Office of Inspector General

April 30, 2002
Audit Report No. 02-017

Asset Valuation Review (AVR) Process for Sinclair National Bank

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FDIC

Federal Deposit Insurance Corporation
Washington, D.C. 20434

Office of Audits
Office of Inspector General

DATE: April 30, 2002

TO: Mitchell L. Glassman, Director
Division of Resolutions and Receiverships

FROM: Russell A. Rau [Electronically produced version; original signed by Russell A. Rau]
Assistant Inspector General for Audits

SUBJECT: *Asset Valuation Review Process for Sinclair National Bank* (Audit Report No. 02-017)

The Office of Inspector General has completed an audit of the FDIC's asset valuation review (AVR) process for Sinclair National Bank (Sinclair), which failed on September 7, 2001.[1] The overall objective of this audit was to determine whether the AVR process used by the Division of Resolutions and Receiverships' (DRR) Franchise and Asset Marketing Branch (FAMB) and supported by the Risk Analysis and Value Estimation (RAVEN) application accurately valued the assets of the Sinclair National Bank. Appendix I discusses our audit scope and methodology.

Our office has also conducted an audit of RAVEN application security. That audit focused on whether security over RAVEN data, application software, and the operating environment is adequate (*Security and Controls Over the Risk Analysis and Value Estimation (RAVEN) System*, Report No. 02-012, March 28, 2002).

BACKGROUND

The FDIC is charged with the resolution of failing FDIC-insured financial institutions. The resolution process involves valuing the institution, marketing it, soliciting and accepting bids for the sale of the institution, determining which bid is least costly to the insurance fund, and working with the acquiring institution(s) through the closing process (or ensuring the payment of insured deposits in the event there is no acquirer).

DRR's mission is to plan for and resolve failing FDIC-insured institutions promptly, efficiently, and responsively in order to maintain public confidence in the nation's financial system. Within

[1] A financial institution fails when it is closed by its chartering authority, which rescinds the institution's charter and revokes its ability to conduct business because the institution is insolvent, critically undercapitalized, or unable to meet deposit outflows.

DRR, FAMB is responsible for resolving troubled financial institutions and selling assets at the least cost and highest recovery to the FDIC insurance funds.

Fundamental to selling financial institution assets for the least cost and highest recovery are the practices developed by DRR to establish asset prices used for evaluating the bids received for the purchase of a failing financial institution. The FAMB in Dallas, Texas, establishes asset prices using the AVR process. Overall policies and general procedures for the AVR process are specified in the DRR Resolutions Policy Manual. The primary purpose of the AVR process is to establish an estimate of the value of the institution's assets which is then used as the minimum price (AVR price) the FDIC is willing to accept for those assets from potential purchasers of failing institutions.

To establish the value of the institution's assets as part of the AVR process, the FAMB generally values all groups of institution assets. When valuing assets, FAMB uses statistical sampling for asset groups with large numbers of assets (e.g., loans). For all other asset groups, each asset in the group is valued. When valuing specific assets, FAMB generally uses the FDIC Standard Asset Value Estimation (SAVE) methodology. The methodology values loans, owned real estate, subsidiaries, and certain other assets using standard discount rates and expense assumptions to estimate the net present value of expected cash flows. Appendix II contains more detailed information on the components of the SAVE methodology. In addition, the FAMB may use other valuation methods for certain other assets such as servicing rights and credit card portfolios. The SAVE methodology, documented in the SAVE Instruction Manual, contains requirements for detailed documentation to support asset value estimates and at least two levels of review for individual asset valuations.

The FAMB also uses the RAVEN application to support the AVR process. This application selects asset samples, calculates estimated values for individual and groups of assets, and determines the statistical accuracy of valuation results. The FAMB is responsible for entering valuation data into RAVEN and printing RAVEN reports that document the asset values calculated by RAVEN, referred to in this report as the AVR prices. Appendix II contains more detailed information about the RAVEN application.

The AVR prices establish the minimum acceptable sales price for failing financial institution assets. These prices are included in the bid packages given to prospective bidders and are also included in DRR's Least Cost Test. DRR uses the Least Cost Test to analyze and compare the bids submitted for a failing institution in order to determine which bid provides the least costly resolution.

RESULTS OF AUDIT

The AVR process used by the DRR FAMB resulted in a reasonable estimate of the overall value for the assets of Sinclair in accordance with established procedures. We did find that 28 of the 68 individual Sinclair asset valuations that we tested contained significant misstatements, defined as valuation discrepancies that exceeded or could have exceeded 10 percent of the FDIC's final AVR price for the individual asset. However, the net dollar impact of these errors, when the revised valuations were incorporated into the SAVE process, was less than 1 percent of the total estimated AVR price of $21.6 million for all the Sinclair assets.

While the individual valuation discrepancies for the Sinclair resolution were not large in relation to the total AVR price for all assets, they stemmed from procedural weaknesses that could result in larger dollar losses on the disposition of individual assets in future resolutions. In addition, we identified other weaknesses that did not result in dollar valuation errors for Sinclair but which could result in unnecessary costs to the FDIC in future resolutions if not corrected.

Therefore, while we found the AVR process for the Sinclair resolution to be generally effective, the procedural weaknesses we identified indicate a need for improved controls during the planning and implementation of the AVR process. Additional controls can help DRR maintain the accuracy of the AVR process results and recover the highest value for failing financial institution assets.

IMPROVED CONTROLS ARE NEEDED DURING AVR PLANNING AND IMPLEMENTATION

The AVR process for the resolution of Sinclair National Bank contained procedural weaknesses that could result in significant misstatements of the AVR price of individual failing institution assets, or could create other situations that expose the FDIC to unnecessary costs.

The weaknesses that could result in significant misstatements of AVR prices occurred because procedures did not exist to ensure that AVR valuation data were properly developed, processed, and supported. These weaknesses caused valuation errors for the Sinclair resolution that resulted in understatements of AVR prices totaling $167,589 and overstatements totaling $86,739. Because the FDIC provides AVR prices to bidders for each asset pool offered for sale pre-closing, a significant understatement of the AVR price could result in lower bids received for an asset pool and a decision to sell an asset pool for less than it is worth. On the other hand, a significant overstatement of the AVR price could discourage bids for an asset pool and lead the FDIC to retain an asset pool when it is more advantageous to sell.

Other control weaknesses created situations that exposed the FDIC to unnecessary costs. Additional procedures were needed to improve physical security over AVR-related documents at the failing financial institution and to increase the efficiency of the FDIC's sampling methodology. Insufficient control over AVR-related documents exposes the FDIC to the potential risk of embarrassment and unnecessary costs resulting from unauthorized disclosure of a pending financial institution failure. The use of an inefficient sampling methodology can result in the waste of FDIC personnel resources.

Ensuring That AVR Valuation Data Are Properly Developed, Processed, and Supported

For 28 of the 68 Sinclair asset valuations that we tested, the AVR valuation data was not properly developed, processed, or supported. The AVR procedural weaknesses for these 28 assets occurred for one of the following reasons:

- the appropriate provisions of the SAVE Instruction Manual were not followed in developing the valuation,
- the base discount rate[2] was not properly developed,
- the valuation data was not correctly entered into RAVEN,
- the AVR prices were not correctly calculated, and
- the SAVE indirect expense rates used in the valuations were supported by outdated information.

The appropriate provisions of the SAVE Instruction Manual were not followed in developing the valuation: The original AVR prices for six Sinclair assets were significantly misstated because the appropriate provisions of the SAVE Instruction Manual were not followed in developing the valuation of the asset. The original AVR price for four of six ORE properties was understated by 33 percent because the valuation was based on a marketing period that was longer than appropriate. A longer marketing period results in a lower estimated recovery because of additional holding costs and the effects of discounting over time. Both the file reviewer (valuation preparer) and the first level reviewer used a marketing period of 24 months for the valuation, based on the valuation assumptions in the National Assumptions Reference Library (NARL),[3] even though a marketing period of 6 months was noted in several places in the asset file, including on the current appraisal.

The SAVE Instruction Manual, chapter 11, states that valuation assumptions should only be used when no other current or reliable information is available. The SAVE Instruction Manual emphasizes that file information regarding the asset being valued should be used if available. The SAVE Instruction Manual also adds that if marketing periods are indicated in a current appraisal, these marketing periods override the valuation assumptions.

With respect to the remaining two of six assets, the original AVR price for one non-performing manufactured housing loan was understated by 11 percent because the file reviewer incorrectly calculated the appraised value for the collateral. Neither the file reviewer nor the first level reviewer documented their calculation and recalculation of the appraised value on the Asset Data Sheet (ADS).[4] The SAVE Instruction Manual states that when completing the ADS, the valuation file reviewer should describe all steps taken to value an asset, even if the step did not provide any pertinent information. The SAVE Instruction Manual also states that all sources of information used to value an asset or collateral must be well documented on the ADS.

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[2] A discount rate is an interest rate used to calculate the net present value of future cash flows. The base discount rate is the discount rate before any asset-specific add-on basis points. The base discount rate varies by asset and collateral type and reflects the effect of timing on the projected cash flows and an appropriate return to a purchaser. Add-on basis points are added to the base rates for loans to recognize underwriting or documentation deficiencies.

[3] The National Assumptions Reference Library is an FDIC on-line repository of standard assumptions, such as discount rates and disposition expenses, used by DRR to value assets. The NARL is located on the DRR section of the FDIC Intranet. NARL information may be used to value assets only when more specific or current information is not found in the individual asset files.

[4] The Asset Data Sheet is used to summarize all pertinent information regarding value estimates on each asset sampled during the AVR process.

Additionally, the original AVR price for one non-performing automobile loan was overstated by 56 percent because the file reviewer did not take into consideration amounts due to others when preparing the valuation. The valuation assumed FDIC recovery of 100 percent of the net proceeds from sale of the collateral value even though the net sales proceeds in excess of the book value, accrued interest, and late fees would be owed to the borrower. The SAVE Instruction Manual states that the Cash Flow Worksheet[5] should reflect a reduction for any amount due to an outside party (which would include the borrower) from the FDIC or (failed) institution.

We informed DRR of these errors during the course of our audit, which allowed DRR to correct the valuations prior to issuing the AVR report for Sinclair.

DRR personnel indicated that some of the Franchise and Asset Marketing staff did not have significant experience valuing assets using the SAVE methodology. One tool that had been used by DRR as an aid in the understanding of the SAVE methodology, the "Common Errors" guide, is no longer contained in the SAVE Instruction Manual. This guide identified the source of frequent valuation errors and may have helped to prevent some of the valuation errors for Sinclair assets had it been available for reference.

The base discount rate was not properly developed: The base discount rate for eight performing consumer loans secured by first, second, and third mortgages was inappropriately higher than the base discount rate for comparable performing consumer home equity/ home improvement loans. The NARL only includes a specific base discount rate for performing consumer loans secured by real estate that are identified as home equity or home improvement loans. That rate was 7.79 percent. Therefore, DRR personnel performing the AVR for Sinclair National Bank had defaulted to the general NARL "Consumer Secured" base discount rate of 16.09 percent instead of developing a lower base discount rate more appropriate for the type of assets being valued.

The Resolutions Policy Manual states that while the NARL provides benchmark data for loans, these data should be assessed to determine whether additional assumptions are needed for a specific institution's assets. In addition, the FDI Act Section 13(c)(4)(B)(i)(I), codified in 12 U.S.C. 1823(c), states that the Corporation shall evaluate [resolution] alternatives on a present-value basis, using a realistic discount rate.

The use of an inadequate base discount rate resulted in an 18 percent understatement in the original AVR price for the eight loans. We informed DRR of this situation during the course of our audit, which allowed DRR to correct the valuations for these loans prior to issuing the AVR report for Sinclair.

Valuation data was not correctly entered into RAVEN: For nine FDIC sampled loan assets, necessary changes to the preprinted Asset Data Sheet (ADS) information were identified on the

[5] The Cash Flow Worksheet (CFW) documents expected cash collections and operating and liquidation expenses by quarter, for 20 quarters.

ADS; however, the RAVEN Operator[6] did not make the changes in RAVEN. The information that should have been changed included the origination date only (seven loans); payment frequency (one loan); and origination date, payment amount, and interest rate (one loan). The effect of not making the necessary changes for these nine loans was a difference of 2 percent or less of the AVR price of each loan. However, other changes that are erroneously entered or omitted could result in a more significant misstatement of the AVR price of the asset.

DRR procedures do not currently require anyone to verify that changes to data on the pre-printed ADS are completely and accurately recorded. The General Accounting Office (GAO) *Standards for Internal Control in the Federal Government* – GAO/AIMD-00-21.3.1 requires control activities to help ensure that all transactions are completely and accurately recorded.

AVR Prices were not correctly calculated: For one fixed asset and four loan assets, the RAVEN Operator made changes to valuation data without recalculating the value of the assets (re-pricing). For the fixed asset valuation, the RAVEN Operator increased the book value of a building through a RAVEN journal entry. For the loan valuations, the RAVEN Operator changed the loan interest rate or the discount rate.

For CFW-valued assets, such as fixed assets, RAVEN will automatically re-price the asset once valuation data on the CFW are updated. However, RAVEN will not re-price the asset if changes are made to the asset's book value through an adjusting journal entry. For Mark-to-Market[7] valued loans, changes can be made to valuation data without an automatic recalculation of the AVR price. The Resolutions Policy Manual assigns the AVR team leader the ultimate responsibility to ensure that all assets are properly re-priced before the final AVR reports are prepared.

When we ran the RAVEN global recalculation procedure to determine the overall impact of the recalculation on the final AVR prices, we found that the AVR price for the fixed asset changed by 12.8 percent, and the AVR prices for the loan assets changed by an average of 3.5 percent.

The SAVE indirect expense rates used in the valuations were supported by outdated information: The SAVE indirect expense rates used to calculate the AVR prices for all individual assets are based upon analyses prepared in 1996 that were generated from receivership expense data for the period 1986 through 1995. A SAVE indirect expense rate, ranging from zero to 13.9 percent, is multiplied by the book value of an individual AVR asset to calculate the indirect expenses for that asset. The AVR price of an asset is then equal to the asset's estimated market value less estimated indirect expenses. Therefore, calculations based on outdated indirect expense rates could result in significant misstatements of AVR prices.

The FDI Act Section 13(c)(4)(B)(i), codified in 12 U.S.C. 1823(c), states that the FDIC shall evaluate [resolution] alternatives on a present-value basis and document that evaluation and the

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[6] The RAVEN Operator is responsible for operating the RAVEN application, entering data into RAVEN, reconciling RAVEN information to source documents, and producing the final AVR reports from RAVEN.

[7] Under a Mark-to-Market scenario, loans are valued based on the discounted contractual principal and interest payment stream.

assumptions on which the evaluation is based, including any assumptions with regard to asset recovery rates and asset holding costs.

DRR personnel have known for some time that the SAVE indirect expense rates were outdated. DRR has not documented a justification for the continued use of the historical SAVE indirect expense rates, nor has DRR updated these rates to reflect the current operating environment of the FDIC. Instead, DRR has been waiting on the results of the Service Costing Initiative that is developing new service costing rates to replace the historical SAVE indirect expense rates. However, the use of outdated expense rates to value assets may not result in accurate valuations of assets.

Improving Physical Security Over AVR-Related Documents at the Failing Financial Institution

DRR personnel did not adequately secure all resolution-related documents while on-site at Sinclair National Bank. DRR procedures do not specifically assign individual AVR team members the responsibility for ensuring that resolution documents are secured when AVR personnel are not present. As a result, resolution documents indicating the potential failure of the bank were easily accessible to bank personnel.

The Resolutions Policy Manual states that it is extremely important that resolution personnel maintain confidentiality of failing financial institution information. The Resolutions Policy Manual also requires FAMB to carry out its resolution duties in a manner that minimizes disruptive effects from the failure of insured financial institutions.

During the AVR process at Sinclair, which lasted for several weeks, the AVR valuation team occupied an unlocked conference room inside the bank's largest branch in Bella Vista, Arkansas. The AVR valuation documents were stored in a cardboard box in the unlocked bank conference room overnight. In addition, other resolution-related documents (Branch Break Up guidelines and a copy of a marketing memo that discussed plans for selling the bank's assets) were left on the conference room table overnight. Bank personnel were on-site at the bank after the AVR team left for the evening.

This procedural weakness increased the risk of accidental disclosure of the potential closing of the bank, which could have proven embarrassing and costly for the FDIC. Such disclosure in future resolutions could result in notification to depositors who could withdraw their deposits prior to the institution's failure.

DRR has no written guidelines defining adequate on-site physical security for AVR-related documents. In addition, there are no procedures to assign responsibility for physical security to individual AVR team members to ensure that the confidentiality of these documents is maintained.

Increasing the Efficiency of the FDIC's Sampling Methodology

For three resolutions during the years 2000 and 2001, a relatively large number of asset valuations were performed on a very small dollar amount of the failing bank's loans. The RAVEN procedure that generates AVR sample sizes does not consider the dollar amount of assets in a loan pool in relation to total loans of the bank. As a result, AVR resources appear to have been inefficiently used to complete valuations for a large number of small-dollar-value loans.

For the resolution of Sinclair National Bank, 31 percent (76 of 243) of the loan valuations generated during the AVR process were completed for 2 percent ($481,000 of $21.7 million) of the book value of the loans of the bank. The 76 valuations were completed for a pool of non-performing consumer loans. Sixteen of the 76 valuations were completed on assets with book values of less than $500.

As a result of our work on Sinclair, we reviewed the loan sample selections for other resolutions during the years 2000 and 2001 to determine the sampling methodology used. For two other recent resolutions there were also relatively large valuation samples of consumer and overdraft protection loans, even though the book value of these loans was relatively small in comparison to the total loans of the failing bank. Specifically, for the First Alliance Bank resolution, 37 percent of loan valuations were completed on overdraft protection and consumer loans that comprised only 3.3 percent of the total book value of loans for the bank. For the Bank of Honolulu resolution, 21 percent of loan valuations were completed on overdraft protection loans that comprised less than 0.5 percent of the total book value of loans for the bank.

Spending time on the valuation of large numbers of small-dollar-assets may prevent DRR from fully complying with the DRR 2001 Strategic Plan and the DRR Resolutions Policy Manual's requirements to resolve failing financial institutions in the most efficient manner possible.

The Resolutions Policy Manual sampling guidelines do not differentiate between large and small dollar loans. The Resolutions Policy Manual provides guidelines for sampling loans based only on whether or not specific loan pools will be offered for sale prior to closing the financial institution. The RAVEN sampling procedures, which incorporate the Resolutions Policy Manual guidelines, therefore do not take into consideration the book value of each pool of loans in relation to the total population of loans at the failing bank.

Further, DRR follows different policies for valuing small-dollar-assets pre-resolution (as outlined in the Resolutions Policy Manual) and post-resolution (as outlined in the Asset Disposition Manual). There is no distinction between large- and small-dollar-assets in pre-resolution valuation policies. However, post-resolution valuation policies state that consumer loans and unsecured commercial loans with book values under $100,000 do not require valuation and may be sold without a minimum required bid via sealed bid or auction, with certain restrictions. The Asset Disposition Manual also indicates that small non-performing loans, with book values of less than $500, should be written off unless otherwise approved for sale by the Regional Director (or designee). Consistent guidance for valuing small-dollar-value assets offered for sale pre-closing and post-closing could reduce the number of small-dollar-value assets that must be valued during the AVR process.

Recommendations

We recommend that the Director, DRR, take the following actions to improve controls during AVR planning and implementation:

(1) Provide additional guidance to be used by AVR team members when preparing valuation documents and developing discount rate assumptions. Such guidance could include a current "Common Errors" guide that the valuation file reviewers and first level reviewers could use to avoid errors often found in the valuation process.

(2) Develop procedures to ensure that all valuation data are correctly recorded into the RAVEN application and all AVR prices are correctly recalculated before the final AVR reports are printed.

(3) Evaluate, on a periodic basis, the adequacy of the indirect expense rates used in the AVR process and modify those rates as needed.

(4) Develop guidelines to address the security of AVR documents and specifically assign an AVR team member or members the responsibility for physically securing AVR-related documents.

(5) Develop a consistent methodology for valuing small-dollar-value assets offered for sale pre-closing and post-closing, including modification of asset valuation sampling requirements to create efficient sample sizes for small-dollar-value loan pools.

CORPORATION COMMENTS AND OIG EVALUATION

The Director, DRR, provided a written response, dated April 25, 2002, to the draft report. The response is presented in its entirety in Appendix III to this report. DRR's comments were responsive to our recommendations, and we consider recommendations 1 through 5 resolved. Recommendations 1 through 5 will remain undispositioned and open for reporting purposes until we have determined that agreed-to corrective actions have been taken and are effective. A summary of each recommendation, corrective actions, and milestones follows:

Recommendation 1: Provide additional guidance to be used by AVR team members when preparing valuation documents and developing discount rate assumptions. Such guidance could include a current "Common Errors" guide that the valuation file reviewers and first level reviewers could use to avoid errors often found in the valuation process.

DRR management agreed with this recommendation. A "Common Errors" guide will be developed and placed on the DRR Intranet as an appendix to the SAVE Manual. This will be done no later than June 30, 2002.

Recommendation 2: Develop procedures to ensure that all valuation data are correctly recorded into the RAVEN application and all AVR prices are correctly recalculated before the final AVR reports are printed.

DRR management agreed with this recommendation. At the next regular AVR where RAVEN is fully utilized for valuation purposes, Franchise Marketing will employ multi-user RAVEN. The multi-user version of RAVEN provides for on-line, real-time changes to valuation data in RAVEN by the file reviewer. In addition, an e-mail will be issued to all Franchise Marketing Section staff no later than May 15, 2002 to stress the absolute necessity to recalculate AVR prices before the final AVR reports are printed, because RAVEN does not automatically perform this function.

Recommendation 3: Evaluate, on a periodic basis, the adequacy of the indirect expense rates used in the AVR process and modify those rates as needed.

DRR management agreed with this recommendation. Service Costing billing rates, which were approved on March 15, 2002 by the Chief Financial Officer, will replace indirect expenses in the AVR process no later than June 30, 2002. The Service Costing billing rates will be approved on an annual basis.

Recommendation 4: Develop guidelines to address the security of AVR documents and specifically assign an AVR team member or members the responsibility for physically securing AVR-related documents.

DRR management agreed with this recommendation. The AVR Team Leader will have responsibility for securing sensitive documents when a Resolutions and Receiverships Specialist is not on-site at the financial institution. This responsibility will be included in the Information Package/AVR Team Leader Job Aid within the Job Aid Manual no later than June 30, 2002. In the interim, this additional responsibility will be communicated to all Franchise Marketing staff via e-mail.

Recommendation 5: Develop a consistent methodology for valuing small-dollar-value assets offered for sale pre-closing and post-closing, including modification of asset valuation sampling requirements to create efficient sample sizes for small-dollar-value loan pools.

DRR management agreed with the intent of this recommendation and offered an acceptable alternative approach to address our concerns. To modify the asset sampling requirements, DRR will focus on reducing the asset valuation requirements for small-dollar-value assets in order to improve the efficiency of the valuation process.

The approach now under consideration by DRR is to use a formula type valuation methodology against the small assets of future sampling universes, based upon FICO[8] scores. This method would allow for a valuation to be completed without having to review the asset file. The feasibility of this approach will be assessed by June 30, 2002. If the approach is feasible, a new valuation methodology will be recommended to the SAVE Methodology Board before September 30, 2002, and if approved, implemented shortly thereafter.

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[8] Fair, Isaac Co. (FICO) is a provider of credit scoring services. An individual's FICO score is calculated by a mathematical equation that evaluates many types of information that are on an individual's credit report. By comparing this information to the patterns in hundreds of thousands of past credit reports, the score identifies an individual's level of future credit risk.

SCOPE AND METHODOLOGY

Scope

To accomplish our audit objective, we arranged with the DRR Franchise and Asset Marketing Branch (FAMB) to test the AVR process for the Sinclair National Bank, Gravette, Arkansas (Sinclair). We selected Sinclair because the resolution began during our audit-testing phase and would allow us to perform a more thorough review of the valuation process, because the bank's original asset files would be available to us. Also, we would be able to observe firsthand the AVR process and be able to provide real-time feedback to DRR that could improve the quality of the final AVR product.

Methodology

To accomplish our audit objective, we interviewed key DRR Dallas and Washington, D.C. program office personnel who were involved with the AVR process and the RAVEN application. We also interviewed DRR personnel who were specifically involved in the resolution of Sinclair National Bank.

We tested an original non-statistical sample of 26 out of 306 Sinclair asset valuations to determine if FAMB accurately valued the assets in accordance with the appropriate valuation methodology (SAVE Instruction Manual or other methodology as appropriate). For these sampled assets, we assessed the completeness and reasonableness of valuation explanations, verified valuation data or assumptions to available supporting documentation, and determined whether the valuations had proper first- and second-level review as required by the SAVE methodology. In addition, we evaluated the adequacy of SAVE indirect expense rates used to calculate AVR prices by examining the source documents used to develop the rates.

We subsequently selected an additional non-statistical sample of 42 asset valuations for testing in order to follow up on discrepancies identified during the audit and to determine the overall impact of the discrepancies on the final Sinclair AVR results. As noted in the body of the report, 28 of the total 68 asset valuations we tested from the population of 306 Sinclair asset valuations contained valuation discrepancies.

We also performed tests to determine whether RAVEN data entry, processing, and reporting were accurate. For the selected institution, we traced the institution general ledger data to RAVEN data entry files and tested significant reconciling items to verify that RAVEN included the complete population of failed institution assets. We tested to confirm that FAMB correctly recorded valuation data in RAVEN by tracing the valuation data to the source documents (such as an Asset Data Sheet, Cash Flow Worksheet, and the Documentation Checklist/Loan Pricing Worksheet). We recalculated estimated recoveries in Excel to verify the RAVEN calculations. We tested estimated recoveries for the asset population by recalculating the recovery rates for a non-statistical sample of three of the nine FDIC sampled loan pools. We then determined whether the recovery rate was applied to all assets in the pool and whether the applicable valuation data were correctly included in the final approved AVR report. We assessed the statistical accuracy of RAVEN sampling procedures by recalculating the sample size and confidence interval for a non-statistical sample of one loan pool and by reviewing the statistical formulas with personnel from the FDIC's Division of Research and Statistics.

Throughout the above, we also were attentive for instances where the valuation process was inefficient or improvements appeared warranted.

After our test work was completed, we reviewed for errors. For an individual asset, an error was defined as a situation where DRR both:

- did not follow the SAVE methodology for valuing a particular asset, or did not consider all information about the asset that was available at the time of the valuation and

- reached an AVR price estimate which differed, or could have differed, by 10 percent or more from the correct (as determined by our audit) estimate for a particular asset.

The 10 percent difference error threshold reflects both OIG and DRR management's perception of a significant valuation discrepancy and takes into account that some level of difference is expected and acceptable because the valuation process is partially judgmental.

We performed our audit from May through November 2001 in accordance with generally accepted government auditing standards.

SAVE METHODOLOGY AND RAVEN APPLICATION

SAVE Methodology

The following narrative provides more detailed information about the requirements of the SAVE Methodology. This information is primarily obtained from the SAVE Instruction Manual and the Resolutions Policy Manual.

Valuation Methods

Assets are generally valued using one of the following valuation methods.

- A *Mark-to-Market* scenario uses a Loan Pricing Model for performing loans estimated to be fully recoverable through a regular or even cash stream. The valuation is based on the discounted contractual principal and interest payment stream.

- A *Liquidation* scenario uses a Cash Flow Model for all other assets with some expected recovery. The valuation is based on the discounted net liquidation proceeds, which are the expected cash flows, adjusted for estimated direct operating and liquidation expenses.

- A *Total Loss* scenario is used when no recoveries are expected.

Valuation Documentation

To document individual asset estimates, DRR File Reviewers (personnel preparing the asset valuation) complete one or more of the following forms:

Asset Data Sheet (ADS)

The ADS is used to summarize all pertinent information regarding value estimates on each asset sampled during the AVR process. Preliminary information regarding each asset is printed on the ADS from RAVEN. This information includes data such as asset name and number, book value, interest rates, payment amounts, etc., which are available from the failing bank's general ledger or subsidiary ledgers. The valuation file reviewer compares this "pre-printed" information to actual asset file documents. The ADS pre-printed information can be used in determining the valuation method or the valuation amount. In addition, the ADS contains sections for documenting collateral and appraisal information; the Loan-to-Value (LTV) ratio for real estate loans, which may be used in calculating the additional discount basis points; maker/guarantor financial information; and comments summarizing and substantiating the valuation conclusions.

Document Checklist/Loan Pricing Worksheet (DC/LPW)

Every loan must have a DC/LPW. The DC/LPW is used to document the risk adjustment for performing loans and the add-on basis points for non-performing loans or those loans that have no file review for valuation purposes.

Cash Flow Worksheet (CFW)

The CFW documents expected cash collections and operating and liquidation expenses by quarter, for 20 quarters. All entries on the CFW should be accompanied by a brief written explanation, including calculations, in the CFW footnotes as well as the information source for the entry.

Valuation Assumptions

To ensure that asset valuations are consistent and have a market value orientation, DRR has also established uniform assumptions regarding discount rates, disposition expenses, collateral appraisal validation, and asset holding periods. DRR updates these assumptions periodically (annually or quarterly) based on their volatility and availability of source information. DRR maintains the valuation assumptions in an on-line repository called the National Assumptions Reference Library (NARL). The NARL is located on the DRR section of the FDIC Intranet. NARL information may be used only when more specific or current information is not found in the individual asset files. The assumptions for each resolution should be based on actual liquidation practices and experience in the location of the failing institution's assets. Therefore, the FAMB resolution team should assess NARL to determine if additional or local assumptions are needed for a specific institution's assets.

Discount Rates

FAMB uses discount rates to calculate the net present value of estimated future cash flows. The discount rate is comprised of a base rate plus any necessary add-on basis points. The base rate varies by asset and collateral type and reflects the effect of timing on the projected cash flows and an appropriate return on the investment to a purchaser. FAMB applies add-on basis points to recognize underwriting or documentation deficiencies in the loans. For example, underwriting deficiencies may include high loan-to-value ratios or a poor loan repayment history. Documentation deficiencies may include missing or substandard notes and missing or aged property appraisals.

Key AVR Team Members

The *Team Leader* is responsible for managing the day-to-day, on-site resolution project, including management of resources (time, personnel, and space). The Team Leader is ultimately responsible for the final AVR work products.

The *RAVEN Operator* is responsible for operating the RAVEN application, entering data into RAVEN, reconciling RAVEN information to source documents, and producing the final AVR reports from RAVEN.

The *File Reviewers* are responsible for performing asset file documentation review and preparing all valuation documents for individual assets, including the ADS, CFW, and DC/ LPW as applicable. They are also responsible for reviewing the standard assumptions and gathering supplemental valuation assumptions to be used in the valuation process, if necessary.

The AVR procedures require two levels of review for all completed asset valuations:

The *First Level Reviewers* are responsible for ensuring that the proper valuation method was followed; determining that the File Reviewers' analyses were reasonable; verifying that calculations on the valuation documents are accurate; and ensuring that current and appropriate source documents were correctly used, including file and NARL data.

The *Second Level Reviewers* are responsible for reviewing asset valuation documentation for: proper application of the SAVE methodology, logic and reasonableness of the valuation, and consistency of the valuations across the overall resolutions project. They are also responsible for reviewing the accuracy of the final AVR report.

RAVEN Application

The following narrative provides more detailed information about the RAVEN application:

DRR staff in Dallas, Texas, developed RAVEN internally in 1994. Prior to the use of RAVEN, DRR was conducting asset valuations using spreadsheets, judgmental sampling techniques, and statistically invalid extrapolation of sampling results for reporting to prospective bidders. DRR determined that an application was needed to automate resolution data sampling and reporting. The version of RAVEN in use during our audit test work was 5.0.

RAVEN was written in Microsoft® Visual FoxPro and resides on individual resolution team members' laptop computers. The RAVEN application provides DRR with the ability to statistically sample assets for valuation pricing and to prepare standard-formatted information packages. The importance of RAVEN to the FDIC was identified when it was listed as a mission-critical application for Year 2000 testing.

FDIC
Federal Deposit Insurance Corporation
550 17th St. NW Washington DC, 20429
Division of Resolutions and Receiverships

April 25, 2002

TO: Sharon M. Smith
Deputy Assistant Inspector General for Audits
Office of Inspector General

FROM: Mitchell L. Glassman [Electronically produced version; original signed by Mitchell L. Glassman]
Director

SUBJECT: Asset Valuation Review (AVR) Process for Sinclair National Bank
(Assignment Number 2001-508)

This is the Division of Resolutions and Receiverships' response to the recommendations in the draft OIG Audit Report dated March 26, 2002.

OIG Audit Recommendations

(1) Provide additional guidance to be used by AVR team members when preparing valuation documents and developing discount rate assumptions. Such guidance could include a current "Common Errors" guide that the valuation file reviewers and first level reviewers could use to avoid errors often found in the valuation process.

Response: Management concurs with this recommendation. A "Common Errors" guide will be developed and placed on the Web site as an appendix to the SAVE Manual. This will be done no later than June 30, 2002.

(2) Develop procedures to ensure that all valuation data are correctly recorded into the RAVEN application and all AVR prices are correctly recalculated before the final AVR reports are printed.

Response: Management concurs with this recommendation. At the next regular Asset Valuation Review (AVR) where the Risk Analysis and Value Estimation (RAVEN) is fully utilized for valuation purposes, Franchise Marketing will employ multi-user RAVEN. Assuming this opportunity presents itself, multi-user RAVEN will be employed no later than December 31, 2002. Rather than using a hard copy Asset Data Sheet (ADS) on which changes are marked, the file reviewer will enter noted changes into RAVEN on-line and real time. This will eliminate the issue that file reviewer changes were not made by the RAVEN operator.

The failure to recalculate AVR prices before the final AVR reports were printed may have occurred due to a perception that RAVEN 5.0 performed this function automatically. An e-mail will be issued to all Franchise Marketing Section staff to stress the absolute necessity that adjusting journal entry book value changes require that the asset be repriced and that valuation data changes require a recalculation of the AVR price. The e-mail will be sent no later than May 15, 2002.

(3) Evaluate, on a periodic basis, the adequacy of the indirect expense rates used in the AVR process and modify those rates as needed.

Response: Management concurs with this recommendation. With the implementation of Service Costing in the AVR, indirect expenses will no longer be used in the AVR process. Servicing Costing in the AVR will be implemented no later than June 30, 2002. Service Costing billing rates were approved March 15, 2002, by the Chief Financial Officer and will be approved on an annual basis.

(4) Develop guidelines to address the security of AVR documents and specifically assign an AVR team member or members the responsibility for physically securing AVR-related documents.

Response: Management concurs with this recommendation. The AVR Team Leader will have responsibility for securing sensitive documents when a Resolutions and Receiverships Specialist is not in the vicinity (e.g., lunch and evenings) during our on-site presence at the financial institution. This responsibility will be included in the IP/AVR Team Leader Job Aid within the Job Aid Manual no later than June 30, 2002. In the interim, this additional responsibility will be communicated to all Franchise Marketing staff via an e-mail.

(5) Develop a consistent methodology for valuing small dollar value assets offered for sale pre-closing and post-closing, including modification of asset valuation sampling requirements to create efficient sample sizes for small-dollar-value loan pools.

Response: Management agrees with the intent of this recommendation. DRR has also recognized the need to create a more efficient means to evaluate small assets for some time now. However, in pursuit of this objective we also recognize that we must be careful not to create a fix that would result in compromising the validity of the current process' statistically valid conclusions. The current efficiencies now built into in the AVR and ALR valuation processes are based upon incorporating the concept of using a statistically valid sample as a means to reduce the overall number of assets within the universe requiring specific process attention. In order to maintain the statistical validity of our valuation conclusions, the statisticians have advised that we cannot overlay sampling bias, such as "give me a sample with more large commercial loans" or "give me a sample with less small loans" into the current method of obtaining our statistical samples. Therefore, with this in perspective, and in an effort to better utilize our resources, we are now exploring ways to approach the evaluation of small dollar asset pools more efficiently, through the creation of a more streamlined method of evaluating the small assets of future sampling universes. In this manner, we hope to achieve the objective without compromising the validity of the sampling process and resulting statistically valid valuation conclusions.

The alternative approach now under consideration, is to use a formula type valuation methodology against the small assets of future sampling universes, based upon FICO scores. This method would allow for a valuation to be completed without reviewing the asset file. The Analysis and Evaluation Section is studying the aforementioned method of valuing small assets. This research will be completed by June 30, 2002. After the research is completed, and assuming it does conclude that the methodology currently contemplated is feasible, a new valuation methodology will be recommended to the SAVE Methodology Board before September 30, 2002, and if approved, implemented shortly thereafter.

Feel free to contact Paula J. Winston at (972) 761-2218 should you have any questions concerning this response.

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