions, and so to assess them accordingly for their deposit insurance.

The FDIC classifies institutions into risk groups, or insurance groups, on the basis of capital and supervisory ratings, which encompass a wide range of information about banks as ongoing concerns. This paper has compared the risk-classification framework of the FDIC's risk-related

premium system with an independent risk measure that is derived from a proportional hazards model (PHM). The PHM-derived measure estimates actuarially-fair premium rates based on each institution's expected time-until-failure.

This paper has three principal findings. First, for most well-run institutions, actual premium rates charged by the FDIC are much higher than are the estimated actuarially-fair premium rates. This is, in part, attributable to the requirement that the FDIC charge an average premium rate of at least 23 basis points until the BIF reaches its statutory target ratio of 1.25 percent of insured deposits.

A second and related finding is that the premium rate spread between the high- and low-risk institutions is significantly narrower for the actual premium rates as compared with the actuarially-fair premium rates. In other words, current differences in premium rates between insurance groups do not fully reflect the difference in actuarial risk as estimated by the PHM. This may reflect a broader cost-minimization perspective: suf-

ficiently high premium rates may increase the probability of failure to such an extent that the FDIC is made worse off by the high premium rates.

Third, the risk rankings used by the FDIC's risk-related premium system are generally consistent with those that were estimated by the PHM, as well as with historical failure rates shown in Table 2, panel A. This provides some comfort that the FDIC's risk-related premium system is a useful ranking of the relative risk of insured institutions.

The information-intensive nature of the financial-intermediation process makes risk measurement a difficult task. In addition, as stated above, the success of a risk-related premium system depends upon its success in ranking and measuring risk. The approach to risk classification in the FDIC's risk-related premium system is generally consistent with the risk rankings derived in this paper. Thus, the risk-related premium system should serve as a useful complement to other measures in safeguarding the deposit insurance funds.

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## APPENDIX A

### *Proportional Hazards Model*

The relationship between a bank's lifetime and the covariates is specified in equation (A1):

$$(A1) \quad T = \mu(x) * T_0^\sigma$$

where  $\mu(x)$  is a multiplicative scale factor and  $\sigma$  is a power factor on lifetime, and  $T_0$  is a baseline lifetime. Letting  $\mu(x) = \exp(x'\beta)$ , equation (A1) can be put into more convenient log-linear form, as shown by equation (A2):

$$(A2) \quad y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_7x_7 + \sigma Z$$

where  $y = \ln(T)$ ,  $Z = \ln(T_0)$  and  $Z$  corresponds to the error term in more-conventional regression models. Assuming a distribution for  $T_0$ , estimates of  $\beta$  and  $\sigma$  can be found from either equation (A1) or (A2), which formalizes the relationship between a bank's lifetime and the covariates.

Institutions' lifetimes are assumed to have a Weibull distribution.<sup>21</sup> The Weibull distribution is a two-factor distribution — with parameters  $\mu$  and  $\sigma$ , as discussed above. The location of the distribution is dependent on the covariates,  $\mu(x)$ , and so the survival function for  $T$ , given  $x$ , is given in equation (A3):

$$(A3) \quad S(t|x) = Prob(T \geq t) = \exp \left[ - \left( \frac{t}{\mu(x)} \right)^{1/\sigma} \right]$$

Again, letting  $x'\beta = \beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_7x_7$  and setting  $\mu(x) = \exp(x'\beta)$ , the survival function, equation (A4), becomes:

$$(A4) \quad S(t|x) = Prob(T \geq t) = \exp \left[ - \left( \frac{t}{\exp(x'\beta)} \right)^{1/\sigma} \right]$$

The distribution of a bank's lifetime is characterized by its survival function, *i.e.*, the probability that it survives up to and beyond some time  $t$ . From equations (A2) and (A4), an institution's expected failure time and the probability of its survival at various points in time increase as  $x'\beta$  increases.

<sup>21</sup>Graphical methods are used to check the validity of the fitted models and the adequacy of the Weibull distribution. The sample satisfies the following two requirements for graphical testing of the Weibull distribution. First, a plot of  $\ln[-\ln[S(t)]]$  versus  $\ln[t]$  should be approximately linear if the Weibull distribution is appropriate. Second, similar plots of the sample that are broken into strata defined by components of the regression vector should be roughly linear with approximately the same slope.

## APPENDIX B

### Ordinal Risk Rankings (in ascending order) of Insurance Groups

Risk Measures	Insurance Group								
	Rankings Unadjusted for Small Sample Sizes								
	1A	1B	1C	2A	2B	2C	3A	3B	3C
Actual Premium Rates <sup>a</sup>	1	2	4	2	4	7	4	7	9
PHM-Derived Premium Rates	2	3	7	4	5	8	1 <sup>b</sup>	6 <sup>b</sup>	9
Failure Rates	1	2	5	3	6	7	4	8	9

<sup>a</sup>The actual premium rates are based on the January 1, 1993 assessment schedule.

<sup>b</sup>These ratings for insurance groups 3A and 3B are based on only two and six observations, respectively.

# Bank Powers and the Separation of Banking from Commerce

## An Historical Perspective

by Christine E. Blair\*

**B**ank regulation serves several purposes: to maintain financial stability; to avoid excessive concentrations of power and unfair or unhealthy competition; and to protect consumers and advance social goals. While banks always have been subject to some form of regulation, what has constituted "appropriate" bank regulation has evolved over the course of American banking history. As such, the safeguards or firewalls that have been judged to be necessary and sufficient to serve the purposes of bank regulation also have evolved.

Historically, American banking regulation has separated banking from other forms of commerce to varying degrees. Restrictions on the direct powers of banks were included first in bank corporate charters and later in the definition of the "business of banking" as found in both state and federal legislation. Prohibitions against engaging in manufacturing or speculative real-estate holdings, for example, were included in many of the early bank charters. However, there has never been an absolute prohibition on banks engaging in "commercial" activities.<sup>1</sup>

It is not surprising, therefore, to see the lines of separation in today's financial markets blurring. Banks and their affiliates increasingly are involved in activities from which they once were prohibited. Conversely,

nonbank organizations increasingly engage in lines of business once dominated by banks.

The entry of insured depositories into nonbank lines of business makes it important to ensure that the federal safety net is not extended inappropriately to these activities. "Firewalls" are the legal and economic barriers that are intended to prevent inappropriate flows of capital, funds and information between affiliates. They facilitate the segmentation of functions within an organization, and are designed to prevent the transmission of losses from one area of an organization to another. Banking firewalls have been implemented for the purpose of isolating the insured depository from nonbank activities of the bank or its affiliates. The so-called "Chinese wall" that separates the trust function from the depository function of a bank is an example of a common banking firewall. Another is the set of restrictions on interaffiliate transactions in bank holding companies contained in the Federal Reserve Act. The source of most contemporary firewalls is the banking legislation and regulatory guidelines instituted since the New Deal legislation of the 1930s.

What is or is not "banking," and how to ensure the goals of bank regulation, are once again subjects for debate. The crux of the banking reform debates is how to provide for banks'

viability without abusing the federal safety net. Consequently, whether banks can be effectively insulated from the risks posed by their affiliates is an important issue. Ultimately, the policies implemented by banking reform will reflect in substantial part the assumptions held concerning the role and performance of firewalls. These assumptions have evolved over time and likely will continue to do so.

The purpose of this paper is to provide an historical perspective on bank powers and the separation of banking from commerce. While the paper is agnostic on the question of how best to structure and regulate bank powers, it is hoped that the information provided will facilitate informed debate on these issues. In the sections that follow, the development of U.S. bank powers since the late 18th century and the safeguards or firewalls limiting those powers are examined. This is followed by an overview of current rules governing the separation of banking from other activities. The final section contains concluding comments.

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<sup>1</sup>The issues concerning the separation of banking and commerce have been widely discussed. See, e.g., FDIC (1987), Huertas (1986) and Corrigan (1987, 1991).

## *An Historical Overview of Bank Powers*

This section traces the evolution of the definition of bank powers from grants of specific powers in the early bank charters to a generally applicable, broadly defined legal definition. An examination of what constituted banking in practice shows that this definition has evolved considerably.

### *Early Chartered Banking (1781-1838)*

Early bank charters granted by state legislatures provided a general right to incorporate and engage in banking.<sup>2</sup> However, they generally did not articulate what constituted the business of banking. The mixing of banking with some form of commerce often occurred. This period of early American economic development was characterized by a rapid expansion of business and the concurrent need for credit. As a result, corporations chartered to engage in some particular line of commerce, *e.g.*, agricultural, industrial or public-works interests, also were given the authority to engage in a general banking business.<sup>3</sup>

For example, the precursor to the Chase Manhattan Bank was chartered in 1799 as the Bank of the Manhattan Company to develop a water system for New York City. The charter also permitted the directors of the water company to use surplus capital in any way they thought expedient or proper, including the business of banking. The company subsequently engaged in banking and life insurance businesses, and, incidentally, operated the water business throughout the 19th century.<sup>4</sup> Similarly, what is now Chemical Bank was chartered by the State of New York in 1823 as the New York Chemical Manufacturing Co. Under its original charter, Chemical was permitted to manufacture chemicals and, by an 1824 amendment, to engage in a general banking business.<sup>5</sup> The practice of combining banking and commercial activities was common during the "early chartered bank" period, that ran roughly

from the chartering in 1781 of the Bank of North America to the passage of the New York Free Banking Act of 1838.

As the states began to grant bank charters more freely, they also began to limit the nature of the banking business authorized by the charter. As the bank charter changed from a general to a more specific grant of power, a more well-defined but limited definition of the business of banking resulted. This change reflected the recognition by the states that banks "should be provided powers that enabled them to assist in the functioning of the economy and in serving enterprise, but stopped [them] from becoming so involved in enterprise that they could be destroyed by it."<sup>6</sup> This change also marked the movement toward the so-called "free-banking" period in American banking history.

### *Free-Banking: The New York Free Banking Act of 1838*

Bank charters enumerated the powers available to banks as early as 1825. One of the earliest definitions of the "business of banking" appeared that year in the charter of the Commercial Bank of Albany. The bank was authorized

"... to carry on the business of banking by discounting bills, notes and other evidences of debt; by receiving deposits; by buying gold and silver bullion and foreign coins; by buying and selling bills of exchange, and by issuing bills, notes, and other evidences of debt"; and granted "no other powers whatever."<sup>7</sup>

This early definition formed the basis for the definitions of banking that subsequently were adopted at the state and federal levels.

In 1838, the State of New York extended the "privilege" of banking to the general public, through the passage of the New York Free Banking Act.<sup>8</sup> The 1838 Act's "powers clause," similar to that found in the Commercial Bank of Albany's 1825 charter, enumerated the powers available to banks, including the right to engage in the "business of banking."

Importantly, the 1838 Act marked "... the evolution of laws from individual and specific enactments into general statutes of uniform and comprehensive nature."<sup>9</sup> As a result, this Act fundamentally changed the nature of banking.

The powers clause did not restrict or expand banking powers "... but rather [articulated] the consensus that what banks were already doing was permissible and should be continued."<sup>10</sup> While not engaging in mercantile or general investment activities, banks were engaged in extending both short- and long-term credit, and providing investment banking services. The credit needs of business and government were provided by direct extensions of credit, primarily in the form of long-term loans or accommodation paper, and the purchase of debt obligations. Commercial banks were the original investment bankers in America, providing "loan contracting" services before a market in the resale of securities developed. They continued to be major providers of investment banking services throughout the free-banking era.

<sup>2</sup>The charter was the standard method of incorporation for all businesses, including banking. Charters conveyed limited liability, monopoly privilege and honorific legal status. (Hammond (1936), p. 186.)

<sup>3</sup>See FDIC (1987), pp. 23-4; and Symons (1983), pp. 686-87.

<sup>4</sup>Hammond, (1957), pp. 155-57.

<sup>5</sup>Moodys (1928).

<sup>6</sup>Symons (1983), p. 689.

<sup>7</sup>Hammond (1957), p. 593, citing John Cleaveland, *The Banking System of the State of New York* (New York, 1857), pp. xvi, xxvii.

<sup>8</sup>Under free-banking, all individuals willing and able to meet minimum capital and regulatory standards set by the state could obtain a bank charter. In return for charters, bankers posted collateral for the notes they issued to the public. State bonds were used as collateral, on the premise that they could be sold to reimburse noteholders in the event of a bank failure. Free-banking was practiced in many states during the 19th century, although not always successfully. In New York, however, the move to free-banking proved successful.

<sup>9</sup>Hammond (1957), p. 593.

<sup>10</sup>Symons (1983), pp. 691, 697-98.

### *The National Bank Act of 1864*

The National Bank Act of 1864 nationalized free-banking.<sup>11</sup> Section Eight of the National Bank Act enumerated the powers granted to national banks, essentially adopting the powers clause from the 1838 New York Free Banking Act. Among these powers, banks may exercise

“... all such incidental powers as shall be necessary to carry on the business of banking by discounting and negotiating promissory notes, drafts, bills of exchange, and other evidences of debt; by receiving deposits; by buying and selling exchange, coin, and bullion; by loaning money on personal security; by obtaining, issuing, and circulating notes according to provisions of this act.”<sup>12</sup>

Since its inception, the National Bank Act's powers clause has been subject to debate and interpretation. However, changes in bank powers that occurred from 1864 until the passage of the Glass-Steagall Act in 1933 largely were the result of specific limitations or specific grants and not a redefinition of general powers.

During the period of “nationalized free-banking,” national banks could engage in securities activities in addition to their general banking activities. In addition to deposit-taking and note issuance, general banking included short- and long-term lending for commercial, agricultural, and real-estate purposes. Banks also held call loans, commercial paper, and government and corporate securities in their portfolios. Banks' role in investment banking included securities underwriting and distribution, and syndicate management. Banks formed partnerships in underwriting syndicates as well as in-house investment banking departments, many of which were turned subsequently into securities affiliates.

National banks were subject to activity restrictions as well. For example, during this period, national banks could not engage in trust or safe deposit businesses.<sup>13</sup> The National Bank Act also imposed a number of

safety-and-soundness regulations. Among these, national banks were prohibited from lending on real estate, lending limits to any one borrower were established, minimum reserves on deposits were imposed, and limits were placed on borrowing in excess of the bank's capital stock.<sup>14</sup> However, the effectiveness of these regulations was questionable.<sup>15</sup>

The presumption following the passage of the National Bank Act had been that state-chartered banks would convert to national charters. Incentives had been created to encourage conversion, including a tax on note issues of state-chartered banks. However, by 1913, state-chartered banks outnumbered national banks by more than two to one. While national charters generally conferred greater prestige as well as a competitive edge in terms of note issuance, state charters generally required lower capital and lower reserves while permitting a wider range of activities, including real-estate lending and trusts.<sup>16</sup>

### *The Movement Toward Comprehensive Finance*

The free-banking era was characterized by a movement toward “department store” or comprehensive finance during the last quarter of the 19th century and the first decades of the 20th century. Commercial banks competed with trust and other financial-services companies to provide customers with a range of financial services including deposits, credit, fiduciary, investment and insurance services.

**Trust Company Activities.** Trust companies were chartered as early as 1822; empowered to execute lawful trusts, they could not issue bank notes. By the late 1880s, trust companies had expanded the range of financial services offered: accepting checkable, interest-bearing deposits; lending on collateral such as merchandise, stocks and bonds, and real estate; and providing investment banking services. With the exception of their fiduciary role and their inability to

issue circulating notes, trusts became virtually indistinguishable from banks.<sup>17</sup> Similarly, the safe deposit business developed as an adjunct to the trust business. For the better part of the free-banking era, national banks were prohibited from engaging in this business as well.<sup>18</sup>

<sup>11</sup>The National Bank Act of 1864 was designed by the Congress to achieve several objectives, including the establishment of a national currency and the creation of a market for federal bonds to meet the financing needs of the federal government. As well, it marked the beginning of the American system of “dual banking.” Dual banking refers to the concurrent state and federal chartering and regulation of banks. It remains an important political and economic force in the American banking system today.

<sup>12</sup>National Bank Act of June 3, 1864, cited by Symons (1983), p. 700.

<sup>13</sup>Only the states chartered banks with trust powers before 1913. In that year, the Federal Reserve Act authorized national banks to offer certain limited trust services for corporations. By 1918, national banks could apply for a full range of trust activities.

<sup>14</sup>In addition to activity restrictions imposed by the states or the National Bank Act, a system of supervision developed in the late 1800s. State banking departments were formed and regular examinations were instituted for both state-chartered and national banks. The Federal Reserve Act of 1913 further formalized a system of national bank examination. (Klebaner (1990), pp. 99-101.)

<sup>15</sup>Klebaner notes that one-third of all national banks managed to violate the provisions of the law. At the end of the 19th century, 25 percent were deficient in reserves, 17 percent lent on real estate and ten percent made loans in excess of the legal limit for one borrower. For example, when faced with competition from state-chartered banks in the case of real-estate lending, banks found ways to circumvent the restrictions, with the approval of the Comptroller of the Currency. (Klebaner (1990), p. 101.)

<sup>16</sup>Klebaner (1990), p. 69.

<sup>17</sup>Trusts “took advantage of the ambiguities surrounding the proper boundaries of banking.” In doing so, they became formidable competitors of banks. For example, in 1875, New York City had nine trust companies with 12 percent of commercial banking assets; by 1900 there were 31 companies holding 32 percent of these assets. (Klebaner (1990), p. 72.)

<sup>18</sup>Safe deposit companies often affiliated themselves with trust companies and, indirectly, with banks. Chartered in 1861, the Safe Deposit Company of New York was the first corporation dedicated totally to receiving property for safe-keeping. National banks were prohibited from engaging in this business by an 1867 Comptroller of the Currency ruling. This prohibition was repealed by the 1927 McFadden Act. (Klebaner (1990), pp. 73-4.)

National banks formed alliances with trust companies, whereby each would refer trust and banking business to the other. In 1903, several commercial banks organized the Bankers Trust Company as a fiduciary firm that would act as a trust company for, and not in competition with, national and state banks. The Federal Reserve Act of 1913 authorized national banks to offer limited trust services for corporations. A full range of trust activities was available to national banks by 1918. By 1928, the Bankers Trust Company had banking, bond, foreign and trust departments; the bond department engaged in the underwriting and distribution of securities.

**Bank Affiliates.** By the late 1920s, banks were involved fully in comprehensive finance. Through affiliate relationships, banks were able to offer a full range of financial services that included investment banking, trust and safe deposit, savings, insurance and mortgage products.<sup>19</sup>

In order to better compete as providers of comprehensive finance, national banks moved their investment banking business out of their bond departments and into newly organized securities affiliates. These were chartered under the general business incorporation laws of the states, and were owned and controlled by the stockholders of the national banks. Affiliate relationships also were established between banks and realty companies, safe deposit companies, mortgage companies and insurance agencies during this period.

Affiliate control by the bank's stockholders often was established through common ownership of the controlling stock in both the bank and its affiliates. For example, Chase Securities Corp. was incorporated in May 1917 under the business incorporation law of the State of New York. Organized by Chase Manhattan Bank, Chase Securities Corp. was capitalized out of undivided profits of the bank and, therefore, the bank's stockholders had a *pro rata* interest in the affiliate.<sup>20</sup>

The securities affiliates were not restricted by the limitations of the National Bank Act, in particular the powers clause. Therefore, they had virtually unlimited authority to engage in activities that were prohibited to banks. Moreover, the affiliates were not subject to any examination.

Many abuses arose in the affiliate system. The abuses connected with the operation of securities affiliates by commercial banks during the 1920s fell into three general categories: those abuses that were common to investment banking generally; those abuses that resulted from self-dealing by bank officers and directors; and those abuses related to the mixing of commercial and investment banking.<sup>21</sup>

For example, underwriting and distributing unsound and speculative securities, conveying untruthful or misleading information in the prospectuses accompanying new issues, and manipulating the market for certain stocks and bonds during issuance were abuses that occurred within the entire investment banking industry during the 1920s and 1930s. These abuses were not exclusive to commercial banks and their securities affiliates.

An example of self-dealing by bank officers and directors was the use of investment pools to manipulate the stock prices of the parent bank. Organized by the securities affiliates, the investment pools or trading accounts generally were open only to the bank officers and directors who, in turn, stood to benefit from trading on their insider information. In addition to receiving large profits from such trading, bank officers and directors often received compensation through affiliates that was far in excess of that paid to them by their banks.

Finally, the abuses that arose from the mixing of commercial and investment banking can be characterized generally as conflicts of interest. Such situations included: the use of the securities affiliate as a dumping ground for bad bank loans; the use of the bank or its trust department as a receptacle

for securities that the affiliate could not sell; and the use of bank loans to finance the purchase of securities underwritten by the securities affiliate. These and other abuses contributed to the public's outrage against commercial banks and their securities affiliates. Whether these abuses warranted the subsequent separation of commercial and investment banking under Glass-Steagall has been debated ever since.<sup>22</sup>

**The McFadden Act.** The Congress addressed national bank participation in investment banking in the 1927 McFadden Act. This Act reaffirmed the right of national banks to engage directly in underwriting securities and gave the Comptroller of the Currency the right to determine which securities could be underwritten directly by the bank and which must be underwritten by the securities affiliates. Together, banks and their securities affiliates engaged in the business of investment banking to an extent on par with the private investment banking houses.<sup>23</sup> The McFadden Act also granted national banks increased powers to engage in the safe deposit business, make real-estate loans, open branches and lend a larger amount than previously to one borrower.<sup>24</sup>

**New Deal Legislation.** The highlights of the "Great Crash" are well-known: the stock-market crash, the collapse of the banking system and the Great Depression. For the most part, banks were held accountable for these problems. In particular, abuses of the operations of commercial banks' securities affiliates were alleged to be the primary cause of

<sup>19</sup>For example, in 1903, the First National Bank of Chicago's bond department, unable to deal in bonds secured by mortgages on real estate, moved that function to a newly organized affiliate, the state-chartered First Trust and Savings Bank. (Klebaner (1990), p. 91.)

<sup>20</sup>Moody's (1928).

<sup>21</sup>FDIC (1987), pp. 39-44.

<sup>22</sup>See, e.g., FDIC (1987), and Benston (1990).

<sup>23</sup>Peach (1941), p. 20.

<sup>24</sup>Klebaner (1990), pp. 127, 135.

these events.<sup>25</sup> In dealing with the abuses of the banks and their securities affiliates, Congress chose to eliminate the role of the securities affiliates, effectively limiting the role of national banks to that of commercial bankers.

Congress debated, but declined to adopt, an alternate approach that would have utilized a system of examination and regulation to control the potential for abuse in the affiliate system. As noted by Peach (1941), certain dangers arising from affiliate relationships cannot be avoided by legislation and regulation alone. For example, the commingling of names within a banking organization potentially ties the goodwill of the parent to that of the affiliate. These issues currently face banking organizations and their regulators as they move into the retailing of financial-services products such as mutual funds and insurance.

Through the New Deal legislation passed by the Congress, reforms were introduced to restrict the activities of banks and their affiliates, and the financial-services industry was segmented.<sup>26</sup> Notably, a partial segmentation of commercial and investment banking was achieved through the "Glass-Steagall" sections of the Banking Act of 1933.<sup>27</sup> The firewalls found in the Glass-Steagall Act and subsequent legislation are discussed in the following section.

### ***Current Restrictions on Nonbank Activities of Commercial Banks***

Current restrictions on the non-bank activities of commercial banks can be traced to the Banking Act of 1933, which instituted, along with the federal deposit insurance system, the separation of commercial banking from certain investment banking activities. Generally, limitations on banks' activities and affiliations have been the focus of these firewalls. A list of contemporary firewalls includes, but is not limited to, the Glass-Steagall Act, Sections 23A and 23B amendments to the Federal Reserve

Act, and the Bank Holding Company Act of 1956 and its amendments. As well, recent legislative changes and rules and regulations, such as FRB rulings and Office of the Comptroller of the Currency (OCC) interpretive letters, have contributed to what constitutes a framework for establishing the legal and economic separation of banking from other activities.<sup>28</sup>

***The Glass-Steagall Act.*** Sections 16, 21, 20 and 32 of the Banking Act of 1933 constitute what is commonly referred to as the Glass-Steagall Act. Under Glass-Steagall, the ability of commercial banks to engage directly in securities activities and to affiliate with organizations that engage in securities activities is restricted.

Sections 16 and 21 restrict the securities activities of commercial banks. Section 16 generally prohibits commercial banks from purchasing securities for their own account. Specifically, it provides that the "business of dealing in securities and stock by the association shall be limited to purchasing and selling such securities and stock without recourse, solely upon order, and for the account of customers, and in no case for its own account, and the association shall not underwrite any issue of securities or stock . . ." The provision applies to both national banks and state-chartered banks that are members of the Federal Reserve System (member banks). However, Section 16 permits a national bank to purchase investment securities for its own account under such limitations and restrictions as prescribed by regulation by the Comptroller of the Currency.<sup>29</sup>

Section 21 prohibits persons or organizations engaging in securities activities from accepting deposits; the effect is to extend the Section 16 securities prohibition to state-chartered banks that are not members of the Federal Reserve System (nonmember banks).<sup>30</sup> Specifically, Section 21 prohibits any "person, firm, corporation, association, business trust or other similar organization, engaged in the business of issuing, underwriting, selling, or distributing, at wholesale or retail, or

through syndicate participation, stocks, bonds, debentures, notes, or other securities, to engage at the same time to any extent whatever in the business of receiving deposits." Exceptions to the prohibitions of Sections 16 and 21 on the direct securities operations of commercial banks are made for obligations of the United States, obligations issued by government agencies, college and university dormitory bonds, and the general obligations of states and political subdivisions.<sup>31</sup>

<sup>25</sup>The 1933 and 1934 Stock Exchange Practices Hearings of the Senate Committee on Banking and Currency, referred to as the "Pecora Hearings," examined the abuses relating to commercial banks' securities affiliates and operations. See, e.g., Peach (1941), FDIC (1987) and Benston (1990) for further discussion of the abuses and their importance.

<sup>26</sup>Limits on bank powers, price and geographic restrictions were established. These included limits on branching, "needs" tests as criteria for obtaining new charters, and prohibitions on the offering of transaction accounts by any but commercial banks. Price competition among banks was restricted through the establishment of interest-rate ceilings, and asset-quality competition was made largely irrelevant by deposit insurance.

<sup>27</sup>This Act also created the Federal Deposit Insurance Corporation. Other legislation created the Securities and Exchange Commission to oversee the securities industry; the Federal Reserve Board, as the nation's central bank, was granted additional powers, such as the power to vary reserve requirements.

<sup>28</sup>The interested reader is referred to the "Statutory and Regulatory Safeguards" appendix of the FDIC's *Report to Congress on the Findings and Recommendations Concerning the "Two-Window" Deposit System Proposal* (September 1992). This appendix provides a general description (i.e., definition and function) of many of the firewalls mentioned in this section.

<sup>29</sup>See Benston (1990), p. 8. Commercial banks' authority under Section 16 to purchase and sell securities directly has been interpreted by the courts and the regulatory authorities. For example, through OCC Interpretive Letters, banks have been permitted to purchase and sell mutual shares for their customers as their agent and sell units in unit investment trusts, as well as offer, through a subsidiary, brokerage services and investment advice as well as discount brokerage services.

<sup>30</sup>However, it does not prohibit subsidiaries or affiliates of insured nonmember banks from engaging in securities activities. See the discussion on Section 20 affiliates.

<sup>31</sup>Municipal revenue bonds are not included in the list of exceptions, although they are of greater importance in financing municipalities today than general obligations. Note also, that a 1985 Federal Reserve Board decision allows commercial banks to act as advisers and agents in the private placement of commercial paper. (See Benston (1990), p. 7.)

Section 20 prohibits national and state member banks from affiliating with organizations that are "engaged principally in the issue, flotation, underwriting, public sale, or distribution at wholesale or retail or through syndicate participation of stocks, bonds, debentures, notes or other securities." The intent of this prohibition is to prevent commercial banks from engaging in securities activities indirectly through affiliates. The applicability of this Section hinges on the term, "engaged principally." Since 1987, bank holding companies have been permitted on a case-by-case basis to affiliate with so-called Section 20 corporations that engage to a limited extent, *i.e.*, are not "engaged principally," in securities activities. Section 20 affiliates are discussed in more detail below.

Finally, Section 32 prohibits any officer, director, employee or partner of any organization engaged primarily in the underwriting of securities, or any individual so engaged, from serving simultaneously as an officer, director, or employee of any national or member bank, subject to limited exceptions as may be permitted by the FRB. The intent is to preclude conflicts of interest that may arise from director, officer or employee interlocks between banks and any persons or organizations primarily engaged in the securities business.

Insured nonmember banks are not subject to the restrictions of Sections 20 and 32. The FDIC's 1982 ruling that Glass-Steagall does not apply to the securities activities of subsidiaries of insured nonmember banks was challenged in the courts and upheld.<sup>32</sup> As a result, insured nonmember banks are permitted to affiliate with securities firms.<sup>33</sup>

The separation of commercial from investment banking is not complete. For example, Glass-Steagall does not prohibit commercial banks from underwriting and dealing in corporate securities overseas. Glass-Steagall, as amended and interpreted by the bank regulatory agencies and the courts, often on a case-by-case

basis, allows commercial banks to engage in some securities activities, both directly and through affiliates. As examples, commercial banks may aid in the private placement of corporate securities; underwrite and deal in general obligation municipal securities as well as certain types of municipal revenue bonds; engage in trust activities, mutual fund activities, and asset securitization; and provide brokerage and investment advisory services.<sup>34</sup> The firewalls that constitute Glass-Steagall limit some securities activities, but certainly are not sufficient, nor were they intended to be sufficient, to establish a complete separation of commercial from investment banking.

**Sections 23A and 23B of the Federal Reserve Act.** Additional firewalls affecting the activities of banks and their nonbank affiliates were created through amendments to the Federal Reserve Act, notably Sections 23A and 23B. Section 23A of the Federal Reserve Act was enacted as part of the Banking Act of 1933, while Section 23B of the Federal Reserve Act was created by the Competitive Equality Banking Act of 1987 (CEBA). By placing general quantitative and qualitative restrictions against transactions that banks may enter into with their banking and nonbanking affiliates, these amendments are intended to function as a primary safeguard against risks to the bank and, in turn, the deposit insurance funds.

Section 23A addresses the potential conflicts of interest that may arise between closely related entities and the possible misuse of bank financial resources for the benefit of these affiliates.<sup>35</sup> Such conflicts arise when an insured bank incurs or makes loans, guarantees or other obligations, and such transactions threaten the solvency or soundness of the bank.<sup>36</sup> In particular, Section 23A provides that, in the case of any one affiliate, the aggregate amount of the "covered transactions" between the bank and that affiliate is limited to ten percent of the capital stock and surplus of the bank.<sup>37</sup> The limit on covered transac-

tions between the bank and all affiliates in the aggregate is 20 percent of the bank's capital and surplus. These proscriptions also extend to individuals transacting on behalf of the affiliate. In addition, most extensions of credit or guarantees involving a nonbank affiliate must be fully collateralized; the sale of subquality assets to the bank is prohibited; and transactions with affiliates must be on terms and conditions that are consistent with safe-and-sound banking practices.<sup>38</sup>

Section 23A was revised under the Banking Affiliates Act of 1982.<sup>39</sup> The term "affiliate" was redefined to be less restrictive, so that the movement of funds between banks and certain entities that were deemed to be less likely to result in unsafe or unsound banking practices could be facilitated. Under Section 23A, the term affiliate refers to ". . . those [entities] so closely related or connected to the member bank that transactions between the bank and the affiliate would

<sup>32</sup>*Investment Company Institute v. FDIC*, 815 F.2d 1540, cert. denied, 108 S. Ct 143 (1987).

<sup>33</sup>Under the FDIC's regulations, insured nonmember banks may establish "bona fide" subsidiaries that underwrite investment quality equity and other securities. The FDIC's regulation defines a "bona fide" subsidiary as a subsidiary that is physically separate and distinct in its operations from the bank, shares no common officers, and satisfies other requirements designed to ensure its separation from the bank. (12 C.F.R. Sec 337.4(a)(2)).

<sup>34</sup>See Benston (1990), pp. 6-10.

<sup>35</sup>Affiliates, as defined under Section 23A, are discussed below. Miles (1988), footnote 25, provides a detailed definition of Section 23A affiliates.

<sup>36</sup>FDIC (1987), p. 87.

<sup>37</sup>A "covered transaction" is one in which an affiliate, as defined under Section 23A, receives funding or financing from a member bank. For example, loans to, and guarantees or purchases of the obligations of nonbank affiliates by the bank are covered transactions. See Miles (1988), footnote 35, for a listing of such covered transactions under Section 23A.

<sup>38</sup>FDIC (1987), p. 88.

<sup>39</sup>The Banking Affiliates Act of 1982 is part of the Garn-St Germain Depository Institutions Act of 1982.

not be at arm's length."<sup>40</sup> Originally, 23A affiliates included the parent holding company of a member bank, other subsidiaries of the holding company, and any company interlocked with the member bank through shareholders or directors or indirectly through a trustee relationship. This definition included sister banks. The revised definition exempted sister banks and certain nonbank subsidiaries of member banks from the definition of affiliate for the purposes of Section 23A. The rationale for these exemptions is as follows. Sister banks are subject to the same type of regulatory and examination processes, which is believed to reduce the threat of unsafe and unsound banking practices. Similarly, to the extent that certain nonbank subsidiaries are subject to banking agency supervision and regulation, 23A restrictions are deemed unnecessary.

The Section 23A revisions also provided that 23A restrictions may be applied as deemed appropriate by the FRB, *e.g.*, the subsidiaries of member banks in which the member bank does not hold a controlling interest. The definition of affiliate was expanded to include entities with interlocks to the parent holding company. Organizations sponsored and organized by a bank, such as Real Estate Investment Trusts (REITS), also are defined to be affiliates of the bank.<sup>41</sup>

Section 23A also has been the focus of reform proposals whose primary intention was the repeal of the Glass-Steagall restrictions on the securities activities of banks and their affiliates. Regulators and legislators have sought to offset any adverse safety-and-soundness implications of Glass-Steagall reform by reinforcing the firewalls present in Section 23A. By strengthening the capacity of Section 23A to insulate and protect the insured bank, it is argued, the rationale for maintaining the Glass-Steagall barriers between commercial and investment banking would be weakened.

For example, in 1983 and 1984, legislative proposals to expand the

range of permissible bank activities would have required the repeal of some Glass-Steagall prohibitions.<sup>42</sup> In each case, a supplement to Section 23A was proposed that would have expanded Section 23A restrictions to the proposed new activities. The purpose of the supplemental restrictions was to provide the Federal Reserve with greater flexibility to control potential conflicts of interest that might arise from such transactions between the bank and its affiliates. That is, an expansion of the "firewalls" of Section 23A was sought in tandem with any expansion of bank powers.

In 1987, CEBA supplemented the list of firewalls through a new amendment to the Federal Reserve Act, Section 23B. Section 23B defines the terms and conditions under which a bank and its covered affiliates (affiliates as defined under Section 23A) may enter into certain transactions. Those transactions must be carried out on terms and conditions that are substantially the same as those prevailing at the time for comparable transactions with nonaffiliated companies, *i.e.*, at "arm's length." The purpose is to ensure that a bank does not subsidize its covered affiliates through preferred treatment on loans or other contracts with the bank. In this way, Section 23B seeks to maintain banks' role as a neutral allocator of credit in the intermediation process.

Section 23B generally prohibits bank trust departments from purchasing securities of an affiliate and places severe restrictions on the acquisition of securities by the bank during the time any affiliate is acting as an underwriter or member of a selling syndicate of such securities. As well, prohibitions are placed on actions by a bank or its covered affiliate that would suggest that the bank is responsible for any obligation of the affiliate. The following transactions are included under Section 23B: (1) the sale of securities or other assets to an affiliate, including those subject to an agreement to repurchase; (2) the payment of money or the furnishing of

services to an affiliate under contract, lease, or otherwise; (3) any transaction in which an affiliate acts as an agent or broker or receives a fee for its services to the bank or to any other person; and (4) any transaction or series of transactions with a third party if an affiliate had a financial interest in the third party or if an affiliate is a participant in such transaction or series of transactions.<sup>43</sup>

*The Bank Holding Company Act of 1956.* The Banking Act of 1933 first defined bank holding companies and established the framework for their regulation. However, the restrictions on ownership and affiliation are the product of the Bank Holding Company Act of 1956 (BHCA) and its subsequent 1966 and 1970 Amendments. The basis for the expansion of bank holding company regulations was the belief that it was necessary to prevent the monopolization of banking by holding companies and the formation of large banking-industrial complexes. With the passage of the 1970 Amendments, virtually all bank holding companies became subject to federal regulation, and statutory and regulatory controls were placed on the expansion of bank holding companies into other businesses.<sup>44</sup> That is, a separation of banking from commerce was established in terms of restric-

<sup>40</sup>Miles (1988), p. 485.

<sup>41</sup>Other amendments adjusted the definition of "covered transaction" and expanded the range of quantitative limits so as to close a loophole through which non-affiliates could act as a conduit for transfers of unlimited funds between the banks and affiliates. Adjustments also were made to the list of acceptable collateral. *See* Miles (1988).

<sup>42</sup>Senate bills S. 1609 and S. 2851 proposed an expansion of bank services to include such activities as insurance underwriting and brokerage, real-estate development and certain securities activities. Both bills also proposed amending the Federal Reserve Act to include a new Section 23B, that would have supplemented Section 23A by further restricting transactions between banks and their affiliates.

<sup>43</sup>Miles (1988), p. 478, footnote 4.

<sup>44</sup>An exemption from federal regulation for one-bank holding companies had been provided by the Banking Act of 1935; this exemption was removed by the 1970 Amendments.

tions on the activities of the owners and affiliates of banks.

Under the BHCA of 1956, a bank holding company was defined as a corporation owning at least a 25 percent interest in two or more commercial banks, whether Federal Reserve members or not. FRB approval was required for the creation or expansion of bank holding companies; interstate acquisitions of banks were limited, and the right of states to limit bank holding company expansion was upheld. Ownership of shares in nonbank corporations, other than those of corporations engaged in approved bank-related activities, was prohibited. The 1956 Act also prohibited a bank holding company or its nonbank subsidiary from engaging in any nonbanking activity, except as otherwise provided in the BHCA. Multibank holding companies were allowed to engage in certain activities.<sup>45</sup> The FRB was given the authority to allow additional nonbanking activities other than those expressly permitted if they could be shown to be "of a financial, fiduciary, or insurance nature" and were "so closely related to the business of banking or managing or controlling banks as to be a proper incident thereto." The list of activities approved by the FRB under this statute subsequently became known as "the laundry list."

**The Bank Holding Company Act Amendments.** The BHCA was amended in 1966 and 1970. The 1966 Amendments primarily addressed problems in the 1956 Act. Standards for the evaluation of holding company applications were revised and exemptions from the BHCA provisions for investment companies and their affiliates, religious, charitable and educational institutions were eliminated.<sup>46</sup> The 1966 Amendments also relaxed the 1956 Act by applying Section 23A of the Federal Reserve Act to transactions between the parent holding company and its subsidiary banks and between sister subsidiary banks; the 1956 Act had prohibited virtually all normal banking transactions between these entities.

The 1970 Amendments were focused on the regulation of one-bank holding companies and the nonbank activities of bank holding companies. The rapid growth in the number and size of one-bank holding companies during the 1960s raised concern among bank regulators and led to demands from the Congress and independent banks for the inclusion of one-bank holding companies under the BHCA. The 1970 Amendments accordingly extended regulation under the BHCA to one-bank holding companies. As a result, FRB oversight was extended to virtually all bank holding companies.

The 1970 Amendments also revised the standards that defined permissible nonbank activities. Under Section 4(c)(8), the FRB, through the use of regulation, interpretation, or individual decisions, has ruled on the permissibility of numerous nonbank activities.<sup>47</sup> A bank holding company or its nonbank subsidiary may engage in a nonbanking activity, including a securities activity, only if (1) the activity is "closely related to banking" and (2) the provision of the activity would likely result in public benefits that outweigh possible adverse effects. The FRB also was given authority to differentiate between applications to engage in an activity through a *de novo* subsidiary or acquisition of an existing firm. Anti-tying provisions that prohibit a banking company from tying an extension of credit or any other bank service to the use of the services of nonbank subsidiaries of the holding company were incorporated through Section 106 of the BHCA under the 1970 Amendments.

Most of the nonbanking activities that have been approved by the FRB for bank holding companies under Section 4(c)(8) also have been permitted for national banks as "incidental to banking" under the Office of the Comptroller of the Currency's Interpretive Letters. In recent years the FRB has issued a large number of Section 4(c)(8) decisions, most of which relate to investment and merchant banking activities.<sup>48</sup> As a result,

the original intent of Glass-Steagall to separate commercial from investment banking has been eroded. Relative to how it was interpreted in the early 1980s, the separation is much less stringently enforced today.

**Section 20 Affiliates.** In 1987, the FRB approved several so-called "Section 20" applications that would permit bank holding companies to establish nonbank subsidiaries to underwrite and deal in certain types of securities, including municipal revenue bonds, mortgage-related securities, commercial paper and consumer-related receivables.<sup>49</sup> The FRB's approval was based on the affiliate's not being "engaged principally" in that particular underwriting activity, as proscribed by Section 20 of the Glass-Steagall Act.<sup>50</sup>

<sup>45</sup>Activities included owning and managing bank holding company property, providing services to subsidiary banks, operating a safe deposit company, and liquidating property acquired by subsidiary banks. (Board of Governors (1978), p. 46.)

<sup>46</sup>See Board of Governors (1978). For example, the elimination of this exemption brought the Alfred I. Du Pont Estate, which controlled 30 banks and many nonbank companies, under the BHCA regulation.

<sup>47</sup>Nonbank activities determined by FRB regulation to be "closely related" to banking, and therefore permissible nonbank activities for bank holding companies, are listed under Regulation Y. Other nonbank activities have been approved by individual order, *i.e.*, FRB approval of individual applications on a case-by-case basis. For example, Section 20 affiliates are approved in this manner.

<sup>48</sup>Holland (1991) lists permissible activities under Section 4(c)(8) of the BHCA. The appendix to Benston (1990) provides a list of securities activities of banking organizations permitted under federal law. Updates on recent regulatory agency actions concerning bank powers and permissible nonbanking activities can be found in Benjamin B. Christopher's "Recent Developments Affecting Depository Institutions," which is a regular feature contained in the *FDIC Banking Review*.

<sup>49</sup>On April 30, 1987, the FRB approved the applications of Citicorp, J.P. Morgan & Co., and Bankers Trust to establish nonbank subsidiaries to underwrite and deal in certain securities (bank "ineligible" securities) to a limited extent.

<sup>50</sup>The prohibitions of Section 20 do not apply to member banks' securities affiliates that are not "principally engaged" in the impermissible activities.

For these purposes, the FRB determined that a member bank's affiliate would not be "engaged principally" if its gross revenues, and its share of the total market, from such underwriting and dealing were below certain percentage thresholds. Initially, the revenues generated by these "ineligible securities" were limited to five percent of gross revenues and total market share. In 1988, the percent of total market share was dropped from the "engaged principally" test. In 1989, the revenue limit was raised to ten percent. Effective January 1993, the FRB introduced an alternative revenue test, indexed to interest-rate changes, that is intended to further ease the limits on the amounts of securities that the Section 20 affiliates could underwrite.<sup>51</sup>

Bank holding companies that engage in these bank-ineligible securities activities through Section 20 affiliates also are subject to capital adequacy requirements, a number of limitations or firewalls, and FRB supervision of the bank holding company and its Section 20 affiliate. As established by the FRB, these safeguards limit transactions between a Section 20 affiliate and its affiliates in order to manage potential risks, conflicts of interest, and competitive issues raised by the activity.

**Legislative and Regulatory Changes.** Recent legislation and regulations have affected the extent to which firewalls are present and operating in banking.<sup>52</sup> Two pieces of legislation, the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) and the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), along with the regulations that implement them, have had a major impact on banking.

The cross-guarantee provisions of FIRREA were designed to enable the FDIC to address the problems multi-bank holding companies may pose in failure-resolution situations. Under FIRREA, the FDIC is permitted to impose liability on commonly con-

trolled depository institutions to recoup any loss resulting from handling the failure of, or providing financial assistance to, an insured bank. The selective and judicious enforcement of these cross-guarantees is intended to protect the deposit insurance funds from losses stemming from interaffiliate transactions by banks within a holding company. In this manner, cross-guarantees may reduce legislators' concerns about the risks posed by affiliations.

FDICIA imposed restrictions on state banking powers. The intent was to ensure a "more level playing field" between state-chartered and national banks. Under FDICIA, a state-chartered bank is prohibited from engaging as principal in an activity, either directly or through a majority-owned subsidiary, that is not permissible for a national bank unless the bank meets its minimum capital requirements and the FDIC determines that the activity does not present a significant risk to the insurance funds. In this manner, insured state-chartered banks are prohibited from making equity investments of a type or amount not permitted for national banks. FDICIA also placed a general prohibition on insurance underwriting by insured state-chartered banks and their subsidiaries. However, an exemption was provided for banks and their subsidiaries that were lawfully engaging in insurance underwriting on November 21, 1991.

The FDIC has proposed and promulgated regulations implementing these provisions. In October 1992, final regulations implementing the equity investment restrictions were adopted. In general and subject to certain exceptions, the regulation prohibits insured state-chartered banks from acquiring or retaining any equity investment that is not permissible for a national bank. In January 1993, the FDIC proposed regulations that would implement the activity restrictions. The proposal would establish procedures and criteria for state-chartered banks to seek approval, on a case-by-case basis, to engage in other-

wise prohibited activities. As well, the proposal sets out a tentative list of activities that would not present a significant risk to the deposit insurance funds, including certain guarantee activities, activities that are "closely related to banking," and securities activities conducted in a subsidiary. The proposal would clarify that the law does not impose new restrictions on activities where the bank is acting as an agent for a customer, and not acting "as principal." Final action on the proposed regulation is pending.

**Recent Developments.** Two recent developments concern the ability of banking organizations to engage in mutual fund and insurance activities. A court ruling affirmed the right of certain national banks to sell insurance, and the conditions under which banking organizations may provide retail mutual fund products and services were addressed recently by the regulatory agencies.

On July 16, 1993, the U.S. Court of Appeals for the District of Columbia Circuit, in *Independent Insurance Agents of America v. Ludwig*, upheld the right of national banks with branches in small towns to engage in retail insurance agency activities from these branches on a nationwide basis. The

<sup>51</sup> See Kurucz (1989) p. 1075, Christopher (Fall/Winter 1992), and Christopher (Spring/Summer 1993). In its July 1992 proposal to adjust the ten percent revenue test, the FRB argued that changes in the level and structure of interest rates since the revenue test was last considered in 1989 could alter the measure of whether a Section 20 affiliate was "engaged principally" in ineligible securities in ways previously unforeseen. The FRB proposed a revenue test that is indexed to interest-rate changes. Effective January 26, 1993, this alternative revenue test was made available to Section 20 affiliates.

<sup>52</sup> Recent legislative attempts to expand bank powers have sought the repeal of Glass-Steagall in conjunction with the use of firewalls to address possible conflicts of interest and other problems. Among these were the Financial Modernization Act of 1988 (S.1866) and the 1988 House Banking Committee bill, H.R.5094. While neither bill was passed by Congress, they remain an indicator of the belief that bank powers could be expanded if accompanied by appropriate firewalls.

sale of insurance products by national banks located in small towns of population 5,000 or less had been permitted by the OCC.<sup>53</sup> This ruling determined that the insurance customer base of these banks was not limited to persons located in the small town. It is not clear whether the effect of this ruling will be to open retail insurance markets to national banks. Conceivably, these banks could engage in a wide range of insurance agency activities including the sale of annuities, property and casualty insurance, and life and health insurance.

Banks' sales of mutual funds have grown rapidly in the recent period of low interest rates. Banks have been teaming with securities firms to offer mutual funds and other uninsured investment products to their customers from the bank office.<sup>54</sup> This activity has stimulated Congressional interest, as evidenced by the requests of Reps. Dingell and Gonzalez for studies by the General Accounting Office on the banking industry's approach to mutual funds and the impact of mutual funds on the banking system.

The regulatory agencies have established guidelines concerning the sale of mutual funds, annuities, and other uninsured investment products. In June 1993, the FRB instructed its examination staff to review banks' disclosure practices with regard to the sale of uninsured investment products on bank premises and the banks' role as investment adviser. The OCC's guidelines for national banks, which were issued in July 1993, require banks to design their investment programs so that customers will understand the risks inherent in the uninsured investment products. The FDIC's guidelines for state-chartered nonmember banks concerning the sale of mutual funds and annuities were issued in October 1993. They emphasized the need to properly in-

form customers that these products are uninsured, and the importance of managing and administering sales programs prudently.

These actions on the part of the regulatory agencies clarify the permissibility of bank mutual fund retail activities and provide guidelines concerning how these activities should be conducted. They do not permit banking organizations to engage in underwriting activities with these products. As such, they represent the further interpretation of, as opposed to a direct challenge to, the Glass-Steagall separation of banking and commerce. Significantly, these activities are perceived to pose risks to the safety net and deposit insurance funds that can be controlled adequately through the use of firewalls.

### *Concluding Remarks*

The historical record shows many examples of banking and commerce mixing. Because a separation of banking from commerce has never dominated American banking completely, firewalls, as safeguards or lines of separation, have existed throughout American banking history. They have been found, for example, in the various prohibitions and proscriptions on bank activities that have been embodied in bank charters and state and federal legislation.

One result of this mixing of banking and commerce has been an evolving definition of what constitutes "appropriate" bank powers. In turn, the safeguards that are viewed as necessary for maintaining the goals of bank regulation have evolved also. Banks' growing involvement in the retail sale of mutual funds and insurance presents a recent example of the evolutionary nature of what constitutes "banking."

Over time, banks have been permitted to engage in activities from

which they subsequently were restricted. One notable example has been banks' securities activities. Although banks had been the original investment bankers, and had securities powers throughout the free-banking period, the Glass-Steagall Act of 1933 prohibited national and state-chartered Federal Reserve member banks from engaging in securities activities or affiliating with other firms that were so engaged. Conversely, prohibitions on certain activities that existed while banks had securities powers, such as trust and safe deposit businesses, were later rescinded.

Firewalls are intended to facilitate the conduct of a range of activities, both within the bank and at the affiliate level, in a manner that does not threaten the insured depository. The scope of permissible activities has evolved over the course of American banking history, changing in response to economic incentives, technological innovations and political interests. Such change is likely to continue. In this context, well-designed firewalls should facilitate the goals of bank regulation. As such, they should be viewed as a necessary, if not sufficient, tool in the pursuit of these goals.

<sup>53</sup>National banks have the power to sell insurance under the "incidental powers" clause of the National Bank Act, as allowed by OCC regulation, and Section 92 of Title 12 of the U.S. Code. This court ruling dealt with the insurance powers under Section 92. The sale of insurance products by state-chartered banks is controlled by the states and the banks' primary regulator.

<sup>54</sup>In April 1993, the OCC permitted a subsidiary of NationsBank to be a 50 percent general partner with Dean Witter Financial Services Group. The partnership is subject to full regulation, supervision and examination by the OCC, and may engage only in those activities permissible for national banks. The partnership will be registered as a broker-dealer and therefore subject to federal and state securities laws. In an April 1993 order, the FRB permitted Mellon Bank Corporation to acquire Boston Co., which provides administrative services to mutual funds. (*American Banker*, June 2, 1993.)

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# Recent Developments Affecting Depository Institutions

by Benjamin B. Christopher\*

## *Regulatory Agency Actions*

### *Inter-Agency Actions*

The federal bank and thrift regulatory agencies are engaging in joint or coordinated efforts in a number of regulatory areas that are mentioned specifically in this issue of the *Review*, among which are: safety-and-soundness standards, risk-based capital guidelines, implementation and enforcement of the Community Reinvestment Act (CRA), examination procedures for Truth-in-Savings compliance, credit availability initiatives, fair lending initiatives, notices of branch closings, and regulatory relief for banks in disaster areas.

### *Federal Deposit Insurance Corporation*

#### *BIF Increases to \$10.5 Billion in Third Quarter*

The Bank Insurance Fund (BIF) had net income of \$10.6 billion in the nine months to September 30, 1993, and as a result the BIF increased to \$10.5 billion (unaudited) from a negative \$100.6 million at year-end 1992. The results in 1993 reflect very importantly the fewer bank failures and reduced allowances for future losses. Provision for insurance losses and expenses was a negative \$6.05 billion for the first nine months of this year, compared to a positive \$1.61 billion for the same period in 1992.

In its June 30, 1993 report — at that time the BIF was \$6.8 billion (unaudited) — the FDIC noted that working capital borrowings from the Federal Financing Bank of \$2.5 billion had been repaid. These Treasury borrowings had peaked at \$15.1 billion in September 1992. The improved results to June 30 reflected, in addition to the reduced reserving for losses, higher assessment income, and also cost containment, with new caps on spending and staffing levels.

As of June 30, 1993, the BIF had 35 cents for every \$100 of insured deposits. The FDIC said that assessments could not be reduced because the law requires that the fund reach a ratio of \$1.25 for every \$100 of insured deposits. Beginning in 1994, the FDIC is prohibited from reducing the average assessment rate charged to banks below 23 basis points until the fund has reached that designated reserve ratio. *PR-93-93, FDIC, 8/10/93; Summary Financial Management Report, Division of Finance, FDIC, Third Quarter 1993.*

### *Assessments*

The FDIC is amending its regulation on assessments to establish a new risk-related assessment system, as required by Section 302(a) of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), to be implemented beginning with the assessment period commencing

January 1, 1994. The amendments make limited changes to the existing “transitional” risk-related assessment system (see the Fall/Winter 1992 issue of the *Review*, p. 34). Among the changes, the amendments clarify the basis on which supervisory subgroup assignments are made by the FDIC; provide for the assignment of new institutions to the “well-capitalized” assessment group; clarify the basis, and report data, on which capital group assignments are made for insured branches of foreign banks; and expressly address lifeline accounts. In addition, the use of “experience factors” is being eliminated, beginning with the assessment period commencing January 1, 1995. *FR, 6/25/93, p. 34357; FIL-48-93, FDIC, 7/2; FIL-64-93, 9/9.*

### *Sales of Nondeposit Investments*

The FDIC alerted state nonmember banks to concerns and issues raised by bank sales of mutual funds and annuities. One such concern is the potential for customer confusion if a bank offers nondeposit investments at the same location where

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

FDIC-insured deposits are solicited. Another is the potential for mismanagement of the sales program, which could expose the bank to liability under the anti-fraud provisions of federal securities laws.

Among the FDIC's comments were:

Bank management should have control procedures to guard against risks in these sales activities, including written policies and procedures governing the bank's involvement, and a compliance and audit program, independent of the sales program, to monitor the bank's mutual funds and annuity sales activities.

Mutual funds and annuities should be promoted and sold, and the bank's sales activities administered, in a manner that clearly distinguishes such instruments from FDIC-insured deposits. The area in which mutual funds and annuities are sold should be clearly and prominently identified to distinguish such activities from traditional deposit-taking activities of the bank. Customers should be informed that mutual funds and annuities are not bank deposits, are not insured by the FDIC, and are not guaranteed by, or obligations of, the bank. Banks should consider requiring customers to sign an acknowledgement when a mutual fund or annuity account is opened to confirm that the customer received and understands the disclosures.

Banks have responsibility for ensuring that sales personnel are properly qualified and trained to sell the nondeposit investment offered. If the bank recommends nondeposit investment products to customers, there should be appropriate documentation that the salesperson had reasonable grounds to believe the investment was suitable for the customer at the time of the transaction.

As part of regular safety-and-soundness examinations, FDIC examiners will review bank policies and procedures governing sales of mutual funds and annuities as well as management's implementation of and compliance with them. *FIL-71-93, FDIC, 10/8/93.*

### ***Agencies Propose Safety-and-Soundness Standards***

The Office of the Comptroller of the Currency (OCC), Federal Reserve Board (FRB), the FDIC, and the Office of Thrift Supervision (OTS) requested comments on all aspects of proposed safety-and-soundness standards, as required by Section 132 of FDICIA (Section 39 of FDI Act). The proposed standards would formalize in regulation the fundamental standards used by the agencies to assess the operational and managerial qualities of an institution, and are not a change in the agencies' policies.

Under Section 39, the three types of standards must cover:

- (A) *Operations and management.* Final standards must relate to: internal controls, information systems, and internal audit systems; loan documentation; credit underwriting; interest-rate exposure; asset growth; and compensation fees and benefits.
- (B) *Asset quality, earnings and stock valuation.* The standards must specify a maximum ratio of classified assets to capital; minimum earnings sufficient to absorb losses without impairing capital; and to the extent feasible, a minimum ratio of market value to book value for publicly traded shares of institutions and holding companies.
- (C) *Employee compensation.* Final standards must prohibit excessive compensation or compensation that could result in a material financial loss to an institution. The law also requires the agencies to prescribe standards specifying when compensation is excessive. *FIL-79-93, FDIC, 12/3/93; FR, 11/18/93, p. 60802.*

### ***Enforcement of the Community Reinvestment Act***

The FDIC will seek public comment on an inter-agency proposal to strengthen federal enforcement of the Community Reinvestment Act of 1977 (CRA). The Act requires the four federal regulators of banks and

thrifts to evaluate how their institutions help meet the credit needs of the local communities, and to encourage loans and other services to low- and moderate-income areas. The CRA reform proposal was developed jointly with the OCC, FRB and OTS.

The inter-agency proposal would replace 12 subjective factors now being used to assess an institution's CRA performance with three "tests" using objective, performance-based standards including: (1) A lending test — the bank or thrift would be evaluated on loans made to low- and moderate-income areas as well as other areas; (2) a service test — the institution's branch locations, their accessibility to low- and moderate-income areas, and the availability of credit and other services would be reviewed; and (3) an investment test — this analysis would cover investment in community development programs that benefit low- and moderate-income areas.

The three tests would apply differently to different types of institutions, depending on their size or specialties. For example, relatively large institutions (generally those with assets of \$250 million or more) would be evaluated on additional information not now reported regarding the geographic distribution of their consumer, small-business and small-farm loan applications, denials and originations. Smaller institutions would be evaluated under a streamlined method that would not include additional data on the geographic distribution of loans. Also, limited-purpose institutions that do not make a significant amount of loans as part of their normal business would not be subject to the same tests as the "retail" institutions that offer broad lending services to the public. As an alternative to the three tests, an option would permit each institution to submit a strategic plan, to be open to public comment and subject to approval by the institution's primary regulator, that includes measurable goals for meeting its CRA obligations. *PR-135-93, FDIC, 12/19/93.*

### ***New Examination Procedures for Truth-in-Savings Compliance***

The FDIC and the four other federal regulators of depository institutions have adopted inter-agency examination procedures for the Truth in Savings Act of 1991 (contained in Title II of FDICIA). The new procedures facilitate compliance with the FRB's Regulation DD implementing TISA. Compliance became mandatory on June 21, 1993. The examination procedures were adopted by the Federal Financial Institutions Examination Council (FFIEC) in July 1993. The agencies also are making available a computer software program that can assist institutions when calculating the annual percentage yield for deposit accounts, as required under the new regulations.

In general, Regulation DD covers accounts held by consumers at depository institutions. Its purpose is to enable consumers to make better-informed decisions about accounts through the use of uniform disclosures about the fees, annual percentage yield, interest rate and other terms for deposit accounts. Consumers are entitled to receive the information upon request, when an account is opened, when terms are changed, before the maturity of most time accounts, and if a periodic statement is sent. Also, an institution must pay interest on the full balance in consumer accounts each day, and must choose between the "daily balance" method, or the "average daily balance" method for calculating the balance for paying interest. *FIL-50-93, FDIC, 7/21/93.*

### ***State Banks' Equity Investments and Activities***

The FDIC made available a list of equity investments and activities recognized by the OCC as permissible for national banks and their subsidiaries. The list is not all-inclusive but provides insured state banks and their legal counsel some initial guidance. FDICIA puts new restrictions on activities and investments of insured state banks and their majority-owned

subsidiaries. In general and subject to certain exceptions, the amendments prohibit an insured state bank from acquiring or retaining any equity investment that is not permissible for a national bank. An insured state bank also cannot either directly or indirectly through a subsidiary engage as principal in any activity that is not permissible for a national bank unless the bank meets its capital requirements and the FDIC determines that the activity will not pose a significant risk to the deposit insurance fund. The FDIC in October 1992 adopted final regulations implementing the equity investment restrictions, and in January 1993 proposed regulations that would implement the activity restrictions. *FIL-53-93, FDIC, 5/10/93.*

### ***Advance Notice of Branch Closings***

The FDIC adopted an inter-agency policy statement, effective September 21, 1993, implementing a statutory requirement that banks and thrifts provide advance notice of plans to close a branch.

Section 228 of FDICIA generally requires each insured institution with branches to: 1) have a policy on branch closings; 2) give its federal regulator a 90-day advance notice of a proposed branch closing; 3) mail a notice of a branch closing plan to customers of the branch at least 90 days before the scheduled closing; and 4) place a conspicuous notice of the plan at the affected branch at least 30 days prior to the scheduled closing. The policy statement clarifies how the law will be enforced. For instance, a depository institution that temporarily operates a branch of a failed bank or savings association but does not purchase or lease the branch will be excluded from the advance notice requirements if it closes the branch before the end of any contractual option with the FDIC or the RTC to retain the branch. Also, the advance notice requirements will not apply to the closing of an automated teller machine or to a branch relocation. A branch relocation that is exempt from the closing notice requirements is

defined as the closing of one office and the opening of another in the same immediate neighborhood, with the customers served by the closed branch being substantially unaffected by the move. A relocation involving a longer distance will be considered a branch closing and will be subject both to advance notice requirements and the FDIC's existing application rules for establishing new branches. *PR-94-93, FDIC, 8/10/93; FIL-67-93, 9/24; FR, 9/21, pp. 48979, 49083.*

### ***Initiatives to Assist Flood-Area Rebuilding***

The FDIC is encouraging insured state-chartered banks "to work constructively with borrowers who are experiencing difficulties due to conditions beyond their control" in Midwest states that have been damaged by recent serious flooding. Extending repayment terms, restructuring existing loans or easing terms for new loans, if done in a manner consistent with sound banking practices, "can both contribute to the health of the community and serve the long-run interests of the lending institution," the FDIC said. Banks showing flexibility in working with borrowers in the affected areas "will not be subject to examiner criticism," if proper risk controls and management oversight are exercised. The unusual circumstances resulting from the flood will be considered when examining lenders whose levels of delinquent and nonperforming loans increase.

One provision for specific regulatory relief is a temporary waiver of certain real-estate appraisal regulations for the areas affected by the current flooding (see OCC section). Another is temporary relief from certain capital requirements if an already adequately capitalized bank finds its asset levels increasing due solely to deposits of insurance proceeds or government assistance funds. *PR-87-93, FDIC, 7/22/93; FIL-52-93, FDIC, 7/23.*

### ***Merger Application Notice Amendments Proposed***

The FDIC is proposing to amend its requirements for publishing notice of filing an application for a merger

transaction under the Bank Merger Act. If an emergency exists requiring expeditious action, the applicant would be required only to publish twice during the statutory ten-day period instead of daily for ten days. In non-emergency cases, the requirement would be deleted that notice be published on the same day for each of the five weeks on which notice must be published and on the 30th day from the first publication. These proposed amendments would bring the FDIC's regulations more into conformance with those of the other federal banking agencies, give applicants more flexibility, and lessen the paperwork and cost burdens imposed by the FDIC's current notice requirements. *FR, 6/15/93, p. 33050.*

### ***Recovery Using Cross-Guaranty Assessment***

The FDIC recovered \$1.3 million from a Texas bank after invoking the cross-guaranty provisions of the Federal Deposit Insurance Act, marking the first time the FDIC has used successfully the authority to recover its losses in full without causing the paying bank's failure. Bank of Kerrville made the payment following the FDIC's assessment for its anticipated loss due to the failure of Texas Premier Bank of Victoria, Texas. Premier Bank, which failed in 1991, and Bank of Kerrville were both subsidiaries of Premier Bancshares, Inc., Kerrville. Bank of Kerrville subsequently merged with First National Bank of Kerrville. The FDI Act was amended by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) to give the FDIC authority to assess bank subsidiaries of holding companies for losses to the Bank Insurance Fund from the failure of other banks owned by the same holding company. Prominent examples of the prior use of this authority are the former Texas American Bancshares, Inc., Houston; MCorp, Dallas; Bank of New England Corporation, Boston; Southeast Bancorp, Miami; and First City Bancorporation, Dallas. *PR-113-93, FDIC, 9/20/93.*

### ***Survey Finds Recovery in Real-Estate Markets Continuing***

Improvement in real-estate markets across the nation has broadened in recent months, according to the FDIC's survey of real-estate markets in October. The national composite index of real-estate trends remained at 67, having risen to that level in July, from 66 in April, and from 57 in October 1992. The index of residential markets nationally stood at 72, and the commercial market index registered 61 in October.

The surveys, which began in April 1991, are based on interviews across the country with more than 450 senior examiners and asset managers at federal bank and thrift regulatory agencies. Values of the index above 50 indicate that more respondents believed conditions were improving than declining, compared to the previous quarter, while values below 50 indicate the opposite.

The report said the improving conditions have begun to reduce excess supply in real-estate markets. The largest improvement between July and October occurred in the commercial markets, where respondents who reported excess supply declined from 82 percent to 75 percent. In residential markets, which are in much better shape in respect to excess stock, there was a decline from 45 percent to 43 percent.

More respondents reported improvement than decline in all regions. The index for the West of 54 was the lowest in the nation. This reflected the continuing weakness in California, where 45 percent of respondents saw a worsening in commercial real-estate markets, and 40 percent reported negative trends in the residential sector. However, the data for California were less negative than in other recent surveys. Evidence suggests that conditions in real estate in the Northeast region are improved, as over half of the respondents reported housing markets firmed in the past three months, while only three percent saw a declining trend. In the Northeast's commercial real-estate markets, less than ten percent of respondents reported a further weakening,

while almost 30 percent believed conditions are improving. The latter was the highest percentage thus far in the surveys. The strongest regional up-trends, particularly in respect to residential markets, continue to be experienced in the South and the Midwest, where only scattered reports of weakening were received. *Survey of Real Estate Trends, FDIC, October 1993.*

### ***Resolution Trust Corporation***

#### ***Small Investor Program***

The RTC has developed a comprehensive Small Investor Program (SIP) to increase opportunities for individual investors or groups with moderate resources to purchase real estate and other assets. Individual real-estate offerings, smaller asset pools, and more localized auctions will become more common. Special initiatives will encourage the participation of small investors (including minority- and women-owned businesses) in the RTC's larger asset offerings.

The program is targeted for potential investors in real estate owned (REO) asset offerings of up to \$5 million or loans up to \$25 million, or equity investments of up to \$9 million in joint venture transactions. The effective capital contribution in many offerings may be reduced further by taking advantage of up to 85 percent in RTC seller financing.

Among the features of the program are: a) each new REO asset is to be available for stand-alone purchase for at least 120 days; b) auctions of REO, nonperforming loans, and furniture, fixtures and equipment will be held more frequently, and their geographic focus will be narrowed to ensure that local investors have ample opportunities to purchase assets; c) the refundable bidder entry deposit for nonperforming loan auctions will be reduced from \$100,000 to \$50,000; d) smaller portfolios of geographically concentrated nonperforming loan assets with a maximum pool size of \$10 million (book value) are to be offered; and d) a new "S" Series Program will be piloted, in which an investor will need private equity of no more than \$9 million in order to compete for

participation in \$25 million to \$60 million joint-venture partnerships with the RTC. *The RTC Investor, June 1993, p. 1.*

### ***National Nonperforming Loan Auctions***

The RTC reported that, since June 1991, it has sold slightly more than \$1.5 billion in hard-to-sell nonperforming loans through open auctions. For a mortgage loan to be considered nonperforming and included in the auction program, it must be at least 120 days delinquent. Loans not secured by real estate will be considered for auction when they are 90 days delinquent. About half of the loan volume sold in the two-year period consisted of residential mortgages which returned, on average, about 65 percent of book value. Other loans secured by real estate, such as construction loans and commercial mortgages, have averaged between 44 and 62 cents on the dollar. Less-well-secured consumer and commercial loans have sold at prices averaging about 28 percent of book value. *The RTC Investor, August 1993, p. 8.*

### ***GAO Financial Audit***

The General Accounting Office (GAO) reported that, in its opinion, the RTC's financial statements present fairly, in all material respects and in conformity with generally accepted accounting principles, its financial position as of December 31, 1992 and 1991, the results of its operations and accumulated deficit for the year ending December 31, 1992, and its cash flows for the years ending December 31, 1992 and 1991. The auditor did not express an opinion on the statement of revenues, expenses and accumulated deficit for the year ended December 31, 1991.

The report said that the RTC's internal accounting controls in effect on December 31, 1992, provided reasonable assurance that assets are safeguarded against loss and that transactions are executed in accordance with management's authority and with significant provisions of laws and regulations. However, due to a material weakness in the RTC's loss calculation procedures, controls were not

effective in providing reasonable assurance that the agency properly recorded, processed, and summarized transactions for its financial statements or other financial reports. The GAO's tests in 1992 for compliance with the significant provisions of selected laws and regulations disclosed no material instances of noncompliance, and there were no other indications that material noncompliance with such provisions occurred.

As of March 31, 1993, the RTC's receiverships and conservatorships held \$91 billion in assets of which more than 40 percent were delinquent loans, real estate owned, and investments in the subsidiaries of failed institutions. Because these assets are considered among its hard-to-sell assets, it is difficult for the RTC to predict the recovery value and timing of sales. The GAO found the reserves for future securitization losses and for claims arising from representations and warranties to be reasonable. However, it cautioned that the RTC's claims experience to date has been very limited and cannot be relied upon to predict the nature or amount of future losses. Such losses will be affected by the behavior of the economy, interest rates, and real-estate markets as well as the performance of the collateral underlying the transactions. *Financial Audit - Resolution Trust Corporation's 1992 and 1991 Financial Statements, GAO, June 1993.*

### ***Operations Update***

Assets under the RTC's management on July 31, 1993, including both conservatorships and receiverships, totaled \$79 billion, down from \$91 billion on March 31. The decrease in assets reflects the ongoing sales effort by the RTC to reduce its conservatorship and receivership inventory. The assets in July consisted of \$15 billion in cash and securities, \$9 billion in performing 1-to-4 family mortgages, \$13 billion in other performing loans, \$17 billion in delinquent loans, \$9 billion in real estate, and \$16 billion in other assets.

The 78 conservatorships held \$34 billion in gross assets on July 31, 1993. Assets in receiverships remaining

from the institutions closed by the RTC amounted to \$45 billion on July 31. 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 receiverships consisted of lower-quality, less-marketable assets. Thus, real estate and delinquent loans represented 47 percent of receivership assets, while cash, securities, and performing 1-to-4 family mortgages represented only 12 percent.

From its inception in August 1989 through July 1993, the RTC collected \$136 billion from securities, \$98 billion from 1-to-4 family mortgages, \$47 billion from other mortgages, \$26 billion from non-mortgage loans, and \$30 billion from other assets. Book value asset reductions (assets sold or collected, net of putbacks to RTC) were \$372 billion, on which the RTC recovered 91 percent. From inception, the RTC has recovered 98 percent from securities, 97 percent from 1-to-4 family mortgages, 82 percent from other mortgages, 92 percent from non-mortgage loans, 58 percent from real estate, and 76 percent from other assets.

As of the end of August, RTC resolutions had protected 22.1 million deposit accounts from financial loss. There were 662 thrift closings from the RTC's inception through July 31, and these thrifts held \$217 billion in assets at the time of closure. The estimated resolution cost for the 662 closed thrifts totaled \$79.6 billion. If the insured deposits of all 662 institutions had been paid out to depositors, the estimated resolution cost would have been \$82.8 billion. Of the 662 cases, 415 were purchase-and-assumption transactions (P&As), 158 were insured-deposit transfers (IDTs), and the remaining 89 were insured-deposit payoffs (POs). Most of the attractive franchises were resolved using P&As, and these acquirers paid considerably higher premiums over deposit payoff costs: 2.44 percent of core deposits, compared to 0.67 percent for IDTs. Although only 63 percent of RTC resolutions were P&As, these transactions accounted for 80 percent of the

deposits that have been made whole by the RTC from its inception through July 1993. *RTC Review, September 1993.*

### ***GAO Report on Minority/Women Businesses Outreach***

FIRREA requires the RTC to use private contractors whenever practicable and efficient. The Act mandates that the RTC ensure inclusion to the maximum extent possible of businesses owned by minorities and women, including law firms, in all RTC contracts. The RTC Refinancing, Restructuring, and Improvement Act of 1991 placed additional requirements on the outreach program. For example, the Act required RTC to provide additional incentives to minority- and women-owned businesses (MWOB) by increasing the bonus points that these businesses may receive in the evaluation process. Bonus points are designed to increase the competitive position of acceptable MWOB proposals relative to the proposals of non-MWOBs. In August 1992, RTC issued its directive on evaluation of proposals and application of bonus points. The RTC strengthened the outreach program by creating an Office of Minority and Women Outreach and Contracting Program in December 1991 and by consolidating its business and legal programs under one department in November 1992. In May 1992, the RTC also established agencywide goals to award 30 percent of its contracts and related fees to MWOBs and to award 20 percent of its legal fees to minority- and women-owned law firms (MWOLF).

Since August 1989, the RTC has awarded over 105,000 contracts with estimated fees totaling about \$3 billion. In 1992, about 45,000 contracts with estimated fees of about \$1.13 billion were awarded. Of the contracts awarded in 1992, MWOBs were awarded over 15,000 with estimated fees of \$323 million or 28 percent of the \$1.13 billion paid by RTC. This represents a larger percentage of the total fees paid when compared to earlier years.

MWOLFs received \$36 million, or over ten percent, of the total \$351

million paid by RTC for all legal services in 1992. Fees paid to MWOLFs in 1992 for receiverships and corporate legal matters were significantly higher than fees paid in 1990 and 1991.

Minority- and women-owned investment firms also participated in RTC's securitization program in 1992. Nine minority- and women-owned investment firms underwrote \$884.5 million, or four percent, of the \$22 billion of mortgage-backed securities issued by RTC in 1992.

The RTC recognizes that more work is needed to enhance opportunities for MWOBs and MWOLFs. The Thrift Depositor Protection Oversight Board has directed the RTC to make a number of improvements, such as developing ways to provide more opportunities for MWOBs in the management and disposition of all its assets. RTC is developing a plan to implement these initiatives. *RTC: Status of Minority and Women Outreach and Contracting Program, U.S. General Accounting Office, May 1993.*

### ***Federal Reserve Board***

#### ***Extensions of Credit by FR Banks to Undercapitalized Institutions***

The FRB proposed revising its Regulation A to implement Section 142 of FDICIA and discourage advances to undercapitalized and critically undercapitalized depository institutions. The Section imposes liability on the FRB for certain losses incurred by the funds administered by the FDIC. Specifically, the FRB incurs limited liability for increased losses attributable to Federal Reserve Bank advances under Section 10B of the Federal Reserve Act to an undercapitalized insured depository institution after that institution has borrowed for 60 days in any 120-day period. The 60 days may be extended for additional 60-day periods with a determination by the Chairman or the head of the appropriate federal banking agency that the institution is viable. The FRB also incurs limited liability for increased losses attribut-

able to Section 10B advances to a critically undercapitalized insured depository institution after a five-day period beginning on the day the institution becomes critically undercapitalized. The FRB's liability for these increased losses is limited to the lesser of the amount of the loss that the FRB or a Federal Reserve Bank would have incurred on any increases in the amount of advances after the expiration of the applicable lending period if those advances had been unsecured, or the amount of interest received on the increased amount of the advances. The FRB must report to Congress on any such liability it incurs.

The principal substantive changes as proposed are: 1) placing limitations on Federal Reserve Bank credit to undercapitalized and critically undercapitalized insured depository institutions; 2) describing the loss calculations; 3) defining undercapitalized and critically undercapitalized insured depository institutions; 4) defining viable, as it applies to an undercapitalized insured depository institution; and 5) providing for assessments on the Federal Reserve Banks for amounts that the FRB may be required to pay the FDIC under Section 142. *FR, 8/31/93, p. 45851.*

#### ***Loans to Insiders***

The FRB proposed revisions to its Regulation O (loans to executive officers, directors, and principal shareholders of member banks) which would: a) provide an exception to the aggregate insider lending limit for the purchase of certain installment paper; b) modify the definition of "extension of credit" to exclude the discount of obligations sold by an insider to the bank without recourse, increase from \$5,000 to \$15,000 the threshold for considering credit-card plan debt to be an extension of credit, and clarify a part of the definition; c) modify the recordkeeping requirements to allow banks greater latitude in procedures for ensuring compliance with the regulation, and revise the limits on lending to executive officers to exempt home mortgage refinancing and certain collateralized

loans. The proposed amendments are intended to increase the ability of banks to make extensions of credit that pose minimal risk of loss, to remove other transactions from the regulation's coverage, and to eliminate recordkeeping requirements that impose a paperwork burden but do not significantly aid compliance with the regulation. *Press Release, FRB, 9/3/93; FR, 9/9, p. 47400.*

### ***Rejection of Application Cites Lending Bias***

The FRB in a 3-to-3 vote declined to approve an application by Shawmut National Corporation, New England's third largest bank holding company, to acquire New Dartmouth Bank of Manchester, New Hampshire, citing concerns regarding Shawmut's full compliance with fair lending laws. In particular, reference was made to the Equal Credit Opportunity Act, which requires lenders to treat all applicants equally, and the Home Mortgage Disclosure Act, which requires lenders to submit information about their mortgage lending. *AB, 11/17/93, p. 3.*

Following a one-year investigation, the U.S. Department of Justice announced a settlement with Shawmut National Corp., in which the lender agreed to set up a fund of at least \$960,000 to compensate black and Hispanic applicants for home mortgage loans that were unfairly rejected between January 1990 and October 1991. Shawmut also will continue its program already implemented for increased lending to minorities. *AB, 12/14, p. 1.*

### ***Banks Given Expanded Futures Authority***

The FRB significantly broadened the authority of bank holding companies to engage in futures trading, permitting the Bank of Montreal to execute and clear futures and options based on certain commodities. These futures transactions previously were allowed only for contracts pegged to financial instruments such as Treasury bonds or foreign currencies. Foreign banks, in particular, are expected to

benefit from the approval since domestic holding companies have had this authority through national bank subsidiaries which already are authorized to participate in nonfinancial futures markets. *AB, 10/4/93, p. 3.*

### ***Collateral Inspection Services***

The FRB gave approval for NationsBank Corp. to create an Allentown, Pennsylvania company to provide collateral inspection services for inventory financing. The FRB said the new service should increase the availability of inventory financing, and also encourage competitors, including the smaller financial institutions, to enter the inventory financing market. *BBR, 9/20/93, p. 425.*

### ***Penalty Fee on Daylight Overdrafts of Certain Institutions***

The FRB proposed a rate at which Federal Reserve Banks will assess a penalty fee on the average daily daylight overdrafts of bankers' banks that do not maintain reserves, Edge and agreement corporations, and limited-purpose trust companies. The proposed rate would be equal to the federal funds rate plus the overnight overdraft penalty rate, quoted on a 24-hour basis, for a 360-day year, and adjusted for the length of the Fedwire operating day. The fee should create an incentive for institutions that do not have regular discount window access to avoid incurring daylight overdrafts in Federal Reserve accounts. *FR, 8/24/93, p. 44672.*

### ***Records of Funds Transmittals by Financial Institutions***

The Treasury Department and FRB jointly proposed enhanced recordkeeping requirements relating to certain wire transfers (which include funds transfers and transmittals of funds) by financial institutions. Each domestic financial institution involved in a wire transfer will have to collect and retain certain information. The amount and type of information collected and retained will depend upon the nature of the financial institution, its role in the particular wire transfer, and the relationship of the parties to the transaction with the financial institution. The proposal

also would amend the existing regulation that permits the Treasury Department to require reports of certain transactions with targeted foreign financial institutions to permit the Treasury Department to require reports of all wire transfers by financial institutions.

In addition to retention of records, having certain customer identity information (*i.e.*, the originator's and beneficiary's name, address and account number) included in the payment order has a high degree of usefulness for law enforcement purposes. As an interim measure, the FFIEC is encouraging all financial institutions to include, to the extent practical, complete originator and beneficiary information when sending payment orders, including payment orders sent through Fedwire, Clearinghouse Interbank Payment System (CHIPS) and Society for Worldwide Interbank Financial Telecommunications (SWIFT).

The Treasury Department proposed to amend the regulations that implement the Bank Secrecy Act (BSA) to require a bank or non-bank financial institution that acts as a transmittor's financial institution in a transmittal of funds to include certain information in the transmittal order when sending it to the receiving financial institution. *FR, 8/31/93, pp. 45851, 46014, 46021, 46024.*

### ***Interest-Rate Risk at Commercial Banks***

Using the March 1993 version of the Federal Reserve's proposed methodology for measuring interest-rate risk, a preliminary assessment of this risk at U.S. commercial banks has been made from data currently available in bank Call Reports.

The FRB has proposed a risk measurement system to begin in 1994 wherein banks would provide detailed data on the maturity and cash-flow characteristics of their assets and liabilities. Based on these features, one set of risk-weights would be assigned to liabilities, and one set each assigned to amortizing, nonamortizing, and deep-discount assets. Holdings in each category would be multiplied by the

appropriate risk factor, representing the change in the value of the bank's position in that category that would result from a rise in interest rates. Regulators could determine how much a bank's net worth would change in response to a given parallel shift in interest rates. As proposed, the risk measurements may be used in the determination of banks' capital requirements. *Weekly Letter No. 93-26, Federal Reserve Bank of San Francisco, 7/23/93.*

Limited maturity information has been reported since the fourth quarter of 1989 on bank holdings of fixed- and floating-rate loans, securities, and large CDs. Cash-flow characteristics of banks' assets are not currently reported and several assumptions were required for loan amortizations. The FRB's proposed guidelines for the allocation of liabilities across different maturity bands were used to determine the maturities of bank deposits and other liabilities. Risk-weightings were determined using the risk factors in the FRB's proposal. The analysis does not encompass off-balance-sheet activities due to lack of information. These activities may pose considerable risk; however, they also may be used for hedging, thus the effect of their omission here is regarded as uncertain.

Interest-rate risk is measured by the change in banks' net worth resulting from a 200-basis point rise in interest rates, divided by total bank assets. A value of 1.0 indicates that a 200-basis point increase in rates would reduce bank net worth by one percent of assets. The measured risk stood at 0.85 percent in the first quarter of 1993, having ranged, since the last quarter of 1988, from a low of slightly under 0.70 percent in the first quarter of 1989 to a high of almost one percent in the third quarter of 1990. With due consideration for the limitations of the data, the conclusion is that risk is within the normal range for the industry, and for banks as a group it has not risen much in recent years.

### ***Survey on Bank Lending Practices***

The results of the August 1993 Senior Loan Officer Opinion Survey on

Bank Lending Practices show that easing of lending terms and standards is continuing and demand for bank credit is strengthening on the part of both households and businesses.

The survey queried bankers on several issues, among which were changes in bank lending standards and terms, changes in loan demand by businesses and households, and bank capital levels. A total of 78 domestic commercial banks and U.S. branches and agencies of foreign banks participated in the survey.

There were more reports of some easing of terms and standards for commercial and industrial loans than in the May survey. Banks made little change in their standards for commercial real-estate loans, which remain very restrictive. There was some easing of standards on home mortgage loans, and still more reports of increased willingness to make loans to individuals. A number of respondents indicated that the demand for business loans had increased over the last three months. Household demand for bank credit was reported to have improved also, particularly for residential mortgages.

Almost all respondents believed their bank's capital position to be either fairly comfortable or very comfortable, as they did in the last four surveys. Those whose comfortable capital position caused them to be more aggressive lenders increased from one-fifth in May to more than one-third in August. However, most of those taking a more aggressive lending stance continued to report difficulty in finding attractive lending opportunities.

The Credit Availability Program appears thus far to have had little effect on lending, although respondents expect that it will allow some easing of terms and standards for loans when fully implemented. *National Summary of the August 1993 Senior Loan Officer Opinion Survey on Bank Lending Practices, FRB, 8/25/93.*

### ***Office of the Comptroller of the Currency***

#### ***Risk-Based Capital and Interest-Rate Risk***

The OCC, FRB and the FDIC proposed revisions, implementing Section

305 of FDICIA, to their risk-based capital guidelines to ensure that those standards take adequate account of interest-rate risk (IRR). An initial request for comments was issued in August 1992. The proposed revisions would provide for the explicit consideration of IRR when assessing the capital adequacy of an institution. The proposal encompasses a measure of IRR exposure, and an approach for assessing capital adequacy for IRR. Exposures to IRR would be measured as the effect that a specified change in market interest rates would have on the net economic value of a bank. This economic perspective considers the effect that changing market interest rates may have on the value of a bank's assets, liabilities, and off-balance-sheet positions.

The agencies propose to measure an institution's exposure using either a supervisory model or the bank's own internal model. In either case, the results could be used in one of two ways when assessing capital adequacy for IRR. One approach would be to reduce an institution's risk-based capital ratios by an amount based on the level of measured risk. The other would be to use the measured exposure as only one of several factors in assessing the need for capital.

The supervisory model would require banks to report their assets, liabilities and off-balance-sheet positions into time bands, based upon their remaining maturities or nearest repricing dates. Each position then would be multiplied by an IRR "risk-weight" developed by the agencies that represents the estimated sensitivity of the economic value of that position to a specified change in market interest rates. The risk-weighted positions of all balances would be summed to produce a net risk-weighted position. This net position represents the estimated change in the bank's net economic value and would be the primary quantitative measure used to assess a bank's level of IRR.

The agencies recognize that many banking institutions have sophisticated internal models for measuring

IRR that take account of complexities not addressed in the basic supervisory model and that are tailored to circumstances at each bank. Consequently, the agencies propose to make use of a bank's own IRR model if it is deemed adequate by examiners. To make this determination, examiners would consider the types of instruments held or offered by the bank, the integrity of the data, and whether the assumptions and relationships underlying the model are reasonable.

To minimize the reporting and other regulatory burdens associated with this proposal, the agencies also propose a quantitative screen that would exempt from additional reporting requirements the banks identified as having potentially low interest-rate risk. Based on data for December 31, 1992, the agencies estimate approximately 8,400 institutions, with about 30 percent of U.S. commercial bank assets, would be exempt from additional reporting.

Under the proposal, additional reporting by non-exempt banks would begin with the March 1994 Call Reports. Full implementation of the guidelines for assessing the adequacy of bank capital would be effective December 31, 1994. However, the agencies also propose that examiners apply these standards on an advisory basis beginning with examinations commencing after December 31, 1993, to the extent that data are reasonably available. *FR*, 9/14/93, p. 48206; *FIL-65-93*, *FDIC*, 9/20.

### *Credit Availability Initiatives*

The four federal regulators of banks and thrifts announced additional initiatives to implement the President's March 10, 1993 program to improve the availability of credit to businesses and individuals. The actions cover the following areas:

a) **In-Substance Foreclosures.** Under existing accounting guidelines for determining whether the collateral for a loan has been in-substance foreclosed, a loan is transferred to "other real estate owned" (OREO or REO) and appropriate losses are recognized if certain criteria are met.

Such OREO designations may impede efforts to improve credit availability and may discourage lenders from working with borrowers experiencing temporary financial difficulties. The revised guidance clarifies that a collateral-dependent real-estate loan need not be reported as foreclosed real estate unless the lender has taken possession of the collateral. However, appropriate losses must be recognized.

b) **Returning Nonaccrual Loans to Accrual Status.** In the past, a loan that was partially charged off could not be returned to accrual status until all missed payments had been made up to bring the loan to current status and the institution expected to receive the full contractual principal and interest on the loan. This requirement also applied in situations where the borrower showed a renewed ability and willingness to service the remaining debt. One change is that banks and thrifts will be allowed to *formally* restructure troubled debt to allow a portion of the debt to become an accruing asset, provided certain criteria are met. This revised reporting guidance makes the policies of the bank and thrift regulatory agencies consistent. Second, when borrowers have resumed paying the full amount of scheduled contractual principal and interest payments on loans that are past due and in non-accrual status, banks and thrifts will be allowed to return such loans to accrual status, *provided* the institution expects to collect all principal and interest due and the borrower has made regular payments in accordance with the terms of the loan over a specific period of time.

c) **Regulatory Reporting Requirements for Sales of Other Real Estate Owned.** The agencies separately will issue guidance to banks and thrifts that generally conforms regulatory reporting requirements for sales of OREO with generally accepted accounting principles.

d) **Review and Classification of Commercial Real-Estate Loans.** A policy statement reiterates that the

evaluation of commercial real-estate loans is based on a review of the borrower's willingness and capacity to repay and on the income-producing capacity of the underlying collateral over time. It is not regulatory policy to value collateral that underlies real-estate loans on a liquidation basis.

e) **Supervisory Definition of Special Mention Assets.** The agencies are concerned that improper use of the "Special Mention" loan category in examiners' reviews may inhibit lending to small- and medium-sized businesses. Accordingly, all four agencies have adopted a uniform definition for this category. A Special Mention asset is defined as an asset that has potential weaknesses that deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the asset or in the institution's credit position at some future date. The agencies have agreed to use *classified assets*, which by definition do not include Special Mention assets, as the standard measure in expressing the quality of a bank or thrift's asset portfolio.

f) **Coordination of Holding Company, Thrift and Bank Examinations.** An inter-agency policy statement outlines a program for coordinating examinations of insured depository institutions and inspections of their holding companies. The objective is to minimize disruption and avoid duplicative examination activities, whenever possible. Examinations and inspections of an entity will be conducted by the primary supervisor for that entity. The program includes: coordinating the planning, timing and scope of examinations and inspections of federally insured depository institutions and their holding companies; conducting joint inter-agency examinations or inspections, when necessary; coordinating and conducting joint meetings between bank or bank holding company management and the regulators; coordinating information requests; and coordinating enforcement actions, when appropriate. *Joint Statement, OCC, FDIC, FRB, OTS, 6/10/93.*

### ***Fair Lending Initiatives***

The four federal bank and thrift regulatory agencies announced additional initiatives to enhance their ability to detect lending discrimination, to improve the level of education they provide to the industry and to their examiners, and to strengthen enforcement.

A number of inter-agency efforts are already completed or in preparation to pursue these objectives. Over the next several months the agencies are seeking to accomplish the following:

a) The agencies will develop a new training program in fair lending for experienced compliance examiners that will be conducted on a regional basis; b) the agencies will develop and sponsor regional programs for top-level industry executives to explain the agencies' programs for enforcement and to foster additional sensitivity and awareness among lenders about discrimination issues, specifically subtle practices that impede the availability of credit to low-income and minority individuals; c) the agencies will explore statistically-based discrimination analysis models, to help identify loan application files for review as part of the examination process; d) each agency will implement an internal process for making referrals to the Department of Justice for violations of the Equal Credit Opportunity Act; e) each agency will evaluate the effectiveness of its consumer complaint system in detecting and correcting credit discrimination and announce its own specific initiatives in these areas. *Joint Release, OCC, FDIC, FRB, OTS, 6/10/93.*

### ***Examination Reports***

The four federal bank and thrift regulatory agencies have agreed to use the same examination report format for presenting key information and conclusions about an institution's operations. The uniform examination pages will be used for reporting an institution's CAMEL factors: capital, asset quality, management, earnings and liquidity. Use of the common format is intended to reduce

regulatory burden, make examinations more uniform, and promote consistency in the way institutions are supervised. The core information will help the regulators communicate when they share a supervisory interest in an institution. Any agency may add additional pages to its report of examination to adjust to changing needs and individual examination requirements. Use of the new format is expected to begin later this year. *FIL-72-93, FDIC, 10/19/93; Inter-agency Policy Statement on the Uniform Core Report of Examination, 9/9/93, OCC, FRB, FDIC, OTS.*

### ***Policy on Small-Business Loan Documentation***

An inter-agency policy statement in March 1993 allowed well- or adequately capitalized institutions that are composite rated 1 or 2 to identify a portion of their portfolios of loans to small- and medium-sized businesses and farms, subject to certain limitations, to be evaluated solely on performance. Those loans would be exempt from examiner criticism of documentation. Effective immediately, banks that are well- or adequately capitalized and CAMEL rated 3, and Federal Branches and Agencies that are AIM (assets, internal control, management) rated 3, will be approved as eligible for the program on a case-by-case basis. Requests in writing will be approved or disapproved based on several factors, among which are the quality of board and management supervision, asset quality, capital adequacy, earnings quality and capacity, and compliance with laws and regulations. *Banking Bulletin No. 46, OCC, 8/12/93.*

### ***New Procedures for Compliance Examinations***

The OCC announced new procedures to improve the quality and frequency of examinations in the compliance area, formalizing a separate career path for compliance examiners, and a two-year cycle for compliance examinations for all national banks. The compliance program reviews national banks' compliance with laws and regulations, including the Community Reinvest-

ment and Fair Lending Acts, consumer regulations, and trust law. Under the new examination cycle, each national bank will be examined every other year, a frequency previously reserved for banks with assets of more than \$1 billion. Heretofore, smaller banks have been examined for compliance only on the basis of identified need or random sampling. Before the regular two-year cycle begins in January 1997, every bank will be examined for compliance at least once.

As part of this program, the OCC's six District Offices will be staffed with compliance personnel. Each of those offices will have a consumer affairs officer responsible for outreach to community organizations and the public. *News Release, OCC, 8/16/93.*

### ***Banks' Retail Sales of Nondeposit Investments***

The OCC issued general guidelines, effective immediately, for national banks offering mutual funds, annuities and other nondeposit investments for sale to retail customers (see also the FDIC section above). Among the numerous topics included, banks were advised that to the extent permitted by space and personnel, management should take steps to separate the retail deposit-taking and retail nondeposit sales functions. The agency strongly discourages employees who accept retail deposits from selling retail nondeposit investment products.

Banks may not offer uninsured retail investment products with a product name identical to the bank's name, and should recognize that use of uninsured product names similar to the bank's name may be a cause of customer confusion. When marketing uninsured investments to retail customers, it should be conspicuously disclosed that the products offered are not FDIC-insured, are not obligations of the bank and are not guaranteed by the bank, and involve investment risks. Banks are advised to obtain a signed statement from customers acknowledging such disclosures. Also, marketing activities and financial

statements should clearly feature the disclosures.

Banks are expected to determine whether a product being recommended is an appropriate investment for the customer, and they should ensure that sales personnel are properly qualified and adequately trained to sell all bank-related nondeposit investment products. Programs must be maintained independently to verify compliance with the specified guidelines and other related requirements. *BBR, 7/26/93, p. 107.*

### ***Foreign Treatment of U.S. Financial Institutions***

The Omnibus Trade and Competitiveness Act of 1988 requires that a quadrennial report on the foreign treatment of U.S. financial institutions be submitted to Congress by the Department of the Treasury, working with other agencies. For preparing its next report, due no later than December 1, 1994, the Treasury asked for specific comments on: a) those markets that deny national treatment to U.S. banking organizations and securities companies in banking and/or securities activities; b) the laws, regulations, restrictions, or practices that result in the denial of equality of competitive opportunity; c) the seriousness of such obstacles to business operations; and d) significant denials in the provision of "national treatment," *i.e.*, the policy of providing foreign financial firms an opportunity to compete on an equal basis with local domestic firms, since June 30, 1990. *FR, 9/14/93, p. 48088.*

### ***Requirements Affecting Lending Eased in Flood Areas***

The OCC, FDIC, FRB, the National Credit Union Administration (NCUA) and the OTS are exempting lending institutions in designated flood areas from current federal requirements that institutions obtain appraisals on real estate pledged as collateral for loans. The agencies said the exemption is necessary because the disruption of real-estate

markets in the flood area interferes with the ability of institutions to obtain appraisals that meet the requirements of federal law and regulations.

The exemption extends for three years from the date the President declared a major disaster area, and is in effect for institutions making loans secured by affected real property in disaster-designated areas in Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota and Wisconsin. The order also will apply to any other Midwest flood areas added to this summer's list by the President and published by the Federal Emergency Management Agency.

The agencies determined that the exceptions would not affect adversely the lending institution's safety and soundness so long as their records indicate either that the property was directly affected by the major disaster or that the transaction would facilitate recovery from the disaster, and there is a binding commitment to fund the loan within the three-year period. *Joint Release, OCC, FDIC, FRB, NCUA, OTS, 8/12/93; FR, 8/11, p. 42640.*

### ***Civil Money Penalties***

The OCC adopted a revised policy on the assessment of civil money penalties against national banks and bank-affiliated persons. Amendments to the Federal Deposit Insurance Act contained in FIRREA gave the banking agencies increased authority to assess the penalties. The new policy clarifies and details the OCC's internal referral and review procedures for considering whether to recommend a civil money penalty, and formalizes procedures already in use in many cases. Use of the "CMP matrix" developed several years ago by FFIEC will continue. The matrix contains 13 factors against which the actions under scrutiny are measured. However, the new policy explicitly recognizes that a "reprimand" or "supervisory letter" may be the more appropriate action in some cases. It is noted that these lesser sanctions are not subject to mandatory public disclosure by the agency. *Banking Circular No. 273, OCC, 6/16/93; AB, 9/2/93, p. 18.*

### ***Other Real Estate Owned***

The OCC issued a final rule to simplify and clarify its requirements regarding bank treatment of other real estate owned (OREO). OREO is comprised generally of all real estate acquired and held by a bank that is not currently in use or contemplated for use as bank premises. National banks acquire most of their OREO through foreclosure or other forms of conveyance, and they are permitted by statute to hold such assets for up to five years. A bank may apply to the OCC to hold OREO for up to an additional five years, if they have made a good-faith effort to dispose of the property or the property's disposal would be detrimental to the bank. The new rule, which is effective September 17, 1993, expands the permissible options available to banks in disposing of OREO. *FR, 9/2/93, p. 46529; Banking Bulletin No. 51, OCC, 9/3/93.*

### ***Bank May Take Delivery of Commodities for Hedging***

The OCC gave approval for Morgan Guaranty Trust Co. to physically take possession of commodities underlying derivative contracts. Delivery may be taken only on behalf of a customer, and the activity is restricted to a "nominal percentage" of the bank's total hedging activities. Morgan Guaranty, which has a state charter, had to obtain the OCC's approval because banking law restricts state bank activities to those allowed national banks. In part because of the large resources required for this activity, very few banks are likely to seek regulatory approval to engage in it, analysts said. *AB, 10/28/93, p. 5.*

### ***Court Restricts Bank Annuity Sales in Three States***

A federal appeals court panel in Houston, in a case involving a subsidiary of NationsBank Corp., ruled that banks cannot sell annuities in towns having a population of more than 5,000. The ruling would not reach beyond the Fifth Circuit, which comprises Texas, Louisiana, and

Mississippi, unless the OCC "decides to acquiesce nationwide," an observer said.

The court based its decision on a finding that annuities are a form of insurance. In 1990, the OCC authorized annuity sales for national banks, stating that while "annuities have historically been a product of insurance companies, they are primarily financial investments." Having found that annuities are an insurance product, the court concluded that because Congress authorized bank insurance activities in smaller towns, it prohibited them in larger ones. The court also held that annuities are not an "incidental power" that can be authorized as being necessary to banking.

The Fifth Circuit decision appears to conflict with a ruling by the Second Circuit Court of Appeals that banks can sell insurance nationwide from offices located in towns of less than 5,000. *AB, 8/31/93, p. 2.*

### ***Community Development Corporations and Project Investments***

The OCC proposed a rule for national bank investments to implement Section 6 of the Depository Institutions Disaster Relief Act of 1992. National banks would be allowed, under certain conditions, to increase the amount of their aggregate and single project investments in community development corporations (CDCs) and community development projects above current investment limits, with OCC approval. The OCC's approval process would be changed to permit national banks to make most CDC and CD project investments without prior OCC approval by providing a brief self-certification of compliance with the rule. *FR, 7/16/93, p. 38474.*

### ***Office of Thrift Supervision***

#### ***Regulatory Capital: Interest-Rate Risk Component***

The OTS adopted a regulation pursuant to a provision of FDICIA which mandates that all federal bank-

ing agencies' risk-based capital regulations address interest-rate risk. Under the new regulation, thrifts that have normal levels of interest-rate risk (IRR) will have lower capital requirements than institutions with above-normal IRR. Those high-risk associations will either have to restructure their portfolios to reduce their interest-rate risk or hold additional capital as a cushion against the risk. The regulation culminates five years of OTS' efforts to improve the monitoring and supervision of IRR.

The OTS model evaluates data supplied by savings institutions in their quarterly Thrift Financial Reports. Each quarter, the model generates exposure reports that provide each institution with OTS' estimate of the interest-rate sensitivity of the institution's assets, liabilities, and off-balance-sheet items. The reports show the effect of nine hypothetical scenarios in which interest rates move up or down. The result is a measure of the sensitivity of an institution's "net portfolio value" to changes in interest rates. Net portfolio value is the difference between incoming and outgoing discounted cash flows from assets, liabilities, and off-balance-sheet contracts. Each institution's IRR is measured by the change that occurs to its net portfolio value as a result of a hypothetical two percentage point increase or decrease in market interest rates (whichever leads to the lower net portfolio value). A "normal level" of IRR is any decline in net portfolio value of up to two percent of the institution's assets. Institutions will be required to hold capital against IRR only when their risk exceeds the two percent threshold. Beyond that point, the amount of capital required against IRR will be one-half of the difference between the measured risk and two percent of assets.

Consistent with an agreement among the federal banking agencies, the OTS expects to lower the minimum leverage ratio requirement, now four percent, once the IRR component is incorporated into the risk-based capital requirement. July 1,

1994 will be the first time that thrifts will be required to incorporate IRR in their capital calculations. The calculations will be based on institutions' financial data as of December 31, 1993.

The final rule exempts small, highly capitalized institutions from filing Schedule CMR (IRR component reporting form), and thus these institutions are not subject to the IRR component. To qualify for the exemption, an association must have less than \$300 million in assets and a risk-based capital ratio in excess of 12 percent. The OTS retains the discretion to require any exempt institution to file Schedule CMR if there is a reason to be concerned about their IRR exposure. Under certain circumstances, the OTS director may waive or defer an institution's IRR capital requirement, if, for example, the institution has taken meaningful steps to reduce or control its exposure that have not yet been reflected in its Thrift Financial Report.

At a later date, the OTS plans to release guidelines outlining an appeals process that will be available under certain circumstances to thrifts that disagree with OTS' estimate of their IRR exposure. On a case-by-case basis, the OTS will allow thrifts to use the results from their own model, rather than the OTS model. Also, once the IRR rule is effective, certain mortgage-backed securities that are currently in the 100 percent risk-weight category will be moved to lower credit risk-weighting categories. *NEWS, OTS, 8/23/93; FR, 8/31, p. 45799; "Questions and Answers on the Interest-Rate Risk Component," OTS, 8/93.*

### ***Mutual Holding Companies***

Mutual savings and loans are permitted to create a new type of corporate structure, the mutual holding company, under a regulation adopted by the OTS, effective September 20, 1993. Mutual holding companies were first authorized by the Competitive Equality Banking Act of 1987 (CEBA). In a mutual holding company structure, depositors, and in some cases borrowers, own the hold-

ing company which, in turn, holds a majority of voting stock of its subsidiary savings association. The balance of the thrift's stock can be sold to outside investors to raise capital. In contrast to a traditional savings and loan conversion from a mutual to stock ownership, in which all of the thrift's stock must be offered to depositors and the public at once, under a mutual holding company the thrift's stock can be sold in batches as market conditions warrant. Also, mutual holding companies can acquire subsidiaries, including other thrift institutions and some other types of companies.

The final rule requires minority stock issuances to include a priority structure which shows the relative rights of various groups such as depositors, borrowers and the institution's employee benefit plans to purchase stock. The final rule also includes safeguards to prevent insider abuse, including limitations of the amount of stock that can be purchased by insiders and a mandatory independent appraisal of the value of stock offered for sale.

The regulation establishes a formal application process and standards under which current mutual savings and loans can convert to the mutual holding company structure, or new institutions can start out under that structure. Current stock thrifts cannot convert to mutual holding companies. *NEWS, OTS, 8/18/93; FR, 8/19, p. 44105.*

### ***More Thrifts Eligible for Reduced Loan Documentation***

The OTS took another step, effective immediately, to expand the availability of credit, giving additional savings institutions the opportunity to make "character loans" that are not required to have all of the regulatory-mandated documentation. The action extends to certain MACRO 3 rated institutions a policy announced by OTS and the other federal financial regulatory agencies in March 1993, which said well-run, well- or adequately capitalized institutions — those receiving MACRO 1 or 2 ratings — could make

a limited amount of loans that would not be criticized by OTS examiners for not having all the usually required documentation. Once approved, MACRO 3 institutions, like their MACRO 1 and 2 counterparts, will decide the appropriate level of documentation for such things as sources of income and the credit history of the borrower. The reduced documentation will cut costs to the lender, and the time required to respond to credit applications.

The total of all loans in this special category may not exceed 20 percent of an institution's total capital, and loans to any one borrower in the special category are limited to the lesser of \$900,000 or three percent of the thrift's total capital. Loans to insiders and loans that are already delinquent do not qualify for this exemption. *NEWS, OTS, 9/14/93.*

### ***Sales of Securities at Savings Association Offices***

Amendments published by the OTS in October 1992 prohibit sales of the securities of a savings association or its affiliates in any office of the association except for sales of stock in connection with the association's conversion from the mutual to the stock form of organization, and subject to certain conditions. The agency has clarified that other limited exceptions are permitted. For example, the OTS does not consider the sales prohibitions to be applicable to initial stock offerings of an association that is held by a mutual holding company. These offerings will be treated the same as mutual to stock conversions.

Further guidance is provided on what directors and managers should do to ensure that permitted offers and sales are conducted in a safe-and-sound manner. Some of the safeguards are: a) establishing a training program for employees selling the securities; b) establishing minimum qualifications for retail sellers; c) adopting procedures to assure that sellers do not supplement written offering materials with information that misstates material facts; d) designating an officer to be responsible for

coordinating and supervising the association's compliance with its established safeguards; and e) ensuring that customers sign the required acknowledgement form regarding their understanding that the security they are purchasing is not an insured account. *Thrift Bulletin 23a, OTS, 6/23/93.*

### ***Guidance on Uninsured Thrift Products***

The OTS is reemphasizing to savings associations selling uninsured products, including mutual funds and insurance annuities, that they must conform to federal rules designed to protect depositors from being misinformed or misled about the nature of these products. The agency's rules on selling uninsured products apply not only when they are sold on savings association premises, but also at any other location when the sale is the result of an association referral.

In general, OTS rules require that all sales of mutual funds or other uninsured products take place in an area segregated from the area where deposits are taken. The agency strongly encourages that customers be advised of and acknowledge awareness of the risks involved and that the investment is not FDIC-insured by signing a brief. Every referral should alert the customer to the fact that the investment products are not guaranteed by the association and are not federally insured. Any referral fees paid to association employees should be nominal and should not be dependent on a sale being made. Savings associations should adopt a policy governing customer referrals and the release of customer information. *NEWS, OTS, 9/7/93; Thrift Bulletin 23-1, 9/7.*

### ***Accounting Policy for Troubled Loans***

Under OTS' new policy, effective September 30, 1993, savings associations should carry certain troubled, collateral-dependent loans at present value, discounted at the loan's contractual interest rate. In current practice the discount rate could be the savings association's cost of capital rate, which generally results in a

higher carrying value for the loan. The new policy is consistent with the statutory requirement that regulations and policies governing the operations of savings associations be no less stringent than those established by the OCC for national banks. The policy applies to any troubled, collateral-dependent loan where collection in full is not probable. For such a loan, any excess of the loan balance over the present value should be classified "loss." *NEWS, OTS, 9/11/93; Regulatory Bulletin 31, 8/26/93.*

### ***Policy Change Proposed for "Special Mention" Assets***

The OTS proposed to remove the "special mention" designation for assets from its regulations, and issue a guidance on when thrift institutions should designate an asset as special mention. Special mention is intended to identify assets not yet warranting an adverse classification, but that, nonetheless, possess credit deficiencies or potential weaknesses deserving close attention. *NEWS, OTS, 7/20/93; FR, 7/20, p. 38730.*

### ***Notice Required for Changing or Adding Officials***

The OTS adopted a final regulation that codifies the agency's existing requirement that before adding any individual to its board of directors or employing a new senior officer, a savings association that is either new or troubled must give OTS 30 days' notice. Although the regulation is effective September 29, 1993, affected savings associations and holding companies have been subject to the notification requirement and disapproval provisions since August 9, 1989, when FIRREA was enacted. The OTS rule is the result of a cooperative effort with the other federal banking agencies to ensure comparability.

During the 30-day period, OTS reviews the competence, experience, character and integrity of the nominees, and may disapprove their appointment if the appointment is contrary to the best interests of the depositors or the public. The rule applies to savings institutions that are less than two years old (unless they

operated previously under a different charter), institutions that fail capital requirements, receive adverse examination ratings, or are otherwise troubled, and institutions or their holding companies that have undergone a change in control during the past two years. The rule also applies to savings and loan holding companies that are in a troubled condition. *NEWS, OTS, 8/27/93; FR, 8/30, p. 45421.*

### ***Outreach Program for Participation in Contracting Activities***

OTS is adopting a Minority-, Women- and Individuals With Disabilities-Owned Business Contracting Outreach Program, as required by FIRREA. The final rule, effective July 19, 1993, is intended to ensure that business concerns owned and controlled by persons in the above groups are provided the opportunity to participate in OTS' contracting programs. It also designates the official responsible for implementing the program and its oversight. The rule includes defining minority-, women-, and individuals with disabilities-owned firms capable of providing goods and services to the OTS; the agency's official policy; certification of identified firms; promotion of the program; guidelines for the solicitation of contracts that promote participation in OTS' contracting; and the oversight and monitoring of the program. *FR, 6/17/93, p. 33323.*

### ***Affordable Housing, Fair Lending Programs***

The OTS will initiate a program for increasing the flow of credit to low- and moderate-income and minority applicants. The five OTS regional offices will direct and manage the community outreach efforts, and provide technical assistance to OTS examiners and other staff on CRA and related issues. Community liaisons will be created in the regions to work with consumer and community groups and government and industry organizations. A newly created position in each region will supervise its compliance examination function and staff handling of consumer complaints

against regulated institutions. A headquarters office will develop and disseminate national policy on CRA issues, and work with community organizations at the national level. *NEWS, OTS, 10/20/93.*

### ***Guidelines to Help Midwest Flood Rebuilding***

Savings and loan associations in states hit by flooding are being urged to reach out to their communities and work with borrowers to finance rebuilding. OTS will grant temporary waivers of some rules to help savings institutions cope with the disaster. Thrifts also are urged to work with borrowers to restructure or to increase their loans if needed to finance reconstruction or repair, to consider temporarily waiving charges for late payments for flood victims, and to seek out various government programs that may help in cases in which credit risk of potential borrowers is too great. *NEWS, OTS, 7/14/93.*

### ***Supervisory Appeals Process Modified***

The OTS has revised its examination procedures to modify the appeals process and enhance feedback from the institutions it supervises. The program aims to make senior regional examination officials more accessible to thrift management, improve examination quality and better resolve examination-related disagreements. The agency has appointed senior staff members in each of its five regions who will visit thrifts regularly to discuss examination procedures and results with thrift management as well as to solicit ideas for improving the examination process. The examination oversight managers will review examination reports for content, perspective, uniformity, tone and conformance with national policy and guidelines.

The program is one of several steps taken by the OTS in line with President Clinton's initiatives to encourage thrifts and banks to make more, sound loans to consumers and small- and medium-sized businesses. *NEWS, OTS, 7/16/93.*

### ***Federal Financial Institutions Examination Council Regulatory Treatment of Securities Portfolios***

The FFIEC announced that all federally supervised banks and savings associations should adopt the Statement recently issued by the Financial Accounting Standards Board (FASB) for regulatory reporting purposes no later than January 1, 1994, or the beginning of their first fiscal year thereafter. The FFIEC said conforming changes will be made to the Reports of Condition and Income. The OTS already has made appropriate changes to the Thrift Financial Report.

This new accounting standard provides that for financial reporting purposes, depository institutions should divide their securities holdings among three categories: held-to-maturity, available-for-sale, and trading securities. The held-to-maturity category supplants the current held-for-investment category, but the accounting basis remains the same. Only those debt securities for which an institution has the positive intent and ability to hold to maturity may be included in the held-to-maturity account, and the institution would continue to account for these debt securities at amortized cost.

The accounting treatment for trading securities has not changed. Trading securities are those debt and equity securities that an institution buys and holds principally for the purpose of selling in the near term. Trading securities will continue to be reported at fair value (*i.e.*, generally market value), with unrealized changes in value reported directly in the income statement as a part of the institution's earnings.

For many institutions, the available-for-sale category will include a larger amount of securities than the current held-for-sale category it replaces. Securities in the available-for-sale category are defined as those securities for which the institution does not have the positive intent and

ability to hold to maturity, yet does not intend to trade actively as part of its trading account. While held-for-sale securities have been carried at the lower of cost or fair value, with the offsetting entry reported directly in the income statement, available-for-sale securities must be reported at fair value. Any unrealized appreciation or depreciation in the value of debt and equity securities available for sale are to be reported directly as a separate component of equity capital, and thus will have no effect on the reported earnings of the institution. *Press Release, FFIEC, 8/10/93.*

### ***State Certification of Real-Estate Appraisers***

The Appraisal Subcommittee (ASC) of the FFIEC issued Policy Statements to assist the states in developing regulatory structures for certifying, licensing and supervising real-estate appraisers. Title XI of FIRREA requires, among other things, that the ASC maintain a national registry of state-licensed and -certified appraisers, and ensure that each state appraiser certifying and licensing agency transmits to the ASC a roster of eligible appraisers to perform appraisals in federally related transactions, along with an annual registry fee. The Statements reflect the general framework that the ASC is using to review a state's program, and there are new interpretations particularly regarding appraiser qualifications, temporary practice, a national registry, and enforcement. "*Policy Statements Regarding State Certification and Licensing of Real-Estate Appraisers,*" ASC, FFIEC, 8/4/93; BBR, 8/30, p. 323.

### ***Mortgage Lending Reports for 1992 Now Available***

Data on mortgage lending transactions in 1992 are now available to the public in metropolitan areas throughout the nation. This information, in the form of individual disclosure statements, summarizes the mortgage lending activities of more than 9,000 lenders covered by HMDA. The FFIEC prepared the HMDA statements on behalf of its member agencies and the U.S. Department of

Housing and Urban Development. Beginning this year, lenders are required to make the reports available, upon request, at their home offices within three business days of receiving the reports, and within ten business days at certain branch offices in other metropolitan areas. In prior years, they could wait 30 calendar days before releasing the statements to the public.

The HMDA reports cover both home purchase and home improvement loans. They contain information about loan originations, loan purchases, and applications that did not result in a loan. For property in metropolitan areas, they identify the geographic location (generally by census tract). They also give information about three characteristics of applicants or borrowers: sex, race or national origin, and annual income. For 1992, the reports present data on nearly 12 million records, an increase of about 33 percent from 1991. *Press Release, FFIEC, 8/5/93.*

### ***National Credit Union Administration Field of Membership and Chartering Policy***

The NCUA proposed an interpretive ruling and policy statement updating the agency's field of membership and chartering policy for federal credit unions. The proposed changes in part are designed to: a) facilitate corporate and military unit restructurings; and b) clarify NCUA policy on the "operational area" requirement for select group expansions.

The NCUA noted that the restructurings taking place in many organizations served by credit unions have forced credit union officials to adapt quickly to significant changes to their fields of membership. Sponsoring organizations previously organized on geographic or military services lines, for example, are reorganizing more strictly on functional lines. Military bases and industrial plants are closing, leaving credit unions effectively without a field of membership.

Technology has expanded the geographic range within which many credit unions can effectively serve their members at the same time that much of the public have begun to demand the convenient service that the new technology offers. Those seeking to provide credit union service to low-income communities have shown they need more flexibility in the chartering and field of membership expansion process if these credit unions are to be effective in helping persons of small means obtain a source of credit in which they have a real voice. *FR, 7/28/93, p. 40470; 8/11, p. 42698.*

### ***Nonrisk Asset and Business Loan Regulations***

The NCUA issued final amendments, effective July 27, 1993, to: a) extend the maturity date of certain investments not considered risk assets from three to five years; b) increase the dollar value from \$25,000 to \$50,000 for determining when loans are subject to the business loan regulation; c) make the recordkeeping requirements for business loans consistent with the definition of member business loans; and d) raise the *de minimus* amount for an appraisal performed by a state-chartered or -licensed appraiser from \$50,000 to \$100,000. The agency believes these changes will decrease paperwork requirements and regulatory burden without any effect on safety and soundness. *FR, 7/27/93, p. 40040.*

### ***Investment and Deposit Activities***

The NCUA issued a final rule, effective July 30, 1993, that revises its high-risk for Collateralized Mortgage Obligations (CMOs) and Real-Estate Mortgage Investment Conduits (REMICs). CMOs and REMICs will be subject to an average life test, an average life sensitivity test, and a price sensitivity test. A floating-rate CMO or REMIC will be subject also to the price sensitivity test if it reaches its contractual cap at the time of purchase or on a subsequent testing date. The revised test is generally consis-

tent with the FFIEC's High-Risk Securities Test for mortgage derivatives, which applies to other depository institutions. *FR, 6/30/93, p. 34868.*

### ***Truth-in-Savings***

The NCUA issued a new regulation to implement the Truth-in-Savings Act (TISA). All federal credit unions, federally insured state-chartered credit unions, and nonfederally insured credit unions are required to disclose fees, dividend (or interest, if applicable) rates and other terms concerning accounts to members or potential members before they open accounts. Credit unions that provide periodic statements to members must disclose this information, including annual percentage yields, on those statements. Substantive limitations are imposed on the methods used by credit unions to determine the balance on which dividends are calculated. The agency's proposal, which was issued in November 1992, would have permitted credit unions to use the daily balance, average daily balance, rollback, or par value dividend calculation methods. The final rule allows only the daily balance and average daily balance methods. Rules dealing with advertisements for accounts are included also in the law and the regulation. The regulation is effective January 1, 1995, except for some requirements not effective until approved by the Office of Management and Budget. *FR, 9/27/93, p. 50394.*

### ***Court Upholds Credit Union Expansion***

A federal judge in Grand Rapids, Michigan denied plaintiff banks' claim that the NCUA acted incorrectly in approving a charter that expanded the membership base of Portland Federal Credit Union in Ionia County. The 9,000-member credit union's field of membership would increase from a geographic area with a population of 16,000 to an area of over 47,000. The plaintiffs contended that on the basis of the different area codes and political jurisdictions and other evidence, there was no common bond. How-

ever, the court accepted the NCUA's finding that the approximately 75,000 people of the rural county did view themselves as a distinct community. *AB, 8/30/93, p. 1.*

### ***Voluntary Liquidation of Credit Unions***

The NCUA is updating and streamlining the minimal procedures for voluntary liquidations of federal credit unions, effective August 2, 1993. The final rule will assist a federal credit union's officials in the orderly dissolution of the institution and provide the NCUA with sufficient information to monitor the process and avoid losses to the National Credit Union Share Insurance Fund. It requires, among other things, the development of a written liquidation plan, with a one-year period for completing the liquidation, expands the notification to creditors requirement for federal credit unions with more than \$500,000 in assets, and eliminates certain reporting requirements. For federally insured state credit unions, this rule only requires notification, with minimal reporting, to NCUA when the decision to voluntarily liquidate is made. *FR, 7/11/93, p. 35363.*

### ***Federal Housing Finance Board***

#### ***Advances to Capital-Deficient Members***

The FHFB proposed to amend its regulations to incorporate requirements governing secured loans (advances) made by the Federal Home Loan Banks to capital-deficient members. The Banks would be prohibited from lending to tangibly insolvent members, except at the request of the appropriate federal regulator or insurer. They would be restricted from lending to other capital-deficient members whose use of Bank advances has been prohibited by the appropriate federal regulator or insurer. Each bank would be required to report monthly to FHFB on all outstanding advances and commitments to all members. Rules would be provided for the calculation of "tangible capital" for these purposes

generally parallel to FDIC "prompt corrective action" rules. *FR*, 9/23/93, p. 49446; *Regulatory Alert*, Michigan Bankers Association, 10/18, p. 2.

## State Legislation and Regulation

### Interstate Banking

*North Carolina*: A new law provides for the phaseout of regional interstate banking over a three-year period, to be replaced by nationwide interstate banking. *BBR*, 7/12/93, p. 49.

*Oregon*: A reciprocal interstate branching law enacted earlier this year became effective July 1. Alaska enacted legislation that will take effect in January 1994. *AB*, 7/12/93, p. 8.

### Intrastate Banking

*Illinois*: The Governor signed legislation, effective immediately, ending restrictions on statewide branching. All numeric, geographic and home office protection branching restrictions applicable to state-chartered banks are removed, putting state banks on the same basis as national banks. *Illinois Banker*, 9/93, p. 18; *Northwestern Financial Review*, 9/16/93, p. 15.

*Michigan*: Banks are authorized under a new law to operate mobile branches, and to own or operate messenger-service firms. *General Bulletin*, Michigan Bankers Association, 7/26/93.

*Minnesota*: Customers can conduct transactions at different banks using the same account under a new law, effective September 1, 1993, which allows banks to contract with each other for services. An organization with two or more banks under common ownership could be operated with functional similarity to a branching system under the statute. *Northwestern Financial Review*, 9/4/93, p. 29.

A recently enacted bank merger and consolidation law, effective August 1, 1993, removed the limit on the number of detached facilities a bank may have in the state. The limit already had been taken off for the Twin Cities metropolitan area. There was no change in the number of *de novo* offices permitted for a bank in the state, which is five. *Northwestern Financial Review*, 9/18/93, p. 31.

### Innocent Landowner Defense

*Illinois*: Amendments to the Environmental Protection Act establish a uniform standard of "due diligence" or "appropriate inquiry" necessary for lenders and other defendants to satisfy the Innocent Landowner Defense under present Illinois Superfund laws. It creates a "rebuttable presumption" of innocence when such action is taken by defendants. It further establishes a "safe harbor" from environmental clean-up costs for innocent individual, single-family residential property owners. *Illinois Banker*, 9/93, p. 18.

### Power to Sell Annuities

*Maine*: New legislation authorizes licensed financial institutions, credit unions, holding companies, and their employees and subsidiaries to sell annuities directly or through contracts with licensed third parties.

*Nevada*: Under a new law, banks are allowed to sell annuities following the Financial Institutions Commissioner's issuance of a license for such sales. *BBR*, 8/2/93, p. 171.

### Compliance Review Information Protected

*Maryland*: A law that becomes effective in October 1993 will protect bank compliance review information from being subpoenaed in civil cases. Under the law, internal bank information from compliance review committees is "confidential and is not discoverable or admissible in evidence in any civil action." The law applies to all federal or state-chartered commercial banks, savings and loan associations, and credit unions in the state. *AB*, 9/3/93, p. 7.

### CRA Requirements

*New York*: The State Banking Board proposed a revised regulation, implementing the Community Reinvestment Act, that would use objective, quantitative data to calculate a preliminary CRA rating for a supervised bank. This analysis would be followed by a qualitative analysis which could result in an upward or downward revision in the quantitative rating. The 1-4 rating system now in

use would continue. Such factors as the size of the institution, its financial condition, and CRA opportunities in the market served and its demographic characteristics, would be taken into account. Community banks would not be subject to the quantitative analysis. Also, a "safe harbor" provision would protect banks with three or more consecutive "outstanding" or "1" CRA ratings from protests in the course of regulatory applications. *BBR*, 10/18/93, p. 590; *AB*, 10/20, p. 8.

### Deregulation of Consumer Loan Rates

*New York*: The deregulation of interest rates for consumer credit has been extended through January 1994. An earlier report by the New York State Banking Department said that deregulation of the rates in the state has improved the availability of credit, increased maximum credit lines, and has helped strengthen banks' capital by improving the profitability of consumer loans. The fact that permanent legislation was not enacted resulted partly from a lack of an agreement on consumer safeguards to be contained in the bill. *BBR*, 1/18/93, p. 59; 7/12, p. 49.

### Mutual Holding Companies

*New York*: State-chartered mutual savings and loan associations are permitted to form mutual holding companies under recently enacted legislation. The mutual holding company structure provides a means of raising capital, and on an incremental basis. Also, it enables an institution to retain its community-based nature. *BBR*, 8/2/93, p. 170.

### Selling of Annuities

*New York*: The state supreme court held that the New York State Banking Department may authorize state-chartered banks under the "incidental powers" clause in the state banking law to sell annuity contracts as agents for insurance companies. A lower-court ruling had prohibited state-chartered banks from brokering fixed- and variable-rate annuities. *BBR*, 6/21/93, p. 927.

### **Small-Business Loan Program**

*New York:* A new law authorizes the state to deposit up to \$100 million in general funds or public corporation funds in commercial banks that will make loans to small- and medium-sized businesses. The loan rates will be 200 to 300 basis points below market rates, and the state receives a lower return on its deposits. *BBR*, 8/23/93, p. 282.

### **Supervision of Foreign Banks**

*New York:* The Governor signed legislation that greatly enhances the state's ability to monitor foreign banks and handle their liquidations. It parallels similar but more general federal legislation. The law authorizes the New York State Banking Department to examine transactions by employees in the state on behalf of any office of the foreign parent bank, expands the grounds for revoking or suspending foreign bank licenses, and requires foreign bank offices in the state to provide prompt notification of any change in control. Among other provisions are: foreign banks are required to pledge funds for covering expenses involved in a liquidation; and offices of foreign banks in the state are subject to state restrictions on the amount of single-borrower loans. *AB*, 8/2/93, p. 2.

### **Conversions to State Charters**

*Oklahoma:* The Banking Board approved new standards for national banks applying to convert to state charters. Consideration for conversion is limited to banks that, upon examination and investigation by the Banking Department: a) receive a uniform financial institutions rating of a composite 1 or 2 (in a scale of 5), and b) would not be subject to supervisory action by the department, such as a memorandum of understanding or cease and desist order. The Board approved the standards as an emergency rule, requiring the Governor's signature before becoming effective, and also as a permanent rule which must await legislative action next year to become effective. *Oklahoma Banker*, 10/1/93, p. 2.

### **Tax Incentives for Investment**

*South Dakota:* A new law, effective immediately, provides for reductions in the franchise tax for a six-year period for banks that invest in firms that buy part ownership in new or existing businesses. *Northwestern Financial Review*, 4/3/93, p. 30.

### **Banking Structure Laws**

*Texas:* A new law, effective August 30, 1993, allows mergers, reorganizations, and conversions involving state and federal savings banks, state and federal savings and loan associations, and state commercial banks.

Another law, to take effect on the same date, provides for the establishment and regulation of state-chartered savings banks that can engage in lending and investing activities similar to those presently permitted for state-chartered thrifts. State or federal commercial banks, savings and loan association, and federal savings banks are allowed to convert to state-chartered savings banks after approval by the Savings and Loan Commissioner. *BBR*, 7/5/93, p. 20.

### **Money Laundering**

*Texas:* Under a first-of-its-kind agreement, state enforcement officials will have direct on-line access to the U.S. Treasury Department's database of currency transactions in excess of \$10,000 that is constructed from records provided by financial institutions. A new law, effective September 1, 1993, expanded the state attorney general's anti-money-laundering enforcement powers. *BBR*, 7/12/93, p. 50.

### **Environmental Liability**

*Vermont:* Under a recently enacted law, a lender or fiduciary will not be liable as owner and operator if it requires or conducts, after receiving state approval, an investigation and removal activities in response to a release or threatened release of hazardous materials. The law allows lenders to clean up foreclosed property under agreement with the state that limits liability to the property's fair value or an amount agreed to under the plan. *BBR*, 6/21/93, p. 920.

### **Bank and Thrift Performance**

#### ***Insured Institutions Had Strong Third Quarter***

FDIC-insured commercial banks earned nearly \$11.5 billion (preliminary) in the third quarter of 1993, up from \$10.4 billion (preliminary) in the second quarter. Third-quarter net income surpassed the record set in the first quarter, when one-time accounting gains contributed more than \$1.5 billion. For the first nine months of 1993, commercial banks earned \$32.6 billion, an increase of \$8.5 billion over the same period a year ago, and \$500 million above the net income for the full year 1992.

Lower loan-loss provisioning, reflecting improved credit quality, and increased noninterest income provided most of the increase in earnings in the quarter. Net interest income increased by \$416 million. The industry's average net interest margin has declined for three consecutive quarters to 4.45 percent, from the record 4.67 percent registered in the fourth quarter of last year. The composition of bank liabilities continues to shift away from costlier, longer-term certificates of deposit, into non-interest-bearing demand deposits, lower-rate savings deposits, and short-maturity liabilities such as overnight borrowings. Also, increased levels of equity capital tend to reduce the need for interest-bearing liabilities. Excluding nonrecurring items, commercial banks' core net operating income has increased in each of the last seven quarters. Fewer than one in 20 banks lost money in the quarter or in the first nine months of the year, the lowest percentage in the ten years since quarterly income reporting began.

The decline in troubled assets that began two years ago continued in the third quarter. Noncurrent loans, which fell by \$4 billion, were lower in all regions. The *greatest* improvements were at banks with the highest overall levels of troubled assets — those in the Northeast and West regions, and in the largest asset-size groups. Noncurrent loan levels improved in all major loan categories,

even as net charge-offs declined. Troubled assets — noncurrent loans plus foreclosed property — are now at their lowest level since the first quarter of 1989, and represent the lowest ratio to total assets since the fourth quarter of 1986.

Commercial banks' total assets increased by \$62 billion in the third quarter, the largest quarterly rise since the last quarter of 1989. While the growth in bank assets occurred in all regions, the gains were largest outside the West and Northeast regions. Nationally, the strong growth in non-commercial loans (1-to-4 family residential mortgages and consumer loans), investment securities and trading-account assets accounted for most of the increase. Commercial and industrial loans outstanding fell by \$5.3 billion, to \$529.7 billion, the lowest level since the end of 1983.

FDIC-insured savings institutions earned \$1.2 billion (preliminary) in the third quarter of 1993, the eighth consecutive quarter of positive earnings. Favorable interest rates and declining inventories of troubled assets enabled most savings institutions to be profitable. Net interest margins had been rising for two years through the first quarter of 1993, when they reached 3.58 percent, but declined to an average 3.44 percent during the third quarter. Ninety-four percent of the institutions had positive net income in the quarter. In the first three quarters of 1993 earnings totaled \$5.3 billion. Of the ten largest U.S. savings institutions, eight are based in California and four of these reported losses during the first three quarters of 1993.

At the end of September 1993, there were 2,297 savings institutions (excluding RTC conservatorships), the number having declined from 3,704 in the second quarter of 1986. Since then over 1,100 institutions have failed and numerous others have been absorbed or have converted to commercial bank charters. The RTC has taken control of 741 savings institutions since its inception in 1989. Assets of FDIC-insured sav-

ings institutions have declined from the fourth quarter of 1988 by more than one-third to \$1 trillion at the end of September 1993. The decline in assets has leveled off recently, and in the third quarter total assets increased. The \$2 billion increase in assets in the quarter reflects primarily an increase in their securities holdings, including mortgage-backed securities. Due in large part to the removal of many undercapitalized institutions, average equity capital of savings institutions rose from 4.11 percent of assets at the end of 1988 to 7.76 percent at September 30, 1993. Savings institutions' core capital, or leverage ratio, stood at 7.42 percent at the end of September. Troubled assets continued to decline for savings institutions. Their noncurrent assets and other real estate owned (OREO) were 2.43 percent of assets. Real-estate problems persist in the Northeast and Southwest regions where troubled real-estate assets as a percent of real-estate loans and OREO led the nation at 5.31 and 6.67, respectively. *FDIC Quarterly Banking Profile, Third Quarter, 1993.*

### **Capital Ratios Seen Not to Deter Bank Lending**

Banks have continued to improve their capital ratios even though in recent years most of them have met minimum capital standards, according to data from a sample of 720 large banks (assets greater than \$300 million). From the fourth quarter of 1990 to the fourth quarter of 1992, undercapitalized banks on average increased their capital ratios more than other banks; however, even the adequately capitalized banks as a group experienced a very large improvement in their capital positions.

The study shows the extent that banks have adjusted to capital standards both by increasing capital, and by reducing risk-based assets. Also indicated is that the higher-risk assets were affected more by the capital constraints than the lower-risk assets.

The study concludes that a large portion of the banking industry is

well-capitalized, and thus while capital constraints may have caused some of the slow loan growth in recent years, banks' capital positions should not themselves now be a major deterrent to lending. Should other supply and demand factors be present for a turnaround in bank credit, banks have the capital to respond. *Weekly Letter, Federal Reserve Bank of San Francisco, 9/22/93.*

### **Bank Failures and "Problem Banks"**

As of mid-October 1993, a total of 38 BIF-insured banks, and one SAIF-insured bank, had failed in the year. For the full year 1992, there were 120 insured bank failures. Seventeen of the failures this year were in California and another ten in Texas, these states together accounting for over 40 percent of the failed-bank assets.

The number and assets of commercial banks on the FDIC's "Problem List" continued to decline in the second quarter. At midyear, there were 580 institutions on the List, with assets of \$325.9 billion, a reduction of 91 banks and \$50.5 billion in assets in the quarter.

The number of "problem" savings banks continued to decrease from the record level of a year ago. At mid-1993, there were 60 of these institutions, whose \$37.1 billion in assets represented 18 percent of the industry's assets, down from 88 banks and almost one-third of the industry's assets a year earlier. The industry's performance has benefited from the FDIC's resolution of the most troubled institutions, the favorable interest-rate environment, and stabilizing real-estate markets in the Northeast. *FDIC Quarterly Banking Profile, Second Quarter, 1993; and FDIC Public Information Unit.*

### **Survey Documents Bank Fee Increases**

Based on its 1993 survey, the Consumer Federation of America (CFA) said that over the last three years bank fee increases in some cases have been four times the seven percent rise in the Consumer Price

Index. Among the study's findings were:

a) The average annual cost of a non-interest-bearing checking account increased 18.5 percent since 1990.

b) The net average annual cost of maintaining an interest-bearing checking account with a balance of \$600 rose 41 percent since 1990.

c) Fifty-nine percent of banks offer a no-frills, fee-based alternative to regular checking. These accounts generally charge a monthly fee regardless of the balance and limit the number of checks included in that fee. The average annual cost to consumers of a no-frills account is \$136.30, a cost out of reach for many lower-income and elderly consumers.

d) The average annual net cost of a savings account with a balance of \$200 is \$22.92 in 1993, an increase of 143 percent since 1990.

The study was based on data from 300 banks in 22 states. Overall, the highest-cost states for consumers to bank were Florida, Massachusetts, New York, California, and the District of Columbia, and the lowest-cost were Washington State, Virginia, Oregon, Vermont and North Carolina.

The proliferation of bank fees has obscured the costs of financial-services products and has caused massive consumer confusion, the CFA said. Among its recommendations was that the Congress investigate the feasibility of requiring standardized pricing of deposit accounts to provide the consumers with the information they need to shop in the marketplace. *The 1993 PIRG/CFA National Bank Fee Survey, U.S. Public Interest Research Group and Consumer Federation of America, June 1993; Press Statement, 6/8/93.*

## **Recent Articles and Studies**

### ***Lessons from New England Bank Failures***

While New England experienced only nine bank failures from the end of World War II through 1988, there were 92 failures of BIF-insured banks in the region in 1989 through 1992.

Many of these banks were newly chartered in the 1984-89 period and were still relatively small; however, other failures involved institutions of great importance to the region. This study by Richard E. Randall investigates the causes of these bank failures, and discusses the various statistical and other indicators which from quarter-to-quarter reflected the growing problems, and the responses of bank managements and the bank supervisors to the emerging developments.

Of the 62 banks in existence before 1984 that failed from 1989 to 1992, commercial real-estate loans were the dominant factor in 58 failures, they were a contributor to the problems in two failures, and were a non-critical factor in only two cases. Commercial real-estate loans exceeded 30 percent of assets in 47 of the banks, and were over 50 percent in eight banks. Prior to 1984, commercial real-estate loans seldom rose above 20 percent of assets. The high concentrations of commercial real-estate loans led to either failure or poor supervisory ratings in almost all cases. The exceptions involved mostly banks that followed policies of lending on existing commercial structures rather than construction. The real-estate loan problems in the region during this period appear to have been based almost entirely on construction and development lending and the resulting damage to the economics of existing commercial properties. Banks that survived the period, though with large portfolios of commercial real-estate loans, in most cases did not have large concentrations of construction and development loans.

When nonperforming loans began to exceed normal levels, most banks had already ceased making commercial real-estate loans and commercial and industrial loans, or did so promptly upon the onset of problems. The large majority of banks did not continue to expand loans beyond a quarter or two after credit problems began to emerge. The exceptions were mostly small, new banks. Also, it appears that most decisions to dis-

continue lending were initiated by bank managements rather than the supervisory authorities. Finally, the banks did not try to "grow out" of their lending problems, as was the case with some savings and loan institutions during the mid-1980s.

All 39 savings banks in this group failed as a result of heavy involvement in commercial real-estate lending, and like commercial banks, the savings banks showed rapid growth in those loans, resulting in high concentrations. The institutions generally reacted conservatively to the emerging credit problems as did the commercial banks.

Supervisory ratings show that banks were not downgraded based on their large concentrations of commercial real-estate loans. Supervisory reaction to the developing credit problems began at the time or shortly after when nonperforming loans reached one percent of assets, which is a relatively low threshold that is used in most cases in this study. Once the level of nonperforming real-estate assets exceeded one percent, it moved rapidly higher in most cases. In 16 of the 23 mature commercial banks, nonperforming real-estate assets (commercial and industrial loans in two banks) reached three percent of assets within two quarters, and they did so in all but one of the remaining banks within three more quarters. Such assets reached six percent of total assets in 11 banks within one and one-half years. The evidence indicates that a "gradual" recognition occurred on the part of the supervisors of the seriousness of the problems. That the recognition did not come sooner is attributed by the writer in part to the fact that examinations of some banks focused more on policies than on detailed review of credit quality and lending terms. Apparently due in part to infrequent examinations, there were two- or three-step drops in supervisory ratings in many cases.

It was found that new banks often received less-frequent examinations than established banks, though a

tenet of bank supervision is that new banks should receive more-frequent examinations. Real-estate lending was a major, if not dominant, factor in 19 of 25 failures of new banks (23 commercial banks and two savings banks, whose charter dates ranged from 1984 to 1989). Most new banks reacted promptly to reduce risk from the emerging credit problems; however, a number of new banks continued to increase the combination of commercial real-estate and commercial and industrial lending for more than one quarter after total nonperforming assets exceeded and remained above three percent of total assets. Over half of the 21 new banks for which supervisory ratings were available stopped expanding their troubled loan categories while they had supervisory ratings in the three top categories, suggesting that most of those banks that curtailed their lending in timely fashion did so on their own initiative.

New England banks' concentrations in commercial real-estate lending do not mean that all the losses resulted from providing too much credit to any particular sector. Institutions often lowered underwriting standards and failed to exercise prudent loan administration. The aggressive actions of converted savings banks may have contributed significantly to a liberalizing spiral of easier terms on construction loans. A number of banks were reported to have financed 100 percent of costs and advanced even more to cover interest payments. A significant increase in fraud occurred during this period, caused for the most part by outsiders, sometimes with an officer or employee involved. *New England Economic Review, Federal Reserve Bank of Boston, May/June 1993, pp. 13-38.*

### ***IMF Discusses Risks of Derivatives***

A recent report of the International Monetary Fund on systemic issues in international finance examines the growing involvement of international banks in derivative finance, the po-

tential risks from the rapid expansion of the over-the-counter (O-T-C) derivative markets, and supervisory and regulatory approaches to the management of these risks. While calling attention to the systemic risk issues, the report does not make specific recommendations.

The derivative contracts market expanded eightfold in the five years from 1987 through 1991, from \$1 trillion to about \$8 trillion. The fastest growth has occurred in O-T-C contracts. The IMF said that "experience suggests that rapid expansion of, and concentration in, a particular banking activity often signals both a weakening of internal controls and an underassessment of credit risk."

Although participants in the derivatives securities markets are exposed to the same type of risks — credit, market, liquidity, and legal risks — as in other markets, the speed of market expansion and complexity of instruments may have weakened risk management. Managements may not have a full understanding of some of the recent products, the report said. Also, the connections between firms in complicated derivative transactions can make counterparty risk extremely difficult to evaluate.

The tendency for derivatives to create arbitrage opportunities and strengthen the linkages between markets has increased the possibility that disruptions or increased uncertainties in these markets may affect other derivative markets and the cash markets more readily than in the past. Examples of where the potential for such problems has been evidenced are the global stock-market collapse of 1987, the bankruptcy of Drexel Burnham Lambert in 1990, and the European currency crisis in 1992. Among the issues that have caused concern in the financial community are the central banks' ability to contain systemic difficulties that might involve a wide range of financial and nonfinancial firms, concentration of risk in the O-T-C market in a few major participants, systematic underpricing of that

risk, and expansion of the financial safety net beyond banks to include nonbank financial intermediaries.

Two public-policy approaches for limiting the potential for systemic risk that are discussed in the study are capital-adequacy requirements and prudential supervision for strengthening individual financial institutions, and development of netting arrangements for derivative contracts to improve the payments and settlement systems. *International Capital Markets, Pt. II, Systemic Issues in International Finance, International Monetary Fund, 106 pp., August 1993; AB, 9/27/93, p. 24.*

### ***"Parallel-Banking" System Should Not Be Regulated Like Banking***

This article by Martin E. Lowy responds to a proposal (see the Spring/Summer 1993 issue of the *Review*) for a financial industry licensing system, which would require all "parallel-banking system" firms to be licensed and to comply with the same major regulations as banking firms in respect to safety and soundness. The requirements as proposed would apply to any such entity that directly accepts funds from the public for investment, makes loans to the public or buys loans or securities using funds other than its own equity capital and retained earnings, or sells loans or third-party securities to financial institutions or investors.

Lowy is in agreement that irrespective of the kind of institution, those activities that are functionally similar should be regulated in the same way. Such activities would include, for example, pools of capital that are sold to the public the same way (under the Investment Company Act) by different institutions, and other selling activities. Parallel-system firms should be subject to regulations as are banks in respect to disclosures by lenders, duties of fiduciaries, and the community obligations of lenders. However, banks differ basically from parallel-system firms in that they offer federally insured deposits, and in the extent of

their safety representations before the public. Thus, banks are subject to capital requirements and prudential restraints that should not be imposed on the parallel system.

In the earlier proposal, concerns were expressed about the parallel-banking system causing potential problems for the Federal Reserve in respect to handling financial-system crises, and conducting monetary policy. In contrast, Lowy sees in parallel banking a system in which risks are spread broadly that were formerly concentrated, and a safer system than banking. He notes that large amounts of the commercial paper issued by finance companies are purchased by money-market mutual funds, which are diversified, are funded through sales of equity shares, and are virtually fail-proof. The parallel system is in fact not unregulated. Several of the leading finance companies are supervised by the New York State Banking Department, the mutual funds are overseen by the SEC, and banks that provide the back-up lines are regulated.

The author believes that the parallel-banking system involves less risk and can provide services at lower cost, not only because of regulatory advantages but also due to functional specialization and to the broad spreading of risk. Thus, the banking system should be freed to perform more like the parallel system. Bank holding companies, which are really a part of the parallel banking system, should be able to engage in other businesses and not be subject to restrictions on their strength or actions that do not involve the banks. Banks should be permitted to act as agents in a variety of businesses, including securities sales, mutual funds, and all types of insurance. *AB, 7/6/93, p. 4.*

### *Report on Savings and Loan Industry*

The National Commission on Financial Institution Reform, Recovery and Enforcement reported to Congress, as required by the Comprehensive Crime Control Act of 1990, on problems in the savings and loan industry, and recommendations for enhancing the safety and soundness of depository institutions. The report is devoted mostly to historical information on the savings and loan crisis, with separate papers on specific topics such as criminal misconduct and insider abuse, accounting practices, industry lobbying, and the roles of the Congress and of the Executive Branch. Federal deposit insurance, while not the cause of the problem, is viewed as "fundamental" and a "necessary condition" for the savings and loan collapse. Mistakes and deficiencies in the regulatory-supervisory area are given considerable attention. The report emphasizes the imperfection of government regulation and supervision as a mechanism for protecting the public against losses from failures of depository institutions under the present system. In this connection, it should be noted that the historical material and conclusions are based on the period up through the enactment of FIRREA in 1989.

Among the report's numerous recommendations for changes are the following:

a) Allow institutions to offer federally insured deposit accounts *solely* through separately capitalized, federally insured, money-market funds authorized to invest only in short-term debt instruments for which there is an active national market. Because these "monetary service companies" would hold only highly liquid, mar-

ketable securities, their condition would be marked-to-market daily and their risk exposure calculated. MSCs would be subject to risk-based capital standards and insurance premiums, as well as vigorous and effective regulation and supervision by the FDIC. MSCs could be affiliated with other financial entities including, but not restricted to, banks. They could share personnel and facilities, but could not lend to, or have other financial transactions with affiliates or parent organizations, except in the payment of dividends (which would be regulated by the FDIC).

b) Eliminate thrifts as separately chartered and regulated entities by converting them into commercial banks, and permit them to specialize in home-lending services if they so choose.

c) Make the FDIC the sole federal insurer of depository institutions and the sole federal charterer and regulator of insured depositories. The FDIC should remain an independent agency, reporting to Congress. It should be required to consult regularly with the Federal Reserve and make available to it, on a timely basis, all pertinent information concerning the condition of insured depository institutions.

d) Make all federally insured depository institutions subject to federal rules, regulations, and examinations, but permit innovation and flexibility consistent with safety and soundness. *Origins and Causes of the S&L Debacle: A Blueprint for Reform, National Commission on Financial Institution Reform, Recovery and Enforcement, July 1993.*