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December 17, 2008

Robert E. Feldman Executive Secretary Attention: Comments Federal Deposit Insurance Corporation 550 17th Street, N.W. Washington, D.C. 20420

RIN: 3064-AD35

Dear Mr. Feldman:

In response to a request for comment by the Federal Deposit Insurance Corporation ("FDIC") on a proposal to increase the deposit insurance premium assessment rates (the "Proposed Rule"), we are submitting this letter on behalf of our clients. Our clients are (i) broker-dealers registered with the Securities and Exchange Commission that engage in offering certificates of deposit ("CDs") issued by depository institutions whose accounts are insured by the FDIC ("Insured Institutions") and (ii) Insured Institutions that issue CDs through registered broker-dealers. The CDs offered by our broker-dealer clients are commonly referred to as "retail" CDs because they are offered and sold in amounts below FDIC deposit insurance limits. We appreciate the opportunity to submit these comments.

The Proposed Rule contains a "Brokered Deposit Adjustment" to the premium assessment that is intended to recognize potential additional risk to an Insured Institution posed by the use of brokered deposits in certain circumstances. The Proposed Rule uses the definition of "brokered deposit" in FDIC regulations and applicable interpretations of that term.¹ The adjustment for Risk Category I institutions would apply if an Insured Institution's brokered deposits exceed 10% of its domestic deposits and its assets have increased by more than 20% during the prior four years. For Risk Category II, III and IV institutions, the adjustment would apply if brokered deposits exceed 10% of domestic deposits, irrespective of asset growth.

The FDIC's rationale for imposing a "Brokered Deposit Adjustment" to the premium assessments appears to rest on two assumptions: (i) some recently failed institutions experienced rapid asset growth before failure and may have funded that growth with brokered deposits; and (ii) the FDIC claims a "significant correlation" between rapid asset growth funded by brokered deposits and the probability of an institution's CAMELS rating being downgraded.

12 C.F.R. §337.6(a)(2).

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In addition, the Proposed Rule, and other FDIC publications, state or imply that brokered deposits by their nature are high rate deposits and are "participated out" by brokers to their clients.² These deposits are in some instances characterized as "hot" or "volatile."

The FDIC's concern about risky asset growth strategies employed by Insured Institutions is understandable and appropriate in light of current economic conditions and recent Insured Institution failures. Our clients fully support the FDIC's goal to protect the integrity of the banking system and the Deposit Insurance Fund.

We do not believe, however, that the "Brokered Deposit Adjustment" will accomplish the FDIC's intended purposes. Several studies conducted over the last 25 years have demonstrated that retail brokered CDs do not cause Insured Institutions to weaken or fail and they are not a predictor or indicator of weakness or failure. More specifically, Professor Joseph Mason and Empiris Consulting, at the request of Seward & Kissel, analyzed the effectiveness of the "Brokered Deposit Adjustment" formula as a predictor of Insured Institution failure (the "Mason Study").³ The Mason Study concluded that the formula "has no incremental predictive power for failures when the institutions' other financial qualities are considered."

The Mason Study did conclude that "high-interest expense (regardless of the source)" results in a greater likelihood of failure. The brokered deposit component of the "Brokered Deposit Adjustment" appears to be a surrogate for "high-interest expense" and is not appropriately used for this purpose. As we will discuss below, brokered deposits are not inherently "high rate" and are frequently less expensive than deposits obtained from other sources. Furthermore, the 20% asset growth threshold over four years merely represents average asset growth in the banking industry during the last 35 years.

We believe that the "Brokered Deposit Adjustment" will have the unintended effect of driving Insured Institutions to other funding sources that are higher cost and less stable than retail CDs issued through registered broker-dealers. This is readily apparent from the current spread between the "all-in cost" of CDs in the broker-dealer market and current average CD rates on rate listing services.⁴ We believe that the FDIC's purposes would be better served by addressing Insured Institutions' asset growth on a case-by-case basis, rather than on a "one size fits all" basis. This can be accomplished through the supervisory process, including the assignment of CAMELS ratings to an Insured Institution and the imposition of supervisory limitations on business activities where appropriate. In this regard, federal banking regulators can monitor increases in an Insured Institution's cost of funds that are not related to general economic conditions and take appropriate actions. To the extent that existing regulatory reporting does not provide applicable data, such reports can be amended.

² See, e.g., Schedule RC-E to the call report form, and related instructions. ³ See Management to EDIC form larger h Margare Hel Singer and K.

³ See Memorandum to FDIC from Joseph Mason, Hal Singer and Jeffrey West, *The Effect of Brokered*

Deposits and Asset Growth on the Likelihood of Failure (December 17, 2008), attached hereto as Attachment A. See Attachment B.

Definition of Brokered Deposit

FDIC regulations define "brokered deposits" as deposits "obtained directly or indirectly from or through the mediation or assistance of a 'deposit broker'."⁵ A deposit broker is a person "engaged in the business of placing deposits, or facilitating the placement of deposits, of third parties with insured institutions"⁶ FDIC regulations include an exemption for, *inter alia*, "an agent or nominee whose primary purpose is not the placement of funds with depository institutions."⁷

The definition of "deposit broker" was added to the Federal Deposit Insurance Act by the Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA"). FIRREA prohibited Insured Institutions that did not meet their minimum capital requirements from accepting deposits from a "deposit broker" unless the institution received a waiver from the FDIC. The proposed definition of deposit broker excluded rate listing services.⁸ The Senate rejected this exclusion. The definition of brokered deposits in FIRREA included the solicitation of deposits by an Insured Institution offering rates of interest that are "significantly higher than the prevailing rate of interest in the institution's normal market area" (the "High Rate Definition").

The Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA") adopted the current restrictions on the acceptance of brokered deposits by Insured Institutions. "Well capitalized" Insured Institutions can accept brokered deposits without restriction. "Adequately capitalized" Insured Institutions can accept brokered deposits only with a waiver from the FDIC. Insured Institutions that are "adequately capitalized" are deemed to accept brokered deposits if they offer rates of interest that are "significantly higher than the prevailing rates of interest in the institution's normal market area."⁹

The FDIC has interpreted "significantly higher" interest rates to mean more than 75 basis points over the prevailing rates offered by other insured depository institutions having the same type of charter in such depository institution's normal market area.¹⁰

The FDIC has issued numerous interpretive letters addressing when an entity is acting as a "deposit broker." Of particular note are interpretive letters exempting rate listing services that meet certain requirements from the definition of "deposit broker." In general, this exemption is available to entities that (i) charge a fixed subscription fee that is not based on a

⁵ 12 C.F.R. §337.6(a)(2).

⁶ 12 C.F.R. §337.6(a)(5)(i)(A).

⁷ 12 C.F.R. $\S337.6(a)(5)(ii)(I)$.

⁸ See CONG.REC. S4266, et seq. (daily ed. April 19, 1989)(Amendment No. 58 to S.774, the Financial Institutions Reform, Recovery and Enforcement Act).

 $^{^{9}}$ 12 U.S.C. §1831f(g)(3).

¹⁰ See FDIC Interpretive Letter No. 93-18 (March 11, 1993). We do not believe that the High Rate Definition is well understood or routinely enforced. A recent example demonstrates this point. Freedom Bank of Florida ("Freedom Bank") was prohibited from increasing its brokered deposits by a Cease and Desist Order dated September 5, 2008 and was required to submit a plan for reducing its reliance on brokered deposits. For the period between the issuance of the Cease and Desist Order and Freedom Bank's failure on October 31, 2008, Freedom Bank posted the highest rates for one-year CDs on a national rate listing service.

percentage of deposits; (ii) post rates from depository institutions offering deposits and (iii) do not condition the use of the service on obtaining other services from the provider.¹¹ Initially, the FDIC prohibited listing services from assisting depositors in establishing deposits at the depository institutions. However, in 2004, the FDIC permitted certain internet-based listing services to facilitate communication between a depository institution and a potential depositor via the internet.¹²

Based upon FDIC regulations and interpretive guidance, registered broker-dealers facilitating the placement of deposits and accepting transaction based fees are clearly deposit brokers. These deposits are readily evident on the books of an Insured Institution because they are established in the name of the broker or its sub-custodian, The Depository Trust Company ("DTC").

With the exception of deposits accepted by adequately capitalized institutions that are "brokered" as a result of the High Rate Definition, there is nothing in the definition of "brokered deposit" that causes such deposits to be 'brokered" because of their rate. Rather, deposits are "brokered" because of the presence of an intermediary, irrespective of rate. As further described below, the assumption that brokered deposits are "high rate" is not warranted.

In addition, we are concerned that the acceptance of deposits that are "brokered" can be easily disguised or evaded by utilizing services or "brokers" outside the registered brokerdealer community where deposits are held directly by the depositor, not through the broker. This places the burden of paying a "Brokered Deposit Adjustment" on Insured Institutions that choose to do business with the securities industry. Inevitably, such disparate treatment of economically identical funding will drive Insured Institutions to sources of deposit funding based on legal characterizations, not cost. Indeed, our clients report to us that Insured Institutions that have traditionally accessed the retail brokered CD market are currently willing to pay substantially more for deposits that do not need to be reported as "brokered."¹³

The Registered Broker-Dealer Market for Deposits

Although this letter primarily addresses the retail brokered CD market, registered broker-dealers participate in a national deposit funding market that is comprised of three distinct deposit products, each of which, with certain exceptions, is "brokered" for purposes of FDIC regulations.

1. Institutional CDs. These CDs are purchased in large denominations substantially in excess of the FDIC deposit insurance limit by institutional investors that rely on the credit quality of the issuing institution.

2. Retail CDs. These CDs are offered in \$1,000 denominations to investors that purchase CDs in total amounts within the FDIC deposit insurance limits. Average purchases in the market are between \$25,000 and \$35,000.

¹¹ See, e.g., FDIC Interpretive Letter 92-50 (July 24, 1992).

¹² See FDIC Interpretive Letter 04-04 (July 28, 2004).

¹³ See Attachment B.

3. Sweep Programs. Many broker-dealers offer arrangements in which excess cash in a customer's brokerage account is automatically "swept" to a savings deposit, or savings deposit linked to a NOW or other transaction account, at an Insured Institution.¹⁴

We do not believe that the FDIC currently possesses reliable data about the brokered deposit market. The "Brokered Deposit Adjustment" would be applied to all deposits reported by Insured Institutions as brokered deposits, using the definition in the FDIC regulations. Data from the September 30, 2008 Call Reports show \$663 billion of brokered deposits. Of that amount, \$504 billion is represented as fully insured and \$159 billion is represented as in excess of the insurance limits. However, DTC, a registered securities depository that holds securities and CDs for registered broker-dealers and other financial institutions, reports holding \$1.3 trillion of CDs.¹⁵ While this gap between CDs held at DTC and reported brokered deposits are not a large portion of the CDs held at DTC. Furthermore, sweep deposits are not held through DTC and certain brokered CD programs, such as CDARS, do not use DTC. If these non-DTC brokered deposits are subtracted from the total \$663 billion of reported brokered deposits, the gap between reported brokered deposits and CDs held at DTC sheld through DTC is even larger. Assuming that non-DTC brokered deposits are approximately \$300 billion, the real gap is nearly \$1 trillion.

We make this point for the singular purpose of demonstrating that, in addition to potentially inconsistent application of the regulatory definition of 'brokered deposits," the data available to the FDIC in determining the impact of the Proposed Rule may be seriously flawed. Also, as previously stated, if brokered deposits are routinely underreported, the burden of the "Brokered Deposit Adjustment" would fall on Insured Institutions that accurately report their brokered deposits.

Features and Operation of the Retail Brokered CD Market

Overview

The retail brokered CD market maintained by registered broker-dealers has been in continuous operation for over 25 years. This national CD market allows many depository institutions to obtain funding outside their local markets, especially where a scarcity of local deposits makes raising deposits through a branch network expensive.

As of September 1990, there was \$80 billion in insured brokered deposits.¹⁶ At that time, 6.8% of Insured Institutions reported insured brokered deposits. As of September 30, 2008, there were \$504 billion insured brokered deposits reported. As noted above, data concerning brokered deposits appear to be unreliable. However, we believe the retail brokered

¹⁴ The FDIC has excepted deposits accepted through at least one sweep program from the definition of "brokered deposit"; *see* FDIC Interpretive Letter 05-02 (February 3, 2005).

¹⁵ Source: DTC (as of September 8, 2008).

¹⁶ See Cates and Silverberg, *The Retail Insured Brokered Deposit: Risks and Benefits* (May 1, 1991), attached hereto as Attachment C.

CD market through registered broker-dealers to be between \$250 billion and \$300 billion. As of September 30, 2008, 42.75% of all Insured Institutions reported brokered deposit use.¹⁷

Having operated continuously for over 25 years, the CD market in which registered broker-dealers participate is a mature market. At approximately \$300 billion, the market is deep, assuring "well capitalized" institutions continuous access to capital. Because offerings are conducted weekly, "well capitalized" Insured Institutions can readily access the market to replace deposits or attract new funding. The market is also highly competitive. We estimate that at least 20 broker-dealers act as underwriters in this market, so Insured Institutions are not limited to one or two brokers to obtain pricing quotes on funding. This ensures that an Insured Institution can obtain the lowest cost funding available in this market.

In the retail CD programs offered by registered broker-dealers, the broker-dealer acts as a placement agent for the Insured Institution pursuant to a CD Brokerage Agreement entered into between the parties. Insured Institutions must agree to certain conditions, including their eligibility to accept brokered deposits. An Insured Institution is contractually obligated to inform a broker if its capital category changes and must re-confirm its capital category at every settlement.

Offerings of CDs are typically priced at the beginning of a business week, and CDs are offered to the broker's customers during the week. Settlements of transactions typically occur during the following week. In other words, this is an organized market that operates in many respects like the market for different types of securities. It is not, as currently portrayed in the press, a market in which brokers call Insured Institutions offering high interest rates on CDs and deposit money with them. Broker-dealers generally do not have discretion over their customers' funds, and cannot deposit funds with an Insured Institution without first offering the CDs to their customers and obtaining directions to purchase the CDs.

The vast majority of CDs issued in this market are represented by a Master Certificate of Deposit ("Master Certificate"), a negotiable instrument representing a number of individual CDs, typically in denominations of \$1,000. The Master Certificates are held by DTC as sub-custodian for the broker-dealers. The CDs are recorded on the books of the Insured Institution in the name of DTC, in a manner designed to permit the "pass-through" of deposit insurance to the broker's customers. The broker-dealer maintains records of the CDs held by its customers and these records are submitted to the FDIC in the event of the failure of the Insured Institution.

Brokers do not "participate out" CDs. Each customer purchases one or more CDs in denominations of \$1,000 and each CD is an individual deposit obligation of the Insured Institution. A customer can move the CDs from an account at one broker to an account at another broker and trade them individually in a secondary market. The customer can also elect to hold the CDs in his or her own name directly with the Insured Institution.

¹⁷ Source: FDIC call report data.

Retail brokered CD Programs provide certain efficiencies not available to Insured Institutions through direct deposit relationships. Insured Institutions do not need to send customer statements or tax reporting forms and do not need to maintain customer service personnel to answer customer questions. It has been estimated that the cost of raising deposits through a branch network ranges between 90 to 150 basis points for overhead.¹⁸ Retail brokered CDs save Insured Institutions some or all of this overhead.

CD Maturities

Broker-dealers are able to raise longer-term funding more efficiently than Insured Institutions themselves. This enables Insured Institutions to extend the maturity of their deposit liabilities and better match fund assets.

As of September 30, 2008, total domestic deposits were approximately \$7.2 trillion. Of this amount, total deposits with maturities under seven days (*i.e.*, savings deposits and various transaction accounts) were \$5.0 trillion, or 70% of all deposits. If time deposits with maturities of three months or less are included, the total short-term deposit funding increases to \$5.9 trillion, or 82% of all deposit liabilities. Time deposits with maturities of one year or more are only \$466 billion, or 6.5% of all deposit liabilities.

Economists and regulators have long understood that Insured Institutions fund themselves primarily on short-term liabilities, while lending or investing longer term. This presents a liability management issue for Insured Institutions that must constantly be addressed.

CDs issued in the retail brokered CD market permit early withdrawal only upon the death or adjudication of incompetence of the depositor. As an alternative to early withdrawal, CD holders can liquidate their CDs in a secondary market offered by most brokers to their customers. Because CD holders have a means to liquidate their CDs as an alternative to early withdrawal, an Insured Institution can issue CDs with maturities of 10 years or more without facing early withdrawal demands.

As a result of the limited early withdrawal features and the secondary market, retail brokered CDs provide a stable, reliable source of funding. Funds obtained in the market will remain with the Insured Institution until maturity. In contrast, CDs issued directly by Insured Institutions typically have early withdrawal provisions. Thus, an Insured Institution funding itself directly is typically relying on funding that can be withdrawn either overnight, with or without a penalty, or on seven days' advance notice.¹⁹

In contrast to the short-term funding Insured Institutions rely on through their branch networks, retail brokered CDs are routinely of longer maturity. In contrast to the 6.5% industry figure for one year and over time deposits as a percentage of all deposits, approximately 40% of the CDs in the retail brokered CD market have maturities of one year and over. Insured Institutions can obtain funding of ten years or more at competitive rates in the national market.

¹⁸ See Ely and Vanderhoff, *Retail Brokered Deposits: A Post-FIRREA Analysis* (June 1991), at page 2, attached hereto as Attachment D.

¹⁹ See Federal Reserve Board's Regulation D (Reserves), 12 C.F.R. Part 204.

In addition, by incorporating call features in the CDs, Insured Institutions can issue CDs with maturities in excess of 10 years that can be redeemed at the discretion of the Insured Institution if interest rates fall.

Interest Rates

It is not uncommon for brokered CDs to be characterized as "high rate." The FDIC suggests this characterization in the Proposed Rule. Unfortunately, no rate benchmark ever accompanies these claims and no data have been produced to support them.

The obvious question when discussing the relative cost of funds is: compared to what? Transaction accounts and short-term savings deposits will offer lower interest rates because the depositor can withdraw his funds quickly. Longer-term deposits will generally have higher interest rates in order to compensate the depositor for committing his funds for a period of time. In addition, local market conditions affect the availability of funds and interest rates. A recession in a local market area can drive an Insured Institution's cost of funds up because it is competing against other Insured Institutions for fewer dollars.

In a 1991 case study, Bert Ely and Vicki Vanderhoff of Ely & Company, Inc. (the "Ely Study") examined the role of brokered deposits in relieving interest rate pressures on banks in New England during a 1990 recession.²⁰ They observed that banks in New England drove up local interest rates as they bid against each other for deposits through their branch networks. Retail brokered deposits proved to be a lower cost alternative to deposits obtained regionally.

In 2008, the ready availability of information about rates offered by Insured Institutions, and the solicitation of deposits by many Insured Institutions using the internet and other sources, influence interest rates in all markets. Depositors are not limited to looking in local newspapers or accepting locally available interest rates. A depositor seeking the highest rates on deposits can check the Wednesday edition of the Wall Street Journal for Insured Institutions advertising rates, visit Bankrate.com for interest rate information or review dozens of other available information sources.

Registered broker-dealers and Insured Institutions operate within the framework of this interest rate environment in offering retail CDs. CD rates offered to a broker's clients must be sufficiently attractive to invite investment, but also attractive to the Insured Institutions in relation to other deposit funding options. While the rates to their clients must be attractive, brokers do not purport to, and in fact do not, offer the highest CD interest rates available in the marketplace.

Registered broker-dealers price CDs to Insured Institutions on the basis of an "allin cost of funds" that includes both the interest rate to the depositor and the fee to the broker. As noted earlier, Insured Institutions can seek competing bids from numerous brokers in an effort to find the lowest available cost in the broker-dealer market. Fees to brokers, which the Ely Study noted as being 60 basis points, annualized, in 1991, currently average 25 basis points,

Supra note 18.

annualized. In order to provide a basis for comparison of retail brokered CD rates, Attachment B compares the indicative average all-in cost of funds quoted by broker-dealers on a monthly basis for the last three years for CD maturities ranging from 3 months to 5 years to collateralized FHLB advances and CD rates quoted on a national rate listing service. In the absence of other benchmarks, we have used listing service rates as a proxy for rates necessary to access the national market for deposit funding. The listing service rates do not include payments by the Insured Institution to the listing service or the administrative costs to the Insured Institution of establishing and maintaining the deposits. As the comparison indicates, all-in costs of retail brokered CDs are almost always lower than interest rates on the listing service and, until the Fall of 2007, FHLB advances.

One dynamic that the chart highlights is the effect that the possibility of a change in regulatory policy concerning brokered deposits has had on rates offered on listing services vs. the all-in cost of brokered deposits. As the possibility of an FDIC premium assessment on brokered deposits became public through congressional testimony and the publication of the Proposed Rule, the spread between the rates quoted on listing services and the all-in cost on retail brokered CDs widened. Insured Institutions are willing to pay more for deposits through non-brokered sources in order to avoid reporting the deposits as brokered to their regulators. For example, during the week of December 8, 2008, Bankrate.com reported the national average rate for a one-year CD to be 3.22%. Individual Insured Institutions, many of which have access to the retail brokered CD market, listed rates on Bankrate.com's website as high as 4.12%. The average all-in cost for a one-year CD in the broker-dealer market that week was 2.75%.

We believe the FDIC must carefully review the effect that a perceived restriction on brokered deposits would have on the deposit funding market. The unintended effect of the Proposed Rule would be to drive the healthy Insured Institutions that need deposit funding to higher cost funding in order to avoid the perceived stigma of using brokered deposits.

Relationship of Retail Brokered CDs to Insured Institution Weakness and Failure.

In point of fact, the problem is not brokered deposits per se, but how these funds, like any other funds, are used. A dollar deposited in an insured institution is the same whether obtained directly from a local depositor or through the intermediation of a deposit broker. There may be differences in the cost and stability of that dollar deposit depending on its source. However, losses in banks do not occur, generally speaking, by virtue of the source of their deposit liabilities. Instead, the losses arise from the quality of and return on loans and investments made with those funds. Consequently, the focus of attention should be on the employment of brokered deposits rather than their source.²¹

²¹ Insured Brokered Deposits and Federal Depository Institutions: Hearing before the Subcommittee on General Oversight and Investigations of the House Committee on Banking, Finance and Urban Affairs, 101st Cong., 1st Sess. (1989), at 98 (statement of L. William Seidman, Chairman of the FDIC).

The possible correlation between the acceptance of brokered deposits and the weakness or failure of Insured Institutions has been examined several times over the last 25 years, and each study has concluded that there is no correlation. In two reports issued by the House Committee on Government Operations in 1984 and 1986, the Committee concluded that brokered deposits were not a significant source of fully insured deposits for most rapidly growing problem institutions and that any abuses involving brokered deposits could be controlled by the regulators on a case-by-case basis.²²

In 1991, David Cates of Ferguson & Company and Stanley Silverberg, the former Director of Research and Strategic Planning of the FDIC, studied the role of fully-insured brokered deposits in 1,518 failures of banks and thrifts from 1987 to 1990.²³ They concluded that 1,003, or 66%, had no brokered deposits at the time of closing and that 270, or 18%, had brokered deposits of 5% or less at the time of closing. In other words, 84% had zero to 5% brokered deposits at the time of closing.

Cates and Silverberg further examined "high risk"²⁴ banks and thrifts that were still open. While insured brokered deposits were present at 50% of the 44 worst-rated thrifts and at 36% of the 132 worst-rated banks, only 16% of the riskiest thrifts and 15% of the riskiest banks had more than 5% of their deposits in insured brokered deposits.

Cates and Silverberg also concluded the following:

The FDIC and the OCC have long maintained, together with most private sector bank/thrift analysts, that asset strategies drive funding strategies, not the other way around. In other words, brokered deposits, FHLB advances, other secured borrowings, and Jumbo CDs don't just happen, followed by reckless investment. The causal chain of risk begins with the asset strategies.

The Commentary to the Proposed Rule states that the FDIC has conducted an "analysis" that demonstrates a "significant correlation" between rapid asset growth funded by brokered deposits and the probability of an institution's CAMELS rating being downgraded. We have requested a copy of this analysis both from the FDIC staff and via a Freedom of Information Act request. To date, we have not received a copy of the analysis.²⁵

²² Federal Regulation of Brokered Deposits in Problem Banks and Savings Institutions, H.R.Rep. No. 1112, 98th Cong., 2d Sess. (1984); Federal Regulation of Brokered Deposits: A Followup Report, H.R.Rep. No. 676, 99th Cong., 2d Sess. (1986).

²³ See Cates and Silverberg, supra note 16.

²⁴ "High-risk" still-open institutions were defined in the study as those with a Cates Bank Rating Service risk rating of "5" (highest risk). The Cates Bank Rating Service was a quantified evaluation of asset quality, capital, earnings, liquidity and holding company financial risk. The ratings were assigned prior to the time the study was commissioned.

²⁵ FDIC FOIA Log Number 08-0974. See Portland Cement Assn. v. Ruckelshaus, 485 F.2d 375, 393 (D.C. Cir. 1973). ("It is not consonant with the purpose of a rule-making proceeding to promulgate rules on the basis of inadequate data, or on data that, [to a] critical degree, is known only to the agency.") See also RICHARD J. PIERCE, JR., ADMINISTRATIVE LAW TREATISE §7.3 (4th Ed.).

The Mason Study examined 600 bank and thrift failures (371 bank failures, 229 thrift failures) between March 1991 and June 2008 for the specific purpose of determining the predictive ability of the "Brokered Deposit Adjustment" formula in the Proposed Rule: brokered deposits in excess of 10% of domestic deposits and 20% asset growth over the prior four years. Because neither the FDIC analysis nor CAMELS ratings are publicly available, the Mason Study used various financial measures from each Insured Institution's regulatory filings as a proxy for the components of CAMELS.

The Mason Study determined that only 37 of the 600 failed institutions fell into the "danger zone" defined by the "Brokered Deposit Adjustment" formula at time of failure, and 46 at one year prior to failure. Using a probit regression analysis that incorporates various models to test the sensitivity of the results, the Mason Study concludes that the "Brokered Deposit Adjustment" formula "has no incremental predictive power for failures when the institutions' other financial qualities are considered." This conclusion was reached for (i) the entire sample period, (ii) the S&L crisis period alone, (iii) the post S&L crisis period alone and (iv) on a one-year prior-to-failure basis.

The Mason Study also concludes that the ratio of interest expense to total assets is statistically significant in all recent periods, indicating that the pursuit of high-rate deposits "regardless of the source of those deposits" results in a greater likelihood of failure.

As we have demonstrated, the issuance of retail brokered CDs is not a proxy for high interest rate deposits. Deposit rates in any market area at any given time can be higher than the cost of retail brokered CDs. And, deposits obtained from any number of sources that are not deemed "brokered" are routinely more expensive than retail brokered CDs.

Finally, the Mason Study examined the role of brokered deposits in the failure of ANB Bank and IndyMac Bank. In both cases, the Mason Study concludes that other indices of ill health were present well before failure and that existing Prompt Corrective Action authority could have been used to mitigate or prevent the FDIC's losses in connection with the failures.

Conclusions about the Proposed Rule

We do not believe that the "Brokered Deposit Adjustment" will accomplish its intended purpose of discouraging risky asset growth strategies. Instead, we believe that the "Brokered Deposit Adjustment" will have the effect of causing Insured Institutions to increase their cost of deposits in order to avoid the real, or perceived, premium that would be assessed for using brokered deposits. In addition, we believe that the use of a 10% threshold will be treated as a cap on brokered deposits, both by Insured Institutions and their examiners, and amounts of brokered deposits in excess of 10% will be viewed as a sign of weakness irrespective of the actual health of the Insured Institutions.

It is unclear how the FDIC arrived at the components of the "Brokered Deposit Adjustment." There is no readily apparent connection between the use of brokered deposits in excess of 10% and failed or weak institutions. As the Utah Association of Financial Services points out in its comment letter, many non-traditional banks, including industrial banks, rely on

significant brokered deposit funding and "have had no significant liquidity or regulatory problems to date." In many cases, the FDIC has approved business plans that are predicated on significant use of brokered deposit funding.

An analysis of brokered deposit use by IDC Financial Publishing, Inc., a firm that analyzes financial institution credit quality, shows that Insured Institutions that are rated "superior" or "excellent," the two highest credit ratings assigned by IDC, are more likely to utilize brokered deposits than lower rated Insured Institutions. At a minimum, the IDC data demonstrate that there is no correlation between brokered deposit use and poor credit quality.²⁶

The use of 20% asset growth over the previous four years as a measure of rapid growth suffers from two deficiencies. First, this definition of rapid asset growth would have included Insured Institutions engaging in average asset growth nearly every year since 1970. A 20% growth rate over four years correlates to a compound annual rate of 4.66%. Between 1970 and 2007, the banking system's four-year average asset growth rate fell below 4.66% in only five four-year periods, and in only six individual years.²⁷ Second, the "Brokered Deposit Adjustment" does not require a causal connection between the presence of more than 10% brokered deposits and 20% asset growth. An Insured Institution could fund its growth using non-brokered funding sources, but still be assessed a premium adjustment based upon the mere presence of brokered deposits.

The Proposed Rule is also in conflict with the FDIC's long-standing policy that brokered deposits used by Insured Institutions is best regulated on a case-by-case basis:

The prudent use of brokered deposits within legal requirements is entirely acceptable. Brokered deposits should be treated and assessed as any other funding alternative having its own special advantages and disadvantages. Furthermore, the acceptance of brokered deposits should not be grounds for criticism per se by virtue of the nature or origin of such deposits without considering the manner in which they are used and the impact of such use on the institution's overall condition and operations.²⁸

We believe that the FDIC's legitimate policy concerns would be best served by continuing its long-standing policy of determining the effectiveness of an Insured Institution's brokered deposit use on a case-by-case basis. For this purpose, CAMELS ratings would clearly be the most useful basis for determining a healthy relationship of liabilities to assets.

Very truly yours, Paul T. Clark

²⁶ See IDC data, attached hereto as Attachment E.

²⁷ See Mark J. Flannery, Brokered Deposits Received Through a Network of Depository Institutions on a Reciprocal Basis (December 10, 2008), appended to comment of Promontory Interfinancial Network, LLC regarding the Proposed Rule.

²⁸ FDIC Interpretive Letter. 95-24 (April 26, 1995).

ATTACHMENTS TO COMMENT LETTER OF SEWARD & KISSEL LLP

RIN: 3064-AD35

| ATTACHMENT A | Memorandum to FDIC from Joseph Mason, Hal Singer and Jeffrey West, <i>The Effect of Brokered Deposits and</i> <i>Asset Growth on the Likelihood of Failure</i> (December 17, 2008) |
|--------------|---|
| ATTACHMENT B | Comparative Funding Sources |
| ATTACHMENT C | Cates and Silverberg, <i>The Retail Insured Brokered</i> <i>Deposit: Risks and Benefits</i> (Cates Consulting Analysis, May 1, 1991) |
| ATTACHMENT D | Ely and Vanderhoff, <i>Retail Brokered Deposits: A Post-</i> <i>FIRREA Analysis</i> (Ely & Company, Inc., June 1991) |
| ATTACHMENT E | Data Chart prepared by IDC Financial Publishing, Inc. |

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ATTACHMENT A

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MEMORANDUM

TO:Robert E. Feldman, Executive Secretary, Federal Deposit Insurance CorporationFROM:Joseph Mason¹, Hal Singer² & Jeffrey West³SUBJECT:The Effect of Brokered Deposits and Asset Growth on the Likelihood of Bank FailureDATE:12/17/2008

INTRODUCTION AND SUMMARY OF CONCLUSION

The purpose of this memorandum is to describe the analyses presented on the accompanying slideshow exhibit "The Effect of Brokered Deposits & Asset Growth on the Likelihood of Bank Failure." We review the use of brokered deposits among failed and non-failed banks. In addition, we construct models to predict bank failure based on standard financial measures as well as the FDIC's proposed measure of brokered deposits. Our analysis shows that the FDIC's proposed "adjusted brokered deposit ratio" has no power to predict a bank failure when the other financial characteristics of the bank are considered.

I. SUMMARY OF DATA

In attempting to determine what role, if any, brokered deposits play in the failure of major depository financial institutions in the United States, we created a database of relevant financial data for all reporting commercial banks and thrifts in the U.S., both failed and surviving, for the period 1985-2008 (slide 4). Our model focuses specifically on commercial bank and thrift failures between 1991 and 2008. Because we are interested in predicting failure, we use data one year prior to failure for failed banks. Because the FDIC's proposed adjusted brokered deposit ratio includes an institution's four-year asset growth rate, data from 1985 is required to estimate the four-year asset growth rate of a bank at the end of 1989 – approximately one year before the earliest bank failure of 1991.

Data for commercial banks comes from quarterly Report of Condition and Income forms ("Call Reports"), completed by the banks themselves and catalogued on the Federal Reserve Bank of Chicago's website.⁴ Included in each Call Report are basic balance sheet items including total assets, total loans, total deposits, total brokered deposits, as well as income statement items, such as total expenses, net income, and interest income.

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⁴ http://www.chicagofed.org/economic_research_and_data/commercial_bank_data.cfm.

Data for thrifts is taken from quarterly thrift financial reports ("TFRs"), completed by thrifts themselves, and catalogued via the FDIC's Research Information System ("RIS"). TFRs include the same basic indicators of institutional health reported in the commercial bank Call Reports, principally income statement and balance sheet items. At the time of this analysis, we had TFR data from the FDIC's RIS through the end of 2005. To include thrifts that failed after 2005, we collected quarterly TFR data from the Federal Financial Institutions Examination Council's (FFIEC's) web site.⁵ Our analysis can be supplemented once an updated version of the TFR database is available to us from the RIS.

This basic financial data for individual commercial banks and thrifts was then combined with a list of failed institutions from 1991-2008, reported in the FDIC's Historical Statistics on Banking.⁶ Of the 600 failed institutions identified by the FDIC between 1991 and 2008, 371 failed commercial banks and 229 failed thrifts appear in our data sample.

Slide 5 shows the percent of institutions filing a Call Report or TFR that fail in each year from 1991 through 2008. In 1991, 1.68 percent of all institutions that filed a financial report failed that year. After 1994, failures decreased substantially to 0.11 percent per year or less, until this year. As of December 12, 0.3 percent of all institutions (excluding surviving thrifts, whose data we have not collected as of the time of this study) failed in 2008.

II. INCIDENCE OF BROKERED DEPOSITS AMONG BANK FAILURES

The FDIC presents a measure called the "adjusted brokered deposit ratio" (slide 6). A vast majority of commercial banks and thrifts that failed between 1991 and December 12, 2008 had adjusted broker deposit ratios *outside* the FDIC's "danger zone" (a positive adjusted broker deposit ratio, where four-year asset growth exceeds 20 percent and the ratio of brokered deposits to domestic deposits exceeds 10 percent) (slides 7-8). The result held whether the ratio was examined in the quarterly report immediately prior to failure (slide 7) or in the quarterly report one year before failure (slide 8). Slides 9 and 10 list the 37 failed banks and thrifts in the "danger zone" as of the last quarterly report prior to failure shown on slide 7. Slides 11 and 12 list the 46 failed banks and thrifts in the "danger zone" one year prior to failure as shown on slide 8.

On slide 13, we show the mean quarterly incidence of failure for all institutions and for institutions with positive adjusted brokered deposit ratios. Slide 13 shows that 0.074 percent of the quarterly Call Reports and TFRs in our sample filed for the quarters ending December 31, 1990 through September 30, 2008 represented the last quarterly filing for an institution prior to failure. If the sample is limited to institutions reporting brokered deposits and asset growth that would result in a positive adjusted brokered deposit ratio in a quarter, 0.169 percent of the quarterly Call Reports and TFRs in our sample filed for the quarters ending December 31, 1990 through September 30, 2008 represented the last quarterly for an institution prior to failure. If the sample is limited to institutions reporting brokered deposits and asset growth that would result in a positive adjusted brokered deposit ratio in a quarter, 0.169 percent of the quarterly Call Reports and TFRs in our sample filed for the quarters ending December 31, 1990 through September 30, 2008 represented the last quarterly filing for an institution prior to failure. If the sample is limited to institutions reporting brokered deposits and asset growth that would result in a positive adjusted brokered deposit ratio in a quarter, 0.203 percent of the quarterly Call Reports and TFRs filed for the quarters ending March 31, 1990 through December 31, 2007 represented the filing for the quarter ending one year prior to the last quarterly filing for an institution prior to failure. We present comparable results for the periods before and after the approximate end (1993Q4) of the early 1990s S&L crisis. Slide 13 shows that a positive adjusted brokered deposit ratio was extremely rare for all institutions as well as for failed institutions. Although the average adjusted brokered deposit ratio was

⁵ https://cdr.ffiec.gov/public/SearchFacsimiles.aspx

⁶ FDIC Historical Statistics on Banking – Failures & Assistance Transactions

⁽http://www2.fdic.gov/hsob/SelectRpt.asp?EntryTyp=30).

greater for failed institutions than for all institutions during the sample, this difference does not indicate whether the presence of brokered deposits serve as a *predictor* for failure beyond the other financial characteristics of the institution.

On slide 14, we show the mean brokered deposit ratio for all institutions and for failed institutions only. Slide 14 shows that the mean brokered deposit ratio for all institutions in our sample over all quarters from 1990Q4 through 2008Q3 is 0.00378; whereas the mean brokered deposit ratio in the last quarterly filing before an institution's failure is 0.01272. The mean brokered deposit ratio one year before an institution's failure is 0.01272. We present comparable results for the periods before and after the approximate end (1993Q4) of the early 1990s S&L crisis. Slide 14 shows that the mean adjusted brokered deposit ratio for failed institutions in the quarter prior to failure and one year prior to failure was greater than the mean ratio for all institutions. However, slide 14 does not answer the question as to whether the adjusted brokered deposit ratio is a predictor for failure when the other financial characteristics of an institution are considered.

III. ESTIMATING EFFECT OF BROKERED DEPOSITS ON LIKELIHOOD OF FAILURE WHEN CONTROLLING FOR OTHER FACTORS

The FDIC's confidential CAMELS rating for an institution is an indicator of the institution's financial health (slide 16). The CAMELS rating captures an institution's capital adequacy, asset quality, management quality, earnings, liquidity, and sensitivity to market risk. Although the CAMELS ratings are non-public, various financial measures from an institution's public regulatory filings can serve as proxies for the components of the institution's CAMELS rating (slide 17). Slide 18 shows the summary statistics for these financial measures over all available Call Report and TFR filings for 1989Q4 through 2008Q3 in our sample.

We estimate the likelihood of an institution's failure using models known as "probit" regressions (slide 19). These regression control for the various financial characteristics of the institution that we use as proxies for the CAMELS rating components as well as the FDIC's proposed adjusted brokered deposit ratio. In all of our models, we estimate the likelihood than an institution will fail based on its on lagged financial characteristics – as of the quarterly filing *one year* before the quarter in which survival or failure is observed (slide 20). For example, we estimate the probability that an institution fails during 2008Q1 by examining its financial characteristics as of the end of 2007Q1. Only the model using lagged characteristics can be used for a predictive policy exercise. Conversely, a model based on contemporaneous financial characteristics, measured as of the last quarterly filing before failure, would give policymakers little time to make any intervention before failure.

We estimate our models on different time three-year time periods within our 1991-2008 sample (slide 21). This sampling enables us to see the changes in the variables' explanatory power in predicting failure over time. However, one of our three-year samples (2003-2005) only has seven failures, which results in a poor prediction model. Therefore, we combine the 2003-2005 and the 2000-2002 samples into a single six-year sample when estimating the model over that time period.

Finally, all of our models use annualized financial measures to predict failure. All balance sheet measures other than the FDIC's proposed Adjusted Brokered Deposit Ratio (which is not an annualized average in the FDIC's proposed rule other than to the extent it measures asset growth) are annualized by calculating in each quarter the average of the current quarter and the previous 3 quarters. Income statement measures are annualized by taking the sum of the current quarter and the previous 3 quarters.

Slide 22 presents the results of the probit regressions on the different samples. A negative sign on a coefficient indicates that the greater the value of the given variable, the *less* likely a failure will occur. A positive sign on a coefficient indicates that the greater the value of the given variable, the *more* likely a failure will occur. For example, slide 22 shows a positive sign for the coefficient for the ratio of accrued interest (earned but not collected) to total assets in all of the samples. This indicates that the when earned but uncollected accrued interest constitutes a larger share of assets for an institution, the institution is more likely to fail.

In each model, the number of asterisks "*" in a row indicates the level of statistical significance of the coefficient result. The statistical significance increases with the number of asterisks. Many of the standard financial ratios that serve as proxies for the CAMELS rating components are statistically significant and have the expected signs on the coefficients. For example, in every model, the ratio of nonaccrual loans to total loans and leases is positive and statistically significant at a level of at least 10 percent confidence ("*"), indicating that an increase in the ratio results in an increased likelihood of failure. Similarly, the ratio of interest expense to total assets has a negative sign on its coefficient and is statistically significant at 1 percent in all but one of the samples. This indicates that high interest expense relative to an institution's asset size (regardless of the source of the high interest expense) was a significant predictor of failure.

If no asterisks are present in a row, then the variable's coefficient is not statistically significant, and the variable has no statistically significant effect on the likelihood of failure in the given model. As slides 22 shows, the adjusted brokered deposit ratio (highlighted in yellow) only has statistically significant explanatory power in the 1991-1993 sample (end of the thrift crisis), and the 1997-1999 sample (a period of only 12 failures). During all other time periods, including all periods from 2000 through 2008, the adjusted brokered deposit ratio has *no* incremental predictive power for failures when the institutions' other financial qualities are considered.

IV. CASE STUDIES - EVIDENCE FROM RECENT FAILURES

Because of the relatively small number of failures in recent years, a closer look at a few examples of failed institutions can be informative as to whether brokered deposits played any role in failure beyond the role played by the institution's other characteristics and regulatory oversight. The narrative of recent failures (which were included in our model), shows that those institutions' failures were due to asset quality and lack of regulatory action under existing regulations. For example, the Treasury's Office of Inspector General noted in its audit report of ANB Financial's failure that ANB's credit quality made ANB's brokered deposits inappropriate sources of funding (slide 35). The auditor notes that existing PCA provisions on brokered deposits were not used by the regulator to restrict brokered deposits. Likewise, IndyMac's financial condition prior to failure (slide 36) was extremely risky relative to its peers and should have been used by regulators under existing PCA provisions to restrict the use of brokered deposits. These narratives confirm what our models show, which is that the FDIC's proposed adjusted brokered deposit ratio cannot predict failure after asset quality is controlled for. Empiris LLC | December 17, 2008

The Effect of Brokered Deposits & Asset Growth on the Likelihood of Bank Failure

1

Agenda

- Incidence of brokered deposits among bank failures vs. non-failures
- Estimating effect of brokered deposits on likelihood of failure when controlling for other factors
- Case studies: evidence from recent failures

INCIDENCE OF BROKERED DEPOSITS AMONG BANK FAILURES

Summary of Data

- Time period of failures examined: 1/1/1991 12/12/2008
- Data sources
 - Identification of failed institutions: FDIC Historical Statistics on Banking – Failures & Assistance Transactions
 - Financial results for commercial banks: Report of Condition & Income ("Call Report")
 - Data through 2008Q2 available from Federal Reserve Bank of Chicago (<u>http://www.chicagofed.org/</u> economic_research_and_data/commercial_bank_data.cfm)
 - Financial results for thrifts: Thrift Financial Reports (TFRs)
 - Data through 2005Q4 collected from FDIC Research Information System (RIS) database
 - Data for failed thrifts from 2006Q1 through 2008Q3 collected from FFIEC
 - Due to availability, data for non-failed thrifts after 2005 is not included in the sample this data will be included in future research once data is collected
- 600 failures during sample period
 - 371 commercial bank failures
 - 229 thrift failures

Occurrence of Bank Failures by Year, 1991-2008

| | | | 9/ - 6 |
|-------|----------|---------------------|--------------|
| | | 1 otal Institutions | |
| | Total | Filing a TFR or | Institutions |
| Year | Failures | Call Report* | Failed |
| | | | |
| 1991 | 269 | 16,050 | 1.68% |
| 1992 | 181 | 15,174 | 1.19% |
| 1993 | 50 | 14,543 | 0.34% |
| 1994 | 15 | 13,843 | 0.11% |
| 1995 | 8 | 12,655 | 0.06% |
| 1996 | 6 | 12,591 | 0.05% |
| 1997 | 1 | 12,076 | 0.01% |
| 1998 | 3 | 11,534 | 0.03% |
| 1999 | 8 | 11,094 | 0.07% |
| 2000 | 7 | 10,772 | 0.06% |
| 2001 | 4 | 10,362 | 0.04% |
| 2002 | 11 | 9,999 | 0.11% |
| 2003 | 3 | 9,777 | 0.03% |
| 2004 | 4 | 9,576 | 0.04% |
| 2005 | 0 | 9,421 | 0.00% |
| 2006 | 0 | 8,504 | 0.00% |
| 2007 | 3 | 8,358 | 0.04% |
| 2008 | 24 | 8,081 | 0.30% |
| Total | 597** | · | |

* Non-failing thrifts in 2006, 2007 and 2008 are excluded from the count of total institutions filing a TFR or Call Report.

** Three of the 600 total failures from 1991-present cited on the previous slide are excluded from the analyses. One of the excluded failures could not be matched with any call report or TFR. Another failed bank is excluded because its last quarterly filing was more than 4 years before failure. Finally, one failure was excluded because it was the second failure for a bank that had failed earlier in the sample period.

FDIC Proposed "Adjusted Brokered Deposit Ratio"

$$B_{t,T} = \left(\frac{Brokered \ Deposits_{t,T}}{Domestic \ Deposits_{t,T}} - 0.10\right) * A_{t,T}$$

where
$$A_{i,T} = \left[\left(\frac{Assets_{i,T} - Assets_{i,T-4}}{Assets_{i,T-4}} - 0.2 \right) * 5 \right]$$
, subject to $0 \le A_{i,T} \le 1$ and $B_{i,T} \ge 0$.

Examples of Adjusted Brokered Deposit Ratio Calculation from FDIC's Proposed Rule

| A | В | С | D | E | F | |
|---------|---|---|--|-----------------------------|--|--|
| Example | Ratio of brokered deposits to domestic deposits | Ratio of brokered deposits to domestic deposits minus 10 percent threshold (Column B minus 10 percent) | Cumulative asset growth rate over four years | Asset growth rate factor | Adjusted brokered deposit ratio (Column C times column E) | |
| 1 | 5.0% | 0.0% | 5.0% | | 0.0% | |
| 2 | 15.0% | 5.0% | 5.0% | | 0.0% | |
| 3 | 5.0% | 0.0% | 25.0% | 0.250 | 0.0% | |
| | 35.0% | 25.0% | 30.0% | 0.500 | 12.5% | |
| 5 | 25.0% | 15.0% | 50.0% | 1.000 | 15.0% | |





| The 37 Failed Institutions within Proposed FDIC " | Danger Zone" One |
|---|------------------|
| Quarter Prior to Failure, 1991-200 | 8 |

| | | | | | (in thousands of dollars) | | |
|-------|--------------------------------------|------------|---------------------|---------------|---------------------------|---------------|-----------------------|
| | | | | | Total | | |
| | | Date of | 4-year Asset | Brokered | Brokered | | Total Domestic |
| Count | Institution | Failure | Growth Ratio | Deposit Ratio | Deposits | Total Assets | Deposits |
| 1 | WASHINGTON MUTUAL BANK | 9/25/2008 | 0.25 | 0.18 | \$34,044,560 | \$307,021,600 | \$188,260,800 |
| 2 | INDYMAC BANK F.S.B | 7/11/2008 | 1.06 | 0.29 | \$5,489,747 | \$30,698,512 | \$18,941,728 |
| 3 | FRANKLIN BANK, SSB | 11/7/2008 | 0.82 | 0.46 | \$1,721,040 | \$5,572,332 | \$3,722,597 |
| 4 | ANB FINANCIAL NATIONAL ASSOCIATION | 5/9/2008 | 2.65 | 0.87 | \$1,578,908 | \$1,895,545 | \$1,815,691 |
| 5 | FAR WEST S&LA, FA | 1/11/1991 | 0.23 | 0.40 | \$1,185,146 | \$3,714,988 | \$2,981,632 |
| 6 | BANK OF NEW ENGLAND, NATIONAL AS | 1/6/1991 | 0.41 | 0.12 | \$1,150,000 | \$13,428,614 | \$9,347,005 |
| 7 | OAK TREE FSB | 10/13/1991 | 0.79 | 0.41 | \$930,324 | \$2,214,549 | \$2,256,189 |
| 8 | SILVER STATE BANK | 9/5/2008 | 2.28 | 0.34 | \$594,218 | \$1,957,120 | \$1,733,091 |
| 9 | FIRST NB OF KEYSTONE | 9/1/1999 | 1.93 | 0.60 | \$525,752 | \$1,119,865 | \$880,859 |
| 10 | FIRST NATIONAL BANK OF NEVADA | 7/25/2008 | 2.19 | 0.16 | \$475,560 | \$3,411,145 | \$3,038,053 |
| 11 | THE COMMUNITY BANK | 11/21/2008 | 1.26 | 0.53 | \$308,594 | \$628,056 | \$577,219 |
| 12 | THE COLUMBIAN BANK AND TRUST COMPANY | 8/22/2008 | 2.26 | 0.42 | \$261,371 | \$735,071 | \$620,354 |
| 13 | NEXTBANK | 2/7/2002 | 289.65 | 0.35 | \$190,452 | \$700,180 | \$551,297 |
| 14 | INTEGRITY BANK | 8/29/2008 | 2.17 | 0.18 | \$170,145 | \$1,107,514 | \$962,456 |
| 15 | THE BANK OF HORTON | 6/13/1991 | 2.01 | 0.82 | \$140,093 | \$167,298 | \$170,540 |
| 16 | SECURITY PACIFIC BANK | 11/7/2008 | 1.09 | 0.22 | \$115,937 | \$587,669 | \$516,202 |
| 17 | BOSTON TRADE BANK | 5/3/1991 | 1.31 | 0.33 | \$98,916 | \$307,033 | \$301,548 |
| 18 | THE FINANCIAL CENTER BANK, N.A. | 5/4/1992 | 1.12 | 0.43 | \$94,209 | \$225,189 | \$218,847 |

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The 37 Failed Institutions within Proposed FDIC "Danger Zone" One Quarter Prior to Failure, 1991-2008

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| | | | (in tł | nousands of do | llars) | | |
|-------|---|--------------------|------------------------------|------------------------------|-------------------------------|--------------|-------------------------------|
| Count | Institution | Date of Failure | 4-year Asset Growth Ratio | Brokered Deposit Ratio | Total Brokered Deposits | Total Assets | Total Domestic Deposits |
| 19 | CONNECTICUT BANK OF COMMERCE | 6/26/2002 | 3.38 | 0.23 | \$73,893 | \$384,172 | \$322,228 |
| 20 | FIRST GEORGIA COMMUNITY BANK | 12/5/2008 | 0.51 | 0.30 | \$67,696 | \$263,552 | \$222,300 |
| 21 | HAVEN TRUST BANK | 12/12/2008 | 2.72 | 0.15 | \$66,635 | \$557,594 | \$451,855 |
| 22 | UNIVERSITY BANK, NATIONAL ASSOCI | 5/31/1991 | 0.72 | 0.22 | \$66,505 | \$318,836 | \$295,818 |
| 23 | MAIN STREET BANK | 10/10/2008 | 5.57 | 0.47 | \$46,920 | \$112,368 | \$98,934 |
| 24 | MADISON NATIONAL BANK | 5/10/1991 | 0.24 | 0.11 | \$44,541 | \$473,781 | \$404,200 |
| 25 | SENTINEL BANK | 1/31/1992 | 3.22 | 0.41 | \$30,412 | \$74,846 | \$73,512 |
| 26 | AMERICAN SB, FSB | 3/22/1991 | 2.21 | 0.29 | \$26,054 | \$110,234 | \$90,436 |
| 27 | CITY BANK AND TRUST | 3/29/1991 | 1.52 | 0.20 | \$24,308 | \$116,044 | \$119,406 |
| 28 | BROOKFIELD BANK | 5/8/1992 | 0.51 | 0.29 | \$20,172 | \$60,696 | \$68,675 |
| 29 | SANDERSON STATE BANK | 12/12/2008 | 0.41 | 0.44 | \$16,007 | \$42,859 | \$36,409 |
| 30 | MISSION VIEJO NATIONAL BANK | 2/28/1992 | 0.79 | 0.13 | \$13,602 | \$114,584 | \$102,372 |
| 31 | VALLEY BANK | 9/13/1991 | 2.68 | 0.21 | \$7,324 | \$33,694 | \$35,568 |
| 32 | THE FARMERS BANK & TRUST OF CHENEYVILLE | 12/17/2002 | 0.84 | 0.22 | \$7,131 | \$35,317 | \$32,103 |
| 33 | HUNTINGTON PACIFIC THRIFT & LOAN | 12/4/1992 | 0.24 | 0.13 | \$4,943 | \$40,476 | \$38,255 |
| 34 | IONA SAVINGS BANK | 10/11/1991 | 0.34 | 0.16 | \$4,590 | \$31,180 | \$29,513 |
| 35 | Q BANK | 8/7/1998 | 0.23 | 0.25 | \$3,468 | \$14,977 | \$13,888 |
| 36 | THE BANK OF VERDE VALLEY | 1/16/1992 | 1.06 | 0.31 | \$3,193 | \$10,254 | \$10,155 |
| 37 | SINCLAIR NATIONAL BANK | 9/7/2001 | 2.25 | 0.10 | \$2,643 | \$29,792 | \$26,054 |

| The 46 Failed Institutions within Proposed FDIC "Danger Zone" One Year |
|--|
| Prior to Failure, 1991-2008 |

| | | | | | (in thousands of dollars) | | |
|-------|--------------------------------------|------------|--------------|----------|---------------------------|---------------|----------------|
| | | | 4-year Asset | Brokered | | | |
| | | Date of | Growth | Deposit | Total Brokered | | Total Domestic |
| Count | Institution | Failure | Ratio | Ratio | Deposits | Total Assets | Deposits |
| 1 | WASHINGTON MUTUAL BANK | 9/25/2008 | 0.33 | 0.13 | \$25,613,624 | \$328,805,088 | \$197,136,096 |
| 2 | INDYMAC BANK F.S.B | 7/11/2008 | 1.78 | 0.31 | \$5,280,067 | \$33,463,556 | \$16,953,534 |
| 3 | COLUMBIA S&LA | 1/25/1991 | 0.20 | 0.63 | \$4,433,615 | \$8,195,074 | \$7,030,983 |
| 4 | GREAT AMERICAN FSA | 8/9/1991 | 0.50 | 0.16 | \$1,699,968 | \$15,060,494 | \$10,730,071 |
| 5 | BANK OF NEW ENGLAND, NATIONAL AS | 1/6/1991 | 1.34 | 0.21 | \$1,588,000 | \$15,242,326 | \$7,614,650 |
| 6 | FAR WEST S&LA, FA | 1/11/1991 | 0.61 | 0.45 | \$1,540,697 | \$4,166,050 | \$3,443,946 |
| 7 | ANB FINANCIAL NATIONAL ASSOCIATION | 5/9/2008 | 2.93 | 0.85 | \$1,476,288 | \$1,947,476 | \$1,742,351 |
| 8 | OAK TREE FSB | 10/13/1991 | 1.55 | 0.50 | \$1,110,481 | \$2,272,209 | \$2,233,332 |
| 9 | FRANKLIN BANK, SSB | 11/7/2008 | 1.54 | 0.33 | \$966,130 | \$5,716,498 | \$2,963,100 |
| 10 | FIRST NB OF KEYSTONE | 9/1/1999 | 6.52 | 0.55 | \$428,093 | \$1,085,585 | \$778,766 |
| 11 | SILVER STATE BANK | 9/5/2008 | 1.76 | 0.33 | \$402,271 | \$1,446,415 | \$1,215,798 |
| 12 | SUPERIOR BANK, FSB | 7/27/2001 | 0.96 | 0.18 | \$285,885 | \$2,120,025 | \$1,588,692 |
| 13 | THE COMMUNITY BANK | 11/21/2008 | 1.40 | 0.49 | \$265,545 | \$602,126 | \$539,208 |
| 14 | INTEGRITY BANK | 8/29/2008 | 4.07 | 0.24 | \$258,052 | \$1,298,761 | \$1,077,099 |
| 15 | MAINE SAVINGS BANK | 2/1/1991 | 0.36 | 0.17 | \$233,696 | \$1,519,410 | \$1,404,785 |
| 16 | THE BANK OF HORTON | 6/13/1991 | 6.21 | 0.84 | \$201,866 | \$247,652 | \$239,840 |
| 17 | THE COLUMBIAN BANK AND TRUST COMPANY | 8/22/2008 | 1.94 | 0.41 | \$191,206 | \$639,489 | \$465,211 |
| 18 | MECHANICS AND FARMERS SAVINGS BA | 8/9/1991 | 0.21 | 0.16 | \$153,977 | \$1,261,161 | \$969,496 |
| 19 | FIRST NATIONAL BANK OF NEVADA | 7/25/2008 | 1.02 | 0.10 | \$124,216 | \$1,433,244 | \$1,185,052 |
| 20 | COUNTY BANK, FSB | 3/27/1991 | 0.90 | 0.10 | \$106,983 | \$1,367,671 | \$1,048,573 |
| 21 | NEW HAMPSHIRE SAVINGS BANK | 10/10/1991 | 0.22 | 0.11 | \$103,262 | \$964,308 | \$908,092 |
| 22 | UNIVERSITY BANK, NATIONAL ASSOCI | 5/31/1991 | 1.31 | 0.31 | \$102,161 | \$386,429 | \$328,463 |
| 23 | CONNECTICUT BANK OF COMMERCE | 6/26/2002 | 3.36 | 0.29 | \$91,841 | \$392,960 | \$321,288 |

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The 46 Failed Institutions within Proposed FDIC "Danger Zone" One Year Prior to Failure, 1991-2008

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| | | | | | (in thousands of dollars) | | |
|-------|-------------------------------------|--------------------|---------------------------------|---------------------------|----------------------------|--------------|----------------------------|
| Count | Institution | Date of Failure | 4-year Asset Growth Ratio | Brokered Deposit Ratio | Total Brokered Deposits | Total Assets | Total Domestic Deposits |
| 24 | SECURITY PACIFIC BANK | 11/7/2008 | 1.77 | 0.16 | \$78,959 | \$594,725 | \$501,563 |
| 25 | NEXTBANK | 2/7/2002 | 376.89 | 0.15 | \$74,600 | \$835,897 | \$487,419 |
| 26 | FIRST GEORGIA COMMUNITY BANK | 12/5/2008 | 1.01 | 0.29 | \$71,106 | \$295,399 | \$245,730 |
| 27 | HAVEN TRUST BANK | 12/12/2008 | 3.04 | 0.13 | \$54,574 | \$504,717 | \$426,482 |
| 28 | LOWELL INSTITUTION FOR SAVINGS | 8/30/1991 | 0.61 | 0.13 | \$44,513 | \$443,570 | \$352,556 |
| 29 | MALIBU SB, FSB | 1/11/1991 | 0.33 | 0.29 | \$42,018 | \$168,086 | \$142,619 |
| 30 | SOUTHSTATE BANK FOR SAVINGS | 4/24/1992 | 0.39 | 0.13 | \$35,028 | \$297,292 | \$269,318 |
| 31 | CITY BANK AND TRUST | 3/29/1991 | 3.75 | 0.25 | \$30,136 | \$127,048 | \$120,709 |
| 32 | MISSION VIEJO NATIONAL BANK | 2/28/1992 | 1.65 | 0.18 | \$26,106 | \$172,436 | \$141,553 |
| 33 | AMERICAN SB, FSB | 3/22/1991 | 2.15 | 0.29 | \$24,868 | \$110,913 | \$85,014 |
| 34 | SURETY FS&LA | 7/9/1991 | 0.69 | 0.14 | \$23,846 | \$231,159 | \$167,600 |
| 35 | THE COSMOPOLITAN NATIONAL BANK O | 5/17/1991 | 0.88 | 0.16 | \$23,280 | \$156,709 | \$143,252 |
| 36 | EXECUTIVE SB, FSB | 4/26/1991 | 0.47 | 0.28 | \$18,935 | \$69,487 | \$67,086 |
| 37 | SANDERSON STATE BANK | 12/12/2008 | 0.62 | 0.40 | \$15,287 | \$44,280 | \$38,090 |
| 38 | HUNTINGTON PACIFIC THRIFT & LOAN | 12/4/1992 | 0.61 | 0.25 | \$10,286 | \$45,231 | \$41,245 |
| 39 | CORAL COAST FSB | 8/2/1991 | 2.41 | 0.17 | \$9,585 | \$60,303 | \$58,068 |
| 40 | WESTERN COMMUNITY BANK | 7/29/1994 | 0.38 | 0.15 | \$8,710 | \$63,331 | \$58,562 |
| 41 | WORTHINGTON STATE BANK | 11/14/1991 | 0.36 | 0.15 | \$6,968 | \$47,643 | \$45,030 |
| 42 | THE FAMILY BANK AND TRUST | 9/6/1991 | 1.41 | 0.15 | \$5,454 | \$39,544 | \$37,519 |
| 43 | THE FARMERS BANK & TRUST OF CHENEYV | 12/17/2002 | 0.84 | 0.18 | \$4,852 | \$30,316 | \$27,551 |
| 44 | IONA SAVINGS BANK | 10/11/1991 | 0.67 | 0.14 | \$4,689 | \$35,012 | \$32,732 |
| 45 | VILLAGE GREEN NATIONAL BANK | 5/9/1991 | 0.36 | 0.12 | \$3,664 | \$34,907 | \$29,557 |
| 46 | Q BANK | 8/7/1998 | 0.57 | 0.13 | \$2,022 | \$17,547 | \$15,549 |

Mean Quarterly Incidence of Failure

| Sample | 12/31/1990 - 12/12/2008 | 12/31/1990 - 12/31/1993 | 1/1/1994 - 12/12/2008 |
|---|----------------------------|----------------------------|--------------------------|
| All institutions | 0.074% | 0.257% | 0.016% |
| Institutions with 4-year asset growth > 20% & ratio of brokered deposits to total domestic deposits > 10% in previous quarterly filing | 0.169% | 1.532% | 0.096% |
| Institutions with 4-year asset growth > 20% & ratio of brokered deposits to total domestic deposits > 10% in quarterly filing one year ago* | 0.203% | 1.603% | 0.095% |

Although institutions with positive adjusted brokered deposit ratios have a greater incidence of failure, does the adjusted brokered deposit ratio have any power to predict failure *BEYOND* the standard measures of financial health, such as asset quality?

* Note: Sample periods begin and end one year earlier than dates indicated in column heading when examining institutions' filings one year ago.

Mean "Adjusted Brokered Deposit Ratio"

| Sample | 12/31/1990 - 12/12/2008 | 12/31/1990 - 12/31/1993 | 1/1/1994 - 12/12/2008 |
|---|----------------------------|----------------------------|--------------------------|
| All institutions | 0.00378 | 0.00086 | 0.00472 |
| Failed institutions, ratio measured as of quarterly filing prior to failure | 0.01272 | 0.00596 | 0.04824 |
| Failed institutions, , ratio measured as of filing one year prior to failure* | 0.01168 | 0.00640 | 0.03895 |

- On average, failed institutions' adjusted brokered deposit ratios are greater than the ratios for all institutions
- The adjusted brokered deposit ratio increases as failed institutions get closer to failure
- Although failed institutions have above-average adjusted brokered deposit ratios, does the adjusted brokered deposit ratio have any power to predict failure BEYOND the standard measures of financial health, such as asset quality?

* Note: Sample periods begin and end one year earlier than dates indicated in column heading when examining institutions' filings one year prior to failure.

ESTIMATING EFFECT OF BROKERED DEPOSITS ON LIKELIHOOD OF FAILURE WHEN CONTROLLING FOR OTHER FACTORS

Estimating Likelihood of Failure *CAMELS Ratings*

- FDIC uses CAMELS ratings to monitor a bank's financial condition
 - C = Capital adequacy
 - A = Asset quality
 - M = Management quality
 - \circ E = Earnings
 - \circ L = Liquidity
 - S = Sensitivity to market risk
- CAMELS ratings are not public
- Academic literature uses various financial measures as proxies for the components of CAMELS rating to predict bank failure

Estimating Likelihood of Failure CAMELS Rating Proxies

- C = Capital adequacy
 - Total Equity / Total Assets
- A = Asset quality
 - Total Loans & Leases / Total Assets
 - Accrued interest, earned but not collected / Total Assets
 - REO / Total Assets
 - Real estate loans / Total Loans
 - Commercial & industrial loans / Total Loans & Leases
 - Past due loans (90+ days) / Total Loans & Leases
 - Nonaccrual loans & leases / Total Loans & Leases
 - Loan loss provisions / Total Assets
- M = Management quality
 - Efficiency Ratio = Non-interest expenses/(Net interest income + Noninterest income)

- E = Earnings
 - Net income after taxes / Total Assets
 - Interest income / Net income after taxes
 - Noninterest income / Net income after taxes
 - Interest expense / Net income after taxes
 - Loan charge-offs / Noninterest income
 - Expenses on premises / Noninterest expense
 - Salaries / Noninterest expense
- L = Liquidity
 - Volatile liabilities (Fed funds purchased & securities sold under agreements to repurchase + demand notes issued to Treasury & other borrowed money + time deposits > \$100K in domestic offices + trading liabilities less revaluation losses) / Total Assets
- S = Sensitivity to market risk
 - None
- Other measures
 - In (Total Assets)
 - FDIC's Adjusted Brokered Deposit Ratio

Quarterly Summary Statistics All Institutions, 1989Q4 – present

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---------|----------|-----------|-------------|------------|
| C = Capital adequacy | | | | | |
| Total Equity / Total Assets | 846,246 | 0.09128 | 1.68021 | -602.04610 | 338.60000 |
| A = Asset quality | | | | | |
| Total Loans & Leases / Total Assets | 846,246 | 0.58974 | 0.17745 | -0.05948 | 1.64763 |
| Accrued interest, earned but not collected / Total Assets | 813,141 | 0.00659 | 0.00428 | -0.00018 | 0.26396 |
| REO / Total Assets | 846,246 | 0.00326 | 0.01050 | -0.01795 | 1.35203 |
| Real estate loans / Total Loans & Leases | 839,693 | 0.59893 | 0.24776 | -0.32003 | 4.90671 |
| Commercial & industrial loans / Total Loans & Leases | 839,693 | 0.16062 | 0.14971 | 0.00000 | 1.14699 |
| Past Due Loans (90+ days) / Total Loans & Leases | 839,693 | 0.00411 | 0.00816 | 0.00000 | 0.65698 |
| Nonaccrual loans & leases / Total Loans & Leases | 839,693 | 0.00906 | 0.01875 | 0.00000 | 1.00000 |
| Loan Loss Provision / Total Assets | 846,246 | 0.00838 | 0.00701 | 0.00000 | 0.77781 |
| M = Management quality | | | | | |
| Efficiency Ratio | 814,940 | 0.68821 | 3.05034 | -1907.28600 | 1218.00000 |
| E = Earnings | | | | | |
| Net income after taxes / Total Assets | 846,246 | 0.00896 | 0.10412 | -75.58028 | 16.01653 |
| Interest income / Total Assets | 846,246 | 0.07056 | 0.02896 | -2.15771 | 10.28336 |
| Noninterest income / Total Assets | 846,246 | 0.01360 | 0.16569 | -5.27699 | 47.50000 |
| Interest expense / Total Assets | 846,246 | 0.03269 | 0.01782 | -0.69737 | 4.72260 |
| Expenses on premises / Noninterest expense | 814,788 | 0.13986 | 0.10569 | -43.00000 | 65.66666 |
| Salaries / Noninterest expense | 814,788 | 0.51433 | 0.46063 | -40.00000 | 396.33330 |
| Loan charge-offs / Noninterest income | 813,889 | 0.48379 | 10.58171 | -5304.50000 | 2161.83300 |
| L = Liquidity | | | | | |
| Volatile liabilities / Total Assets | 846,246 | 0.13765 | 0.11194 | 0.00000 | 1.81864 |
| Other | | | | | |
| ln (Total Assets) | 846,246 | 11.42871 | 1.43250 | -1.38629 | 21.01388 |
| FDIC's Adjusted Brokered Deposit Ratio | 863,778 | 0.00363 | 0.03644 | 0.00000 | 0.90617 |

Note: All balance sheet measures other than the FDIC's proposed Adjusted Brokered Deposit Ratio (which is not an annualized average in the FDIC's proposed rule other than to the extent it measures asset growth) have been annualized by calculating in each quarter the average of the current quarter and the previous 3 quarters. Income statement measures are annualized by taking the sum of the current quarter and the previous 3 quarters.
Estimating Likelihood of Failure *Probit Model*

- Economists use "probit" models to measure the likelihood of a given event (such as failure)
- These regression models can control for factors that might predict the occurrence of the event
- We estimate probit models on the bank failure data, controlling for:
 - Standard proxies for CAMELS rating components
 - Adjusted brokered deposit rule proposed by FDIC
- The probit model will show whether rapid asset growth combined with high incidence of brokered deposits has any significant explanatory power in predicting likelihood of failure

Probit Model: Contemporaneous vs Lagged

- We estimate the likelihood of failure using models with an institution's lagged financial characteristics rather than its contemporaneous financial characteristics
 - Contemporaneous: the quarter of the last filing prior to failure
 - Predicts failure in the **immediate-term**
 - Example: Was ANB Financial's 5/9/2008 failure predictable based on the financial characteristics from its 2008Q1 call report?
 - Problem: For a policy to be effective, it needs to be applied earlier than 1 quarter prior to failure
 - Lagged: One year prior to failure
 - Predicts failure in the long term
 - Example: Was ANB Financial's 5/9/2008 failure predictable based on the financial characteristics from its 2007Q2 call report?
 - The lagged model shows whether the failure was predictable in advance, allowing the regulator sufficient time to intervene before failure through actions such as increased insurance premiums

Probit Model Samples

- Have the factors that predict failure changed over time?
- Were brokered deposits any more predictive of failure during the S&L crisis of the early 1990s than today?
- We estimate probit models using 3-year samples
 - Only 7 institutions failed during the 2003-2005 sample. Because such a small number of institutions failed during this time period, we substitute a combined 2000-2005 six-year sample for the individual 2000-2002 and 2003-2005 samples
- Models are estimated using robust cluster estimators
- Explanatory variables are annualized
 - Balance sheet measures: Average of previous 4 quarters
 - Income statement measures: Sum of previous 4 quarters

Probit Model Results

| Sample Period | 1991-1993 | 1994-1996 | 1997-1999 | 2000-2005 | 2006-2008 | |
|---|--------------|--------------|--------------|--------------|---------------|-----------------------|
| | Coefficient | Coefficient | Coefficient | Coefficient | Coefficient | |
| Variable | (Std. Error) | |
| Total Equity (Total Access | 1.5980 | -11.9599 | -9.1369 | -2.5618 | -0.3140 | |
| Total Equity / Total Assets | (0.2192) *** | (2.1047) *** | (4.9193) * | (1.4528) * | (1.9761) | |
| Total Loans & Langer / Total Assats | 1.2780 | 2.3907 | -0.7725 | 0.7186 | 3.3068 | |
| Total Loans & Leases / Total Assets | (0.1423) *** | (0.6271) *** | (0.6657) | (0.4778) | (0.9512) *** | |
| Accrued interest earned but not collected / Total Assets | 19.4135 | 3.5168 | 18.4172 | 4.7211 | 39.7799 | |
| Accided interest, carned but not concelled / Total Assets | (4.0938) *** | (13.0174) | (11.1242) * | (9.6443) | (19.8899) ** | |
| PEO / Total Assets | 3.2634 | 5.2158 | -12.3974 | 8.2798 | 15.4942 | |
| REO / Total Assets | (0.7013) *** | (1.8513) *** | (7.5317) * | (4.4719) * | (5.7286) *** | |
| Real estate loans / Total Loans & Leases | 0.5751 | 0.1705 | 0.2540 | 0.0342 | 1.4233 | |
| Real estate toalis / Total Loalis & Leases | (0.1293) *** | (0.4792) | (0.6809) | (0.4908) | (0.9854) | |
| Commercial & industrial loans / Total Loans & Loans | 1.1830 | 1.2263 | 0.2927 | 1.4079 | 1.2751 | |
| Commercial & melastral loans / rotal Loans & Leases | (0.1704) *** | (0.6515) * | (0.9278) | (0.5603) ** | (1.3339) | |
| Dest Dug Logne (00+ days) / Total Logne & Logge | 3.4378 | 2.0252 | 5.3323 | 4.8337 | 15.5090 | |
| rasi Due Loans (90+ days)/ Total Loans & Leases | (1.2547) *** | (2.8624) | (1.6457) *** | (2.0508) ** | (5.4257) *** | |
| Nonecomial loops & locase / Total Loops & Locase | 3.4785 | 4.6675 | 3.0775 | 3.7295 | 5.4493 | |
| Nonaccinal Ioans of leases / Total Loans of Leases | (0.4392) *** | (1.4142) *** | (1.7884) * | (0.9170) *** | (1.2014) *** | |
| Loop Loss Provinian / Total Assats | -6.3209 | -6.7777 | 17.8110 | 15.1315 | -24.5668 | |
| Loan Loss Provision / Total Assets | (1.8936) *** | (7.0952) | (6.4172) *** | (4.7569) *** | (21.4831) | |
| Efficiency Batio | 0.0006 | -0.0093 | 0.0194 | 0.0068 | 0.1135 | |
| Efficiency Ratio | (0.0006) | (0.0064) | (0.0078) ** | (0.0027) ** | (0.0609) • | |
| Not income offer towar / Total Agents | -2.2568 | -11.3060 | -6.1629 | -0.4491 | -13.0279 | |
| Net ficome anel taxes / Total Assets | (0.9992) ** | (2.2767) *** | (4.3619) | (0.6575) | (2.7353) *** | |
| Interest income / Total Agents | -8.7121 | 2.7471 | -0.8303 | -8.2694 | 5.8332 | |
| interest income / Total Assets | (1.8445) *** | (3.9491) | (3.8829) | (3.0962) *** | (7.9403) | |
| Noninterest income / Total Assets | 1.1228 | 1.6218 | 0.3625 | -2.2889 | -5.1756 | |
| Noninterest filconie / Total Assets | (0.4989) ** | (0.2367) *** | (0.0973) *** | (1.9167) | (3.4679) | |
| Interest expense / Total Accets | 12.5305 | -2.6469 | 16.7525 | 29.2887 | 53.5188 | |
| interest expense / Total Assets | (2.2702) *** | (10.4168) | (7.9234) ** | (6.3411) *** | (14.7610) *** | |
| Expenses on premises / Noninterest expense | 1.3697 | 0.1301 | -0.1845 | 0.2509 | 2.7279 | |
| Expenses on premises / Nominerest expense | (0.2301) *** | (0.1255) | (0.4350) | (0.7573) | (1.0737) ** | |
| Salaries / Noninterest expense | -0.6073 | -0.0912 | 0.6274 | -0.0997 | -0.5617 | |
| Balartos / Hommerest expense | (0.2875) ** | (0.0199) *** | (0.5463) | (0.0249) *** | (0.2402) ** | |
| Loan charge offs / Noninterest income | 0.0014 | 0.0004 | -0.0117 | 0.0012 | 0.0002 | |
| Loan charge-ons / Noninterest meome | (0.0004) *** | (0.0015) | (0.0073) | (0.0008) | (0.0006) | |
| Volatile liabilities / Total Assets | 0.2242 | -2.4862 | 0.2868 | 0.5084 | -0.3608 | |
| Volume habilities / Total Assets | (0.1833) | (1.0674) ** | (0.8896) | (0.5152) | (0.4846) | |
| In (Total Assets) | 0.0290 | 0.0278 | -0.0801 | -0.1795 | 0.1628 | |
| m (Total Associy) | (0.0122) ** | (0.0501) | (0.0791) | (0.0694) *** | (0.0557) *** | |
| FDIC's Adjusted Brokered Deposit Ratio | 0.9481 | 1.2849 | 1.7297 | -0.1100 | 0.5045 | |
| The s Adjusted bloketed beposit Ratio | (0.3080) *** | (0.8204) | (0.8109) ** | (0.4907) | (0.3117) | |
| Constant | -4.6848 | -4.9266 | -2.9749 | -2.8532 | -11.3856 | * significant at 10% |
| Constant | (0.2448) *** | (0.7488) *** | (0.9326) *** | (0.6620) *** | (1.8778) *** | ** significant at 5% |
| | | | | | | significant at 5% |
| Pseudo R-sq | 0.1570 | 0.3957 | 0.2011 | 0.3290 | 0.3431 | *** significant at 1% |
| Observations | 175,054 | 151,055 | 130,979 | 103,886 | 95,797 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Estimating Likelihood of Failure Probit Model Results

- Several of the proxies for CAMELS rating components have the expected effect (positive or negative) on likelihood of failure and are statistically significant
 - Total equity / total assets
 - Total loans / total assets
 - Accrued interest, earned by not collected / total assets
 - REO / total assets
 - Commercial & industrial loans / total loans
 - Past due loans (90+ days) / Total loans & leases
 - Nonaccrual loans / Total loans & leases
 - Net income / Total assets
 - Interest expense / Total assets
 - Negative sign and large absolute value for the coefficient indicates that highinterest expense was a significant predictor of failure, regardless of its source
- The adjusted brokered deposit ratio only has statistically significant explanatory power in the 1991-1993 sample (end of the thrift crisis), and the 1997-1999 sample (a period of only 12 failures). It has **NO** significant explanatory power in recent periods.

CASE STUDIES: EVIDENCE FROM RECENT FAILURES

Recent Bank Failures ANB Financial

- The U.S. Treasury's Office of Inspector General (OIG) released its audit report of the failure of ANB Financial in November 2008.
- OCC guidance "did not provide benchmarks or more specific guidance as to when examiners should start to raise concerns with bank management about the use of brokered deposits and other non-retail deposit funding sources," because PCA rules limit use of brokered deposits. (p. 24)
 - "The Federal Deposit Insurance Corporation Improvement Act requires that acceptance of brokered deposits can only be made by well-capitalized institutions that exceed the minimum PCA requirements. ... OCC downgraded ANB's capital level to adequately capitalized as a result of the formal agreement issued in June 2007." (p. 8)
 - PCA Rules were followed, but bank remained "well-capitalized" because OCC examiners did not take action on bank assets in a timely fashion.
- "OCC did not issue a formal enforcement action in a timely manner, and was not aggressive enough in the supervision of ANB when problems first arose." (p. 13)
 - "OCC identified most of ANB's problems in 2005; however, it took no forceful action until 2007." (p. 13)
- Under OIG Recommendations:
 - "Re-emphasize to examiners that examiners must closely investigate an institution's circumstances and alter its supervisory plan if certain conditions exist as specified in OCC's Examiner's Guide to Problem Bank Identification, Rehabilitation, and Resolution." (p. 27)
 - "Re-emphasize to examiners that formal enforcement action is presumed warranted when certain circumstances specified in OCC's Enforcement Action Policy (PPM 5310-3) exist." (p. 27)
- "...the examiner-in-charge ...stated that by looking back, examiners needed a stronger tool to address *loan concentration limits.*" (p. 22)

Recent Bank Failures IndyMac

- Brokered deposits have magnified losses in banks that were not closed in a timely manner, either due to conscious forbearance or just lags in regulatory enforcement.
 - IndyMac "increased [its] reliance on brokered deposits and it extended [their] existence by a good 12 months." (Letter from Ken Bernard, Money Desk Manager, IndyMac Federal Bank to FDIC, November 12, 2008)
- Well before failure, IndyMac showed signs of risky business strategy that cold have justified regulatory action:
 - *Goodwill assets* were nearly two-and-a-half times the industry average;
 - Other borrowed funds were over four-and-a-half times the industry average;
 - *Volatile liabilities* was almost double the industry average;
 - *Tier One capital* was below the industry average and *Tier Two capital* was only about **one-seventh** the industry average.
 - *Interest expense* was roughly twice the industry average;
 - *Trading gains (losses)* were seventy-five times the industry average.
- Point: Like ANB, ample evidence of increasing risk was not used to trigger existing PCA provisions on brokered deposits that could have reduced the costs of the failure.

Summary

- When controlling for other financial aspects of an institution, a large percentage of brokered deposits combined with high asset growth rates has **NO** predictive power on the likelihood of bank failure
- Recent failures (ANB, IndyMac) failed as a result of their asset quality, not growth fueled by brokered deposits
- Based on the evidence of past bank and thrift failures, the FDIC's proposed rule to increase deposit insurance based on the "adjusted brokered deposit ratio" is not warranted

ATTACHMENT B COMPARATIVE FUNDING SOURCES

Sources of Data:

CD Rate Listing Service

Monthly Average of Top Ten Highest Rates on a National CD Listing Service

Federal Home Loan Bank Advances¹

Federal Home Loan Bank of Seattle (www.fhlbsca.com)

Federal Home Loan Bank of Boston (www.fhlbboston.com)

Federal Home Loan Bank of Cincinnati (<u>www.fhlbcin.com</u>)

DTC Eligible CD Total Cost

A Survey of Broker-Dealers Participating in the National CD Market and Holding CDs through The Depository Trust Company

¹ Please note that the Federal Home Loan Banks ceased making this information publicly available after July 2008.

| CD Rate Listing Service FHLB - Seattle FHLB - Boston Cincinatii DTC Eligible CD Total Cost August 2005 3.95 3.84 3.81 3.84 3.78 September 2005 4.06 4.20 4.17 4.20 4.04 November 2005 4.26 4.39 4.36 4.38 4.22 December 2005 4.22 4.54 4.50 4.53 4.39 January 2006 4.72 4.85 4.62 4.64 4.49 February 2006 4.81 4.80 4.76 4.79 4.69 Maich 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.42 5.44 5.50 5.54 5.33 July 2006 5.65 5.41 5.40 5.42 5.37 Cotober 2006 5.48 5.43 5.39 5.41 5.37 December 2006 5.44 5.52 5.39 | | | | 3 Months | | |
|--|----------------|----------------------------|----------------|---|----------------------|-------------------------------|
| August 2005 3.95 3.84 3.81 3.84 3.78 September 2005 4.00 3.95 3.92 3.94 3.84 October 2005 4.06 4.20 4.17 4.20 4.04 November 2005 4.26 4.39 4.36 4.38 4.22 December 2005 4.52 4.54 4.50 4.53 4.39 January 2006 4.72 4.65 4.62 4.64 4.49 February 2006 4.81 4.80 4.76 4.79 4.69 March 2006 5.02 5.10 5.08 5.10 4.98 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.42 5.44 5.39 5.43 5.33 May 2006 5.65 5.54 5.43 5.46 5.35 May 2006 5.48 5.43 5.40 5.35 Notember 2006 5.44 5.52 5.40 5.41 5.37 | | CD Rate Listing Service | FHLB - Seattle | FHLB - Boston | FHLB - Cincinatti | DTC Eligible CD Total Cost |
| September 2005 4.00 3.95 3.92 3.94 3.84 October 2005 4.06 4.20 4.17 4.20 4.04 November 2005 4.26 4.33 4.36 4.38 4.22 December 2005 4.52 4.54 4.50 4.53 4.39 January 2006 4.72 4.65 4.62 4.64 4.49 February 2006 4.81 4.80 4.76 4.79 4.69 March 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.42 5.44 5.33 5.43 5.33 July 2006 5.65 5.54 5.50 5.54 5.33 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.44 5.52 5.39 5.41 5.37 October 2006 5.44 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.35 5.40 | August 2005 | 3.95 | 3.84 | 3.81 | 3.84 | 3.78 |
| October 2005 4.06 4.20 4.17 4.20 4.04 November 2005 4.26 4.33 4.36 4.33 4.22 December 2005 4.52 4.54 4.50 4.53 4.39 January 2006 4.72 4.65 4.62 4.64 4.49 February 2006 4.81 4.80 4.76 4.79 4.69 March 2006 4.90 4.96 4.93 4.96 4.79 April 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.65 5.54 5.50 5.54 5.83 July 2006 5.65 5.54 5.50 5.54 5.83 August 2006 5.68 5.41 5.40 5.42 5.37 October 2006 5.48 5.43 5.39 5.40 5.35 November 2006 5.41 5.52 5.39 5.41 5.38 Pebruary 2007 5.39 5.51 5.37 5.40 5.34 | September 2005 | 4.00 | 3.95 | 3.92 | 3.94 | 3.84 |
| November 2005 4.26 4.39 4.36 4.38 4.22 December 2005 4.52 4.54 4.50 4.53 4.39 January 2006 4.72 4.65 4.62 4.64 4.49 February 2006 4.81 4.80 4.76 4.79 4.69 March 2006 5.02 5.10 5.08 5.10 4.99 March 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.65 5.54 5.50 5.54 5.48 August 2006 5.66 5.45 5.43 5.43 5.43 August 2006 5.68 5.41 5.40 5.42 5.37 November 2006 5.44 5.52 5.39 5.41 5.37 December 2006 5.44 5.52 5.39 5.41 5.38 November 2007 5.40 5.31 5.37 5.41 5.38 | October 2005 | 4.06 | 4.20 | 4.17 | 4.20 | 4.04 |
| December 2005 4.52 4.54 4.50 4.53 4.39 January 2006 4.72 4.65 4.62 4.64 4.49 February 2006 4.81 4.80 4.76 4.79 4.69 March 2006 4.90 4.96 4.93 4.96 4.79 April 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.65 5.54 5.50 5.54 5.48 August 2006 5.66 5.44 5.39 5.40 5.37 October 2006 5.48 5.43 5.40 5.41 5.37 October 2006 5.44 5.52 5.40 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.38 Pebruary 2007 5.39 5.51 5.35 5.40 5.34 January 2007 5.34 5.50 5.35 5.40 5.38 </td <td>November 2005</td> <td>4.26</td> <td>4.39</td> <td>4.36</td> <td>4.38</td> <td>4.22</td> | November 2005 | 4.26 | 4.39 | 4.36 | 4.38 | 4.22 |
| January 2006 4.72 4.65 4.62 4.64 4.49 February 2006 4.81 4.80 4.76 4.79 4.69 March 2006 4.90 4.96 4.93 4.96 4.79 April 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.42 5.44 5.39 5.43 5.33 July 2006 5.65 5.54 5.50 5.54 5.48 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.48 5.43 5.39 5.40 5.37 October 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.35 5.40 5.34 March 2007 5.39 5.51 5.35 5.40 5.34 May 2007 5.34 5.35 5.40 5.38 5.40 | December 2005 | 4.52 | 4.54 | 4.50 | 4.53 | 4.39 |
| February 2006 4.81 4.80 4.76 4.79 4.69 March 2006 4.90 4.96 4.93 4.96 4.79 April 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.42 5.44 5.39 5.43 5.33 July 2006 5.65 5.54 5.50 5.54 5.43 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.48 5.43 5.39 5.40 5.37 October 2006 5.44 5.52 5.39 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.34 May 2007 5.34 5.53 5.35 5.40 5.38 </td <td>January 2006</td> <td>4.72</td> <td>4.65</td> <td>4.62</td> <td>4.64</td> <td>4.49</td> | January 2006 | 4.72 | 4.65 | 4.62 | 4.64 | 4.49 |
| March 2006 4.90 4.96 4.93 4.96 4.79 April 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.42 5.44 5.39 5.43 5.33 July 2006 5.65 5.54 5.50 5.54 5.48 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.48 5.43 5.40 5.41 5.37 October 2006 5.44 5.52 5.40 5.41 5.37 November 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.33 5.41 5.38 Jule 2007 5.37 5.49 5.35 5.40 5.34 June 2007 5.42 5.51 5.35 5.40 5.38 | February 2006 | 4.81 | 4.80 | 4.76 | 4.79 | 4.69 |
| April 2006 5.02 5.10 5.08 5.10 4.99 May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.42 5.44 5.39 5.43 5.33 July 2006 5.65 5.54 5.50 5.54 5.48 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.48 5.43 5.39 5.41 5.37 October 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.35 5.41 5.37 January 2007 5.39 5.51 5.35 5.40 5.38 February 2007 5.39 5.51 5.35 5.40 5.35 June 2007 5.42 5.51 5.35 5.40 5.38 July 2007 5.42 5.51 5.35 5.40 5.38 | March 2006 | 4.90 | 4.96 | 4.93 | 4.96 | 4.79 |
| May 2006 5.19 5.22 5.20 5.23 5.14 June 2006 5.42 5.44 5.39 5.43 5.33 July 2006 5.65 5.54 5.50 5.54 5.48 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.58 5.41 5.40 5.42 5.37 October 2006 5.44 5.52 5.40 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.37 January 2007 5.39 5.51 5.35 5.41 5.38 February 2007 5.40 5.51 5.37 5.41 5.38 July 2007 5.38 5.50 5.35 5.40 5.34 July 2007 5.42 5.51 5.35 5.40 5.38 July 2007 5.42 5.51 5.35 5.40 5.38 July 2007 5.42 5.51 5.35 5.40 5.38 <td>April 2006</td> <td>5.02</td> <td>5.10</td> <td>5.08</td> <td>5.10</td> <td>4.99</td> | April 2006 | 5.02 | 5.10 | 5.08 | 5.10 | 4.99 |
| June 2006 5.42 5.44 5.39 5.43 5.33 July 2006 5.65 5.54 5.50 5.54 5.48 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.58 5.41 5.40 5.42 5.37 October 2006 5.48 5.43 5.39 5.40 5.37 October 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.37 January 2007 5.39 5.51 5.37 5.41 5.37 April 2007 5.37 5.49 5.35 5.40 5.39 July 2007 5.42 5.51 5.35 5.40 5.38 June 2007 5.42 5.51 5.35 5.40 5.38 June 2007 5.42 5.51 5.35 5.40 5.38 | May 2006 | 5.19 | 5.22 | 5.20 | 5.23 | 5.14 |
| July 2006 5.65 5.54 5.60 5.54 5.48 August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.58 5.41 5.40 5.42 5.37 October 2006 5.48 5.43 5.39 5.40 5.35 November 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.36 5.41 5.38 February 2007 5.40 5.51 5.35 5.40 5.34 March 2007 5.37 5.49 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.35 June 2007 5.42 5.51 5.35 5.40 5.39 July 2007 5.42 5.51 5.35 5.39 5.45 September 2007 5.44 5.53 5.35 5.39 5.45 </td <td>June 2006</td> <td>5.42</td> <td>5.44</td> <td>5.39</td> <td>5.43</td> <td>5.33</td> | June 2006 | 5.42 | 5.44 | 5.39 | 5.43 | 5.33 |
| August 2006 5.66 5.45 5.43 5.46 5.38 September 2006 5.58 5.41 5.40 5.42 5.37 October 2006 5.48 5.43 5.39 5.40 5.35 November 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.38 February 2007 5.40 5.51 5.37 5.41 5.37 April 2007 5.37 5.49 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.39 July 2007 5.42 5.51 5.35 5.40 5.39 July 2007 5.42 5.51 5.35 5.40 5.38 September 2007 5.44 5.53 5.35 5.40 5.38 September 2007 5.02 4.65 4.71 4.52 5 | July 2006 | 5.65 | 5.54 | 5.50 | 5.54 | 5.48 |
| September 2006 5.58 5.41 5.40 5.42 5.37 October 2006 5.48 5.43 5.39 5.40 5.35 November 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.38 February 2007 5.40 5.51 5.37 5.41 5.38 March 2007 5.39 5.51 5.35 5.41 5.37 April 2007 5.37 5.49 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.39 June 2007 5.42 5.51 5.35 5.40 5.38 June 2007 5.42 5.51 5.35 5.40 5.38 September 2007 5.44 5.53 5.35 5.40 5.38 September 2007 5.03 4.71 4.68 4.82 5. | August 2006 | 5.66 | 5.45 | 5.43 | 5.46 | 5.38 |
| October 2006 5.48 5.43 5.39 5.40 5.35 November 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.38 February 2007 5.39 5.51 5.37 5.41 5.38 March 2007 5.39 5.51 5.35 5.41 5.38 March 2007 5.39 5.51 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.39 June 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.40 5.38 September 2007 5.44 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.62 5.01 < | September 2006 | 5.58 | 5.41 | 5.40 | 5.42 | 5.37 |
| November 2006 5.44 5.52 5.40 5.41 5.37 December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.38 February 2007 5.40 5.51 5.37 5.41 5.38 March 2007 5.39 5.51 5.35 5.41 5.37 April 2007 5.37 5.49 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.33 July 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.40 5.38 September 2007 5.44 5.53 5.35 5.40 5.38 September 2007 5.44 5.50 5.21 5.06 5.41 October 2007 5.03 4.71 4.68 4.82 5.22 November 2007 5.02 4.65 4.71 4.52 5 | October 2006 | 5.48 | 5.43 | 5.39 | 5.40 | 5.35 |
| December 2006 5.41 5.52 5.39 5.41 5.37 January 2007 5.39 5.51 5.38 5.41 5.38 February 2007 5.40 5.51 5.37 5.41 5.38 March 2007 5.39 5.51 5.35 5.41 5.37 April 2007 5.37 5.49 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.35 June 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.40 5.38 August 2007 5.44 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.02 4.65 4.71 4.52 5.01 | November 2006 | 5,44 | 5.52 | 5.40 | 5.41 | 5.37 |
| January 2007 5.39 5.51 5.38 5.41 5.38 February 2007 5.40 5.51 5.37 5.41 5.38 March 2007 5.39 5.51 5.35 5.41 5.37 April 2007 5.37 5.49 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.38 June 2007 5.42 5.51 5.35 5.40 5.38 July 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.40 5.38 September 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.58 5.04 December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 3.68 3.31 3.06 2.99 3.66 <td>December 2006</td> <td>5.41</td> <td>5.52</td> <td>5.39</td> <td>5.41</td> <td>5.37</td> | December 2006 | 5.41 | 5.52 | 5.39 | 5.41 | 5.37 |
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| April 2007 5.37 5.49 5.35 5.40 5.34 May 2007 5.38 5.50 5.35 5.40 5.35 June 2007 5.42 5.51 5.35 5.40 5.38 July 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.39 5.45 September 2007 5.34 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.58 5.04 December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.65 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.24 | March 2007 | 5.39 | 5.51 | 5.35 | 5.41 | 5.37- |
| May 2007 5.38 5.50 5.35 5.40 5.35 June 2007 5.42 5.51 5.35 5.40 5.39 July 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.39 5.45 September 2007 5.34 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.58 5.04 December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.70 2.72 2.67 2.43 3.43 June 2008 3.70 2.82 2.66 2.60 3.30 | April 2007 | 5.37 | 5.49 | 5.35 | 5.40 | 5.34 |
| June 2007 5.42 5.51 5.35 5.40 5.39 July 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.39 5.45 September 2007 5.34 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.82 5.22 November 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 | May 2007 | 5.38 | 5.50 | 5.35 | 5.40 | 5.35 |
| July 2007 5.42 5.51 5.35 5.40 5.38 August 2007 5.44 5.53 5.35 5.39 5.45 September 2007 5.34 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.58 5.04 December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 2.91 S | June 2007 | 5.42 | 5.51 | 5.35 | 5.40 | 5.39 |
| August 2007 5.44 5.53 5.35 5.39 5.45 September 2007 5.34 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.58 5.04 December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 2.91 September 2008 4.18 2.86 2.87 November 2008 4.06 2.87 2.55 <td>July 2007</td> <td>5.42</td> <td>5.51</td> <td>5.35</td> <td>5.40</td> <td>5.38</td> | July 2007 | 5.42 | 5.51 | 5.35 | 5.40 | 5.38 |
| September 2007 5.34 5.50 5.21 5.06 5.41 October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.82 5.22 November 2007 5.03 4.71 4.68 4.82 5.22 November 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 2.91 September 2008 4.18 2.86 2.87 October 2008 | August 2007 | 5.44 | 5.53 | 5.35 | 5.39 | 5.45 |
| October 2007 5.16 5.16 4.86 4.82 5.22 November 2007 5.03 4.71 4.68 4.58 5.04 December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 June 2008 3.70 2.82 2.66 2.60 3.30 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 2.86 2.87 October 2008 4.06 2.87 2.87 2.87 | September 2007 | 5.34 | 5.50 | 5.21 | 5.06 | 5.41 |
| November 2007 5.03 4.71 4.68 4.58 5.04 December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.43 June 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 2.86 October 2008 4.06 2.87 2.87 2.87 November 2008 3.87 2.87 2.87 2.87 | October 2007 | 5.16 | 5.16 | 4.86 | 4.82 | 5.22 |
| December 2007 5.02 4.65 4.71 4.52 5.01 January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.70 2.72 2.67 2.43 3.43 May 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.86 2.87 November 2008 4.06 2.87 2.87 | November 2007 | 5.03 | 4.71 | 4.68 | 4.58 | · 5.04 |
| January 2008 4.61 4.05 3.81 3.81 4.38 February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.65 2.59 2.57 2.38 3.43 May 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 2.86 October 2008 4.06 2.87 2.87 | December 2007 | 5.02 | 4.65 | 4.71 | 4.52 | 5.01 |
| February 2008 3.68 3.31 3.06 2.99 3.66 March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.70 2.72 2.67 2.43 3.43 May 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 2.86 2.87 2.87 November 2008 4.06 2.87 2.87 2.87 2.87 | January 2008 | 4.61 | 4.05 | 3.81 | 3.81 | 4.38 |
| March 2008 3.69 2.79 2.71 2.57 3.71 April 2008 3.70 2.72 2.67 2.43 3.43 May 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.86 2.87 September 2008 4.06 2.87 2.87 | February 2008 | 3.68 | 3.31 | 3.06 | 2.99 | 3.66 |
| April 2008 3.70 2.72 2.67 2.43 3.43 May 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.86 October 2008 4.06 2.87 2.87 November 2008 3.87 2.55 2.55 | March 2008 | | 2.79 | 2.71 | 2.57 | 3.71 |
| May 2008 3.65 2.59 2.57 2.38 3.24 June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.86 2.86 October 2008 4.06 2.87 2.87 | April 2008 | 3.70 | 2.72 | 2.67 | 2.43 | 3.43 |
| June 2008 3.70 2.82 2.66 2.60 3.30 July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.86 2.86 October 2008 4.06 2.87 2.87 November 2008 3.87 2.55 2.55 | May 2008 | 3 65 | 2.59 | 2.57 | 2.38 | 3.24 |
| July 2008 3.93 2.92 2.75 2.78 3.21 August 2008 4.19 2.91 2.91 September 2008 4.18 2.86 2.87 October 2008 4.06 2.87 2.55 | June 2008 | 3.70 | 2.82 | 2.66 | 2.60 | 3.30 |
| August 2008 4.19 2.91 September 2008 4.18 2.86 October 2008 4.06 2.87 November 2008 3.87 2.55 | July 2008 | 3.93 | 2.92 | 2.75 | 2.78 | 3.21 |
| September 2008 4.18 2.86 October 2008 4.06 2.87 November 2008 3.87 2.55 | August 2008 | 4.19 | | | | 2.91 |
| October 2008 4.06 2.87 November 2008 3.87 2.55 | September 2008 | 418 | | | | 2.86 |
| November 2008 3 87 | October 2008 | 4 06 | | ang | | 2 87 |
| | November 2008 | 3.87 | | | Ref. Harris | 2.55 |

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| | | | 6 Months | | |
|----------------|----------------------------|--|---|----------------------|-------------------------------|
| | CD Rate Listing Service | FHLB - Seattle | FHLB - Boston | FHLB - Cincinatti | DTC Eligible CD Total Cost |
| August 2005 | 4.18 | 4.09 | 4.01 | 4.09 | 3.98 |
| September 2005 | 4.23 | 4.10 | 4.03 | 4.10 | |
| October 2005 | 4.31 | 4.41 | 4.33 | 4.40 | 4.23 |
| November 2005 | 4.56 | 4.61 | 4.56 | 4.60 | 4.40 |
| December 2005 | 4.81 | 4.72 | 4.68 | 4.72 | 4.57 |
| January 2006 | 4.90 | 4.78 | 4.75 | 4.78 | 4.64 |
| February 2006 | 4.92 | 4.97 | 4.92 | 4.97 | 4.79 |
| March 2006 | 5.01 | 5.11 | 5.06 | 5.10 | 4.93 |
| April 2006 | 5.17 | 5.25 | 5.22 | 5.25 | 5.08 |
| May 2006 | 5.37 | 5.33 | 5.30 | 5.33 | 5.21 |
| June 2006 | 5.58 | 5.55 | 5.50 | 5.54 | 5.39 |
| July 2006 | 5,78 | 5.63 | 5.59 | 5.62 | 5.54 |
| August 2006 | 5.72 | 5.52 | 5.49 | 5.52 | 5.43 |
| September 2006 | 5.68 | 5.44 | 5.43 | 5.45 | 5.33 |
| October 2006 | 5.51 | 5.43 | 5.41 | 5.41 | 5.34 |
| November 2006 | 5.49 | 5.46 | 5.40 | 5.42 | 5.34 |
| December 2006 | 5.45 | 5.46 | 5.37 | 5.40 | 5.32 |
| January 2007 | 5.45 | 5.48 | 5.41 | 5.42 | 5.36 |
| February 2007 | 5.47 | 5.48 | 5.41 | 5.43 | 5.40 |
| March 2007 | 5.43 | 5.44 | 5.32 | 5.39 | 5.32 |
| April 2007 | 5.37 | 5.44 | 5.31 | 5.40 | 5.31 |
| May 2007 | 5.39 | 5.45 | 5.32 | 5.40 | 5.34 |
| June 2007 | 5.46 | 5.48 | 5.35 | 5.42 | 5.45 |
| July 2007 | 5.48 | 5.46 | 5.33 | 5.41 | 5.42 |
| August 2007 | 5.47 | 5.47 | 5.32 | 5.35 | 5.37 |
| September 2007 | 5.37 | 5.36 | 5.09 | 5.03 | 5.27 |
| October 2007 | 5.23 | 5.07 | 4.78 | 4.78 | 5.12 |
| November 2007 | 5.09 | 4.57 | 4.57 | 4.52 | 4.98 |
| December 2007 | 5.03 | 4.49 | 4.59 | 4.45 | 4.89 |
| January 2008 | 4.63 | 3.90 | 3.66 | 3.70 | 4,30 |
| February 2008 | 3.71 | 3.14 | 2.97 | 2.86 | 3.55 |
| March 2008 | 3.71 | -2.72 | 2.63 | 2.51 | 3.70 |
| April 2008 | 3.74 | 2.75 | 2.70 | 2.45 | 3.50 |
| May 2008 | 3.70 | 2.66 | 2.73 | 2.46 | 3.33 |
| June 2008 | 3.80 | 3.01 | 2.98 | 2.80 | 3.42 |
| July 2008 | 4.12 | 3.14 | 3.02 | 3.02 | 3.43 |
| August 2008 | 4.36 | | ennennenen sinning formale over die Milerande | | 3.20 |
| September 2008 | 4.47 | | | | 3.15 |
| October 2008 | 4.44 | aaanna ahaa ahaan iyoon araa ka ka ka alaa ahaa | 70000000000000000000000000000000000000 | | 3.26 |
| November 2008 | 4.10 | | | | 2.98 |

| | | 9 Mont | hs | |
|----------------|----------------------------|--|---|-------------------------------|
| | CD Rate Listing Service | FHLB - Boston | FHLB - Cincinatti | DTC Eligible CD Total Cost |
| August 2005 | 4.19 | 4.15 | 4.21 | 4.11 |
| September 2005 | 4.25 | 4.15 | 4.18 | 4.09 |
| October 2005 | 4.37 | 4.45 | 4.51 | 4.35 |
| November 2005 | 4.60 | 4.67 | 4.72 | 4.54 |
| December 2005 | 4.83 | 4.76 | 4.81 | 4.66 |
| January 2006 | 4.88 | 4.79 | 4.85 | 4.71 |
| February 2006 | 4.92 | 4.98 | 5.05 | 4.90 |
| March 2006 | 5.06 | 5.11 | 5.17 | 5.05 |
| April 2006 | 5.20 | 5.26 | 5.32 | 5.20 |
| May 2006 | 5.38 | 5.32 | 5.40 | 5.31 |
| June 2006 | 5.57 | 5.52 | 5.60 | 5.46 |
| July 2006 | 5.71 | 5.59 | 5.68 | 5.59 |
| August 2006 | 5.66 | 5.46 | 5.53 | 5.42 |
| September 2006 | 5.58 | 5.38 | 5.44 | 5.31 |
| October 2006 | 5.47 | 5.36 | 5.41 | 5.30 |
| November 2006 | 5.45 | 5.33 | 5.39 | 5.33 |
| December 2006 | 5.39 | 5.30 | 5.35 | 5.28 |
| January 2007 | 5.38 | 5.37 | 5.43 | 5.35 |
| February 2007 | 5.42 | 5.37 | 5.44 | 5.41 |
| March 2007 | 5.37 | 5.26 | 5.32 | 5.28 |
| April 2007 | 5.34 | 5.29 | 5.36 | 5.29 |
| May 2007 | 5.36 | 5.30 | 5.39 | 5.31 |
| June 2007 | 5.43 | 5.37 | 5.45 | 5.43 |
| July 2007 | 5.48 | 5.34 | 5.42 | 5.42 |
| August 2007 | 5.42 | 5.19 | 5.18 | 5.31 |
| September 2007 | 5.28 | 4.98 | 4.88 | 5.20 |
| October 2007 | 5.14 | 4.71 | 4.69 | 5.07 |
| November 2007 | 5.04 | 4.46 | 4.43 | 4.92 |
| December 2007 | 4.88 | 4.40 | 4.29 | 4.82 |
| January 2008 | 4.47 | 3.50 | 3.44 | 4.26 |
| February 2008 | 3.51 | 2.85 | 2.67 | 3.53 |
| March 2008 | 3.58 | 2.52 | 2.41 | 3.68 |
| April 2008 | 3.62 | 2.71 | 2.53 | 3.54 |
| May 2008 | 3.67 | 2.83 | 2.57 | 3.48 |
| June 2008 | 3.81 | 3.11 | 2.92 | 3.63 |
| July 2008 | 4.13 | 3.08 | 3.07 | 3.70 |
| August 2008 | 4.37 | annan an a | | 3.55 |
| September 2008 | 4.44 | State States, est. (| 100 C 100 | 3.53 |
| October 2008 | 4.40 | an a | | 3.67 |
| November 2008 | 4.02 | | | 3.38 |

| | | | 1 Year | | |
|----------------|----------------------------|--|--|----------------------|-------------------------------|
| | CD Rate Listing Service | FHLB - Seattle | FHLB - Boston | FHLB - Cincinatti | DTC Eligible CD Total Cost |
| August 2005 | 4.42 | 4.33 | 4.30 | 4.36 | 4.25 |
| September 2005 | 4.51 | 4.29 | 4.27 | 4.33 | 4.21 |
| October 2005 | 4.58 | 4.64 | 4.58 | 4.67 | 4.45 |
| November 2005 | 4.79 | 4.84 | 4.78 | 4.86 | 4.67 |
| December 2005 | 5.03 | 4.89 | 4.84 | 4.91 | 4.76 |
| January 2006 | 5.03 | 4.89 | 4.84 | 4.91 | 4.80 |
| February 2006 | 5.08 | 5.13 | 5.04 | 5.16 | 4.97 |
| March 2006 | 5.20 | 5.23 | 5.15 | 5.26 | 5.14 |
| April 2006 | 5.33 | 5.37 | 5.30 | 5.40 | 5.26 |
| May 2006 | 5.52 | 5.43 | 5.35 | 5.46 | 5.34 |
| June 2006 | 5.71 | 5.64 | 5.54 | 5.66 | 5.54 |
| July 2006 | 5.84 | 5.73 | .5.59 | 5.71 | 5.62 |
| August 2006 | 5.76 | 5.55 | 5.43 | 5.55 | 5.44 |
| September 2006 | 5.66 | 5.43 | 5.32 | 5.43 | 5.33 |
| October 2006 | 5.55 | 5.45 | 5.30 | 5.42 | 5.28 |
| November 2006 | 5.50 | 5.42 | 5.26 | 5.33 | 5.28 |
| December 2006 | 5.40 | 5.39 | 5.22 | 5.24 | 5.27 |
| January 2007 | 5.42 | 5.50 | 5.33 | 5.35 | 5.34 |
| February 2007 | 5.50 | 5.49 | 5.34 | 5.36 | 5.35 |
| March 2007 | 5.39 | 5.35 | 5.20 | 5.23 | 5.22 |
| April 2007 | 5.38 | 5.41 | 5.26 | 5.29 | 5.23 |
| May 2007 | 5.40 | 5.45 | 5.28 | 5.34 | 5.30 |
| June 2007 | 5.51 | 5.54 | 5.39 | 5.44 | 5.43 |
| July 2007 | 5.57 | 5.48 | 5.35 | 5.38 | 5.43 |
| August 2007 | 5.51 | 5.23 | 5.05 | 5.14 | 5.31 |
| September 2007 | 5.37 | 5.03 | 4.88 | 4.90 | 5.14 |
| October 2007 | 5.24 | 4.82 | 4.65 | 4.71 | 5.03 |
| November 2007 | 5.14 | 4.48 | 4.36 | 4.37 | 4.85 |
| December 2007 | 4.98 | 4.34 | 4.21 | 4.25 | 4.80 |
| January 2008 | 4.55 | 3.61 | 3.35 | 3.32 | 4.22 |
| February 2008 | 3.59 | 3.02 | 2.73 | 2.69 | 3.49 |
| March 2008 | 3.72 | 2.73 | 2.42 | 2.42 | 3.65 |
| April 2008 | 3.79 | 2.96 | 2.73 | 2.62 | 3.60 |
| May 2008 | 3.83 | 3.00 | 2.93 | 2.71 | 3.54 |
| June 2008 | 3.98 | 3.38 | 3.25 | 3.15 | 3.80 |
| July 2008 | 4.34 | 3.36 | 3.15 | 3.16 | 3.93 |
| August 2008 | 4.60 | nan manan kata kata kata kata kata kata kata | | | 3.81 |
| September 2008 | 4.63 | | | | 3.76 |
| October 2008 | 4.68 | | urana dina na cina ang ina kacamang pana | | 3.86 |
| November 2008 | 4.30 | | ta e tracing | | 3.58 |

| | | | 2 Year | | |
|----------------|----------------------------|----------------|------------------|-------------------------|-------------------------------|
| | CD Rate Listing Service | FHLB - Seattle | FHLB - Boston | FHLB - Cincinatti | DTC Eligible CD Total Cost |
| August 2005 | 4.56 | 4.48 | 4.44 | 4.51 | 4.45 |
| September 2005 | 4.60 | 4.38 | 4.36 | 4.42 | 4.42 |
| October 2005 | 4.70 | 4.74 | 4.68 | 4.77 | 4.67 |
| November 2005 | 4.88 | 4.92 | 4.87 | 4.95 | 4.86 |
| December 2005 | 5.04 | 4.93 | 4.89 | 4.96 | 4.93 |
| January 2006 | 5.04 | 4.89 | 4.85 | 4.93 | 4.91 |
| February 2006 | 5.09 | 5.12 | 5.05 | 5.16 | 5.05 |
| March 2006 | 5.22 | 5.22 | 5.17 | 5.27 | 5.24 |
| April 2006 | 5.34 | 5.38 | 5.32 | 5.42 | 5.35 |
| May 2006 | 5.49 | 5.44 | 5.38 | 5,49 | . 5.47 |
| June 2006 | 5.64 | 5.62 | 5.54 | 5.66 | 5.61 |
| July 2006 | 5.75 | 5.68 | 5.58 | 5.70 | 5.65 |
| August 2006 | 5.64 | 5.40 | 5.33 | 5.45 | 5.35 |
| September 2006 | 5.52 | 5.25 | 5.20 | 5.28 | 5.21 |
| October 2006 | 5.37 | 5.31 | 5.19 | 5.29 | 5.24 |
| November 2006 | 5.30 | 5.23 | 5.08 | 5.15 | 5.19 |
| December 2006 | 5.22 | 5.18 | 5.04 | 5.03 | 5.16 |
| January 2007 | 5.24 | 5.38 | 5.22 | 5.23 | 5.30 |
| February 2007 | 5.35 | 5.34 | 5.18 | 5.20 | 5.38 |
| March 2007 | 5.23 | 5.17 | 5.00 | 5.02 | 5.22 |
| April 2007 | 5.16 | 5.23 | 5.07 | 5.06 | 5.25 |
| May 2007 | 5.22 | 5.31 | 5.10 | 5.11 | 5.28 |
| June 2007 | 5.41 | 5.56 | 5.37 | 5.41 | 5.47 |
| July 2007 | 5.50 | 5.47 | 5.30 | 5.32 | 5.44 |
| August 2007 | 5.38 | 5.15 | 4.98 | 5.04 | 5.30 |
| September 2007 | 5.21 | 4.87 | 4.72 | 4.72 | 5.16 |
| October 2007 | 5.08 | 4.77 | 4.58 | 4.60 | 4.96 |
| November 2007 | 4.89 | 4.33 | 4.23 | 4.20 | 4.73 |
| December 2007 | 4.75 | 4.14 | 4.01 | 4.00 | 4.77 |
| January 2008 | 4.34 | 3.39 | 3.28 | 3.24 | 4.21 |
| February 2008 | 3.53 | 3.08 | 2.92 | 2.88 | 3.64 |
| March 2008 | 3.68 | 2.87 | 2.66 | 2,65 | 3.84 |
| April 2008 | 3.73 | 3.15 | 2.94 | 2.90 | 3.84 |
| May 2008 | 3.90 | 3.45 | 3.24 | 3.23 | 3.97 |
| June 2008 | 4.13 | 3.87 | 3.64 | 3.68 | 4.29 |
| July 2008 | 4.52 | 3.77 | 3.58 | 3.63 | 4.47 |
| August 2008 | 4.72 | | | | 4.45 |
| September 2008 | 4.62 | | | | 4.40 |
| October 2008 | 4.73 | | | | 4.48 |
| November 2008 | 4.44 | | | Protection and a second | 4.28 |

| | | | 3 Tear | | |
|----------------|----------------------------|--|------------------|--|-------------------------------|
| | CD Rate Listing Service | FHLB - Seattle | FHLB - Boston | FHLB - Cincinatti | DTC Eligible CD Total Cost |
| August 2005 | 4.63 | 4.54 | 4.52 | 4.59 | 4.58 |
| September 2005 | 4.69 | 4.43 | 4.44 | 4.49 | 4.53 |
| October 2005 | 4.77 | 4.80 | 4.76 | 4.84 | 4.75 |
| November 2005 | 5.01 | 4.96 | 4.93 | 5.01 | 4.97 |
| December 2005 | 5.12 | 4.96 | 4.93 | 5.02 | 5.00 |
| January 2006 | 5.10 | 4.89 | 4.86 | 4.95 | 4.96 |
| February 2006 | 5.11 | 5.13 | 5.08 | 5.18 | 5.09 |
| March 2006 | 5.22 | 5.24 | 5.19 | 5.29 | 5.31 |
| April 2006 | 5.32 | 5.40 | 5.35 | 5.45 | 5.41 |
| May 2006 | 5.45 | 5.47 | 5.43 | 5.53 | 5.52 |
| June 2006 | 5.58 | 5.62 | 5.55 | 5.66 | 5.64 |
| July 2006 | 5.74 · | 5.67 | 5.57 | 5.70 | 5.76 |
| August 2006 | 5.59 | 5.37 | 5.31 | 5.39 | 5.43 |
| September 2006 | 5.43 | 5.20 | 5.16 | 5.23 | 5.27 |
| October 2006 | 5.31 | 5.28 | 5.17 | 5.25 | 5.23 |
| November 2006 | 5.26 | 5.18 | 5.06 | 5.09 | 5.18 |
| December 2006 | 5.17 | 5.11 | 5.00 | 4.97 | 5.10 |
| January 2007 | 5.21 | 5.33 | 5.19 | 5.19 | 5.26 |
| February 2007 | 5.30 | 5.31 | 5.17 | 5.17 | 5.34 |
| March 2007 | 5.19 | 5.12 | 4.97 | 4.96 | 5.23 |
| April 2007 | 5.15 | 5.18 | 5.03 | 5.03 | 5.25 |
| May 2007 | 5.20 | 5.27 | 5.08 | 5.11 | 5.28 |
| June 2007 | 5.41 | 5.61 | 5.44 | 5.47 | 5.50 |
| July 2007 | 5.49 | 5.52 | 5.36 | 5.38 | 5.48 |
| August 2007 | 5.33 | 5.19 | 5.03 | 5.09 | 5.33 |
| September 2007 | 5.17 | 4.91 | 4.77 | 4.77 | 5.16 |
| October 2007 | 5.03 | 4.83 | 4.64 | 4.67 | 5.07 |
| November 2007 | 4.83 | 4.44 | 4.33 | 4.32 | 4.91 |
| December 2007 | 4.69 | 4.22 | 4.11 | 4.09 | 4.79 |
| January 2008 | 4.31 | 3.56 | 3.43 | 3.42 | 4.28 |
| February 2008 | 3.65 | 3.44 | 3.21 | 3.24 | 3.76 |
| March 2008 | 3.75 | 3.27 | 3.02 | 3.07 | 4.07 |
| April 2008 | 3.78 | 3.52 | 3.27 | 3.27 | 4.15 |
| May 2008 | 4.02 | 3.84 | 3.62 | 3.62 | 4.29 |
| June 2008 | 4.33 | 4.28 | 4.04 | 4.09 | 4.58 |
| July 2008 | 4.74 | 4.17 | 3.96 | 4.03 | 4.79 |
| August 2008 | 4.86 | | | | 4.75 |
| September 2008 | 4.81 | <u> Persent</u> er i | | | 4.71 |
| October 2008 | 4.85 | nynyn ym ac ac ar ferfan yn ar | | alilioosan a an | 4.74 |
| November 2008 | 4.67 | | | | 4.53 |

| | 5 Year | | | | | |
|----------------|----------------------------|----------------|--|-----------------------------------|-------------------------------|--|
| | CD Rate Listing Service | FHLB - Seattle | FHLB - Boston | FHLB - Cincinatti | DTC Eligible CD Total Cost | |
| August 2005 | 4.92 | 4.66 | 4.67 | 4.70 | 4.75 | |
| September 2005 | 4.92 | 4.55 | 4.56 | 4.60 | 4.64 | |
| October 2005 | 4.99 | 4.90 | 4.87 | 4.94 | 4.90 | |
| November 2005 | 5.18 | 5.07 | 5.03 | 5.11 | 5.12 | |
| December 2005 | 5.23 | 5.04 | 5.02 | 5.08 | 5.13 | |
| January 2006 | 5.18 | 4.96 | 4.94 | 5.00 | 5.07 | |
| February 2006 | 5.16 | 5.16 | 5.13 | 5.21 | 5.19 | |
| March 2006 | 5.24 | 5.28 | 5.27 | 5.33 | 5.36 | |
| April 2006 | 5.32 | 5.48 | 5.46 | 5.51 | 5.48 | |
| May 2006 | 5.48 | 5.56 | 5.55 | 5.59 | 5.59 | |
| June 2006 | 5.59 | 5.65 | 5.63 | 5.68 | 5.69 | |
| July 2006 | 5.74 | 5.68 | 5.64 | 5.71 | 5.82 | |
| August 2006 | 5.57 | 5.40 | 5.39 | 5.44 | 5.43 | |
| September 2006 | 5.43 | 5.22 | 5.23 | 5.26 | 5.27 | |
| October 2006 | 5.28 | 5.30 | 5.23 | 5.28 | 5.24 | |
| November 2006 | 5.24 | 5.18 | 5.11 | 5.14 | 5.19 | |
| December 2006 | 5 16 | 5 12 | 5.04 | 5.07 | 5.11 | |
| January 2007 | 5.17 | 5.34 | 5.24 | 5 29 | 5.25 | |
| February 2007 | 5 26 | 5.31 | 5.22 | 5.26 | 5.31 | |
| March 2007 | 516 | 5.15 | 5.03 | 5.08 | 5.22 | |
| April 2007 | 5 13 | 5.23 | 5 1 1 | 5 16 | 5 25 | |
| May 2007 | 516 | 5.20 | 513 | 5.24 | 5.29 | |
| June 2007 | 5 39 | 5 70 | 5 56 | 5.64 | 5 54 | |
| | 5.50 | 5.64 | 5.51 | 5.58 | 5.57 | |
| August 2007 | 5.32 | 5.34 | 5.18 | 5 32 | 5.38 | |
| September 2007 | 5.52 | 5.04 | 4 92 | 5.02 | 5.26 | |
| October 2007 | 5.04 | 5.00 | 4.87 | 4 97 | 5 18 | |
| November 2007 | J.04 | 172 | 4.60 | 4.65 | 5.05 | |
| December 2007 | 4.00 | 4 51 | 4.00 | 7.00 / / 1 | 0.05 ۸ Q1 | |
| December 2007 | 4.03 | 4.01 2.0E | 4.33 | 4.41 200 | | |
| Eabruary 2000 | 2.97 | a.90 4 00 | 3.00 2.75 | 2.05 | A 12 | |
| February 2006 | 3.07 | 4.02 2 OC | 3.75 | 3.85 9.70 | 4.13 | |
| | 3.30 | 4.09 | 2 70 | 0.79 | 4.43 4.50 | |
| | 4.03 | 4.00 | 3.79 | 3.00 A to | 4.52 | |
| May 2008 | 4.34 | 4.31 | 4.06 | 4.12 | 4.70 | |
| June 2008 | 4.67 | 4.// | 4.40 | 4.59 | 4.99 | |
| July 2008 | 4.98 | 4.63 | 4.37 | 4.50 | 5.23 | |
| August 2008 | 5.09 | | | ria de la composition de la terra | 5.22 | |
| September 2008 | 5.05 | | | | 5.21 | |
| October 2008 | 5.12 | | an a | | 5.21 | |
| November 2008 | 4.99 | | | | 5.02 | |

Monthly Average Rate for 3 Mo. Term



Monthly Average Rate for 6 Mo. Term



Monthly Average Rate for 9 Mos. Term



Monthly Average Rate for 1 Yr. Term



Monthly Average Rate for 2 Yr. Term



Monthly Average Rate for 3 Yr. Term



Monthly Average Rate for 5 Yr. Term



ATTACHMENT C



The Authority in Bank Performance Analysis

A DIVISION OF Ferguson & Company

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1667 K Street, NW, Suite 640 Washington, D.C. 20006 202 / 659 - 8300 202 / 659 - 4192 FAX

THE RETAIL INSURED BROKERED DEPOSIT: Risks and Benefits

A Data-Supported Research Report Prepared by

> David C. Cates Ferguson & Company Washington, DC

> Stanley C. Silverberg Financial Consultant Arlington, Virginia

> > May 1, 1991

THE RETAIL INSURED BROKERED DEPOSIT:

RISKS AND BENEFITS

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Glossary of Terms

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PREFACE

In November 1990 the undersigned were asked, initially by Merrill Lynch, to study the relationship between bank and thrift failures to insured brokered deposits, and to become authors of an independent report on this financial instrument. Before our authorship could be undertaken, we needed to review the many recent changes in banking law and regulation, deposit insurance policy goals and the behavior of issuers and investors. The sponsors, for their part, agreed not to influence or edit our work, though we did expect to interview them (and their competitors as well as issuers) for a better understanding of the retail brokered deposit. We found full cooperation in these valuable and illuminating interviews. The seven sponsors are listed below.

A.G. Edwards, Inc.

Merrill Lynch & Co., Inc.

Dean Witter Financial Services Group

Oppenheimer Capital

Edward D. Jones & Co., Inc.

Prudential Securities Inc.

Shearson Lehman Brothers Inc.

Our work has been supported by the very able assistance of Steven C. Davidson and Jane G. Cates of Ferguson & Company, notably in the tireless assembly of data for this project.

The views, interpretations and conclusions, however, are our own, for which we bear full responsibility, along with any errors.

David C. Cates

Stanley C. Silverberg

ABOUT THE AUTHORS

David C. Cates

David C. Cates, Chairman of Ferguson & Company, has advised banks, their creditors and investors, and trade associations as well as bank regulatory agencies, on matters pertaining to bank creditworthiness. After serving as a Wall Street bank stock analyst during the 1960s for firms such as Salomon Brothers, Mr. Cates formed his own firm in 1969, which merged with Ferguson & Company in 1990.

Mr. Cates is the author of a widely-taught course <u>Bank Financial Analysis</u> and also the designer of the Cates Bank Rating Service, covering all U.S. banks and thrift institutions. His firm also publishes <u>The Bank Analyst</u> which regularly comments on developments of interest to analysts of banks and bank holding companies. His articles appear frequently in banking publications, and he often serves as an expert witness in bank litigation.

Mr. Cates holds a BA degree from Harvard College and an MA in anthropology from the University of Chicago.

Stanley C. Silverberg

Stanley C. Silverberg has been a consultant on banking and economics since retiring from the FDIC in 1987. His consulting activities have included advising government institutions and bank trade associations on public policy issues, particularly on matters related to deposit insurance and the handling of failing banks and thrifts; advising banks and thrifts on acquisitions of healthy and failing institutions and on strategic planning; and serving as an expert witness/consultant in bank litigation.

From 1980 through 1987, Mr. Silverberg was Director of Research and Strategic Planning at the FDIC where he played a major role in developing policy on deposit insurance issues, handling bank failures, and supervisory and liquidation issues. He also was directly involved in negotiating several major failing bank transactions. Prior to joining the FDIC, he worked for the Treasury Department and for Bank of America.

Mr. Silverberg holds a BA from the University of Wisconsin and an MA and PhD in economics from Yale. He has written extensively in economic and banking publications, spoken frequently at public policy forums on matters related to banking and financial regulation and testified on several occasions before both Houses of Congress. •

EXECUTIVE SUMMARY

As of September 30, 1990, there were \$80 billion¹ of insured brokered deposits outstanding from commercial banks (including savings banks) and savings & loan associations (thrifts). Of this amount, \$15 billion were outstanding at thrifts in RTC conservatorship. It is the purpose of this report to analyze the role of insured brokered deposits in bank and thrift failures from 1987 through 1990. To do so, we have also looked at the nature of the brokered deposit business and at the regulation of these deposits, both before and after FIRREA. Our observations and conclusions fall under five major headings, as follows:

> Most bank and thrift failures have occurred in the absence of insured brokered deposits.

- In virtually all failures, other discretionary funding exceeded insured brokered deposits as a source of asset financing, usually by a wide margin.
- Since FIRREA, the pattern of insured brokered deposit issuance has changed sharply, in favor of sound issuers. In fact, our computations show that had the post-FIRREA regulatory restrictions been active from 1987, over 99% of the failed issuers would have had to secure waivers in order

¹ Just-published data as of year-end 1990 shows that total insured brokered deposits were \$80 billion, of which \$14 billion were outstanding from RTC conservatorships, \$44 billion from banks and \$22 billion from non-conservatorship thrifts.

to continue their issuance.

The end-investor in retail insured brokered deposits is neither wealthy nor oriented to high yields.

The retail insured brokered deposit offers balance sheet management benefits to banks, almost always at lower cost than is available through local funding sources.

Each of these main points is backed by data analysis of regulatory financial reports covering the years 1987-90 and/or from interviews with securities brokers and bank/thrift issuers of insured brokered deposits.

A. <u>Most bank and thrift failures have occurred in the absence of insured</u> <u>brokered deposits.</u>

1. Of the 1,518 failures of banks and thrifts across the years 1987-1990, approximately two-thirds (1,003, or 66% of the total) had no brokered deposits at time of closing, whereas 515 did have such deposits (34% of the total).

2. Defining "low usage" of brokered deposits as 5% or less of total deposits, only 270 (18% of the 1,518 failures) had brokered deposits outstanding in excess of the "low usage" threshold. In other words, 82% of the failures had zero or low outstandings of insured brokered deposits at closing.

3. Of 741 commercial bank failures in this period, only 110 (or 15% of the bank failure total) had insured brokered deposits at closing. Of these 110 failures, 56 (or 51%) fell into the "low usage" category.

4. Of 777 thrift failures in this period, 405 (or 52% of the thrift failure total) had insured brokered deposits at closing, of which 189 (48%) represented low usage.

The proportion, furthermore, declined every year during the 1987-90 period, from 60% of 1987 failures to 44% of 1990 failures.

5. Broadening the definition of "high risk" institutions to include not merely failures but also still-open, high-risk banks/thrifts,² insured brokered deposits were present (as of September 30, 1990) at 50% of the 44 worst-rated thrifts and at 36% of the 132 worst-rated banks. Only 16% of the riskiest thrifts, however, had more than 5% of their deposits in insured brokered form; the corresponding percentage at the most risky banks was 15%.

6. It is true that some bank and thrift failures made material use of insured brokered deposits at time of failure (see Chapter V for three examples). Sixteen banks (1.1% of total bank and thrift failures) and 60 thrifts (4.0% of total failures) failed with more than 25% insured brokered deposits to total deposits.

B. <u>In virtually all failures, other discretionary funding exceeded insured</u> brokered deposits as a source of asset financing, usually by a wide margin.

1. For background, the FDIC and the OCC have long maintained, together with most private-sector bank/thrift analysts, that asset strategies drive funding strategies, not the other way around. In other words, brokered deposits, FHLB advances, other secured borrowings, and jumbo CDs don't just happen, followed by reckless investment. The causal chain of risk begins with the asset strategies.

2. Across the 1987-1990 period, discretionary funding in bank and thrift failures

² "High-risk" still-open institutions are defined in this study as those with a Cates risk rating of "5" (highest risk); these ratings (all of which are as of June 30, 1990) cover 2,260 banks and thrifts owned by publicly-held holding companies, as well as some other banks and thrifts.

exceeded brokered deposits in each year, in the typical failure where insured brokered deposits were present. Even in the few cases of high usage of brokered deposits, other discretionary funding in almost every case (except, for example, Lincoln Savings) was at least as great and usually more than the volume of brokered deposits. To illustrate, using median ratios of failed banks/thrifts 1987-90, insured brokered deposits at failed commercial banks averaged 23% of other discretionary funding across the period. The corresponding percentage at failed thrifts was 29%. To put it another way, for both groups other discretionary funding was 3.8 times the average of insured brokered deposits. These other large-dollar sources, of course, were rather freely available, especially to thrifts, across the period.

3. Though secured borrowings (FHLB advances and private collateralized funding) are nominally uninsured, the fact is that such borrowings are at least as costly to the insurance fund as though such funding was fully insured. This is because secured funds-providers are legally entitled (in a failure) to exercise their rights to the collateral. This deprives the insurance funds of asset recovery potential, thus raising the resolution cost of failures. Such funds-providers, moreover, do not pay premiums to the insurance funds.

C. <u>Since FIRREA, the pattern of insured brokered deposit usage has changed</u> <u>sharply, in favor of sound issuers.</u>

1. Thrift issuers of such deposits (excluding thrifts in RTC conservatorship) declined from 609 at end-1988 to 379 at end-September, 1990. Even more notable is

the extra-sharp decline of under-capitalized issuers.³ Those with less than 3.0% tangible capital to assets declined from 239 to 104. As of September 30, 1990, the mean percentage of thrift-issued insured brokered deposits stood at 6.6% of issuer total deposits.

2. Commercial bank issuers of insured brokered deposits, from year-end 1988 through September 30, 1990 (a period which spans the impact of FIRREA), rose from 658 to 700, and the increase has been greatest among well-capitalized banks. As of September 30, 1990, the dollar-weighted percentage of insured brokered deposits (as a fraction of issuer total deposits) stood at 5.8%. As a fraction of total bank deposits (including non-issuers), insured brokered deposits was 1.5%.

3. We explain these trends toward higher-quality issuance partly as a result of tighter regulation in the wake of FIRREA, and partly due to more stringent credit policies by retail brokerage firms themselves. These brokers are responding to income-interruption risk, under which acquirors of brokered deposits in a failure are now effectively permitted to repudiate the contract rate and the maturity. This post-FIRREA uncertainty is disturbing to broker clients, who rely on steady and predictable income.

4. Had the post-FIRREA regulatory restrictions on brokered deposit issuance been in place in 1987, our computations show that over 99% of the failed issuers would have had to secure regulatory waivers in order to continue their issuance.

³ "Issuer" is broadly defined in this study to include those institutions with outstanding insured brokered deposits, whether or not there is continued current issuance. The data show outstandings only. Many failed institutions had ceased active issuance long before closing, but since the typical program included intermediate-term CDs, these were often still outstanding at failure.
D. <u>The end-investor in retail insured brokered deposits is neither wealthy nor</u> <u>oriented to high yields.</u>

1. According to a Securities Industry Association (SIA) 1991 survey of eight large full-service brokers as of June 30, 1990, the average customer purchase (of a brokered CD) was \$19,700, and 81% of such purchases were of CDs less than \$50,000. In addition, a nationwide broker (Edward D. Jones & Co.) reported to us that 45% of their 313,000 customer accounts with brokered CDs in portfolio hold such CDs (from any and all issuers) in an amount less than \$15,000. Only 5% of these clients hold brokered CDs totalling over \$100,000 and less than 1% hold over \$300,000. Moreover, according to the same firm (and others interviewed), roughly 40% of brokered CDs are held in individual retirement accounts. Finally, Merrill Lynch cites the median age of their brokered CD clients as 60, and other firms report a similar age profile of their clients for this investment product.

2. The rate structure of retail insured brokered deposits is very close to Treasury securities of equal maturity,⁴ to FHLB advance rates (per maturity horizon), and to national rate averages of CDs marketed directly by banks. The primary reason for this rate constraint is that issuers (before and after FIRREA) have always had other funding alternatives, whether FHLB advances, other secured borrowings, or large-dollar (jumbo) CD placements. For a creditworthy issuer in the post-FIRREA environment, therefore, it is simply not necessary to pay a premium for brokered

⁴ Merrill Lynch quotes rates to investors on a money-market basis (rather than on a bond-equivalent basis) which, without adjustment for tax-exemption or commissions on Treasuries, are typically within a few basis points of comparable maturity Treasuries.

deposits, given the array of funding alternatives. This analysis takes account of the commissions payable to the brokers, roughly 60 basis points per year of original maturity.

3. At the same time, retail brokered deposit yields to investors are often somewhat higher than those available directly from many local banks, who may offer rates on CDs significantly below national averages.

E. <u>The retail insured brokered deposit offers balance sheet management</u> <u>benefits to banks, almost always at lower cost than is available through local funding</u> <u>sources.</u>

1. Increasing concern about bank safety among depositors in "high-anxiety" markets, coupled with urgent liquidity needs by troubled institutions in those markets, leads to locally high deposit rates and a dearth of longer-term (three-to-five-year) deposit funds. Creditworthy banks in such markets can almost always find longer-term deposits more cheaply in the national market through full-service brokers. The same is true for troubled banks, at least those in capital compliance.

2. Regardless of locale, the ability of brokers (those with national distribution systems) to generate "tailored-maturity" funding to support specific asset programs of banks is greater than most banks' power to do the same through their branch networks. As a result, interest-rate risk is better managed, and the local economy better served. This cooperation of bank and broker, in our opinion, is only one among many whereby capital markets serve certain bank needs <u>via</u> more efficient kinds of intermediation.

3. The only other available avenue whereby most banks and thrifts can cheaply

access intermediate-term funding is secured borrowing, especially FHLB advances. It is clear, however, that the risk to the deposit insurance system is at least as great from these sources as from insured brokered deposits, since the collateral behind secured borrowings deprives the insurance funds of recovery potential, thus increasing the net resolution costs of bank/thrift failures.

We draw two final conclusions from our study. First, the deposit insurance system risks arising from retail insured brokered deposits, particularly since FIRREA, are no higher than for other insured deposits. Second, there are real benefits to investors and to issuers. Balancing these, we question what useful public objectives are served by withdrawing deposit insurance from retail brokered deposits. Further, since issuing banks/thrifts are apt to compensate by increasing their direct deposit issuance and secured borrowings, the effect of withdrawing insurance on brokered deposits may be to reduce the government's gross insurance liability by an amount much less than the \$65 billion of non-conservatorship outstandings as of September 30, 1990. ,

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Chapter I

INTRODUCTION

This report has two broad objectives. The first is to examine the retail (insured) brokered deposit as a possible source of risk to the integrity of the deposit insurance system. In what ways, if any, has this relatively recent financial instrument been a threat to public policy? Our second objective is to examine whether the economic benefits provided by this instrument to issuers and investors are worth preserving. Is it possible that the withdrawal of insurance protection for the retail (insured) brokered deposit might injure, however slightly, the funding flexibility of banks and/or the investment flexibility of investors?

If these questions can be fully posed and objectively answered, it should be possible to weigh the risks against the benefits, and thus to base public policy toward brokered deposits on informed and rational grounds. It is the purpose of this introduction to present the highlights of our findings and our conclusions.

The several chapters (in addition to this introductory chapter) cover the following ground:

Chapter II: The Deposit Brokerage Business

The chapter begins with the origins of the brokered deposit in 1981, and discusses its several types as well as the evolution of the retail (insured) brokered deposit prior to FIRREA.

We next present the further evolution of this financial instrument in the post-

FIRREA environment. Three key developments powerfully influenced the evolving nature of this investment product. One is the power granted by FIRREA to acquirors of failed institutions to repudiate the interest rate contracts on outstanding term deposits. The second is a set of regulatory restrictions that sharply limit the use of insured brokered deposits by undercapitalized and/or rapid-growth institutions. The third development is the strong emergence of commercial banks as issuers of brokered CDs.

The second half of this chapter, based on interviews with brokers, reveals the nature of the retail brokered deposit in some detail. We offer answers to the following questions:

- . Who are the investors?
- . What investment needs does this instrument satisfy?
- . How are investment decisions made?
- What is the role of the brokered deposit in investment programs?
- What are the investment alternatives for achieving the same objectives?

In general, we found (as would, we believe, any other objective investigator) that the retail brokered deposit is typically purchased by older individuals of moderate means, very often for retirement. It is perceived by them as a moderate-yield, intermediate-term, safe investment offering assured income (often higher than local banks enjoying a protected or low-competition market). Because of the credit analysis all the brokers perform (to protect themselves from investor wrath in the wake of income interruption), these investor perceptions are justified.

Chapter III: FIRREA and the Treasury Proposal

The chapter begins with the pre-FIRREA and the convictions of the FDIC and OCC that asset strategies, not funding sources, are the chief determinant of bank troubles. We then point out how the passage of FIRREA, together with related regulatory interpretations, sharply restructured deposit brokerage, in three ways:

- . inadequate capital leads to restricted issuance;
- . rapid asset growth leads to restricted issuance;
- . acquiring institutions (of failed banks or thrifts) are legally able to repudiate the contract rate on the deposits they assume.

As a result of these developments, not only is there stronger regulatory discipline on unsound issuers, but stronger discipline from the market as well.

The second half of the chapter is devoted to an examination of the Treasury Department's objections to brokered deposits. At bottom, the Treasury sees the insured brokered deposit as a vehicle to bring deposit insurance coverage to high-rate investments of wealthy investors. In the Treasury view, this has had the effect of artificially raising the gross level of deposit insurance liability, thus exposing taxpayers to unnecessary risk. The Treasury must believe, it follows, that if the insurance protecting brokered deposits, were withdrawn, a substantial portion of the \$80 billion of insured deposits would vanish, thus diminishing the liability of the insurance funds.

We express disagreement with the assertion that retail brokered deposits are

a toy of the rich, and we further doubt that this creates a bubble of "excess" insured deposits in the banking system. We also question the Treasury's belief that banks could readily compensate for the loss of these deposits by substituting interbank borrowings, Federal Reserve borrowings and Federal Home Loan Bank advances. In the case of the latter, we point out that because these advances are fully collateralized with good assets, such assets are not recoverable in a failure unless the FDIC pays off the advances as though they were insured deposits. Thus advances (and any other collateralized funding) are as potentially costly to the insurance fund as are insured deposits. Actually, the cost of collateralized funding is greater, since these funds are not assessed (as are deposits) to protect the insurance fund.

The chapter concludes with some reasonable conjecture on how we think banks might adapt to the withdrawal of pass-through insurance coverage of brokered deposits. We believe that the reduction of deposit insurance liability might be as much as \$10 billion, a far cry from the roughly \$80 billion of insured brokered deposits now outstanding (\$15 billion of which are from RTC conservatorships).

Chapter IV: Insured Brokered Deposits and Bank/Thrift Failure

This chapter is almost entirely a data-driven chapter, relying on regulatory financial filings of banks and thrifts through September 30,1990.

The pre-FIRREA history of bank/thrift failures shows zero to low usage of insured brokered deposits in most failures, and high usage in a few thrift failures. More important, this history shows that other "discretionary" funding by failing thrifts (sources of funds other than local core deposits) was materially larger than was their

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use of brokered deposits. Since these sources -- "jumbo" CDs, Federal Home Loan Bank advances, and other collateralized funding -- materially accompany most thrift failures, and insured brokered deposits materially accompany few thrift failures, common sense suggests that asset strategies, rather than particular funding sources, are the "drivers" of failure. To argue the opposite is to accuse roosters of causing sunrise.

Post-FIRREA developments are very striking. A two-dimensional shift is apparent in the 1990 data. First, thrift issuance of insured brokered deposits is in steep decline, both in amount and by number of issuers. At the same time, commercial bank issuance is rising, both in amount and by number of issuers. Second there is a pronounced shift of insured brokered deposit issuance away from undercapitalized and toward more strongly capitalized institutions, whether thrifts or banks. We argue that these trends are market-driven (by deposit brokers) as well as regulator-driven.

Chapter V: Lincoln, CenTrust, Franklin: Three Flameouts

The final chapter examines the role of retail (insured) brokered deposits in three notorious and costly failures. In preparing this chapter, we had access to confidential data from six full-service brokerage firms, covering maturities, rates of interest, and termination of issuance.

We found that other discretionary funding (money desk solicitation of CDs, and secured borrowings) were systematically more prominent as funding sources than insured brokered deposits in two of the three cases. We also found that the "all-in" cost of brokered deposits was higher than the equivalently-measured cost of FHLB advances, but only by a small margin never exceeding 50 basis points. Finally, we found that the pre-FIRREA credit policies of brokers caused most of them to refuse a brokerage role prior to failure.

The chapter concludes with a "comparative negligence" analysis in which we attribute maximum negligence to asset strategies, moderate negligence to regulatory policies, and a low factor of negligence to funding sources. Finally, we point out that since the implementation of FIRREA, such blame-casting is of historic interest only, like the destruction of the Spanish Armada in 1588, since these institutions could not have executed their strategies had FIRREA rules been in place.

We return now to frame our answer to the challenges posed at the beginning of this chapter. What are the risks to the deposit insurance system of maintaining pass-through insurance on retail brokered deposits? What are the benefits conveyed by this financial instrument? And what is the risk/benefit equation that should guide public policy?

1. <u>Risks</u>

We simply do not find any greater risk inherent in insured brokered deposit issuance than in any other insured or secured financing by banks or thrifts. The typical insured brokered deposit is intermediate term, providing stability to the funding strategy of banks. It is of roughly equal all-in cost to FHLB advances, and is priced to yield investor returns very close to Treasuries and bank deposits generally. Not only regulatory policies but brokerage firm credit policies, furthermore, are more

vigilant toward issuers than are other insured depositors of banks. Finally, we are unable to find any evidence that the ultimate investor is other than an individual of moderate means, often protecting merely a comfortable retirement. In short, the insured brokered deposit is not high-cost, volatile funding destabilizing banks and adding to insurance fund liability.

2. <u>Benefits</u>

We see several benign economic functions performed by the retail (insured) brokered deposit. For bank issuers, the tool is a liquidity buffer allowing adequately capitalized banks (and only those) to tap longer-term, lower-cost funds than may be available locally. Aside from its obvious advantages for liquidity, such funding also makes for easier management of interest rate risk by banks in their acquisition of longer-term, fixed-rate loans and investments. Though other funding alternatives are available to accomplish the same objectives, these, we argue, do not diminish the gross liability of the insurance funds.

As for investors, the insured brokered deposit is a commission-free instrument available in small, tailored denominations suitable for (and marketed to) individuals of moderate means. It is a moderate-yield investment priced close to Treasuries but more convenient than Treasuries (on which commissions are payable). Given public anxiety toward banks, the investors trust the judgement and investment advice of their brokers.

3. <u>Risk/Benefit Equation</u>

We find it hard to believe that, if insurance protection were removed from \$80

billion of brokered deposits, this would reduce insurance fund liability by anything approaching a comparable amount. In the first place, some investors will continue to pursue insured bank deposits on their own. In the second place, many banks really desire intermediate-term funding at affordable cost, and will turn to secured funding (e.g., FHLB) and shrewder marketing of consumer deposits in their service areas. Neither of these steps will reduce insurance fund liability. Finally, the \$80 billion of insured brokered deposits includes \$15 billion outstanding from RTC conservatorships, issuance which will continue to be sanctioned. Thus only \$65 billion is at issue.

If the net result of the proposed legislation toward brokered deposits is, as we believe, to diminish the liability of the insurance funds by, say, \$10 billion, we deeply question whether this achievement is worth the interruption of the economic benefits we have outlined above. Since the risks are low and the benefits real, why fix something that isn't broken?

Chapter II

THE DEPOSIT BROKERAGE BUSINESS

Brokerage, of course, is the creation of economic value by bringing together buyers and sellers. This function may be socially beneficial, as in freight forwarding, home sales, and investment products, or it may be socially harmful as in narcotics brokerage.

A. The Emergence of the Retail Brokered Deposit

Deposit brokerage is a very broad field of activity -- essentially developed during the 1980s -- which includes uninsured deposits. The most important form of uninsured deposit brokerage is the placement by investment banking firms of largedollar term deposits (generally upwards of \$5 million) with institutional investors. This is a "buyer beware" (or credit-sensitive) market which allows bigger banks to attract longer-term, fixed-rate deposits from an institutional network of investors too vast for each bank to tap directly.

Insured deposit brokerage exists in two forms. The less benign form we will call "money brokers" (though the term "deposit-splitter" is perhaps more apt). In a typical transaction, a credit union, pension fund, corporation, public body or wealthy individual asks the broker to split, say, \$2 million into twenty fully insurable pieces of \$100,000 each, all of which are then separately invested in the highest yield bank and thrift Cds available. The broker is typically indifferent to the credit risk of the issuer. This type of brokerage flourished in the mid-1980s but has fallen on hard times since FIRREA. First, low-cost publications such as <u>Bank Rate Monitor</u> have largely rendered the brokerage function superfluous: investors can find their own high-rate CDs and do their own splitting. Second, and far more important, the risk of interest rate interruption (a power granted by FIRREA to acquirors of failed institutions) has produced investor caution, particularly among investors with a need to maintain income. As a result, a lot of the sizzle has gone out of the money broker business, and few firms remain. One of the surviving brokers in this field has placed over \$25 billion of fully insured deposits in thrifts and banks.

We mention this type of insured deposit broker because (a) its operations differ markedly from the retail deposit broker; (b) its activity was substantial prior to FIRREA, and much less since; and (c) its credit-insensitive, high-rate style has contributed to the negative connotations surrounding the public image of "brokered deposits."

The retail brokered deposit had its beginning in 1981 as an affordable tool to help thrift institutions with balance sheet management, including the lengthening of deposit maturities. Major brokerage firms had put together all the ingredients necessary to begin this business: (a) a nationwide client base of small investors; (b) account executives to explain and sell the new instrument; (c) a credit department to evaluate each issuer; (d) a trading department willing (on a best-efforts basis) to repurchase deposits prior to term and resell these to other investors; and finally

(e) custodial arrangements under which the bank issues a "master" certificate and institutional custodians perform the sub-accounting for each and all investors, leaving them free of deposit administration.

In the years before FIRREA, several further developments in the business occurred. First, competitors were attracted by the profitable volumes of term deposits to be brokered. These include Dean Witter, Shearson Lehman, Prudential Securities, Paine Webber, Alliance Capital, Oppenheimer, Edward D. Jones, A.G. Edwards, and Manufacturers Hanover. Some of these firms broker direct from issuers to investors. (Merrill Lynch is an example.) Some firms originate deposits with issuers, but broker through regional "correspondent" brokerage firms who themselves market direct to investors. (Manufacturers Hanover and Alliance are examples.) Some originate part of their product direct from issuers and buy part of their product from "upstream" originators. (Edward D. Jones is an example.) Though the number of originators is fairly small (about ten firms), the total number of firms marketing to investors is much larger, perhaps over 100.

Second, credit analysis of issuers was refined and intensified, sometimes with the addition of third-party credit ratings. To illustrate, Standard & Poor's Corp. provides customer-accessible credit ratings to Merrill Lynch on all their issuers; these ratings are communicated to all of Merrill's investors as an integral part of the investment decision process. The Cates Consulting Analysts Division of Ferguson & Co. is also a provider of issuer credit ratings to a retail deposit broker, Oppenheimer Capital. From this vantage point, incidentally, we are able to say -- and to prove -- that financial analytic technique applied to available financial data is fully competent, virtually without exception, to distinguish high-risk institutions in advance of their survival crises, and to protect brokers and investors accordingly.

B. The Retail Brokered Deposit Since FIRREA

Since FIRREA, three additional elements have come to characterize the retail (insured) brokered deposit business. By far the most important is the interestinterruption risk policy since FIRREA. The new power granted to acquirors to repudiate a former high rate prior to deposit maturity has intensified the need, on the part of broker and investor alike, to avoid high-risk issuers. It should be understandable that an investor of moderate means, typically a retiree or close to it, needs to plan income. Thus any unexpected shortfall is an unacceptable threat to household budgeting.

A second post-FIRREA development is a set of regulatory restrictions that limit the use of insured brokered deposits. One restriction requires all insured institutions to obtain FDIC permission to issue such deposits if the bank falls short of required capital. A second restriction requires advance notice and approval if a bank intends to grow rapidly by using brokered deposits and certain other kinds of financing. (See Chapter 3). Taken together, these limits reinforce the credit-sensitivity (market discipline) that the leading deposit brokers had already installed prior to FIRREA.

The third important post-FIRREA development is the emergence of commercial banks as issuers of term deposits through retail brokers. The following data is drawn from the SIA Survey of 1991, as of June 30, 1990:

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| | Issuers | | <u>Outstandings</u> | |
|------|--------------|-----------------------------|---------------------|----------------|
| | <u>Banks</u> | <u>Thrifts</u> ¹ | <u>Banks</u> | <u>Thrifts</u> |
| 1989 | 42% | 58% | 40% | 60% |
| 1990 | 63 | 37 | 50 | 50 |

This has occurred, we believe, for several reasons. First, depositor anxiety in troubled bank markets (New England, Metro D.C. as examples) has led to high local rates of interest as well as funds availability problems, especially of longer maturities. Even if a bank in such an area is untroubled, it can almost certainly find lower-cost deposits in the national market than at home. Second, regardless of locale, term deposits can usually be accessed in larger volume over shorter periods of time through brokers than through local branch systems. Because of the proven placement record of strong brokers, banks use this vehicle from time to time to fund asset strategies of particular maturities. As a result, these banks can conveniently neutralize interest rate risk at an affordable cost.

Third, many banks find that the all-in cost of retail brokered deposits (including commission of roughly 60 basis points per year, or 6/10ths of one percent) is not only a fully quantifiable cost (compared to the less easily determined, all-in cost of branch system generation) but often a much lower cost as well. To illustrate, under Federal and state laws, credit card banks are permitted only one branch (in jurisdictions such as Delaware and South Dakota). This effectively precludes consumer funding of credit card receivables originated nationally, even after aggressive securitization of those

¹ The SIA study included all thrifts, both "open" institutions and those in conservatorship.

receivables. These banks understandably turn to the brokered market for a large fraction of their funding needs. Assuming (a) that the issuer is creditworthy, (b) that small investors have a continuing appetite for safe, moderate-yield bank deposits, and (c) that the total market for retail brokered deposits has become established, deep and reliable, it is hard to question the propriety and prudence of such a financing vehicle.

C. <u>Bank Funding Alternatives</u>

If banks were to lose access to brokerage firm clients as a class of depositors, what financing alternatives are available to substitute for this loss? Among those mentioned by the Treasury in its 1991 study are (a) Federal funds, (b) Federal Reserve borrowings, and (c) Federal Home Loan Bank borrowings.

The problem with Fed funds (an overnight, interbank market) is that it is ratevolatile, very short-term, and often interrupted by the traditional concern on the part of larger lenders that this source should not be viewed as long-term. True, small banks are often content to lend and re-lend indefinitely to their upstream correspondents, but most banks lack the correspondent network that makes such semi-permanent funding a reliable source.

Borrowing from the Federal Reserve is even more problematical. The Fed has never viewed its lending to be long-term and criticizes banks that rely on it for term financing. In addition, large and steady borrowing from the Fed is universally seen by the credit markets as a sign of weakness. Finally, the Fed's loans to banks are collateralized by high-grade assets. (See discussion below).

The Federal Home Loan Banks, it is true, are becoming willing sources of

relatively long-term advances to banks, in addition to what's left of their thrift clientele, but banks have been slow to sign up as members of the FHLB system. The real drawback of this avenue, however, from a deposit insurance policy standpoint, is that all FHLB borrowings (like Fed borrowings) must be collateralized (in fact, overcollateralized) by a bank's best assets. This means that in the event of FDIC seizure or assistance, wherein the FDIC seeks to reduce its "resolution cost" through asset recovery, these borrowings are at least as costly to the insurance fund as are insured deposits. Either the FDIC pays off the borrowings to gain control of the collateralized assets, or it sacrifices the assets and has that much less in value to recover. On top of that, the secured lender pays no premium to the FDIC. Collateralized funding, then, whether from market or government sources, has a slightly more adverse effect on the cost of failure than do insured deposits. Because they are collateralized, moreover, many secured lenders are as credit-insensitive as money brokers.

D. The Retail Customer.

In concluding this summary of the retail (insured) deposit brokerage business, it will be helpful to examine more closely the interface between investor and broker.

. Who are the investors?

- . What investment needs does this instrument satisfy?
- . How are investment decisions made?
- . What is the role of the brokered deposit in investment programs?
- . What are the investment alternatives for achieving the same objectives?

1. <u>The Investors</u>

In our research, we have conducted face-to-face and telephone interviews with deposit brokerage managers at Merrill Lynch, Dean Witter, Shearson, Alliance, Oppenheimer, and Edward D. Jones. Without exception, these firms report that their clientele for the deposits they broker are investors of moderate means, typically (but not exclusively) of retirement age.

This is documented by the average size of client investment in any one CD offering, as well as by the average client position in all CDs held in the investment account. True, a very wealthy investor may have several investment accounts at different firms, plus personal (non-brokered) CD holdings at a variety of banks. If the clients were wealthy, however, one would expect the average size of the individual CD purchase to be closer to \$100,000. As it is, the average customer purchase reported by the Securities Industry Association (in a 1991 survey) on behalf of eight large brokers is \$19,700 per investment, with 81% under \$50,000.

Edward D. Jones & Company, which places \$3.6 billion of insured deposits, has provided us with the following analysis of its client base of 550,000 active accounts. The average net worth (including residence) averages under \$400,000, annual income averages under \$40,000, and average investment account size is \$42,000.

The current distribution of client holdings by size of CD is shown below:

| | Number of | |
|----------------------------------|--------------------|----------|
| | Accounts | % of |
| <u>Size of All Portfolio CDs</u> | <u>Holding CDs</u> | Accounts |
| Less than \$ 15,000 | 140,000 | 45% |
| \$ 15,000 - \$ 35,000 | 94,000 | 30 |
| \$ 35,000 - \$ 50, 000 | 25,000 | 8 |
| \$ 50,000 - \$100,000 | 38,000 | 12 |
| \$100,000 - \$300, 000 | 15,000 | 5 |
| Over \$300,000 | 1,000 | 0 |
| | 313,000 | 100% |

Where clients hold over \$100,000 of deposits per account, these are divided among at least two banks.

2. <u>Investor Needs</u>

Our interviews have shown a consistent pattern of response. The investor overwhelmingly wants safety, assurance of income, moderate yield (see below), in many cases frequent income (monthly or quarterly), small size increments (e.g., multiples of \$1,000), no commissions, no paperwork, the likely prospect of re-selling the CD prior to term without substantial interest penalty, and the inclusion of the asset in an investment account with periodic summaries of transactions, income and principal.

Many of these goals are self-evident, but some deserve further discussion.

. <u>Safety</u>: Part of the perceived value of the brokerage relationship is the firm's credit opinion of the deposit issuer, whether or not supplemented by a third-party credit rating. The investor does not understand how to determine the strength or weakness of banks and (since early 1990) is increasingly suspicious of banks in general. Therefore, the firms' professional credit analysis lies behind their product offering and helps to maintain uninterrupted income. All retail brokers we interviewed perform

this analysis. From an investor standpoint, income repudiation (followed by involuntary re-investment in the current market) is like mortgage prepayment or bond call risk except less predictable.

. <u>Yield</u>: There seems to be a misunderstanding of brokered deposit yields by those not in the business. There are three main yield benchmarks that govern the post-FIRREA brokered deposit. First, the yield to investors is very close to Treasury securities, for corresponding maturities. Most deposits are priced to yield five to ten basis points over comparable Treasuries, with premiums rarely exceeding 25 basis points. Though fully comparable yields (adjusted to include factors such as commissions payable on broker-purchased Treasuries, differences in interest computation, frequency of interest payment, and partial Treasury tax exemption) are hard to quantify, the point is simple: the brokered CD, priced as it is close to Treasuries, is not marketed or purchased as a high-yield investment instrument.

The second benchmark is national average deposit rates, per maturity range. Just as brokered deposits yield close to Treasuries, they also yield close to national average deposit rates offered directly by banks to their depositors.

The third pricing benchmark, this one of greater interest to issuers, is the cost of alternative financing. For thrifts (and increasingly for banks) the cost of FHLB advances is a key benchmark. (See Chapter V.)

Perhaps the misunderstanding by political observers occurs because most banks in smaller communities (and some banks in larger ones) pay rates distinctly below the national norm. Most investors know the difference, and favor the higher yields

available through brokers. An analogy is retail gasoline prices. A monopoly station in a remote locale will charge \$1.35-\$1.45 a gallon for regular, against a highly competitive metropolitan locale charging \$1.00-\$1.10, and a national average of perhaps \$1.15-\$1.20. Deposit pricing follows a similar pattern, in reverse: small banks in remote communities offer less on CDs than metropolitan banks, and these rates are less than those of highly competitive banks in "anxious" communities (e.g., New England).

Gasoline, of course, is a bulk product, whereas money has become an electronic product. As a result, small-community investors are able to seek and find somewhat higher yields through brokers, without sacrifice of safety.

Data from Edward D. Jones support this analysis. The following tabulation is based on commercial bank CD rates in the communities served by Jones, as of February 14,1991:

| | One | Three | Five |
|---------|-------------|-------------|-------------|
| | <u>Year</u> | <u>Year</u> | <u>Year</u> |
| Mean | 6.74% | 7.04% | 7.18 |
| Median | 6.75 | 7.00 | 7.20 |
| Highest | 8.08 | 7.75 | 8.25 |
| Lowest | 5.90 | 6.03 | 6.13 |
| EDJ | 6.75% | 7.30% | 7.75% |

The EDJ rate is the average rate received by investors on deposits purchased through that firm.

. <u>Size Increments</u>. The moderate-means investor is likely, at the time of CD investment, to have available cash of, say, \$14,000, or \$21,000 or \$68,000. The

brokered CD, unlike Treasuries or high-grade corporates, makes possible the efficient tailoring of investment size, in \$1,000 increments. Recall also that there is no commission, a valuable feature when the investment product is small-dollar and odd-size.

. <u>Re-sale to Broker</u>. The bulk of brokered deposits have maturities extending out three-to-five years (the SIA Survey reports an average maturity of 31 months on outstanding CDs). Thus the investor needs to know that these can be re-marketed without a substantial interest-rate penalty. All retail brokers offer this facility, but none guarantee it. Some (but not all) also commit to their issuers not to put the deposits back prior to maturity. We are told this rarely happens in any case, because the secondary market is usually effective, with no early withdrawl penalty.

Electronic Portfolio Reporting. It should be emphasized how important to clients is the periodic portfolio analysis which brokers regularly prepare, showing a transactions journal, income and principal summaries, yields, diversification, unrealized appreciation/depreciation, etc. Compared to investor assembly of equivalent data, these reporting formats are easy to generate, frequent, informative, and an authoritative basis for tax preparation and audits.

Several brokers have told us that the convenience of this reporting (which is usually available only on investments purchased through the broker) often leads investors to buy CDs through the broker even when local banks offer an equal or higher rate.

3. The Decision Process

We are told repeatedly by the brokers we interviewed that clients are always offered a choice of CD investment alternatives together with decision-support information that goes far beyond what the investor can readily discover from local banks. The brokerage account executive displays in person (or summarizes by phone) a computer-generated "menu" which lists five-to-fifteen issuer names, four-to-six maturity options, rates for each, and financial information about the issuer. We are also told repeatedly that the customer is asked to make the choice, based on personal preference for bank name, credit quality, maturity and rate. It is clear to us that this information service tells the client rather a lot more about the deposit market than is available from a visit to any one (or two or three) local banks.

Some critics of insured deposit brokerage have contended that the investor is too passive in the decision process. Where the broker makes the decision (perhaps for the sake of a higher commission) and promotes it to the investor, these critics say that such a passive role on the part of the investor should deprive him/her of insurance coverage. In other words, \$40,000 invested directly in a local bank should be insurable; the same dollar amount invested in a different bank through a broker should not be.

It is hard to understand this essentially moralistic position in light of the realworld decision process, menu-driven as it is and enriched by a supplement of comparative information. It is even harder to understand from the account executive standpoint. For one thing, account executive commission rates are extremely close on all CDs per maturity bracket, meaning that they are not paid to push high-rate paper. Second, decision participation by the investor is good protection against client wrath in the rare event of interest rate default.

4. Investment Role of Brokered CDs

The characteristic function of CDs within the investment strategy of brokerage firm clients is to serve either as a cash reserve awaiting, say, stock investment or rising interest rates, or as an intermediate-term, high-grade bond equivalent with assured income. In our interviews, the notion that bank CDs serve a high-yield, income-risky role is completely alien to the investment objectives of clients, the sales style of account executives, and the policy recommendations of the firms.

It is safe to assert, in fact, that in the relatively short life--since 1981--of the insured brokered deposit as a retail financial instrument, the habits and expectations of broker and client alike have coalesced around a "core concept" that includes safety, moderate yield, sustainable income and intermediate-term maturities, together with the other features of this product already enumerated.

5. <u>Alternatives to Achieve Same Objective</u>

Within the context of a brokerage account for moderate-means investors, there are, of course, lower-yielding alternatives to the insured brokered CD. Treasury notes and high-grade corporate bonds are available in any amount and maturity in the secondary market, with the difficulty that the commission rate needed to buy small volumes in odd sizes is high enough to create a net yield disadvantage relative to bank CDs.

True, the investor can directly purchase bank CDs by tracking issuers, maturities and rates from publications, but there are two reasons to suspect that this will not be a common occurance if deposit insurance on brokered CDs is revoked. First, the typical investor's direct access to professional credit analysis for his/her projection of income stability is limited and even costly (per dollar of income). As for evaluating bank creditworthiness directly, investors lack the many documents, skills, confidence and even the time to do so properly. Second, perhaps more important, the brokerage relationship has many valuable features, including the convenience of electronic record-keeping and personal access to other information and advice. Add to this the desire of brokers not to lose account assets, and it becomes easy to predict that this clientele will tend not to buy many bank CDs outside the orbit of their brokerage account.

In the following chapter, many of the topics addressed here are examined from the standpoint of regulatory and public policy.

Chapter III

FIRREA AND THE TREASURY PROPOSAL

Bank and thrift supervisors have long had the authority to prevent or minimize abuses associated with unsafe use of insured brokered deposits. Where problems have arisen in connection with the unsafe use of brokered deposits, they can generally be explained by inadequate regulatory standards and lax enforcement. For example, the Federal Home Loan Bank Board in 1984 adopted a rule limiting the use of brokered deposits in undercapitalized savings and loans. Even before this, the Board had the capacity to restrict growth, for undercapitalized or otherwise troubled savings and loans, however that growth was financed. Unfortunately, appropriate capital standards were not in place, nor were restrictions on rapid growth appropriately enforced.

The FDIC, despite some effort by Chairman Isaac in 1983-84 to restrict the use of brokered deposits, later found that, by monitoring the use of brokered deposits and making use of available supervisory tools, brokered deposits posed no special supervisory problems. In its 1988 study of deposit insurance (Deposit Insurance for the Nineties, pp. 95-98), the FDIC directly addressed the imposition of limits on brokered deposits: "These proposals [to limit insurance coverage on brokered deposits] ignore FDIC examination experience, which suggests that supervision can, in general, effectively discriminate between sound and unsound uses of brokered deposits....Brokerage of funds is not a special problem..." (pp. 95-96). The FDIC study concluded that "there is little to suggest that brokered funding activity warrants

placing depositors at greater risk" (p. 98).

In his testimony on brokered deposits before the House Banking Committee's Subcommittee on General Oversight and Investigations in May 1989 (three months before the enactment of FIRREA), Chairman Seidman expressed very similar views on brokered deposits: "In general, we do not find the use of brokered deposits to be a major problem in the banking industry at this time" (p. 3). He affirmed our own views when he further stated: "losses in banks do not occur, generally speaking, by virtue of the source of their deposit liabilities. Instead, the losses arise from the quality of and return on loans and investments made with those funds. Consequently, the focus of attention should be on the employment of brokered deposits rather than their source" (p.3, emphasis ours), and later in his testimony, "it is the integrity and competence of bank management, the bank's own capital and, most importantly, timely and effective supervision by the regulatory authorities that protect the deposit insurance fund."

One concern expressed by Seidman in his testimony was that the presence of long-term, high-cost brokered deposits in a failed bank could increase the cost of, and diminish the feasibility of effecting purchase and assumption transactions (P&As). Until FIRREA, to illustrate, it was the FDIC's practice to force acquirors to satisfy existing (contracts) rates and maturities on all assumed liabilities in assisted transactions. FIRREA, of course, clarified for the FDIC that it now had the authority to depart from this practice. It has subsequently done so in most P&As since FIRREA. This important change not only reduces the cost of failed bank transactions, but it increases the discipline imposed upon owners of brokered deposits and the brokers themselves, since interruption of expected income is not investor-acceptable. (See Chapter II for discussion of investor/broker behavior and Chapter IV for post-FIRREA issuer behavior.)

In the same House Committee hearings the Comptroller of the Currency, Robert Clarke, expressed views similar to those of the FDIC with respect to problems posed by brokered deposits: "The best safeguards against the imprudent use of brokered deposits by federally insured depository institutions are strong capital standards, a policy of closing banks when the economic value of their capital is depleted, a solvent deposit insurance fund, and vigorous supervision....<u>The Congress has given bank</u> <u>regulators an adequate arsenal of supervisory and enforcement tools to deal with abuses of brokered deposits, and the OCC has not hesitated to use those tools</u>" (p. 4, emphasis ours).

A. Impact of FIRREA

In this discussion of the "Spirit of FIRREA" upon the issuance of brokered deposits, we will single out the three most important elements: restrictions on issuance due to undercapitalization, restrictions due to growth, and the power granted to acquirors to repudiate deposit contracts.

1. <u>Restrictions Due to Capital</u>

Section 29 of FIRREA (the statute was signed into law in August 1989) states that a troubled depository institution may not accept, roll over or renew brokered deposits unless it applies for and receives a waiver from the FDIC. For purposes of

the law, "brokered deposits" were rather broadly defined to include all direct or indirect solicitations of deposits at interest rates that are significantly higher than prevailing rates in the institution's normal market area. A "troubled institution" is defined as one that does not meet the minimum capital requirements applicable to it. The statute exempts institutions in conservatorship where the use of brokered deposits is necessary to meet liquidity needs or is consistent with minimizing insurance losses.

The FDIC subsequently developed regulations to define such things as (a) the circumstances when a waiver would be appropriate, (b) which "money desk" activities of a bank would fall under the brokered deposit definition and (c) how minimum capital requirements would be defined. Because the FDIC has defined capital requirements to take account of the condition and asset quality of the depository institution, virtually all institutions under enforcement orders are, in effect, covered. While the FDIC apparently has given waivers to some undercapitalized institutions in order to manage liquidity (replace maturing brokered deposits or expand such deposits to replace the loss of other funds), the FDIC regulation is explicit in forbidding undercapitalized institutions to use brokered deposits to expand assets. Thus waivers are not granted for growth purposes.

We have already pointed out that the regulatory agencies had the power before FIRREA to restrict the unsafe use of brokered deposits. What FIRREA accomplished was to turn the process around: instead of requiring enforcement action to restrict the use of brokered deposits for undercapitalized institutions, the restriction became automatic, requiring a waiver application and FDIC approval of that application to modify the restriction. As a result, troubled depository institutions no longer have access to brokered deposits without an explicit decision by the supervisors that acceptance of brokered deposits "does not constitute an unsafe or unsound practice --." FDIC approval, moreover, is required whether an institution is regulated by the OCC, Federal Reserve or by OTS.

2. <u>Restrictions Due to Growth</u>

In April 1989, the FDIC proposed rules requiring banks to provide advance notice of their intention to grow rapidly over the succeeding quarter, and the FDIC put in place a notice requirement, pending adoption of final rules. In June 1990 the FDIC adopted a regulation requiring insured banks to provide 30-day advance notice of their intention to increase their assets by 7.5% per cent or more in a succeeding three month period through certain types of financing. These are defined to be "fully insured brokered deposits, fully insured out-of-territory deposits, or secured borrowings, including repurchase agreements," and any combination of these. This regulation replaced a prior FDIC regulation requiring banks to report the issuance of significant amounts of brokered deposits. (Banks still report the amount of outstanding brokered deposits -- insured and uninsured -- in their Call Reports.)

The FDIC had been concerned that substantial growth was frequently associated with excessive risk taking. The flagging of high-growth banks alerts supervisors to potential abuses on the asset side of the balance sheet. The shift in reporting requirements -- to high growth as opposed to high brokered deposit usage -

- illustrates the FDIC's understanding that it is the <u>use</u> of funding, as opposed to the specific funding <u>source</u>, that is most important in limiting excessive risk in banks.

The Federal Home Loan Bank Board already had growth restrictions in place, particularly for undercapitalized S&Ls. However, FIRREA substantially increased capital requirements for S&Ls and this served to subject more troubled S&Ls to severe growth restrictions.

3. Acquiror Right to Cancel Brokered Deposit Contracts

FIRREA clarified that acquiring institutions in P&As need not continue to pay contract rates on assumed deposits. As a matter of practice, the FDIC and the RTC have given that flexibility to acquirors of both failed banks and thrifts. To execute this option, depositors must be notified within 14 days that their deposit rates will be changed. If the acquiror elects to reduce interest rates, depositors then have the option of withdrawing their deposits or shifting them to a different account in the same institution without being subject to any early withdrawal penalty. This power has served to make some acquisitions more attractive to acquirors, thereby increasing premiums paid to the FDIC or RTC and reducing the transaction cost.

From an investor standpoint, this change in practice can significantly reduce the investment attractiveness of long-term certificates of deposits in risky institutions. To illustrate, depositors may have contracted to receive a relatively high interest rate for several years because (1) the depository institution was paying above market, (2) prevailing interest rates were higher when the certificate was acquired, or (3) prevailing practice had been to pay higher rates on longer-term certificates. Alternatively, if the rate at issuance was low, falling interest rates may have made the original yield more attractive. Whatever the cause of the high rate at time of acquisition, such rates are now cancelable in an assisted transaction, causing investors and their brokers to avoid high-risk deposit issuers.

4. Impact on Investor/Broker

To appreciate the thrust of this concern, consider that most insured CDs brokered by full-service brokers are relatively long term. To illustrate, the Securities Industry Association (SIA) recently surveyed eight brokerage firms (whose customers held approximately two-thirds of all fully-insured brokered deposits) in order to determine information on size of deposits, their maturity and other information. According to this 1990 survey, the weighted average maturity of outstanding brokered CDs held by customers of these firms in June 1990 was 31 months, suggesting that average original maturities were probably in the four-year range. Under current practice, if a long-term CD is placed in a depository institution that fails, there is no assurance that the depositor will be able to receive the contract rate to term. If, for example, interest rates paid on deposits have declined (as they have done recently), it is almost a certainty that an acquiring institution will cancel the old rate and pay a lower rate on the remaining maturity of the deposit. On the other hand, if rates increase, and the long-term commitment of funds turns out to have been an unwise financial decision by the depositor, an acquiring bank might continue to pay the contract rate on the remaining term of deposits. Thus, the long-term depositor now faces an increased risk, analogous to prepayment risk on mortgages, even when the

deposit is fully insured as to principal balance.

Even before FIRREA, full-service brokers have tried to avoid putting customer funds into institutions that fail. There is embarrassment (reputational risk) associated with such an event, the need to explain "why" to irate customers, a "bad press" fallout associated with being involved in a failed depository institution, a client notification nightmare, and the possibility of some financial exposure. The latter occurs because full-service brokers provide (but do not guarantee) a secondary market for CDs they broker (an essential aspect of marketing term deposits). This means that they sometimes hold trading inventory in excess of the deposit insurance limit. As a result of all these factors, broker concern about the failure of an issuing bank has been materially increased by the power of acquirors to cancel rate contracts on assumed deposits.

B. <u>Deposit Insurance Issues</u>

In its recently completed report (<u>Modernizing The Financial System</u>: <u>Reccommendations for Safer, more Competitive Banks</u>), the Treasury Department has recommended that insured deposit brokerage be eliminated over a two-year period (on new issuances) with protection of all outstanding CDs. Brokered deposits previously sold would retain their insurance coverage to maturity, and the RTC would be permitted to use brokered deposits to support the liquidity of institutions in conservatorship.

The Treasury does not base its recommendation on specific supervisory problems. Its analysis even suggests that pre-FIRREA studies do not show a

significant statistical relationship between the use of brokered deposits and failure (Chapter IV; p. 4), and it concedes that "FIRREA corrected the worst abuses of brokered deposits by curtailing their use by weak banks and thrifts." (Conclusions and Recommendations, p. 24). The principal basis for the Treasury recommendation appears to be as follows: "The brokerage of insured deposits has expanded the scope of deposit insurance coverage for wealthier depositors" (Conclusions and Recommendations, p. 24) and has given depository institutions access to a greater quantity of insured deposits (IV-5), thus adding to the government's gross liability.

It is important to appreciate that depositors on their own can and do place deposits in more than one depository institution in order to benefit from insurance coverage. Deposit brokers simply make that task easier by providing customers with more options as to rate, maturity, and quality than the customer is apt to have in his local market. (See also Chapter II.) The full-service broker also provides useful record-keeping and custodial services, and also access to a secondary market. Depositors merely looking for high rates in out-of-area banks and thrifts do not need brokers. They can readily access information services that tell them what institutions currently pay the highest rates on short and long maturities. Shorter lists are available in newspapers and on television.

In its discussion of brokered deposits, the Treasury seems to assume that insured brokered deposits are used primarily by "wealthy" individuals to divide deposit balances among multiple institutions in order to expand insurance coverage. Though this type of ownership was a form of pre-FIRREA deposit brokerage (see Chapter II),
data on the current usage of brokered deposits do not support this position. The SIA Survey of 1990 indicates that the average CD purchased through full-service brokerage firms was less than \$20,000. The average brokered CD holdings of customers (including those holding multiple CDs) was less than \$22,000. Merrill Lynch, the largest CD broker, has indicated that 94% of its customers holding brokered CDs had total brokered CD holdings of less than \$100,000. Edward D. Jones & Company (see Chapter II) reports a similar usage pattern. The holders, moreover, tend to be older individuals, and the accounts in which the CDs are held tend to be retirement accounts.

Since the Treasury supports insurance up to \$100,000 per person for bank/thrift deposits held in retirement accounts, the proposal to withdraw insurance protection from brokered deposits held in the same type of account seems inconsistent. This is not a trivial point, since brokers tell us that about 40% of brokered CDs wind up in IRA, Keogh and other small retirement accounts.

To defend its argument that wealthy individuals own insured brokered deposits, the Treasury cites preliminary 1989 Survey of Consumer Finance data indicating that households with more than \$100,000 in deposits hold almost 75% of the insured brokered deposits held by households. Yet households usually include more than one person. Suppose a household of two people. The maximum insurable amount under the Treasury's most restrictive version of deposit insurance coverage is \$400,000: two personal accounts (one for each) insured up to \$100,000 each, and two retirement accounts insured up to the same amount. If this is wealth (and the argument could be made that this is merely a comfortable retirement nest-egg for moderate-income individuals), the Treasury has already proposed to insure it in full. By contrast, all the evidence from retail brokerage firms (see Chapter II) points to far lower holdings per typical client, yet the Treasury proposes to de-insure these amounts.

The Treasury concedes that a positive role is currently played by brokered deposits in moving funds efficiently within the system, but states that other mechanisms exist within the system to facilitate credit flows. It cites correspondent banking, the federal funds market, Federal Reserve borrowing, and the Federal Home Loan Bank System (pp. 24-25; IV-6-7; 10). With the exception of the latter, these mechanisms don't really provide workable substitutes for the brokered deposit. Federal funds are not a reliable source of long-term funding, particularly in volatile markets where sources can dry up quickly. As for the Fed, it has never considered itself a source for longer-term funding and, like FHLB advances, Fed advances are secured.

It is true that FHLB advances do provide a longer-term source of funding for members. However, the question must be raised whether such advances are preferable to insured brokered deposits from the standpoint of the deposit insurance system. When an institution fails, the collateral used to secure FHLB advances is available to repay these loans. Since the loans are usually over-collateralized with better quality assets, the insurer generally repays the advances in order to take possession of the collateral. (Note that the quality of the collateral has no relevance to the quality of assets acquired with the proceeds of advances: good assets are

regularly pledged to buy less good, sometimes by a wide margin.) Because the FHLBs (and private lenders providing secured funding) can rely on recovery from collateral, there is less need to exercise market discipline measured by the economic penalty to the funds-provider in the event of failure.

When secured advances -- whether from public or private sources -- substitute for insured deposits, it is true that the liability of the insurer is reduced but so is its recovery on failed bank assets. In a situation, to illustrate, where a failing institution is funded solely by secured borrowings and insured deposits, the ultimate loss to the insurer is unaffected if funding switches between these two sources. Where some uninsured, unsecured liabilities are present, the presence of secured advances also reduces recoveries for these creditors. Thus there can be a reduction in the overall cost to the deposit insurer depending on the precise structure of the failed bank transaction. However, against this possible modest savings to the deposit insurer, we must also weigh the fact that secured advances do not pay deposit insurance premiums. Over time, this can represent significant foregone income for the deposit insurer.

On this point, the Treasury does examine the idea of imposing insurance assessments on secured borrowings, and rejects the idea (XIV, 6-8). Yet our discussions with issuers of brokered deposits suggested that, if insured brokered deposits were no longer available, they would substitute other sources of longer term financing, particularly secured borrowings. These would include secured advances from the private sector. In our opinion, this substitution would neither increase the market discipline sought by the Treasury, nor would it improve the financial strength of the deposit insurer, when we factor in the loss of assessment income to the insurer.

Let us consider the question, "How would bank and thrift funding be affected by eliminating insured brokered deposits?" Many (perhaps most) of those who would have otherwise invested in brokered deposits might now choose other investment alternatives such as mutual funds and government securities. Nevertheless, (1) some owners of brokered deposits would continue to invest directly in insured CDs. In addition, (2) banks and thrifts would try to make up most or all of the shortfall through aggressive solicitations of insured CDs; (3) increasing secured borrowings from the FHLBs and the private sector; and (4) increasing their large-dollar (uninsured) funding. Of these four possibilities, only the uninsured portion of the lastnamed would reduce the exposure of the deposit insurer in the event of failure, and that would depend on the timing and handling of the failure.

We do not know, of course, exactly what would happen if insured brokered deposits were eliminated. We believe that the most reasonable assumption is that the "replacement distribution" would follow the order listed above and that the majority of funds would remain in insured deposits (cases 1 and 2), followed by increases in secured funding. There would be only a modest increase in uninsured and unsecured liabilities of banks and thrifts. Currently, insured brokered deposits issued by banks and thrifts, exclusive of those in conservatorship, are about \$65 billion. In our opinion, the elimination of coverage on insured brokered deposits would decrease insured deposits in banks and thrifts by less than \$10 billion.

Chapter IV

INSURED BROKERED DEPOSIT AND BANK/THRIFT FAILURES

In the following analysis we review the historical relationship between bank/thrift failures and the use of insured brokered deposits. The objective is to explore whether insured brokered deposits were a significant cause of bank and thrift failures during the 1987-90 period. This part of the study builds upon an earlier 1985 \checkmark Cates study which examined the same question for the years 1982-85. (We exclude 1986 from the present study, because the patterns do not differ, and there were relatively few actual failures.) The chapter concludes with comments on the relationship among brokered deposits, failure and the deposit insurance funds.

The results of the earlier study, based upon our finding that brokered deposits were a small fraction of other discretionary funding sources, clearly demonstrated that the relationship between failure and brokered deposits was quite weak. For example, only a minority of institutions that failed issued brokered deposits. Failures that did involve brokered deposits made more extensive use of other discretionary funding, including uninsured ("jumbo") deposits and secured borrowings. The "driver" of failure, we found, was reckless asset strategy, able to harness many kinds of available funding, of which brokered deposits were a small fraction. To say that brokered deposits caused these failures is like arguing that roosters cause the sunrise.

The present analysis, summarized in Tables 2-4 in the Appendix, builds upon

the approach used in the earlier study but uses a more comprehensive methodology. In Table 1 we present selected, aggregate industry trends, in order to place the failure data in context. All the tables are based on regulatory data from thrift and bank call reports through September 30, 1990, the most recent available data.

It is important to differentiate between the different classes of brokered deposits as defined in call reports. The term "brokered deposits" encompasses any certificate of deposit placed through a third party intermediary. "Insured brokered deposits" are those with balances of \$100,000 or less per depositor. Insured brokered deposits, however, are issued through full-service securities firms and so-called "money brokers". Only those deposits issued though full-service securities firms are considered retail (insured) brokered deposits (see Chapter II for fuller discussion of this business). Though our study concentrates on retail brokered deposits, regulatory data only distinguish between insured and uninsured brokered deposits, making no distinction between retail deposit brokerage and deposits issued through money brokers. This data limitation forces us to rely upon "total insured brokered" for the analysis in this chapter. Thus, the data may overstate retail brokered deposit activity at failed institutions.¹ In the next chapter we are able to use certain proprietary data to examine retail brokered deposit usage by three high profile thrift failures: Lincoln. CenTrust and Franklin.

¹ For 1986-87 thrift data (used to analyze 1987 and 1988 failures) total brokered deposits were used as a proxy for insured brokered because, after careful review of OTS computer tapes provided us, we found insured brokered deposit data for those years to be unreliable.

Tables 2-4 concentrate on data of failed institutions and examine insured brokered deposit usage by asset size. Table 2 reports and analyzes the number of bank and thrift failures with insured brokered deposits at the time of closing. Table 3 shows insured brokered deposits as a percentage of total deposits for those failed institutions with insured brokered deposits. Table 4 presents selected ratios of failed institutions with insured brokered deposits, in order to compare the relative importance of insured brokered deposits to other discretionary funding source. The ratios in Table 4 are calculated as medians to avoid the problem of a few large institutions skewing the results.

We also perform the same analysis on "open" (not failed) high risk institutions, in order to broaden our view of brokered deposits to include not just failures but all high-risk institutions. "Highest risk" is defined in this study as institutions with a Cates rating of "5" (or "highest risk"). The Cates Bank Rating Service was used because it is a quantified evaluation of asset quality, capital, earnings, liquidity and holding company financial risk. These ratings were done before this study was commissioned.²

The aggregate trends of insured brokered deposit usage by all banks and thrifts from 1987 through last September are reviewed in Table 1. In this table we also separate thrifts and banks by capital levels. Thrifts are divided into three groups: less than 1.5% tangible capital ratio to assets, 1.5-3% tangible capital, and above 3%

² The analysis is based on Cates ratings as of 6/30/90, when 70% of banking industry and 50% of thrift industry assets were rated, including every publicly held financial institution.

tangible capital. Banks are broken into two groups: above and below 5.5% equity capital to assets.

A. Bank/Thrift Failure Trend Analysis: 1987-90

The findings of this chapter are consistent with the conclusions of the earlier study. We conclude that there is no more causal linkage between insured brokered deposits and bank/thrift failures than exists with any other type of funding. We will first present the record of commercial banks, and then of thrifts.

1. Bank Failures and Brokered Deposits

Of the 741 bank failures between 1987 and 1990, only 15% had insured brokered deposits at time of failure. From a low base level, the percentage has risen slightly in recent years, reflecting a general increase in banking industry use of brokered deposits.

| | <u>1987</u> | <u>1988</u> | <u>1989</u> | <u>1990</u> | <u>Total</u> |
|---|-------------|-------------|-------------|-------------|--------------|
| Bank Failures | 176 | 203 | 195 | 167 | 741 |
| With Insured Brokered Deposits | 25 | 19 | 32 | 34 | 110 |
| With Insured Deposits Less Than 5% of Total Deposits | 12 | 9 | 19 | 16 | 56 |

Of the 110 failures with insured brokered deposits, roughly half (56, or 51%) showed low usage of brokered deposits. We define "low usage" as less than 5% of total deposits. Thus in 92% of bank failures, there was little or no usage of insured brokered deposits. The table below, which presents ratio medians for those 1987-90 bank failures that did have insured brokered deposits at closing, makes two important points. First, insured brokered deposits funded a small portion of earning assets. Second, insured brokered deposits were a small fraction of other discretionary funding.

| | <u>1987</u> | <u>1988</u> | <u>1989</u> | <u>1990</u> |
|---|-------------|-------------|-------------|-------------|
| Insured Brokered Deposits/ Earning Assets | 5.20% | 7.12% | 3.22% | 5.99% |
| Insured Brokered Deposits/ Purchased Funds | 21.41 | 24.42 | 9.97 | 38.26 |

Because of the extensive use of many sources of discretionary funding, common sense suggests that bank asset strategies, rather than any one type of discretionary funding, were the principal cause of failure. Even in cases where brokered deposits were a substantial source of funding (in sixteen, or 2%, of the bank failures), purchased funds were also quite significant. We conclude that there is no evidence of a direct causal linkage between insured brokered deposits and bank failure.

2. Thrift Failures and Brokered Deposits

There were 777 thrift failures during the 1987-90 period. At the time of failure, insured brokered deposits were present at slightly more than half (405 or 52%) of the failures, a somewhat higher proportion than found in the 1985 study. However, the proportion of failures with insured brokered deposits decreased every year from 1987 through 1990. In 1987, to illustrate, insured brokered deposits were present at 60% of the failures. By 1990, they were present at only 44% of the failures. The reduction

undoubtedly reflects the regulatory impact of FIRREA, the decline in the activity of money brokers (Chapter II) and the generally more restrictive credit policy at retail brokerage firms. Of the 405 failures with insured brokered deposits, low-usage thrifts were roughly half (189 or 48%). To put it another way, three-quarters (74%) of all failed thrifts had little or no insured brokered deposits.

| | <u>1987</u> | <u>1988</u> | <u>1989</u> | <u>1990</u> |
|--|-------------|-------------|-------------|-------------|
| Number of Thrift Failures | 48 | 205 | 325 | 199 |
| With Insured Brokered Deposits | 31 | 119 | 168 | 87 |
| With Insured Brokered Deposit Less Than 5% of | S | | | |
| Total Deposits | 21 | 53 | 64 | 51 |

Insured brokered deposits equal to more than 25% of deposits were present at less than 10% of the failed thrifts. Most of this high usage was at institutions with less than \$500 million in assets. In most of those situations, moreover, purchased money was also a significant source of funding, in most cases surpassing brokered deposits. As with the banks, uninsured funding (purchased funding) exceeded insured brokered deposits for the median thrift failure (i.e., those with insured brokered deposits at closing), as the table below illustrates. This is also true for every asset size group (see Table 4). Further, in each of the years 1987 through 1990, insured brokered deposits funded a low fraction of earning assets, as shown in the table below (and in Table 4).

| | <u>1987</u> | <u>1988</u> | <u>1980</u> | <u>1990</u> |
|--------------------------------------|-------------|-------------|-------------|-------------|
| Insured Brokered/ Earning Assets | 0.99% | 6.02% | 9.01% | 4.07% |
| Insured Brokered/ Purchased Funds | 9.56 | 38.17 | 43.59 | 26.36 |
| Insured Brokered/ FHLB Advances | 26.90 | 61.86 | 80.59 | 33.41 |

At the typical failure where insured brokered deposits were present, FHLB advances were a more significant funding source than brokered deposits. As previously noted, these advances are collateralized by the best assets, a process that deprives the insurance fund of potential recoveries. Moreover, failed issuers of insured brokered deposits made greater use of FHLB advances than those failed thrifts that did not issue insured brokered deposits.

3. "Most Risky" Banks/Thrifts

The trends among the most risky Cates-rated (but still operating) institutions presented in Table 2 are similar to those of the failures: 82% of the "5"-rated banks and 85% of "5"-rated thrifts had less than 5% of their deposits in the form of insured brokered deposits as of September 30,1990. Half of the highest-risk thrifts and 66% of the highest risk banks had no brokered deposits.

4. <u>Summary</u>

The evidence indicates that in the overwhelming number of cases, insured brokered deposits were either not present or present in insignificant amounts. Between 1987 and 1990, of the 1,518 combined bank and thrift failures, only a third (515, or 34%) had insured brokered deposits. If we exclude "low usage" institutions (insured brokered less than 5% of total deposits), only 270 (or 18% of the total failures) had brokered deposits outstanding in excess of the "low usage" threshold. Some bank/thrift failures, it is true, made material use of insured brokered deposits. At 76 failed institutions, insured brokered deposits exceeded 25% of total deposits. This represents 5.1% of total failures (of which most were thrifts).

Even when insured brokered deposits were present, other forms of discretionary funding, especially FHLB advances, were a more significant source of financing. This finding is well documented in Table 4 in the Appendix. Using median ratios of failed banks/thrifts 1987-90, insured brokered deposits at failed banks averaged 30% of other discretionary funding across the period. The corresponding percentage at failed thrifts was 23%. To put it another way, other discretionary funding was 3.8 times the average of insured brokered deposits.

B. <u>Thrift Industry Trends: 1988-90³</u>

The dramatic decline in brokered deposit usage by thrifts (see Appendix Table 1) results from FIRREA restrictions, industry consolidation and the generally weakened condition of the industry. The total number of thrift issuers,⁴ for example, fell substantially. For thrifts in the aggregate, the number of issuers fell almost 40% from 609 at end-1988 (the year before the enactment of FIRREA) to 379 at September 30, 1990. Furthermore, this trend is most pronounced among the more thinly

³ Thrifts in conservatorship are excluded from this discussion.

⁴ We define "issuer" as any institution with insured brokered deposits outstanding, whether or not issuance is continuing currently.

capitalized group, those who fall below the fully phased-in core capital requirement of 3% tangible capital to tangible assets. Their decline was 60%, from 239 to 104. As for the weakest group of issuers, those with tangible capital ratios of less than 1.5%, the decline in issuers was much sharper, from 170 to 47. The better capitalized thrifts issuers also declined, from 370 to 270.

Most brokered deposit issuers are stronger institutions in compliance with all capital requirements (see Table 1). Nearly three times as many thrift issuers, in fact, exceed the fully phased-in core capital requirement as fall below it as of September 30, 1990. This dispels the notion that only the weakest thrifts use insured brokered deposits.

Brokered deposits have never been a major source of funding for the thrift industry. This is especially true for thinly capitalized thrifts. Among these issuers, brokered deposits funded less than 5% of average earning assets as of September 30, 1990, and were 6.6% of total deposits. For the industry as a whole, brokered deposits declined from \$54 billion to \$22 billion (a 60% decline), end-1988 through September 30, 1990, when insured brokered deposits stood at 2.7% of total thrift deposits.

Compared to other funding sources, insured brokered deposits were 13% of other discretionary funding in 1990, down sharply from almost 18% at end-1988. To take the largest single source -- FHLB advances -- these were 2.5 times outstanding insured brokered deposits at September 30, 1990. In addition, "jumbo" (large-dollar) CDs, which we consider a proxy for "money desk" funding operations, are also much more significant than insured brokered deposits. It should also be noted that issuers of brokered deposits are more likely to rely on other purchased funding than are nonissuers.

C. Bank Industry Trends: 1988-90

As with the thrift industry, we divide banks into capital groups: those above and below 5.5% equity capital as a ratio to assets. The aggregate trends are the reverse of the thrift industry, reflecting increased acceptance by banks of insured brokered deposits as a funding source. The number of issuers rose from 658 to 700. The number of issuers with more than 5.5% capital rose by 30 from 526 to 556, from 1988 to September 30, 1990.⁵ The number of issuers with less than 5.5% capital also rose by 12 from 132 to 144. (See Appendix Table 1.)

Insured brokered deposits comprised an increasing share of total deposits (5.8% at September 30, 1990). The better capitalized bank issuers fund a higher (5.5%) percentage of earnings assets with brokered deposits than do the less-capitalized banks (2.3%). These percentages, moreover, are low compared to other discretionary

^{5.} Banks are currently subject to risk based capital requirements and an additional tangible equity requirement which varies according to the overall condition of the individual bank. The latter requirements became effective in late 1990 for Federal Reserve member banks and in 1991 for insured nonmember banks. During the period for which bank data are presented in this report, banks were subject to a primary capital requirement of 5.5%. Primary capital essentially consists of tangible net worth plus loan loss reserves.

If we use a 5.5% primary capital ratio (instead of an equity capital ratio 5.5%) as the basis for determining which banks are well-capitalized, then an even greater fraction of banks fall into the well-capitalized group.

On September 30, 1990, there were only 53 issuer banks that had a primary capital ratio of less than 5.5%. Those 53 banks had insured brokered deposits of under \$3 billion, less than 8% of insured brokered deposits held by all banks on that date.

funding sources. To illustrate, note that the mean insured retail brokered deposit was 7% of total purchased funds at September 30, 1990, indicating that other discretionary funding is overwhelmingly more important than brokered deposits as a source of bank asset financing. Finally, note that insured brokered deposits in banks were 1.5% of total bank deposits at September 30, 1990.

D. The Shift to Stronger Issuers

The aggregate data for banks and thrifts point to a trend toward stronger issuers. Both the number of issuers and the extent of their usage indicate a twodimensional shift: (a) from thrifts to banks and (b) from the more thinly capitalized institutions to the better capitalized.

1. <u>Three Reasons</u>

We offer three explanations, based partly on data analysis, and partly on interviews we conducted with retail deposit brokers and with issuers. For one thing, regulation changed the environment. To illustrate, FIRREA prohibited issuance of brokered deposits by undercapitalized thrifts without a regulatory waiver; in addition, the FDIC imposed certain asset growth restrictions on banks relying on brokered deposits (and certain other types of funding); and the flexibility given acquiring institutions effectively to repudiate rates paid on deposit contracts assumed in failures has sharply diminished the investor-attractiveness of brokered deposits in weak institutions.⁶ These several events have dramatically coalesced to force out high risk

⁶ Our review of failure data confirm that the post-FIRREA restrictions removed whatever abuses may have been present during the mid-1980s. Since 1986, most of the 1987-90 failures exceeded the FDIC/OTS growth limits. Had the FIRREA prohibition on brokered

and weak institutions.

Second, even before the 1989 restrictions, the retail deposit brokerage firms had begun to tighten their own credit reviews of issuers.

Finally, we believe that the growing acceptance and moderate use of retail brokered deposits is an example of the benefits which capital market efficiencies bring to banks, in this case the power of brokerage distribution systems to assemble "tailored maturity" deposits more quickly than most banks can through their more limited distribution systems, and at a cost no higher than the banks pay for alternative financing.

2. Why Banks Issue

In our interviewing, we talked with a geographically dispersed cross-section of issuers -- thrifts, retail-oriented commercial banks and wholesale-funded commercial banks -- whose financial condition ranged from strong to relatively weak (names withheld because of the confidential nature of these interviews). Interviewees included two west coast thrifts, a midwestern thrift, two midwestern banks, two large New York banks, and two banks in the mid-Atlantic region. The healthier institutions, in particular, told us that they entered the market only after weaker thrift institutions were no longer able to issue. The withdrawal of the higher-rate

deposit issuance by undercapitalized institutions been in effect since 1987, 94% of the failed issuers of brokered deposits could not have issued brokered deposits without an FDIC waiver. The restriction on issuance where rapid asset growth was occurring would have halted 70% of issuers. <u>The two restrictions acting</u> together would have restricted or halted issuance by virtually every failure during the 1987-90 period.

weaker institutions reduced the cost of brokered CDs. These issuers told us they turn to the brokered deposit market only when these deposits are a lower priced alternative, and they retreat when retail brokered deposit funding costs are higher than other sources. Typically, the motive behind issuance is to lengthen the repricing cycle of liabilities in order better to manage interest rate risk. Banks also use brokered deposits of given maturities in order to match-fund specific asset programs.

A weaker regional bank told us that its aggressive use of brokered deposits in 1990 (while assets were flat to down) was for the purpose of paying off higher-cost local funding and building cash liquidity with 2-to-5 year CDs. This program was fully completed during 1990, and no regulatory waivers were required. Without it, liquidity might have been impaired, leaving a thinner margin of safety for crisis management steps.

Data as well as interviews show us that brokered deposits are but one funding alternative and, with few exceptions, represent a small percentage of total funding. Issuers typically view retail brokered deposits as a reliable source of intermediateterm funding and a somewhat lower cost alternative to local insured deposits.

The geographic distribution of issuers shown in Table 5, furthermore, lends credence to issuer comments that cost considerations govern brokered deposit issuance. The issuers are concentrated in relatively high-cost funding markets, such as the Northeast and California.

E. Failure Data and Implications for the Insurance Fund

Regulators and private-sector analysts almost universally agree that high risk

asset strategies are the principal reason for failure. This issue will be further explored in our discussion of three high profile thrift failures (see Chapter V). Given the rather free availability of purchased funds, and the subordinate role played by insured brokered deposits, it is difficult to make the case for a causal link between brokered deposits and failure.

While insured brokered deposits certainly were present and did fund growth at some of the failures, they generally were not the major source of discretionary funding. Among insured brokered deposit issuers that failed during the 1987-90 period, purchased money (secured borrowings and uninsured deposits) funded a much larger portion of assets than did brokered deposits.

It is true that, from a narrow view of insurance fund liability, the uninsured deposit (account balances over \$100,000) is not protected by deposit insurance and is therefore not a threat to a public policy. Our data, however, show that even among institutions with insured brokered deposits, uninsured deposits typically funded more of the asset base than did brokered deposits. They were therefore materially instrumental in financing the reckless asset strategies which ultimately created deposit insurance losses. These funds, moreover, generally had short maturities, enabling depositors to flee before institutions failed. We argue, therefore, that the imprudent use of <u>uninsured</u> funding abets the destruction of values lying behind <u>insured</u> deposits, and thus contributes materially to insurance fund losses.

Secured borrowings, as we have already commented (see Chapter III), expose the deposit insurer to loss that is comparable to that of insured deposits. In sum, our conclusion is that insured brokered deposits funded a small percentage of assets of failed banks and thrifts and only rarely could be said to have increased deposit insurance costs. Since FIRREA, of course, such abuses are no longer possible.

Chapter V

LINCOLN, CENTRUST, FRANKLIN: THREE FLAMEOUTS

Critics of brokered deposits have held that this was an easily accessible and high-cost source of funds. As such, it was an important determinant of the largest and most expensive thrift failures of the 1980s. To put it another way, the availability of expensive "hot money" made possible the speculative momentum of high-flying thrifts, leading to their demise at great expense to taxpayers.¹ The high cost of brokered deposits, it is argued, forced thrifts to invest in high-yield, high-risk assets, thereby encouraging unsafe and unsound practice.

In this section of the study, we examine that thesis in some detail by considering the failures of three notorious thrifts that made extensive use of brokered deposits: Lincoln Savings (Los Angeles, California), CenTrust Bank (Miami, Florida), and Franklin Savings (Ottawa, Kansas). All of these were placed in conservatorship in 1989 or 1990. We selected these for special study because they are among the largest and most costly failed issuers of brokered deposits.

Our analysis is based on several sources: regulatory thrift financial reports, SEC filings and retail brokered deposit trading data (issue date, coupon rate and maturity) supplied to us by leading securities firms. These data are summarized in Tables V-A and V-B and in the <u>Cates Thriftcompare</u> reports to be found at the end

¹. See, for example, Martin Mayer, <u>The Greatest Bank Robbery Ever</u>, Simon & Schuster, 1990.

of this chapter.

We conclude that, although total brokered deposits were a major funding source at all three thrifts, there is not a compelling linkage between retail brokered deposits and the deterioration, decline and ultimate failure of the institutions. Further, retail brokered deposits at these thrifts were not especially high-priced: they were in fact priced competitively with FHLB advances per equivalent maturity. Finally, we conclude that the full-service securities firms acted prudently as soon as signs of likely failure became evident. Under FIRREA rules, of course, Lincoln and CenTrust would have been unable to issue brokered deposits for several years before their failure. This is because FIRREA-mandated restrictions on insured brokered deposit issuance by undercapitalized thrifts would most certainly have forestalled such deposits. In all three cases, the regulators had the authority to restrict growth, even before FIRREA

A. <u>Strategy and Events Leading to Failure</u>

The three thrifts followed diverse strategies with one factor in common: very rapid growth. This can be seen in the <u>Cates Thriftcompare</u> reports to be found at Chapter-end. Lincoln and CenTrust are prototypical examples of thrift industry excess which did so much to create the restrictions in FIRREA. The Franklin strategy was distinct from the first two, but, as noted, its growth also could have been restricted by the regulators, as would its power to issue insured brokered deposits.

Leaving aside legal and ethical improprieties, the Lincoln strategy was inherently risky for uninsured creditors and the insurance system. From the time of its acquisition by American Continental in 1984, Lincoln's assets grew at an incredible rate, over 45% annually through 1986. Lincoln concentrated its operations in construction lending and direct real estate investment. This combination of very rapid growth and investment in highly risky and speculative activities was a prescription for trouble.

Operating in a manner similar to a real estate investment company, Lincoln did not have a core thrift business. By 1986, aided by permissive California law, over 20% of its assets were invested in real estate properties and in service corporations that, in turn, primarily invested in real estate. Because of highly suspect non-cash profits generated from real estate sales, Lincoln was able to report positive net income. However, excluding real estate sales, Lincoln consistently ran deficits on an operating basis, and, in fact, its net interest income was negative. The high-risk balance sheet made its rather thin tangible capital base quite perilous. It would appear that the regulators could have closed Lincoln long before 1989, the year the thrift was placed in conservatorship. All the above observations are easily replicable by even a cursory study of Lincoln's regulatory financial filings throughout 1984-89 (see <u>Cates</u> <u>Thriftcompare</u> at the end of this chapter).

CenTrust was a slightly milder variation on the same theme. Beginning in the mid-1980s through 1988, CenTrust's assets grew by more than 20% each year, invested partly in high-risk real estate loans and properties owned directly through service corporations, and partly in high-yield (primarily unrated) corporate bonds. Similar to Lincoln, asset sales generated apparently strong (but non-cash) earnings, while recurring profitability remained very weak, and frequently in deficit. Razor-thin

net interest margins (negative in 1985-86) reflected the lack of a core thrift franchise. Negative tangible capital meant that CenTrust had no cushion against future losses and was basically insolvent. In both Lincoln and CenTrust, lax regulatory accounting treatment, liberal capital rules, and generous investment powers as state-chartered thrifts permitted them to pursue their respective strategies with impunity.

Franklin's assets grew nearly three-fold from 1986-89, primarily through purchase of investment-grade mortgage-backed securities (MBS), with the intention of earning a small but stable spread. Interest rate risk was controlled through a variety of uniquely sophisticated hedging and funding strategies. Then an adverse MBS market in the late 1980s shrunk its net interest margin. On top of this, its thin capital, coupled with an OTS ruling which disallowed the bank's accounting treatment of hedging and forced the recognition of losses in new lines of business (e.g. insurance), led to an insolvency finding by OTS in 1990.

B. <u>Funding Patterns</u>

It is quite clear that in all three institutions, asset strategies, not funding strategies, were the predominant cause of failure. To understand the specific role played by retail brokered deposits, however, distinction must be made between the two types of strategy at the thrifts.

Brokered deposit issuance in the mid-1980s is best viewed in an historical context. Thrift failures in the early 1980s were caused by the long-hidden risk inherent in the prevailing strategy: simultaneously attract short-term deposits and long-term mortgages. When interest rates began to surge in 1979, thrifts were

trapped by their decades-long practice. One thing they needed was longer-term, fixedrate deposits. Because securities firms have broad distribution among investors, the retail CD, issued at much longer maturities than is (and was) available from depositors in local markets, was a partial answer to the challenge of interest-rate risk management, along with FHLB advances and other instruments. Even in the three thrifts under discussion, this funding flexibility was a constructive tool in asset/liability management. At bottom, it was their long maturity that made brokered deposits popular as a funding source. And given the interest-rate risk profile of thrifts, such a funding strategy was reasonable, as long as the costs were competitive with FHLB advances.

As Table V-A illustrates it is important to recognize that the three thrifts did not depend solely on retail brokered deposits. Each had available several other largescale funding alternatives, including non-retail brokered deposits, internal money desk operations to raise money nationwide, FHLB advances, and other secured borrowings such as collateralized mortgage obligations (CMOs). Each institution used a combination of funding sources selected on the basis of relative price, maturity and availability. Table V-A and V-B and the <u>Cates Thriftcompare</u> reports summarize the funding strategies.

Even among these three high-profile failures, it is wrong to generalize about brokered deposit usage. Lincoln grew aggressively through longer-term brokered deposits, made more attractive to investors by the presence of a secondary CD market maintained (but not guaranteed) by the brokers.

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3

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CenTrust also used diverse sources to fund its growth. Again, brokered certificates of deposit helped to extend liability maturities. In 1989, about 70% of its brokered CDs exceeded one year in maturity and almost one-third were longer than three years. By contrast, over half of the internally generated CDs had maturities less than one year. Brokered deposits, however, were by no means the predominant source of CenTrust funding. The bank made greater use of other discretionary funding such as FHLB advances, mortgage-backed debt, and jumbo certificates of deposit, which together exceeded brokered deposits throughout the five years prior to failure. In 1989, the year before CenTrust was closed, these other funding sources were almost double the outstanding brokered deposits. And jumbo CDs, generated to a large extent through an internal money desk, exceeded brokered deposits in four of the five years prior to failure.

At Franklin, retail brokered deposits and collateralized borrowing comprised the main elements of its funding mix. Brokered deposits were used to manage shifts in MBS prepayment behavior. Franklin management also considered brokered deposits to be an attractive funding source because the cost components, including deposit premium, coupon and brokerage commission, were so readily and reliably quantified. This, of course, was crucial to a narrow-margin, totally modelled operation. In rendering his decision on the Franklin suit against OTS, (Franklin Savings Association vs. Director of the Office of Thrift Supervision) Judge Saffels wrote that "to fairly compare the cost of funds between institutions, all costs must be considered. Franklin's brokered deposits are shown to not constitute a high cost of funds" (p. 71).

C. Retail Broker Deposit Data Analysis

Several brokerage firms provided the authors with confidential data on dates of issuance, maturity and coupon rates of retail brokered CDs issued by the three thrifts.² The findings of this section are based on that data, which are summarized in Table V-B. Relative yields, maturities and number of issues were analyzed from the time that this group of retail brokerage began issuing for the institutions until they went into conservatorship.

1. <u>Credit Analysis</u>

There is strong evidence that the retail brokers performed objective credit analysis on the three institutions in order to reduce their exposure (and those of their clients) even before the enactment of FIRREA. None of the three were funded by all of the securities firms surveyed. That is, at least one firm declined to issue for each of the three thrifts. Second, in the more flagrant cases of CenTrust and Lincoln, none of the firms funded the institutions the year they failed. As further evidence of increasing concern about the quality of the high risk institutions, the average maturity and the number of new issues declined during the period just prior to failure at CenTrust and Lincoln (see Table V-B and Graphs V-A and V-B).

These observations point to differences between retail brokers and money brokers. The former, because of their concern about firm reputation and the

². Provided under confidentiality agreements. Under terms of the confidentiality agreement, the statements and conclusions are required to be general so that the source of the information, i.e. the individual firm, would not be identified. Six firms in total contributed data, four of the largest firms and two somewhat smaller in terms of their role in issuance.

continuity of their relationship with largely unsophisticated clients, wish to avoid brokering deposits for failing institutions.

2. Comparison of Rates: Retail Brokered Deposits and FHLB Advances

We were able to compare a modified all-in cost of retail brokered deposits against comparable maturity Federal Home Loan Bank advances (an available funding alternative). In order to arrive at the modified all-in cost, we added a commission of sixty basis points per year to the stated coupon rate on brokered deposits. The rate on advances (which pay interest monthly) was adjusted to be comparable to the brokered CD which generally pays semi-annually. Our analysis did not cover the zerocoupon deposits, nor did we adjust the deposit cost to include deposit insurance premium.

We compared each institution's deposit cost rate to its respective FHLB advance rate, i.e. Lincoln to San Francisco FHLB, CenTrust to Atlanta FHLB and Franklin to the Topeka FHLB. Our findings are summarized in Table V-B and Graph V-C. In general, we found that the spread narrowed from the mid-1980s to the late 1980s, and in some cases, the relatively falling cost of retail brokered deposits was actually less than rates on advances.³ At no time were the spreads more than 50 basis points over FHLB rates. The fairly narrow spread between FHLB rates and Franklin's brokered deposits, in fact, lends support to Judge Saffels' opinion cited earlier.

³. The decline in spread also reflects a general rise in FHLB advance rates during the late 1980s.

D. <u>Conclusion</u>

In this chapter we have analyzed the role of retail brokered deposits in three well publicized thrift flameouts. Our conclusions are as follows:

- 1. In helping to achieve rational funding objectives, retail brokered deposits were not a high cost funding source but priced competitively.
- 2. While rapid growth was funded by retail brokered deposits, it was also funded by other discretionary sources, which would have served the same purpose had brokered deposits not been available.
- 3. The retail brokerage firms sought to act to reduce their clients' exposure to high risk institutions.
- 4. The narrowing of the spread between brokered deposits and FHLB advances and the tightening of credit standards later in the decade are indications of the increasing maturity and acceptance of the retail brokered deposit as an investment instrument.

We are not saying that thrift-issued retail brokered deposits did not contribute to the losses sustained by the insurance fund and the taxpayer. Using the principle of "comparative negligence" (applied in personal injury lawsuits) as an analogy, we do argue for a rather low share of the blame. If the intoxicated driver of the speeding car is to get 60% of the blame for the accident, the rainy weather (financial environment) is responsible for 10%, the powerful car (all discretionary funding sources) 10%, the high-test gasoline (insured brokered deposits) 5%, and lax traffic control (the FHLB) 15%. Actually, the passage of FIRREA makes such blame-casting about as relevant to the current environment for brokered deposits as a debate on the 1588 failure of the Spanish Armada.



Graph V-A







Graph V-C

Table V-A: Funding Structure at Centrust, Lincoln and Franklin

| Year | Brokered Deposits/ | Purchased Funds/ | FHLB Advances/ | Jumbo CDs/ | |
|------|--------------------|------------------|---------------------|----------------|-------------|
| | Earning Assets | Earning Assets | Earning Assets | Earning Assets | |
| | | CENTRUST BANK, | A STATE SAVINGS BAN | K MIA | MI, FL |
| 1989 | 36.57% | 71.42% | 7.66% | 40.42% | |
| 1988 | 31.77% | 65.69% | 7.16% | 38.67% | |
| 1987 | 21.54% | 33.38% | 6.74% | 14.67% | |
| 1986 | 8.89% | 32.58% | 7.47% | 13.39% | |
| | • • • | LINCOLN SAVING | S AND LOAN | LOS | ANGELES, CA |
| 1988 | 48.41% | 27.89% | 0.72% | 7.89% | |
| 1987 | 54.56% | 31.14% | 1.81% | 7.42% | |
| 1986 | 56.87% | 25.51% | 2.35% | 7.41% | |
| 1985 | 44.49% | 26.96% | 3.36% | 13.07% | |
| | | FRANKLIN SAVINO | SS ASSOCIATION | OTT | AWA, KS |
| 1989 | 31.12% | 37.35% | 27.20% | 4.51% | |
| 1988 | 25.84% | 39.23% | 20.87% | 6.03% | |
| 1987 | 20.37% | 62.47% | 11.85% | 24.04% | |
| 1986 | 13.57% | 42.52% | 1.08% | 3.32% | |
| | | | | | |

SOURCE: CATES THRIFTCOMPARE ANNUAL DATA/RATIO REPORT

NOTES:

1. The data are based on thrift financial reports filed with the Federal Home Loan Bank Board.

2. Brokered Deposits are defined as Total Brokered Deposits, both insured and uninsured. The narrower insured brokered deposit definition is not used in the table because the data prior to 1988 was determined to be unreliable.

The 1988-89 Ratios of insured to total brokered deposits are presented below:

| | 1988 | 1989 |
|----------|--------|---------|
| CENTRUST | 98.62% | 92.80% |
| LINCOLN | 88.67% | 98.33% |
| FRANKLIN | N/A | 100.00% |

3. The data are presented for the four years prior to failure.

Tabel V-B: Summary of New Retail Brokered Deposit Issue Data for Centrust, Lincoln Savings and Franklin Savings

| Year | Number of | Average | Retail Brokered | |
|------|------------|------------------|--------------------|-----------------|
| | New Issues | Maturity | Deposit to | |
| | | (In Years) | FHLB Advances - | |
| | | | Cost Spread | |
| | CEN | TRUST BANK, A S | STATE SAVINGS BANK | MIAMI, FL |
| 1989 | 138 | 2.2 | -0.03% | |
| 1988 | 292 | 2.5 | -0.01% | |
| 1987 | 383 | 3.3 | 0.24% | |
| 1986 | 407 | 4.8 | 0.45% | |
| 1985 | 28 | 4.5 | 0.50% | |
| 1984 | 12 | 4.2 | 0.40% | |
| | LING | COLN SAVINGS A | ND LOAN | LOS ANGELES, CA |
| 1988 | 30 | 0.8 | -0.03% | |
| 1987 | 22 | 0.8 | 0.12% | |
| 1986 | 201 | 5.7 | 0.35% | |
| 1985 | 351 | 6.7 | 0.12% | |
| 1984 | 64 | 8.2 | 0.09% | |
| | FPA | NKI IN SAVINGS A | ASSOCIATION | OTTAWA, KS |
| 1990 | 18 | 1.5 | -0.01% | |
| 1989 | 43 | 1.5 | -0.01% | |

0.07%

-0.05%

0.05%

SOURCE: PROPRIETARY TRADING DATA FROM SIX SECURITIES FIRMS

2.1

0.6 0.8

NOTES:

1988

1987

1986

57

101

40

1. Zero Coupon Deposits were excluded because their cash flow characteristics are different from the FHLB advances and therefore an accurate cost comparison cannot be made.

2. To calculate the Spread:

- a. An assumed 60 basis point commission was added to the retail brokered deposit coupon.
- b. Interest is paid on Federal Home Loan Bank advances monthly. The interest Rate was adjusted so that the yield is on an equivalent basis to the retail brokered deposit that pays interest semiannually.

CATES THRIFTCOMPARE[¢]

ANNUAL DATA/RATIO REPORT

LINCOLN S&LA LOS ANGELES, CA ASSOCIATION TYPE : ST STOCK

03805

NATIONAL PEER GROUP : \$1 BIL AND OVER (235) REGIONAL PEER GROUP : Far West (55) DATE OF INSURANCE : 03/00/36

| | | Metion by Size | Region by Stan | 1988 | 1987 | 1986 | 1985 | 1984 |
|------|-------------------------------------|----------------|--|-------------------------|------------------|---------------|-------------------|-------------------|
| 10 | FARNINGS | La croup | 1 Four Group reactions for the second sec | ala daga da maka situ s | States and see a | | | |
| 1.0 | Return on Assets | 0.26 | 0.289 | 0.25 | 4 0 71 | <u>4 1 52</u> | 4 3 189 | 0 76% |
| 1.02 | 2 Return on Assets (Oper) | 0.16 | 0.10 | 0.65 | 2,20 | 7 -23.31 | -0.01 | -0.27 |
| 1.03 | 8 Return on Net Worth | 6.49 | 5.52 | 4.91 | 12.24 | 27.19 | 73.12 | 20.51 |
| 1.04 | Net Income % Change | -20.52 | -12.75 | -55.97 | -43.77 | -37.32 | 510.80 | Q3 14 |
| 1:05 | Net Operating Income % Change | e -27.07 | -35.99 | -23.90 | 17.35 | -422.40 | 23.35 | -101 40 |
| 1.06 | Net Interest income % Change | -4.00 | -4.00 | 4.00 | 21.00 | - 150.00 | -619.00 | -186 00 |
| 1.07 | Earning Asset Yield | 9.40 | 9.47 | 9.58 | 9.80 | 9.81 | 12.67 | 13 17 |
| 1.08 | : Loan Yield | 9.54 | 9.59 | 9.98 | 10.83 | 11.06 | 13.01 | 12 33 |
| 1.09 | Break Even Yield | 7.58 | 7.90 | 11.63 | 12.63 | 14.31 | 14.90 | 13.65 |
| 1.10 | Average Cost of Funds | 7.41 | 7.69 | 8.86 | 9.05 | 9.92 | 10.84 | 9.87 |
| 1.11 | Net Interest Margin (Excl Fees) | 1.75 | 1.51 | -2.05 | -2.83 | -4.51 | -2.24 | -0.47 |
| 1.12 | Overhead to Oper Inc | 74.98 | 76.39 | 374.58 | 191.56 | 350.90 | 100.21 | 138.22 |
| 1.13 | Non-Int Inc (Oper) to Oper Inc | 24.07 | 26.01 | 525.83 | 286.97 | 627.97 | 177.50 | 130.15 |
| 1.14 | : Mortgage Fees to Oper Inc | 2.40 | 2.09 | 52.68 | 28.38 | 29.63 | 15.71 | 21.16 |
| 1.15 | : Loan Serv Fees to Oper Inc | 2.43 | 2.59 | 0.27 | 0.85 | 8.62 | 2.28 | 3.23 |
| 1.16 | : Serv Corp Income to Oper Inc | 0.99 | 1.85 | 454.86 | 251.48 | 567.68 | 133.33 | 86.88 |
| 1.17 | : Real Estate Income to Oper Inc | 0.07 | 0.44 | 0.00 | 0.00 | 0.88 | 18.09 | 0.56 |
| 1.18 | Effective Tax Rate | 27.95 | 32.43 | 164.05 | 213.73 | ****** | -68.72 | 28.87 |
| 2.0 | NON-OPERATING INCOME | | | n in the second second | | | li Madada at s | |
| 2.01 | Net Non-Oper Inc. to Ptx NI | 15.92% | 16.00% | -52.94% | 5.78% | ****** | 107.97% | 97.08% |
| 2.02 | Net Non-Oper Inc to Oper Inc | -0.41 | 3.41 | 61.13 | -3.61 | 235.31 | 104.74 | 102.24 |
| 2.03 | : Net Gain on RE to Oper Inc | 0.03 | Q.29 | 25.17 | 5.53 | 17.32 | 5.85 | 3.64 |
| 2.04 | : Net Gain on Loans to Oper Inc | 1.31 | 2.17 | | 1.07 | 126.61 | <u>96.58</u> | 79.96 |
| 3.0 | ASSET/LIABILITY MIX | | | | | | Alex des périodes | <u>主人口美国的特殊运行</u> |
| | As % of Assets | | | - | | | |] |
| 3.01 | Earning Assets | 90.85% | 89.9/% | 71.35% | 66.53% | 63.86% | 67.28% | 64.13% |
| 3.02 | Service Corp Equity | 1.08 | 1.36 | 15.58 | 17.85 | 22.53 | 19.10 | 11.29 |
| 3.03 | Real Estate Investments | 0.01 | U.11 | 1.57 | <u>· 3.37</u> | 3.95 | 2.40 | -0.03 |
| | AS % Of Earning Assets | | • • • | | | 45 0.00 | أممم | |
| 3.04 | Investments | 10.54% | 9.54% | 34.83% | 35.44% | 45.92% | 28.63% | 4.48% |
| 3.05 | Liquid Securifies | 5.05 | 4.85 | 5.54 | 3.67 | 5.24 | 8.62 | 6.53 |
| 3.05 | Iotal Loans | 89.46 | 90.45 | | 64.56 | 54.08 | 11.37 | |
| 3.07 | Large Liabilities | 33-08 | 38.15 | 27.89 | 31.14 | 25.51 | 26.96 | 61.60 |
| 3.00 | | 11.20 | 12.47 | Q.72 | 1.81 | 2.35 | 3.35 | 7.79 |
| 3.09 | : Jumbo CDS | 8.21 | 11.70 | 1.89 | 7.42 | 7.41 | 13.07 | 38.31 |
| 3.10 | . Borrowings (Psekesed Decesite) | 22.11 | 22.13 | 20.41 | 24.1/ | 18.10 | 13.89 | 23.29 |
| 3.11 | (Brokered Deposits) | 0.18 | | 48.41 | 54.50 | 50.8/ | 44.49 | 24.78 |
| 3.12 | Core Deposits | 09.90 | 02.43 | 103.39 | 108.28 | 118.74 | 110.23 | 76.73 |
| 3.13 | : Money Mkt Deposit Acets | 13.19 | 9.23 | 12.01 | 9.1/ | 8.3/ | 3.31 | 11.47 |
| 2.14 | ASSET/LABILITY & OUADICE | <u>9.001</u> | | <u> </u> | <u>1./4</u> | | <u></u> | <u> </u> |
| 4 01 | ASSET/LABILITY % CHANGE | A 67% | 10 73% | 20 57% | 2 24% | <u>00 60%</u> | 076 01% | |
| 4.02 | Total Loans | U.D/A | 17 24 | 30.57% | -3.346 | 90.00% | 0/0.016 | 250.48% |
| 4.03 | 1-4 Family Mortnanes | 10.30 | 99.97 | 125 02 | 49.20 | -12 52 | 15 75 | 22.01 |
| 4 04 | Other Mortgage Loans | 2 71 | 22.21 | | | -43.33 | -13.75 50 75 | 22 14 |
| 4.05 | Consumer Loans | 3.67 | 0.24 | 27.02 | _10.22 | 12 90 | 60 71 | 40 22 |
| 4.06 | Commercial Loans | 0.01 | 0.24 | | | 12.00 | 09.71 | 19.23 |
| 4.07 | Large Liabilities | | 15 12 | 10 02 | 444 · 4/ | 17 22 | -22 21 | 12 06 |
| 4.08 | Jumbo CDs | 9 37 | 15.45 | 10.32 | 52.90 | -20.75 | -17 02 | 13.30 |
| 4 09 | Core Deposits | 2.31 | 13.25 | 20.12 | 23.30 | 22 01 | 110 01 | 10.04 10.E0 |
| 5.0 | CAPITAL | | i | 004 | | | 113.34 | 40.00 |
| 5.01 | Comm + Pret Fourty to Assets | 1 21% | 1 5 1 9 | 1 5 7 9/1 | 5 12% | 6 0.2% | 5 10% | 2 77% |
| 5.02 | Net Worth to Assets | 4.34/ | | 7.240 | 5.43% | 6 11 | 5 21 | 3.47 |
| 5.03 | Net Worth % Change | 2.37 | ~~~~~ | 3.36 | 24 04 | 68.61 | 71 25 | 12 24 |
| 5.04 | Asset % Change | 0 91 | 11 52 | 22.02 | 24.94 | 30 52 | 1.35 | 20 04 |
| 5.05 | Capital Formation Bate | 0.31 | 17.33 | 23.03 | | 33 16 | 07 10 | 37 00 |
| 5.06 | Appraised Cap to Net Worth | | Δ 27 | | 1 26 | 1 42 | 2 22 | <u>A</u> 57 |
| 5.07 | Net Worth Certs to Net Worth | 2. X. X. | 0.00 | 7.12 | 0.00 | 0.00 | 6.23 | 7.74 |
| 5.09 | intensible Assets to Net Worth | 21 10 | 24 40 | 25.00 | 10.00 | 47 46 | 76 69 | 145 07 |
| 5.09 | Deferred Losses to Net Worth | 21.13 | 24.40 | 33.23 | 40.50 | | 10.00 | |
| 5 10 | Qual Subord Debt to NW | | 0.00 | 8.88 | | 6.00 | 0.00 | |

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CATES THRIFTCOMPARE * ANNUAL DATA/RATIO REPORT

LINCOLN S&LA

| | | Bathen by Size | | a by time | 19 | 88 | . 19 | 37 . | 198 | 6 | 198 | 5 | 198 | 4 |
|--------------|----------------------------------|----------------|-------------------------|-------------|----------------|-------------|---------------------------------------|--------------|------------------|---------|----------|----------|--------|---|
| 6.0 | LOAN PORTFOLIO | | | | | | · · · · · · · · · · · · · · · · · · · | the said | | | <u>.</u> | i | | |
| | As % of Loans | 80 119 | | 0 0 0 | 24 | 20% | 1 12 | 029 | 2 7 | 20% | 29.9 | 99% | 33. | 77% |
| 6.01 | 1-4 Family Mongages | 16 34 | 1 | 2.52 | 18 | .86 | ใ 2่อั | .97 | Ĵ <u>3</u> . | 22 | 6. | 12 | 31. | 59 |
| 6.02 | : Conventional | 0.00 | | <u>0,00</u> | Ō | .00 | <u> </u> 0 | .00. | 0. | 00 | 0.(| DŎ | . 0. | 00 |
| 6.04 | Other Morigage Loans | 17.35 | 2 | 3.97 | 73 | .06 | 57 | .78 | 77. | 02 | 71. | | 40. | 10 |
| 6.05 | (Adjustable Rate Mortgages) | 46.21 | 0 | 3.3/ | 23 | - 03 | | 20 | /0. | 00 | | . 2 | 40 | 74 |
| 5.05 | (Construction Loans) | A 37 | 1月1日) 1月1日日 1月1日日 | 2.01 | ΪŐ | .25 | 0 | 33 | 0. | 57 | 0.5 | 58 | 0.3 | 37 |
| 6.08 | Commercial Loans | 1.43 | | 0.55 | 5 | <u>. 92</u> | 21 | <u>. 95 </u> | 21. | 89 | 0.0 | 00 | 0.0 | <u> </u> |
| 7.0 | ASSET QUALITY | | | 7 004 | - 21 | <u></u> | 100 | 697 | | | | | | — – – – – – – – – – – – – – – – – – – – |
| 7.01 | Loss Provion Assets to Oper Inc | b.//20 | | 7.09% | 21 | 61 | 100. | 76 | | | | | | |
| 7 03 | Loans-to-Facilitate to Loans | 0.04 | | 0.02 | Ŏ | .11 | Ó. | 02 | <u>0</u> . | 01 | 0.0 | 3 | 0.0 |)2 |
| 7.04 | OREO to Loans + OREO | 0.72 | | 0.79 | 2 | .76 | 3. | 14 | 2. | 86 | 0.1 | 8 | 0.1 | 10 |
| 7.05 | LTFs + OREO to Lns + OREO | 0.85 | | 1.14 | | . 88 | | 15 | 2. | BD | 12.3 | 2 | | |
| 7.06 | OREO Loss Allowance to OREO | 6.43 | | 2.93 | 6 | . 10 18 | | 79 | 0.1 | 25 | 1.1 | 4 | | វនី |
| 7.07 | Loss Allow to Loans + OHEO | 0.49 | | <u></u> | | | | | | | | | | |
| 8.01 | Overhead % Change | 2.68% | | 2.32% | - 17 | 41% | 21. | 08% | 28. | 37% | 102.6 | 6% | 33.6 | 8% |
| 8.02 | Personnel Exp to Overhead | 43.79 | 4 | 3.60 | 33. | .90 | 32. | 53 | 36. | 86 | 39.8 | 0 | 44.9 | 18 |
| 8.03 | :Amor Int Assts + Def Ls to Ovhd | 4.50 | | 3.44 | 14. | . 17 | 10. | 51 | 13. | 30 | 20.7 | 8 | 2/.8 | 141 |
| 8.04 | Overhead Burden | 1.08 | | 1.9/ | 25 | 52 | 51 | 49 | 52 | | 99.7 | 31 | -26.7 | 7 |
| 8.05 | Net Overhead to Net Int Inc | 1988 1055 1 | - QL | 198 | 35. | | 987 | 05 | 1985 | 10 | 1985 | | - 1984 | É. |
| 9.01 | Average : Total Assets | 93712 | 1 | 486 | 6353 | 39 | 29232 | 3 | 26869 | 2 | 250418 | 6 | 17217 | 75 |
| °.02 | : Total Loans | 57508 | 2 | 226 | 2719 | 16 | <u>87637</u> | 1 | 12889 | 2 | 120251 | 2 | 10547 | 19 |
| 9.03 | : 1-4 Family Mortgages | 21669 | 1 | 39 | 0006 | 20 | 73315 | 2 | 180123 | 2 | 186326 | 80 | 8471 | 34 |
| 9.04 | : Core Deposits | 75958 | S | 329 | 8250 | Q | 30331 14127 | 2 | 532462 | 5 | 45424 | ŏ | 6801 | 18 |
| 9.05 | : Large Liabilities | 7993 | | 27 | 3945 | 19 | 94009 | ! | 154737 | 7 | 22025 | 2 | 4230 | 07 |
| 9.07 | December 31 : Total Assets | 116568 | Β. Π | 545 | 8712 | 42 | 93024 | 3 | 605991 | | 280638 | 6 | 22400 | 57 |
| 9.08 | : Investments | 62083 | B | 146 | 1906 | 84 | 41068 | 1 | 067440 | 1 | 91411 | | 12005 | 23 |
| 9.09 | : Total Loans | 68588 | | 258 | | 18: | 90103 | | 420900 | л Х | 26981 | Q Q | 4725 | 97 |
| 9.10 | : 1-4 Family Morigages | 38000 | | 188 | 5759 | 109 | 95970 | 1 | 094349 | 3 | 64013 | 5 | 5612 | 85 |
| 9.12 | : Consumer Loans | 30 | i H | | 6553 | | 6252 | | 8066 | Ì | 518 | 1 | 51 | 73 |
| 9.13 | : Commercial Loans | -26354 | 2 | 15 | 2844 | 4 | 16386 | | 311088 | Į. | 4200 | 0 | 600 | -9 |
| 9.14 | : Discount + Deferred Fees | 2091 | 5 | 2 | 3548 | | 2633 | | 2690 | | 1030 | 2 | 029 | ég |
| 9.15 | : Loss Allowance | - 10690 | 28- | ···· ···· · | 4839 2727 | | 10030 | | 41790 | | 162 | 2 | 13 | 58 |
| 9.10 | : Other Heal Estate Owned | 586 | <u> </u> | 7 | 5560 | | 70695 | | 187024 | ĺ | 6854 | 3 | -22 | 98 |
| 9.18 | : Fixed Assets | 2962 | 511 | 3 | 1808 | | 28846 | | 26971 | | 1785 | 9 | 183 | 32 |
| 9.19 | : Equity Invest in Serv Corp | -107920 | 5 E | 77(| 0238 | 87 | 78158 | | 521144 | | 69421 | 2 | 2363 | 31 |
| 9.20 | : Defer Loss on Assets Sold | | 2日 | 0' | 2002 | | 0 | | 104638 | | 1 1422 | 01 21 | 1112 | 4Å |
| 9.21 | : Intangible Assets | -/92 | { . . | 1044 | 1230 | | 22509 | . | 531333 | | 32221 | <u>ס</u> | 7349 | 37 |
| 9.22 | - Tota! Deposits | 1030226 | { | 4409 | 1061 | 337 | 78835 | 2 | ŠŽ3134 | 2 | 40901 | 7 | 16766 | 73 |
| 9.24 | : Common + Pref Equity | 13520 | j : | 246 | 643 | 23 | 33123 | | 217335 | ļ | 14562 | 5 | 731 | 82 |
| 9.25 | : Net Worth | 13343 | 3 | 249 | 9440 | 23 | 36097 | - | 220489 | | 148952 | 2 | 26/11 | 22 |
| s 26 | : Mtg Lns Serv for Others | -82905 | 24 | 130 | 148/ | 21 | 3392 | | 541515 204754 | 1 ··· • | 21345 | 5 | 1454 | 67 |
| 5 1 C | Interest Income (Exci Fees) | 75450 | 311 | 334 403 | 2663 | 23 | 20020 | | 298796 | | 25111 | 1 | 1507 | ŏż |
| 9.20 | Non-Interest Inc (Operating) | -25633 | | 87 | 734 | 11 | 13367 | | 111854 | i | 86249 | 9 | 2262 | 22 |
| 9.30 | : Mortgage Loan Fees | -2423 | | Ĕ | 3789 | 1 | 1212 | | 5278 | | 7632 | 2: | 363 | 78 |
| 9.31 | : Loan Servicing Income | -289 | | | 45 | _ | 334 | | 1536 | ; | 6/701 | 2 | 1510 | 24 |
| 9.32 | : Net Inc from Service Corp | -23455 | 2 | 7 | 894 | | 13349 050505 | | 17817 | | 48590 | 1 | 173 | 33 |
| 9.33 G 24 | Uperating Income | -22820 | | 10 | 1100 | - | -1425 | | 41913 | | 50893 | Š. | 1777 | 71 |
| 9,35 | : Net Gain on Sale of RF | 2015 | | 2 | 200 | | 2185 | | 3085 | | 2842 | 2 | 63 | 32' |
| 9.35 | : Net Gain on Sale of Loans | -607 | | - | 185 | | 422 | | 22551 | | 46927 | (. | 1389 | 39 |
| 9.37 | Overhead | -13177 | | 62 | 498 | 7 | 25675 | | 62502 | ! | 48590 | J | 2402 | 27 |
| 9.38 | Prov for Losses on Assets | -36232 | | | 354 1: 1220 | 30 | 39773 | | 10 811 | ł | 79526 | 5 | 1302 | 20 |
| 9.39 | Net Income | - 1568/ | | 12 | 1323 1 | 2 | 20020 | | | | | 5 | | ŏ |
| 9 41 | Dividends | 512 | | | <u>512</u> | | ŏ | | 0 | | 5000 | <u> </u> | | 0 |

CATES THRIFTCOMPARE [®]

ANNUAL DATA/RATIO REPORT

FRANKLIN SA OTTAWA, KS ASSOCIATION TYPE : ST STOCK

05149

NATIONAL PEER GROUP : \$1 BIL AND DVER (205) REGIONAL PEER GROUP : Midwest (52) DATE OF INSURANCE : 12/00/47

| | Notion by Size Region by Size | 1989 19 | 38 1987 | 1986 | 1985 |
|---------------------------------------|-------------------------------|---|---------------------------|-----------------|---------------|
| 1.0 EARNINGS | | . All the many states are the | e di anteresta di secondo | | 1000 |
| 1.01 Return on Assets | 0.12% 0.41 | <u>x -0.31x 0</u> | 73% 1 60 | 2 259 | 1 7 6 7 |
| 1.02 Return on Assets (Oper) | 0.02 0.36 | -0.16 ¹ 0 | | 3.55 | |
| 1.03 Return on RAP Capital | 3.41 7.12 | -6.60 13 | 30 25.09 | 50 53 | 51 12 |
| 1.04 Net Income % Change | -32.64 -12.48 | -148.45 -36 | 67 -25.08 | 253 42 | 10.02 |
| 1.05 Net Operating Income % Chan | ge 44.24 199.54 | -358.55 -84 | 29 -45.34 | 657 13 | 42.33 |
| 1.06 Net Interest Income % Change | 10.03 114.29 | -66.61 -30 | 34 114.28 | 41.66 | 14 75 |
| 1.07 Earning Asset Yield | 10.03 10.04 | 10.06 9. | 57 10.05 | 10.46 | 11 47 |
| 1.08 : Loan Yield | 10.14 10.05 | 9.63 9. | 57 9.81 | 10.71 | 11.47 |
| 1.09 Average Cost of Funds | 8.28 7.84 | 12.04 11. | 39 9.34 | 10.96 | 11.52 |
| 1.10 Net interest Margin (Excl Fees) | 1,69 1,94 | 0.29 0. | 96 1.93 | 1,39 | 1.73 |
| 1.11 Overhead to Oper Inc | 81.30 72.97 | 107.38 71. | 20 41.97 | 11.00 | 33.84 |
| 1.12 Not-Int Inc (Oper) to Oper In | 22,96 23,98 | 71.81 28. | 32 40.71 | 77.79 | 21.00 |
| 1 14 : Loan Serv Ener to Oper Inc | | 0.00 | | | |
| 1.15 Serv Corp. Income to Oper Inc | 3.40 2.79 | 15.01 0. | 11 0.00 | 0.00 | 0.02 |
| 1.16 : Real Estate income to Oper Inc | | -2.93 7. | 30 14.20 | 4.05 | -0.32 |
| 1.17 Effective Tax Rate | 22 15 25 21 | | 40 0.34 | 0.26 | 0.01 |
| 2.0 NON-OPERATING INCOME | | <u>43.10 44.</u> | 001 29.091 | 32.91 | <u>34.96</u> |
| 2.01 Net Non-Oper Inc to Pix Ni | 20 502 809 | 22 019 02 | 109 07 1.10 | 7 2007 | |
| 2.02 Net Non-Oper Inc to Oper Inc | -2.26 -0.69 | -13 20 05. | 72 21.446 | 6 11 | 92.15% |
| 2.03 : Net Gain on RE to Oper Inc | | 0.23 -1 | | _0.17 | 10.25 |
| 2.04 : Net Gain on Loans to Oper Inc | 1.05 1.04 | -36 86 6 | | 5 15 | -2.03 |
| 3.D ASSET/LIABILITY MIX | | | | <u></u> | |
| As % of Assets | | | I | | |
| 3.01 Earning Assets | 91.51% 92.48% | 93.04% 94. | 10% 93.62% | 95.33% | 42 60% |
| 3.02 Service Corp Equity | 0.89 0.83 | 3.06 2.8 | 36 2.87 | 1.63 | 070° |
| 3.03 Real Estate Investments | 0.00 0.00 | 0.00 0.0 | 0.00 | 0.00 | 0.00 |
| As % of Earning Assets | | | | | |
| 3.04 (Unpledged Eligibles) | 32.28% 37.70% | _3.41% | | • | |
| 3.05 Investments | 9.46 11.45 | 53.41 48.4 | 9 28.35 | 10.68 | 2.80 |
| 3.00 Liquid Securities | 4.61 6.58 | 2.37 4.3 | 2.82 | 2.71 | 2.50 |
| 3 08 Large Liabilities | 90.54 88.56 | <u>46.59 51.5</u> | 1 71.65 | 89.32 | 97.20 |
| 3.09 · EHI B Advances | 32.26 22.40 | 37.35 39.2 | 3 62.47 | 42.52 | 42.27 |
| 3.10 Jumbo CDs | 19.14 1.25 | 21.16 20.8 | 7 11.85 | 1.08 | 0.86 |
| 3.11 : Borrowings | 0.32 0.03 | 4.51 6.0 | 3 24.04 | 3.32 | 3.92 |
| 3.12 (Brokered Deposits) | 23.04 13.31 | 32.84 30.1 | 8 42.83 | 39.21 | 37.94 |
| 3.13 Core Deposits | 0.92 U.UU | <u> </u> | 4 20.3/ | 13.57 | 8.60 |
| 3.14 : Fixed Rate Deposits | | 43.00 30.3 | | 40.24 | 42.77 |
| 3.15 : Money Mkt Deposit Accts | | | | 1.18 | 1.26 |
| 4.0 ASSET/LIABILITY % CHANGE | | <u> </u> | | <u>. D.33 </u> | <u> </u> |
| 4.01 Investments | -5.43% -7.29% | 23.65% 129 2 | 2% 310 11% | 570 22% | N02 030 |
| 4.02 Total Loans | 5.03 2.52 | 1.53 0.5 | 5 23.95 | 61.28 | 21 22 |
| 4.03 1-4 Family Mortgages | 4.49 2.93 | 39.75 7.4 | 5 8 8 1 | 72.39 | 32 10 |
| 4.04 Other Mortgage Loans | 1.02 -0.31 | -40.62 12.9 | 2 14.93 | -24.32 | -9.97 |
| 4.05 Consumer Loans | 6.36 9.76 | 31.29 -48.4 | 1 -9.60 | 10.67 | -4 01 |
| 4.06 Commercial Loans | 2.16 5.78 | 37.24 148.9 | 98.04 | 310.51 1 | 48.67 |
| 4.07 Large Liabilities | 3.55 1.02 | 6.89 -12.1 | 7 126.98 | 76.58 | 49.57 |
| 4.08 Jumbo CDs | 0.88 -3.33 | -16.11 -57.0 | 6 ****** | 48.64 2 | 48.89 |
| 4 U9 Core Deposits | 2.30 1.40 | 35 51 108 3 | 5 -6.29 | 65.14 | 50.68 |
| 5.0 CAPITAL | | and the second secon | | | the manifest |
| 5.01 Modified Equily to Assets | 4.46% 4.63% | 4.21% 5.20 |)% 5.42% | 7.00% | 3.05% |
| 5.03 Asset % Change | 2.2/ 2.12 | 4.43 5.44 | 5.73 | 7.55 | 3.72 |
| 5.04 Capital Formation Pate | 2.84 0.38 | 13.54 39.1 | 2 57.32 | 72.50 | 45.53 |
| 5.05 Mio Servicino to Tana Capital | U.8/ 4.93 | -13.53 11.16 | 25.83 | 90.81 | 28.57 |
| 5.06 Tangible Cap to Tang Capital | | | | | |
| 5.07 Intangible Assets to RAP Capital | 2.31 3.08 | 4.03 | | | 0 0- |
| 5.08 Deferred Losses to RAP Capital | 10,44 10,13 | 13.30 3.50 | | 1.21 | 3.35 |
| 5.09 Def Capital to RAP Capital | | 3 69 0.92 | 1.39 | 2.20 | 0./2 |
| 5.10 Dividend Payout | | 3.05 | | | |
| | | | | | |

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FRANKLIN SA

| | Nation by Site | Augusta by Scott | 989 19 | 88 19 | 87 1986 | 1985 |
|--------------------------------------|-------------------------|------------------|---------------------------|---------------|-----------------------|----------|
| 6.0 LOAN PORTFOLIO | | | , a Mang pina sa sa sa | we stategy in | | |
| As % of Loans | States a frank | | | | | |
| 6.01 1-4 Family Mortgages | 48.91% | 48.19% | 4.41% 3 | 3.32% 2. | 65% 2.05 | 1.76% |
| 6.02 MID-Backed Secs | 18.68 | 21.04 9 | 1.77 93 | 3.14 96. | 49 92.85 | 94.21 |
| 6.03 Other Morigage Loans | 15.80 | 11.84 | 1.78 3 | 3.02 4. | 16 5.17 | 4.67 |
| 6.04 (Adjustable Rate Mortgages) | 35.37 | 32.03 3 | 5.15 Č | 0.62 0. | 46 3.59 | 2.66 |
| 6.05 (Construction Loans) | 2.83 | 1.57 | 0.00 C |).27 0. | 60 | |
| 6.06 Consumer Loans | 4.97 | 5.23 | 0.15 0 |).14 0. | 14 0.34 | 0.32 |
| 6.07 Commercial Loans | 1.27 | 1.01 | 3.02 3 | 3.73 0. | 95 1.33 | 0.13 |
| 7.0 ASSET QUALITY | (Astronomic Contraction | | | Sec. | | |
| 7.01 Loss Prov on Assets to Oper In | = 10.24% | 8.70% 22 | 2.49% 6 | .05% 3. | 83% | |
| 7.02 Slow Loans to Loans | 2.09 | 1.48 (| 0.99 | | | |
| 7.03 Loans-to-Facilitate to Loans | 0.03 | 0.06 (| 0.00 0 | .00 0. | 00 0.00 | 0.00 |
| 7.04 OREO to Loans + OREO | 0.68 | 0.67 3 | 3.52 0 | .47 0. | 16 0.12 | 0.13 |
| 7.05 Slow + LTF + OREO to Loans | 3.25 | 2.67 | 4.64 | | | |
| 7.06 OREO Loss Allowance to OREO | 7.38 | 8.29 2 | 2.85 29 | .19 16. | 21 20.74 | 17.87 |
| 7.07 Loss Allow to Loans + OREO | 0.51 | 0.50 0 |).19 0 | .34 0. | 19 0.04 | |
| 8.0 OVERHEAD | | CHARMENCE | All and the second second | | ang kang sana sana sa | |
| 8.01 Overhead % Change | 4.60% | 4.13% 28 | 3.07% -2 | .26% 206. | 46% 63.68% | 73.99% |
| 8.02 :Personnel Exp to Overhead | 44.64 | 45.24 22 | 2.89 21 | .39 10.1 | 24 24.24 | 24.79 |
| 8.03 :Amor Int Assts + Def Ls to Ovh | d 5.08 | 6.07 34 | .51 19 | .95 10. | 74 94.63 | 40.94 |
| 8.04 Overhead Burden | 1.01 | 0.98 1 | .76 1 | .83 2.4 | 49 1.05 | 1.14 |
| 8.05 Net Overhead to Net Int Inc | 73.71 | 66.26 126 | 19 59 | 82 2. | 14 -300.68 | 16.26 |
| 9.0 FINANCIAL DATA (000) | 1989 Less '88 | 1989 - | 1988 | 1987 | 1986- | 1985 |
| 9.01 Average : Total Assets | 1 1061214 | 8901524 | 784031 | 0 563437 | 3581451 | 2076242 |
| 9.02 : Total Loans | 58221 | 3858803 | 380058 | 2 377965 | 7 3049397 | 1890765 |
| 9.03 : Core Deposits | 952286 | 3634374 | 268208 | B 128732 | 1373763 | 831886 |
| 9.04 : Large Liabilities | 199268 | 3093334 | 2894066 | 5 3295254 | 1451799 | 822166 |
| 9.05 : Jumbo CDs | -71651 | 373201 | 444852 | 1268359 | 113236 | 76183 |
| 9.06 December 31 : Total Assets | 966826 | 9261030 | 8294204 | 6783148 | 3904849 | 3161680 |
| 9.07 : Investments | 385610 | 4513575 | 412796 | 2436073 | 565817 | 106760 |
| 9.08 : Total Loans | 312193 | 3938977 | 3626784 | · 3934749 | 3128516 | 2974899 |
| 9.09 : 1-4 Family Mortgages | 53342 | 173870 | 120528 | 104125 | 64138 | 52330 |
| 9.10 : Other Mortgage Loans | -30434 | 69921 | 109355 | 163558 | 161597 | 138989 |
| 9.11 : Consumer Loans | 1049 | 6029 | 4980 | 5504 | 10562 | 9491 |
| 9.12 : Commercial Loans | - 16126 | 1 1 9 0 7 1 | 135197 | 37417 | 41478 | 3824 |
| 9.13 : Discount + Deterred Fees | - 28797 | 74688 | 113485 | 147567 | 47016 | 54223 |
| 9.14 : Loss Allowance | -4351 | 7025 | 12276 | 7397 | 1394 | 1937 |
| 9 15 Other Real Estate Owned | 126720 | 143865 | 17166 | 6427 | 3862 | 3821 |
| 9.16 Slow Loans | 1.201.23 | 38810 | | | | |
| 9.17 : Real Estate Equity Invest | 0 | 30013 | 0 | 168 | 169 | 123 |
| 9 1A · Fived Accete | 2420 | 1/822 | 12/03 | 11125 | 8177 | 7684 |
| 9 19 · Equity Invest in Serv Corn | 10220 | 206267 | 277147 | 186308 | 96970 | 1/081 |
| 9 20 : Defer Loss on Assets Sold | 19220 | 290307 | 211141 | 5200 | 6233 | 7000 |
| 9 21 · Intangible Accete | - 1203 | 62006 | 4132 | 2159 | 3566 | 2013 |
| 9 27 · Leroe Lisbilitier | 400/11 | 2005512 | 2965057 | 1516940 | 1253056 | 1572157 |
| 22 · Total Deposite | 119550 | | 2003337 | 2740962 | 1008560 | 1005700 |
| 24 · Modified Equity Capital | 11/8524 | 4000940 | 34/0391 | 2740003 | 272424 | 06200 |
| 25 · PAR Capital | -40053 | 330233 | 430952 | 200000 | 201783 | 117722 |
| 22 . HAF Capital | -40430 | 410310 | 400902 | 300030 | 20006 | 1060 |
| 27 Interest leapma (Evel Ecce) | 329001 | 14040 []. | | E 20055 | 257219 | 222151 |
| 22 Interest Income (Excirees) | 12/398 | 833269 | /061/1 | 529903 | 200670 | 223131 |
| | 1/46/6 | 009808 | 032192 | 426076 | 166502 | 102201 |
| 229 Non-Interest Inc (Operating) | 32339 | 603/3 | · 28040 | 03325 | 100003 | 0923 |
| 30 : Net Mig Banking Inc. | | | | | e | 4 |
| Loan Servicing Income | 12510 | 12617 | 107 | a 4 | 200 | 1 N N |
| . 3∠ : Net Inc from Service Corp | -9692 | -2466 | | | | |
| 33 Operating income | -14939 | 84080 | 22013 | 1 () 8 3 9 | 214021 | 4248/ |
| .34 Net Non-Operating Income | -95980 | -11102 | 84878 | 34785 | 13082 | 25222 |
| .35 : Net Gain on Sale of RE | 1766 | 196 | - 1570 | - 166 | -1004 | |
| 36 : Net Gain on Sale of Loans | - 37331 | - 30990 | | 17354 | 11023 | |
| .37 Overhead | 19787 | 90287 | 70500 | 72 <u>129</u> | 23536 | 14379 |
| .38 Prov for Losses on Assets | 12916 | 18909 | _5993 | 6585 | 44000 | |
| .39 Net Income | -84498 | -27576 | 56922 | 89881 | 119971 | 33898 |
| .40 Prior Period Adjustments | | _0 | | | 40000 | |
| 41 Dividends | 19932 | 33456 | <u> </u> | 13743 | 13062 | <u> </u> |

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CATES THRIFTCOMPARE ANNUAL DATA/RATIO REPORT

CENTRUST BANK, A STATE SAVIN MIAMI, FL 02745. ASSOCIATION TYPE : ST STOCK

NATIONAL PEER GROUP : \$1 BIL AND DVER (205) REGIONAL PEER GROUP : Southern (52) DATE OF INSURANCE : 07/00/34

| | Bietin be | | n by San | 1989 | 198 | 8 198 | 37 198 | 5 985 |
|---------------------------------------|--|-------------|--------------------|------------------------|----------------------|---------------------------------------|---|-----------------|
| 1.D EARNINGS | | . م ال | 4 5 11:1 | | | alli and | | |
| 1.01 Return on Assets | 0 | 12% | 0 07% | -0 6' | <u>ה שכ</u> | 157 1 | | 79 - 67 |
| 1.02 Return on Assets (Oper) | n i | 67 - I | ถ้ กัรใ | | | | | |
| 1.03 Return on RAP Capital | <u> </u> | 41 | i 70 | -12 40 | ראַ ⁻ י | | | -1.06 |
| 1.04 Net Income % Change | - 27 | 61 - 21 | 1.13 | -100 6 | | 29 20. | 14 | 0 31.41 |
| 1.05 Net Operating Income % Cha | | | 1.10 | -430.03 | | 94 00. | 83 2.5 | 8 - 129.04 |
| 1.06 Net interest income % Chang | | | . 43 | -202.31 | - 164.1 | 99 # *** | *** 102.0 | 3 656.27 |
| 1 07 Earning Acces Vield | | 3 | . 94 | -51.1/ | 20.6 | 64 166. | <u>99 - 188 . 0</u> | 7 - 12.90 |
| 1.08 : Loss Visid | Y. | 25 (L | 2. UZ | 10.21 | 9.6 | 64 9. | 79 9.2 | 5 12.15 |
| 1.00 . Loan Held | 10. | 4 | 1.05 | 10.01 | 9.5 | 57 9.9 | 91 10.5 | 8 11.94 |
| 1.09 Average Cost of Funds | 8. | N N | -29 | 9.45 | 8.7 | 9 9.1 | 70 11.4 | 5 11.79 |
| 1.10 Net interest Margin (Excl Fee | s) 1.6 | 9 1 | .70 | 0.25 | 0.5 | 64 0.6 | 50 -1.1 | 7 -0 55 |
| 1.11 Overhead to Oper Inc | 81.3 | 30 92 | .68 | 174.32 | 104.8 | 60.2 | 25 80.4 | 53 1 AE |
| 1.12 Non-Int Inc (Oper) to Oper | Inc 22.5 | 6 23 | .45 | 74.31 | 62.9 | 9 77.8 | 30 144 9 | 2 201 33 |
| 1.13 : Net Mtg Banking to Oper In | nc 0.0 | 0 0 | .00 | 0.00 | | | | - 201.55 |
| 1.14 : Loan Serv Fees to Oper In | nc 3.4 | 6 3 | .22 | 1.67 | | 3 0 1 | 9 0 22 | |
| 1.15 : Serv Corp Income to Oper I | nc 1.0 | 1 0 | 45 | 46 54 | 55.6 | 6 74 1 | 8 121 10 | |
| 1.16 : Real Estate Income to Oper I | nc 01 | 2 - ñ | 17 | 12 71 | 1 33.0 | 7 | | |
| 1.17 Effective Tax Rate | 23.1 | 5 20 | 26 | 10.20 | | | | 2 -1.24 |
| 2.0 NON-OPERATING INCOME | the design and fait | | • CU -1 | <u>V.23</u> | <u> </u> | / 0.0 | | <u>-0.52</u> |
| 2.01 Net Non-Oper Inc to Ptx NI | 20 5 | 0% 12 | 407 | -22 000 | | | | |
| 2.02 Net Non-Oper Inc to Oper Inc | 20.5 | | .4UA | -33.287 | 6 240.1 | 9% 42.9 | 5% 90.97 | × 234.74% |
| 2.03 Net Gain on RE to Oper Inc. | 2.2 | | .U/ | 24.00 | 34.1 | <u>8 22.7</u> | 5 38.07 | 617.12 |
| 2.04 : Net Gain on Loops to Open Inc | . U.V. | <u> </u> | ZA I | 0.31 | 2.5 | 5 1.2 | 6 -0.83 | -0.99 |
| 3.8 ASSETALARI EDU SUM | | <u> </u> | 38 | -0.33 | L 1.1 | / 0.4 | <u>2 0.46</u> | 46.21 |
| | AL ARCAN | | | | | E E E E E E E E E E E E E E E E E E E | | |
| AS % OF ASSETS | | | | |] | | | |
| 3.01 Earning Assets | 91.5 | 1% 91. | 24% | 88.03% | 84.64 | 1% 80.7 | 9%/ 79.76 | % 73.80% |
| 3.02 Service Corp Equity | 0.8 |] 0. | 79 | 2.76 | 6.22 | 2 10.0 | 5 8.10 | 2 73 |
| 3.03 Real Estate Investments | 0.0 |) 0. | 00 | 0.58 | 0.28 | 8 0.2 | 0.33 | 1 6 43 I |
| As % of Earning Assets | | | | | ······ | ····· | ······································ | V. 74 |
| 3.04 (Unpledged Eligibles) | 32.28 | 32 33 | 52% | 17.97% | | | | |
| 3.05 Investments | 9 46 | 6 | 750 | 30 03 1 | 30 23 | 32 45 | 2 40 77 | 1 40 10 |
| 3.06 Liquid Securities | A A | A | n A | 6 24 | 30.23 | 2.40 | | 48.19 |
| 3.07 Total Loans | | 62. | 25 | E0.07 | 5.01 | 67.60 | | 19.52 |
| 3.08 Large Liabilities | 27.26 | 20 | <u> </u> | | | 01.32 | | |
| 3.09 : FHLB Advances | 32.20 | 18 YY - | 25 | 14.22 | 02.02 | 33.30 | 32.58 | 42.28 |
| 3.10 Jumbo CDs | 10.74 | - Long | | | 1.15 | 0./4 | 1.4/ | 9.74 |
| 3 11 Borrowipas | 0.34 | 0.0. | 22 | 40.42 | 38.67 | 14.6/ | 13.39 | 15.31 |
| 3.12 (Brokered Dependen) | 23.04 | 22. | 20 | 30.64 | 29.02 | 20.41 | 19.09 | 26.78 |
| 3 13 Core Deposits) | 0.92 | U. | 94 | 36.57 | 31.71 | 21.54 | 8.89 | 1.41 |
| 3.13 Core Deposits | 68.55 | 70. | 39 | 34.40 | 37.79 | 61.33 | 58.50 | 65.65 |
| 3.14 Fixed Hate Deposits | 11.13 | 4331. | 17 | 3.24 | 3.38 | 4.10 | 4.85 | 6 27 |
| 3.15 Money Mkt Deposit Accts | 7 32 | 1 7 | 36 | 3.84 | _ 5.61 | 8.35 | 9.43 | 11 58 |
| 4.0 ASSET/LIABILITY & CHANGE | $= \{ j_i \}_{i \in I} \in \{ j_i \} \in \{ j_i \} \}$ | n an Anna A | n stallen | te se te suga | i de la constante | alay in Anna | | |
| 4.01 Investments | -5.43 | -8.f | 51% | 10,40% | 23 419 | 4 21 | 2 15 642 | 1 12 124 |
| 4.02 Total Loans | 5 03 |] 6 F | 3 | 6.70 | 37.04 | 7 49 11 | J 56.24 | 27 36 |
| 4.03 1-4 Family Mortgages | Ă 4ª | A A | 7 | 38 40 1 | 25 01 | 1 12 22 | 121 62 | 51.30 |
| 4.04 Other Mortgage Loans | 1 02 | 1 | 6 - | | -10 67 | 20.04 | 62.07 | 34.32 |
| 4.05 Consumer Loans | 1 22 | 111 | ă | 10 51 | - 10.02 | 72 00 | 02.12 | <pre>%</pre> |
| 4.06 Commercial Loans | 2.50 | | ě I | 22.21 | | 13.00 | 153.13 | 23.75 |
| 4.07 Large Liabilities | 2 2 2 | 2 2 2 | 8L | | | | | 4.00 |
| 4.08 Jumpo CDs | 3.33 | 2.J | • | 11.33 | 100.28 | 1 34.01 | 1 2.32 | 24.40 |
| 4.09 Core Deposite | 0.88 | 1 2 2] | 1 | 12.76 | 295.29 | 43.26 | 19.55 | 92.72 |
| 5. SADSAL | <u> 2.30</u> | 1_1_5 | 41 | <u>-1.80 (</u> | <u>-18.28</u> | 1 37 12 | 1 21 79 | 971 |
| 5.01 Modified En | | | <u></u> | <u>- 19 kal</u> u tali | | | <u>, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20</u> | |
| 5.02 BID Control Louity to Assets | 4.46% | 3.7 | 52 | 2.18% | 3.60% | 5.03% | 5.08% | 3,95% |
| 5.02 MAP Capital to Assets | 5.27 | 4.7 | B | 3.081 | 5.09 | 5.03 | 5.08 | 3 957 |
| 5.03 Asset % Change | 2.84 | 3.6 | 9 | 3.72 | 26.58 | 29.12 | 26.46 | 21 17 |
| 5.04 Capital Formation Rate | <u> </u> | -0.5 | 3 - 1 | 4.28 | -3.43 | AA 11 | 1 5ñ 37 1 | 2 24 |
| 5.05 Mtg Servicing to Tano Capital | 1 A A | 1 4 | ñ i ' | 0.20 | 5.75 | 17.00 | | ······ |
| 5.06 Tang ble Cap to Tanoible Ascets | 9 01 | | _ | 2 10 | •••••• | | | |
| 5.07 Intangible Assets to RAP Capital | 2.31 | 2.0 | 5 4 A | 5.37 | 76 04 | 100 07 | 140 62 | nes nal |
| 5.08 Deferred Losses to BAR Capital | 10,44 | 23.3 | 2 14 | 12.14 | \Ď'ÄJ | 102.0/ | 140.03 | 241.23 |
| 5.09 Def Capital to BAR Constal | 0.00 | 0.0 | 24 | | 0.00 | 0.00 | -0.02 | -0.05 |
| 5.10 Dividend Payout | 0.00 | <u>0.0</u> | 31 - | V. UD | | | | |
| | | 11 IH | s: -7 | A 77 - |] | | • 1 | |

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CATES THRIFTCOMPARE[®] ANNUAL DATA/RATIO REPORT

CENTRUST BANK, A STATE SAVIN

| | | Nation by Star | ľ. | pian by Sim | 19 | 89 | 198 | 3 8 ° . | 19 | | F 19 | 56 | 19 | 63 |
|------|---|-----------------|--------------|------------------|--------------|---------------|----------------|----------------|-----------|--------------|------------|------------------|----------|--------------|
| 60 | LOAN PORTEO IO | Page Group | 3 | | | | | | | <u>, 1</u> 6 | : . | | ļ | |
| | As % of Loans | | | 10 40% | 46 | 15% | 22 | 68% | 21 | .89% | 38 | . 38% | 28 | .40% |
| 5.01 | 1-4 Family Mortgages | 48.914 | | 49.498 | 26 | .50 | 47. | 80 | 58 | 08 | 19 | , 44 | 51 | .57 |
| 6.02 | Mig-Backed Secs | 15 80 | | 13.27 | - - ī | .87 | 2. | 03 | 4 | .53 | 5 | 38 | 17 | .03 |
| 6.03 | Other Morigage Loans (Adjustable Bate Morigages) | 35.37 | | 34.98 | 32 | .14 | 22. | .32 | 12. | .83 | 10 | 80 | 17 | . 22 |
| 6.05 | (Construction Loans) | 2.83 | | 4.60 | <u>_0</u> | .19 | 0. | 22 | 12 | 33 | 12 | 02 | 10 | .86 |
| 6.06 | Consumer Loans | 4.97 | | 6.23 | 19 | -28 | 12. | | 13. | 46 | 20 | 51 | 3 | .92 |
| 6.07 | Commercial Loans | 1.27 | <u></u> | 2,45 | 4 | <u>. 14 -</u> | L | <u></u> | | Aligad | | 1.11 | | |
| 7.0 | ASSET QUALITY | | 222. 1947 | 0 512 | 50 | 22% | | 12% | 17. | 05% | | | | |
| 7.01 | Loss Prov on Assets to Oper Inc | 10.24% | | 2.72 | 1 | .78 | | | | | | | ······ | |
| 7.02 | Slow Loans to Loans | - <u>7.03</u> | | 0.03 | Ó | .00 | 0. | 00 | Q. | 00 | Į Q. | .00 | | .00 |
| 7.03 | OPEO to Loans + OPEO | n 68 | | 0.95 | 1 | .45 | 0. | 23 | 0. | . 32 | יט ן | וסו | | . 37 |
| 7.04 | Slow + LTF + OREO to Loans | 3.25 | | 3.74 | | .25 | ~ | | 0 | 07 | n | 05 | 0 | 04 |
| 7.06 | OREO Loss Allowance to OREO | 7.38 | | 6.00 | 11 | .82 | D. | 20 | Ň. | ้วัว | ŏ | 32 | ŏ | .33 |
| 7.07 | Loss Allow to Loans + OREO | 0.51 | | 0.43 | | <u>.40 </u> | <u> </u> | 20 | <u> </u> | | | en bije be | · | |
| 8.0 | OVERHEAD | C 014 | <u></u> | A 479 | 17 | 01% | 25 | 87% | 1. | 57% | 44. | 48% | 22 | .23% |
| 8.01 | Overhead % Change | 4.00% | | 45 67 | 37 | .13 | 43 | ğ4 | 40. | 12 | 34 | 56 | 41 | . 65 |
| 8.02 | :Personnel Exp to Overhead | 44.04 | | 14 ni | 15 | 27 | 17. | 83 | 22. | 51 | 22 | . ao | 32 | . / 1 |
| 8.03 | Amor Int Assis + Der Ls to OVIO | 1 01 | | itio | 1 | .46 | 1. | 24 | 1. | 36 | | 20 | 1 50 | . 14 |
| 8.04 | Net Overhead to Net Int Inc | 73 71 | | 90,86 3 | 889 | 33 | 112 | 99_ | -79 | 09 | 1 143 | 03 | | <u>. 20</u> |
| 9.05 | FINANCIAL DATA (000) | 1989 Less '80 | | 1989 | | | | . 7 | 10772 | 26 | 55666 | 54 1 | 440 | 1782 |
| 9.01 | Average : Total Assets | 338838 | 3 🕼 | 94373 | 886 | 90 | 98545 | § / | 0210/ | | 26297 | 16 | 168 | 3122 |
| 9.02 | : Total Loans | 365024 | 4 | 57382 | 283 | 23 | 10210 | 2 | 56144 | iñ | 25974 | | 213 | 2638 |
| 9.03 | : Core Deposits | -5228 | 3 | 28580 | 130 | 29 | 58946 | | 93843 | 32 | 14465 | 534 | 137 | 3469 |
| 9.04 | : Large Liabilities | 87478 | ; [] | 29331 | 22 | 20 | 77686 | 3 . | 85193 | 37 | 5946 | 574 | 49 | 7444 |
| 9.05 | : Jumbo CDs | 38008 | / | 82175 | 63 | 101 | 03877 | 8 | 03173 | 33 | 6113 | 67 | 480 | 987.8 |
| 9.06 | December 31: Total Assets | -100031 | 36 | 22529 | 4 9 | 25 | 38374 | 2 | 12420 |)5 | 16196 | 578 | 212 | 6744 |
| 9.07 | : Invesiments | - 147726 | ă 🛛 | 48268 | 312 | 63 | 04080 |) 4 | 56392 | 20 | 3051 | | 1/9 | 2/29 |
| 9.08 | + 1-4 Esmily Mortgages | 10479 | 3 I | 22277 | 37 | 21 | 22944 | 4 | 99923 | 36 | 11/12 | | 21 | 0027 0261 |
| 9.10 | : Other Mortgage Loans | - 3807 | 2 | 900 |)42 | 1 | 28114 | ł, | 20668 | 54 | 2662 | 276 | 19 | 5087 |
| 9.11 | : Consumer Loans | 13811 | 1 | 9305 | <u>60</u> | | 9244 | | 00030 | 6 | 6257 | 31 | Ť | 0478 |
| 9.12 | : Commercial Loans | 66272 | 2 🛙 | 2285 | 02 | | 0233U -0227 | 1 | 4136 | 5 | 420 |)87 | 5 | 0642 |
| 9.13 | : Discount + Deferred Fees | - 19164 | 4 | -283 | 31 | | 16241 | | 1496 | 51 | 98 | 323 | _ | 5963 |
| 9.14 | : Loss Allowance | 338 | 5 🛛 | 710 | 123 | | 14349 | 2 | 1475 | 51 | 186 | 512 | 2 | 4939 |
| 9.15 | : Other Real Estate Owned | |). [] | 859 | 58 | | . . . | | | | | | • | 4004 |
| 9.16 | : Slow Loans | 3219 | 1 | i šŏš | 511 | 2 | 28417 | 7 | 1609 | 96 | 13 | 07 | . 2 | 1804 |
| 9.17 | · Fived Accets | -46984 | 4 | 1926 | 50 <u>3</u> | 2 | 39587 | 1 | 714 | 18 N | 7010 | 260 | 17 | 1094 |
| 9.10 | - Fouity Invest in Serv Corp | -10512 | 7 🗄 | 2704 | 135 | 3 | 75562 | 2 | 6690 | D | 1910 | 51 | 14 | -92 -92 |
| 9.20 | : Defer Loss on Assets Sold | 19 | 9 🖹 | | 0 | • | - 15 | | 4573 | 17 | 4368 | 287 | 45 | 7915 |
| 9.21 | : Intangible Assets | -21214 | 4 🛯 | 3741 | 84 | | 22326 | 3 | 61770 | hq | 1101 | 84 | 146 | 4509 |
| 9.22 | : Large Liabilities | -90595 | 3 | 51100 | 32 | 62 | 22300 | ม 3 ไม่ 5 | 0048 | 37 | 36098 | 349 | 278 | 5965 |
| 9.23 | : Total Deposits | -37490 | 3 S | 39224 | 113 | 02 | 64075 | | 40416 | 54 | 3106 | 561 | 18 | 9822 |
| 9.24 | : Modified Equity Capital | -18480 | 5 | 2532 | 78 | Š | 14075 | Ś | 40418 | 54 | 3106 | <u>661</u> | 18 | 9822 |
| 9.25 | : HAP Capital | -20079 | 1 | 192 | 282 | • | 21383 | 3 | 2363 | 3 <u>0</u> ! | |)78 | | 9948 |
| 9.20 | interest income (Excl Fees) | 10550 | όŤ | 8481 | 83 | 7 | 42683 | 3 | 56824 | 47 | 410 | 10 | 39 | 4827 2021 |
| 9.28 | Interest Expense | 12694 | Βİ. | 8277 | 17 | 7 | 00769 | 2 | 53350 | 12 | 4020 | 222 | 41 | 2031 5772 |
| 9.29 | Non-Interest Inc (Operating) | - 1212 | <u>9</u> | 592 | 206 | | 71335 | X | 1217 | 14 | 107. | 523 | 5 | 5112 |
| 9.30 | : Net Mtg Banking Inc. | | | | 0 | • | 2 | | 20 | ha | - | 325 | | 0 |
| 9.31 | : Loan Servicing Income | 129 | 5 | 13 | 530 | | 54 2021 | 1 | 1161 | 5 4 | 140 | 263 | | 429Ĕ |
| 9.32 | : Net Inc from Service Corp | -2595 | ; - | 3/1 | 10 | 1 | 13036 | ⊿ | 1565 | 14 | 115 | 165 | 1 | 7768 |
| 9.33 | Operating Income | -3357 | 1 | 106 | 12 | I | 38704 | 1 | 356 |)7 | 439 | 255 | 10 | 9650 |
| 9.34 | Net Coin on Sale of PE | - 1900 | ;t | | 525 | | 2892 | Ż | 19 | 73 | -9 | 128 | | -1/6 |
| 3.33 | Net Gain on Sale of Loans | -204 | 1 | | 266 | | 1320 |) | | <u>59</u> | | 32. | ~ | 8210 4955 |
| 9.30 | Overhead | 2019 | 51 | 1388 | 387 | 1 | 18692 | 2 | 9429 | 34 | 928 | 531 | D | 4200 |
| 9.38 | Prov for Losses on Assets | 3647 | 4 | 400 |)12 | | 3538 | 3 | 266 | 55 | 1 2 | 165 | Л | 6952 |
| 9.39 | Net Income | -7362 | 2 | -588 | 357 | | 1476 | 2 | 1/4 | 24 | 40 | | | 0004 |
| 9.40 | Prior Period Adjustments | | | - 101 | 104 | | 0000 | J | 318 | 72 | Q1 | 505 [!] | | 1898 |
| 9.41 | Dividends | - 1407 | 71 | 14 | 172 | | | | | | | 058 070 | <u>~</u> | |
| | | C 1990 by Cz:e: | s Co | nsulting Analyst | s, inc. | ., 40 Bro | ad Street. | New | York, N.Y | 1000 | a (212) | 330-221 | ~ | |

• • .

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|----------|--|
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| Table 5: | Selected Medians for High Risk and Failed Issuers By Region |
| Table 6: | Incidence of Failed and High Risk Issuers By State and Region |

| Table 1 - Industry Aggregates | | Ĭ | | | | | | |
|--------------------------------|-------------|---|-------------|---|---------------|---|---------------|----------|
| (S in Thousands) | | | | | | | | |
| (Ratios are weighted averages) | | | | | | | | |
| / | 1987 | | 1988 | | 1989 | 1 | 1990 |) |
| BANKS: | | | | | | | | |
| All Issuers: | | | | | | | | |
| Number of Issuers | 537 | | 658 | | 732 | | 700 |) |
| % of Industry | 3.82 | | 4.86 | | 5.55 | I | 5.44 | |
| Assets | 706,601,189 | | 884,494,681 | | 1,015,075,633 | | 1,209,674,739 | I |
| Liabilities | 670,922,991 | | 836,303,580 | | 960,294,592 | | 1,142,864,527 | |
| Total Deposits | 406,392,578 | | 533,559,441 | | 624,091,858 | | 729,415,476 | |
| Ins Br Deposits | 14,629,876 | | 25,387,965 | | 32,610,383 | | 42,286,404 | No. Part |
| Ins Br Den/Farn Assets | 2.31 | % | 3.21 | % | 3.58 | % | 3.58 | % |
| Core Dep/Earn Assets | 49.81 | | 51.25 | | 53.21 | | 52.37 | |
| Purch Ends/Farn Assets | 50.20 | | 49.06 | | 46.26 | | 48.12 | |
| Ins Br Den/Total Den | 3.60 | | 4.76 | | 5.23 | | 5.80 | |
| Ins Br Dep/Core Dep | 4.63 | | 6.27 | | 6.71 | | 6.97 | |
| Non Ins Br Den/Jumbos | 12.64 | | 12.83 | | 13.79 | | 16.35 | |
| Ins Br Dep/Purch Funds | 4.60 | | 6.55 | | 7.75 | | 7.44 | |
| Issuers with Equity/Assets < 5 | .5%: | | | | | | | |
| Number of Issuers | 135 | | 132 | | 148 | | 144 | |
| % of Industry | 0.96 | | 0.98 | | 1.12 | | 1.12 | |
| Assets | 531,862,754 | | 509,275,373 | | 583,513,615 | | 719,544,081 | |
| Liabilities | 509,503,706 | | 486,868,698 | | 559,192,900 | | 688,335,293 | |
| Total Deposits | 285,503,625 | | 280,439,905 | | 330,565,853 | | 391,895,515 | |
| Ins Br Deposits | 6,987,358 | | 10,874,025 | | 12,123,271 | | 17,858,649 | |
| Ins Br Dep/Earn Assets | 1.47 | % | 2.44 | % | 2.35 | % | 2.28 | % |
| Core Dep/Earn Assets | 46.90 | | 47.56 | | 49.90 | | 46 | |
| Purch Fnds/Earn Assets | 53.82 | | 54.88 | | 51.88 | | 54.64 | |
| Ins Br Dep/Total Dep | 2.45 | | 3.88 | | 3.67 | | 3.82 | |
| Ins Br Dep/Core Dep | 3.14 | | 5.14 | | 4.71 | | 4.57 | |
| Non Ins Br Dep/Jumbos | 12.73 | | 15.47 | | 12.84 | | 19.88 | |
| Ins Br Dep/Purch Funds | 2.74 | | 4.45 | | 4.53 | | 4.17 | |

| Table 1 - Industry Aggregates | | | | | | | | |
|----------------------------------|-------------|---|-------------|---|-------------|---|-------------|---|
| (\$ in Thousands) | | | | | | | | |
| (Ratios are weighted averages) | 1987 | | 1988 | | 1989 | | 1990 | |
| Issuers with Equity/Assets > 5.5 | 5%: | | | | | | | |
| Number of Issuers | 402 | | 526 | | 584 | | 557 | |
| % of Industry | 2.86 | | 3.89 | | 4.43 | | 4.32 | |
| Assets | 174,738,435 | | 375,219,308 | | 431,562,018 | | 490,216,681 | |
| Liabilitics | 161,419,285 | | 349,434,882 | | 401,101,692 | | 454,610,527 | |
| Total Deposits | 120,888,953 | | 253,119,536 | | 293,526,005 | | 338,225,961 | |
| Ins Br Deposits | 7,642,518 | | 14,513,940 | | 20,487,112 | | 24,428,648 | |
| Ins Br Dep/Earn Assets | 4.80 | % | 4.23 | % | 5.20 | % | 5.47 | % |
| Core Dep/Earn Assets | 58.47 | | 56.35 | | 57.53 | | 59.12 | |
| Purch Fads/Earn Assets | 39.44 | | 41.84 | | 40.46 | | 38.64 | |
| Ins Br Dep/Total Dep | 6.32 | | 5.73 | | 6.98 | | 7.22 | |
| Ins Br Dep/Core Dep | 8.21 | | 7.50 | | 9.04 | | 9.25 | |
| Non Ins Br Dep/Jumbos | 12.42 | | 9.78 | | 14.84 | | 12.11 | |
| Ins Br Den/Purch Funds | 12.17 | | 10.10 | | 12.82 | | 14.15 | |

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Table 1 - Industry Aggregates
(S in Thousands)

| (Ratios are weighted averages) | | | |
|--------------------------------|------|------|--|
| | 1987 | 1988 | |

THRIFTS:

Note: RTC controlled thrifts have been excluded.

| Number of Issuers | 729 | . 609 | 570 |) 37 | 19 |
|------------------------|-------------|-------------|-------------|-------------|------|
| % of Industry | 23.00 | 20.51 | 19.67 | 14.5 | ii 🗸 |
| Assets | 740,022,950 | 733,914,210 | 513,599,771 | 481,211,55 | 6 |
| Liabilities | 723,248,741 | 714,641,641 | 509,398,073 | 460,208,48 | 4 |
| Total Deposits | 515,112,030 | 481,954,381 | 355,012,019 | 332,572,72 | 3 |
| Ins Br Deposits | 56,046,335 | 54,145,620 | 15,621,906 | 21,845,38 | 17 |
| Ins Br Den/Farn Assets | 8.18 | % 7.95 | % 3.29 | % 4.8 | 6 % |
| Core Den/Fam Assets | 61.83 | 58.08 | 63.54 | 62.8 | 4 |
| Purch Fods/Farn Assets | 41.69 | 44.79 | 41.56 | 37.4 | -1 |
| Ine Re Den/Total Den | 10.88 | 11.23 | 4.40 | 6.5 | 7 |
| Ins Br Dep/Core Dep | 13.24 | 13.69 | 5.18 | 7.7 | 4 |
| Non Ine Re Den/Jumbot | NA | 8.82 | 43.10 | 4.6 | 2 |
| Non ms Br Dep/Junioos | 19.63 | 17.76 | 7.92 | 13.0 | 0 |
| Ins Br Dep/FHLB | 66.10 | 58.20 | 21.90 | 38.3 | 2 |

1990

1989

Issuers with Tangible Capital/Tangible Assets < 1.5%:

| Number of Issuers | 269 | 170 | 211 | 47 | |
|------------------------|-------------|-------------|-------------|------------|---|
| % of Industry | 8.49 | 5.72 | 7.28 | 1.80 | |
| Acceta | 174,213,731 | 144,117,440 | 127,049,298 | 78,886,811 | |
| Liebilities | 187,201,381 | 152,237,046 | 141,073,476 | 78,081,033 | |
| Total Denosite | 131,548,410 | 95,182,647 | 94,000,609 | 48,682,620 | |
| Ins Br Deposits | 13,136,204 | 13,522,941 | 5,646,964 | 5,281,335 | |
| Ine De Des/Farm Arrets | 8,20 % | 10.16 % | 4.89 % | 7.46 | % |
| Ins Br Dep/Earn Asses | 73.93 | 64.36 | 72.92 | 62.50 | |
| Core Dep/ carn Assess | 41.05 | 48.17 | 46.85 | 46.11 | |
| Furch Flus/Earl Asses | 9.99 | 14.21 | 6.01 | 10.85 | |
| Ins Br Dep/Total Dep | 11.09 | 15.79 | 6.70 | 11.93 | |
| Ins Br Dep/Core Dep | NA | 14.53 | 63.13 | 0.76 | |
| Non ins Br Dep/Jumoos | 19.98 | 21.09 | 10.43 | 16.17 | |
| Ins Br Dep/FHLB | 67.35 | 68.85 | 28.61 | 40.66 | |

Table 1 - Industry Aggregates

.

(\$ in Thousands)

| | 1987 | | 1988 | | 1989 | | 1990 | |
|--------------------------------|--------------------|------|-------------|---|------------|---|-------------|---|
| Issuers with Tangible Capital/ | Tangible Assets 1. | 5-39 | i: | | | | | |
| Number of Issuers | 70 | | 69 | | 54 | | 57 | |
| % of Industry | 2.21 | | 2.32 | | 1.86 | | 2.18 | |
| Assets | 73,166,519 | | 121,217,556 | | 77,991,572 | | 152,525,309 | |
| Liabilities | 71,291,730 | | 118,514,508 | | 76,182,392 | | 145,877,084 | |
| Total Deposits | 51,346,921 | | 82,140,855 | | 55,235,933 | | 103,540,297 | |
| Ins Br Deposits | 6,439,074 | | 13,194,992 | | 1,403,393 | | 4,732,480 | |
| Ins Br Dep/Earn Assets | 9.70 | % | 11.81 | % | 1.96 | % | 3.36 | % |
| Core Dep/Earn Assets | 63.18 | | 62.27 | | 62.80 | | 61.21 | |
| Purch Fnds/Earn Assets | 41.56 | | 41.37 | | 41.27 | | 39.87 | |
| Ins Br Dep/Total Dep | 12.54 | | 16.06 | | 2.54 | | 4.57 | |
| Ins Br Dep/Core Dep | 15.35 | | 18.96 | | 3.11 | | 5.49 | |
| Non Ins Br Dep/Jumbos | NA | | NA | | 75.74 | | 4.22 | |
| Ins Br Dep/Purch Funds | 23.33 | | 28.54 | | 4.74 | | 8.43 | |
| Ins Br Dep/FHLB | 78.19 | | 80.12 | | 12.02 | | 23.74 | |

Issuers with Tangible Capital/Tangible Assets > 3%:

| Number of Issuers | 390 | 370 | 305 | 275 |
|------------------------|-------------|---------------|-------------|-----------------|
| % of Industry | 12.31 | 12.46 | 10.52 | 10.53 |
| Assets | 492,642,700 | 468,579,214 | 308,558,901 | 249,731,731 |
| Liabilities | 464,755,630 | 443,890,087 | 292,142,205 | 236,186,264 |
| Total Deposits | 332,216,699 | 304,630,879 | 205,775,477 | 180,299,285 |
| Ins Br Deposits | 36,471,057 | 27,427,687 | 8,571,549 | 11,830,682 |
| Ins Br Dep/Earn Assets | 7.96 | % 6.29 | % 2.98 | % 4.98 % |
| Core Dep/Earn Assets | 57.40 | 55.09 | 59.95 | 63.91 |
| Purch Fnds/Earn Assets | 41.93 | 44.63 | 39.50 | 33.36 |
| Ins Br Dep/Total Dep | 10.98 | 9.00 | 4.17 | 6.56 |
| Ins Br Den/Core Den | 13.87 | 11.42 | 4.90 | 7.80 |
| Non Ins Br Dep/Jumbos | NA | 10.17 | 27.39 | 5.47 |
| Ins Br Dep/Purch Funds | 18.98 | 14.10 | 7.55 | 14.94 |
| Ins Br Dep/FHLB | 63.93 | 48.17 | 21.48 | 49.14 |

Note: For the Thrift Industry in 1987, Total Brokered Deposits were used as a proxy for Insured Brokered Deposits as the Data provided on the 1987 call report tapes proved unreliable. ·

Table 2 - Incidence of Failed and High Risk Issuers

"5" Rated Institutions as of 6/30/90:

Banks by Asact Size:

| | | Total Indust | ry by Asset Siz | c | | | | Banks Rate | d 5 by Asset Si | ze | | |
|---------------|--------|--------------|-----------------|----------|-------------|---|--------|------------|-----------------|----------|-------------|---|
| | | With | Insured | % With | Median | | | With | Insured | % With | Median | |
| | Number | Insured | Brokered | Insured | Insured | | Number | Insured | Brokered | Insured | Insured | |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | | of | Brokered | Deposits/ | Brokered | Br Dep/ | |
| | Banks | Deposits | Dep > 1 % | Deposits | Earn Assets | | Banks | Deposits | Dep > 1% | Deposits | Earn Assets | |
| 0-250 MM | 11519 | 434 | 298 | 3.77 | 2.57 | % | 67 | 14 | 9 | 20.90 | 1.65 | * |
| 250-500 MM | 617 | 77 | 46 | 12.48 | 1.62 | | 26 | 13 | 9 | 50.00 | 2.32 | |
| 500-1 Billion | . 302 | 51 | 30 | 16.89 | 1.48 | | 15 | 7 | 6 | 46.67 | 5.02 | |
| 1-5 Billion | 317 | 88 | 68 | 27.76 | 3.22 | | 15 | 10 | 10 | 66.67 | 10.42 | |
| > 5 Billion | 114 | 50 | 33 | 43.86 | 2.44 | | 9 | 4 | 3 | 44.44 | 2.87 | |
| Total | 12869 | 700 | 475 | 5.44 | 2.41 | | 132 | 48 | 37 | 36.36 | 3.03 | |

Thrifts by Asset Size:

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| | | Total Indust | ry by Asset Siz | e | | | Thrifts Rate | ed 5 by Asset | Size | | |
|---------------|---------|--------------|-----------------|----------|-------------|---------|--------------|---------------|----------|-------------|------------|
| | | With | Insured | % With | Median | | With | Insured | % With | Median | With |
| | Number | Insured | Brokered | Insured | Insured | Number | Insured | Brokered | Insured | Insured | FHLB |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | of | Brokered | Deposits/ | Brokered | Br Dep/ | Adv |
| | Thrifts | Deposits | Dep > 1% | Deposits | Earn Assets | Thrifts | Deposits | Dep > 1% | Deposits | Earn Assets | |
| 0-250 MM | 1948 | 282 | 217 | 14.48 | 1.48 % | 5 | 1 | l | 1 20.00 | 1.48 | % 4 |
| 250-500 MM | 296 | 61 | 43 | 20.61 | 2.26 | 3 | 1 | l | 0 33.33 | 2.26 | 3 |
| 500-1 Billion | 155 | 46 | 31 | 29.68 | 0.81 | 14 | 7 | 1 | 4 50.00 | 0.81 | 13 |
| 1-5 Billion | 179 | 92 | 54 | 51.40 | 0.74 | 17 | 5 |) | 4 52.94 | 0.74 | 16 |
| > 5 Billion | 34 | 24 | 17 | 70.59 | 6.52 | 5 | • | Ļ | 4 80.00 | 6.52 | 4 |
| Total | 2612 | 505 | 362 | 19.33 | 1.58 | 44 | 22 | 2 | 13 50.00 | 1.58 | 40 |

Note: Medians are for those institutions holding Insured Brokered Deposits

Table 2 - Incidence of Failed and High Risk Issuers

1990 Failures:

Banks by Asset Size:

| | | Total Industry | y by Asset Size | | Failed Banks | by Asset Size | | | | | | |
|---------------|--------|----------------|-----------------|----------|--------------|---------------|--------|----------|-----------|----------|---------|---|
| | | With | Insured | % With | Median | | | With | Insured | % With | Median | |
| | Number | Insured | Brokered | Insured | Insured | | Number | Insured | Brokered | Insured | Insured | |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | | of | Brokered | Deposits/ | Brokered | Br Dep/ | |
| | Banks | Deposits | Dep > 1 % | Deposits | EA | | Banks | Deposits | Dep > 1 % | Deposits | EA | |
| 0-250 MM | 11519 | 434 | 298 | 3.77 | 2.57 | * | 156 | 26 | 21 | 16.67 | 6.03 | × |
| 250-500 MM | 617 | 77 | 46 | 12.48 | 1.62 | | 7 | 5 | 5 | 71.43 | 9.71 | |
| 500-1 Billion | 302 | 51 | , 30 | 16.89 | 1.48 | | 2 | 2 | 2 | 100.00 | 2.36 | |
| 1-5 Billion | 317 | 88 | 68 | 27.76 | 3.22 | | 2 | 1 | 1 | 50.00 | 12.91 | |
| > 5 Billion | 114 | 50 | 33 | 43.86 | 2.44 | | | | | | | |
| Total | 12869 | 700 | 475 | 5.44 | 2.41 | | 167 | 34 | 29 | 20.36 | 5.99 | |

Thrifts by Asset Size:

| | | Total Industry | y by Asset Size | | | | Fai | led Thrifts by | Asset Size | | | | |
|---------------|---------|----------------|-----------------|----------|---------|---|---------|----------------|------------|------------------------|---------|---|------|
| | | With | Insured | % With | Median | | | With | Insured | % With | Median | | With |
| | Number | Insured | Brokered | Insured | Insured | | Number | Insured | Brokered | Insured | Insured | | FHLB |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | | of | Brokered | Deposits/ | Brokered | Br Dep/ | | Adv |
| | Thrifts | Deposits | Dep > 1 % | Deposits | EA | | Thrifts | Deposits | Dep > 1 % | Deposits | EA | | |
| 0-250 MM | 1948 | 28 2 | 217 | 14.48 | 1.48 | * | 137 | 52 | 34 | 3 7.96 | 3.37 | * | 101 |
| 250-500 MM | 296 | 61 | 43 | 20.61 | 2.26 | | 24 | 8 | 5 | 33.33 | 5.99 | | 19 |
| 500-1 Billion | 155 | 46 | 31 | 29.68 | 0.81 | | 14 | 6 | 3 | 4 2. 8 6 | 4.74 | | 10 |
| 1-5 Billion | 179 | 92 | 54 | 51.40 | 0.74 | | 17 | 15 | 10 | 88.24 | 2.90 | | 18 |
| > 5 Billion | 34 | 24 | 17 | 70.59 | 6.52 | | 7 | 6 | 6 | 85.71 | 2.98 | | 6 |
| Total | 2612 | 505 | 362 | 19.33 | 1.58 | | 199 | 87 | 58 | 43.72 | 4.07 | | 154 |

1989 Failures:

Banks by Asset Size:

| | Tot | al Industry b | y Asset Size | | | | Fai | iled Banks b | y Asset Size | | | |
|------------------|--------|---------------|--------------|----------|-------------|---|-----------|--------------|--------------|----------|-------------|---|
| | | With | Insured | % With | Median | | | With | Insured | % With | Median | |
| | Number | Insured | Brokered | Insured | Insured | | Number | Insured | Brokered | Insured | Insured | |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | | of Failed | Brokered | Deposits/ | Brokered | Br Dep/ | |
| | Banks | Deposits | Dep > 1 % | Deposits | Earn Assets | | Banks | Deposits | Dep > 1 % | Deposits | Earn Assets | |
| 0-250 MM | 11683 | 404 | 278 | 3.46 | 2.17 | % | 175 | 25 | 22 | 14.29 | 2.51 | * |
| 250-500 MM | 547 | 65 | 45 | 11.88 | 2.20 | | 11 | 2 | 2 | 18.18 | 5.72 | |
| 500MM -1 Billion | 261 | 41 | 26 | 15.71 | 2.19 | | 5 | 4 | 3 | 80.00 | 19.18 | |
| 1 – 5 Billion | 300 | 66 | 44 | 22.00 | 1.67 | | 3 | 1 | 1 | 33.33 | 0.93 | |
| > 5 Billion | 105 | 38 | 18 | 36.19 | 0.67 | | 1 | Ő | 0 | 0.00 | NA | |
| Total | 12896 | 614 | 411 | 4.76 | 2.05 | | 195 | 32 | 28 | 16.41 | 3.22 | |

Thrifts by Asset Size:

| | Tot | al Industry b | y Asset Size | | Fai | led Thrifts b | y Asset Size | | | | | | |
|------------------|---------|---------------|--------------|----------|-------------|---------------|--------------|-------------|-----------|----------|-------------|---|------|
| | | With | Insured | % With | Median | | | With | Insured | % With | Median | | |
| | Number | Insured | Brokered | Insured | Insured | | Number | Insured | Brokered | Insured | Insured | | With |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | | of Failed | Brokered | Deposits/ | Brokered | Br Dep/ | | FHLB |
| | Thrifts | Deposits | Dep > 1 % | Deposits | Earn Assets | | Thrifts | Deposits | Dep > 1 % | Deposits | Earn Assets | | Adv |
| 0-250 MM | 2199 | 390 | 311 | 17.74 | 4.23 | % | 232 | 103 | 92 | 44.40 | 10.33 | * | 86 |
| 250-500 MM | 337 | 79 | 55 | 23.44 | 3.16 | | 37 | 21 | 16 | 56.76 | 5.34 | | 7 |
| 500MM -1 Billion | 182 | 77 | 62 | 42.31 | 3.54 | | 27 | 19 | 17 | 70.37 | 7.01 | | 6 |
| 1 - 5 Billion | 204 | 117 | 96 | 57.35 | 4.41 | | 24 | 20 | 19 | 83.33 | 7.50 | | 4 |
| > 5 Billion | 48 | 40 | 39 | 83,33 | 6.18 | | 5 | 5 | 5 | 100.00 | 12.88 | | 1 |
| Total | 2970 | 703 | 563 | 23.67 | 4.13 | | 325 | 16 8 | 149 | 51.69 | 9.01 | | 104 |

1988 Failures:

Banks by Asset Size:

| | | Total Indust | ry by Asset Siz | c | | | | Failed Banl | ks by Asset Siz | 6 | | |
|-----------------|-------------|--------------|-----------------|----------|-------------|---|-----------|-------------|-----------------|----------------|-------------|---|
| | | With | Insured | % With | Median | | | With | Insured | % With | Median | |
| | Number | Insured | Brokered | Insured | Insured | | Number | Insured | Brokered | Insured | Insured | |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | | of Failed | Brokered | Deposits/ | Brokered | Br Dep/ | |
| | Banks | Deposits | Dep > 1 % | Deposits | Earn Assets | | Banks | Deposits | Dep > 1 % | Deposits | Earn Assets | |
| 0-250 MM | 12105 | 347 | 249 | 2.87 | 2.67 | * | 182 | 15 | 15 | 8.24 | 8.45 % | i |
| 2.50-500MM | -516 | 46 | 34 | 8.91 | 2.75 | | 8 | 1 | 1 | 12. 5 0 | 5.31 | |
| 500MM-1 Billion | 240 | 31 | 16 | 12.92 | 0.87 | | 9 | 2 | 1 | 22.22 | 3.4 | |
| 1-5 Billion | 29 2 | 46 | 29 | 15.75 | 1.34 | | 3 | , 1 | 1 | 33.33 | 0.51 | |
| >5 Billion | 8 6 | 25 | 15 | 29.07 | 0.77 | | 1 | 0 | 0 | 0.00 | NA | |
| Total | 13239 | 495 | 343 | 3.74 | 2.34 | | 203 | 19 | 18 | 9.36 | 7.12 | |

Thrifts by Asset Size:

| | | Total Indust | ry by Asset Siz | 20 | | | | Failed Thri | its by Asset Siz | e | | | |
|-----------------|---------|--------------|-----------------|---------------|-------------|---|-----------|-------------|------------------|----------|-------------|---|------|
| | Number | With | Brokered | % With | Median | | Number | With | Brokered | % With | Median | | With |
| | of | Brokered | Deposits/ | Brokered | Br Dep/ | | of Failed | Brokered | Deposits/ | Brokered | Br Dep/ | | FHLB |
| | Thrifts | Deposits | Dep > 1% | Deposits | Earn Assets | | Thrifts | Deposits | Dep > 1 % | Deposits | Earn Assets | | Adv |
| 0-250 MM | 2206 | 370 | 264 | 16.77 | 2.67 | я | 142 | 73 | 61 | 51.41 | 5.02 | * | 102 |
| 250-500MM | 312 | 70 | 45 | 22.44 | 3.42 | | 26 | 16 | 15 | 61.54 | 8.96 | | 25 |
| 500MM-1 Billion | 160 | 53 | 42 | 33.13 | 4.23 | | 17 | 14 | 11 | 82.35 | 6.30 | | 13 |
| 1-5 Billion | 185 | 98 | 83 | 52.97 | 4.74 | | 17 | 13 | 11 | 76.47 | 8.23 | | 16 |
| >5 Billion | 36 | 31 | 29 | 8 6.11 | 7.75 | | 3 | 3 | 3 | 100.00 | 4.57 | | 3 |
| Total | 2899 | 622 | 463 | 21.46 | 3.43 | | 205 | 119 | 101 | 58.05 | 6.02 | | 159 |

Note: For the Thrift Industry, Total Brokered Deposits was used as a proxy for Insured Brokered Deposits as the data provided on the 1987 call report tapes proved unreliable. Table 2 - Incidence of Failed and High Risk Issuers

1987 Failures:

Banks by Asact Size:

| | Tot | al Industry t | y Asset Size | • | | | Fa | iled Banks by | y Asset Size | | | | |
|---------------|-----------------------|------------------------------|-----------------------------------|--------------------------------|----------------------------------|---|------------------------------|------------------------------|------------------------------------|--------------------------------|----------------------------------|---|---|
| | Number of Banks | With Brokered Deposits | Brokered Deposits/ Dep > 1% | % With Brokered Deposits | Median Br Dep/ Earn Assets | | Number of Failed Banks | With Brokered Deposits | Brokered Deposits/ Dep > 1 % | % With Brokered Deposits | Median Br Dep/ Earn Assets | ı | |
| 0-250 MM | 13085 | 491 | 341 | 3.75 | 1.97 | % | 174 | 24 | 19 | 13.79 | 5.05 | % | , |
| 250-500 MM | 485 | 34 | 19 | 7.01 | 1.69 | | 2 | 1 | 1 | 50.00 | 5.20 | | |
| 500-1 Billion | 215 | 36 | 19 | 16.74 | 2.08 | | | | | | | | |
| 1-5 Billion | 257 | 84 | 54 | 32.68 | 1.78 | | | | | | | | |
| > 5 Billion | 84 | 56 | 42 | 66.67 | 1.73 | | | | | | | | |
| Total | 14126 | 701 | 475 | 4.96 | 1.90 | | 176 | 25 | 20 | 14.20 | 5.20 | | |

Thrifts by Asset Size:

| | Tot | al Industry b | by Asset Size | e | | | Fai | led Thrifts b | y Asset Size | ; | | | |
|---------------|-------------------------|------------------------------|-----------------------------------|--------------------------------|----------------------------------|---|--------------------------------|------------------------------|------------------------------------|--------------------------------|----------------------------------|---|---------------------|
| | Number of Thrifts | With Brokered Deposits | Brokered Deposits/ Dep > 1% | % With Brokered Deposits | Median Br Dep/ Earn Assets | | Number of Failed Thrifts | With Brokered Deposits | Brokered Deposits/ Dep > 1 % | % With Brokered Deposits | Median Br Dep/ Earn Assets | | With FHLB Adv |
| 0-250 MM | 2470 | 454 | 288 | 18.38 | 1.53 | % | 37 | 23 | 21 | 62.16 | 0.72 | % | 25 |
| 250-500 MM | 349 | 79 | 46 | 22.64 | 1.66 | | 5 | 3 | 3 | 60.00 | 5.33 | | 5 |
| 500-1 Billion | 197 | 73 | 48 | 37.06 | 2.82 | | 3 | 2 | 2 | 6 6.67 | 0.12 | | 2 |
| 1-5 Billion | 196 | 95 | 72 | 48.47 | 3.85 | | 3 | 3 | 3 | 100.00 | 19.76 | | 2 |
| > 5 Billion | 35 | 29 | 26 | 82.86 | 5.74 | | 0 | 0 | 0 | NA | NA | | 0 |
| Total | 3247 | 730 | 480 | 22.48 | 2.25 | | 48 | 31 | 29 | 64.58 | 0.99 | | 34 |

Note: Total Brokered Deposits was used as a proxy for Insured Brokered Deposits as the data provided on the 1986 call report tapes proved unreliable or was not available.

| | Insured Brokered Deposits/ Deposits | | | | | | | | |
|------------------------|-------------------------------------|------|-------|--------|--------|-------|---------|--|--|
| | < 1 % | 1-5% | 5-10% | 10-15% | 15-25% | > 25% | Average | | |
| Ranka Rated "5" as (| of 6/90 | | | | | | | | |
| 0-250 MM | 5 | 5 | 3 | | | 1 | 3.14 | | |
| 250-500MM | 4 | 5 | · 1 | 3 | | | 4.52 | | |
| 500-1 Billion | 1 | 2 | 4 | | | | 4.74 | | |
| 1-5 Billion | | 3 | 1 | 3 | 3 | | 10.75 | | |
| > 5 Billion | 1 | 2 | | 1 | | | 3.78 | | |
| Total | 11 | 17 | 9 | 7 | 3 | 1 | 5.81 | | |
| Thrifts Bated "5" as | of 6/90 | | | | | | | | |
| 0-250 MM | 0 | 1 | . 0 | 0 | 0 | 0 | 1.90 | | |
| 250-500MM | Ō | 1 | 0 | 0 | 0 | 0 | 0.00 | | |
| 500-1 Billion | 2 | 3 | 1 | 1 | 0 | 0 | 8.40 | | |
| 1-5 Billion | 5 | 1 | 0 | 0 | 0 | 3 | 25.10 | | |
| > 5 Billion | 0 | 2 | 0 | 1 | 1 | 0 | 9.77 | | |
| Total | 7 | 8 | 1 | 2 | 1 | 3 | 14.88 | | |
| Rent Feilures - 1990 | | | | | | | | | |
| 0-250 MM | 5 | 7 | 5 | 1 | 4 | 4 | 9.06 | | |
| 250-500MM | 0 | 2 | 0 | 1 | 0 | 2 | 14.67 | | |
| 500-1 Billion | 0 | 2 | 0 | 0 | 0 | . 0 | 2.29 | | |
| 1-5 Billion | 0 | 0 | 0 | 0 | 1 | 0 | 17.10 | | |
| > 5 Billion | | | | | | | | | |
| Total | 5 | 11 | 5 | 2 | 5 | 6 | 11.94 | | |
| Thrift Failures - 1990 |) | | | | | | | | |
| 0-250 MM | 18 | 14 | 8 | 2 | 5 | 5 | 4.40 | | |
| 250-500MM | 3 | 2 | 0 | 2 | 0 | 1 | 6.40 | | |
| 500-1 Billion | 4 | 1 | 1 | 0 | 0 | 0 | 1.40 | | |
| 1-5 Billion | 4 | 4 | 3 | 2 | 0 | 2 | 14.20 | | |
| > 5 Billion | 0 | 1 | 1 | 1 | 0 | 3 | 27.20 | | |
| Total | 29 | 22 | 13 | . 7 | 5 | 11 | 21.00 | | |

Table 3 - Insured Brokered Deposit Distribution of Failed and High Risk Issuers

Table 3 - Insured Brokered Deposit Distribution of Failed and High Risk Issuers

| | Insured Brokered Deposits/ Deposits | | | | | | | |
|------------------------|-------------------------------------|------|-------|--------|--------|-----------|---------|--|
| | < 1 % | 1-5% | 5-10% | 10-15% | 15-25% | > 25% | Average | |
| | | | | | | | | |
| | | | | | | | | |
| Bank Failures - 1989 | | | | | | | | |
| 0.250 MM | 3 | 12 | 1 | 2 | 3 | 4 | 8.25 | |
| 250-500MM | - | 1 | 1 | | | | 3.22 | |
| 500-1 Billion | 1 | 1 | | | | 2 | 29.02 | |
| 1-5 Billion | | 1 | | | | | 1.08 | |
| > 5 Billion | | | | | | | NA | |
| Total | 4 | 15 | 2 | 2 | 3 | 6 | 13.21 | |
| Thrift Failures - 1989 | | | | | | <i>t;</i> | | |
| 0.250 MM | 11 | 29 | 21 | 8 | 16 | 21 | 16.00 | |
| 250-500MM | 5 | 6 | · · 1 | 1 | 2 | 6 | 13.06 | |
| 500-1 Billion | 2 | 6 | 4 | 3 | 2 | 1 | 9.45 | |
| 1-5 Billion | 1 | 3 | 6 | 3 | 3 | 2 | 11.00 | |
| > 5 Billion | 0 | 1 | 1 | 1 | 0 | 2 | 20.07 | |
| Total | 19 | 45 | 33 | 16 | 23 | 32 | 14.15 | |
| Bank Failures - 1988 | | | | | | | | |
| 0.050.007 | | 6 | 3 | 1 | 2 | 3 | 13.79 | |
| 0-250 MM | | 1 | - | • | - | | 4.99 | |
| SOL 1 Billion | 1 | - | 1 | | | | 3.52 | |
| 1-5 Billion | • | 1 | | | | | 1.35 | |
| > 5 Billion | | | | | | | NA | |
| Total | 1 | 8 | 4 | 1 | 2 | 3 | 3.37 | |
| 1004 | • | - | | | | | | |
| Thrift Failures - 1988 | | | | | | | | |
| 0-250 MM | 12 | 22 | 13 | 6 | 12 | 8 | 11.37 | |
| 250-500MM | 1 | 4 | 3 | 2 | 4 | 2 | 14.05 | |
| 500-1 Billion | 3 | 3 | 3 | 2 | 2 | 1 | 10.80 | |
| 1-5 Billion | 2 | 4 | 2 | 1 | 2 | 2 | 13.07 | |
| > 5 Billion | | 2 | | | | 1 | 7.80 | |
| Total | 18 | 35 | 21 | 11 | 20 | 14 | 10.82 | |

| | | 1 | Insured Bro | kered Dep | osits/ Depos | it s | Weighted |
|--|-------|------|---------------|------------|--------------|-------------|--------------|
| | < 1 % | 1-5% | 5 -10% | 10-15% | 15-25% | > 25% | Average |
| Bank Failures - 1987 | | | | | | | |
| 0-250 MM 250-500MM 500-1 Billion 1-5 Billion > 5 Billion | 5 | 7 | 3 1 | 5 | 3 | 1 | 7.18 5.14 |
| Total | 5 | 7 | 4 | 5 | 3 | 1 | 6.50 |
| Thrift Failures - 1987 | | | | | | | |
| 0-250 MM | 2 | 15 | 1 | 1 | 1 | 3 | 6.34 |
| 250-500MM | 0 | 1 | 2 | <u>,</u> 0 | 0 | 0 | 5.38 |
| 500-1 Billion | 0 | 2 | 0 | 0 | 0 | 0 | 0.12 |
| 1-5 Billion | 0 | 1 | 0 | 0 | 2 | 0 | 15.12 |
| > 5 Billion | 0 | 0 | 0 | 0 | 0 | 0 | NA |
| Total | 2 | 19 | 3 | 1 | 3 | 3 | 9.32 |

Table 3 - Insured Brokered Deposit Distribution of Failed and High Risk Issuers

| | Ins Br Dep/ | Core Dep/ | Purch F | unds/ | Ins Br Dep/ | | Ins Br Dep/ | | Non-Ins Br/ | | Ins Br Dep/ | | Ins Br Dep | / | Non-Br Jumbos/ |
|-----------------|---------------|-----------------------|-------------|---------------|-------------|---|-------------|---|-------------|---|--------------|---|------------|---|----------------|
| | Earn Assets | Eam Assets | Eam Ai | acta | Total Dep | | Core Dep | | Jumbo | | Purch Funds | | FHLB AGV | | Total Dep |
| Banks Rated "5 | " as of 6/90 | | | | | | | | | | | | | | |
| 0-250 MM | 1.61 | \$ 86.08 | % 13 | 3.33 % | 1.60 | * | 1.83 | 5 | 0.00 | % | 12.05 | % | | | 12.17 🌋 |
| 250-500MM | 2.32 | 75.36 | 22 | 2.08 | 2.48 | | 2.64 | | 0.00 | | 16.07 | | | | 12.45 |
| 500-1 Billion | 5.02 | 77.92 | 24 | .65 | 5.28 | | 6.35 | | 0.00 | | 22.98 | | | | 16.78 |
| 1-5 Billion | 10.42 | 74.88 | 24 | .12 | 12.17 | | 13.57 | | 0.11 | | 33.18 | | | | 14.95 |
| > 5 Billion | 2.87 | 71.39 | 37 | .15 | 3.28 | | 3.68 | | 5.02 | | 8.34 | | | | 10.21 |
| Total | 3.03 | 78.09 | 20 | .95 | 3.46 | | 3.89 | | 0.00 | | 17.30 | | | | 12.46 |
| Thrifts Rated " | 5" as of 6/90 | | | | | | | | | | | | | | |
| 0-250 MM | 1.48 | 92.82 | 7 | .79 | 1.55 | | 1.60 | | 7.03 | | 19.08 | | 35.62 | * | 2.74 |
| 250-500MM | 2:26 | 69.56 | 35 | .43 | 2.83 | | 3.24 | | 0.00 | | 6.37 | | 11.12 | | 12.84 |
| 500-1 Billion | 0.81 | 75.81 | 29 | .28 | 1.37 | | 1.54 | | 0.00 | | 2.70 | | 6.58 | | 7.54 |
| 1-5 Billion | 0.74 | 79.01 | 27 | .82 | 0.99 | | 1.31 | | 0.00 | | 1.95 | | 6.00 | | 11.34 |
| > 5 Billion | 6.52 | 61.58 | 41 | .68 | 8.17 | | 10.70 | | 0.00 | | 16.02 | - | 54.50 | | 15.81 |
| Total | 1.58 | 72.8 0 | 29 | .30 | . 1.77 | | 1.88 | | 0.00 | | 6.34 | | 10.58 | | 9.53 |
| Bank Failures - | 1990 | | | | | | | | | | | | | | |
| 0-250 MM | 6.03 | 93.32 | 15 | .14 | 5.70 | | 6.17 | | 0.00 | | 38.26 | | | | 12.50 |
| 250-500MM | 9.71 | 82.89 | 18 | .93 | 10.20 | | 11.71 | | 0.00 | | 54.12 | | | | 8.30 |
| 500-1 Billion | 2.36 | 83.94 | 25 | .88 | 2.42 | | 2.82 | | 0.00 | | 10.58 | | | | 18.06 |
| 1-5 Billion | 12.91 | 63.18 | 39 | .28 | 17.10 | | 20.44 | | 0.00 | | 32.88 | | | | 12.46 |
| > 5 Billion | NA | NA | 1 | NA | NA | | NA | | NA | | NA | | | | NA |
| Total | 5.99 | 93.05 | 17 | .30 | 5.70 | | 6.18 | | 0.00 | | 38.26 | | | | 12.62 |
| Thrift Failures | - 1990 | | | | | | | | | | | | | | |
| 0-250 MM | 3.37 | 89.37 | 16 | .65 | 3.28 | | 2.66 | | 0.00 | | 22.00 | | 19.52 | | 3.80 |
| 250-500MM | 5.99 | 85.25 | 19 | .64 | 4.96 | | 5.37 | | 0.00 | | 37.38 | | 84.81 | | 6.10 |
| 500-1 Billion | 4.74 | 73.30 | 29 | .52 | 6.86 | | 7.20 | | 0.00 | | 18.18 | | 34.32 | | 9.56 |
| 1-5 Billion | 2.90 | 71.10 | 38 | .04 | 5.56 | | 5.97 | | 0.00 | | 10.32 | | 25.38 | | 6.08 |
| > 5 Billion | 2.98 | 49.11 | 37 | .95 | 5.03 | | 5.21 | | 0.24 | | 6.48 | | 12.45 | | 5.77 |
| Total | 4.07 | 8 6.7 8 | 25 | .22 | 4.74 | | 5.01 | | 0.00 | | 26.36 | | 33.41 | | 6.08 |

Table 4 - Selected Mediana for Failed and High Riak Issuers by Aaset Size

.

| | Ins Br Dep/ Earn Assets | Core Dep/ Earn Assets | Purch Funds/ Earn Assets | Ins Br Dep/ Total Dep | Ins Br Dep/ Core Dep | Non-Ins Br/ Jumbo | Ins Br Dep/ Purch Funds | Ins Br Dep/ FHLB Adv | Non-Br Jumbos/ Total Dep |
|----------------------------|----------------------------|--------------------------|-----------------------------|--------------------------|-------------------------|----------------------|----------------------------|-------------------------|-----------------------------|
| Bank Failures - | - 1989 | | | | | | | | |
| 0-250 MM | 3.33 | % 8 2.92 9 | 6 24.11 % | 2.96 | 5 4.41 9 | % 0.00 | % 12.63 % | | 21.18 🕱 |
| 250-500MM | 2.86 | 66.85 | 41.86 | 3.22 | 4.23 | 0.00 | 6.38 | | 12.35 |
| 500-1 Billion | 19.18 | 64.43 | 42.97 | 22.23 | 30.31 | 0.00 | 41.80 | | 34.54 |
| 1-5 Billion > 5 Billion | 0.93 | 60.04 | 53.07 | 1.08 | 1.55 | 0.00 | 1.75 | | 30.61 |
| Total | 3.22 | 78.22 | 30.15 | 2.95 | 4.14 | 0.00 | 9.97 | | 22.19 |
| Thrift Failures | - 1989 | | | | | | | | |
| 0-250 MM | 10:33 | 98.77 | 21.00 | 8.92 | 9.73 | 0.00 | 51.91 | 133.34 🕱 | 2.40 |
| 250-500MM | 5.34 | 93.17 | 24.59 | 5.71 | 7.60 | 0.00 | 32.13 | 92.25 | 5.75 |
| 500-1 Billion | 7.01 | 84.31 | 29.31 | 8.15 | 8.95 | 0.00 | 25.78 | 67.77 | 8.32 |
| 1-5 Billion | 7.50 | 73.96 | 41.41 | 8.05 | 8.83 | 0.00 | 17.69 | 37.26 | 9.19 |
| > 5 Billion | 12.88 | 68.60 | 44.50 | 16.23 | 17.61 | 0.00 | 32.36 | 86.52 | 7.03 |
| Total | 9.01 | 95.01 | 23.86 | 9.02 | 9.85 | 0.00 | 43.59 | 80.59 | 4.21 |
| Bank Failures - | 1988 | | | | | | | | |
| 0-250 MM | 8.45 | 76.58 | 29.44 | 8.28 | 12.53 | 0.00 | 24.42 | | 24.77 |
| 250-500MM | 5.31 | 85.32 | 21.51 | 4.49 | 6.23 | 8.67 | 24.69 | | 18.16 |
| 500-1 Billion | 3.40 | 6 6.97 | 40.43 | 3.56 | 5.40 | 1.39 | 8.01 | | 32.15 |
| 1-5 Billion | 0.57 | 26.22 | 78.80 | 1.35 | 1.94 | 0.00 | 0.65 | | 30.26 |
| > 5 Billion | | | | | | | | | |
| Total | 7.12 | 76.58 | 34.61 | 7.06 | 10.73 | 0.00 | 24.42 | | 30.48 |
| Thrift Failures | - 1988 | | | | | | | | |
| 0-250 MM | 5.25 | 106.04 | 17.95 | 5.02 | 5.32 | NA | 36.41 | 66.02 | NA |
| 250-500MM | 10. 76 | 111.19 | 22.69 | 8.96 | 9.07 | NA | 43.61 | 64.86 | NA |
| 500-1 Billion | 7.02 | 99.87 | 16.93 | 6.30 | 6.48 | NA | 41.48 | 59.96 | NA |
| 1-5 Billion | 5.93 | 90.09 | 21.96 | 8.23 | 8.88 | NA | 19.65 | 80.13 | NA |
| > 5 Billion | 3.64 | 57.72 | 47.71 | 4.57 | 4.94 | NA | 10.47 | 79.32 | NA |
| Total | 6.02 | 107.82 | 18.26 | 6.42 | 6.52 | NA | 38.17 | 61.86 | NA |

| | Ins Br Dep/ Earn Assets | | Core Dep/ Earn Assets | | Purch Funds Earn Assets | J | lns Br Dep/ Total Dep | | Ins Br Dep/ Core Dep | | Non-Ins Br/ Jumbo | Ins Br Dep/ Purch Funds | | Ins Br Dep FHLB Adv |) / | Non-Br Jumbos/ Total Dep |
|--|----------------------------|---|--------------------------|---|----------------------------|---|--------------------------|---|-------------------------|---|----------------------|----------------------------|---|------------------------|--------|-----------------------------|
| Bank Failures - | - 1987 | | | | | | | | | | | | | | | |
| 0-250 MM | 5.05 | % | 75.78 | % | 31.02 | % | 4.61 | % | 6.02 | % | NA | 2.41 | % | | | NA |
| 250-500MM 500-1 Billion 1-5 Billion > 5 Billion | 5.20 | | 68.12 | | 44.59 | | 5.14 | | 7.64 | | NA | 11.67 | | | Ŧ | NA |
| Total | 5.20 | | 45.78 | | 32.81 | | 5.14 | | 7.19 | | NA | 21.41 | | | | NA |
| Thrift Failures | - 1987 | | | | | | | | | | | | | | | |
| 0-250 MM | 0.72 | | 91.93 | | 18.17 | | 1.14 | | 1.15 | | NA | 9.40 | | 1.83 | % | NA |
| 250-500MM | 5.33 | | 76.19 | | 16.48 | | 7.02 | | 7.17 | | NA | 16. 69 | | 26.90 | | NA |
| 500-1 Billion | 0.12 | | 87.32 | | 38.34 | | 0.10 | | 0.12 | | ŅA | 0.40 | | 0.96 | | NA |
| 1-5 Billion | 19.76 | | 94.89 | | 18.99 | | 21.52 | | 23.20 | | ŇA | 150.10 | | 757.48 | | NA |
| > 5 Billion | NA | | NA | | NA | | NA | | NA | | NA | NA | | NA | | NA |
| Total | 0.99 | | 91.93 | | 18.21 | | 9.09 | | 1.24 | | NA | 9.56 | | 26.90 | | NA |

Note: For the thrift 1987 and 1988 failures and the bank 1988 failures, total brokered deposits were use as a proxy for insured brokered deposits as the data proved either not available or proved unreliable.

| | 1987 | | 1988 | | 1989 | | 1990 | | 5 Rated | |
|-------------------------|----------------|---|--------|---|--------------|---|--------|---|----------------|---|
| Midwest Region: | | | | | | | | | | |
| Number of Thrifts | 9 | | 51 | | 63 | | 43 | | 8 | |
| With Insured Br Deps | 3 | | 12 | | 18 | | 14 | | 3 | |
| % Insured Br Deps | 33.33 | % | 23.53 | % | 28.57 | % | 32.56 | % | 37.50 | X |
| Ins Br Dep/Earn Assets | 0.72 | | 2.17 | | 2.56 | | 0.74 | | 0.54 | |
| Core Dep/Earn Assets | 98.32 | | 90.09 | | 86.24 | | 88.75 | | 76.43 | |
| Purch Funds/Earn Assets | 9.09 | | 23.56 | | 27.25 | | 21.77 | | 22.64 | |
| Ins Br Dep/Total Dep | 1.24 | | 2.16 | | 3.04 | | 1.20 | | 0.75 | |
| Ins Br Dep/Core Dep | 1.28 | | 2.27 | | 3.75 | | 1.38 | | 0.80 | |
| Non Ins Br Dep/Jumbos | NA | | NA | | 0.00 | | 0.00 | | 0.00 | |
| Ins Br Dep/Purch Funds | 13.88 | | 9.21 | | 7.35 | | 10.32 | | 0.86 | |
| Non Br Jumbo/Total Dep | NA | | NA | | 1.84 | | 3.37 | | 7.85 | |
| Ins Br Dep/FHLB Adv | 23.62 | | 8.61 | | 19.37 | | 15.05 | | 2.41 | |
| Far West Region: | | | | | | | | | | |
| Number of Thrifts | 14 | | 29 | | 38 | | 26 | | 8 | |
| With Insured Br Deps | 12 | | 22 | | 21 | | 15 | | 6 | |
| % Insured Br Deps | 85.71 | % | 75.86 | % | 55.26 | % | 57.69 | % | 75.00 | x |
| Ins Br Dep/Earn Assets | 0.99 | | 3.32 | | 10.66 | | 4.07 | | 7.47 | |
| Core Dep/Earn Assets | 86.07 | | 107.82 | | 88.89 | | 76.33 | | 71.17 | |
| Purch Funds/Earn Assets | 22.80 | | 20.59 | | 23.86 | | 19.50 | | 30.55 | |
| Ins Br Dep/Total Dep | 1.14 | | 4.05 | | 8.27 | | 5.92 | | 9.60 | |
| Ins Br Dep/Core Dep | 1.15 | | 4.53 | | 9.7 0 | | 6.27 | | 10.70 | |
| Non Ins Br Dep/Jumbos | NA | | NA | | 0.00 | | 0.00 | | 0.00 | |
| Ins Br Dep/Purch Funds | 9.40 | | 16.38 | | 32.36 | | 34.19 | | 22.89 | |
| Non Br Jumbo/Total Dep | NA | | NA | | 5.77 | | 10.77 | | 9.53 | |
| Ins Br Dep/FHLB Adv | 1.10 | | 22.08 | | 111.39 | | 117.45 | | 54.50 | |
| All Thrifts: | | | | | | | | | | |
| Number of Thrifts | 48 | | 205 | | 325 | | 199 | | 44 | |
| With Insured Br Deps | 31 | | 119 | | 168 | | 87 | | 22 | |
| % Insured Br Deps | 64.58 | % | 58.05 | % | 51.69 | % | 43.72 | % | 50.00 | X |
| Ins Br Dep/Earn Assets | 0.99 | | 6.02 | | 9.01 | | 4.07 | | 1.58 | |
| Core Dep/Earn Assets | 91.93 | | 107.82 | | 95.01 | | 86.78 | | 72. 8 0 | |
| Purch Funds/Earn Assets | 18.21 | | 18.26 | | 23.86 | | 25.22 | | 29.30 | |
| Ins Br Dep/Total Dep | 9.09 | | 6.42 | | 9.02 | | 4.74 | | 1.77 | |
| Ins Br Dep/Core Dep | 1.24 | | 6.52 | | 9.85 | | 5.01 | | 1.88 | |
| Non-BR Jumbo/Total Deps | NA | | NA | | 0.00 | | 0.00 | | 0.00 | |
| Ins Br Dep/Purch Funds | 9.56 | | 38.17 | | 43.58 | | 26.56 | | 6.34 | |
| Non Br Jumbo/Total Dep | NA | | NA | | 4.21 | | 6.08 | | 9.53 | |
| Ins Br Dep/FHLB Adv | 26. 9 0 | | 61.86 | | 80.59 | | 63.45 | | 10.58 | |

Note: For the thrift 1987 and 1988 Failures and the bank 1987 failures, total brokered deposits were used as a proxy for insured brokered deposits.

| | 1987 | | 1988 | 3 | 1989 |) | 1990 | | 5 Rated | |
|-------------------------|---------------|---|---------------|---|---------------|---|--------------|---|---------|-----|
| Thrifts: | | | | | | | | | | |
| Atlantic Region: | | | | | | | | | | |
| Number of Thrifts | 2 | | 3 | 1 | 12 | | 28 | | 11 | l |
| With Insured Br Deps | 1 | | 1 | | 4 | | 9 | | 4 | ٢ |
| % Insured Br Deps | 50.00 | % | 33.33 | % | 33.33 | % | 32.14 | % | 36.36 | i X |
| Ins Br Dep/Earn Assets | 0.15 | | 0.03 | | 3.48 | | 4.65 | | 1.21 | |
| Core Dep/Earn Assets | 77.19 | | 127.84 | | 82.38 | | 82.37 | | 68.45 | • |
| Purch Funds/Earn Assets | 18.17 | | 12. 84 | | 24.37 | | 26.44 | | 33.61 | |
| Ins Br Dep/Total Dep | 0.18 | | 0.03 | | 3.42 | | 5.36 | | 1.49 | I |
| Ins Br Dep/Core Dep | 0.19 | | 0.03 | | 3.77 | | 5.84 | | 1.73 | , |
| Non Ins Br Dep/Jumbos | NA | | NA | | 0.00 | | 0.00 | | 0.00 | I |
| Ins Br Dep/Purch Funds | 0.80 | | 0.28 | | 22.81 | | 13.34 | | 3.97 | |
| Non Br Jumbo/Total Dep | NA | | NA | | 9.32 | | 6.91 | | 14.92 | |
| Ins Br Dep/FHLB Adv | 1.11 | | 0.47 | | 48.20 | | 25.19 | | 6.46 | |
| Southern Region: | | | | | | | | | | |
| Number of Thrifts | 7 | | 24 | | 55 | | 48 | | 16 | |
| With Insured Br Deps | 3 | | 8 | | 26 | | 28 | | 8 | |
| % Insured Br Deps | 42.86 | % | 33.33 | % | 47.27 | % | 58.33 | % | 50.00 | X |
| Ins Br Dep/Earn Assets | 11.53 | | 2.21 | | 8.04 | | 1.01 | | 2.05 | |
| Core Dep/Earn Assets | 9 9,84 | | 85.59 | | 91.76 | | 83.06 | | 74.09 | |
| Purch Funds/Earn Assets | 13.24 | | 28.93 | | 30.74 | | 21.92 | | 29.30 | |
| Ins Br Dep/Total Dep | 9.42 | | 2.47 | | 8.83 | | 1.26 | | 2.25 | |
| Ins Br Dep/Core Dep | 9.77 | | 2.58 | | 9 .01 | | 1.43 | | 2.46 | |
| Non Ins Br Dep/Jumbos | NA | | NA | | 0.00 | | 0.00 | | 1.85 | |
| Ins Br Dep/Purch Funds | 150.10 | | 7.62 | | 43.14 | | 5.44 | | 14.26 | |
| Non Br Jumbo/Total Dep | NA | | NA | | 6.56 | | 5.86 | | 9.48 | |
| Ins Br Dep/FHLB Adv | 270.11 | | 12.53 | | 81.18 | | 16.59 | | 32.52 | |
| Southwest Region: | | | | | | | | | | |
| Number of Thrifts | 16 | | 98 | | 157 | | 54 | | 1 | |
| With Insured Br Deps | 12 | | 76 | | 99 | | 21 | | 1 | |
| % Insured Br Deps | 75.00 | % | 77.55 | % | 63.06 | % | 38.89 | % | NM | |
| Ins Br Dep/Earn Assets | 0.46 | | 7.35 | | 11.53 | | 4.16 | | 48.89 | x |
| Core Dep/Earn Assets | 83.95 | | 100.00 | | 9 9.75 | | 88.76 | | 89.49 | |
| Purch Funds/Earn Assets | 13.45 | | 11.88 | | 22.96 | | 16.65 | | 12.50 | |
| Ins Br Dep/Total Dep | 2.03 | | 6.42 | | 11.75 | | 5.03 | | 53.48 | |
| Ins Br Dep/Core Dep | 2.12 | | 6.49 | | 12.54 | | 5.21 | | 54.63 | |
| Non Ins Br Dep/Jumbos | NA | | NA | | 0.00 | | 0.00 | | 0.00 | |
| Ins Br Dep/Purch Funds | 9.56 | | 38.17 | | 53.22 | | 30.33 | | 391.08 | |
| Non Br Jumbo/Total Dep | NA | | NA | | 3.39 | | 4.17 | | 2.11 | |
| Ins Br Dep/FHLB Adv | 26.9 0 | | 48.23 | | 112.31 | | 33.41 | | 471.59 | |

| | 1987 | | 1988 | | 1989 | | 1990 | | 5 Rated | |
|-------------------------|-------|---|---------------|---|-----------------------|---|---------------|---|---------|---|
| Midwest Region: | | | | | | | | | | |
| Number of Banks | 50 | | 25 | | 12 | | 7 | | 8 | , |
| With Insured Br Deps | 2 | | 3 | | · 1 | | 0 | | 1 | |
| % Insured Br Deps | 4.00 | % | 12.00 | % | 8.33 | % | NA | | 12.50 | * |
| Ins Br Dep/Earn Assets | 0.80 | | 17.60 | | 1.63 | | NA | | 5.80 | |
| Core Dep/Earn Assets | 93.14 | | 89.61 | | 9 9.77 | | NA | | 69.00 | |
| Purch Funds/Earn Assets | 10.77 | | 18.76 | | 7.12 | | NA | | 29.82 | |
| Ins Br Dep/Total Dep | 0.78 | | 16.30 | | 1.53 | | NA | | 5.97 | |
| Ins Br Dep/Core Dep | 0.83 | | 18.57 | | 1.63 | | NA | | 8.41 | |
| Non Ins Br Dep/Jumbos | NA | | 0.00 | | 0.00 | | NA | | 0.11 | |
| Ins Br Dep/Purch Funds | 16.26 | | 82.26 | | 22.88 | | NA | | 19.46 | |
| Non Br Jumbo/Total Dep | NA | | 17.07 | | 6.29 | | NA | | 28.95 | |
| Far West Region: | | | | | | | | | | |
| Number of Banks | 13 | | 4 | | 9 | | 9 | | 8 | |
| With Insured Br Deps | 5 | | 1 | | 2 | | 3 | | 2 | |
| % Insured Br Deps | 38.46 | % | 25.00 | % | 22.22 | % | 33.33 | % | 25.00 | X |
| Ins Br Dep/Earn Assets | 12.23 | | 32.47 | | 43.33 | | 0.39 | | 16.21 | |
| Core Dep/Earn Assets | 77.10 | | 57.74 | | 89.72 | | 9 2.90 | | 77.41 | |
| Purch Funds/Earn Assets | 28.55 | | 46.93 | | 24.90 | | 14.78 | | 24.59 | |
| Ins Br Dep/Total Dep | 11.98 | | 31.02 | | 39.97 | | 0.37 | | 15.94 | |
| Ins Br Dep/Core Dep | 15.26 | | 56.24 | | 58.07 | | 0.47 | | 20.00 | |
| Non Ins Br Dep/Jumbos | NA | | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Ins Br Dep/Purch Funds | 40.38 | | 69.19 | | 184.75 | | 1.70 | | 79.09 | |
| Non Br Jumbo/Total Dep | NA | | 44.84 | | 2 1. 87 | | 11.48 | | 24.10 | |
| All Banks: | | | | | | | | | | |
| Number of Banks | 176 | | 203 | | 195 | | 167 | | 132 | |
| With Insured Br Deps | 25 | | 19 | | 32 | | 34 | | 48 | |
| % Insured Br Deps | 14.20 | % | 9.36 | % | 16.41 | % | 20.36 | % | 36.36 | X |
| Ins Br Dep/Earn Assets | 5.20 | | 7.12 | | 3.22 | | 5.99 | | 3.03 | |
| Core Dep/Earn Assets | 75.78 | | 76.58 | | 78.22 | | 93.05 | | 78.09 | |
| Purch Funds/Earn Assets | 32.81 | | 34.61 | | 30.15 | | 17.30 | | 20.95 | |
| Ins Br Dep/Total Dep | 5.14 | | 7.06 | | 2.95 | | 5.70 | | 3.46 | |
| Ins Br Dep/Core Dep | 7.19 | | 10.7 3 | | 4.14 | | 6.18 | | 3.89 | |
| Non Ins Br Dep/Jumbos | NA | | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Ins Br Dep/Purch Funds | 21.41 | | 24.42 | | 9.97 | | 38.26 | | 17.30 | |
| Non Br Jumbo/Total Dep | NA | | 30.48 | | 22.1 9 | | 12.62 | | 12.46 | |

| | 1987 | | 1988 | 1989 | | 1990 | | 5 Rated |
|-------------------------|-------|---|--------|----------------|---|-------|---|----------------|
| Banks: | | | | | | | | |
| Atlantic Region: | | | | | | | | |
| Number of Banks | 2 | | 1 | 5 | | 15 | | 55 |
| With Insured Br Deps | 1 | | 0 | 3 | | 10 | | 36 |
| % Insured Br Deps | 50.00 | % | NA | 60.00 | % | 66.67 | % | 65.45 X |
| Ins Br Dep/Earn Assets | 19.04 | | NA | 14.69 | | 7.89 | | 4.22 |
| Core Dep/Earn Assets | 93.56 | | NA | 84.92 | | 86.83 | | 76.9 0 |
| Purch Funds/Earn Assets | 29.83 | | NA | 16. 9 2 | | 16.10 | | 21.50 |
| Ins Br Dep/Total Dep | 15.43 | | NA | 14.06 | | 7.97 | | 4.43 |
| Ins Br Dep/Core Dep | 20.35 | | NA | 16.78 | | 9.12 | | 5.69 |
| Non Ins Br Dep/Jumbos | NA | | NA | 4.71 | | 0.00 | | 0.00 |
| Ins Br Dep/Purch Funds | 63.52 | | NA | 80.88 | | 57.52 | | 22.51 |
| Non Br Jumbo/Total Dep | NA | | NA | 15.43 | | 11.86 | | 12.45 |
| Southern Region: | | | | | | | | |
| Number of Banks | 6 | | 3 | 7 | | 11 | | 9 |
| With Insured Br Deps | 1 | | 0 | 3 | | 4 | | 2 |
| % Insured Br Deps | 16.67 | % | NA | 42.86 | % | 36.36 | % | 22.22 🕱 |
| Ins Br Dep/Earn Assets | 7.70 | | NA | 4.84 | | 10.32 | | 0.92 |
| Core Dep/Earn Assets | 75.36 | | NA | 89.24 | | 85.37 | | 88.34 |
| Purch Funds/Earn Assets | 31.02 | | NA | 22.39 | | 19.01 | | 12.85 |
| Ins Br Dep/Total Dep | 7.24 | | NA | 4.66 | | 12.30 | | 0.92 |
| Ins Br Dep/Core Dep | 10.21 | | NA | 5.42 | | 15.07 | | 1.05 |
| Non Ins Br Dep/Jumbos | NA | | NA | 0.00 | | 0.00 | | 0.00 |
| Ins Br Dep/Purch Funds | 24.81 | | NA | 33.33 | | 44.39 | | 6.96 |
| Non Br Jumbo/Total Dep | NA | | NA | 19.51 | | 13.01 | | 11.56 |
| Southwest Region: | | | | | | | | |
| Number of Banks | 105 | | 170 | 162 | | 125 | | 52 |
| With Insured Br Deps | 16 | | 15 | 23 | | 17 | | 7 |
| % Insured Br Deps | 15.24 | % | 8.82 % | 14.20 | % | 13.60 | % | 13.46 🕱 |
| Ins Br Dep/Earn Assets | 3.28 | | 5.06 | 1.54 | | 4.03 | | 0.58 |
| Core Dep/Earn Assets | 72.46 | | 71.09 | 7 2.78 | | 95.00 | | 85.92 |
| Purch Funds/Earn Assets | 35.31 | | 34.61 | 34.38 | | 17.32 | | 13.06 |
| Ins Br Dep/Total Dep | 2.64 | | 4.70 | 1.56 | | 3.15 | | 0.65 |
| Ins Br Dep/Core Dep | 4.57 | | 5.99 | 2.82 | | 3.45 | | 0.76 |
| Non Ins Br Dep/Jumbos | NA | | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Ins Br Dep/Purch Funds | 11.67 | | 17.19 | 4.95 | | 24.59 | | 3.07 |
| Non Br Jumbo/Total Dep | NA | | 30.48 | 29.42 | | 14.29 | | 12.17 |

Table 6 - Incidence of Failed and High Risk Issuers

"5" Rated Institutions as of 6/30/90:

Banks By State

| | Τσ | tal Industry by | y State | | 5 Rated Banks by State | | | | | |
|----------------------|-------------|-----------------|-----------|----------|------------------------|----------|-----------|---------------|--|--|
| | | With | Insured | % With | | With | With | % With | | |
| | Number | Insured | Brokered | Insured | Number | Insured | Brokered | Insured | | |
| | of | Brokered | Deposits/ | Brokered | of | Brokered | Deposits/ | Brokered | | |
| | Banks | Deposits | Dep > 1 % | Deposits | Banks | Deposits | Dep > 1% | Deposits | | |
| Connecticut | 133 | 43 | 36 | 32.33 | 18 | 11 | . 11 | 61.11 | | |
| Delaware | 49 | 17 | 14 | 34.69 | | | | | | |
| Maine | 39 | 9 | 7 | 23.08 | 2 | 2 | 2 | NM | | |
| Massachusetts | 317 | 8 6 | 61 | 27.13 | 10 | 7 | 6 | 70.00 | | |
| New Hampshire | 77 | 26 | 19 | 33.77 | 12 | 11 | 8 | 91.67 | | |
| New Jersey | 145 | 15 | 11 | 10.34 | 3 | 0 | 0 | 0.00 | | |
| New York | 256 | 44 | 34 | 17.19 | 7 | 3 | 3 | 42.8 6 | | |
| Pennsylvania | 310 | 25 | 14 | 8.06 | 1 | 1 | 1 | NM | | |
| Puerto Rico | 15 | 5 | 4 | 33.33 | 1 | 0 | 0 | NM | | |
| Rhode Island | 17 | 5 | 5 | 29.41 | 1 | 1 | 1 | NM | | |
| Vermont | 32 | 9 | 7 | 28.13 | | | | | | |
| Virgin Islands | | | | | | | | | | |
| Atlantic Region | 1390 | 284 | 212 | 20.43 | 55 | 36 | 32 | 65.45 | | |
| Alabama | 221 | 1 | 0 | 0.45 | | | | | | |
| Arkansas | 257 | 4 | 2 | 1.56 | | | | | | |
| Canal Zone | | | | | | | | | | |
| District of Columbia | 26 | 9 | 8 | 34.62 | 1 | 1 | 1 | NM | | |
| Florida | 429 | 14 | 7 | 3.26 | 5 | 0 | 0 | 0.00 | | |
| Georgia | 406 | 30 | 20 | 7,39 | 1 | 0 | 0 | NM | | |
| Kentucky | 333 | 6 | 4 | 1.80 | | | | | | |
| Maryland | 105 | 20 | 14 | 19.05 | | | | | | |
| Mississippi | 123 | 2 | 0 | 1.63 | | | | | | |
| North Carolina | 80 | 6 | 2 | 7.50 | | | | | | |
| South Carolina | 85 | 3 | 3 | 3.53 | | | | | | |
| Tennessee | 26 0 | 2 | 0 | 0.77 | 1 | 0 | 0 | NM | | |
| Virginia | 179 | 20 | 16 | 11.17 | 1 | 1 | 0 | NM | | |
| West Virginia | 181 | 7 | 5 | 3.87 | | | | | | |
| Southern Region | 2685 | 124 | 81 | 4.62 | 9 | 2 | 1 | 22.22 | | |
| Colorado | 446 | 11 | 7 | | 9 | 0 | 0 | 0.00 | | |
| Louisiana | 232 | 3 | 0 | 1.29 | 8 | 1 | 1 | 12.50 | | |
| New Mexico | 91 | 4 | 3 | 4.40 | | | | | | |
| Oklahoma | 421 | 3 | 2 | 0.71 | 5 | 1 | 1 | 20.00 | | |
| Тсхаз | 1193 | 38 | 11 | 3.19 | 30 | 5 | 0 | 16.67 | | |
| Southwest Region | 2383 | 59 | 23 | 2.48 | 52 | 7 | 2 | 13.46 | | |

Table 6 - Incidence of Failed and High Risk Issuers

"5" Rated Institutions as of 6/30/90:

| Illinois | 1099 | 32 | 23 | 2.91 | | 2 | 0 | 0 | NM |
|--------------------|-------------|-------------|-----|-------|----|---|----|----|-------|
| Indiana | 304 | 10 | 3 | 3.29 | | | | | |
| Iowa | 565 | 4 | 3 | 0.71 | | 1 | 0 | 0 | NM |
| Kansas | 559 | 8 | 4 | 1.43 | | 1 | 0 | 0 | NM |
| Michigan | 246 | 9 | 3 | 3.66 | | | | | |
| Minnesota | 625 | 9 | 7 | 1.44 | | | | | |
| Missouri | 545 | 16 | 9 | 2.94 | | 2 | 1 | 1 | NM |
| Montana | 156 | 0 | 0 | 0.00 | | 1 | 0 | 0 | NM |
| Nebraska | 390 | 3 | 1 | 0.77 | | | | | |
| North Dakota | 152 | 3 | 1 | 1.97 | | | | | |
| Ohio | 287 | 10 | 8 | 3.48 | | 1 | 0 | 0 | NM |
| South Dakota | 125 | 3 | 2 | 2.40 | | | | | |
| Wisconsin | 482 | 5 | 5 | 1.04 | | | | | |
| Wyoming | 71 | 0 | 0 | 0.00 | | | | | |
| Midwest Region | 5606 | 112 | 69 | 2.00 | | 8 | 1 | 1 | 12.50 |
| Alaska | 8 | 1 | 1 | 12.50 | | | | | |
| American Samoa | 1 | 0 | 0 | 0.00 | | | | | |
| Arizona | 38 | 6 | 4 | 15.79 | | 2 | 0 | 0 | NM |
| California | 481 | 88 | 65 | 18.30 | | 6 | 2 | 2 | 33.33 |
| Guam & Trust Terr. | 2 | 0 | 0 | 0.00 | | | | | |
| Hawaii | 21 | 3 | 3 | 14.29 | | | | | |
| Idaho | 22 | 2 | 2 | 9.09 | | | | | |
| Nevada | 19 | 3 | 3 | 15.79 | | | | | |
| Oregon | 50 | 0 | 0 | 0.00 | | | | | |
| Utah | 57 | 8 | 7 | 14.04 | | | | | |
| Washington | 106 | 10 | 5 | 9.43 | | | | | |
| Far West Region | 8 05 | 121 | 90 | 15.03 | | 8 | 2 | 2 | 25.00 |
| Total | 12869 | 70 0 | 475 | 5.44 | 13 | 2 | 48 | 37 | 36.36 |
| | | | | | | | | | |

Table 5 - Incidence of Failed and High Risk Issuers

"5" Rated Institutions as of 6/30/90:

Thrifts by State

| | Total Industry by State | | 5 | 5 Rated Thrift | a by State | | | | |
|----------------------|-------------------------|----------|-----------|----------------|------------|----------|-----------|----------|------|
| | | With | Insured | % With | Number | With | Insured | % With | |
| | Number | Insured | Brokered | Insured | of | Insured | Brokered | Insured | With |
| | of | Brokered | Deposits/ | Brokered | 5 Rated | Brokered | Deposits/ | Brokered | FHLB |
| | Thrifts | Deposits | Dep > 1% | Deposits | Thrifts | Deposits | Dep > 1% | Deposits | Adv |
| Connecticut | 25 | 9 | 9 | 36.00 | | | | | |
| Delaware | 5 | 1 | 1 | 20.00 | | | | | |
| Maine | 16 | 3 | 3 | 18.75 | | 1 | | | |
| Massachusetts | 30 | 10 | 5 | 33.33 | 1 | 1 | 0 | NM | 1 |
| New Hampshire | 12 | 4 | 4 | 33.33 | 1 | 1 | 1 | NM | 1 |
| New Jersey | 126 | 11 | 6 | 8.73 | 5 | 2 | 1 | 40.00 | 5 |
| New York | 91 | 10 | 7 | 10.99 | 1 | 0 | 0 | NM | 0 |
| Pennsylvania | 154 | 17 | 12 | 11.04 | 2 | 0 | 0 | NM | 2 |
| Puerto Rico | 10 | 8 | 7 | 80.00 | | | | | |
| Rhode Island | 4 | 1 | 1 | 25.00 | 1 | 0 | 0 | NM | 1 |
| Vermont | 4 | 0 | 0 | 0.00 | | | | | |
| Virgin Islands | 3 | 0 | 0 | 0.00 | | | | | |
| Atlantic Region | 480 | . 74 | 55 | 15.42 | 11 | 4 | 2 | 36.36 | 10 |
| Alabama | 33 | 4 | 2 | 12.12 | | | | | |
| Arkansas | 31 | 8 | 6 | 25.81 | 1 | 0 | 0 | NM | 1 |
| Canal Zone | 0 | 0 | 0 | | | | | | |
| District of Columbia | 5 | 2 | 1 | 40.00 | 1 | 1 | 0 | NM | 1 |
| Florida | 129 | 42 | 24 | 32.56 | 6 | 1 | 1 | 16.67 | 6 |
| Georgia | 62 | 12 | 8 | 19.35 | 1 | 1 | 0 | NM | 1 |
| Kentucky | 61 | 1 | 1 | 1.64 | | | | | |
| Maryland | 9 5 | 16 | 13 | 16.84 | 3 | 1 | 0 | 33.33 | 2 |
| Mississippi | 36 | 9 | 7 | 25.00 | | | | | |
| North Carolina | 126 | 14 | 12 | 11.11 | 1 | 1 | 1 | NM | 1 |
| South Carolina | 48 | 4 | 2 | 8.33 | | | | | |
| Tennessee | 51 | 3 | 1 | 5.88 | | | | | |
| Virginia | 58 | 27 | 18 | 46.55 | 3 | 3 | 3 | 100.00 | 3 |
| West Virginia | 16 | 4 | 3 | 25.00 | | | | | |
| Southern Region | 751 | 146 | 98 | 19.44 | 16 | 8 | 5 | 50.00 | 15 |
| Colorado | 24 | 10 | 9 | 41.67 | | | | | |
| Louisiana | 71 | 12 | 11 | 16.90 | 1 | 1 | 1 | NM | 1 |
| New Mexico | 20 | 7 | 4 | 35.00 | | | | | |
| Oklahoma | 31 | 7 | 3 | 22.58 | | | | | |
| Техаз | 147 | 62 | 52 | 42.18 | | | | | |
| Southwest Region | 293 | 98 | 79 | 33.45 | 1 | 1 | 1 | NM | 1 |

Table 6 - Incidence of Failed and High Risk Issuers

1990 Failures:

Banks By State

| | Total Industry by State | | | | Failed Banks by State | | | | |
|----------------------|-------------------------|------------|-----------|----------|-----------------------|----------|-----------|----------|--|
| | | With | Insured | % With | | With | Insured | % With | |
| | Number | Insured | Brokerd | Insured | Number | Insured | Brokerd | Insured | |
| | of | Brokered | Deposits/ | Brokered | of Failed | Brokered | Deposits/ | Brokered | |
| | Banks | Deposits | Dep > 1% | Deposits | Banks | Deposits | Dep > 1 % | Deposits | |
| Connecticut | 133 | 43 | 36 | 32.33 | 1 | 1 | 1 | NM | |
| Delaware | 49 | 17 | 14 | 34.69 | | | | | |
| Maine | 39 | 9 | 7 | 23.08 | | 1 | | | |
| Massachusetts | 317 | 8 6 | 61 | 27.13 | 8 | 6 | 6 | 75.00 | |
| New Hampshire | 77 | 26 | 19 | 33.77 | 1 | 1 | 1 | NM | |
| New Jersey | 145 | 15 | 11 | 10.34 | 2 | 1 | 1 | NM | |
| New York | 256 | 44 | 34 | 17.19 | 3 | 1 | 1 | 33.33 | |
| Pennsylvania | 310 | 25 | 14 | 8.06 | | | | | |
| Puerto Rico | 15 | 5 | 4 | 33.33 | | | | | |
| Rhode Island | 17 | 5 | 5 | 29.41 | | | | | |
| Vermont | 32 | 9 | 7 | 28.13 | | | | | |
| Virgin Islands | | | | | | | | | |
| Atlantic Region | 1390 | 284 | 212 | 20.43 | 15 | 10 | 10 | 66.67 | |
| Alabama | 221 | 1 | 0 | 0.45 | | | | | |
| Arkansas | 257 | 4 | 2 | 1.56 | 1 | 0 | 0 | NM | |
| Canal Zone | | | | | | | | | |
| District of Columbia | 26 | 9 | 8 | 34.62 | 1 | 1 | 1 | NM | |
| Florida | 429 | 14 | 7 | 3.26 | 7 | 2 | 2 | 28.57 | |
| Georgia | 406 | 30 | 20 | 7.39 | | | | | |
| Kentucky | 333 | 6 | 4 | 1.80 | · 1 | 0 | 0 | NM | |
| Maryland | 105 | 20 | 14 | 19.05 | | | | | |
| Mississippi | 123 | 2 | 0 | 1.63 | | | | | |
| North Carolina | 80 | 6 | 2 | 7.50 | | | | | |
| South Carolina | 85 | 3 | 3 | 3.53 | | | | | |
| Tennessee | 260 | 2 | 0 | 0.77 | 1 | 1 | 1 | NM | |
| Virginia | 179 | 2 0 | 16 | 11.17 | | | | | |
| West Virginia | 181 | 7 | 5 | 3.87 | | | | | |
| Southern Region | 2685 | 124 | 81 | 4.62 | 11 | 4 | 4 | 36.36 | |
| Colorado | 446 | 11 | 7 | 2.47 | 7 | 1 | 1 | 14.29 | |
| Louisiana | 232 | 3 | 0 | 1.29 | 4 | 0 | 0 | 0.00 | |
| New Mexico | 91 | 4 | 3 | 4.40 | 2 | 0 | 0 | NM | |
| Oklahoma | 421 | 3 | 2 | 0.71 | 10 | 0 | 0 | 0.00 | |
| Тсхав | 1193 | 38 | 11 | 3.19 | 102 | 16 | 13 | 15.69 | |
| Southwest Region | 2383 | 59 | 23 | 2.48 | 125 | 17 | 14 | 13.60 | |

Table 6 - Incidence of Failed and High Risk Issuers

"5" Rated Institutions as of 6/30/90:

| Illinois | 214 | 15 | 9 | 7.01 | 1 | 0 | 0 | NM | 1 |
|-----------------|--------------|-----|-----|-------|----|----|----|-------|----|
| Indiana | 96 | 5 | 4 | 5.21 | | | | | |
| Iowa | 41 | 2 | 2 | 4.88 | | | | | |
| Kansas | 41 | 10 | 6 | 24.39 | 1 | 0 | 0 | NM | 1 |
| Michigan | 42 | 9 | 6 | 21.43 | 2 | 0 | 0 | NM | 2 |
| Minnesota | 29 | 3 | 2 | 10.34 | | | | | |
| Missouri | 72 | 3 | 2 | 4.17 | 1 | 1 | 0 | NM | 1 |
| Montana | 10 | 0 | 0 | 0.00 | | | | | |
| Nebraska | 19 | 4 | 1 | 21.05 | 1 | 1 | 1 | NM | 1 |
| North Dakota | 5 | . 1 | 1 | 20.00 | 1 | 0 | 0 | NM | 1 |
| Ohio | 214 | 26 | 18 | 12.15 | 1 | 1 | 0 | NM | 1 |
| South Dakota | 12 | 1 | 1 | 8.33 | | | | | |
| Wisconsin | 65 | 6 | 2 | 9.23 | | | | | |
| Wyoming | 7 | 0 | O | 0.00 | | | | | |
| Midwest Region | 867 | 85 | 54 | 9.80 | 8 | 3 | 1 | 37.50 | 8 |
| Alaska | 1 | 0 | 0 | 0.00 | | | | | |
| American Samoa | | | | | | | | | |
| Arizona | 6 | 5 | 5 | 83.33 | | | | | |
| California | 151 | 78 | 59 | 51.66 | 7 | 5 | 3 | 71.43 | 4 |
| Guam | | | | | | | | | |
| Hawaii | 6 | 2 | 1 | 33.33 | | | | | |
| Idaho | 5 | 1 | 0 | 20.00 | | | | | |
| Nevada | 6 | 2 | 1 | 33.33 | | | | | |
| Oregon | 11 | 2 | 2 | 18.18 | | | | | |
| Utah | 9 | 5 | 5 | 55.56 | 1 | 1 | 1 | NM | 0 |
| Washington | 26 | 7 | 3 | 26.92 | | | | | |
| Far West Region | 221 | 102 | 76 | 46.15 | 8 | 6 | 4 | 75.00 | 4 |
| Total | 26 12 | 505 | 362 | 19.33 | 44 | 22 | 13 | 50.00 | 38 |
| | | | | | | | | | |

1990 Failures:

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| Illinois | 1099 | 32 | 23 | 2.91 | | | | | |
|--------------------|-------------|-----|-----|-------|----|----|-----|----|-------|
| Indiana | 304 | 10 | 3 | 3.29 | | | | | |
| Iowa | 565 | 4 | 3 | 0.71 | | | | | |
| Kansas | 559 | 8 | 4 | 1.43 | | 1 | 0 | 0 | NM |
| Michigan | 246 | 9 | 3 | 3.66 | | | | | |
| Minnesota | 625 | 9 | 7 | 1.44 | | 1 | 0 | 0 | NM |
| Missouri | 54 5 | 16 | 9 | 2.94 | | 1 | 0 | 0 | NM |
| Montana | 156 | 0 | 0 | 0.00 | | | | | |
| Nebraska | 390 | 3 | 1 | 0.77 | | | | | |
| North Dakota | . 152 | 3 | 1 | 1.97 | | 3 | 0 | 0 | NM |
| Ohio | 287 | 10 | 8 | 3.48 | | 1 | 0 | 0 | NM |
| South Dakota | 125 | 3 | 2 | 2.40 | | 2 | | | |
| Wisconsin | 482 | 5 | 5 | 1.04 | | | | | |
| Wyoming | 71 | 0 | 0 | 0.00 | | | | | |
| Midwest Region | 5606 | 112 | 69 | 2.00 | | 7 | 0 | 0 | 0.00 |
| Alaska | 8 | 1 | 1 | 12.50 | | | | | |
| American Samoa | 1 | 0 | 0 | 0.00 | | | | | |
| Arizona | 38 | 6 | 4 | 15.79 | | 5 | 1 | 0 | 20.00 |
| California | 481 | 88 | 65 | 18.30 | | 4 | 2 | 1 | 50.00 |
| Guam & Trust Terr. | 2 | 0 | 0 | 0.00 | | | | | |
| Hawaii | 21 | 3 | 3 | 14.29 | | | | | |
| Idaho | 22 | 2 | 2 | 9.09 | | | | | |
| Nevada | 19 | 3 | 3 | 15.79 | | | | | |
| Oregon | 50 | 0 | 0 | 0.00 | | | | | |
| Utah | 57 | 8 | 7 | 14.04 | | | | | |
| Washington | 106 | 10 | 5 | 9.43 | | | | | |
| Far West Region | 805 | 121 | 90 | 15.03 | | 9 | • 3 | 1 | 33.33 |
| Total | 12869 | 700 | 475 | 5.44 | 10 | 67 | 34 | 29 | 20.36 |
| Total | 12869 | 700 | 475 | 5.44 | 10 | 67 | 34 | | 29 |

Table 6 - Incidence of Failed and High Risk Issuers

1990 Failures:

Thrifts by State

| | Total Industry by State | | | | Failed Thrifts by State | | | | | |
|----------------------|-------------------------|----------|-----------|----------|-------------------------|----------|-----------|----------|------|--|
| | | With | Insured | % With | | With | Insured | % With | FHLB | |
| · | Number | Insured | Brokerd | Insured | Number | Insured | Brokerd | Insured | Adv | |
| | of | Brokered | Deposits/ | Brokered | of Failed | Brokered | Deposits/ | Brokered | | |
| | Thrifts | Deposits | Dep > 1 % | Deposits | Thrifts | Deposits | Dep > 1 % | Deposits | | |
| | | | | | | | | | | |
| Connecticut | . 25 | · 9 | 9 | 36.00 | 2 | 2 | 2 | NM | 2 | |
| Delaware | 5 | 1 | 1 | 20.00 | | 1 | | | | |
| Maine | 16 | 3 | 3 | 18.75 | 1 | 0 | 1 | NM | 1 | |
| Massachusetts | 30 | 10 | 5 | 33.33 | 4 | 3 | 3 | 75.00 | 3 | |
| New Hampshire | 12 | 4 | 4 | 33.33 | | 1 | | 1 | | |
| New Jersey | 126 | 11 | 6 | 8.73 | 11 | 1 | 1 | 9.09 | 9 | |
| New York | 91 | 10 | 7 | 10.99 | 6 | 2 | 2 | 33.33 | 6 | |
| Pennsylvania | 154 | 17 | 12 | 11.04 | 3 | 1 | 0 | 33.33 | 2 | |
| Puerto Rico | 10 | 8 | 7 | 80.00 | 1 | 0 | 0 | NM | 1 | |
| Rhode Island | 4 | . 1 | 1 | 25.00 | | | | | | |
| Vermont | 4 | 0 | 0 | 0.00 | | | | | | |
| Virgin Islands | 3 | 0 | 0 | 0.00 | | | | | • | |
| Atlantic Region | 480 | 74 | 55 | 15.42 | 28 | 9 | 9 | 32.14 | 24 | |
| Alabama | 33 | 4 | 2 | 12.12 | 2 | 0 | 0 | NM | 2 | |
| Arkansas | 31 | 8 | 6 | 25.81 | 5 | 3 | 2 | 60.00 | 4 | |
| Canal Zone | 0 | 0 | 0 | | | | | | | |
| District of Columbia | 5 | 2 | 1 | 40.00 | | | | | | |
| Florida | 129 | 42 | 24 | 32.56 | 14 | 8 | 4 | 57.14 | 14 | |
| Georgia | 62 | 12 | 8 | 19.35 | 2 | 1 | 1 | NM | 2 | |
| Kentucky | 61 | 1 | . 1 | 1.64 | 1 | 0 | 0 | NM | 1 | |
| Maryland | 95 | 16 | 13 | 16.84 | 3 | 3 | 3 | 100.00 | 3 | |
| Mississippi | 36 | 9 | 7 | 25.00 | 10 | 6 | 5 | 60.00 | 10 | |
| North Carolina | 126 | 11 | 12 | 8.73 | 4 | 3 | 3 | 75.00 | 2 | |
| South Carolina | 48 | 4 | 2 | 8.33 | | | | | | |
| Tennessee | 51 | 3 | 1 | 5.88 | 2 | 0 | 0 | NM | 1 | |
| Virginia | 58 | 27 | 18 | 46.55 | 3 | 2 | 0 | 66.67 | 2 | |
| West Virginia | 16 | 4 | 3 | 25.00 | 2 | 2 | 0 | NM | 2 | |
| Southern Region | 751 | 143 | 98 | 19.04 | 48 | 28 | 18 | 58.33 | 43 | |
| Colorado | 24 | 10 | 9 | 41.67 | 3 | 1 | 0 | 33.33 | 3 | |
| Louisiana | 71 | 12 | 11 | 16.90 | 13 | 3 | 1 | 23.08 | 11 | |
| New Mexico | 20 | 7 | 4 | 35.00 | 3 | 1 | 0 | 33.33 | 2 | |
| Oklahoma | 31 | 7 | 3 | 22.58 | 3 | 0 | 0 | 0.00 | 4 | |
| Texas | 147 | 62 | 52 | 42.18 | 32 | 16 | 13 | 50.00 | 24 | |
| Southwest Region | 293 | 98 | 79 | 33.45 | 54 | 21 | 14 | 38.89 | 44 | |
1990 Failures:

| Illinois | 214 | 15 | 9 | 7.01 | 17 | 4 | 1 | 23.53 | 11 |
|-----------------|------|-----------------|-----|-------|-----|----|----|--------|-----|
| Indiana | 96 | 5 | 4 | 5.21 | 1 | 1 | 1 | NM | 1 |
| Iowa | 41 | 2 | 2 | 4.88 | 4 | 2 | 1 | 50.00 | 4 |
| Kansas | 41 | 10 | 6 | 24.39 | 4 | 2 | 1 | 50.00 | 2 |
| Michigan | 42 | 9 | 6 | 21.43 | | | | | |
| Minnesota | 29 | 3 | 2 | 10.34 | 3 | 1 | 1 | 33.33 | 3 |
| Missouri | 72 | 3 | 2 | 4.17 | 4 | 0 | 0 | 0.00 | 3 |
| Montana | 10 | 0 | 0 | 0.00 | | | | | |
| Nebraska | 19 | 4 | 1 | 21.05 | 3 | 1 | 0 | 33.33 | 2 |
| North Dakota | . 5 | 1 | 1 | 20.00 | 2 | 1 | 0 | NM | 2 |
| Ohio | 214 | 26 | 18 | 12.15 | 4 | 2 | 2 | 50.00 | 2 |
| South Dakota | 12 | 1 | 1 | 8.33 | | i. | | | |
| Wisconsin | 65 | 6 | 2 | 9.23 | | | | | |
| Wyoming | 7 | 0 | 0 | 0.00 | 1 | 0 | 0 | NM | 0 |
| Midwest Region | 867 | 85 | 54 | 9.80 | 43 | 14 | 7 | 32.56 | 30 |
| Alaska | 4 | 3 | 0 | 75.00 | | | | | |
| American Samoa | | | | | | | | | |
| Arizona | 6 | 5 | 5 | 83.33 | 3 | 3 | 2 | 100.00 | 1 |
| California | 148 | 78 | 59 | 52.70 | 17 | 11 | 7 | 64.71 | 9 |
| Guam | | | | | | | | | |
| Hawaii | 6 | 2 | 1 | 33.33 | | | | | |
| Idaho | 5 | 1 | 0 | 20.00 | | | | | |
| Nevada | 6 | 2 | 1 | 33.33 | | | | | |
| Oregon | 11 | 2 | 2 | 18.18 | 2 | 0 | 0 | NM | 2 |
| Utah | 9 | 5 | 5 | 55.56 | 2 | 0 | 0 | NM | 0 |
| Washington | 26 | 7 | 3 | 26.92 | 2 | 1 | 1 | NM | 1 |
| Far West Region | 221 | 105 | 76 | 47.51 | 26 | 15 | 10 | 57.69 | 13 |
| Total | 2612 | 5 05 | 362 | 19.33 | 199 | 87 | 58 | 43.72 | 154 |

1989 Pailures:

Banks By State

| | Tota | l Industry by | y State | | Failed Banks By State | | | | | |
|----------------------|--------|---------------|-----------|----------|-----------------------|------------|-----------|----------|--|--|
| | | With | Insured | % With | | With | Insured | % With | | |
| | Number | Insured | Brokered | Insured | Number | Insured | Brokered | Insured | | |
| | of | Brokered | Deposits/ | Brokered | of Failed | Brokered | Deposits/ | Brokered | | |
| | Banks | Deposits | Dep > 1% | Deposits | Banks | Deposits | Dep > 1 % | Deposits | | |
| Connecticut | 126 | 33 | 27 | 26.19 | 1 | e 1 | 1 | NM | | |
| Delaware | 46 | 15 | 12 | 32.61 | | | | | | |
| Maine | 37 | 6 | 5 | 16.22 | | art. S | | | | |
| Massachusetts | 326 | 75 | 54 | 23.01 | 1 | 1 | 1 | NM | | |
| New Hampshire | 80 | 27 | 21 | 33.75 | | | | | | |
| New Jersey | 140 | 11 | 10 | 7.86 | | | | | | |
| New York | 257 | 41 | 27 | 15.95 | 3 | 1 | 0 | 33.33 | | |
| Pennsylvania | 303 | 19 | 11 | 6.27 | | | | | | |
| Puerto Rico | 15 | 6 | 5 | 40.00 | | | | | | |
| Rhode Island | 16 | 2 | 2 | 12.50 | | | | | | |
| Vermont | 31 | 5 | 3 | 16.13 | | | | | | |
| Virgin Islands | | | | | | | | | | |
| Atlantic Region | 1377 | 240 | 177 | 17.43 | 5 | 3 | 2 | 60.00 | | |
| Alabama | 215 | 3 | 2 | 1.40 | | | | | | |
| Arkansas | 255 | 3 | 3 | 1.18 | | | | | | |
| Canal Zone | | | | | | | | | | |
| District of Columbia | 23 | 7 | 5 | 30.43 | | | | | | |
| Florida | 395 | 16 | 10 | 4.05 | 5 | 2 | 2 | 40.00 | | |
| Georgia | 373 | 24 | 13 | 6.43 | | | | | | |
| Kentucky | 332 | 3 | 2 | 0.90 | | | | | | |
| Maryland | 99 | 15 | 8 | 15.15 | | | | | | |
| Mississippi | . 122 | 3 | 1 | 2.46 | | | | | | |
| North Carolina | 70 | 9 | 6 | 12.86 | | | | | | |
| South Carolina | 77 | 2 | 1 | 2.60 | | | | | | |
| Tennessee | 262 | 2 | 1 | 0.76 | | | | | | |
| Virginia | 181 | 13 | 9 | 7.18 | 1 | 1 | 1 | NM | | |
| West Virginia | 188 | 7 | 2 | 3.72 | 1 | 0 | 0 | NM | | |
| Southern Region | 2592 | 107 | 63 | 4.13 | 7 | 3 | 3 | 42.86 | | |
| Colorado | 419 | 21 | 17 | 5.01 | . 7 | 1 | 1 | 14.29 | | |
| Louisiana | 228 | 7 | 4 | 3.07 | 19 | 0 | 0 | 0.00 | | |
| New Mexico | 93 | 3 | 3 | 3.23 | | | | | | |
| Oklahoma | 427 | 4 | 2 | 0.94 | 11 | 0 | 0 | 0.00 | | |
| Тсхаз | 1304 | 57 | 32 | 4.37 | 125 | 22 | 19 | 17.60 | | |
| Southwest Region | 2471 | 9 2 | 58 | 3.72 | 162 | 23 | 20 | 14.20 | | |

1989 Failures:

.

| Illinois | 1108 | 14 | 12 | 1.26 | | | | |
|--------------------|-------|-----|-----|-------|-----|------------|----|-------|
| Indiana | 314 | 7 | 3 | 2.23 | | | | |
| Iowa | 574 | 8 | 3 | 1.39 | | | | |
| Kansas | 570 | 12 | 7 | 2.11 | 5 | 0 | 0 | 0.00 |
| Michigan | 265 | 10 | 4 | 3.77 | | | | |
| Minnesota | 633 | 16 | 13 | 2.53 | 1 | 0 | 0 | NM |
| Missouri | 547 | 15 | 8 | 2.74 | 1 | 1 | 1 | NM |
| Montana | 168 | 0 | 0 | 0.00 | 2 | 0 | 0 | NM |
| Nebraska | 391 | 6 | 5 | 1.53 | 1 | 0 | 0 | NM |
| North Dakota | 158 | 0 | 0 | 0.00 | 2 | 0 | 0 | NM |
| Ohio | 291 | 6 | 4 | 2.06 | | ۲. | | |
| South Dakota | 128 | 2 | 2 | 1.56 | | <i>i</i> . | | |
| Wisconsin | 506 | 2 | 0 | 0.40 | | | | |
| Wyoming | 71 | 0 | 0 | 0.00 | | | | |
| Midwest Region | 5724 | 98 | 61 | 1.71 | 12 | 1 | 1 | 8.33 |
| Alaska | 8 | 2 | 1 | 25.00 | 2 | 2 | 2 | NM |
| American Samoa | 1 | 0 | 0 | 0.00 | | | | |
| Arizona | 40 | 9 | 8 | 22.50 | 6 | 0 | 0 | 0.00 |
| California | 431 | 52 | 34 | 12.06 | 1 | 0 | 0 | NM |
| Guam & Trust Terr. | 2 | 0 | 0 | 0.00 | | | | |
| Hawaii | 21 | 3 | 3 | 14.29 | | | | |
| Idaho | 22 | 2 | 0 | 9.09 | | | | |
| Nevada | 16 | 3 | 2 | 18.75 | | | | |
| Oregon | 50 | 0 | 0 | 0.00 | | | | |
| Utah . | 47 | 1 | 1 | 2.13 | | | | |
| Washington | 94 | 5 | 3 | 5.32 | | | | |
| Far West Region | 732 | 77 | 52 | 10.52 | 9 | 2 | 2 | 22.22 |
| Total | 12896 | 614 | 411 | 4.76 | 195 | 32 | 28 | 16.41 |

1989 Failures:

Thrifts by State

| | Tota | l Industry by | State | | Failed Thrifts by State | | | | | |
|----------------------|------------|---------------|-----------|----------|-------------------------|----------|-----------|---------------|------|--|
| , | | With | Insured | % With | | With | Insured | % With | | |
| | Number | Insured | Brokered | Insured | Number | Insured | Brokered | Insured | With | |
| | of | Brokered | Deposits/ | Brokered | of Failed | Brokered | Deposits/ | Brokered | FHLB | |
| | Thrifts | Deposits | Dep > 1% | Deposits | Thrifts | Deposits | Dep > 1 % | Deposits | Adv | |
| | | | | | | | | | | |
| Connecticut | 27 | 8 | 7 | 29.63 | 2 | 1 | 1 | NM | 1 | |
| Delaware | 5 | 2 | 0 | 40.00 | | | | | | |
| Maine | 16 | 2 | 1 | 12.50 | | | | | | |
| Massachusetts | 32 | 8 | 7 | 25.00 | | | | | | |
| New Hampshire | 12 | 3 | 3 | 25.00 | | | | | | |
| New Jersey | 133 | 12 | 8 | 9.02 | 6 | 1 | 1 | 16.67 | 1 | |
| New York | 9 6 | 14 | 12 | 14.58 | 1 | 0 | 0 | NM | 0 | |
| Pennsylvania | 166 | 23 | 16 | 13.86 | 3 | 2 | 1 | 6 6.67 | 1 | |
| Puerto Rico | 10 | 7 | 6 | 70.00 | | | | | | |
| Rhode Island | 4 | 2 | 2 | 50.00 | | | | | | |
| Vermont | 4 | 2 | 2 | 50.00 | | | | | 0 | |
| Virgin Islands | 1 | 0 | 0 | 0.00 | | | | | | |
| Atlantic Region | 506 | 83 | 64 | 16.40 | 12 | 4 | 3 | 33.33 | 3 | |
| Alabama | 37 | 3 | 3 | 8.11 | 5 | 0 | 0 | 0.00 | 2 | |
| Arkansas | 36 | 12 | 11 | 33.33 | 11 | 5 | 4 | 45.45 | 7 | |
| Canal Zone | 0 | 0 | 0 | | | | | | | |
| District of Columbia | 5 | 2 | 2 | 40.00 | | | | | | |
| Florida | 145 | 54 | 46 | 37.24 | 14 | 8 | 7 | 57.14 | 6 | |
| Georgia | 71 | 13 | . 8 | 18.31 | 6, | 2 | 2 | 33.33 | 1 | |
| Kentucky | 63 | 0 | 0 | 0.00 | | | | | | |
| Maryland | 98 | 21 | 15 | 21.43 | 3 | 2 | 1 | 66.67 | 1 | |
| Mississippi | 42 | 14 | 11 | 33.33 | 6 | 3 | 2 | 50.00 | 1 | |
| North Carolina | 133 | 15 | 12 | 11.28 | 2 | 1 | 0 | NM | 0 | |
| South Carolina | 48 | 7 | 6 | 14.58 | | | | | | |
| Tennessee | 60 | 10 | 8 | 16.67 | 5 | 3 | 3 | 60.00 | 4 | |
| Virginia | 63 | 30 | 23 | 47.62 | 3 | 2 | 2 | 66.67 | 3 | |
| West Virginia | 16 | 2 | 2 | 12.50 | | | | | | |
| Southern Region | 817 | 183 | 147 | 22.40 | 55 | 26 | 21 | 47.27 | 25 | |
| Colorado | 35 | 21 | 18 | 60.00 | 13 | 11 | 10 | 8 4.62 | 7 | |
| Louisiana | 93 | 25 | 21 | 26.88 | 35 | 15 | 14 | 42.86 | 12 | |
| New Mexico | 24 | 9 | 7 | 37.50 | 7 | 6 | 5 | 85.71 | 3 | |
| Oklahoma | 38 | 9 | 5 | 23.68 | 8 | 1 | 1 | 12.50 | 2 | |
| Тсхаз | 205 | 102 | 93 | 49.76 | 94 | 66 | 63 | 70.21 | 32 | |
| Southwest Region | 395 | 166 | 144 | 42.03 | 157 | 99 | 93 | 63.06 | 56 | |

1989 Failures:

| | | | | | | | - | | _ |
|-----------------|------|-----|--------------|------------------|-----|------------|-----|---------------|-----|
| Illinois | 247 | 19 | 16 | 7. 69 | 21 | 2 | . 2 | 9.52 | 5 |
| Indiana | 105 | 9 | 5 | 8.57 | 2 | 0 | 0 | NM | 0 |
| Iowa | 46 | 10 | 1 a 4 | 21.74 | 3 | 1 | 1 | 33.33 | 1 |
| Kansas | 55 | 17 | 12 | 30.91 | 16 | 7 | 6 | 43.75 | 3 |
| Michigan | 46 | 9 | 8 | 19.57 | 2 | 0 | 0 | NM | 0 |
| Minnesota | 32 | 3 | 2 | 9.38 | 1 | 1 | 0 | 100.00 | 0 |
| Missouri | 80 | 7 | 4 | 8.75 | . 6 | 1 | 0 | 16.67 | 4 |
| Montana | 10 | 1 | · O | 10.00 | | | | | |
| Nebraska | - 24 | 11 | 8 | 45.83 | 6 | 5 | 5 | 83.33 | 3 |
| North Dakota | 6 | 2 | 1 | 33.33 | | | | | |
| Ohio | 222 | 30 | 23 | 13.51 | 3 | , O | 0 | 0.00 | 0 |
| South Dakota | 11 | 2 | 1 | 18.18 | 0 | <u></u> 0 | 0 | ERR | 0 |
| Wisconsin | 72 | 6 | 3 | 8.33 | 2 | 0 | 0 | NM | 2 |
| Wyoming | 10 | 2 | 1 | 20.00 | 1 | 1 | 1 | NM | 0 |
| Midwest Region | 966 | 128 | 88 | 13.25 | 63 | 18 | 15 | 28.57 | 18 |
| Alaska | 3 | 2 | 2 | 66.6 7 | 2 | 2 | 0 | NM | 1 |
| American Samoa | 0 | 0 | 0 | | | | | | |
| Arizona | 11 | 8 | 8 | 72.73 | 5 | 4 | 4 | 80.00 | 0 |
| California | 195 | 106 | 89 | 54.36 | 27 | 13 | 11 | 48.15 | 1 |
| Guam | 2 | 0 | 0 | | | | | | |
| Hawaii | 6 | 2 | 1 | 33.33 | | | | | |
| Idaho | 5 | 2 | -0 | | | | | | |
| Nevada | 6 | 1 | 1 | 16.67 | | | | | |
| Oregon | 12 | 2 | 2 | 16.67 | | | | | |
| Utah | 13 | 6 | 6 | 46.15 | 3 | 2 | 2 | 6 6.67 | 0 |
| Washington | 33 | 14 | 11 | 42.42 | 1 | 0 | 0 | NM | 0 |
| Far West Region | 286 | 143 | 120 | 50.00 | 38 | 21 | 17 | 55.26 | 2 |
| Total | 2970 | 703 | 563 | 23.67 | 325 | 168 | 149 | 51.69 | 104 |

1988 Failures:

Banks By State

| | То | tal Industry by | y State | | Failed Banks By State | | | | | |
|----------------------|--------------|-----------------|-----------|----------|-----------------------|----------|-----------|----------|--|--|
| | | With | Insured | % With | | With | Insured | % With | | |
| | Number | Insured | Brokered | Insured | Number | Insured | Brokered | Insured | | |
| | of | Brokered | Deposits/ | Brokered | of Failed | Brokered | Deposits/ | Brokered | | |
| | Banks | Deposits | Dep > 1% | Deposits | Banks | Deposits | Dcp > 1 % | Deposits | | |
| Connecticut | · 120 | 26 | 18 | 21.67 | | | | | | |
| Delaware | 44 | 11 | 9 | 25.00 | 1 | 0 | 0 | NM | | |
| Maine | 37 | 4 | 4 | 10.81 | | 1 | | | | |
| Massachusetts | 323 | 45 | 34 | 13.93 | | | | | | |
| New Hampshire | 85 | 16 | 11 | 18.82 | | | | | | |
| New Jersey | 130 | - 8 | 5 | 6.15 | | | | | | |
| New York | 262 | 21 | 20 | 8.02 | | | | | | |
| Pennsylvania | 293 | 12 | 8 | 4.10 | | | | | | |
| Puerto Rico | 14 | 3 | 3 | 21.43 | | 4 | | | | |
| Rhode Island | 14 | 2 | 2 | 14.29 | | | | | | |
| Vermont | 31 | 4 | 2 | 12.90 | | | | | | |
| Virgin Islands | | | | | | | | | | |
| Atlantic Region | 1353 | 152 | 116 | 11.23 | 1 | 0 | 0 | NM | | |
| Alabama | 211 | 3 | 3 | 1.42 | | | | | | |
| Arkansas | 254 | 3 | 3 | 1.18 | | | | | | |
| Canal Zone | | | | | | | | | | |
| District of Columbia | 21 | 4 | 4 | 19.05 | | | | | | |
| Florida | 387 | 15 | 12 | 3.88 | 3 | 0 | 0 | 0.00 | | |
| Georgia | 351 | 14 | 8 | 3.99 | | | | | | |
| Kentucky | 329 | 5 | 3 | 1.52 | | | | | | |
| Maryland | 95 | 11 | 8 | 11.58 | | | | | | |
| Mississippi | 124 | 3 | 2 | 2.42 | | | | | | |
| North Carolina | 68 | 4 | 3 | 5,88 | | | | | | |
| South Carolina | 72 | 1 | 1 | 1.39 | | | | | | |
| Tennessee | 263 | 4 | 1 | 1.52 | | | | | | |
| Virginia | 172 | 7 | 6 | 4.07 | | | | | | |
| West Virginia | 1 9 7 | 8 | 4 | 4.06 | | | | | | |
| Southern Region | 2544 | 82 | 58 | 3.22 | 3 | 0 | 0 | 0.00 | | |
| Colorado | 423 | 22 | 15 | 5.20 | 9 | 1 | 1 | 11.11 | | |
| Louisiana | 247 | 10 | 6 | 4.05 | 8 | 1 | 1 | 12.50 | | |
| New Mexico | 92 | 3 | 2 | 3.26 | | | | | | |
| Oklahoma | 453 | 5 | 2 | 1.10 | 23 | 0 | 0 | 0.00 | | |
| Тсхав | 1476 | 61 | 38 | 4.13 | 130 | 13 | 12 | 10.00 | | |
| Southwest Region | 2691 | 101 | 63 | 3.75 | 170 | 15 | 14 | 8.82 | | |

1988 Failures:

| Illinois | 1138 | 11 | 5 | 0.97 | 1 | 0 | 0 | NM |
|--------------------|-------|-------------|-----|-------|-----|-----------------|----|----------------|
| Indiana | 336 | 6 | 4 | 1.79 | 1 | 0 | 0 | NM |
| Iowa | 581 | 4 | 3 | 0.69 | 5 | 1 | 1 | 20.0 0 |
| Kansas | 582 | 15 | 9 | 2.58 | 4 | 1 | 1 | 25.00 |
| Michigan | 283 | 8 | 5 | 2.83 | 1 | 1 | 1 | NM |
| Minnesota | 647 | 8 | 6 | 1.24 | 6 | 0 | 0 | 0.00 |
| Missouri | 565 | 9 | 8 | 1.59 | 2 | 0 | 0 | NM |
| Montana | 170 | 0 | 0 | 0.00 | 1 | 0 | 0 | NM |
| Nebraska | 409 | 2 | 2 | 0.49 | 1 | 0 | 0 | NM |
| North Dakota | 160 | 2 | 1 | 1.25 | | 1 | | |
| Ohio | 294 | 2 | 2 | 0.68 | 1 | ί Ο | 0 | NM |
| South Dakota | 132 | 4 | 3 | 3.03 | 2 | 0 | 0 | NM |
| Wisconsin | 521 | 5 | 0 | 0.96 | | 4. ¹ | | |
| Wyoming | 95 | 0 | 0 | 0.00 | | | | |
| Midwest Region | 5913 | 76 | 48 | 1.29 | 25 | 3 | 3 | 12. 0 0 |
| Alaska | 10 | 2 | 2 | 20.00 | 1 | 1 | 1 | NM |
| American Samoa | 1 | 0 | 0 | 0.00 | | | | |
| Arizona | 47 | 8 | 7 | 17.02 | | | | |
| California | 432 | 61 | 39 | 14.12 | | | | |
| Guam & Trust Terr. | 2 | 0 | 0 | 0.00 | | 1 | | |
| Hawaii | 21 | 1 | 1 | 4.76 | | | | |
| Idaho | 22 | 1 | 0 | 4.55 | | | | |
| Nevada | 16 | 3 | 2 | 18.75 | | | | |
| Oregon | 52 | 1 | 1 | 1.92 | | | | |
| Utah | 45 | 1 | 1 | 2.22 | 2 | 0 | 0 | NM |
| Washington | 90 | 6 | 5 | 6.67 | 1 | 0 | 0 | NM |
| Far West Region | 738 | . 84 | 58 | 11.38 | 4 | 1 | 1 | 25.00 |
| Total | 13239 | 495 | 343 | 3.74 | 203 | 19 | 18 | 9.36 |
| | | | | | | | | |

1988 Failures:

Thrifts by State

| | Total Industry by State | | | | F | | | | | |
|----------------------|-------------------------|------------|------------|---------------|-----------|----------|-----------|--------|-------|------|
| | Number | With | Insured | % With | | With | Insured | % Wit | ih | With |
| | Number | Insured | Brokered | Insured | Number | Insured | Brokered | Insure | đ | FHLB |
| | of | Brokered | Deposits/ | Brokered | of Failed | Brokered | Deposits/ | Broke | red | Adv |
| | Thrifts | Deposits | Dep > 1% | Deposits | Thrifts | Deposits | Dep > 1 % | Depos | its | |
| | | | | | | | | | | |
| Connecticut | 27 | 6 | 0 | 22.22 | | | | | | |
| Delaware | 3 | 1 | 1 | 20.00 | | | 1. 19 | | | |
| Maine | 16 | 1 | 1 | 0.23 | | , | et. | | | |
| Massachusetts | 32 | 8 | 3 | 25.00 | | | , | | | |
| New Hampshife | 12 | 2 | 2 | 10.07 6.06 | 1 | 1 | | n . | 13 33 | ٦ |
| New Jersey | 132 | 8 | 0 | 12.54 | 3 | • | | • • | | - |
| New York | 96 | 15 | 12 | 17.90 | | | | | | |
| Pennsylvania | 104 | 21 | _15 _15 | 60.00 | | | | | | |
| Puerto Rico | 10 | 0 | 3 | 25.00 | | | | | | |
| Rhode Island | 4 | 1 | 1 | £0.00 | | | | | | |
| | 4 | 2 | 2 | 0.00 | | | | | | |
| Virgin Islands | 1 | U | U | 0.00 | | | | | | |
| Atlantic Region | 503 | 69 | 51 | 13.72 | 3 | 1 | | 0 3 | 33.33 | 3 |
| Alabama | 35 | 2 | 2 | 5.71 | 1 | o | | 0 | NM | 1 |
| Arkansas | 36 | 11 | 8 | 30.56 | 2 | 0 | | 0 | NM | 1 |
| Canal Zone | 0 | 0 | 0 | | | | | | | |
| District of Columbia | 5 | 1 | 1 | 20.00 | | | | | | |
| Florida | 140 | 46 | 29 | 32.86 | 7 | 2 | | 2 2 | 28.57 | 6 |
| Georgia | 68 | 8 | 6 | 11.76 | 1 | 1 | | 1 | NM | 1 |
| Kentucky | 63 | 2 | 0 | 3.17 | 3 | 1 | | 0 3 | 33.33 | 2 |
| Maryland | 94 | 23 | 18 | 24.47 | | | | | | |
| Mississippi | 42 | 13 | 10 | 30.95 | | | | | | |
| North Carolina | 133 | 7 | 6 | 5.26 | 1 | 0 | | 0 | NM | 1 |
| South Carolina | 47 | 5 | 3 | 10.64 | | | | | | |
| Tennessee | 59 | 7 | 5 | 11.86 | 3 | 0 | | 0 | 0.00 | 2 |
| Virginia | 61 | 27 | 17 | 44.26 | 3 | 3 | | 2 10 | 00.00 | 3 |
| West Virginia | 16 | 0 | 0 | 0.00 | 3 | 1 | | 1 3 | 33.33 | 1 |
| Southern Region | 799 | 152 | 105 | 19.02 | 24 | 8 | | 6 3 | 33.33 | 18 |
| Colorado | 32 | 18 | 16 | 56.25 | 4 | 3 | | 3 7 | 75.00 | 3 |
| Louisiana | 93 | 23 | 17 | 24.73 | 1 | 1 | | 1 | NM | 1 |
| New Mexico | 24 | 9 | 7 | 37.50 | 1 | 1 | | 1 | NM | 1 |
| Oklahoma | 33 | 5 | 4 | 15.15 | 11 | 9 | | 6 1 | 81.82 | 10 |
| Тсхав | 188 | 8 0 | 71 | 42.55 | 81 | 62 | 5 | 8 7 | 76.54 | 68 |
| Southwest Region | 370 | 135 | 115 | 36.49 | 98 | 76 | | 9 | 77.55 | 83 |

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1988 Failures:

| Illinois | 245 | 21 | 16 | 8.57 | 15 | 1 | 0 | 6.67 | 9 |
|-----------------|------|-----|------------|-------|-----|-----|-----|------------------------|-----|
| Indiana | 103 | 8 | 5 | 7.77 | 7 | 0 | 0 | 0.00 | 3 |
| Iowa | 42 | 7 | 3 | 16.67 | 10 | 3 | 3 | 30.00 | 8 |
| Kansas | 54 | 15 | 11 | 27.78 | 1 | 1 | 0 | NM | 1 |
| Michigan | 46 | 10 | 8 | 21.74 | 4 | 1 | 1 | 25.00 | 4 |
| Minnesota | 32 | 4 | 2 | 12.50 | 5 | 2 | 2 | 40.00 | 4 |
| Missouri | 80 | 11 | . 4 | 13.75 | | | | | |
| Montana | 10 | 0 | 0 | 0.00 | 1 | 1 | 1 | NM | 1 |
| Nebraska | 23 | 9 | 7 | 39.13 | | | | | |
| North Dakota | 6 | 2 | 1 | 33.33 | | 4 | | | |
| Ohio | 219 | 26 | 19 | 11.87 | 5 | 2 | 2 | 4 0. 0 0 | 4 |
| South Dakota | 11 | 1 | 1 | 9.09 | 1 | 1 | 1 | NM | 1 |
| Wisconsin | 71 | 11 | 8 | 15.49 | | | | | |
| Wyoming | 10 | 3 | 1 | 30.00 | 2 | 0 | 0 | NM | 1 |
| Midwest Region | 952 | 128 | 8 6 | 13.45 | 51 | 12 | 10 | 23.53 | 36 |
| Alaska | 3 | 2 | 2 | 66.67 | | | | | |
| American Samoa | 0 | 0 | 0 | | | | | | |
| Arizona | 9 | 8 | 8 | 88.89 | | | | | |
| California | 189 | 102 | 76 | 53.97 | 18 | 15 | 11 | 83.33 | 8 |
| Guam | 2 | 0 | 0 | 0.00 | | | | | |
| Hawaii | 6 | 1 | 1 | 16.67 | | | | | |
| Idaho | 5 | 2 | 2 | 40.00 | . 1 | 1 | 0 | NM | 1 |
| Nevada | 6 | 2 | 1 | 33.33 | | | | | |
| Oregon | -12 | 5 | 1 | 41.67 | 5 | 4 | 3 | 80.00 | 5 |
| Utah | 12 | 6 | 6 | 50.00 | | | | | |
| Washington | 31 | 10 | 9 | 32.26 | 5 | 2 | 2 | 40.00 | . 5 |
| Far West Region | 275 | 138 | 106 | 50.18 | 29 | 22 | 16 | 75. 8 6 | 19 |
| Total | 2899 | 622 | 463 | 21.46 | 205 | 119 | 101 | 58.05 | 159 |
| | | | | | | | | | |

1987 Failures:

Banks By State

| | Tota | l Industry b | y State | | Failed Banks By State | | | | |
|----------------------|-----------------|--------------|-----------|----------|-----------------------|----------|-----------|----------|--|
| | Number | With | Brokered | % With | Number | With | Brokered | % With | |
| | of | Brokered | Deposits/ | Brokered | of Failed | Brokered | Deposits/ | Brokered | |
| | Banks | Deposits | Dep > 1% | Deposits | Banks | Deposits | Dep > 1% | Deposits | |
| Connecticut | 59 | 9 | 7 | 15.25 | | | | | |
| Delaware | 42 | 14 | 13 | 33.33 | | | | | |
| Maine | 22 | 1 | 1 | 4.55 | | | | | |
| Massachusetts | 106 | 20 | 12 | 18.87 | | | | | |
| New Hampshire | 54 | 6 | 3 | 11.11 | | | | | |
| New Jersey | 121 | 3 | 2 | 2.48 | | | | | |
| New York | 202 | 22 | 19 | 10.89 | 1 | . 0 | 0 | NM | |
| Pennsylvania | 3 02 | 11 | 5 | 3.64 | 1 | · 1 | 1 | NM | |
| Puerto Rico | 14 | 3 | 3 | 21.43 | | | | | |
| Rhode Island | 15 | 1 | 1 | 6.67 | | | | | |
| Vermont | 25 | 2 | 2 | 8.00 | | | | | |
| Virgin Islands | | | | | | | | | |
| Atlantic Region | 9 62 | 9 2 | 68 | 9.56 | 2 | 1 | 1 | NM | |
| Alabama | 228 | 6 | 5 | 2.63 | 2 | 0 | 0 | NM | |
| Arkansas | 256 | 9 | 4 | 3.52 | | | | | |
| Canal Zone | | | | | | | | | |
| District of Columbia | 20 | 9 | 6 | 45.00 | | | | | |
| Florida | 416 | 22 | 17 | 5.29 | 2 | 0 | 0 | NM | |
| Georgia | 365 | 18 | 7 | 4.93 | | | | | |
| Kentucky | 331 | 4 | 3 | 1.21 | 1 | 0 | 0 | NM | |
| Maryland | 94 | 12 | 9 | 12.77 | | | | | |
| Mississippi | 138 | 4 | 3 | 2.90 | 1 | 1 | 1 | NM | |
| North Carolina | 65 | 7 | 4 | 10.77 | | | | | |
| South Carolina | 73 | 1 | 1 | 1.37 | | | | | |
| Temessee | 282 | 3 | 2 | 1.06 | | | | | |
| Virginia | 172 | 10 | 8 | 5.81 | | | | | |
| West Virginia | 212 | 6 | 6 | 2.83 | | | | | |
| Southern Region | 2652 | 111 | . 75 | 4.19 | 6 | · 1 | 1 | 16.67 | |
| Colorado | 461 | 27 | 19 | 5.86 | 12 | 2 | 1 | 16.67 | |
| Louisiana | 298 | 23 | 14 | 7.72 | 14 | 3 | 2 | 21.43 | |
| New Mexico | 94 | 5 | 3 | 5.32 | | | | | |
| Oklahoma | 519 | 10 | 7 | 1.93 | 31 | 2 | 2 | 6.45 | |
| Texas | 1958 | 191 | 121 | 9.75 | 48 | 9 | 7 | 18.75 | |
| Southwest Region | 3330 | 256 | 164 | 7.69 | 105 | 16 | 12 | 15.24 | |

1987 Failures:

| Illinois | 1220 | 15 | 8 | 1.23 | 1 | 0 | 0 | NM |
|--------------------|-------|-----|-----|-------|-----|----|----|-------|
| Indiana | 354 | 8 | 4 | 2.26 | 2 | 2 | 1 | NM |
| Iowa | 610 | 2 | 2 | 0.33 | 6 | 0 | 0 | 0.00 |
| Kansas | 612 | 22 | 14 | 3.59 | 8 | 0 | 0 | 0.00 |
| Michigan | 345 | 7 | 3 | 2.03 | | | | |
| Minnesota | 728 | 16 | 16 | 2.20 | 10 | 0 | 0 | 0.00 |
| Missouri | 610 | 14 | 12 | 2.30 | 4 | 0 | 0 | 0.00 |
| Montana | 171 | 0 | 0 | 0.00 | 3 | 0 | 0 | 0.00 |
| Nebraska | 437 | 3 | 2 | 0.69 | 6 | 0 | 0 | 0.00 |
| North Dakota | 178 | 3 | 2 | 1.69 | 2 | 0 | 0 | NM |
| Ohio | 307 | 6 | 5 | 1.95 | · 1 | 0 | 0 | NM |
| South Dakota | 136 . | 5 | 5 | 3.68 | 2 | 0 | 0 | NM |
| Wisconsin | 567 | 10 | 5 | 1.76 | | | | |
| Wyoming | 106 | 0 | 0 | 0.00 | 5 | 0 | 0 | NM |
| Midwest Region | 6381 | 111 | 78 | 1.74 | 50 | 2 | 1 | 4.00 |
| Alaska | 15 | 7 | 4 | 46.67 | 2 | 1 | 1 | NM |
| American Samoa | 1 | 0 | 0 | 0.00 | | | | |
| Arizona | 54 | 12 | 9 | 22.22 | | | | |
| California | 458 | 96 | 63 | 20.96 | 7 | 4 | 4 | 57.14 |
| Guam & Trust Terr. | 2 | 0 | 0 | 0.00 | | | | |
| Hawaii | 22 | 1 | 0 | 4.55 | | | | |
| Idaho | 24 | 3 | 2 | 12.50 | | | | |
| Nevada | 16 | 3 | 3 | 18.75 | | | | |
| Oregon | 59 | 2 | 2 | 3.39 | 1 | 0 | 0 | NM |
| Utah | 56 | 1 | 1 | 1.79 | 3 | 0 | 0 | 0.00 |
| Washington | 94 | 6 | 6 | 6.38 | | | | |
| Far West Region | 801 | 131 | 90 | 16.35 | 13 | 5 | 5 | 38.46 |
| Total | 14126 | 701 | 475 | 4.96 | 176 | 25 | 20 | 14.20 |

i.

1987 Failures:

Thrifts by State

| | Tota | l Industry b | y State | | Failed Thrifts by State | | | | | |
|----------------------|---------|--------------|------------|----------|-------------------------|-----------|----------|------------|----------|------|
| | Number | With | Brokered | % With | 1 | Number | With | Brokered | % With | With |
| | of | Brokered | Deposits/ | Brokered | | of Failed | Brokered | Deposits/ | Brokered | FHLB |
| | Thrifts | Deposits | Dep > 1% | Deposits | - | lbrifts | Deposits | Dep > 1% | Deposits | Adv |
| Connecticut | 33 | 5 | . 3 | 15.15 | | | | | | |
| Delaware | 5 | 0 | 0 | 0.00 | | | | | | |
| Maine | 17 | 1 | 1 | 5.88 | | | | | | |
| Massachusetts | 36 | 7 | 5 | 19.44 | | | | | | |
| New Hampshire | 13 | 1 | 1 | 7.69 | | | | i, | | |
| New Jersey | 139 | 8 | 2 | 5.76 | | 2 | 1 | ʻ 1 | NM | 1 |
| New York | 98 | 11 | 4 | 11.22 | | | | 1 | | |
| Pennsylvania | 171 | 16 | 9 | 9.36 | | | | <i>;</i> | | |
| Puerto Rico | 10 | 6 | 4 | 60.00 | | | | | | |
| Rhode Island | 5 | 1 | 1 | 20.00 | | | | | | |
| Vermont | 4 | 1 | 1 | 25.00 | | | | | | |
| Virgin Islands | | | | • | | | | | | |
| Atlantic Region | 531 | 57 | 31 | 10.73 | | 2 | 1 | 1 | NM | 1 |
| Alabama | 37 | 3 | 2 | 8.11 | | 1 | 0 | 0 | NM | 0 |
| Arkansas | 39 | 13 | 9 | 33.33 | | 2 | 1 | 1 | NM | 0 |
| Canal Zone | | | | | | | | | | |
| District of Columbia | 5 | 1 | 0 | 20.00 | | | | | | |
| Florida | 150 | 40 | 25 | 26.67 | | | | | | |
| Georgia | 67 | 9 | 6 | 13.43 | | | | | | |
| Kentucky | 67 | 4 | 2 | 5.97 | | | | | | |
| Maryland | 95 | 22 | 15 | 23.16 | | 1 | 0 | . 0 | NM | 1 |
| Mississippi | 45 | 12 | 8 | 26.67 | | 1 | 1 | 1 | NM | 1 |
| North Carolina | 139 | 7 | 4 | 5.04 | | 1 | 0 | · 0 | NM | 1 |
| South Carolina | 49 | 2 | 1 | 4.08 | | | | | | |
| Tennessee | 64 | 5 | 4 | 7.81 | | | | | | |
| Virginia | 68 | 32 | 20 | 47.06 | | 1 | 1 | 1 | NM | 1 |
| West Virginia | 18 | 1 | 1 | 5.56 | | | | | | |
| Southern Region | 843 | 151 | 9 7 | 17.91 | | 7 | 3 | 3 | 42.86 | 4 |
| Colorado | 38 | 17 | 13 | 44.74 | | 1 | 1 | 1 | NM | 1 |
| Louisiana | 102 | 30 | 17 | 29.41 | | 9 | 7 | 6 | 77.78 | 8 |
| New Mexico | 25 | 12 | 8 | 48.00 | | | | | | |
| Oklahoma | 53 | 15 | 10 | 28.30 | | 2 | 1 | 1 | NM | 2 |
| Тсхаз | 281 | 131 | 103 | 46.62 | | 4 | 3 | 3 | 75.00 | 3 |
| Southwest Region | 499 | 205 | 151 | 41.08 | | 16 | 12 | 11 | 75.00 | 14 |

1987 Failures:

| | | | | | • | • | • | 0.00 | 3 |
|-----------------|------|-----|-----|-------|----|-----|-----|--------|-----|
| Illinois | 267 | 27 | 19 | 10.11 | 3 | 0 | , U | 0.00 | 2 |
| Indiana | 116 | 12 | 6 | 10.34 | | _ | | | |
| Iowa | 52 | 8 | 2 | 15.38 | 1 | 1 | 1 | NM | 1 |
| Kansas | 58 | 17 | 11 | 29.31 | 1 | 1 | 1 | NM | 1 |
| Michigan | 50 | 10 | 8 | 20.00 | | | | | |
| Minnesota | 37 | 5 | 2 | 13.51 | | | | | |
| Missouri | 85 | 11 | 3 | 12.94 | 2 | 0 | 0 | NM | 1 |
| Montana | 11 | 0 | 0 | 0.00 | | | | | |
| Nebraska | 23 | 9 | 6 | 39.13 | | | | | |
| North Dakota | 6 | 2 | 1 | 33.33 | | | | | |
| Ohio | 231 | 27 | 17 | 11.69 | 2 | 1 | 1 | NM | 1 |
| South Dakota | 12 | 2 | 2 | 16.67 | | | | | |
| Wisconsin | 79 | 9 | 6 | 11.39 | | | | | |
| Wyoming | 11 | 2 | 0 | 18.18 | | | | | |
| Midwest Region | 1038 | 141 | 83 | 13.58 | 9 | 3 | 3 | 33.33 | 6 |
| Alaska | 4 | 2 | 2 | 50.00 | 1 | 1 | 1 | NM | 0 |
| American Samoa | | | | | | | | | |
| Arizona | 14 | 9 | 8 | 64.29 | | | | | |
| California | 216 | 123 | 81 | 56.94 | 5 | 5 | 4 | 100.00 | 2 |
| Guam | 2 | 0 | 0 | 0.00 | | | | | |
| Hawaii | 6 | 1 | 0 | 16.67 | | | | | |
| Idaho | 9 | 3 | 1 | 33.33 | 2 | 1 | 1 | NM | 2 |
| Nevada | 7 | 2 | 1 | 28.57 | 1 | 1 | 1 | NM | . 0 |
| Oregon | 20 | 11 | 8 | 55.00 | 2 | 2 | 2 | NM | 2 |
| Utah | 14 | 9 | 7 | 64.29 | 2 | 2 | 2 | NM | 2 |
| Washington | 44 | 16 | 10 | 36.36 | 1 | . 0 | 0 | NM | 1 |
| Far West Region | 336 | 176 | 118 | 52.38 | 14 | 12 | 11 | 85.71 | 9 |
| Total | 3247 | 730 | 480 | 22.48 | 48 | 31 | 29 | 64.58 | 34 |

GLOSSARY OF TERMS

Bank - A BIF-insured or (pre-FIRREA) FDIC-insured institution.

<u>Bank Failure</u> - Any bank that was seized and subsequently liquidated, owned or sold by the FDIC.

<u>Brokered Deposits</u> - Certificates of deposit originated through a third party broker. <u>Core Deposits</u> - Demand deposits and time deposits with account balances \$100,000 or less.

<u>Discretionary Funding</u> - The sum of brokered deposits and uninsured funds, including secured borrowings, time deposits greater than \$100,000 and foreign deposits.

<u>Earnings Assets</u> - Interest-earning assets plus OREO (real estate acquired through foreclosure). For thrifts, the definition also includes real estate held for development and investments in service corporations.

<u>FHLB Advance</u> - A secured loan made by a Federal Home Loan Bank to one of its members, who are almost exclusively thrifts (though FHLBs, are soliciting banks as members).

<u>Issuer</u> - Is broadly defined to include those insitutions with outstanding insured brokered deposits, whether or not there is current issuance.

<u>Insured Brokered Deposits</u>- Any brokered deposit with a balance of less than \$100,000 or less. Insured brokered deposits are generated by both money brokers and retail securities firms.

Jumbo CD- A certificate of deposit with a balance of over \$100,000.

<u>Nonbrokered Jumbo</u>- A jumbo CD that is placed directly by the financial institution rather than through a third party broker.

<u>Purchased Funds</u> - Total uninsured funds, including secured borrowings, time deposits greater than \$100,000 and foreign deposits. The definition is almost synonymous with "discretionary funding", but excludes insured brokered deposits.

<u>Retail Brokered Deposits</u> - Insured brokered deposits issued through a full service securities firm.

<u>Thrift</u> - A SAIF-insured institutions; prior to FIRREA, an FSLIC-insured institution. <u>Thrift Failure</u>- For the 1987-88 period, a FSLIC resolution of an insolvent thrift either through a liquidation or assisted sale; since 1989, a thrift placed under RTC conservatorship.

ATTACHMENT D

RETAIL BROKERED DEPOSITS:

A Post-FIRREA Analysis

by

Bert Ely and Vicki Vanderhoff

ELY & Company, Inc.

June 1991

RETAIL BROKERED DEPOSITS:

A Post-FIRREA Analysis

by

Bert Ely

and

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June 1991

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RETAIL BROKERED DEPOSITS: A Post-FIRREA Analysis

EXECUTIVE SUMMARY

Retail brokered deposits have not been misused by healthy, federally insured banks and S&Ls since the August 1989 passage of the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA). On the contrary, retail brokered deposits are helping to meet some valid economic objectives. These observations argue for permitting healthy financial institutions to continue accepting retail deposits solicited by independent thirdparty brokers.

Many believe that retail brokered deposits were abused by some weak or insolvent S&Ls during the 1980s. Specifically, it is argued that retail brokered deposits were used by these institutions to fuel very rapid, unwise growth, usually through investments in high risk assets, such as speculative real estate, that later lost value. Substantial losses in asset value then caused some S&Ls to fail.

FIRREA sharply limited the potential for the abuse of retail brokered deposits by prohibiting any "troubled institution" from accepting or renewing brokered deposits unless the institution had regulatory approval to accept brokered deposits. FIRREA defined a troubled institution as one ". . . which does not meet the minimum capital requirements applicable with respect to such institution." Therefore, because troubled banks and S&Ls today can accept and use retail brokered deposits only under the very tight and continuing supervision of their regulators, we have excluded these institutions from our analysis of any misuse of retail brokered deposits post-FIRREA.

Our study of retail brokered deposits focused on 1,326 reasonably healthy to very healthy institutions, 922 banks and 404 S&Ls, that had retail brokered deposits outstanding continuously or at least on some quarter-end dates between September 30, 1989, and December 31, 1990. We then looked aggressively at these institutions to identify any patterns that would suggest an abusive use of retail brokered deposits post-FIRREA. We structured our study by dividing these 1,326 institutions into five groups, based on increases or decreases in the amount of retail brokered deposits they had outstanding relative to the higher risk assets in which these institutions had invested.¹

We found almost without exception that these 1,326 institutions were using retail brokered deposits in a sound manner while pursuing varied lending and funding strategies. In fact, 850 of these banks and S&Ls actually <u>reduced</u> the dollar amount of retail brokered deposits they had outstanding post-FIRREA, including 370 of these institutions that had <u>no</u> retail brokered deposits outstanding at the end of 1990. <u>In no case did we</u> find an institution that had abused retail brokered deposits in the post-FIRREA period. Our primary concern focused on a few situations where an institution's rapid growth of its higher risk assets might eventually lead to insolvency. However, all of these situations

¹Higher risk assets for the purpose of this study include all loans, other real estate owned, and equity securities minus permanent one-to-four family home mortgages. Junk bonds, investments in service corporations, and direct real estate investments also are categorized as higher risk assets for S&Ls. This conservative definition of higher risk assets in turn gives a conservative bias to our study.

can easily be dealt with on a case-by-case basis through early regulatory intervention. None cry out for new laws.

We focused our greatest attention on 320 banks and S&Ls that were growing both their brokered deposits and their higher risk assets during our study period since these are the institutions that most likely could misuse brokered deposits. However, we discovered that although they increased their higher risk assets post-FIRREA, banks and S&Ls in this group on average increased their capital levels, a key indicator of financial health. The other banks and S&Ls in our study either decreased their higher risk assets or they decreased the amount of retail brokered deposits they had outstanding.

In addition, we identified four positive benefits that retail brokered deposits are producing in the post-FIRREA era. The most important benefit is that retail brokered deposits help sound banks and S&Ls to cushion the impact of higher local interest rates when a major institution in the local market develops liquidity problems. These liquidity problems, which developed last year in both the Boston and the Baltimore-Washington markets, caused troubled institutions to compete very aggressively for retail deposits gathered through branches, thus driving up local interest rates. In both regions, banks and S&Ls increased their retail brokered deposits, as their local deposit rates rose above the national average, in order to take advantage of lower rates available through retail brokered deposits. We note that regional use of retail brokered deposits begins to decline once a local funding crisis has crested, thus confirming the safety valve effect that retail brokered deposits provide.

If healthy institutions could not readily tap the lower cost funding often available through retail brokered deposits, they would be forced to bid local deposit rates even higher. These higher rates would further hurt the sound financial institutions operating in that market, they would destroy deposit franchise values, and they would add to the government's cost of disposing of failed banks and S&Ls. No one would win if retail brokered deposits could not be accessed in these situations.

Retail brokered deposits also are especially beneficial to community banks and S&Ls, that is, those institutions with less than \$300 million in assets. These institutions accounted for almost 70% of the 956 banks and S&Ls in our study that had retail brokered deposits outstanding at the end of 1990. With fewer funding alternatives than much larger institutions, retail brokered deposits provide community banks and S&Ls with an important funding alternative to locally gathered deposits. Yet these institutions are not overly dependent on retail brokered deposits since, on average, these deposits account for only 4.5% of the total deposits in these institutions. We also concluded that retail brokered deposits as well as a more accessible source of longer-term funding.

In sum, retail brokered deposits have been used wisely since FIRREA was enacted, perhaps more wisely on average than deposits gathered through branches. We see no valid reason why the wise use of retail brokered deposits by federally insured deposit-taking institutions should not continue.

2

INTRODUCTION

This report quantifies in an objective manner the use of retail brokered deposits in the aftermath of the passage of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA). The report is divided into five sections, as follows: Section I presents the methodology we followed in quantifying the performance of the 1,326 healthy banks and S&Ls that had retail brokered deposits outstanding subsequent to the passage of FIRREA. Section II presents an analysis of retail brokered deposit usage by the five groups into which we divided the banks and S&Ls in our study. Section III discusses four <u>positive</u> features of retail brokered deposits in the post-FIRREA environment. Section IV reviews some minor potential problems in the use of retail brokered deposits. Section V provides a conclusion to our study.

I - METHODOLOGY OF THE STUDY

This analysis of retail brokered deposits examines commercial banks, savings banks, and S&Ls with retail brokered deposits outstanding at some time during the first five calendar quarters following the enactment of FIRREA in August 1989. Retail brokered deposits are those brokered deposits sold in amounts under \$100,000 to small investors across the country. Thus, these deposits are fully protected by federal deposit insurance. Other brokered deposits over \$100,000 are not fully covered by federal deposit insurance and thus are not discussed in this report.

The time period we examined runs from September 30, 1989, the first quarter-end date following the enactment of FIRREA,² to December 31, 1990, the most recent quarter-end date for which there are publicly available data on banks and S&Ls.³ The significance of studying this 15-month period is to determine whether FIRREA has reduced retail brokered deposit abuses of the type that may have occurred before FIRREA was enacted.

In delineating the group of institutions to be analyzed, we initially identified all institutions with retail brokered deposits outstanding on any one of the six quarter-end dates examined, September 30, 1989, to December 31, 1990.⁴ From this group we excluded 108 banks and 434 S&Ls for one of the five reasons list below.

The S&L was placed in conservatorship prior to September 30, 1989.

■ The S&L was placed in conservatorship between October 1, 1989, and December 31, 1990.

The bank or S&L had tangible capital as a percentage of tangible assets below 1.5% on <u>both</u> the beginning and ending quarter of our study. These are assumed

⁴Because only balance sheet data on brokered deposits are available for all financial institutions, it is not possible to determine the amount of brokered deposits actually issued in any one quarter. Consequently, this analysis is limited to those institutions that had brokered deposits outstanding on at least one quarter-end date.

²Although FIRREA was passed on August 9, 1989, the brokered deposits provision in FIRREA was not effective until December 7, 1989. Thus, beginning our study on September 30, 1989, actually predates the effective date of the new brokered deposit rules.

³All bank and S&L data used throughout this study were taken from data processed by Sheshunoff Information Services, Inc. These data are available on optical disks from Lotus Development Corporation.

to be troubled institutions, as defined by the brokered deposits provision of FIRREA.⁵

■ The bank or S&L failed post-FIRREA.

■ The bank or S&L was given a regulatory waiver to continue issuing retail brokered deposits even though it fit the definition of a troubled institution under FIRREA.

The rationale for excluding these institutions from our analysis is that all of these institutions either have been under direct regulatory control post-FIRREA or certainly should have been under close enough regulatory scrutiny to prevent any risky investing funded by retail brokered deposits. While our study excluded these troubled institutions, another recent study of all banks and S&Ls that failed from 1987 to 1990 found that retail brokered deposits were not the primary cause of the failure of these institutions.⁶ Collectively, the 542 excluded institutions accounted for only 9.6% of the total amount of retail brokered deposits outstanding at the end of 1990.

After excluding these five categories of institutions from our study, our study examined 922 BIF-insured commercial and savings banks and 404 SAIF-insured S&Ls and savings banks.⁷ Exhibit 1 on the following page summarizes data on these 1,326 institutions and contrasts these data with data for all banks and S&Ls.

We then split the 1,326 banks and S&Ls into five mutually exclusive groups on the basis of each institution's change in retail brokered deposits and higher risk assets from September 30, 1989, to December 31, 1990. We believe that this grouping offers the most logical way to analyze the use of retail brokered deposits post-FIRREA. These five groups are defined below and used throughout the study.

• Group 1: All institutions that increased both the amount of their retail brokered deposits outstanding and their higher risk assets from September 30, 1989, to December 31, 1990. There are 252 banks and 68 S&Ls in this group, including 15 institutions chartered since September 30, 1989.

■ Group 2: All institutions that increased their retail brokered deposits outstanding from September 30, 1989, to December 31, 1990, but <u>decreased</u> their higher risk assets. There are 101 banks and 55 S&Ls in this group, including one newly chartered S&L.

⁵Sec. 224 (g) of FIRREA, U.S.C. Sec. 1831 (g), defines a troubled institution as one "... which does not meet the minimum capital requirements applicable with respect to such institutions."

⁶Cates, David C., and Stanley Silverberg, <u>The Retail Insured Brokered Deposit</u>: <u>Risks and Benefits</u>, Cates Consulting Analysts, May 1, 1991.

⁷BIF is the Bank Insurance Fund; SAIF is the Savings Association Insurance Fund.

| | | | | EXHIBIT 1 | | | | |
|---|-----------|---------------------|---------------------|-------------------------------|---------------------|------------------|-------------------------|---------------------|
| | S | ummary I | Data on Ali (Dol | Banks and ars in Billions) | i Säls in i | the Study | | |
| | Septe | All mber 30, 196 | Banks and Sa 19 | Ls in the Stud | ty nber 31, 1990 |)- , | Ail Banks a December | nd S&Ls 31, 1990 |
| | Banks | S&La | Total | Banka | S&Ls | Total | Banks | S&Ls** |
| Number of institutions* | 909 | 393 | 1,302 | 922 | 404 | 1,326 | 12,796 | 2,324 |
| Total assets | \$1,244.5 | \$432.5 | \$1,677.0 | \$1,315.8 | \$429.3 | \$1,745.1 | \$3,619.1 | \$1,008.6 |
| Higher nek assets | 889.9 | 139.4 | 829.3 | 719.2 | 132.4 | 851.6 | 1,825.1 | 274,7 |
| Retail brokered deposits** | * 29.2 | 16.8 | 45.8 | 43.2 | 17,3 | 80.5 | 44,2 | 22.7 |
| Total deposits | 895.9 | 269.2 | 1,185.1 | 979.9 | 312.0 | 1,291.9 | 2,839.4 | 768.3 |
| Tangible capital | 66.4 | 15.9 | 82.3 | 69.5 | 17.6 | 87.1 | 223.0 | 40.8 |
| Calculated Percentages: Tangible capital/ Tangible assets | 5.35% | 3.72% | 4.93% | 5.31% | 4,14% | 5.02% | 6.18% | 4.10% |
| Liquidity/ | | | | | | | | |
| Total assets | 17.52% | 9.74% | 15.51% | 19.01% | 10.26% | 16.86% | 24.56% | 10.83% |
| Higher risk assets/ Total assets | 55.43% | 32.23% | 49.45% | 54.68% | 30.85% | 48.80% | 50.43% | 27.24% |
| Retall brokered deposits/ Total assets | 2.34% | 3.84% | 2.73% | 3.29% | 4.03% | 3.47% | 1.22% | 2.25% |
| Retali brokered deposits/ Total deposits | 3.25% | 5.74% | 3.86% | 4.41% | 5.55% | 4.69% | 1.58% | 2.85% |

* The Increase In the number of institutions between September 30, 1989, and December 31, 1990, is due to newly chartered institutions. ** Figures exclude S&Ls in conservatorship on December 31, 1990.

* The \$8.4 billion difference between all banks and S&Ls on December 31, 1990, and banks and S&Ls in the study is accounted for by

Institutions with brokered deposits that were excluded from the universe. (\$44.2 + \$22.7 - \$60.5 = \$6.4)

■ Group 3: All institutions that <u>decreased</u> the amount of their retail brokered deposits outstanding over the entire time period, but reported an increase in retail brokered deposits as of at least one of the six quarter-end dates. There are 278 banks and 131 S&Ls in this group, seven of which were newly chartered during the 15-month period.

• Group 4: All institutions that had retail brokered deposits outstanding on December 31, 1990, but never had an increase in retail brokered deposits as of any one of the six quarter-end dates examined; that is, their retail brokered deposits either remained constant or decreased in every quarter. There are 127 banks and 88 S&Ls in this group.

■ Group 5: All institutions that did <u>not</u> have any retail brokered deposits outstanding on December 31, 1990, and never had an increase in retail brokered deposits as of any one of the six quarter-end dates examined; that is, their retail brokered deposits either remained constant or decreased in every quarter. There are 164 banks and 62 S&Ls in this group, including one newly chartered bank.

Each institution in our study was then examined based on various ratios for both September 30, 1989, data and December 31, 1990, data as well as for differences between the two quarter-end dates. Exhibit 2 summarizes balance sheet data for these groups as of September 30, 1989; Exhibit 3 presents the same types of data as of December 31, 1990;

EXHIBIT 2 Summary Data on All Banks and S&Ls in the Study September 30, 1969 (Dollars in Billions)

| • | Group | 01 | Grou | p2 | Grou | p3 | Group | 04 | Grou | p5 |
|---|---------|--------|-----------------|--------|---------|---------|-----------------|--------|--------|--------|
| | Banks | S&Ls | Banks | SåLs | Benks | S&Ls | Banks | S&Ls | Banks | S&Ls |
| Number of institutions | 243 | 62 | 101 | 54 | 275 | 127 | 127 | 88 | 163 | 62 |
| Total assets | \$334.9 | \$58.7 | \$43 7.0 | \$97.2 | \$318.9 | \$166.1 | \$ 113.5 | \$74.5 | \$40.2 | \$36.0 |
| Higher riak asaets | 198.4 | 17.8 | 238,4 | 35.3 | 172.6 | 44.8 | 61.7 | 30,3 | 20.7 | 11,5 |
| Retail brokered deposits | 7.3 | 2.4 | 8.3 | 3.9 | 10.0 | 6.6 | 3.2 | 2.8 | 0.4 | 1.1 |
| Total deposits | 245.0 | 37.3 | 296.5 | 63.6 | 234.2 | 112.6 | 87.1 | 51.9 | 33.1 | 23.9 |
| Tangible capital | 18.0 | 1.9 | 21.6 | 3.2 | 17.4 | 7.1 | 5.9 | 2.4 | 2.6 | 1.2 |
| Calculated Percentages: Tangible capital/ Tangible assets | 5.85% | 3.36% | 4.96% | 3.36% | 5.45% | 4.31% | 5.29% | 3.26% | 6.35% | 3.47% |
| Liquidity/ Total assets | 15.71% | 9.77% | 18.27% | 8.00% | 17.85% | 11.30% | 16.29% | 9.21% | 25.37% | 8.27% |
| Higher risk assets/ Total assets | 58.65% | 30.24% | 54.55% | 36.31% | 54.13% | 26.83% | 54.39% | 40.60% | 51.56% | 32.09% |
| Retail brokered deposits/ Total assets | 2.18% | 4.06% | 1.91% | 3.98% | 3.12% | 3.99% | 2.83% | 3.53% | 0.92% | 3.05% |
| Retall brokered deposits/ Total deposits | 2.97% | 6.40% | 2.81% | 6.06% | 4.25% | 5.88% | 3.69% | 5.07% | 1.12% | 4.59% |

| | | | | EXH | IBIT 3 🕖 | | | | | |
|---------------------------|---------|--------|------------|-----------------------|---------------------------|---------------|----------------|--------|------------|---------------|
| | | Summ | ary Data o | n All Bar | iks and S | &Ls in th | e Study | | | |
| | | | | Decembe Mollers li | r 31, 1990 n Billions) | | | | | |
| | | | | (0000000 | | | | | | |
| | Grout | 01 | Group | 02 | Group | 3 | Grou | | Group | 5 |
| | Booke | | Basta | ce | D l | 60 1-1 | | | _ . | |
| | CALING | Jaco | Derinas | 2018 | Banks | Sals | валка | Sals | Banks | S&Ls |
| Number of Institutions | 252 | 68 | 101 | 55 | 278 | 131 | 127 | 88 | 164 | 82 |
| | | | | | | | | | | |
| Total assets | \$384.1 | \$67.2 | \$418.2 | \$89.1 | \$342.8 | \$167.8 | \$110.0 | \$73.2 | \$53 A | # 37.0 |
| | | | ••••• | | 4072.0 | 0.07.0 | 9 118.0 | J/ J.Z | 402.U | 332.U |
| Higher risk assets | 233.4 | 21.0 | 214.3 | 30.8 | 179.8 | 41.7 | 67. 0 | 28.8 | 24.7 | 10.3 |
| Retail brokered deposits | 15.9 | 3.8 | 20.0 | 8.3 | 5.8 | | | na | 0.0 | |
| • | | | | ····· | | | | ····· | | |
| | 288.9 | 46.8 | 300.8 | 64.3 | 257.0 | 124.8 | 90.0 | 52.9 | 43.2 | 23.1 |
| Tangible capital | 21.8 | 2.7 | 20.2 | 3.3 | 18.9 | 7.8 | 5.7 | 2.9 | 29 | 1.0 |
| | | | | | | | | | 2.0 | 1.0 |
| Calculated Percentages: | | | | | | | | | | |
| Tangible capital/ | | | | | | | | • | | |
| Tangible assets | 5.70% | 4.01% | 4.83% | 3.74% | 5.54% | 4.65% | 4.88% | 4.01% | 5.66% | 3.12% |
| Llouidity/ | | | | | | | | | | |
| Total assets | 14.12% | 13.93% | 24.14% | 6.40% | 19.87% | 10.84% | 10.04% | 8.43% | 28.88% | 8 87% |
| bliches detresses | | | | | | | | | | 0.07 /0 |
| Total assets | 60.78% | 31,28% | 51 23% | 34 50% | 50 409/ | 24 000 | E8 200/ | 20.000 | | |
| _ | | | 01.201 | 04.00 % | 36.4070 | 29.00% | 30.30% | 39.06% | 47.55% | 32.25% |
| Retail brokered deposits/ | 4 160 | | 4 700/ | | | | | · | | |
| 10421 235605 | 4.1376 | 5.05% | 4./8% | 9.34% | 1.70% | 2.55% | 1.25% | 1.24% | 0.00% | 0.00% |
| Retail brokered deposits/ | | | | | | | | | | |
| i otal deposits | 5.52% | 8.11% | 6.64% | 12.95% | 2.27% | 3.42% | 1.65% | 1.72% | 0.00% | 0.00% |

Group 1 = All institutions with an increase in retail brokered deposits (BDs) and an increase in higher risk assets from 09/30/89 to 12/31/90. Group 1 = All institutions with an increase in retail brokered deposits (BL/B) and an increase in higher risk assets from 09/30/89 to 12/31/90. Group 2 = All institutions with an increase in retail BDs but a decrease in higher risk assets from 09/30/89 to 12/31/90. Group 3 = All institutions that were occasional issues of retail BDs, but decreased their outstanding retail BDs from 09/30/89 to 12/31/90. Group 4 = All institutions that were occasional issues of retail BDs, but decreased their outstanding retail BDs from 09/30/89 to 12/31/90. Group 4 = All institutions that had retail BDs outstanding on 12/31/90, but never had an increase in retail BDs in any one of the five quarters. Group 5 = All institutions that did not have any retail BDs outstanding on 12/31/90, and never had an increase in retail BDs in any one of the five quarters.

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and Exhibit 4 shows the changes in these data between the two dates. These ratios are defined below:

■ Tangible capital / tangible assets = (Total equity capital minus intangible assets) divided by (total assets minus intangible assets).

• Liquidity / total assets = (Total cash and investments plus federal funds sold and securities purchased plus assets held in trading accounts minus federal funds purchased and securities sold minus demand notes issued to the Treasury minus equity securities) divided by total assets.

■ Higher risk assets / total assets = (Net loans plus other real estate owned plus equity securities minus one-to-four family mortgage loans) divided by total assets. Junk bonds, investments in service corporations, and direct real estate investments also are classified as higher risk assets for S&Ls. This conservative definition of higher risk assets in turn gives a conservative bias to our study.

• Retail brokered deposits / total assets = Total retail brokered deposits outstanding divided by total assets.

• Retail brokered deposits / total deposits = Total retail brokered deposits outstanding divided by total deposits.

| | | | | EXH | IBIT 4 | | | | | | |
|---------------------------|--------------------------------------|--------------|----------------------------|--------------------------|---|------------------------------------|-----------------------|---------|--------|---------|--|
| | | Summ Chai | ary Data o nges from Se | ptember 30 (Dollars I | n ks and S , 1989, to De n Billions) | &Ls in th cember 31, | e Study 1990 | | | | |
| | Group 1Group 2Group 3Group 4Group 5- | | | | | | | | | | |
| | Banks | S&Ls | Banks | S&La | Banks | S&Ls | Banks | S&Ls | Banks | S&Ls | |
| Total assets | \$49.2 | \$8.5 | (\$18.8) | (\$8.1) | \$23.7 | \$1.7 | \$ 5. 4 | (\$1.3) | \$11.8 | (\$4.0) | |
| Higher risk assets | 37.0 | 32 | (24.1) | (4,5) | 7.2 | (2.9) | 5.3 | (1.6) | 4.0 | [1.2 | |
| Retail brokered deposits | 8.6 | 14 | 11,7 | 4.4 | (4.2) | (2.4) | (1.7) | (1.7) | (0,4) | (1.1 | |
| Total deposits | 43.D | 9.5 | 4.3 | 0.7 | 22.8 | 12.2 | 2.9 | 1.0 | 10.1 | (0.8 | |
| Tangible capital | 2.9 | 0.8 | (1.4) | 0.1 | 1.5 | 0.7 | (0.2) | 0.5 | 0.3 | (0.2 | |
| Calculated Percentages: | | | | | | | | | | | |
| Tangible capital/ | | | | | | | | | | | |
| Tangible assets | 0.05% | 0.65% | -0.13% | 0.38% | 0.09% | 0.34% | -0.41% | 0.75% | -0.69% | -0.35% | |
| Liquidity/ | | | | | | | | | | | |
| Total assets | - 1.59% | 4.16% | 5.87% | 0.40% | 2.02% | -0.46% | -6.25% | -0.78% | 3.51% | 0.80% | |
| Higher risk assets/ | | | | | | | | | | | |
| Total assets | 2.13% | 1.04% | -3.32% | - 1.81% | | 1.95% | 1.91% | -1.51% | -4.01% | 0.16% | |
| Retail brokered deposits/ | | | | | | | | | | | |
| Total assets | 1.97% | 1.59% | 2.87% | 5.38% | -1.42% | -1.44% | - 1.58% | -2.29% | -0.92% | -3.05% | |
| Retail brokered deposits/ | | | | | | | | | | | |
| I OTAL Deposits | 2.55% | 1.71% | 3.83% | 6.89% | - 1.98% | -2.48% | -2.04% | -3.35% | -1.12% | -4.59% | |

Group 1 = All institutions with an increase in retail brokered deposits (BDs) and an increase in higher risk assets from 09/30/89 to 12/31/90.

Group 2 = All institutions with an increase in retail BDs but a decrease in higher risk assets from 09/30/89 to 12/31/90.

Group 3 = All institutions that were occasional issuers of retail BDs, but decreased their outstanding retail BDs from 09/30/89 to 12/31/90.

Group 4 = All institutions that had retail BDs outstanding on 12/31/90, but never had an increase in retail BDs in any one of the five quarters.

Group 5 = All institutions that did not have any retail BDs outstanding on 12/31/90, and never had an increase in retail BDs in any one of the five quarters.

II - ANALYSIS OF RETAIL BROKERED DEPOSIT USAGE

Grouping Institutions with Retail Brokered Deposits Outstanding

The main argument against the use of retail brokered deposits has been that an institution wishing to rapidly increase or "grow" its higher risk assets may use retail brokered deposits to quickly fund this growth. Thus, any abuse of retail brokered deposits will occur on the asset side of a bank or S&L's balance sheet as the institution invests in especially risky assets that potentially could lose much of their value. Usually this loss in value is due to credit problems that take several years to surface, that is, to be reported as a loss.

Insufficient time has passed for investments made post-FIRREA to have become a loss. Thus, at this time, a risky use of retail brokered deposits post-FIRREA can be estimated only by linking an increase in retail brokered deposits with a corresponding increase in higher risk assets. Therefore, our analysis focused on the interaction between changes in retail brokered deposits and changes in higher risk assets in the 1,326 banks and S&Ls we studied. To better understand this interaction, we divided these institutions into the five groups described in Section I. Exhibit 5 shows the amount of retail brokered deposits outstanding on December 31, 1990, in each of the groups. (Group 5, by definition, had no outstanding retail brokered deposits on December 31, 1990.) Exhibit 6 shows, for banks and S&Ls respectively, the amount of retail brokered deposits outstanding in each group as a percentage of total deposits in that group.



Group 4: \$2.4

Group 3: \$10.1

* Groups defined on pages 5-6.

Group 2: \$28,3



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As is evident from Exhibit 6, over the five quarters, the 476 banks and S&Ls in Groups 1 and 2 increased their use of retail brokered deposits as a funding source. Thus, these institutions are of primary importance in our study. These two groups include 241 institutions that had no retail brokered deposits outstanding on September 30, 1989, but had \$10.5 billion outstanding on December 31, 1990. The other 235 institutions in Groups 1 and 2 had \$21.9 billion in retail brokered deposits outstanding on September 30, 1989, and increased their retail brokered deposits by \$15.7 billion, or 72%, over the 15-month period, to \$37.6 billion. These 476 banks and S&Ls accounted for 79% of all retail brokered deposits outstanding among the 956 institutions with retail brokered deposits outstanding at the end of 1990.

Although all 476 institutions in Groups 1 and 2 increased their retail brokered deposits, only the 320 Group 1 institutions increased <u>both</u> their retail brokered deposits and their higher risk assets over the 15-month time span. These institutions received our closest attention. Each of the 156 Group 2 institutions that increased its retail brokered deposits actually <u>shrank</u> its higher risk assets. In addition, 79 of these banks and S&Ls, or 50% of all Group 2 institutions, also shrank their total assets. Thus, they warrant a lesser amount of attention since they apparently were not using their retail brokered deposits to grow their assets, specifically their higher risk assets. The banks and S&Ls in Groups 3, 4, and 5 shrank their retail brokered deposits over the 15-month period, hardly a threatening use of retail brokered deposits. These three groups warrant the least attention.

Group 1: In the 15-month period from September 30, 1989, to December 31, 1990, the 320 banks and S&Ls in Group 1 increased both their retail brokered deposits and their higher risk assets. On average, though, retail brokered deposits financed only one-fourth of the growth in higher risk assets in these institutions; the balance of this growth was financed from other sources such as borrowings and retail deposits gathered through branches. On December 31, 1990, the Group 1 institutions had \$19.7 billion in retail brokered deposits, or 33% of all retail brokered deposits outstanding in our study. However, as Exhibit 6 shows, retail brokered deposits in the S&Ls in this group. These percentages indicate that retail brokered deposits in the main are not a major source of funding in these institutions.

Group 1 banks and S&Ls on average grew their higher risk assets at a 14% compound annual growth rate. This high growth rate, however, was matched by a 13% compound annual growth rate in their tangible capital. On December 31, 1990, banks in Group 1 had a tangible capital/tangible assets percentage of 5.7 while S&Ls had a 4.0 percentage -- both reasonably strong relative to their peers. Also, only four of the banks and two of the S&Ls in Group 1 had tangible capital below 3% of their assets. Another 62 banks and 29 S&Ls had capital in the 3-6% range and 223 institutions had tangible capital in excess of 6%.

Of the 320 institutions in Group 1, we identified 15 banks and S&Ls, less than 5% of all Group 1 institutions, that might be potential problems because of the rate at which

they were growing their higher risk assets. These institutions met three criteria: (1) they had more than 40% of their assets invested in higher risk assets on September 30, 1989; (2) they grew their higher risk assets more than 15% over the 15-month period studied; and (3) their retail brokered deposits increased by at least 50% of the institution's increase in higher risk assets. However, after we examined all of these institutions, it did not appear that any of them were misusing retail brokered deposits. Twelve of these institutions were small community banks. (Community banks are defined in our study as institutions with less than \$300 million in assets). In addition, 12 of the 15 institutions were well capitalized, with a tangible capital percentage over 6%. The other 3 institutions with less than 6% tangible capital are discussed in further detail in Section IV.

Group 2: The 156 institutions in Group 2 increased their retail brokered deposits while shrinking their higher risk assets. Over the 15-month period, this group of institutions increased their use of retail brokered deposits as a funding source. Their retail brokered deposits increased \$16.1 billion while their total deposits increased only \$5 billion. However, these banks and S&Ls, 82 of which are headquartered along the East Coast between Maine and Virginia, clearly were shrinking their total assets while using retail brokered deposits to reduce their borrowings and local, direct deposits. Regional interest rate competition, which will be discussed below, forced many of these banks and S&Ls to look for less-expensive funding sources, such as retail brokered deposits.

The fact that these institutions as a whole shrank their <u>higher</u> risk assets by 10.4%, while shrinking their <u>total</u> assets by only 5%, indicates very clearly that they were using retail brokered deposits defensively, not aggressively, to build liquidity to withstand the storms buffeting banking during 1990. This fact is evident in the 5.87% increase in the liquidity ratio for banks in Group 2 over the 15-month period while banks in other groups were either decreasing their liquidity ratios or increasing them to a lesser degree.

Much of this retail deposit shrinkage occurred as banks in New England and the Middle Atlantic region shifted to cheaper retail <u>brokered</u> deposits to lessen their reliance on local, <u>branch</u> deposits made more costly by troubled banks scrambling to build or at least retain their local retail deposit base. <u>The ability of Group 2 institutions to use retail brokered deposits to partially neutralize higher rates in their local markets illustrates one very important and beneficial feature of retail brokered deposits that will be discussed in Section III.</u>

Group 3: The 409 banks and S&Ls in Group 3 present a quite different picture. Although they were occasional issuers of retail brokered deposits during the 15-month period, they nonetheless reduced their already limited use of retail brokered deposits as a source of funding while growing their total assets. In addition, the S&Ls in this group, which grew their assets on average just 1% during the 15 months, also were shrinking their higher risk assets while increasing the funding they derived from their retail branches. Clearly all of these institutions, especially the S&Ls, were pursuing conservative financial strategies while strengthening their capital positions. Of these occasional issuers, 144 banks and S&Ls, or 35% of all Group 3 institutions, actually had no retail brokered deposits outstanding at the end of 1990.

Group 4: The 215 banks and S&Ls in Group 4 are comparable to the Group 3 institutions except that those in Group 4 do not appear to have been even occasional issuers of brokered deposits during the 15-month period; at each quarter-end date, these institutions reported less in retail brokered deposits outstanding than at the end of the previous quarter. Consequently, these institutions reduced their use of retail brokered deposits as a source of funding by the end of 1990 to an almost insignificant level, 1.25% of total assets.

Group 5: The 226 institutions in Group 5 do not appear to have issued any retail brokered deposits during the 15-month period and did not have any retail brokered deposits outstanding at the end of 1990. The contrast, though, between the banks and the S&Ls in this group was striking. Even as the 164 banks in this group were eliminating their retail brokered deposits, on average they were growing their total assets and their higher risk assets faster than any of the other four groups of banks. This growth, however, was almost fully funded by sources other than retail brokered deposits. This group of banks, on average, also was the most liquid of the five groups of banks. However, the 62 S&Ls in this group, with the weakest capital position, on average, of the five groups of S&Ls, were shrinking their balance sheets across the board.

Capital – A Key Protector Against Any Abuse of Retail Brokered Deposits

Deposit insurers are protected against abuses of almost any kind within a bank or S&L by the institution's capital, since capital is the cushion that protects an institution's deposit insurer from an insolvency loss. Thus, well-capitalized institutions normally pose little risk of failure in the near future. Of the 476 institutions that grew their retail brokered deposits over the 15-month period, only 24, or 5%, had less than 3% capital. Of these 24, 18 were Group 2 institutions that were shrinking their higher risk assets. Thus, it does not appear that most institutions growing their retail brokered deposits represent a serious threat to the BIF or to the SAIF.

As the upper portion of Exhibit 7 shows, tangible capital as a percentage of tangible assets for all five groups of banks is reasonably strong and only slightly below the capital percentage for all banks without retail brokered deposits. The all-other-banks category looks stronger, though, primarily because smaller banks, which use retail brokered deposits less often, tend to have higher capital ratios.

S&Ls with retail brokered deposits actually increased their average capital ratio over the 15-month period, from 3.72% to 4.14%. Thus, S&Ls with retail brokered deposits on December 31, 1990, on average, had the same capital level as the entire S&L industry, as shown in Exhibit 1. Also, only the Group 5 S&Ls, which had no retail brokered deposits outstanding at the end of 1990, actually saw their average capital level decline. The lower portion of Exhibit 7 compares the five groups of S&Ls with all other S&Ls not in our study. This exhibit shows that all other SAIF-insured S&Ls not in conservatorship and not in our study had only a somewhat higher average capital level of 5.3%.



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Special Purpose Banks

Thirty-one special purpose institutions, that is, credit card banks and "non-bank banks," have been identified in our group of 1,326 institutions. We did not exclude these institutions from any exhibits. Excluding them from some of our analyses, though, might give a more realistic picture of the use of retail brokered deposits by the typical bank or S&L.

It is important to look closely at these special purpose institutions because they generally are much more reliant on retail brokered deposits as a source of funding than are other users of retail brokered deposits. However, these institutions do not pose an insolvency threat by virtue of being heavily funded with retail brokered deposits. In fact, these 31 institutions are better capitalized, with an average tangible-capital-to-tangible-assets ratio of 7.2%, than the average bank or S&L.

There are a number of reasons for the significant use of brokered deposits by special purpose banks. These reasons include branching restrictions for credit card banks, the non-bank bank prohibition against soliciting deposits through branches, and a lack of available deposits in the smaller cities where many of these credit card banks are located. Although issuing retail brokered deposits is not the only source of funding for these banks, retail brokered deposits offer a relatively low-cost source of funding. Allowing these special purpose banks to use retail brokered deposits to hold down their cost of funds helps them to be more competitive with other, more-diversified financial companies offering credit cards. A more competitive market for credit card loans, in turn, is beneficial to the consumer. Also, locating special purpose banks in smaller cities helps to bring jobs to these communities.

On December 31, 1990, these 31 institutions had \$16.2 billion in retail brokered deposits outstanding, or 27% of all retail brokered deposits in the institutions we studied. Also, since these institutions use retail brokered deposits for a significant amount of their funding, their average retail brokered deposits outstanding as a percentage of their total deposits was 41%; 11 of these institutions relied on retail brokered deposits for more than 50% of their total deposits.

Eleven of the 31 special purpose banks are owned by major bank holding companies. When all the banks in these holding companies are aggregated by company, the retail brokered deposits in these special purpose banks become a fairly insignificant source of funding for the aggregated banks. Retail brokered deposits accounted for more than 10% of total deposits as of the end of 1990 at only 2 of the 11 bank holding companies. One holding company obtained 10.4% of its total deposits through retail brokered deposits when its credit card subsidiary was combined with its other subsidiary bank. The second holding company had 30% of its total deposits funded by retail brokered deposits after aggregating its banks, due to its large credit card subsidiary. However, this subsidiary has recently been spun off from its holding company and is now operating on its own. The remaining 20 special purpose banks not owned by bank holding companies are still owned by large parents, many of which also own other banks and S&Ls. Thus, because of the "cross-guarantee" provision in FIRREA, which allows bank and S&L insolvency losses to be spread horizontally across sister banks and S&Ls in the event of a failure, these institutions do not pose a serious risk to the deposit insurance funds. Another safety feature for non-bank banks is the provision in the Competitive Equality Banking Act of 1987 that limits asset growth of non-bank banks to an annual rate of 7%. Thus, there is little likelihood that non-bank banks will use retail brokered deposits to fuel any massive increase in higher risk assets.

Usage of Brokered Deposits as a Source of Funding

At the end of 1990, most of the 956 banks and S&Ls in our study with outstanding retail brokered deposits, in fact, derived relatively little of their total deposits from this source of funding. Exhibit 8 presents a distribution of all banks and S&Ls with outstanding retail brokered deposits, based on their retail brokered deposits as a percentage of their total deposits. For approximately 85% of these institutions, retail brokered deposits accounted for 10% or less of their total deposits. Exhibit 9 presents key financial data that differentiates banks and S&Ls with retail brokered deposits outstanding on December 31, 1990, based on their retail brokered deposits as a percentage of their total deposits.




| EXHIBIT 9 | | | | | | | | |
|--|------------------------|---------------------|------------------------|-------------------------------------|-----------|------------------------------|--|--|
| Institutions in the Study with Retail Brokered Deposits Outstanding on December 31, 1 Retail Brokered Deposits as a Percentage of Total Deposits (Dollars in Billions) | | | | | | | | |
| | Retail Greater than | Brokered Dep 50% | osits as a Pe 10-49 | sits as a Percentage of 1 10-49% | | Total Deposits Less than 10% | | |
| | Banks | S&Ls | Banks | S&Ls | Banks | S&Ls | | |
| Number of institutions | 13 | 4 | 86 | 43 | 546 | 264 | | |
| Total assets | \$25.0 | \$4.4 | \$156.7 | \$92.3 | \$1,028.7 | \$26 8.3 | | |
| Higher risk assets | 18.8 | 0.7 | 19.3 | 29.7 | 558.9 | 86.5 | | |
| Retail brokered deposits | 8.3 | 1.8 | 18.8 | | 18,1 | 4.1 | | |
| Total deposits | 13.5 | 2.6 | 95.6 | 64.0 | 783.6 | 199.0 | | |
| Tangible capital | 1.5 | 0.2 | 9.7 | 3.2 | 52.5 | 11.8 | | |
| Calculated Percentages: Tangible capital/ Tangible assets | 6.15% | 4.59% | 6.20% | 3.54% | 5.12% | 4.43% | | |
| | | | 0.2070 | | | | | |
| Total assets | 2.25% | 3.41% | 12.32% | 11.88% | 19.65% | 10.21% | | |
| Higher risk assets/ Total assets | 75.11% | 15.96% | 58.25% | 32.14% | 54.34% | 32.23% | | |
| Retail brokered deposits/ Total assets | 33.06% | 36.91% | 12.03% | 12.50% | 1.57% | 1.54% | | |
| Retail brokered deposits/ Total deposits | 61.33% | 61.61% | 19.71% | 18.04% | 2.08% | 2.07% | | |

Note: This subset excludes 277 banks and 93 S&Ls that did not have retail brokered deposits on December 31, 1990.

Analysis of the Size of Institutions

It is also useful to break down the institutions in our study by asset size group to explain the size of the institutions that use retail brokered deposits as a source of funding. Exhibit 10 separates the banks and S&Ls, respectively, in our study into seven asset-size categories that are based on total assets at the beginning and ending dates of our study.

Although 90% of all retail brokered deposits outstanding in our study on December 31, 1990, were in institutions with more than \$1 billion in assets, retail brokered deposits in these institutions accounted for only about 4% of all deposits for the banks in this group and 5% of all deposits for the S&Ls. Thus, these 197 institutions with assets of more than \$1 billion, on average, did not rely any more on retail brokered deposits for their overall funding than did the 759 smaller institutions using retail brokered deposits.

Interestingly, of the institutions (645 banks and 311 S&Ls) with retail brokered deposits outstanding on December 31, 1990, more than two-thirds were community banks. These community-based institutions, with \$2.3 billion in retail brokered deposits outstanding, accounted for 3.8% of all retail brokered deposits outstanding at the end of our study period. Retail brokered deposits in community banks and S&Ls comprised an average of just 4.5% of their total deposits.



III - FOUR POSITIVE FEATURES OF RETAIL BROKERED DEPOSITS

Our study of retail brokered deposits in the post-FIRREA era revealed four positive features about retail brokered deposits, several of which have not received much attention previously.

One - Retail Brokered Deposits Help Greatly To Ease Local Interest Rate Fevers

Last year, 1990, was marked by two significant regional funding crises that pushed retail deposit interest rates in certain localities far above the national average. Some stronger institutions of all sizes in these localities turned to retail brokered deposits to acquire <u>cheaper</u> deposits from elsewhere in the country to help lessen the adverse impact of higher local interest rates. Without access to lower-cost retail brokered deposits, these institutions would have had to compete even more aggressively for local deposits. More intense competition would have driven local deposit interest rates even higher. Higher rates, of course, would have hurt even more the institutions that turned to retail brokered deposits. In a competitive marketplace, retail brokered deposits enhance the safety and soundness of banks and S&Ls by lowering their overall cost of funds. In effect, retail brokered deposits serve banks and S&Ls as an attractive and perhaps more desirable alternative to borrowing from the Federal Reserve.

Massachusetts provides a good example of this desirable feature of retail brokered deposits. The Bank of New England's (BNE) funding crisis began in early 1990 as fears about its solvency mounted. These fears triggered an enormous outflow of uninsured deposits that forced BNE to gather more <u>insured</u> deposits through its branches. Interestingly, <u>BNE did not raise any funds through retail brokered deposits</u>. To attract deposits, BNE began to pay among the highest deposit rates available anywhere in the country.

In self-defense, many other banks and S&Ls in New England turned to the retail brokered deposit market for the first time or used it much more extensively. For example, one large bank went from \$93 million in retail brokered deposits on September 30, 1989, to a peak of \$2.0 billion on June 30, 1990. Likewise, another large bank went from no retail brokered deposits on December 31, 1989, to \$503 million on September 30, 1990. In all, 16 Massachusetts banks and S&Ls that had no retail brokered deposits outstanding on September 30, 1989, used retail brokered deposits sometime between that date and the end of 1990. We also observed the same phenomenon in 16 banks and S&Ls located in the other five New England states.

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Exhibit 11 illustrates what occurred in Massachusetts as deposit interest rates in Boston increased relative to the rates paid by banks elsewhere in the country.⁸ The dashed line shows that this interest rate differential rose, by March 31, 1990, to a peak of 31 basis points (one basis point = .01%) over the national average.

It is interesting to note that the increase in retail brokered deposits issued by Massachusetts institutions lagged the increase in the rate differential by one calendar quarter. This lag probably reflects the time it took these institutions to initiate a retail brokered deposit program.

Exhibit 11 also clearly illustrates the ability of retail brokered deposits to help moderate rising interest rates. After two quarters during which the difference between Boston-area rates and the national average exceeded 30 basis points, the rate differential began a steep decline. This plunge in the rate differential vividly illustrates the rate cooling effect that retail brokered deposits can have. We expect retail brokered deposits and the regional rate differential to continue declining in the Boston area during 1991.

It is difficult to quantify how much in interest expense retail brokered deposits have saved Massachusetts banks and S&Ls since September 30, 1989, but the sum is substantial. Savings are achieved in two ways. First, in a highly competitive market, retail brokered deposits, including commissions paid, often represent a cheaper "all-in"



⁸Exhibits 11 and 12 are based on the regional average of the rate differentials for the interest rates offered on three-month, six-month, and one-year certificates of deposit, as measured by a leading surveyor of deposit interest rates.

source of deposits⁹ than do deposits raised through branches. Second, the use of retail brokered deposits eases the upward pressure on the rates that banks and S&Ls pay on deposits gathered through their branches. Based on the \$116 billion of total domestic deposits in Massachusetts banks and S&Ls at the end of 1990, every 10 basis points of interest savings equals \$116 million annually. These savings are a significant sum given that Massachusetts banks and S&Ls reported a net interest margin in 1990 of \$4.2 billion.

Exhibit 12 contrasts the closer and more dramatic linkage between rising interest rates and growth in retail brokered deposits that occurred later in 1990 in the Baltimore-Washington region. The liquidity problems of several banks triggered the higher local interest rates that caused many banks to turn increasingly to retail brokered deposits. One area bank, for example, went from no retail brokered deposits on March 31, 1990, to \$1.5 billion on December 31, 1990, just nine months later. Another large Washingtonarea bank went from no retail brokered deposits on March 31, 1990, to \$227 million on December 31, 1990. Both of these banks used retail brokered deposits defensively to meet short-term liquidity needs. In all, 30 banks and S&Ls in Maryland, Virginia, and the District of Columbia that had no retail brokered deposits outstanding on September 30, 1989, issued retail brokered deposits sometime between that date and the end of 1990.



⁹An "all-in" cost of deposits includes the interest paid on deposits plus the cost of gathering them. For brokered deposits, the principal gathering cost is the commission paid to the deposit broker. For deposits obtained through retail branches, gathering costs include branch operating expenses, advertising and other marketing expenses, data processing expense, and administrative overhead.

It is interesting to note that regional use of retail brokered deposits begins to decline once the local funding crisis has crested. Retail brokered deposits outstanding in Massachusetts institutions probably have not dropped as fast as Boston-area deposit interest rates have because many brokered Certificate of Deposits (CDs) these banks issued were of durations of one year or more. We expect outstanding retail brokered deposits to begin to decline in the Baltimore-Washington region during 1991 as funding pressures in this area continue to ease. We also expect the regional offering rate differential in the Baltimore-Washington area to decline as it did in the Boston region. This decline will confirm the safety valve effect that retail brokered deposits provide.

Two - Retail Brokered Deposits Provide an Alternative Source of Funding for Community Banks and S&Ls

As Exhibit 10 illustrates, community banks and S&Ls are significant issuers of retail brokered deposits. At the end of 1990, almost 70% of the institutions with retail brokered deposits outstanding had less than \$300 million in assets. Yet as this exhibit shows, these institutions are not heavily reliant on retail brokered deposits as a source of funding -- retail deposits gathered through branches remain their overwhelming source of funding. Access to retail brokered deposits is especially important to community banks since they have fewer alternative funding sources than do large money center banks.

Three - Retail Brokered Deposits Lower All-In Funding Costs for Banks and S&Ls

As demonstrated above for the Boston and Baltimore-Washington regions, retail brokered deposits offer an important source of low-cost deposits in unhealthy competitive situations driven by the liquidity needs of weak institutions. Even in more normal markets, though, retail brokered deposits offer many banks and S&Ls an opportunity to lower their average <u>all-in</u> cost of deposits. That is the case because the gathering costs for retail brokered deposits almost always are less than the cost of gathering deposits through retail branches.

An example will illustrate this point: Assume the gathering cost for retail brokered deposits is 60 basis points annually (the typical commission rate on retail brokered deposits) and the estimated cost of gathering deposits through branches is in the range of 90 to 150 basis points. Assuming a 125 basis point cost of gathering deposits in branches, the cost benefit to be gained by an institution using brokered deposits is 65 basis points (125-60), or about two-thirds of 1%. If a bank or S&L can obtain retail brokered deposits with an interest rate that is not more than 65 basis points above the rate paid on deposits gathered through its branches, then its retail brokered deposits actually will be less expensive on the basis of its all-in cost of deposits. One should not assume that retail brokered deposits always are more expensive than deposits collected through branches.

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Four - Retail Brokered Deposits Can Be a More Accessible Source of Longer-Term Funding Than Deposits Obtained Through Branches

Most CDs that banks and S&Ls sell through their branches have relatively short maturities. For example, at the end of 1990, only 12% of the CDs issued by SAIFinsured institutions had an original maturity of more than three years. (Comparable data are not available for BIF-insured institutions.) Yet there are occasions when a bank or S&L can make a loan for a 7- or 10-year period that can profitably be funded with a fixed-rate CD of comparable maturity. Rather than scouring hurriedly for local depositors who will hold a CD of that maturity, the institution can turn to a deposit broker who continually solicits for long-term deposits. Community banks especially benefit from the ability to turn to a deposit broker on those occasions when long-term funding is needed.

One reason some deposit brokers can readily obtain long-term deposits for banks and S&Ls is that the broker makes a secondary market for the long-term CDs it has brokered. Banks and S&Ls, on the other hand, do not even attempt to make a secondary market for the CDs they have issued.

IV - POTENTIAL PROBLEMS WITH A FEW USERS OF RETAIL BROKERED DEPOSITS

We observed three potential types of problems among a few users of retail brokered deposits. These problems, though, are quite modest relative to other types of problems facing bank and S&L regulators today. Whatever problems these institutions have, though, are better dealt with through more effective case-by-case regulatory supervision rather than by removing deposit insurance protection for all retail brokered deposits placed in healthy banks and S&Ls.

Of the 17 institutions with more than 50% of their deposits at the end of 1990 represented by retail brokered deposits, we have identified one small community bank and three small community S&Ls that appear to warrant special supervisory attention. (The other 13 institutions consist of 11 special purpose banks and 2 banks owned by large bank holding companies.) Three of these 4 institutions have shrunk significantly since FIRREA. This shrinkage has had the effect of raising their retail brokered deposits as a percentage of their total deposits. Their higher risk assets, as a percentage of total assets, ranged from 5% to 86% at the end of 1990. However, all four of these institutions have shrunk their higher risk assets post-FIRREA. The tangible capital of these institutions at the end of 1990 was reasonably strong to very strong, ranging from 5.3% of total assets to 11.6%. Thus, the likelihood that these institutions would fail is fairly remote. In any event, the largest of these institutions had just \$72 million in total assets, so these institutions hardly represent a major threat to the BIF.

Four of the 320 Group 1 institutions, those growing both their higher risk assets and their retail brokered deposits, ended 1990 with tangible capital below 3% and without a corporate affiliation that clearly could strengthen them. These institutions are suffering capital weaknesses primarily because of loans and investments they made prior to the passage of FIRREA. However, they have not aggressively grown either their higher risk assets or their retail brokered deposits since September 30, 1989. Nonetheless, these institutions warrant close supervisory attention, if they are not already receiving it, in case they become more aggressive in growing their higher risk assets.

The analysis of the Group 1 institutions in Section II discussed the 15 banks and S&Ls that were the most aggressive institutions in using retail brokered deposits to fund relatively fast growth in higher risk assets. Three of these institutions had less than 6% tangible capital at the end of 1990, with the lowest at 5.48%. Two of these institutions grew their total assets only slightly faster than the Gross National Product during the 15-month period we studied; the other grew its total assets 20% -- a high, yet not alarming, growth rate. The two smaller institutions, both commercial banks with total combined assets of \$58 million, warrant special regulatory attention because they lost money in both 1989 and 1990. These losses, however, do not appear to be related to their use of retail brokered deposits.

FIRREA, by restricting the use of retail brokered deposits by troubled institutions, gave bank and S&L regulators ample tools to prevent future misuses of retail brokered deposits. Post-FIRREA, there is every indication that healthy institutions are not using retail brokered deposits to imprudently grow their higher risk assets.

Nothing in our study would suggest that further restrictions on brokered deposits are necessary. In fact, our study shows how important it is that banks and S&Ls of all sizes be able to continue to access the marketplace for retail brokered deposits, especially if a large, troubled bank triggers a regional funding crisis that harms its healthier competitors. While there is a potential to abuse retail brokered deposits, there likewise is a potential for banks and S&Ls to abuse deposits they gather through branches. As with all other aspects of banking, sound, timely, <u>case-by-case</u> regulatory supervision is preferable to statutory changes that are indiscriminate in their application.

ATTACHMENT E



The Largest Amount of Brokered Deposits as a Percent of Domestic Deposits Held by Banks and Thrifts Ranked over 200 (Superior)

In the third quarter 2008, banks ranked over 200 (superior) held the largest amount of brokered CD's as a percent of domestic deposits.

No. of banks and thrifts with brokered CD's 1 to 10% of domestic deposits

| Superior Rank | 200 - 300 | 583 |
|--------------------|-----------|-----|
| Excellent Rank | 165 - 199 | 361 |
| Average Rank | 125 - 164 | 337 |
| Below Average Rank | 75 - 124 | 198 |
| Lowest Ratios Rank | 2 - 74 | 91 |
| Lowest Rank | Rank of 1 | 25 |

No. of banks and thrifts with brokered CD's 10 to 20% of domestic deposits

| Superior Rank | 200 - 300 | 110 |
|--------------------|-----------|-----|
| Excellent Rank | 165 - 199 | 77 |
| Average Rank | 125 - 164 | 100 |
| Below Average Rank | 75 - 124 | 70 |
| Lowest Ratios Rank | 2 - 74 | 49 |
| Lowest Rank | Rank of 1 | 7 |

No. of banks and thrifts with brokered CD's 20 to 30% of domestic deposits

| Superior Rank | 200 - 300 | 34 |
|--------------------|-----------|----|
| Excellent Rank | 165 - 199 | 26 |
| Average Rank | 125 - 164 | 36 |
| Below Average Rank | 75 - 124 | 29 |
| Lowest Ratios Rank | 2 - 74 | 25 |
| Lowest Rank | Rank of 1 | 5 |

No. of banks and thrifts with brokered CD's greater than 30% of domestic deposits

| Superior Rank | 200 - 300 | 46 |
|--------------------|-----------|----|
| Excellent Rank | 165 - 199 | 25 |
| Average Rank | 125 - 164 | 31 |
| Below Average Rank | 75 - 124 | 13 |
| Lowest Ratios Rank | 2 - 74 | 31 |
| Lowest Rank | Rank of 1 | 6 |

IDC Financial Publishing, Inc. analyzed the rank of quality, safety and soundness with the percent of brokered CD's to domestic deposits for each quarter 1986 to 2008. The conclusion is similar to the 3rd quarter of 2008 that a greater numbers of banks and thrifts ranked superior or excellent held brokered CD's compared to a limited number of low ranked institutions holding brokered CD's.

This article is authored by John E. Rickmeier, CFA. Mr. Rickmeier has over 45 years of experience in evaluating financial institutions. As CEO of IDC Financial Publishing since its founding in 1984, Mr. Rickmeier and his analytical team evaluate and rank quarterly over 17,000 banks, thrifts, and credit unions. IDC ratings of financial institutions have become the standard in evaluating the safety and soundness of institutions issuing brokered certificates of deposit. IDC ratings are used by Fannie Mae, Freddie Mac, Ginnie Mae, insurance and credit card companies, and many state and municipalities as a guide for determining financial relationships.

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IDC Financial Publishing, Inc., founded in 1985 by John E. Rickmeier, CFA, is one of the nation's leading analysts of financial institutions. IDC evaluates and ranks approximately 7200 banks, 950 bank holding companies, 1200 savings banks and thrifts, and 8000 credit unions reporting to the federal government on a quarterly basis.

Financial Institutions are evaluated based on IDC's unique CAMEL analysis. Over 35 key financial ratios and a one-number summary rank are computed for each institution. The categories of IDC's CAMEL analysis are: Capital adequacy, Asset quality, Margins as a measurement of management, Earning returns, and Leverage/Liquidity. Quality ranks range from 300 (the highest) to 1 (the lowest), and fall into one of six peer group categories: Superior, Excellent, Average, Below Average, Lowest Ratios, and Rank of One.

IDC's ranking system is used by Fannie Mae, Freddie Mac, Ginnie Mae, and many states and municipalities as a guide for determining financial relationships. Financial institutions rely on IDC's data for evaluating their performance and for setting goals to improve quality and profitability. Private companies, individual investors, insurance companies, banks, thrifts, and credit unions also rely on IDC's timely information.

IDC's rank has become the standard in evaluating the safety and soundness of financial institutions issuing brokered certificates of deposit.

John E. Rickmeier, CFA

President and Editor-in-Chief

Mr. Rickmeier has over 45 years of experience in evaluating financial institutions. As founder and president of IDC Portfolio Management, he oversees the management of market neutral equity funds. IDC Portfolio Management evaluates 3500 companies monthly to determine intrinsic value, including a large group of publicly traded banks and thrifts. As CEO of IDC Financial Publishing, he manages the evaluation of bank, thrift and credit union financial ratios, the value-added evaluation of bank investment portfolios, the value-added analysis of bank loan portfolios, and the efficiency analysis of the cost of funding a financial institution.

Before founding IDC Portfolio Management, Mr. Rickmeier acted as both chairman of an investment committee and portfolio manager for a Midwest investment advisory firm. Prior to 1972, as chief economist for a New York investment strategy firm, he consulted with over 300 financial institutions.

Glossary

Each bank in the **Bank Financial Quarterly** has a one-line analysis of financial ratios and a one-number summary rank. IDC's unique CAMEL analysis utilizes financial ratios that have a significant impact on the quality of banks:

Capital risk is determined by Tier I capital as a percent of assets and as a percent of risk-based assets. Tier I & II capital as a percent of risk-based assets (risk-based capital ratio) measures credit and interest rate risk as well as estimates risks in the asset base.

A sset quality is measured by the levels of loan delinquency, nonaccrual loans, and high risk assets relative to loan loss reserves and capital ratios. Risk-adjusted assets as part of the risk-based capital ratio further define the quality of assets.

Margins are the best measurement of management's financial controls. Margins represent the spreads between 1) operating profit and net operating revenues, 2) after-tax return on earning assets and cost of funding, and 3) the return on equity compared to estimated cost of equity capital, and 4) NOPAT return on equity compared to the cost of equity capital.

E arning returns measure the success of the bank's operating strategy. Ratios of revenue yields from investments, loans, and noninterest income with comparison to operating costs, loan loss provision, net loan charge-offs, and net nonoperating income ratios are the major components of the net operating after-tax return on earning assets (ROEA). Earnings from financial leverage meausre the level of leverage and after-tax cost of funding compared to the after-tax return on earning assets (ROEA). Leverage returns measure the efficiency of the bank's financial strategy. Operating assets are financed with the leverage of deposits and borrowings to Tier I capital and its comparative cost. The leverage multiplier illustrates the degree of leverage, while the leverage spread measures its cost relative to operating returns (ROEA).

Liquidity measures (1) balance sheet cash flow as a percent of Tier I capital and (2) loans compared to stable deposits and borrowings plus estimated unused lines of credit at the Federal

Asset/Rank Matrix for Banks in 2008 Q2

U.S. Bank Holding Companies and U.S. Commerical Banks Reporting to the FDIC

| | | Bank | | By Asset Size (Dollars in Millions) | | | | | | |
|-----------|----------------|--------------|----------------|-------------------------------------|---------------------|-------------------|-------------------|------------------|-----------------|-----------------|
| Ran | ge of Rank | Hold Co's | Total Banks | \$2,000 or More | \$500 to \$2,000 | \$200 to \$500 | \$100 to \$200 | \$50 to \$100 | \$30 to \$50 | \$30 or Less |
| 200 - 300 | Superior | 321 | 2,939 | 148 | 338 | 636 | 661 | 582 | 302 | 272 |
| 165 - 199 | Excellent | 170 | 1,372 | 58 | 153 | 292 | 314 | 298 | 154 | 103 |
| 125 - 164 | Average | 205 | 1,483 | 51 | 142 | 285 | 358 | 339 | 178 | 130 |
| 75 - 124 | Below Average | 159 | 1,023 | 14 | 82 | 194 | 255 | 259 | 116 | 103 |
| 2 - 74 | Lowest Ratios | 71 | 369 | 12 | 53 | 87 | 89 | 76 | 32 | 20 |
| 1 | Rank of One | 29 | 71 | 2 | 1 | 23 | 19 | 9 | 11 | 6 |
| NC | Not Calculated | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals: | | 955 | 7,257 | 285 | 769 | 1,517 | 1,696 | 1,563 | 793 | 634 |

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RANK

Ranks are the opinion of IDC Financial Publishing, Inc. Ranks range from 1 (the lowest) to 300 (the highest) and fall into one of the following six groups. **Descriptions reflect the average ratios of each group listed at the top of the following two pages.**

| Superior (200-300) | Banks rated Superior are simply the best by all measures. In addition to favorable capital ratios, most consistently generate an ROE above COE. |
|-------------------------------|--|
| Excellent (165-199) | Banks rated Excellent are strong institutions. Their ratios reflect quality management both from a balance sheet and income performance standpoint. Operating expenses and costs of funding are under control, producing a healthy return on equity (ROE). |
| Average (125-164) | Banks rated Average meet industry capital standards. When compared to excellent and superior rated banks, most exhibit lower quality loans and narrower profit margins. A specific problem is a low operating profit margin, and/or a large standard deviation in the operating profit margin. The marginal problems of the average bank require shifts in policies and practices to raise asset quality or improve profits. |
| Below Average (75-124) | Banks rated Below Average represent institutions under strain. Average loan delinquency is high. In some banks, liquidity ratios demonstrated risk. In many, excess high risk loans or assets are above the loan loss reserve and threaten equity capital. A specific problem is a low operating profit margin, and/or a large standard deviation in the operating profit margin. Return on financial leverage is negligible, on average, due to narrow (or negative) leverage spreads. Banks are also rated Below Average if they are deemed "Adequately Capitalized" per FDIC capital definitions. |
| Lowest Ratios (2-74) | This Lowest Ratios group contains some banks with less than minimum capital required. In some banks, liquidity ratios demonstrated risk. In many, increasing loan loss provisions expand net losses on the income statement and, along with the excess of net charge-offs, reduce capital ratios. A specific problem is a low operating profit margin, and/or a large standard deviation in the operating profit margin. A high number of failed banks were rated Lowest Ratios prior to failure. Banks are also rated Lowest Ratios if they are deemed "Under Capitalized" or "Significantly Under Capitalized" per FDIC capital definitions. Banks may also be rated Below Average if they are deemed "Adequately Capitalized" and have a high volatility in operating profit margins. |
| Rank of One (1) | Banks in the Rank of One group have the highest probability of failure. Loans 90-days past due, nonaccrual loans, restructured loans, and other real estate owned, on average, exceed the loan loss reserve and equity capital by a wide margin. Liquidity ratios demonstrated risk. Without major balance sheet improvement, these banks will fail. Banks are also rated Rank of One if they are deemed "Critically Under Capitalized" per FDIC capital definitions. |

RATIOS

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Ratios are defined on the following five pages. Ratios that impact the IDC rank are identified with this symbol:

IDC's Record of Predicting Bank or Thrift Failures

Since December 31, 1989, the FDIC and OTS closed 971 banks and thrifts that failed.

Fraud was indicated in 7 failed financial institutions

Nine small institutions, that failed, had less than \$5 million in assets

Holding Company failures, NBC Bank in Texas (rank of 1 for 29 months), First City in Texas (rank of 1 for 17 months) and Bank of New England Corp. in Massachusetts (rank of 1 for 12 months) accounted for 30 subsidiary bank failures. These 3 holding companies were ranked 1 (lowest rank) in IDC's Bank Financial Quarterly many months prior to failure.

In 2008, holding companies are again absorbing losses of subsidiaries, resulting in failure. First National Bank of Scottsdale, Arizona with a rank of 1 as of March 21, 2008 and its subsidiaries First National Bank of Arizona (rank of 2), First Heritage Bank of Newport Beach, California (rank of 179), and First National Bank of Nevada (rank of 124) failed on July 25, 2008 with Mutual of Omaha Bank of Omaha, Nebraska acquiring all deposits. A second holding company, Columbian Financial Corporation of Overland Park, Kansas (ranked 2) and its subsidiary banks Columbian B&TC of Topeka, Kansas (rank of 60), and The Bank of Weatherford, Texas (rank of 124) failed on August 22, 2008 with Citizens bank and Trust of Chillicothe, Missouri acquiring the insured deposits.

From the remaining 922 bank and thrift failures, ranks prior to failure as follows:

| | IDC Lowest <u>Rating</u> 1 to 74 | IDC Below Avg. <u>Rating</u> 75 to 124 | IDC Avg. <u>Rating</u> 125 to 164 | IDC Excellent <u>Rating</u> 165 to 199 | IDC Superior <u>Rating</u> 200 to 300 |
|---|--|--|---|--|---|
| Rank Published Prior to Failure (5 mos*) | 908 | 11 | 2 | 1 | 0 |
| Rank 1 Year Prior to Published Rank (17 mos*) | 805 | 53 | 33 | 11 | 20 |
| Rank 2 Years Prior to Published Rank (29 mos*) | 625 | 151 | 56 | 45 | 45 |

* Months prior to failure date

Summary

Since 1989, bank and thrift failures, excluding failed institutions due to fraud, small failed banks under \$5 million in assets, and bank holding company failures, totaled 922 financial institutions. Of this total, 98% were ranked less than 75 (lowest rating) up to 5 months prior to failure. Of the 922 financial institutions, 93% were ranked less than 125 (below average rating) up to 17 months prior to failure and 84% were ranked less than 125 up to 29 months prior to failure.