

# Regulatory Bulletin

Handbook: Thrift Activities  
Subjects: Sampling

Section: 209  
RB 32-3

September 25, 1995

## Sampling

*Summary:* This bulletin provides for the distribution of the revised Thrift Activities Handbook Section 209, Sampling.

*For Further Information Contact:* The OTS Regional Office in which you are located or Supervision Policy (Credit Risk), Washington, D.C.

### *Regulatory Bulletin 32-3*

Attached to this bulletin is revised Thrift Activities Handbook Section 209, Sampling, which should replace the existing section in your handbook. Changes are shown in bold italics. The new procedures and guidelines are effective immediately.

The following changes were made to Section 209 under the indicated subheadings:

#### *Sampling Methodologies for Homogeneous Assets:*

- The guidelines for selecting systematic samples within an institution's homogeneous assets were clarified. The Section now calls for homogeneous assets to normally be divided into just two pools, one for one- to four-

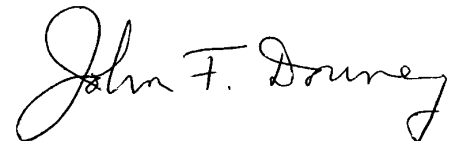
family residential real estate loans and the other for consumer loans. Examiners can further segregate loan pools, as needed, using the independent sampling process.

- The requirement that mandatory comments be put in the report of examination when the loan review discloses four or more exceptions was eliminated. Examiners should use their discretion to determine when comments are necessary.
- The requirement to follow separate procedures for "high risk" and "low risk" institutions was eliminated. (This eliminated the need for Appendix E. Appendix F was renamed as Appendix E. Appendix D and the new Appendix E were simplified to make them easier to follow.)
- The general discussion that preceded the discussion of sampling methodologies for homogeneous assets was removed as it only repeated guidance later in the section.

#### *Sampling Methodologies for Nonhomogeneous Assets:*

- The guidance on the level of review expected for the independent sample of nonhomogeneous assets has been revised, particularly with respect to situations when the institution's internal asset review (IAR) function is acceptable and encompassed more than the level of assets targeted for review by examiners. This is found under the subheading "Independent Sampling of Nonhomogeneous Assets."
- Some duplicative statements throughout the discussions of homogeneous and nonhomogeneous assets were eliminated, and other minor changes were made to make the section less technical in nature.

Attachment



—John F. Downey  
Director of Supervision

**Introduction**

A key component in the evaluation of the quality of an institution's assets is the review of a portion or sample of those assets. Sampling is the process of selecting a limited number of assets from a large group of assets so that conclusions about the quality of the entire portfolio may be drawn from the characteristics of the sample. The objective is to limit the number of assets reviewed while still providing enough information to enable the examiner to draw and support a reliable conclusion about the portfolio without requiring a review of all of the assets. The underlying assumption is that the quality of assets in the sample is representative of the quality of assets in the portfolio. Inherent in the use of a limited sample of assets for review is the risk of sampling error (i.e., the risk that the quality of assets selected for review will not be representative of the portfolio). Generally, sampling risk is reduced by increasing the size of the sample. Large samples are costly and time consuming, so examiners must balance the risk of sampling error against the costs of using large samples. This Section provides several sampling methods to allow examiners to limit the number of assets reviewed while mitigating sampling risks. The application of the guidance in this Section will reduce the likelihood of significant sampling error and will also enable examiners to:

- Select a representative sample of assets for review;
- Determine if the institution is in compliance with both safety and soundness standards and its underwriting policies;
- Analyze the level of reliance that can be placed on the institution's Internal Asset Review (IAR) program for the purpose of including the results of the IAR program in meeting minimum examination review coverage standards; and
- Determine if an expansion of the asset classification review is needed.

As discussed in other chapters of the Thrift Activities Regulatory Handbook, examiners, in addition to performing a review of individual assets and loan files, should base their final assessment of the quality of the portfolio on factors that include the following:

- the adequacy of the institution's underwriting policies and procedures;
- an evaluation of portfolio performance and credit quality;
- the experience and training of personnel; and
- the adequacy of the institution's pre- and post-funding quality control reviews and other internal controls related to the portfolio.

Examiners should use different methodologies for the sampling and testing of two different asset types: homogeneous and nonhomogeneous assets. For the purpose of this Handbook Section, "homogeneous assets" are those that amortize monthly and are typically underwritten based on common, uniform standards. They include one- to four-family residential real estate loans, home improvement loans, home equity loans, owner-occupied mobile home loans, amortizing residential property loans, consumer installment loans and leases, credit card balances, personal overdrafts, and loans on deposits. Because homogeneous assets are generally classified based on delinquency status, the examiner's sampling should be directed to the determination of whether the institution uses prudent underwriting standards, rather than the IAR program's classification of such assets.

"Nonhomogeneous" assets are those where underwriting criteria are less likely to be uniform and where classification decisions are based on broader considerations than just the delinquency status. Nonhomogeneous assets include commercial real estate, commercial, and construction loans; private placement, nonrated, and below-investment-grade municipal and corporate securities; and other investments (i.e., all assets other than homogeneous assets, cash, high-quality government securities, and high-quality mortgage-backed securities). For these assets, the examiner should use sampling to develop conclusions regarding two issues: first, the quality and reliability of the institution's IAR program for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards and, second, the quality of the institution's underwriting standards.

The rest of this Section discusses sampling methodologies for homogeneous assets; sampling methodologies for nonhomogeneous assets; review of pre-

viously examined assets; and requirements for documenting the sampling method used in the work papers and the Report of Examination (ROE).

Note: Examiners should exclude from their sample, loans made by an eligible institution under the March 30, 1993, "Interagency Policy Statement on Documentation for Loans to Small- and Medium-Sized Businesses and Farms." Under that Policy Statement (*the provisions of which were incorporated into OTS Regulation 563.170(c)(10)*), institutions that are well- or adequately capitalized under Section 38 of the Federal Deposit Insurance Act (Prompt Corrective Action) that have a composite rating of 1 or 2, are permitted to identify a portion of their portfolio (equal to 20% of their total capital) of small- and medium-sized business and farm loans that will be exempt from examiner review of documentation. *Certain 3-rated institutions can* apply to use this authority. Institutions should have a written list of the loans assigned to this "exempt portion" of the portfolio. Examiners should review *563.170(c)(10)* to ascertain the eligibility requirements and other related factors.

### Sampling Methodologies for Homogeneous Assets

*To determine if loans reviewed are made in accordance with the institution's own underwriting standards, examiners must first review the institution's loan underwriting and asset acquisition policies and internal controls for adequacy. Examiners should also evaluate the structure, administration, scope, and results of the institution's IAR program for homogeneous assets. The IAR program should follow the classification requirements applicable to "slow loans" and "slow consumer loans" discussed in Section 260 of this Handbook.*

*For homogeneous assets, examiners should sample the assets to detect any asset quality problems that result from poor underwriting standards. Because the examiner will be looking to draw a conclusion about the whole portfolio, the assets selected for review should not be limited to only those underwritten since the last examination. With respect to loans made since the previous examination, examiners should determine if the institution is using prudent underwriting standards and is exercising proper lending controls. With respect to loans made*

*in prior periods, examiners will generally evaluate asset quality by reviewing loan performance history. If seasoned loans are paying as agreed, examiners will forego further review of the asset. If loans are not paying as agreed, examiners will determine the cause of the delinquency, such as poor underwriting or local economic factors, and evaluate the effect that such factors have on the institution's asset quality.*

*Asset quality problems that result from declining economic conditions will not be considered exceptions unless poor underwriting contributed to the delinquency. However, examiners should factor in the effect that well-underwritten delinquent loans may have on the institution's overall asset quality.*

*Examiners should also be able to conclude whether the institution is sufficiently complying with applicable regulations and policies. Exhibits 1 and 2 illustrate the decision-making process in sampling homogeneous assets.*

As the examiner is seeking to ascertain the quality of the asset portfolio that poses a potential risk to the institution, the examiner should include in the population loans sold with recourse.

#### Systematic Sample Selection

Initial Sample: For purposes of the review of homogeneous assets, the examiner should generally use numerical interval sampling (*described in Appendix D*) to select a systematic sample of assets. The sample should not be limited by origination date or performance.

#### Risk-Focused (Judgmental) Sample Selections

In addition to the use of numerical interval sampling, it may be appropriate for the examiner to also select and review a judgmental sample if significant subcategories of assets are not covered by the systematic sample or for other purposes, if determined to be appropriate by the examiner.

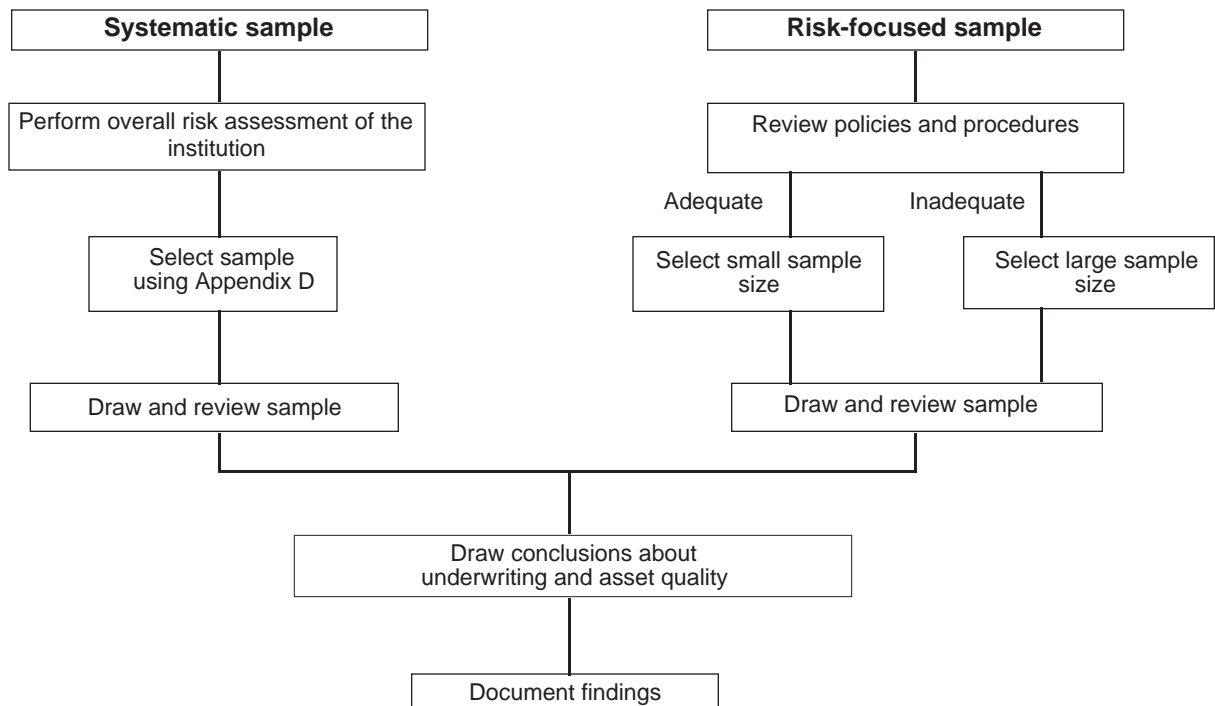
After selecting the initial sample of assets as outlined in Appendix D, the examiner should determine whether all significant subcategories of assets are included in the asset sample. The selection of subcategories should be based on an assessment of the riskiness of various subcomponents of the port-

**Exhibit 1  
Sample Size Selected for Homogeneous Assets**

Institution Risk Profile	Low Risk	High Risk
Adequate Underwriting Policies and Controls	Minimum	Larger
Inadequate Underwriting Policies and Controls	Larger	Largest

The above chart shows the level of asset review required under different conditions. The first block on the left shows that for low-risk institutions with adequate underwriting policies, only a minimum number of assets need to be reviewed. The lower block on the right indicates that for high-risk institutions with poor underwriting policies, the largest number of assets need to be reviewed.

**Exhibit 2  
Sample Selection for Homogeneous Assets**



folio and the degree of difference in underwriting standards used by the institution for the subcategories. Examiners should seek to include in the total sample (both systematic and judgmental) assets from each significant subcategory of assets for which the thrift has separate underwriting procedures and controls, whether such procedures are written or not.

The institution's internal auditors may provide valuable advice in determining control points in the approval process and determining significant subcategories. Examiners should consider including each of the following subcategories in judgmental samples of homogeneous assets:

- Loan types for which exceptions were reported in the last examination;
- Loans originated by new personnel;
- ***Loan types where loan volume has increased dramatically;***
- Loans sold with recourse; and
- New loan products.

Examiners should use their best judgment and ensure that their sample of homogeneous assets is sufficient to assess underwriting practices and asset quality.

#### *Review of Sample*

The selected homogeneous assets should be reviewed by the examiner to ascertain whether the loans made during the review period were underwritten in a prudent manner and in compliance with the institution's policies. (As stated previously, seasoned loans should be evaluated based on their performance history.) For example, for a loan fully secured by a deposit at the institution, the examiner generally only needs to ascertain that the loan is legally secured to satisfy himself/herself that the loan is prudently underwritten. For determining whether an asset is underwritten in a prudent fashion, the examiner should focus on the overall quality of the asset, not merely on documentation. An exception should only be noted if it is material. Note that the underwriting policies of institutions often allow for deviations from the general standards. For example, an institution may have generally applicable debt-to-income ratios for home mortgage loans,

but may allow borrowers to exceed those ratios if the loan has other credit strengths such as a low loan-to-value ratio.

For institutions with prudent underwriting standards, examiners should first focus on whether the assets comport with the institution's underwriting policies. Secondly, the examiner should, for any asset that differs from the institution's general standards, review whether the asset is prudently underwritten. "Exceptions," for homogeneous assets, refers only to assets that do not comport with safe and sound lending standards, even if the asset does not adhere to the institution's general underwriting standards, as there are often legitimate reasons for an institution to deviate from its written standards. The definition of "Exception" in Appendix A provides further guidance on reviewing older homogeneous assets.

Appendix D provides additional guidance on expanding the systematic sample of homogeneous assets if exceptions are found. Appendix D also provides guidance on drawing conclusions based on the review of the systematic sample.

If more than the allowable number of exceptions are found within the initial systematic sample of 15 assets, further sampling may help determine if there is a trend and whether material noncompliance with regulation and policy has, in fact, occurred. If management claims that a significant underwriting exception is an isolated incident, examiners may want to verify this by conducting further sampling. If there is a general pattern of noncompliance with policies and regulations, it is not necessary to fully determine the exact frequency of such noncompliance.

Rather than continuing to enlarge the sample to find every exception, the examiner should focus on why the exceptions occurred, conduct any additional examination procedures needed, and recommend corrective action.

#### *Review of Classifications*

Examiners should confirm that the institution's classifications of homogeneous assets are based primarily on delinquency status.

All "slow loans" and "slow consumer credit" — as defined in regulations §§ 561.13, 561.47, and 561.48 — should be considered for classification in accor-

dance with instructions in Handbook Section 260, Classification of Assets.

In addition to the homogeneous assets sampled, examiners should review for classification:

- Homogeneous assets (or commitments) that are unusually large in relation to their portfolios, because these assets are exceptions to the norm and may be incorrectly categorized (e.g., they may be commercial loans); and
- Assets that are related to nonhomogeneous assets (such as loans to the same obligors, principals, guarantors, or otherwise for their benefit).

If the review of homogeneous assets reveals a high credit risk group (such as poorly underwritten mobile home loans), that group should be included in the sampling and review procedures for nonhomogeneous assets. If such assets are in a very high dollar volume, dollar-proportional sampling, described in Appendix B, is recommended.

### Sampling Methodologies for Nonhomogeneous Assets

Similar to the sampling of homogeneous assets, in order to determine the quality of the asset portfolio, examiners should sample nonhomogeneous assets to ascertain whether the institution is applying prudent underwriting standards and is complying with applicable regulations and policies. Exhibit 3 illustrates the decision-making process in sampling nonhomogeneous assets.

Examiners must first review the adequacy of the institution's policies for underwriting and acquiring assets as well as the internal controls in these areas. If an institution has adequate policies, procedures, and controls, then the examiner should use the minimum sampling requirements outlined below to draw conclusions about the institution's asset quality. If, however, an institution has inadequate or nonexistent underwriting policies, procedures, and controls, then the examiner must review a larger sample of assets to ascertain asset quality.

***Sampling of nonhomogeneous assets should start with an estimate of the extent of adverse classification based on the previous examination report, internal classifications, past-due loan his-***

***tory, and lending policies and procedures. Based on the expected condition of the assets, an initial coverage range should be set for the review of the entire nonhomogeneous portfolio. The combined sequential and independent samples should, at a minimum, total 30% to 50% of the aggregate dollar volume of nonhomogeneous assets. The 30% minimum should be used only at the outset of reviews where risk is minimal and conditions ideal, such as in thrifts with excellent policies and controls, a history of no significant asset quality problems, and little recent growth. If the review of the institution's IAR program results in an acceptable number of exceptions, assets included in the IAR program are to be included in meeting this minimum examination sampling coverage standard.***

Examiners are to sample two different populations for nonhomogeneous assets. First, examiners are to sample assets reviewed by the institution under the institution's IAR program, to determine whether the IAR program is reliable for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards. Second, examiners are to sample a relatively large sample of the nonhomogeneous assets (including those not included in the IAR program) to ascertain asset quality. This second sampling requirement is referred to as "independent" sampling.

The examiner is expected to sample, at a minimum, 30% of the dollar amount of the nonhomogeneous assets. This standard contrasts with homogeneous assets, where there is no minimum sampling percentage that must be achieved. This minimum sampling coverage standard is discussed more fully below.

#### *Evaluation of Internal Asset Review Programs*

After a review of the adequacy of the institution's policies for underwriting and acquiring assets (as well as the internal controls in these areas), the examiner should evaluate the institution's IAR program ***that makes the institution's final classification determinations.***

Examiners should assess the structure, administration, scope, and results of the institution's IAR program at each examination that includes a review of asset quality. The institution's IAR program must include frequent sampling of all asset types and result in the internal identification of all major port-

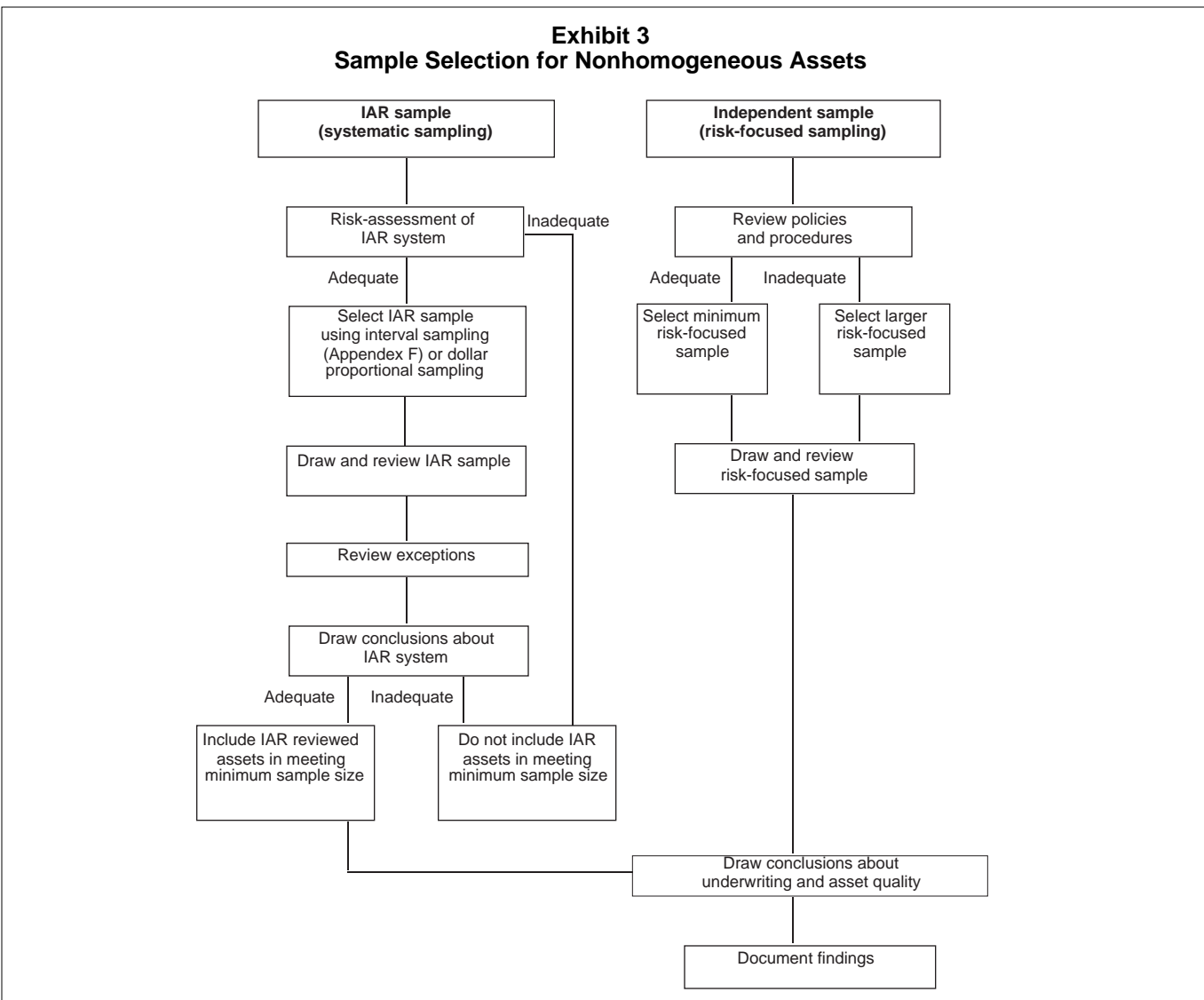
folio problems and an accurate assessment of overall asset quality. The examiner should review the institution's documentation of its IAR program's sampling process to ensure that all asset types were adequately sampled.

The IAR program should sufficiently assess risk of loss so that an institution's management may determine appropriate levels of specific and general allowances. Thrift Activities Handbook Section 210, Lending Risk Assessment, and Attachment 1 of Appendix A to Section 261, Adequacy of Valuation

Allowances, provide further guidance for evaluating IAR programs.

*Examination Use of Internal Classifications*

If the structure, administration and scope of the IAR program are deemed to be sufficient, then examiners should sample and test internal classifications for reliability. (Instructions for sampling internal classifications using numerical interval sampling are provided in Appendix E.) If, after analyzing this sample, the examiner determines that the IAR pro-



gram is reliable, all internally reviewed assets can be included in meeting the 30% minimum examination sampling coverage standard.

If the examiner determines that the IAR program is unacceptable due to its structure or administration, or the internal classifications have more than the allowable number of exceptions when compared to the regulator's classifications, then the examiner should proceed with an independent sampling of assets (discussed below). In such cases, only the assets reviewed by examiners should be included in the minimum examination sampling coverage standards. In order to initiate corrective action, IAR program deficiencies should be discussed with management, in the ROE, and in the meeting with the board of directors.

If examiners determine that an IAR program is severely inadequate, examiners should consider postponing the asset review to allow corrections to be made if it would be a more efficient use of resources and prudent to do so. Such action should only be undertaken in extreme cases, with senior Regional officials' prior approval. Examiners should then comment in the ROE, advise thrift management and directors of IAR program deficiencies noted, and inform them that examiners will return within a specified period to assess whether the deficiencies have been corrected.

It is important to apply this postponement strategy judiciously. If the thrift is financially distressed or is in danger of failing, the asset classification review should not be postponed. It is also important to give thrift management only a minimal time horizon to correct the deficiencies. Examiners must perform a prompt and thorough follow-up review to ensure the success of this strategy. Formal enforcement action, including civil money penalties, should be considered for thrifts failing to correct significant IAR program deficiencies.

IAR program findings for individual assets may be used for examination purposes if individual analyses are found to be reliable, even when the IAR program is incomplete or has deficiencies, such as when the IAR program does not include reviews of insider loans or does not include reviews of loans less than 90 days old. Although an IAR program may be incomplete or inaccurate in some respects, it may serve to inform examiners of problems a thrift has recognized.

#### *Sampling Internally Reviewed Nonhomogeneous Assets*

Internal classifications may be sampled to test for acceptance in examination reviews by one of two methods: dollar-proportional sampling and numerical interval sampling. The dollar-proportional methodology is explained more fully in Appendix B; numerical interval sampling for IAR-reviewed assets is explained more fully in Appendix E. Note that if the examiner uses the dollar-proportional sampling methodology to review the IAR program, the sample must contain no exceptions to be acceptable.

#### *Independent Sampling of Nonhomogeneous Assets*

In addition to a review of the assets reviewed under the institution's IAR program, the examiner should undertake a review of an independent sample. **Generally, examiners are expected to perform an independent sample even when an institution's IAR is found to be acceptable and the IAR function has reviewed a level of the institution's nonhomogeneous assets that is greater than the level set by the examiner as the desired level of review. In such cases, the level of review performed by examiners will depend on whether the sampling of IAR assets adequately covered all of the various types of nonhomogeneous assets.**

**Since the IAR sample is randomly selected, it is not likely to include a sufficient cross-section of large loans, certain high-risk loan types, or loans to borrowers that may be near the institution's legal lending limit. Such loans must be reviewed in the independent sample. For example, if the IAR sample did not pick up any construction or land loans, or other types of nonamortizing loans, then the examiners should review some of the larger nonamortizing loans of this type. Also, if the IAR sample did not include a representative number of loans to the largest borrowers, then the examiners should include such loans in the independent sample. There are often other loans that the independent sample should include as well, such as modifications of large loans or borrowers who have business relationships with thrift directors or officers that were not included in the original sample. If, however, the IAR sampling performed by the examiners covered the various types of nonhomogeneous lending the thrift engaged in, then there may be good reason to limit the size of the independent sample. It is the**



***examiner's responsibility to determine the level and scope of the independent sample.******Expanding the Scope of the Independent Sample***

As the examination progresses and the examiner assesses the extent of the thrift's risk of loss, the examiner may need to expand the independent sample size to ensure sufficient review of credit quality. If additional review increases adverse classifications and the need for loss recognition by a material amount (for example, if adverse classifications exceed 50% of GAAP equity capital), the examiner should increase the sample size. If a thrift is suspected of having severe asset quality problems, examiners may need to review 65% to 85% or more of the dollar volume of the nonhomogeneous assets. Sampling of these assets should be sufficient to determine the extent of credit quality problems, since any problems will affect valuation allowances and capital. It is usually of little benefit, however, to continue to adversely classify assets once the institution is determined to be tangibly insolvent, other than to ascertain capital levels to a material degree.

When the review of additional assets would not materially increase adverse classifications, loss recognition, or otherwise influence anticipated supervisory decisions, the sample is adequate. At some point, as the sample is increased, the risk in the remaining assets in relation to tangible capital is immaterial. It is up to the examiner's discretion to determine this point.

***Independent Sampling Methodologies***

Examiners should use either the minimum cut-off or dollar-proportional method to independently select the sample of nonhomogeneous assets. Where examiners have used numerical interval sampling to accept the results of an institution's IAR program, examiners should include in their independent samples a review of all assets that have a book value equal to or greater than 5% of GAAP equity capital.

The independent sample should not be limited by origination date or performance. To target the groups of assets that are the most likely to warrant adverse classification in material amounts, the sample should be supplemented by judgmental selections of assets with high risk of material loss.

The examiner can include in the independent sample assets that were reviewed by the institution under its IAR program but that were not selected in the sample used to assess the IAR program. If the examiner had concluded that the IAR program is reliable and, as part of the independent sample, the examiner reviews these assets and finds that there are a significant number of exceptions between the institution's classifications of these assets and the classifications of the examiner, the examiner should carefully reconsider whether the IAR program is reliable. If the results of the independent sample present a more accurate assessment about the reliability of the IAR program, the examiner should use that conclusion.

General guidance for dollar-proportional, minimum cut-off and judgmental sampling is included in Appendix B and includes a discussion for using the dollar-proportional method for independent sampling.

***Review of Independent Sample***

The selected assets should be reviewed by the examiner to ascertain whether the assets were underwritten in a prudent manner and in compliance with the institution's policies. An exception should only be noted if it is material. The examiner should also use these reviews to determine appropriate classifications of the sampled assets. Examiners should use the guidance provided in the other Asset Quality sections of the Handbook to assess whether the selected assets were prudently underwritten.

**Review of Previously Examined Assets**

Analysis of previously examined assets should generally be limited to a quick review of the previous examination line sheets, current performance, and new file information for indications of a material change in the condition or cash flow of the obligor or the collateral. The current balance, performance information, and current financial data should be updated on the previous examination line sheets. In most instances, a quick review of the updated line sheet will be all that is needed to properly classify the asset again.

## Asset Review Documentation

Documentation should be in adequate detail to help examiners sample assets for review in the next examination, and should identify records used as a basis for sampling, such as: IAR schedules, alphabetical trial balances, customer information file printouts, and loans-to-one-borrower lists. Work papers must include a description of methods and criteria used to select samples, including the cut-off amounts and initial and supplementary sampling techniques. Documentation should be sufficient to allow a reviewer to identify the assets reviewed, understand the rationale for the selection of assets, and determine the percentage of assets reviewed for each portfolio, the overall coverage of nonhomogeneous assets and any exceptions that are found. Information sources, such as officers, credit reports, etc., should be identified if not obvious.

The percent of dollar volume of nonhomogeneous assets reviewed by examiners (including the assets reviewed under the IAR program, if tested and found reliable for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards) should be included on the lead sheet of the line sheet deck of line sheets and in the asset quality scoping comments in the ROE.

As indicated in the Thrift Activities Asset Review Line Sheets Instructions, examiners should record enough information on each reviewed asset to clearly identify the asset and to arrive at a final defensible classification. Each asset review should only be thorough enough for proper classification. Examiners should attempt to find and record only enough information to pass an asset or, if unable to pass it, record enough information to classify it. The line sheets are not needed when the thrift can provide an adequate substitute such as history cards or IAR worksheets.

## Examination Objectives

To select a sample of homogeneous assets ***that will enable the examiner to evaluate the institution's underwriting and*** draw conclusions about asset quality.

To assess the IAR program to draw a conclusion about the reliability of the institution's IAR program and, for nonhomogeneous assets, to determine if the assets reviewed under the IAR program can be included in the examination asset review sample.

To select a sample of nonhomogeneous assets that will enable the examiner to draw conclusions about the institution's underwriting and asset quality.

## Examination Procedures

### Reviewing the Institution's Underwriting Policies

***1. Review the general ledger to ascertain the overall characteristics of the loan portfolio. Determine the number of loans held in portfolio for each of the different loan types, i.e., one- to four-family residential loans, consumer loans, etc. Ensure that adequate records are readily available to facilitate the loan sampling review.***

2. Review the adequacy of the institution's policies for underwriting and acquiring assets pursuant to the other sections of Chapter 200 of this Handbook.

### Testing the Internal Asset Review (IAR) Program

3. Review the institution's IAR program pursuant to Section 210, Lending Risk Assessment and Appendix A to Section 261, Adequacy of Valuation Allowances. Review IAR program sampling methodology and obtain schedules of internally reviewed nonhomogeneous assets.

(a) For homogeneous assets reviewed under the institution's IAR program, determine whether the institution's classifications are based primarily on delinquency status. Proceed with step 6 for reviewing homogeneous assets.

(b) If the policies and procedures of the IAR program are deemed sufficient, select a representative sample of nonhomogeneous assets reviewed in the IAR program and proceed with step 4.

(c) If the IAR program is insufficient, then proceed to step 16 and the procedures that follow for independent review of nonhomogeneous assets or consider postponing the examination asset review, if necessary.

Note: If the IAR program is simply incomplete, e.g., it does not include reviews of a particular category of assets, and the rest of the IAR program is considered acceptable, then the examiner may still proceed with step 4 to determine if the internal classifications of the acceptable portion of the IAR program may be included in the minimum examination sampling coverage standards. The examiner should conduct an independent sampling and review of those categories of assets for which the IAR program is not acceptable.

4. Review the selected assets for classification. If no more than an acceptable number of exceptions in classifications are found, then all assets reviewed in the IAR program and their internal classifications should be included in the minimum examination sampling coverage standards. If an unacceptable number of exceptions in classifications are found, then only assets actually reviewed by examiners should be included in calculating the examination sampling coverage.

5. Document your conclusions regarding the reliability of the IAR program for reporting and monitoring purposes between examinations and comment in the ROE, if necessary. Discuss with management noted IAR program deficiencies and initiate appropriate corrective action.

#### Examination Asset Review

*Homogeneous Assets (Refer to Exhibits 1 and 2 of this Section)*

**6. Systematically sample homogeneous assets. If necessary to ensure coverage of significant subcategories of homogeneous assets, judgmentally sample additional assets, such as a wider sample of those assets underwritten or acquired since the previous examination.**

7. Review the sample for compliance with prudent underwriting, safety and soundness regulations, internal policies, and possible classification according to instructions in Section 260, Classification of Assets.

8. List all "slow loans" and "slow consumer credit" and tentatively classify them in accordance with Section 260, Classification of Assets.

9. Allow management to review the tentative adverse classifications to identify any that may be controversial. Review files on disputed classifications and revise classifications if appropriate.

10. Scan records of homogeneous assets to identify unusually large assets and verify that any unusually large assets are properly designated by purpose. Include any improperly designated homogeneous assets with nonhomogeneous assets for sampling and review.

11. Review exceptions from prudent underwriting practices, and determine if additional sampling or other examination procedures are needed to determine the cause for the exceptions and the corrective action needed. If appropriate, undertake additional sampling.

12. If necessary, expand samples of any groups of assets suspected to contain material amounts of assets that may warrant classification.

13. Review expanded samples to determine if any assets from the expanded samples should be adversely classified.

14. If the sample review indicates possible material risk of loss in a subcategory of homogeneous assets, include that subcategory with nonhomogeneous assets for additional sampling and review.

15. Document your conclusions regarding the underwriting and asset quality of homogeneous assets. Discuss any underwriting deficiencies noted with management and initiate appropriate corrective action. If significant deficiencies are noted, consider the need for comment in the ROE.

*Independent Sampling of Nonhomogeneous Assets (Refer to Exhibit 3 of this Section)*

16. Use either the minimum cut-off or dollar-proportional method to select a sample of nonhomogeneous assets. (Refer to Exhibit 1 of Appendix B.) Select an additional sample using the judgmental method.

17. Add all nonhomogeneous asset balances included in the samples (including the assets reviewed by the institution under its IAR program if the examiner finds the IAR program to be acceptable for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards). Divide the total of the samples by the total of nonhomogeneous assets. If the percent selected is between 30% and 50%, use the initial samples for review. If not, raise or lower

the cut-off amount and make additional judgmental selections to achieve the intended percent.

18. Review the sampled assets for possible classification and exceptions.

19. After any necessary classifications have been made, if adverse classifications exceed 50% of GAAP equity capital or if any asset group has significant problems, lower the cut-off for that group or make additional judgmental selections of assets for review.

20. If additional review increases classifications by a material amount, increase the sample size for the type of assets in which the problems were found.

21. When severe asset quality problems are known or suspected, it may be necessary to increase the sample size even further to 65% (or higher) of total nonhomogeneous assets to adequately determine the extent of asset quality problems, the need for valuation allowances, and the effect on capital.

22. Document your conclusions regarding the underwriting and asset quality of nonhomogeneous assets and comment, as needed, in the ROE. Discuss any underwriting deficiencies noted with management and initiate appropriate corrective action.

### Conclusion

23. Ensure that the *Objectives* of this Handbook Section have been met. State your findings and conclusions, as well as recommendations for any necessary corrective measures, on the appropriate work papers and, if necessary, the ROE pages.

## References

### United States Code (12 USC)

*Home Owners' Loan Act*

§ 1463(c) Stringency of Standards

### Code of Federal Regulations (12 CFR)

*Subchapter D: Regulations Applicable to All Savings Associations*

§ 561.13 Consumer Credit Classified as Loss  
 § 561.47 Slow Consumer Credit  
 § 561.48 Slow Loans  
 § 563.160 Classification of Certain Assets  
 § 563.170 ***Establishment and Maintenance of Records***

### Office of Thrift Supervision Publications

Thrift Activities **Asset** Review Line Sheets Instructions (July 1994)

Interagency Policy Statement on Documentation for Loans to Small- and Medium-Sized Businesses and Farms (March 30, 1993)

### Sampling Terms

*Homogeneous Assets:* For purposes of this Section, homogeneous assets are one-to four-family residential real estate loans, home improvement loans, home equity loans, owner-occupied mobile home loans, amortizing residential property loans, consumer installment loans and leases, credit card balances, personal overdrafts, and loans on deposits.

*Nonhomogeneous Assets:* For purposes of this Section, nonhomogeneous assets are considered to be commercial real estate, commercial, and construction loans; private placement, nonrated, and below-investment-grade municipal and corporate securities; and other loans and investments (other than homogenous assets, cash, high-quality government securities and high-quality mortgage-backed securities).

*Exception:* (1) For purposes of sampling an IAR program, an exception occurs when the regulator's classification of an asset is one or more classifications more conservative than an institution's classification, except for two situations discussed below. "Classifications" for purposes of this Handbook Section are the following: Pass; Special Mention; Substandard; Doubtful; and Loss. For example, if an institution considers an asset Special Mention and the regulator considers it Substandard, this is an exception. Similarly, if an institution classifies an asset as Doubtful and the regulator classifies it as Loss, this is an exception. The two situations where the "one classification worse" standard does not apply are when: (i) the regulator designates an asset as Special Mention and the institution designates it as Pass; and (ii) the regulator classifies an asset as Doubtful and the institution classifies it as Substandard.

For assets with split classifications, where both the regulator and institution have a split classification but of differing amounts, the regulator must consider the materiality of the difference and the methodology used by the institution to determine if the difference is material. For example, if an asset is divided between Substandard and Loss, with the institution indicating a 90/10 split and the regulator indicating an 80/20 split, the regulator should review the methodology the institution used to determine the Loss amount. If the institution's methodology is acceptable, then the classification difference is not considered an exception.

Note: Differences in classification due to timing (e.g., where the regulator is using more current information than was available to the institution when it last reviewed an asset) should not be considered an exception (except if an institution exhibits a pattern of not considering, on a timely basis, new information). Also, no exception should be noted if the institution's classification is more conservative than the regulator's classification.

(2) For purposes of reviewing homogeneous assets, an exception is any asset not underwritten in a prudent, safe and sound fashion. For determining whether an asset is underwritten in a prudent fashion, the regulator should focus on the overall quality of the asset, not on documentation. An exception should only be noted if it is significant. Often, an institution's underwriting policies will have provisions to allow certain deviations from the general underwriting standards when a loan or investment has credit strengths that offset any weaknesses that may be incurred by deviating from the general policy standards. Such loans are not to be automatically considered "exceptions" for the purpose of evaluating an institution's underwriting procedures. Only loans and investments that do not comport with safe and sound lending standards should be considered exceptions.

- For a homogeneous asset that was originated or purchased by the institution since the last examination that included a review of the institution's asset portfolio, the regulator should review the loan file and other relevant information to determine whether sound underwriting standards were followed for the asset to determine if the asset is an "exception" for purposes of this Section.
- For a homogeneous asset that was originated or purchased by the institution prior to the last examination that included a review of the institution's asset portfolio, the review should initially focus on the payment history of the asset. If the asset has generally remained current, it should not be deemed an exception. For assets that have a history of being delinquent (i.e., 90 or more days past due), the examiner should undertake a review of the asset to determine whether sound underwriting standards were followed when the loan was made or the asset was acquired. If sound underwriting standards were not followed, the asset should be considered an "exception" for purposes of this Section.

Note: Examiners may apply the review standards established above for newer homogeneous assets to older assets (i.e., initially undertake a file review and assess the underwriting of the asset, rather than initially focusing on the payment history) to determine if the asset is an exception.

*Materiality:* An item is material if its inclusion or omission would change or influence the judgment of a reasonable person. An item is immaterial if its inclusion or omission would have no effect on the examiner's analysis and the outcome of the examination and related supervision. Materiality may vary both with relative amount or quality (the amount or quality of an item compared to other items) and with relative importance (the nature of the item

itself). The examiner must use good judgment and professional expertise in determining materiality.

*Random Starting Point:* A random starting point is the first asset picked from a population for review. The examiner must select the starting point so as to eliminate predictability in the sample selection. The number may be obtained from a random number table, the serial number of a dollar bill, or other appropriate source. The number denotes the first item included in the sample and the place from which the established route starts (e.g., every 29th loan). This starting point should be either less than or equal to the "interval" (either monetary or numerical), i.e., if the examiner will review every 29th loan, the starting point should be selected randomly from one of the first 29 loans.

There are two types of sampling discussed in this Section: (1) systematic and (2) nonsystematic (nonstatistical or risk-focused). Both types of sampling should be used in the examination process. An example of systematic sampling is numerical interval sampling. Examples of nonsystematic techniques are minimum dollar cut-off and judgmental sampling.

In general, examiners should use systematic sampling methodologies for homogeneous assets and for testing the reliability of an institution's IAR program for nonhomogeneous assets (for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards). If these samples raise concerns, or if a review of the assets selected suggest that major subcategories of assets were not included, the examiner should expand the sample using nonstatistical, risk-focused selection criteria.

More than one sampling technique is often needed when sampling nonhomogeneous assets. Usually, the examiner will select a systematic sample—such as a numerical interval sample—and then select an additional judgmental sample of potential problem assets that were not selected in the systematic sample.

Once a sample is selected, examiners must evaluate the possible risk of loss and the depth of review needed for each asset. A full review of each asset is not necessary merely because the asset has been included in the sample.

Each individual asset review must only be thorough enough to determine the particular attribute for which an examiner is testing. When an examiner is reviewing the reliability of the IAR program for purposes of including the results of the IAR program in meeting minimum examination sampling coverage standards, the asset review should focus on whether the institution's classification coincides with the examiner's classification (e.g., whether there are exceptions in the institution's internal classifications). When examiners review underwriting practices, their asset review should be of sufficient depth to ascertain the institution's application of prudent underwriting standards.

For example, a well-secured and performing loan presents a low risk of loss and usually should be analyzed only to determine the adequacy of cash flows, the borrower's capacity, the perfection of liens, and the reliability of appraisals. In contrast, loans that are nonamortizing, nonperforming, or without adequately controlled collateral present substantially more risk and require in-depth analysis to determine proper classification.

The following are descriptions of the different sampling methodologies to be used to ascertain the reliability of the IAR program (so that its results can be used to meet minimum examination sampling coverage standards for nonhomogeneous assets) and used for the evaluation of the institution's use of prudent underwriting standards (for both homogeneous and nonhomogeneous assets).

For each of these sampling techniques, the thrift's assets must be divided into pools that are similar in terms of the attribute for which the examiner is sampling. ***In general, homogeneous***

*assets will be divided into just two pools, one- to four-family residential real estate loans and consumer loans. The use of additional pools may be considered if the institution uses significantly different procedures for a particular group of loans. The definition of significantly different procedures would include such criteria as the use of separate underwriting guidelines, the establishment of separate and distinct loan departments or any other characteristic that substantially differentiates a particular group of loans from the general population.*

When reviewing the IAR program for nonhomogeneous assets, the examiner need not divide the IAR program-reviewed assets into separate pools. All assets reviewed under an institution's IAR program should be treated as a single pool for sampling purposes. If an institution maintains separate lists of assets reviewed under IAR programs (i.e., by asset type—separate lists for commercial real estate loans, construction loans, etc.), the examiner should combine the lists into one list for sampling purposes. An exception to this general policy is for larger institutions that have decentralized IAR programs. For example, some large, geographically diverse institutions may have separate IAR programs for different geographic regions. In such cases, the examiner should assess the IAR systems separately.

## Systematic Sampling

### *Numerical Interval Sampling*

Numerical sampling is the selection of items based on their numerical order in the portfolio or list.

For thrifts with large portfolios of assets, examiners, from a random start, may select and review a statistically valid, numerical interval sample of assets. This methodology essentially entails the selection of a numeric interval (i.e., every 29th asset). From a random start on a list of assets, the examiner counts each asset and selects the assets at the interval.

After a review of the assets selected, if no exceptions are found, the examiner does not need to expand the sample. Instead, the examiner can conclude that the institution has a reliable IAR program for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards (if the examiner is reviewing the IAR-reviewed assets for appropriate classification) or can conclude that there are no asset quality problems that result from poor underwriting standards for the asset pool under review (if the examiner is reviewing homogeneous assets).

If the review discloses 1, 2 or 3 exceptions, then the examiner should expand the sample. The process to expand the sample sizes from the initial sample size is shown in Appendix E. If there are four or more exceptions, then the IAR program does not meet the reliability standards established in this Handbook Section and the examiner cannot include the results of the IAR program in meeting the minimum examination sampling coverage standards for nonhomogeneous assets; for homogeneous assets, 4 or more exceptions means that the exam-



iner should conclude that a significant number of assets in the pool have not been underwritten in a prudent fashion. In such cases, further sampling of the asset pool is not necessary.

***As noted in Appendix E, to ensure that OTS does not inappropriately decide that an institution's IAR program does not meet the reliability standards established in this Section or that a pool of homogeneous assets have been underwritten prudently, exceptions should be reviewed by the EIC or another examiner.***

The numerical interval sampling guidance provided in Appendix E will provide the examiner with a representative sample of the relevant population of assets. Such a sample will allow the examiner to draw conclusions about the entire population from which the sample was drawn, while minimizing the number of assets that must be reviewed. (Representative sampling should not be equated with random sampling. Random sampling is simply a method of selecting items for inclusion in a sample; it can be used in conjunction with either statistical or nonstatistical sampling. The sampling methodology in the Appendix relies on the numerical interval selection process rather than a random selection process.)

Examiners should also consider taking a judgmental sample of significantly large assets not included in the numerical interval sample, to ensure that the institution is adequately reviewing and classifying these assets. General instructions for judgmental sampling are provided below.

### *Dollar-Proportional Sampling*

Proportional sampling is the selection of items based on the sum of their dollar amounts. With dollar-proportional sampling, the examiner selects the sample by using a running total of asset amounts until a certain dollar amount (or "interval") is hit. The asset that causes the running total to at least equal the interval is included in the sample. The examiner should start the "adding up" process from a random point on the asset list (as defined in Appendix A). A dollar-proportional sample will consist of all assets that either: (1) are larger than the selected dollar interval or (2) cause the running total of the list to exceed the dollar interval.

For purposes of sampling assets reviewed under an institution's IAR program, a suggested material dollar interval is 3% of GAAP equity capital. Thus, for an institution with \$100 million in GAAP equity capital, \$3 million is the "interval" that triggers the inclusion of an asset in the sample.

Example: For a thrift with GAAP equity capital of \$100 million, the dollar interval is 3%, or \$3 million. From a random start on the list of assets, the examiner should start adding the dollar amounts of the assets, moving down the list. When an asset causes the running total to meet or exceed the dollar interval (\$3 million in this example), the examiner should select that asset for review. The examiner would then "add up" asset amounts until \$3 million is reached again and include the asset that makes the running total equal or exceed \$3 million in the sample. Asset amounts may be rounded or truncated to eliminate immaterial amounts for easier adding. For example, a \$1,234,567 asset may be rounded to \$1,235,000.

The examiner should continue adding assets down the list and select the asset that causes the total to meet or exceed \$3 million. Using this example, all individual assets with a book value in excess of \$3 million will always be selected for the sample. Further, a selection of smaller assets that cause the running total to meet or exceed \$3 million will be selected to be tested.

Dollar-proportional sampling method counts dollar amounts of assets relative to the interval size rather than number of assets.

Note: This method, with some minor differences, may also be used instead of the minimum cut-off method to independently sample nonhomogenous assets.

### **Nonsystematic or Risk-Focused Sampling**

There are two types of nonsystematic or risk-focused sampling discussed in this Appendix: minimum cut-off sampling and judgmental sampling.

#### *Minimum Cut-Off Sampling*

Minimum cut-off sampling is an efficient method to analyze nonhomogeneous assets to help determine the thrift's risk of loss. This sampling method selects all assets with a balance (or commitment) equal to or greater than a cut-off amount. Exhibit 1 of this Appendix shows the basic steps to select the assets to be reviewed in minimum cut-off sampling. This sampling methodology can be used to review the underwriting standards used by an institution for its nonhomogeneous assets.

#### *Judgmental Selection*

Judgmental selection is used to: (1) sample nonhomogeneous assets that have a greater than normal probability of being adversely classified and (2) expand a systematic sample for homogeneous assets if significant subcategories of assets are not covered by the sample.

For nonhomogeneous assets, Exhibit 2 of this Appendix lists asset groups that may have greater than normal risk of material loss. When selecting assets to review for material risk of loss, the examiners' professional judgment is more important than strict adherence to general procedures and coverage standards. For this reason, judgmental sampling should be used to supplement systematic sampling.

Judgmental sampling may also be used to supplement systematic samples during the examiner's review of the institution's IAR program or of systematic sampling of the underwriting of homogeneous assets. For example, the examiner may judgmentally select assets that were not selected in a numerical interval sample of the internally reviewed assets. Also, if an asset is selected for review from a sample and the borrower has multiple credits with the institution, the examiner should use his/her judgment as to whether to include the entire set of related credits in the sample. For example, if the examiner believes that reviewing all the associated credits will enhance his/her ability to assess whether the initially selected asset is

a safe and sound asset, the examiner should include the associated credits.

If a review of judgmentally selected assets reveals problems, additional judgmental sampling can help pinpoint causes and help devise solutions. For example, the examiner may determine that underwriting exceptions or adverse classifications are attributable to one branch office or a single time period. Additional sampling, concentrating on the affected assets, might disclose that the problems are attributable to a single loan officer or broker, or to substitute employees performing unfamiliar duties.

**Exhibit 1**  
**Minimum Cut-Off Sampling**

- Determine the approximate book value of the nonhomogeneous assets in the portfolio. This can be done with internal management reports or a Thrift Financial Report.
- Set a target range for the percent of that book value to be reviewed. For a portfolio with no indication of serious problems, the initial range for the minimum cut-off and judgmental samples combined would be 30% to 50% of the dollar volume of nonhomogeneous assets.
- Select a cut-off for the dollar value of the balances of assets to be reviewed. A good starting point might be 0.25% of total assets or 2.5% of the thrift's GAAP equity capital, rounded to a convenient number. Select all assets at and above the dollar cut-off in the population being sampled.
- Calculate the percentage dollar volume selected. If the percent selected is significantly different from the target percent, adjust the cut-off so that the percent selected falls within the target range. The assets selected should be reviewed and recorded on Thrift Activities Asset Review line sheets.

*Note:* Dollar-proportional sampling may be used to independently sample nonhomogeneous assets instead of the minimum cut-off method since it also selects assets with individual book values over a certain material dollar interval/amount (as well as smaller assets). This method is particularly useful for portfolios with an extreme variance in dollar amounts or that cannot be divided between homogeneous and nonhomogeneous assets.

The dollar-proportional sampling procedures for testing the underwriting of nonhomogeneous assets (the "independent sample") are similar to the dollar-proportional sampling procedures for testing the institution's IAR program. A key difference is that the dollar interval is usually not the same, since the purposes for these two examination procedures are different. For independent sampling of nonhomogeneous assets, a starting point for the material dollar interval might be 0.25% of total assets or 2.5% of the thrift's equity capital, rounded to a convenient number.

When using this technique to sample nonhomogeneous assets, the examiner should supplement the dollar-proportional procedures discussed earlier in this Appendix with the following:

- Determine the total book value of the nonhomogeneous assets in the portfolio.
- Set a target range for the percent of that book value to be reviewed.
- Select the assets using the process described earlier and determine the percentage dollar volume selected.
- If the sample is too large or too small, either decrease the sample size by eliminating some smaller assets or increase the sample size by lowering the minimum cut-off. (This is far more efficient than rerunning the dollar proportional selection.)
- When the sample is within the target range, review and record pertinent information on each sampled asset on individual Thrift Activities Asset Review line sheets.

**Exhibit 2**  
**Asset Groups with High Risk of Material Loss**

*Troubled assets, including assets:*

- With principal or interest past due for 30 days or more;
- Renewed without interest collection;
- With extended maturities or due dates;
- With significant capitalized interest;
- That are restructured troubled debts; or
- In nonaccrual status.

*Loans identified as problems, including loans:*

- Previously classified by examiners;
- Internally classified;
- On the thrift's problem list or watch list; or
- Identified in director or committee minutes, audits, or other sources, as having more than normal risk.

*Loans to borrowers in groups who present special risk, including loans to:*

- Insiders (officers, directors, stockholders);
- Insiders of other financial institutions;
- Related interests of insiders;
- Entities with classified loans elsewhere;
- Customers with overdrafts or cash items; or
- Guarantors and principals of commercial borrowers.

*Loans with collateral or repayment sources presenting special risk, including loans:*

- In specific high-risk markets (e.g., commercial construction, land speculation and development, leveraged buy-outs, new enterprises, commercial fishing, farming, extraction industries, restaurants, and dealers in mobile homes, new and used cars, home appliances, or farm implements); or
- Out-of-territory.

*Participations that are:*

- Purchased (both nonhomogeneous assets and portfolios of homogeneous loans); or
- Sold with recourse.

*Other assets with special risks, including:*

- Loans to facilitate sale of real estate owned;
- Risky concentrations of assets;
- Nonaccrual investments;
- Real estate owned or in judgment;
- Defaulted debt securities; or
- Assets not confirmed by auditors attempting positive confirmations.

As discussed in the Handbook Section, examiners are to systematically select assets for review from the population of assets. The initial sample size of 15 was selected based on an “infinite” population size. Sampling chapters in statistical textbooks also contain a formula (“finite correction factor”) that can be used to “scale down” the level of assets that need to be reviewed, based on the number of assets in a population.

The formula is:

$$\text{sample size} = \frac{n}{1 + (n/\text{population size})}$$

Where “n” is the sample size selected based on an infinite population size, and “population size” is the actual number of assets in the group of assets being reviewed.

***For example, if the initial sample size is 15, it can be “scaled down” as follows:***

$$\text{sample size} = \frac{15}{1 + (15/\text{population size})}$$

- ***If the population size is 100, the sample = 13.***
- ***If the population size is 50, the sample = 12.***

Summary

*The examiner will undertake “sequential sampling,” under which an initial sample of 15 loans is initially reviewed to determine if the loans made during the review period are prudently underwritten, and if seasoned loans are performing as agreed. If the review discloses no exceptions, no additional loans should be reviewed. If exceptions (as defined in Appendix A) are noted, the sample size is increased as detailed in the chart below, until either the number of exceptions is within the acceptable tolerance or the number of exceptions total 4 or more.*

<u>Sample Size</u>	<u>Number of Exceptions Allowed</u>
15	0
25	1
34	2
43	3

*If the number of exceptions is within the tolerable limit, an examiner can conclude, with a 90% confidence level (reliability), that the pool of assets are underwritten in a prudent fashion. Specifically, there is only a 10% risk that the population error rate (e.g., the number of assets that are not underwritten prudently) exceeds 15%.*

If 4 or more exceptions are found, the sample results indicate that the examiner should conclude that a significant number of assets in the pool of assets have not been underwritten in a prudent manner (*or, for seasoned loans, are paying as agreed*).

To ensure that a significant number of assets in the pool of assets are inappropriately decided to be exceptions, exceptions should be reviewed by the EIC or another examiner. This review, like the initial review, should focus on whether the assets were underwritten in a safe and sound fashion, as discussed in Appendix A. The results of this review should be used for purposes of determining if the institution is prudently underwriting the pool of assets.

Process

**Step 1:** The institution’s assets should be divided into separate pools based on the underwriting policies the institution uses. *As noted in Appendix B, homogeneous assets will generally be divided into just two pools, one- to four-family residential real estate loans and consumer loans.*

**Step 2:** From each pool, the examiner should systematically select 15 assets for review, *unless the sample size can be reduced in accordance with Appendix C.*

- One method to systematically select the assets for review is to assign each asset in the pool a number, starting from 1. The examiner should then divide the total number of assets in the pool by 15 to get the “numeric interval” to be used to select the loans to review.

For example, if there are a total of 900 one- to four-family residential real estate loans, the examiner should divide 900 by 15, which equals 60 ( $900/15 = 60$ ). 60 is the “numeric interval” — the examiner will review every 60th loan. The examiner should start selecting loans from a random starting place between the 1st and 60th loan. If loan number 3 is the first asset selected for review, the examiner should next select loan number 63 ( $3 + 60$ ), then loan number 123 ( $63 + 60$ ), and so on, until all 15 loans have been selected for the sample.

**Step 3:** The examiner should then review the assets selected.

- ***For loans made since the preceding examination, the review should focus on whether the loans were underwritten in a safe and sound fashion, and whether the institution is exercising proper lending controls. For loans made in prior periods, examiners will generally evaluate asset quality by reviewing loan performance. Exceptions are defined in Appendix A.***

If the institution has adequate written policies on the underwriting of a given category of loans, the examiner should determine whether the sample of loans were underwritten in accordance with those policies. For any loan in the sample that deviates from the institution’s written policies, the examiner should focus on whether the loan was nonetheless prudently underwritten. If the institution does not have adequate written policies for the underwriting of a given type of loan, the examiner should just focus on whether the sampled loans were prudently underwritten.

Examiners should refer to other Thrift Activities Regulatory Handbook sections for guidance on safe and sound underwriting on various loan types.

The definition of “Exception” in Appendix A provides further guidance on reviewing older homogeneous assets.

- ***If no exceptions are found (e.g., all 15 loans are underwritten in a prudent fashion), the examiner can conclude that the whole pool is underwritten in a prudent fashion and the examiner should proceed to Step 4.***
- ***If exceptions are noted, the sample size should be expanded in accordance with the chart above, until either the number of exceptions is within the acceptable tolerance or the number of exceptions total 4 or more.***



**Step 4:** The examiner should document his/her conclusions about the institution's underwriting of homogeneous assets, and should state any recommendations for necessary corrective measures, in the appropriate work papers and, if necessary, in the Report of Examination.

**Summary**

The examiner will undertake “sequential sampling,” under which a small sample of assets is initially reviewed to determine if the IAR program is reliable for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards. If, after analyzing the sample, the examiner determines that the IAR program’s results are acceptable, all internally reviewed assets can be included in meeting the minimum examination sampling coverage standards. The sample size is increased if “exceptions” (as defined in Appendix A of this Section) are found in the initial sample. Examiners may conclude that the institution has an acceptable IAR program if an acceptable number of exceptions are found. Once 4 or more exceptions are found, however, the IAR program does not meet the reliability standards established in this Handbook Section and the examiner can only include the assets he or she independently reviews in meeting the minimum examination sampling coverage standard.

The chart below summarizes the sample sizes discussed more fully below under “Process” and the maximum number of exceptions allowable:

<u>Sample Size</u>	<u>Number of Exceptions Allowed</u>
29	0
46	1
61	2
76	3

If 4 or more exceptions are found, the IAR program does not meet the reliability standards established in this Handbook Section, and the examiner can only include the assets he or she independently reviews in meeting the minimum examination sampling coverage standard.

If fewer than 4 exceptions are found, an examiner can conclude, with a 95% confidence level (reliability), that the IAR program meets the reliability standards established in this Section. Specifically, there is only a 5% risk that the population deviation rate (e.g., the number of internally reviewed assets that are inappropriately classified) exceeds 10%.

To ensure that OTS does not inappropriately decide that an institution’s IAR program does not meet the reliability standards established in this Section, exceptions should be reviewed by the EIC or another examiner. This review, like the initial review, should focus on whether reviewer’s classifications of the assets are the same as the institution’s classification of the assets. The results of this review should be used for purposes of determining if the IAR program is reliable for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards.

### Process

Note: All of the assets reviewed by the institution under its IAR program should be considered one population of assets.

**Step 1:** The examiner should systematically select 29 assets for review from the population of assets reviewed under the IAR program, unless the sample size can be **reduced in accordance with Appendix C**.

- One method to systematically select the assets for review is to assign each asset in the pool a number, starting from 1. The examiner should then divide the total number of assets in the pool by 29 to get the “numeric interval” to be used to select the loans to review.

For example, if there are a total of 900 assets, the examiner should divide 900 by 29, which equals 31 ( $900/29 = 31$ ). 31 is the “numeric interval” — the examiner will review every 31st asset. The examiner should start selecting assets from a random starting place between the 1st and 31st asset. If asset number 3 is the first asset selected for review, the examiner should next select assets number 34 ( $3 + 31$ ), then asset number 65 ( $34 + 31$ ), and so on, until all 29 assets have been selected for the sample.

**Step 2:** The examiner should then review the 29 assets.

- The review should focus on whether the examiner’s classifications of the assets are the same as the institution’s classifications of the assets. An exception should be noted as discussed in Appendix A of this Section.

Examiners should refer to Thrift Activities Regulatory Handbook Section 260, Classification of Assets, for guidance on classification.

- If there are no exceptions in the classification of the 29 assets, then the examiner can conclude that the institution has a satisfactory IAR program for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards and all internally reviewed assets can be included in meeting the minimum examination sampling coverage standards. The examiner should proceed to Step 3.
- ***If exceptions are noted, the sample size should be expanded in accordance with the chart above, until either the number of exceptions is within the acceptable tolerance or the number of exceptions total 4 or more.***

**Step 3:** The examiner should document his/her conclusions about the reliability of the institution's IAR program for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards, and should state any recommendations for necessary corrective measures in the appropriate work papers and, if necessary, in the Report of Examination.