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Handbook: Thrift Activities

Subject: Asset Quality



Section: 221

Thrift Activities Regulatory Handbook Update

Summary: This bulletin provides a brief summary of Section 221, Asset-Backed Securitizations, a new section to the Thrift Activities Regulatory Handbook.

For Further Information Contact: Your Office of Thrift Supervision (OTS) Regional Office or Credit Policy in the Supervision Policy Division of the OTS, Washington, DC. You may access this bulletin at our web site: www.ots.treas.gov.

Regulatory Bulletin 32-30

SUMMARY

This is a new handbook section that addresses the securitization and sale of asset pools, such as loans, leases, and credit card receivables. The section is designed to familiarize OTS examiners and thrift personnel with the securitization process and highlight aspects of securitization that may present a supervisory concern. The main topics of this handbook section include the following:

221 Asset-Backed Securitizations

Introduction: Describes the risks and benefits of securitization, the unique cash flows attributable to different tranches in a securitization, and the approach to examining them.

The Securitization Process: Includes a detailed description of each phase of the securitization process.

Managing Securitization Activities: Discusses the steps that institution management typically takes to manage its securitization activities, such as developing a business plan, establishing an independent risk management function, management information system (MIS) reporting and review by top management and the board, and monitoring securitization transactions.

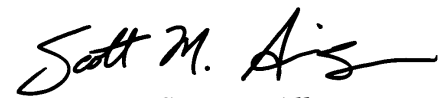
Securitization Risks: Outlines the numerous risks involved with securitizations, including strategic risks, credit risks, liquidity risks, market risks, compliance risks, servicing risks, operational risks, and other types of risks. Describes risk management practices that prudent securitizers often use to mitigate those risks.

Regulatory Bulletin 32-30

Accounting Considerations: Provides information on the valuation and accounting for securitizations pursuant to SFAS 140.

Capital Considerations: Addresses the interagency capital requirements that relate to securitizations. It cross-references a more detailed overview of the interagency guidelines on the “Capital Treatment for Recourse, Direct Credit Substitutes, and Residual Interests,” attached as Appendix B.

Supervisory Focus: Highlights the supervisory focus OTS examiners will take when reviewing and evaluating an institution’s securitization activities. It cross-references the Interagency Guidance on Asset Securitization (Appendix A).



—Scott M. Albinson

Managing Director, Supervision

INTRODUCTION

Asset securitization is the process by which loans or other credit exposures are pooled and reconstituted into securities, with one or more classes or positions that may be sold. It generally involves a multi-step process in which an institution transfers illiquid on-balance-sheet assets, such as loans, leases, or other assets, to a special purpose wholly owned subsidiary, which, in turn, transfers them to a trust. The trust then issues securities, certificates, notes, or interests to investors.

Through securitization, the trust/issuer redistributes the credit risk of an asset pool among a tiered structure of securities, with the most senior security having first priority on the cash flows generated by the asset pool and the most junior position, the last or lowest priority. The most junior position in a securitization structure is often referred to as the residual interest. Typically, the institution transferring the assets holds some of the highest risk positions associated with the securitization transaction, including the residual interest.

Securitization can be an important component of an institution's overall business strategy. An increasing number of institutions are using asset-backed securitization to access new and diverse funding sources, manage concentrations, and improve financial performance ratios, while, at the same time, effectively serving the needs of their borrowers. Assets most often securitized by savings associations include credit card and auto receivables, residential first mortgages, and home equity loans.

Primary Benefits

Securitization can be an effective financial intermediation and risk management tool. For the originator/seller in a securitization, the benefits include the freeing of capital to allow additional lending, the ability to retain servicing, which provides an income source, the ability to produce a return on off-balance-sheet assets with reduced credit or liquidity risks, and lower capital costs.

For investors, asset-backed securities offer a collateralized security that generally has a good return with little credit risk, improved marketability over purchased loan pools, and assets that are underwritten and serviced by an experienced lender. Borrowers also benefit because securitization makes more credit available at terms that are more favorable and at a lower cost than if the loans were not securitized.

While the benefits can be substantial, the risks, which exist throughout all phases of the securitization process and continue while the securities remain outstanding, can also be substantial. This Section addresses those risks.

Primary Risks

Managing the risks of securitization activities can pose a greater challenge to institutions than managing traditional lending activities. Securitization risks can be both less obvious and more complex. Securitization, like traditional lending, can involve credit risk, concentration risk, interest rate risk (including prepayment risk), operational risk, liquidity risk, reputation risk, and funding risk.

Moreover, these risks may be in concentrations and forms unfamiliar to a traditional lender. The types of risks that an institution faces can vary substantially, based on its role(s) in the securitization process and the nature of its activities, including the transaction structure(s), activity level, volume of transactions, the risk profile of securitized assets, and any increased concentrations (by product, funding sources, or otherwise), and the amount and type of concentrated credit risk retained by the institution.

The Securitization Cash Flow Waterfall

Unlike loan participations, which share in credit risk proportionately, a securitization can create a complex structure of securities and interests with multiple levels of risk and returns. The cash flow (interest and principal payments) from the pool of

transferred assets supports the payments to all the securities and interests in a securitization. Generally, the most senior security is paid in full first, then the next most senior, and on down the tiered structure. The most junior security, typically the residual interest, is paid last and only if sufficient funds remain after all the more senior claims are paid in full. It is the nature and properties of this cash flow “waterfall” that is at the heart of securitization risk analysis.

The residual interest, usually retained by the thrift, is not only the riskiest of all the positions but also the one most difficult to value. Because market prices are not usually available for retained interests, institutions often use models to estimate their values. The institution’s use of a valuation model introduces its own risks. The model itself may be flawed, the assumptions used in it may be unrealistic, or the sensitivity of the results to changes in loss estimates, prepayment speeds, or discount rates may be underestimated. An institution’s vulnerability to “model risk” can be severe.

Examination Approach

This section provides guidance on assessing the risks created by an institution’s securitization activities and evaluating how well the institution manages them. It focuses primarily on the role of the institution as financial intermediary, that is, as loan originator, packager, servicer, credit enhancer, underwriter, or trustee, rather than as an investor in securities.

This section describes:

- The characteristics of a sound asset securitization function and prudent risk management practices.
- Relevant accounting treatment, which can affect an institution’s reported measures of profitability, reserve requirements, and capital.
- Supervisory considerations that should be incorporated in any assessment of the risks that securitization activities present to an institution.

The institution’s board of directors and management are ultimately responsible for having policies in place that ensure that the economic substance of all the institution’s risk exposures is fully recog-

nized and reflected in risk management systems and internal capital adequacy allocations.

During the examination, you should determine whether the institution fully recognizes the risks of securitization. Institution management should perform all of the following:

- Identify, quantify, and monitor all risks.
- Communicate regularly the extent and significance of these risks in reports to senior management and the board of directors.
- Stress test the securitization programs to identify the extent of its loss exposure and possible liquidity disruptions.
- Maintain adequate allowances for losses, carrying values of assets retained, sufficient capital levels, and contingency funding sources.

You should be concerned when, among other considerations, an institution’s management does not fully understand the risks inherent in its securitization activities or fails to fully reflect such risks in its management systems and internal capital allocations. Such circumstances constitute an unsafe and unsound practice. Consistent with the Interagency Guidance on Asset Securitization contained in Appendix A, institutions that lack effective risk management programs or engage in practices that present safety and soundness concerns will be subject to more frequent supervisory reviews, more stringent capital requirements, or other supervisory responses. The OTS Regional Director could require a downgrade of an institution’s supervisory (CAMELS) rating under such circumstances.

THE SECURITIZATION PROCESS

The securitization process redistributes risk by breaking up the traditional role of the lender into a number of specialized roles: originator, servicer, credit enhancer, underwriter, trustee, and investor. Depository institutions may be involved in several of these roles. They often specialize in a particular role or roles to take advantage of their specific expertise or economies of scale. The types and levels of risk to which a particular institution is exposed will depend on its role in, and management of, the securitization process.

In scoping the examination, you should review the business plan to obtain an understanding of the institution's role(s) and overall activities. You should also review the relationship of the institution with its holding company and affiliates, as they may be involved in the securitization process. Their involvement could include holding interests, providing staff and resources in support of the securitization program, as well as potentially providing credit enhancements in subtle forms. You should read the various agreements associated with each securitization. As discussed later in this section, these include the pooling and servicing agreement, as well as any series supplement, which provide explicit detail on the structure and design of the particular asset-backed security and responsibilities of each party to the transaction.

The primary difference between whole loan sales or participations and securitized pools of loans is the structuring process. Before loan pools can be converted into securities, they are typically restructured to modify the nature of the risks and returns to the investors. Structuring includes the isolation and distribution of credit risk, usually through credit enhancement techniques, and use of trusts and special purpose entities to address ownership issues and to manage cash flows generated by the loan pools.

Generally, the structure of a transaction is governed by the terms of the pooling and servicing agreement, and for master trusts, each series supplement. The pooling and servicing agreement is the primary contractual document between the seller/servicer and the trustee. This agreement documents the terms of the asset transfer and the responsibilities of the seller/servicer.

The securitization process consists of four primary phases, which occur virtually simultaneously:

- Phase 1: The institution/transferor segregates assets for transfer to a special purpose entity (SPE), a bankruptcy-remote, wholly owned subsidiary.
- Phase 2: The SPE then transfers the assets received from the institution to a Qualifying Special Purpose Entity (QSPE). A servicer is designated for the transferred assets, who is

contractually bound by the terms of the servicing agreement.

- Phase 3: The QSPE/issuer, with assistance from an underwriter, structures the security(ies) and obtains necessary credit enhancements to improve the rating assigned by a rating agency and the marketability of the securities to be issued to the public.
- Phase 4: The QSPE/issuer sells interests in the transferred asset pool(s) in the form of securities, notes, or certificates. *Note:* Institutions can use their corporate debt (12 CFR § 560.40) or pass-through (12 CFR § 560.32) investment authority to invest in certain asset-backed securities.

Phase 1: Pool/Segregate Assets for Transfer

This phase involves the borrowers and transferor/originator. The transferor originates and often services the loans that generate the cash flows supporting the securitization structure. The borrowers make payments on the underlying loans. Therefore, the performance of the asset-backed security is largely dependent on the ability of the borrower to repay the loan consistent with the terms of the loan agreement. Even though the loans are transferred, the originator maintains the customer relationship with the borrowers.

Asset Selection

Securitization involves the conveyance of loans to an SPE and ultimately to the QSPE. For revolving type assets, this conveyance includes the amount of receivables and certain designated accounts on a specific cutoff date, plus the option for the QSPE to purchase new receivables that arise from those designated accounts subsequent to the cutoff date. The accounts are subject to eligibility criteria and specific representations and warranties of the transferor.

The transferor designates which accounts will be transferred. The selection is carried out with an eye towards creating a portfolio whose performance is not only predictable but also consistent with the target qualities of the desired security. Other selection criteria might include geographic location,

maturity date, size of credit line, or age of the account relationship.

Account selection can either be random, to create selections that are representative of the total portfolio held by the institution, or inclusive, so that all qualifying receivables are transferred. In random selections, the transferor determines how many accounts are needed to meet the target value of the security. It then selects accounts randomly (for example, every sixth account is selected from the eligible universe).

Pooling by Asset Type

The collateral supporting a securitization often defines its structure. For example, installment loans dictate a substantially different structure than revolving lines of credit. Installment loans, such as those made for the purchase of automobiles, trucks, and recreational vehicles, have defined amortization schedules and fixed maturity dates. Revolving loans, such as credit cards and home equity lines of credit, have no specific amortization schedules or final maturity date. Revolving loans can be extended and repaid repeatedly over time, more or less at the discretion of the borrower.

Installment Loan Pools/Transactions.

A typical installment contract asset-backed security, which in some ways resembles a mortgage pass-through security, provides investors with an undivided interest in a specific pool of assets supporting the securitization.

The repayment terms for most installment contract asset-backed securities call for investors to receive a portion of all the interest and principal received by the trust each month. The trust certificate usually stipulates that investors will receive a stated monthly interest payment on the outstanding balance of their certificates. The amount of principal included in each payment depends on the amortization of the underlying collateral, plus any prepayments that are received during the month. Prepayments shorten the average life of the issue.

Revolving Asset Pools/Transactions.

The typically short lives of receivables associated with revolving loan products, such as credit cards

and home equity lines of credit, require issuers to modify the structures used to securitize the assets. For example, a static portfolio of credit card receivables typically has a life of between five and ten months. Because such a life is too short for efficient security issuance, securities backed by revolving loans are structured in a manner to facilitate management of the cash flows. Rather than distributing principal and interest to investors as received, the securities distribute cash flow in stages: a revolving phase, followed by an amortization phase. During the revolving period, only interest is paid. Principal payments are reinvested in additional receivables as, for example, customers use their credit card or take additional draws on their home equity lines. At the end of a revolving period, the amortization phase begins, where principal payments are made to investors along with interest payments. Because the principal balances are repaid over a short time, the life of the security is largely determined by the revolving period.

Borrower Characteristics

Because cash flows are more predictable with homogenous asset pools, institutions will further group loans by considering other characteristics, for example, borrower credit quality.

Institutions often assign borrowers a letter grade based on their credit quality. At the top of the rating scale, 'A' quality borrowers have relatively pristine credit histories; at the bottom of the scale, 'D' quality borrowers usually have severely blemished credit histories. The categories are by no means rigid. In fact, credit evaluation problems exist because one originator's 'A-' borrower may be another originator's 'B' or 'C' borrower. Nevertheless, the terms 'A', 'Alt-A', and 'B/C' paper are widely used.

Segmenting borrowers by grade allows outside parties such as rating agencies to compare performance of a specific company or underwriter more readily with that of its peer group.

Phase 2: Creation of a Securitization Vehicle

The creation of a securitization program involves two steps: (1) the creation of a SPE by the institution, and (2) the formation of a QSPE by the

subordinate organization, which actually issues the asset-backed securities.

Step 1: Creating a SPE

An institution, as the originator/transferor, establishes a wholly owned subordinate organization to serve as the SPE. The institution transfers the assets to the SPE. On the institution's books, the transfer is treated as a sale or a financing in accordance with GAAP as detailed in FASB 140, *Securitization Accounting*. (Refer to "Accounting Treatment" in this section.) Generally, a SPE is designed so that the possibility that the institution (or its creditors) could reclaim the assets is remote. For example, any residual cash flow due to the SPE is pledged back to the QSPE. Then, if OTS closes the institution, there are no assets in the SPE for the creditors to attach because a counterparty pledge agreement exists between the SPE and QSPE.

Step 2: Forming a QSPE

The SPE transfers the assets to the QSPE, which then issues the asset-backed securities, completing the securitization process. The cash raised by the sale of securities is used to compensate the SPE and institution for the transferred assets.

The senior securities issued by the QSPE typically have a sufficient increase in credit and yield protection provided by a subordinated retained beneficial interest or other means to merit the high credit rating sought by investors.

Role of the Trustee

The QSPE generally designates a third party trustee to administer, for a fee, the trust that holds the underlying assets supporting the securitization. Acting in a fiduciary capacity, the trustee is primarily concerned with preserving the rights of the investor. The responsibilities of the trustee will vary for each issue and are delineated in a separate trust agreement. Generally, the trustee:

- Oversees the disbursement of cash flows as prescribed by the indenture or pooling and servicing agreement.
- Monitors compliance with appropriate covenants by the parties to the agreement.

- Replaces the servicer if it fails to perform in accordance with required terms.
- Receives, throughout the life of the transaction, periodic financial information from the originator and servicer delineating, among other things, amounts collected, amounts charged off, and collateral values.
- Reviews financial information received to ensure that the underlying assets produce adequate cash flow to service the securities.
- Declares, when necessary, a default or an early amortization triggering event.

If problems develop in the transaction, the trustee focuses on the obligations and performance of all parties associated with the security, particularly the servicer and credit enhancer.

Servicing Transferred Assets

The trustee selects a servicer to collect interest and principal payments on the loans or leases in the pool of transferred assets and then transmit these funds to investors (or a trustee representing them).

The originator/transferor usually continues to service the portfolio after securitization. (The only assets with an active and deep secondary market for servicing contracts are mortgages.) The servicer typically retains a fixed percentage of the outstanding loan balances as a servicing fee.

The responsibilities of the institution as the servicer for a securitized portfolio include all of the following:

- Customer service and payment processing for borrowers.
- Collection actions in accordance with the pooling and servicing agreement.
- Default management and collateral liquidation.
- Providing administrative support for the benefit of the trust that is duty bound to protect the interests of investors.
- Preparing monthly information reports.
- Remitting collection of payments to the trust.

- Providing the trustee with monthly instructions for the disposition of trust assets.

The servicer usually prepares its reports on a monthly basis, with specific format requirements for each performance and administrative report. The servicer distributes the reports to the investors, the trustee, the rating agencies, and the credit enhancer.

Phase 3: The Issuer Structure

The QSPE is typically structured as a trust, in one of the following forms:

- Grantor trust.
- Owner trust.
- Revolving asset trust.

Each type of trust typically issues different types of securities. In choosing a trust structure, the thrift institution seeks to ensure that the transaction insulates the assets from the reach of the thrift and its creditors, and that the issuer, securitization vehicle, and investors receive a favorable tax treatment.

Grantor Trust

In a grantor trust, the certificate holders (investors) are treated as beneficial owners of the assets sold. The net income from the trust is taxed on a pass-through basis as if the certificate holders directly own the receivables. To qualify as a grantor trust, the structure of the deal must be passive – that is, the trust cannot engage in profitable activities for the investors, and there cannot be multiple classes of interest. Grantor trusts are commonly used when the underlying assets are installment loans whose interest and principal payments are reasonably predictable and fit the desired security structure.

Owner Trust

In an owner trust, the assets are usually subject to a lien of indenture through which notes are issued. The beneficial ownership of the trust's assets is represented by certificates, which may be sold or retained by the issuer. An owner trust, properly structured, will be treated as a partnership under the Internal Revenue Code of 1986. A partnership like a grantor trust is effectively a pass-through entity

under the Internal Revenue Code and does not pay federal income tax. Instead, each certificate holder, including the special purpose entity, must separately take into account an allocated share of income, gains, losses, deductions, and the credits of the trust. Like a grantor trust, the owner trust is expressly limited in its activities by its charter, although owner trusts are typically used when the cash flows of the assets must be managed to create bond like securities. Unlike a grantor trust, the owner trust can issue securities in multiple series with different maturities, interest rates, and cash flow priorities.

Revolving Asset Trust

This trust may be structured either as a stand-alone or master trust. The stand-alone trust is simply a single group of accounts whose receivables are sold to a trust and used as collateral for a single security, although there may be several classes within that security. When the issuer intends to issue another security, it simply designates a new group of accounts and sells their receivables to a separate trust. As the desire for additional flexibility, efficiency, and uniformity of collateral performance for various series issued by the same issuer increased, the stand-alone structure evolved into the master trust structure.

Master trusts allow an issuer to sell a number of securities and series at different times from the same trust. All of the securities rely on the same pool of receivables as collateral. In a master trust, each certificate of each series represents an undivided interest in all of the receivables in the trust. The structure provides the issuer with much more flexibility. The issuer can issue a new series from a master trust at a lower cost and with less effort than creating a new trust for every issue. In addition, the credit evaluation of each series in a master trust is much easier since the pool of receivables will be larger and less susceptible to seasonal or demographic concentrations. Credit cards, home equity lines of credit, and other revolving assets are usually packaged in these structures. A revolving asset trust is treated as a security arrangement and is ignored for tax purposes.

Credit Enhancements

Credit enhancements protect investors when the cash flows from the underlying assets are insufficient to pay the interest and principal for a security in a timely manner. An issuer uses credit enhancements to improve a security's credit rating, and, therefore, its pricing and marketability.

Aside from the coupon rate paid to investors, the largest expense in structuring an asset-backed security is the cost of credit enhancements. Issuers constantly attempt to minimize the costs associated with providing credit protection to investors.

Credit enhancements come in several different forms, although they can generally be divided into two main types: external (third party or seller's guarantees) or internal (structural or cash flow driven).

External/Third Party Credit Enhancements

As a general rule, third party credit enhancers must have a credit rating at least as high as the rating sought for the security. Third party credit support is often provided through a letter of credit or surety bond from a highly rated bank or insurance company. Currently, there are only a few highly rated third party credit enhancers. Further, there is the possibility that the ratings assigned to a third party credit enhancer could be lowered. Although it rarely happens, such an event could cause the security itself to be downgraded. As a result, issuers are relying less and less on third party credit enhancements.

Third party letter of credit. For issuers with credit ratings below the level sought for the security issued, a third party may provide a letter of credit to cover a certain amount of loss or percentage of losses. Any draws on the letter of credit protection are often repaid (if possible) from subsequent excess cash flows from the securitized portfolio.

Recourse to seller. Primarily used by nonbank or thrift issuers, the originator/transferor provides a limited guarantee covering a specified maximum amount of loss on the pool.

Surety bonds. Third party surety bond providers, usually triple-A rated mono-line insurance companies, generally provide a guarantee for 100 percent of the principal and interest payments.

Internal Credit Enhancements

Among internal enhancements, the securitized assets and transaction's cash collateral accounts provide most of the credit support. These cash collateral accounts and separate junior classes of securities protect the senior class by absorbing losses before the cash flows from the senior certificate are interrupted.

Senior/subordinate structures can be layered so that each position benefits from all the credit protection of the positions subordinate to it. The junior positions are subordinate in the payment of both principal and interest to the senior positions in the securities.

A typical security structure may contain any of the following internal enhancements, which are presented in order from junior to senior, that is, from first to absorb losses to the last:

Excess spread. The excess spread is created from the monthly portfolio yield on the receivables supporting an asset-backed security. The excess spread is generally greater than the coupon's servicing costs and expected losses for the issued securities. Any remaining finance charges after funding, servicing costs, and losses, is called excess spread. This residual amount may eventually revert to the institution/seller as additional profit. However, it is available for the trust to cover any losses that are greater than what is normally expected for the portfolio. Such losses may arrive from higher than projected charge-offs or servicing costs, or lower than projected revenues.

Cash collateral accounts. These are segregated trust accounts, fully or partially funded at the outset of the deal. They can be drawn on to cover shortfalls in interest, principal, or servicing expenses if excess spread is reduced to zero. The account can be funded by the issuer, but may be funded by a loan from a third party financial institution. This loan will be repaid from the proceeds of the trust assets, but only after all secured certificate holders have been paid in full.

Collateral invested amount (CIA). The CIA is a privately placed ownership interest in the trust assets, subordinate in payment rights to all investor certificates. It may be referred to as a residual interest in the trust or the “equity piece,” because a seller often creates and holds this interest to provide credit support for the issue. It may, however, be sold to an outsider.

Like a layer of subordination, the CIA serves the same purpose as the cash collateral account. It makes up for shortfalls if excess spread is insufficient. If the CIA absorbs losses, it can be reimbursed from any available excess spread. The CIA is usually an uncertificated ownership interest.

Subordinate security classes. Subordinate security classes are junior in claim to other debt. They are repayable only after other classes of the security with higher claims have been satisfied. Some securities may contain more than one class of subordinated debt, and one subordinated class may have a higher claim than other such positions.

Performance-based enhancements. Most securities contain performance related features designed to protect investors (and credit enhancers) against portfolio deterioration. Poor portfolio credit performance can trigger additional safeguards, such as an increase in the spread account available to absorb losses or the accelerated repayment of principal (early amortization).

The earliest performance-based enhancement typically requires the capture of excess spread within the trust to provide additional credit protection when the portfolio begins to show signs of deterioration. If delinquencies and loss levels continue to deteriorate, early amortization may occur in revolving securitizations. Early amortization triggers are usually based on a three-month rolling average to ensure that amortization is accelerated only if the pool’s performance is consistently weak.

However, you should criticize covenants that cite supervisory thresholds or adverse supervisory actions as triggers for early amortization events or the

transfer of servicing as unsafe and unsound banking practices.¹

Illustration of Credit Enhancement/Loss Positions

To illustrate the credit enhancement concept, losses in a hypothetical securitization would be absorbed as follows.

First loss tranche. Usually the residual interest, is typically retained by the originator and is established at the normal expected rate of portfolio credit losses. The excess spread, which funds the residual interest, normally should absorb expected portfolio losses, so that the credit support provided by the originator’s investment provides an additional cushion against unexpected losses.

Second loss tranche. Referred to as the cash collateral account, typically covers losses that exceed the originator’s retained interest. This second level of exposure is usually capped at some multiple of the pool’s expected losses (customarily between three and five times these losses), depending on the desired credit ratings for the senior positions. A high grade, well capitalized credit enhancer that is able to diversify the risk often absorbs this risk.

Senior tranches. Investors that buy the asset-backed securities themselves bear the lesser credit risk of the senior tranches. These are often divided into a senior tranche and a mezzanine tranche. Although these investors are exposed to other types of risk, such as prepayment or interest rate risk, senior level classes of asset-backed securities typically have less exposure to credit loss because of the credit support offered by the junior tranches as well as other credit enhancements.

Obtaining Ratings for the Securities

The originator or pool sponsor will often negotiate with the rating agencies about the type and size of the internal and external credit enhancements. The size of the enhancement is dictated by the credit quality of the asset pool and the rating desired for the senior security. For example, to achieve the same rating, a security based on a poorer quality

¹ See “Interagency Advisory on the Unsafe and Unsound Use of Covenants Tied to Supervisory Actions in Securitization Documents,” May 23, 2002.

asset pool will require a greater level of credit enhancement. For the highest rating, the rating agencies require that the level of protection be sufficient to shield the senior security against a depression scenario set of events.

Rating agencies perform a critical role in structured finance – evaluating the credit quality of the transactions. Such agencies are credible because they possess the expertise to evaluate various underlying asset types, and because they do not have a financial interest in the securities. Ratings are important because investors generally accept ratings by the major public rating agencies in lieu of performing their own in-depth due diligence investigation of the underlying assets or servicer.

The issuer determines whether it will seek a rating for its securities based on recommendations from the underwriter. Most nonmortgage asset-backed securities are rated. The large public issues are rated because the investment policies of many corporate investors require ratings. Private placements are often rated because qualifying buyers such as financial institutions and insurance companies are significant investor groups. Financial institutions use ratings to satisfy regulatory and board of director requirements, and insurance companies use ratings to assess capital reserves against their investments. Many regulated investors, such as life insurance companies, pension funds, and, to some extent, commercial banks can purchase only limited amounts of securities rated below investment grade.

The rating agencies review four major areas:

- Quality of assets being sold.
- Abilities and strength of the originator/servicer.
- Soundness of the transaction's overall structure.
- Quality of the credit support.

From this review, the agencies assess the likelihood that the security will pay interest and principal according to the terms of the trust agreement. The rating agencies focus on the credit risk of the asset-backed security. They do not express an opinion on market value risks arising from interest rate fluctuations, prepayments, or on the suitability of an investment for a particular investor.

Phase 4: Issuing Interests in the Trust

Depository institution issuers have two primary concerns regarding the securitizations. They seek to ensure the following:

- A security interest in the assets securitized is perfected.
- The security is structured to preclude the FDIC's voiding the perfected security interest.

By perfecting security interest, a lender protects the trustee's property rights from third parties who may have retained rights that impair the timely payment of the debt service on the securities. Typically, a trustee requires a legal opinion stating that the trust has a first priority perfected security interest in the pledged receivables. In general, filing Uniform Commercial Code documents is sufficient for unsecured consumer loan receivables such as credit cards. For other types of receivables, additional steps (title or mortgage assignments and recordings, etc.) may be required to perfect the trust's security interest in the receivables and the underlying collateral.

The underwriter is responsible for advising the seller on how to structure the security, and for pricing and marketing it to investors. Underwriters are often selected based on their relationships with institutional investors and for their advice on the terms and pricing requirements of the securities market. They are also generally familiar with the legal and structural requirements of regulated institutional investors.

The largest purchasers of securitized assets are pension funds, insurance companies, fund managers, and to a lesser degree, thrift institutions and commercial banks. The most compelling reason for investing in an asset-backed security has been their return relative to other assets of comparable quality and risk.

On the closing date of the transaction, the receivables are transferred, directly or indirectly, from the institution to the qualifying special purpose vehicle (trust). The trust issues certificates representing beneficial interest in the trust, investor certificates, and, in the cases of revolving asset structures, a transferor or seller certificate.

Investor’s Certificate

Investor certificates are sold in either public offerings or private placements, and the proceeds, net of issue expenses, are remitted to the seller. There are two main types of investor interest in securitized assets, a discrete interest in specific assets, and undivided interest in a pool of assets. The first type of ownership interest is issued for asset pools that match the maturity in cash flow characteristics of the security. The second type of ownership interest is used for short-term assets such as credit card receivables or advances against home equity lines of credit. For the short-term assets, new receivables are generated and added to the pool as existing receivables liquidate. The investors’ interest in the pool automatically applies to the new receivables.

Seller’s Interest

When receivables backing securities are short term or turn over rapidly, as do trade receivables or credit cards, the issuer must actively manage the cash flows associated with receivables. One objective is to keep the outstanding principal balance of the investor’s interests equal to the certificate amounts. To facilitate this equalization, an interest, known as the seller’s or transferor’s interest, is not allocated to investors, but retained by the seller. The seller’s interest serves two primary purposes: to provide the cash flow buffer when account payments exceed account purchases and to shore up reductions in the receivable balance attributable to dilution and noncomplying receivables.

To calculate the size of the seller’s interest, subtract the amount of securities issued by the trust from the balance of the principal receivables in the trust. The seller’s interest is generally not a form of credit enhancement for the investor interest; however, it may be, and if so, evaluate it as such.

Types of Asset-Backed Securities

Asset-backed securities may be structured as “pass-throughs” or “pay-throughs.”

Pass-through Securities

Under a pass-through structure, the cash flows from the underlying pool of assets are passed through to investors on a pro rata basis.

The payment distribution for securities backed by installment loans is tied to loan performance. Interest is customarily paid monthly, and the principal included in each payment will depend on the amortization schedule and prepayment rate of the underlying collateral.

Pay-through Securities

For revolving asset types such as credit cards, trade receivables, home equity lines, the cash flow has two phases:

- The revolving period.
- The principal pay down period, or amortization phase.

During the revolving period, investors receive their pro rata share of the gross portfolio yield based on the principal amount of their certificates and coupon rate. The remaining portion of their share of the finance charges above the coupon rate is available to pay the servicing fees and to cover any charge-offs, with residual amounts generally retained by the seller or credit enhancement provider as excess spread.

The cash flow waterfall for credit card securities may look like this (percentages are based on investors’ pro rata share of the outstanding receivables):

Revenue

- Finance charges 14.0%
- Annual fees 0.5%
- Late fees and other fees 1.2%
- Bank interchange 1.8%

Gross portfolio yield 17.5%

Expenses

- Investor coupon 6.0%
- Servicing expense 2.5%
- Charge-offs 5.5%

Total expenses 14.0%

Excess spread 3.5%

A decline in the actual performance of the loan pool from the original assumptions can quickly erode the expected spread.

During a revolving period, the issuer uses monthly principal collections to purchase new receivables generated in the designated accounts or to purchase a portion of the seller's participation if there are no new receivables. If a percentage of the seller's interest falls below the prescribed level of principal outstanding because of a lack of new borrowings from the designated accounts, new accounts may be added.

The amortization period occurs next. During the amortization period, the trust no longer uses the investor's share of principal collections to purchase replacement receivables. It returns these proceeds to investors as received.

This is the simplest form of principal repayment. However, because some investors prefer more stable returns of principal, some issuers have created structures to accumulate principal payments in a trust account rather than simply passing principal payments through to the investors as received.

For example, the trust may pay principal on a specific, or "bullet" maturity date. Bullet maturities are typically either hard or soft, depending on how the structure pays when funds in the accumulation account are not sufficient to pay the investors in full on the scheduled maturity date. Under a hard bullet structure, a third party guarantee covers any shortfall. Under a soft bullet structure, the trust distributes the entire accumulation account to the investors and pays additional funds as received. Soft bullet structures usually include an expected maturity date and a final maturity date.

MANAGING SECURITIZATION ACTIVITIES

Institutions that have enjoyed the full range of benefits offered by securitization have established proper management systems and controls to oversee and monitor all aspects of the securitization process. Because of the risks involved in securitization, first time securitizers should thoroughly review each step of the proposed transaction before committing to it.

Institutions should develop a business plan to establish parameters for its securitization activities. The business plan should establish policies for the securitization activity, including:

- How the activity fits within the institution's overall strategic plan.
- A performance measurement process.
- A list of potential counterparties (credit enhancers, underwriters, trustees, etc.).
- A process by which management and the board of directors can be assured that adequate controls, procedures, systems, and risk analysis techniques will be maintained throughout all phases of the securitization process.

The business proposal should at least provide a description of the following:

- Proposed products, markets, and business strategy.
- Risk management considerations.
- Methods to measure, monitor, and control risk.
- Accounting, tax, and regulatory implications.
- Legal implications.
- Necessary information system enhancements or modifications.

Many key parties will be involved, including accounting, information technology, finance, legal, audit, credit risk, and senior line management. All affected departments should review and comment on the proposal. A rigorous approval process for new products and activities lessens the possibility that management might underestimate the level of due diligence needed for proper risk management and the ongoing resources required for effective process management.

Independent Risk Management Function

Institutions engaged in securitizations should have an independent risk management function commensurate with the complexity and volume of securitization activity and overall risk exposure. The risk management function should ensure that securitization policies and operating procedures, including clearly articulated risk limits, are in place

and appropriate for the institution's circumstances. A sound asset securitization policy should include or address, at a minimum:

- A written and consistently applied accounting methodology.
- Regulatory reporting requirements.
- Valuation methods, including FAS 140 residual value assumptions, and procedures to formally approve changes to those assumptions.
- Management reporting.
- Exposure limits and requirements for both aggregate and individual transaction monitoring.

It is essential that the risk management function monitor origination, collection, and default management practices. This includes regular evaluations of the quality of underwriting, soundness of the appraisal process, effectiveness of collections activities, ability of the default management staff to resolve severely delinquent loans in a timely and efficient manner, and the appropriateness of loss recognition practices.

Because the securitization of assets can result in current recognition of anticipated income, the risk management function should pay particular attention to the types, volumes, and risks of assets being originated, transferred, and serviced. Both senior management and the risk management staff must be alert to any pressures on line managers to originate abnormally large volumes or higher risk assets in order to sustain ongoing income needs. Such pressures can lead to a compromise of credit underwriting standards. This may accelerate credit losses in future periods, impair the value of retained interests, and potentially lead to funding problems.

The risk management function should also ensure that appropriate management information systems (MIS) exist to monitor securitization activities. Reporting and documentation methods must support the initial valuation of retained interests and ongoing impairment analyses of these assets. Pool performance information has helped well-managed institutions to ensure, on a qualitative basis, that a sufficient amount of economic capital is being held to cover the various risks inherent in securitization transactions.

The absence of quality MIS will hinder management's ability to monitor specific pool performance and securitization activities more broadly. At a minimum, MIS reports should address the following:

- **Securitization summaries for each transaction.** The summary should include relevant transaction terms such as collateral type, facility amount, maturity, credit enhancement and subordination features, financial covenants (termination events and spread account capture "triggers"), right of repurchase, and counterparty exposures. Management should ensure the summaries are distributed to all personnel associated with securitization activities.
- **Performance reports by portfolio and specific product type.** Performance factors include gross portfolio yield, default rates and loss severity, delinquencies, prepayments and payments, and excess spread amounts. The reports should reflect performance of assets, both on an individual pool basis and on total managed assets. These reports should segregate specific products and different marketing campaigns.
- **Vintage analysis for each pool using monthly data.** Vintage analysis helps management understand historical performance trends and their implications for future default rates, prepayments, and delinquencies, and, therefore, retained interest values. Management can use these reports to compare historical performance trends to underwriting standards, including the use of a validated credit-scoring model, to ensure loan pricing is consistent with risk levels. Vintage analysis also helps in the comparison of deal performance at periodic intervals and validates retained interest valuation assumptions.
- **Static pool cash collection analysis.** This analysis entails reviewing monthly cash receipts relative to the principal balance of the pool to determine the cash yield on the portfolio, comparing the cash yield to the accrual yield, and tracking monthly changes. Management should compare the timing and amount of cash flows received from the trust with those projected as part of the FAS 140 retained interest valuation analysis on a monthly basis. Some master trust

structures allow excess cash flow to be shared between series or pools. For revolving asset trusts with this master trust structure, management should perform a cash collection analysis for each master trust structure. These analyses are essential in assessing the actual performance of the portfolio in terms of default and prepayment rates. If cash receipts are less than those assumed in the original valuation of the retained interest, this analysis will provide management and the board with an early warning of possible problems with collections or extension practices, and impairment of the retained interest.

- **Sensitivity analysis.** Measuring the effect of changes in default rates, prepayment or payment rates, and discount rates will assist management in establishing and validating the carrying value of the retained interest. Management should perform stress tests at least quarterly. Analyses should consider potential adverse trends and determine “best,” “probable,” and “worst case” scenarios for each event. Other factors to consider are the impact of increased defaults on collections staffing, the timing of cash flows, “spread account” capture triggers, overcollateralization triggers, and early amortization triggers. An increase in defaults can result in higher than expected costs and a delay in cash flows, decreasing the value of the retained interests. Management should periodically quantify and document the potential impact to both earnings and capital, and report the results to the board of directors. Management should incorporate this analysis into their overall interest rate risk measurement system.² Examiners will review the analysis conducted by the institution and the volatility associated with retained interests when assessing the Sensitivity to Market Risk component rating.
- **Statement of covenant compliance.** Management should affirm at least monthly compliance with deal performance triggers as defined by

² Under the Joint Agency Policy Statement on Interest Rate Risk, institutions with a high level of exposure to interest rate risk relative to capital will be directed to take corrective action. Thrift institutions can find OTS guidance on interest rate risk in Thrift Bulletin 13a - Management of Interest Rate Risk, Investment Securities, and Derivative Activities.

the pooling and servicing agreements. Performance triggers include early amortization, spread capture, changes to overcollateralization requirements, and events that would result in servicer removal.

During initial due diligence for securitization transactions, the underwriter (often an investment banker), the rating agencies, and the independent outside accountants thoroughly review the institution’s securitization process. The institution’s internal oversight is also critically important throughout the process and while any securities are still outstanding.

The institution’s risk control unit should report directly to a senior executive to ensure the integrity of the process. The unit, which should evaluate every role the institution has in securitization, should pay special attention to the origination and servicing operations. In the origination area, the unit should take significant samples of credit actions, verify information sources, and track the approval process.

In the servicing area, the unit should track payment processing, collections, and reporting from the credit approval decision through the management and third party reporting process. The purpose of these reviews is to ensure that activities are consistent with policy and trust agreements and to detect operational weaknesses that might leave the institution open to fraud or other problems. Risk managers often suggest policies or procedures to prevent problems, such as documenting exceptions to the institution’s policies. You should follow up on any irregularities discovered in the audits and discuss them with senior management.

Monitoring Securitization Transactions

Management should use the MIS reports to monitor the performance of the underlying asset pools for all outstanding deals. Although the institution may have sold the ownership rights in controlling the assets, the institution’s reputation as an underwriter or servicer remains exposed. To control the effect of deterioration in pools originated or serviced by the institution, management should have a systematic monitoring process to track pool quality and performance throughout the life of the transactions.

Management reports on revolving transactions (credit cards, home equity lines, etc.) should cover, at a minimum:

- The portfolio's gross yield.
- Delinquencies.
- Number and status of re-aged accounts.
- Charge-off rates.
- The base rate (investor coupon plus servicing fees).
- Monthly excess spread.
- The rolling three month average excess spread.
- The monthly payment rate.
- Servicing advances.

Management reports of securities backed by installment loans (automobiles, equipment leases, etc.) should cover, at a minimum:

- The charge-off rate.
- The net portfolio yield.
- Number and status of extended, deferred or re-written accounts.
- Delinquencies (by age and severity).
- Principal prepayment speeds.
- Outstanding principal compared to original security size.
- Servicing advances.

SECURITIZATION RISKS

The primary risks associated with securitization activities are related to strategic planning, credit, earnings and capital management, liquidity, credit quality of the remaining on-book portfolio after securitization, servicing, compliance, market, reputation, and fiduciary/trustee exposures.

The types and amounts of risk will vary with the roles played by financial institutions in the securitization process, transaction structures, activity volumes, the risk and duration of underlying assets, and the amount of credit risk of any retained interests.

The purpose of your review is to assess the effect of the various securitization risks on the institution's overall financial condition and performance. The risks are often difficult to identify completely, as their form may be masked by holding company, affiliate, and servicing relationships within the corporate structure.

You should determine whether management promptly and properly identifies and controls the risks from the institution's securitization activities, and that capital levels reflect these risks. Your conclusions from this evaluation will determine an institution's CAMELS composite and component ratings, other risk assessments, and the adequacy of its capital.

Effective securitization risk management requires the institution to do the following:

- Understand and control the amount of risks involved in the entire transaction.
- Identify the risks transferred from one party to another, and the risks it retains.

Invariably, the selling institution will retain some risks of the securitization. Securitization transactions often receive substantial attention early in their lives, but the level of scrutiny often declines over time. Many of the problems that institutions have experienced, such as rising delinquencies and charge-offs, inaccurate investor reporting, and bad publicity, occurred in the later stages of the transaction. The institution should carefully supervise and monitor a transaction for the entire duration of its involvement.

The following subsections highlight the primary risks and management practices that should be in place at financial institutions involved in asset-backed securitization.

Strategic Risk

Strategic risk is the risk to earnings and capital arising from adverse business decisions or their improper implementation. This risk involves the compatibility of an organization's strategic goals, the business strategies developed to achieve those goals, the resources deployed against those goals, and the quality of implementation.

Securitization is an activity that can involve almost every major role played by a financial institution, including lending, servicing, credit enhancing, financial engineering, fiduciary, and distributing. The strategic decision to participate in securitization should be made in the context of an institution's overall growth, profitability objectives, funding alternatives, operational capacities, and capital strength.

The assessment of an institution's strategic risk exposure includes the long term effects of securitization operations, profitability, and asset/liability management. Exposure increases when transactions are undertaken without due consideration of their long term internal resource requirements. For example, while the existing systems and collection department resources may be adequate for current operations, securitization transactions are often accompanied by rapid growth in the volume of lending and the need for more timely and precise reporting requirements. At a minimum, this may require improved computer systems and software and dedicated collections, operational, and reporting personnel.

Prudent Risk Management Practices

Institutions should integrate securitization activities into critical planning processes, such as the firm-wide strategic plan, asset/liability management plan, contingency funding plans, and the capital plan. Management should consider measures of retained risk and/or the potential exposure of earnings and capital in each of these areas under expected and stressed market conditions.

Management and the board of directors of first time securitizers should ensure that the proposed process has been thoroughly reviewed by all affected departments before the first transaction. Securitizers should assign responsibility for managing securitization to a dedicated individual or department. The manager or group should have the experience and skills to understand the various components of securitization and the authority to communicate and act across product and department lines. The manager should consider the effects that proposed changes in policies or procedures on origination or servicing may have on outstanding or future securitization issues. Management should understand and approve any material changes to a securitization

program. A rigorous approval process for new products or activities lessens the risk that management may underestimate the level of due diligence required for risk management or the ongoing resources required for process management.

Credit Risk

A post-mortem analysis of failed securitizers usually points to poor underwriting, poor credit management, and/or the originator's penchant for investing in extremely high risk assets. During the early stages of the securitization, originators believed that when their loans were securitized and sold, most credit risk was transferred to the investors. This assumption has been proven repeatedly to be inaccurate, as credit losses on the asset pools have often been the root cause of the failures of such securitizers.

Securitizers often underestimate the credit risks retained in portfolios they have securitized. While the originating/selling institution may transfer some of its credit risk to investors in a securitization, it will often retain substantial interests (of various forms) in the asset pool. The interests retained by the institution often provide credit support for the rest of the pool, and thus embody a concentrated form of credit risk.

The retained credit risk of the underlying assets is the greatest risk of securitization. Any shortfall in the cash flows due to losses in the loan pool affects the value of the interests providing credit support first, as those interests are the last to be paid. As a result, the residual interest holder is in a "first dollar loss" position and is exposed to the credit and other risks from the entire loan pool.

Because originating institutions will absorb virtually all of the expected losses and most of the unexpected losses from both on-balance-sheet and securitized loan pools, the best overall protection against credit risk is to generate high quality loans. Institutions can only accomplish this through the establishment and maintenance of sound credit standards, a strong, independent internal loan review function, and effective internal controls over all its lending and servicing activities.

It is also critical that experienced lending managers, not investment bankers, marketing, or other vol-

ume-oriented parties, set and maintain the institution's lending standards. Sustained periods of dramatic growth and aggressive "teaser-rate" and other "special offers" are often early indicators of market-driven lending programs that may indicate compromised lending standards.

If an institution engages in high volumes of poor quality lending, it will be exposed to a substantial level of credit risk. Institutions should not assume that they can "manage" the additional levels of risk by transferring much of the credit risk through securitizations, higher pricing, and high loan volumes. Loan volume often creates more problems than it solves. Large spreads created by high loan pricing often prove inadequate, as losses and prepayments can easily exceed projections.

Charging higher interest rates for high risk borrowers may seem like an attractive strategy. However, borrowers will avoid those high rates if they can. For example, if subprime borrowers' credit condition improves, they are likely to refinance their existing loans into ones with lower rates. As a result, excess servicing spreads disappear, making residual interest-only (IO) strips based upon them worthless. If, on the other hand, their financial condition worsens, they default and again the express spread disappears.

Overly optimistic projections of loan performance have led securitizers to undertake larger and larger volumes of high risk loans. The sheer volumes of these loans create servicing, collections, operating expense, information systems, and liquidity challenges. When such problems are combined with higher than projected losses, the institution may fail. Consequently, institutions should be conservative in estimating pool performance projections.

Poorly designed employee compensation plans have resulted in poorly performing asset pools. Compensation plans for the lending, underwriting, and servicing staff should balance short term and long-term interests. You should consider criticizing plans that disproportionately reward production staff based on the volume of originations without regard to underwriting standards. Servicing compensation should not be tied to incentives that encourage collection staff to re-age or renew loans in an effort to mask true delinquency levels.

Some red flags to consider when evaluating the origination and account management activities of institutions with securitization programs include:

- Poor underwriting.
- Poor credit risk management.
- The originator's penchant for investing in extremely high risk assets and then retaining residual interests in the securitization.
- Disproportionate production pay incentives.

Prudent Risk Management Practices

Management should be diligent in its ongoing managing and monitoring of credit risk in securitization activities. A key component of managing credit risk is proper product offering, underwriting, and account management activities. Consequently, an institution should select a sound loan program, then properly underwrite, and manage the underlying assets. Management should identify, measure, monitor, and control the credit risk retained by the institution.

Loss Exposure

Management must evaluate how much risk the institution retains after the securitization. In most securitization structures, credit risks are allocated so that the transferor, with its retained interests, bears default losses up to a predefined point, typically at a level based on historical losses and projected performance. The transferor's exposure is a function of its retained interests, including the excess portfolio yield. As pool performance deteriorates and charge-offs increase, excess spread, which would normally be returned to the institution, declines. Once the excess spread is exhausted, the risk of credit default customarily shifts to the credit enhancers, typically up to some additional multiple of projected losses. Only losses above these multiples are borne by investors.

Remaining On-Balance-Sheet Exposure

Securitization prices and marketability increase with the quality of the underlying assets and the predictability of their cash flows. Higher quality assets also require less credit support in the form of excess collateral or seller-retained interests. This

may tempt institutions to “cherry pick” loans that go into the securitized portfolios, leaving lower quality loans on their balance sheets. If this significantly increases the risk profile of the institution, you should consider requiring additional capital and allowance for loan losses for its remaining on-balance-sheet assets. This risk is addressed more fully below in the section on adverse selection.

Moral Recourse

Most prospectuses of asset-backed securities clearly state, “The offering is not an obligation of the issuing institution.” Despite this absence of a legal obligation, an issuer may feel compelled to protect its name and reputation in the securitization marketplace by providing support for poorly performing asset pools. Because issuers in the past have taken steps to prevent ratings downgrades or early amortizations, investors may have come to expect sponsors to support distressed issues.

The decision to provide support for poorly performing asset pools is difficult. It entails the immediate cost of the noncontractual support given, and it may entail other accounting, legal, and regulatory issues. If an institution provides support for one securitization, OTS may disallow the sale treatment on some or all of the issuer’s other securitized transactions. This can have a critical impact on earnings and capital.

You should realize, however, that rescuing an issue from early amortization and losing the sale treatment may be the better of two unfavorable outcomes, since early amortization could affect future securitization activities, as well as the ratings of the institution’s other transactions. Nevertheless, you should review such actions and consider the likelihood that the institution will find itself compelled to provide such support for its other issues.

Other Securitization Risks

Modeling and Valuation Risk

Institutions that securitize assets should follow FAS 140 in accounting for their securitized transactions. Under this accounting rule, transactions that qualify as a sale must recognize any “gain-on-sale” at the time of the securitization. This gain is effectively an

acceleration of earnings that flow through to the equity account on an after-tax basis. The capitalized asset, commonly a residual asset or IO strip, represents the present value of the anticipated future excess spread cash flow. The recorded investment in these assets and the resulting contributions to earnings and equity are dependent on assumptions related to the life of the asset and the future timing and amount of cash flows, including charge-offs, loss severity, prepayment rates, and discount rates.

The process of accelerating earnings based on future expectations increases the potential for earnings and capital volatility. While federally insured depository institution regulatory capital requirements require dollar-for-dollar risk-based capital coverage of IO strips, any material impairment of these assets will result in declines to GAAP earnings and capital levels. Notwithstanding the coverage required under regulatory capital rules, sudden and sizeable write-downs or restatements of earnings and capital may trigger concerns among funds providers, shareholders, customers, and employees.

Residual interests in securitized loans can be among the most volatile assets on the balance sheet. Institutions may have to take large write-downs of residual interests if actual conditions vary from the assumptions management uses in its valuation model or if the model itself is flawed. For example, institutions may have to write-down IO strips if prepayment speeds are faster than assumed, portfolio yields are lower than expected, asset quality performance is less than anticipated, or appropriate discount rates are higher than assumed.

During an examination, you should review all aspects of the valuation process. Several red flags may exist that warrant a detailed review of an institution’s modeling and valuation process, including:

- Inconsistency and over optimism in the initial and ongoing valuation of residual interests.
- Questionable valuation methods have included incorrect cash flow modeling, unsupported loss assumptions, inaccurate prepayment estimates, and inappropriate discount rates. *Note:* As residuals typically have no liquid secondary market, their estimated market values are diffi-

cult to verify. This lack of verifiability has sometimes led to disagreements with institutions and their accounting firms about proper valuation.

- Poor documentation with which to confirm that underlying assumptions are well supported, reasonable, and consistent.
- Significant differences between assumptions and actual performance.

Residual interests are exposed to a significant level of credit and interest rate risk that make their values extremely sensitive to changes in the underlying conditions. As a result, their value may provide little real capital support, particularly in times of stress.

You should review the original assumptions used in the valuations, compare them with actual performance, and require valuation adjustments if the underlying assumptions are not reasonable or properly supported.

The method and key assumptions used to value the retained interests and servicing assets or liabilities must be reasonable and fully documented. The key assumptions in all valuation analyses should be conservative, logical, and consistent. It is important that management quantifies the assumptions at least quarterly and maintains supporting documentation for all changes made. Institution policies should define the acceptable reason for changing assumptions and require appropriate management approval.

Subprime Residual Valuation Issues

Securitized subprime loan pools present an even greater challenge for the proper valuation of residuals and servicing rights for several reasons. First, by definition, subprime loans are extensions of credit to borrowers with weak credit histories. The ability of these borrowers to make loan payments is very sensitive to changes in economic conditions. A slowdown in the economy can lead to a substantial increase in subprime mortgage delinquencies, while having little impact on the performance of prime mortgages.

Second, given the relative newness of subprime lending, institutions' involvement in the subprime

market has also not been tested during a period of prolonged economic downturn. Higher than expected default rates reduce the value of residual assets, as these are in the most junior position, and of the servicing rights, as future payments cease and collection costs increase when loans default.

Third, subprime borrowers will refinance their loans to reduce the interest they pay both if overall interest rates drop, and if their credit ratings improve. This second aspect (credit-induced prepayment) is a phenomenon not experienced with prime mortgages, and further complicates the valuation of subprime servicing rights.

Other Credit Issues

Stress testing. Institutions should use cash flow projection models to estimate the performance and value of their securitized asset pools. These models trace projected funds through the proposed transaction structure, and account for distribution of cash flows through a variety of performance scenarios. Typically, loan performance and the resulting cash flows will vary significantly, depending on differing market and economic conditions. Institutions should subject their proposed structures to several iterations of stress testing to provide better insight into the potential loss exposures of the institution, of other credit enhancers, and of investors under most likely and worst case scenarios.

The effectiveness of modeling in providing useful performance projections depends on the originator's adherence to prudent underwriting standards. Models can become outdated or results skewed because of incomplete or inaccurate information. To control potential weaknesses in the models, management should back-test their model results regularly, re-validating the logic and algorithms used and ensure the integrity of the data entry and assumptions.

Vintage analysis. Thrift management should perform vintage analysis to track delinquency, foreclosure, and loss ratios for similar products over comparable time periods. The objective is to identify sources of credit quality problems early so that management can take corrective action.

Because loans do not reach peak delinquency levels until they have seasoned for several months or even years, tracking the payment performance of loans

over time allows the institution to evaluate the quality of newer loans over comparable timeframes. It then can benchmark a new loan cohort against previous groups to predict the effect that aging will have on its future performance.

Prudent Risk Management Practices

Management should use conservative and well-supported assumptions when determining the value of residual assets. Even well supported assumptions can change due to changes in the marketplace. Management should perform periodic stress testing of assumptions to identify and quantify the potential impact to earnings and capital levels of deviations from the assumptions being used. An independent third party, who may include independent auditors or others, should validate the assumptions and modeling process to ensure accuracy.

Management information systems should track historical performance as well as actual cash collections. Management should compare the timing and amount of cash flows received from the trust with those projected as part of the residual valuation analysis. Vintage analyses and monitoring of current positions and trends against early warning triggers are also standard tools that institutions use to oversee securitization activities.

As part of the ongoing residual valuation process, the unit responsible for valuing the residual asset should discuss the forecasts used to develop assumptions with the business unit responsible for underwriting. The units should discuss any changes in underwriting and their potential impact to valuation assumptions including default rates, prepayment speeds, and loss severity. The underwriting group should also work with the servicing area to ensure technology and staffing resources are sufficient to manage potential increases in delinquencies and default levels.

Liquidity Risk

Liquidity risk arising from securitization activities can be heightened by over dependence on a single segment of the capital markets. Securitization transactions involving unfunded or revolving credit lines may be a drain on an institution's liquidity position if the institution has to make future ad-

vances on these accounts. This risk threatens firms that do not control maturities of individual securitized transactions with overall planned balance sheet growth. In certain situations, servicing obligations may also require the institution to advance funds to investors and other parties prior to receiving payments from underlying borrowers.

A concentration or over reliance on any funding source or market, including the asset-backed markets, can increase liquidity risk. Over reliance exists if an institution is not able to meet its strategic objectives without that specific funding source. Due to the credit sensitive nature of the capital markets, securitization may be subject to market disruptions, either temporary or long term in nature.

Liquidity risk is directly related to the degree of dependence on securitization as a funding source. Disruptions in the asset-backed securities market or deterioration in an institution's financial condition, particularly its asset quality or servicing capabilities, may limit the asset-backed securities market as a reasonably priced source of liquidity.

Extensive reliance on securitization as a funding source creates incentives for institutions to engage in questionable market practices to ensure the continued availability of funding. Most, if not all, of the pressures associated with institutions retaining risk and implicitly supporting past issue securitizations are based on the desire to maintain ongoing access to securitization markets.

This pressure grows exponentially when securitization becomes the only viable method of funding ongoing operations and meeting business objectives. The substantial fixed costs associated with establishing and maintaining origination and servicing facilities and staff require a continual high volume of originations and securitizations. Competitive pressures from firms entering this business have also exacerbated these problems by narrowing margins and increasing prepayments as borrowers refinance, leaving one lender for another that offers a better deal.

Both the scheduled and early amortization of outstanding asset-backed securities containing revolving or unfunded credit lines may result in the institution having to fund any new advances itself, with its own on-balance-sheet cash resources. In

each case, the originating institution must make a decision to grant future advances to customers or to terminate the credit relationship. If the accounts are of reasonable credit quality, the institution's trade-off is one of maintaining desired customer relationships at the cost of on-balance-sheet funding.

Other liquidity issues related to securitization that can affect the institution's cash position include servicer obligations and/or liquidity agreements. As a servicer for certain asset types, a financial institution may be responsible for managing the timing differences between payments on the underlying collateral and the scheduled note payments by making advances. In addition, the institution may act as a liquidity agent for its own securitization transaction or may provide a liquidity facility for third parties.

Prudent Risk Management Practices

Current and planned securitization activities should be a critical factor in both day-to-day liquidity management and the contingency funding planning processes. Ideally, the institution's investor base will be deep and diverse. Concentrations among just a few sources raise the risk of losing access to the capital markets at a reasonable cost. Management should allocate the appropriate resources to expand its investor base.

Management should actively control the scheduled maturities for their outstanding securitization transactions. An institution with several issues maturing at the same time may experience difficulty accessing the securitization market if there has been some type of market disruption. In addition, problems facing other issuers of a similar product type or asset class may result in a temporary increase in funding costs, even for an institution whose portfolio is performing as expected. Rating agencies will also consider the mix of funding and maturity ranges for an issuer. Issuers need to maintain and regularly demonstrate the flexibility to manage transaction maturities and fund assets in different markets in the event of a disruption in the asset-backed securities market.

Securitization of assets that contain revolving and/or unfunded credit lines require management to prepare for the possible funding of future advances on the institution's balance sheet as a result of ei-

ther scheduled or early amortization. The liquidity implications of financing new advances under scheduled amortization can be managed by staggering the maturity periods of transactions and through the maintenance of sound underwriting and servicing processes.

Although the probability of an early amortization event may be extremely low, the impact of such an occurrence will likely be quite severe. Management should continually monitor the performance of the underlying asset pool and other factors that might trigger an early amortization. Effective monitoring will allow the institution to better manage the situation. Beyond enhanced monitoring systems and treasury preparations, institutions that securitize these types of assets should also maintain an adequate level of capital to facilitate access to alternative funding sources.

Management should understand the obligations under the various types of servicing agreements and liquidity facilities and incorporate into ongoing liquidity planning. Management should incorporate expected and unexpected cash requirement into liquidity plans, and maintain adequate levels of capital to cover this potential funding obligation.

All outstanding transactions should be monitored as part of day-to-day liquidity management. The contingency planning process should contemplate both short and long term interruptions in the asset-backed market. At a minimum, contingency plans should explore a series of progressively severe funding scenarios and practical alternative sources to meet short run liquidity requirements. The need for the plan to identify alternate sources or contingency business plans will increase in direct proportion to the prospect that the institution may lose access on economically reasonable terms. Access to several alternative sources should enable institutions to ride out market disruptions or buy enough time to restore market confidence without facing a liquidity crisis. The maintenance of a strong capital base is a primary line of defense that should provide comfort to prospective fund providers.

You should determine the degree of an institution's reliance on securitization as a funding source. In general, firms establish policy limits on the percent of an asset class that can be securitized. However,

these limitations would vary depending upon the institution's contingency funding plan, liquidity sources, capital position, and overall strength of risk management.

Adverse Selection, ALLL, and Capital

Securitization lends itself to the use of a diverse pool of high quality assets that provide a reasonably predictable cash flow stream. This can result in institutions securitizing their higher quality assets, leaving comparatively lower quality assets, and perhaps assets with more concentrated risk characteristics, on the balance sheet. This pattern is particularly evident at institutions executing their first few transactions as well as with asset classes where an asset-backed market has not yet fully developed. In either case, if not controlled, the consequences can be inadequate capital and/or allowance for loan and lease losses (ALLL) at the institution or for a specific group of loans in the loan portfolio.

When an institution securitizes receivables, it makes certain representations and warranties regarding those receivables. If some receivables do not meet the representations and warranties provided by the seller, the seller might have to repurchase any deficient receivables or substitute them for qualifying receivables. If the institution repurchases defective receivables or makes substitutions, its balance sheet may both increase in size and decline in quality. This may present a supervisory concern should such repurchases or substitutions be significant.

At institutions where gains from the sale of securitized assets are a significant portion of earnings and/or capital, the annuity-like earnings stream that would have existed if the assets remained on the balance sheet will be diminished. The combination of infrastructure investment and accounting ramifications often makes earnings and capital growth highly dependent on future origination volumes. The high volume nature of securitization along with the accompanying investment in infrastructure (particularly technology and personnel) creates an incentive for management to reduce underwriting standards in an attempt to maintain origination volume. This would be exacerbated in a broadly declining credit environment.

Compensation plans with a short term orientation also may provide incentive for employees to generate high volumes of loans at the expense of quality controls. Adverse implications exist not only for retained loans, but also for the quality of the institution's capitalized assets associated with a sale and the institution's reputation in the market if one or more vintages of loans are markedly sub-par.

Prudent Risk Management Practices

As management contemplates its initial and ongoing use of securitization, it should perform pro forma assessments of capital and the ALLL. Management should formally consider the implications of disproportionately higher quality assets being sold and comparatively lower quality assets being retained. Management should also adjust both capital and ALLL levels as needed to reflect the remaining mix of assets relative to both quality and concentration characteristics.

Management reports should monitor the performance of the underlying asset pools for all deals. To control the impact of deterioration in pools originated or serviced, a systematic reporting process should be in place allowing management to track pool quality and performance throughout the life of the transaction.

If the credit environment deteriorates or the institution does not have the appetite or capability to manage continued growth, prudence would dictate a reduction in originations. For institutions relying heavily on securitization gains, contingency plans should exist either to absorb the less productive overhead into the existing earnings and capital structure or to employ technology and personnel in alternative activities.

Both you and institution management should review the underwriting standards for loans originated by third parties and the institution's quality assurance process to verify compliance with the institution's internal underwriting standards. Pay special attention to issuers who securitize loans originated by outside third parties, to ensure volume pressures do not result in systematic or uncontrolled degradation of retained and securitized asset quality. Also review the incentive pay structure of internally generated production.

Management should also plan for the risk associated with having to reacquire “defective” receivables. If an issuer is active in the securitization market and has a proven track record, the risk related to representations and warranties is likely to be relatively small. In contrast, inexperienced issuers and institutions with previous problems relating to representations and warranties may face greater risk, warranting incrementally higher levels of capital support.

Servicing and Operational Risk

Retaining the servicing on securitized portfolios can help thrift institutions increase their loans under management and achieve economies of scale in areas where they may have a comparative advantage due to technology, skilled personnel, and facilities.

Securitization transactions are governed by detailed, lengthy, and complex contracts. Management must fully understand the institution’s servicing obligations under these contracts, and must have the resources, including capital, to fulfill its obligations.

The servicer’s primary contractual responsibilities are the collection and transmittal of funds received from the underlying borrowers to the trustee and/or investors, account maintenance and recordkeeping, performance reporting, and collection of past due accounts.

Servicing obligations can pose a risk to earnings and capital should the cost of servicing securitized assets exceed projections or expected revenue not materialize. Servicing costs and revenues are a function of volume, the quality of assets being serviced, the structure of the transactions (revolving or amortizing), the maturity/duration of the underlying assets, including the speed of prepayments, the technology used, the complexity of the servicing process, and the ability and experience of servicing personnel.

Servicing subprime loans is riskier than servicing prime loans. It is easy to underestimate the high cost of servicing such loans or the speed that performing loans will be prepaid. Subprime loans default more frequently than prime loans, and, as a result, have far more repossessions and foreclosures than prime loans. A subprime servicer must have a

larger collection staff, facilities, systems, administrators, legal support, and capital to meet its servicing contractual obligations. If credit conditions unexpectedly deteriorate, servicing costs can rise substantially, changing servicing from an asset to a liability.

Institutions that retain servicing in a securitization are vulnerable to additional pressures. The value of their residual interest in the securitization is typically based in part on the excess servicing spread. To maintain the recorded value of its residual interest, the institution, as a servicer, may feel pressured to delay recognition of delinquencies and losses in the asset pool it services. It may do so to maintain the appearance that the income is there to support the current valuation of its residual interest.

Prudent Risk Management Practices

Management should ensure that the personnel, technology, and reserves, including capital, are in place to support the associated transaction risks. To reduce the institution’s exposure, management should evaluate staffing, skill levels, and the capacity of systems to handle the projected type and volume of transactions.

When contemplating and implementing uses of technology, institution management should engage in a rigorous analytic process to identify and quantify risks and establish risk controls to manage exposures. Before engaging in securitization, management should ensure the servicing platform provides timely and accurate information on both securitized assets and the on-balance-sheet portfolio. The servicing personnel and platform should be compatible with new types of borrowers and/or products offered. A quality assurance process should monitor reports regarding asset quality and analyze customer complaints regarding servicing problems.

The expected growth in the volume of securitized assets and its impact on servicing capabilities should be a critical part of long-range technology planning. Ongoing periodic reviews of system capacity should consider the types of assets being serviced (revolving vs. nonrevolving, prime vs. subprime, etc.) and the expected lives of the securitization transaction and the underlying assets. Since effective servicing platforms are heavily reliant

upon the use of technology and information systems, management must ensure appropriate back-up systems and contingency plans are in place and tested periodically.

Compliance Risk

Consumer laws and regulations, including fair lending and other antidiscrimination laws, affect the underwriting and servicing practices of institutions even if the receivables are later securitized. Therefore, institutions do not eliminate compliance risk simply through the securitization process. Assets originated for securitization purposes and those that have been securitized should be included within the institution's compliance program.

As previously noted, securitization lends itself to higher quality and diverse asset pools. Because of the need for predictable cash flows imposed by the secondary market, management may be less likely to originate loans in certain geographic areas or to borrowers below minimum income levels. Banks and thrifts that concentrate origination and servicing activities in high quality asset types may, albeit unintentionally, engage in "economic" redlining.

Prudent Risk Management Practices

Institutions should ensure that firm-wide capital levels sufficiently compensate for the compliance risk associated with both on-balance-sheet assets as well as assets originated but sold via securitizations. Specifically, the capital allocation process and level of capital held for compliance risk related to securitized assets should be similar, if not identical, to capital for compliance risk associated with on-balance-sheet receivables. Internal audits or quality control reviews for compliance should not segregate assets based upon their securitization status.

Senior management with securitization programs should be cognizant of the possibility of fair lending violations and must meet the requirements of the Community Reinvestment Act as well as the institution's own corporate responsibility objectives.

Market Risk

Securitization can provide matched funding, and, if transactions are structured carefully, can be an effective means of managing market risks. Institutions often hedge interest rate risk inherent in securitization transactions. However, some market participants erroneously assume that the seller no longer faces market risks, including interest rate risk, simply because the receivables are transferred off the balance sheet.

Depending on the structure, the excess spread received by the seller may be subject to fluctuations in interest rates. For example, the seller faces interest rate risk when fixed rate receivables are used to support a floating rate asset-backed security. If this transaction is left unhedged, as interest rates rise the coupon paid to investors increases while the portfolio yield remains constant, resulting in less excess spread received by the seller.

The seller may still be exposed to market risk even in transactions where floating rate securities are supported by floating rate receivables. The timing and magnitude of the rate change on the asset-backed security coupon may not match the timing and magnitude of the rate change on the underlying receivables. Management of institutions that securitize receivables must accurately assess the source and amount of market risk inherent in the structure and ensure that its risk management processes consider this risk.

Some issuers may access the nondollar securitization market by issuing certificates denominated in a foreign currency. If the underlying assets were denominated in U.S. dollars, any fluctuation in the value of the foreign currency relative to the U.S. dollar would directly affect the cash flows available to investors. As a result, the asset-backed securities market requires protection against potential currency risk in the form of a currency swap. Depending upon the financial stability of the third party and the structure of the swap, the institution may be subject to counterparty risk from the third party.

Prudent Risk Management Practices

Institutions that securitize receivables must accurately identify the source and quantify the amount of market risk inherent in each transaction. Institution management should monitor and control risk levels within the context of firm-wide earnings and economic value at risk limits. Institution-wide interest rate and currency risk management processes must consider all sources of market risk and ensure that capital is adequate relative to the risk assumed. The institution's independent credit approval process should review and approve all counterparties.

Fiduciary/Trustee Risk

A trustee's main responsibility is to represent the interest of the certificate holders, particularly during an event of default, including an early amortization. Other responsibilities include monitoring covenant compliance, authentication of the asset-backed securities, and enforcement of remedies during an event of default as defined in the governing document.

The structure of an asset-backed securitization transaction must be legally sound and adequately distinguish the duties and responsibilities of the transaction parties in a clear and logical manner. The trustee must be able to defend the true sale aspect of the transaction on behalf of the security holders. The trustee must ensure that the trust maintains a security interest in the underlying assets and that the entity status of the trust remains intact.

After an asset-backed securitization closes, the trustee and the servicer are normally the only entities that retain ongoing contractual duties. To fulfill its duties, the trustee is dependent on getting timely and accurate information from the servicer. A primary duty of the trustee is to assume the role of successor servicer in the event that the original servicer is removed or terminated. The trustee is most likely to be required to step in as the successor servicer if there is an event of default and subsequent termination and removal of the servicer. The successor servicer ensures that collections and other cash flows remain uninterrupted and that distributions continue to be paid to certificate holders. When the role of servicing is transferred to the trustee or a successor servicer, the portfolio is typically under-

performing, servicing records are incomplete, and significant operational remediation is required.

The appointment as trustee is typically packaged with related agency appointments of registrar, paying agent, and successor servicer. The trustee may also be asked to perform "nontraditional" roles. These enhanced agency roles include calculation agent, document custodian, tax reporting agent, and back-up servicer.

Because of the complexities of an asset-backed securitization, the trustee is at greater risk of an operational error than on a typical capital markets transaction. Operational errors may include an incorrect or missed distribution, misapplication of funds between transaction participants, incorrect investment of funds, lost collateral documentation, and the untimely or missed notification of a significant event.

Prudent Risk Management Practices

Trustee organizations must be staffed by personnel experienced in securitization and knowledgeable of a variety of asset types and transaction structures. The trustee must have an effective risk control and monitoring system. This includes appropriate account acceptance procedures, ongoing self-assessment and account review procedures, and an audit program.

Qualified trustees should have experienced account managers with a proven record of administering similar structured transactions and a familiarity of the specific asset type. Trust officers should be adequately trained in trust administration, information systems, ethical business practices, and customer service.

Trustee organizations must make significant investments in operational systems technology. The business requires a large operational staff to handle the intricate securities processing requirements such as providing registrar and bond recordkeeping services, funds disbursements, and document custodian services.

If the trustee is the successor servicer, it must either be ready to directly assume servicing responsibilities or have a well-developed plan in place to transfer servicing responsibilities to a third party.

The essential requirements for a back-up servicer include sophisticated systems, collection expertise, and an analytical staff to fulfill the servicing duties.

If the trustee serves as back-up or successor servicer and is unable to fulfill all or any part of the administrative and/or operational requirements internally, it may engage the services of a third party vendor. The appointment of a third party vendor does not replace the successor or back-up servicer's liability or contractual obligations on the transaction; however, through the engagement of a third party vendor, some or all of the relevant administrative duties can be outsourced.

Reputation Risk

Exposure to reputation risk is essentially a function of how well the internal risk management process is working in each of the risk categories affected by securitization and the manner and efficiency with which management responds to external influences on proprietary transactions. Reputation risk has a "qualitative" nature, reflecting the strength of an organization's franchise value and how other market participants perceive it.

Asset performance that falls short of expectations will reflect poorly on the underwriting, servicing, and broader risk management capabilities of the originator. Because the asset performance of securitized pools is often publicly disclosed and monitored by market participants, securitization can highlight problems that were less apparent when reported as a smaller component of overall portfolio performance.

The pricing of asset-backed securities in the marketplace reflects a number of factors including liquidity of the security, structure of the transaction and asset performance. Typically, firms perceived to have strong risk management processes and demonstrate predictable historical performance are rewarded with more efficient deal execution and tighter pricing over the life of the transaction. Notably, institutions that are experiencing problems or are perceived to be vulnerable to stressed conditions have seen their asset-backed securities trade with significantly wider bid-offer spreads and higher yields.

Prudent Risk Management Practices

For securitization activities, reputation risk is essentially a function of the quantity, discipline, and commitment of the risk management practices for each of the areas discussed above. If an institution appropriately evaluates and manages the risk in other risk categories, reputation risk should be relatively low and a comparatively lower level of capital should be needed to maintain market confidence during normal as well as stressed periods.

ACCOUNTING CONSIDERATIONS

Institutions should follow Statement of Financial Accounting Standards Statement 140, Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities (SFAS 140), for the accounting treatment of securitizations of pooled consumer assets, including credit card debt, auto loans, home equity loans and other consumer debt. SFAS 140 replaced SFAS Statement 125.

SFAS 140 provides accounting and reporting standards for transfers and servicing of financial assets and extinguishments of liabilities. These standards are based on the consistent application of a financial-components approach that focuses on legal control and recognizes that financial assets and liabilities can be divided into a variety of components. Under this approach, after a transfer of financial assets, an institution recognizes the financial and servicing assets it controls and the liabilities it has incurred, derecognizes financial assets for which control has been surrendered, and derecognizes liabilities extinguished. SFAS 140 provides consistent standards for distinguishing transfers of financial assets that are sales from those that are secured borrowings.

A transfer of financial assets in which the institution surrenders control over those assets is accounted for as a sale to the extent that consideration other than beneficial interests in the transferred assets is received in exchange. The transferor has surrendered control over transferred assets if and only if all of the following conditions are met:

- The transferred assets have been isolated from the transferor and put presumptively beyond the

reach of the transferor and its creditors, even in bankruptcy or other receivership.

- Each transferee (or, if the transferee is a qualifying special purpose entity (QSPE), each holder of its beneficial interests) has the right to pledge or exchange the assets (or beneficial interests) it received, and no condition both constrains the transferee (or holder) from taking advantage of its right to pledge or exchange the assets and provides more than a trivial benefit to the transferor.
- The transferor does not maintain effective control over the transferred assets through either (1) an agreement that both entitles and obligates the transferor to repurchase or redeem them before their maturity or (2) the ability to unilaterally cause the holder to return specific assets, other than through a clean-up call.

An institution recognizes transfers of assets sold, records the value of servicing rights and any other assets retained, records liabilities assumed, and recognizes into current income any gain or loss on the sale when a legal change in control is deemed to have taken place and the assets have been transferred to an unconsolidated vehicle such as a QSPE.

If a legal change in control of the assets has not taken place, generally accepted accounting principles will classify such a transaction as a secured borrowing. The assets will remain on the transferors' books, it must record any funds it receives as a liability and not recognize any gain or loss.

Accounting for Transfers and Servicing of Financial Assets

Institutions transferring financial assets in a securitization shall measure liabilities and derivatives assumed or incurred at fair value, if practicable. You should discuss the accounting with your Regional Accountant if fair value information is unavailable. Institutions shall measure servicing assets and other retained assets by allocating their previous carrying amount between assets sold and retained interest, based on their relative fair values at the date of transfer.

Gain or loss recognition for relatively short term receivables such as credit card balances, trade re-

ceivables, and dealer floor plan loans sold to a relatively long term revolving securitization trust is limited to the receivables that exist and have been sold (and not those that will be sold in the future pursuant to the revolving nature of the deal). Recognition of servicing assets is also limited to the servicing for the receivables that exist and have been sold.

A revolving securitization involves a large initial transfer of balances generally accounted for as a sale. Ongoing, smaller subsequent months' transfers funded with collections of principal from the previously sold balances are each treated as separate sales of new balances with the appropriate gain or loss calculation. The recordkeeping burden necessary to comply with these techniques is quite onerous, particularly for master trusts. You should consult your Regional Accountant with questions about accounting for ongoing replacement of balances.

Servicing assets and liabilities should be amortized in proportion to and over the period of estimated net servicing income or loss. A valuation allowance is recorded for servicing assets for the excess of book amount over fair value. Servicing liabilities are reported at fair value.

SFAS 140 states that a transferor may derecognize a liability if, and only if, either (a) the debtor pays the creditor and is relieved of its obligations or (b) the debtor is legally released from being the primary obligor under the liability, either judicially or by the creditor. SFAS 140 requires securitizers to disclose information about accounting policies, value, cash flows, key assumptions made in determining fair values of retained interest, and the sensitivity of those fair values to changes in assumptions. The statement requires securitizers to disclose (a) the total principal amount outstanding, the portion that continues to be recognized, (b) delinquencies, at the end of the period, and (c) credit losses during the period for securitized assets and other managed assets.

SFAS 140 differentiates between transfers of financial assets where the transferor has no continuing involvement with the transferred assets or with the transferee, and transactions where the transferor has some continuing involvement with the assets or the transferee, including recourse, servicing, agree-

ments to reacquire the assets, options written or held, and pledges of additional collateral. The seller's continuing involvement raises questions about whether a sale has actually taken place or if the parties to the transaction should account for it as a secured borrowing with pledge of collateral.

Recognition and Measurement of Servicing Assets and Liabilities

An institution as a seller must recognize either a servicing asset or servicing liability for each servicing contract when it undertakes an obligation to service loans.

An institution must initially measure servicing assets or liabilities that have been purchased or assumed at fair value. Fair value is presumed to be the price paid. Servicing assets should be amortized in proportion to and over the period of estimated net servicing income. Servicing liabilities should be amortized in proportion to and over the period of estimated net servicing losses. Servicing assets should be assessed for impairment based on fair value. Servicing liabilities should be carried at fair value.

Assets Subject to Prepayment

Interests in securitizations, such as interest-only strips, residuals, seller's or retained interest, tranches or other financial assets that can contractually be prepaid or settled in a manner that the holder would not recover substantially all of its recorded investment, should be valued at fair value and classified as available-for-sale or trading in accordance with SFAS 115, Accounting for Certain Investments in Debt and Equity Securities.

Fair Value

The fair value of an asset or liability is the amount at which that asset or liability could be bought or sold, incurred or settled, in a current transaction between willing parties (that is, not part of a forced sale or liquidation). A quoted market price in an active market is the best evidence of fair value and should be used as the basis for measuring fair value, if available.

Institutions should estimate fair value based on the best information available when quoted market prices are not available, considering prices for similar assets and liabilities and the results of any available valuation techniques. Examples of valuation techniques include the present value of estimated cash flows, option-pricing models, matrix pricing, option-adjusted spread models, and fundamental analysis.

The seller should record those assets at zero when it is not practical to estimate fair value of assets. The seller should recognize no gain on the transaction when it is not practical to estimate the fair value of liabilities and should record those liabilities at the greater of:

- The excess, if any, of the fair value of assets obtained less the fair value of other liabilities incurred, over the sum of the carrying value of the assets transferred.
- The amount that would be recognized in accordance with SFAS No. 5, Accounting for Contingencies, as interpreted by SFAS Interpretation No. 14.

Effective Date

SFAS 140 is effective for transfers and servicing of financial assets and extinguishments of liabilities occurring after March 31, 2001, and for recognition and reclassification of collateral for fiscal years ending after December 2000.

CAPITAL CONSIDERATIONS

OTS's capital regulation places strict limits on the amount of high risk credit-enhancing residuals a savings institution may hold in addition to a dollar-for-dollar capital requirement for all residuals.

The term "recourse" refers to an institution's retention, in form or in substance, of any credit risk directly or indirectly associated with an asset it has sold. A recourse obligation typically arises when an institution transfers an asset in a sale (a sale according to generally accepted accounting principles) and retains an obligation to repurchase the asset or to otherwise absorb losses on the asset. Examples of recourse obligations include:

- Assets sold under an agreement to repurchase.
- Credit-enhancing representations and warranties related to sold assets.
- Retained loan servicing with an agreement under which the savings association is responsible for losses associated with the loans serviced, with the exception of Servicer Cash Advances as defined. See 12 CFR §567.1.
- Clean-up calls on assets sold (except for clean-up calls that are 10 percent or less of the original pool balance and that are exercisable at the option of the savings association).
- Credit derivatives that absorb more than the institution's pro rata share of losses on transferred assets.
- Loan strips sold where the maturity of the transferred portion of the loan is shorter than the commitment under which the loan is drawn.
- An institution must hold dollar-for-dollar risk-based capital for most residual interests – that is, one dollar of capital for every one dollar of residual interests.
- In addition to the dollar-for-dollar risk-based capital requirement for a residual, if the asset also meets the definition of credit-enhancing interest-only strip (a subset of residual interest), then the institution must deduct from core capital (that is, tier 1 leverage capital), the amount of credit-enhancing interest-only strips that exceed 25 percent of core capital.
- A ratings based approach allows an institution to reduce its capital requirement for lower risk, highly rated recourse exposures (including direct credit substitutes and residual interests, but excluding credit-enhancing interest-only strips).
- The capital treatment for most recourse exposures is “gross-up,” whereby an institution must hold capital for the full amount of the transferred assets as if they were still on the balance sheet.

Recourse can also be implicit. Implicit recourse generally arises when a thrift institution repurchases assets, absorbs losses, or otherwise supports assets that it has sold, in instances where it is not contractually required to do so.

An institution can guaranty, purchase, or assume a recourse exposure from another organization. These exposures are referred to as direct credit substitutes. A purchased subordinated security is an example of a direct credit substitute.

Recourse exposures can also take the form of residual interests. However, residual interests are typically on-balance-sheet assets, in contrast to the above examples of recourse exposures that are off-balance-sheet. Residual interests have credit risk that exceeds a pro rata share of the total credit risk on the transferred assets. A retained on-balance-sheet first loss piece of a securitization is an example of a residual interest. Other examples include spread accounts, cash collateral accounts, and credit-enhancing interest-only strips.

Capital Requirements

There are special capital requirements for recourse exposures and residual interests:

There is an exception to this treatment for qualifying mortgages (1-4 Family Loans that would receive a 50 percent risk weight) that a thrift institution has sold, if the sales contract allows only a 120-day return period. The loans must have been originated within one year prior to sale.

There is also an exception to the gross-up treatment for low-level recourse exposures where recourse is legally and contractually limited to an amount less than the on-balance-sheet capital requirement.

For additional material on capital requirements for residual interests, recourse, and direct credit substitutes, refer to Appendix B of this Section, and to 12 CFR §567.1 (definitions) and §567.6 (risk weights).

SUPERVISORY FOCUS

While OTS generally believes that securitization can be beneficial to thrift institutions, it must be done in a safe and sound manner. To do so, the institution must identify, measure, manage, and control the associated risks as outlined in this Handbook Section. In particular, examiners should scrutinize high risk lending activities done through

securitizations that the institution would not or could not undertake directly.

We are also concerned with inappropriate valuation techniques that an institution might use to value its retained interests. Such valuations must be fully documented, based on reasonable assumptions, and regularly analyzed for any subsequent change in performance and resulting value impairment.

The best evidence of fair value is a quoted market price in an active market. If unavailable, fair value may be estimated. Such estimates must be based on reasonable, supportable, and currently valid assumptions. If an estimate of fair value is not practical, the asset should be recorded at zero in financial and regulatory reports.

Unforeseen market events that affect performance of loans supporting a retained interest can quickly alter its value. Without appropriate internal controls and independent oversight, an institution that securitizes assets may inappropriately generate “paper profits” or mask actual losses through flawed loss assumptions, inaccurate prepayment rates, and inappropriate discount rates. Liberal and unsubstantiated assumptions can result in material inaccuracies in financial statements, and subsequent write-downs of retained interest. If such interest represents a substantial portion of the institution’s capital, such devaluations could result in the failure of the institution.

Regulatory Requirements and Guidelines on Securitization

In response to the increased use of securitizations by institutions, the banking agencies published the *Interagency Guidance on Asset Securitization* in December 1999 (Securitization Guidance), which addressed supervisory concerns with risk management and oversight of these securitization programs. (See Appendix A.) The Securitization Guidance highlighted the most significant risks associated with asset securitization, emphasized concerns with certain residual interests generated from the securitization and sale of assets, and set forth fundamental risk management practices that the agencies expect institutions that engage in securitization activities to implement. In addition, the Guidance stressed the need for management to im-

plement policies and procedures that include limits on the amount of residual interests that may be carried as a percentage of capital.

The Guidance states that critical components for an effective oversight program include the following:

- Independent risk management commensurate with the complexity of the securitization activities.
- Comprehensive audit and loan review coverage.
- Appropriate valuation and modeling methodologies.
- Accurate and timely risk-based capital oversight.
- Prudent internal limits to control the amount of equity capital at risk.

Supervisory Focus

In preexamination planning as well as in conducting onsite work, you should focus your attention on institutions, and areas within institutions, that have unproven personnel, unfamiliar risk management systems, and riskier activities. Higher risk assets and rapidly growing activity volumes often translate into more challenging origination, processing, collection, reporting, and oversight responsibilities. Supervisory expectations for risk management practices and capital coverage should be proportional to the level and duration of the risks from the underlying assets, as well as the growth rate of business activities.

You should determine whether the institution’s securitization activities are conducted in a safe and sound manner and in accordance with the Securitization Guidance mentioned above as well as OTS capital regulations. You should also compare the asset performance of outstanding securitizations to industry benchmarks on both a spot and trend basis. In evaluating an institution’s securitizations relative to the industry, you should consider factors related to the risk, valuation, and the pricing of the underlying assets.

If either the risk or pricing of those assets is out of balance, then a smaller than normal excess spread would be a signal of higher risk to the institution. Credit spreads in the capital markets can also pro-

vide signals on which institutions and individual securities are underperforming.

Rating agencies will typically require greater levels of credit enhancement based on the structure of the securitization, the expected performance of the underlying assets and the experience of the issuer. You should evaluate and understand the difference in subordination levels required by the ratings agencies across issuers of similar assets, structures and securities. You should focus on institutions and transactions that have material adverse variances from benchmarks. During the examination process, determine the reason(s) for adverse performance, security structures, and/or pricing. Ensure management is taking appropriate actions to control the situation, and that capital is adequate for the risk.

You should review the institution’s valuations of and controls over securitization activities. When you identify inappropriate valuation assumptions, weak risk management practices or lax internal controls, you should direct the institution to take immediate corrective action. In situations where the institution cannot provide objective and verifiable support for the valuation of retained interests, you should classify the assets Loss and disallow them as an asset for regulatory capital purposes.

REFERENCES

United States Code (12 USC)

Chapter 2: National Banks

§ 84 Lending Limits

Home Owners’ Loan Act

§ 1464 (c) Investment Authority
 § 1468 Transactions with Affiliates and Loans to Insiders

Federal Deposit Insurance Act

§ 1813 Definitions
 § 1831e Activities of Thrifts

Code of Federal Regulations (12 CFR)

Chapter V: Office of Thrift Supervision

§ 560 Lending and Investment
 § 560.30 General Lending and Investment Powers
 § 560.101 Real Estate Lending standards
 § 561.19 Financial Institutions
 § 563.41 Loans and Other Transactions with Affiliates and Subsidiaries
 § 563.43 Restrictions on Loans, Other Investments, and Real and Personal Property Transactions Involving Affiliated Persons
 § 567 Capital Requirements

Joint Agency Issuances

Interagency Guidance on Asset Securitization Activities – December 13, 1999 (Attachment A).

Interagency Guidance on Capital Treatment for Recourse, Direct Credit Substitutes, and residual interests – November 29, 2001 (Appendix B).

Interagency Questions and Answers on the Capital Treatment of Recourse, Direct Credit Substitutes, and Residual Interests in Asset Securitizations – May 23, 2002.

Interagency Advisory on the Unsafe and Unsound Use of Covenants Tied to Supervisory Actions in Securitization Documents – May 23, 2002.

Interagency Guidance on Implicit Recourse in Asset Securitizations – May 23, 2002.

Interagency Guidance on the Regulatory Capital Treatment of Accrued Interest Receivable Related to Credit Card Securitizations – May 17, 2002.

Interagency Advisory on the Accounting Treatment of Accrued Interest Receivable Related to Credit Card Securitization – December 4, 2002.

Accounting Issuances

Financial Accounting Standards Board

Statement of Financial Accounting Standards No. 140, September 2000.

Asset-Backed Securitization Program

Examination Objectives

To determine the level of risk exposure presented by asset securitization activities and evaluate that exposure's impact on the overall financial condition of the thrift, including the impact on capital requirements and financial performance.

To determine whether the thrift is properly identifying, measuring, monitoring, and controlling the risks associated with its securitization activities.

To determine whether the thrift's strategic or business plan for asset securitization adequately addresses resource needs, capital requirements, and profitability objectives.

To determine the adequacy of asset securitization policies, practices, procedures, objectives, internal controls, and audit functions over securitization activities and valuations.

To determine that securitization activities are properly managed within the context of the thrift's overall risk management process.

To determine the quality of operations and the adequacy of Management Information Systems (MIS).

To determine compliance with applicable laws, rulings, regulations, and accounting practices.

To initiate corrective action when policies, practices, procedures, objectives, or internal controls are deficient, or when you note violations of law, rulings, or regulations.

Examination Procedures

Securitization activities present unique and sometimes complex risks. The level and type of securitization activity varies significantly among institutions. To support examination flexibility and efficiency in this environment, the examination procedures are organized as follows:

The examination procedures in the first overview section will help you determine how the thrift securitizes assets and the general level of management and board oversight. The procedures in the functions section supplement the overview section and you will typically use them for more in-depth reviews of operational areas. The procedures in Overall Conclusions will ensure that you meet the objectives of these procedures.

Many of the steps in these procedures require you to gather information from or review information with examiners in other areas, particularly those responsible for originating assets used in securitized pools (e.g., retail consumer lending, mortgage banking, credit card lending). To avoid duplicating examination procedures already being performed in these areas, you should discuss and share examination data related to asset securitization with examiners from these other areas before beginning these procedures.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

You should cross-reference information obtained from other areas in your examination work papers. When information is not available from other examiners, you should request it directly from the thrift.

Given the complexity and level of risks presented by securitization activities, the retail specialist or senior field staff examining the securitization activities of an institution should closely coordinate their activities with the examiner-in-charge (EIC). The final decision on the scope of the examination and the most appropriate way to obtain information rests with the EIC.

Overview

Wkp. Ref.

1. Obtain and review the following documents:

- Previous examination findings related to asset securitization and management's response to those findings.
- The most recent regulatory profile detailing the securitization activity and current risk profile of the thrift institution.
- Most recent internal/external audits addressing asset securitization and management's response to significant deficiencies.
- Recent monitoring reports (e.g., financial analysis reports, etc.).
- Scope memorandum issued by the EIC.
- Strategic or business plan for asset securitization.
- All written thrift policies or procedures related to asset securitization.
- A description of risk monitoring system for securitization activities and a copy of all related MIS reports, including tracking reports, exposure reports, valuation reports, and profitability analyses, etc.
- A summary or outline of all outstanding asset-backed issuances. Include the following information for each outstanding security in your work paper file:
 - The origination date, original deal amount, current outstanding balance, legal maturity, expected maturity, maturity type (hard bullet, soft bullet, controlled amortization, etc.), revolving period dates, current coupon rates, gross yield, loss rate, base rate, excess spread amounts (one month and three month), monthly payment rates, and the existence of any interest rate caps.

Exam Date: _____

Prepared By: _____

Reviewed By: _____

Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- The amount and form of credit enhancements on an issuance-by-issuance basis (overcollateralization, cash collateral accounts, spread accounts, etc.).
 - Performance triggers relating to early amortization events or credit enhancement levels.
 - Copies of (or access to) pooling and servicing agreements and/or series supplements for major asset types securitized or those targeted at this exam.
 - Information detailing the potential contractual or contingent liability from guarantees, underwriting, and servicing of securitized assets.
 - Copies of the compensation programs, including incentive plans, for personnel involved in securitization activities.
 - Current organizational chart for the asset securitization unit.
 - A list of board and executive or senior management committees that supervise the asset securitization function, including a list of members and meeting schedules. In addition, minutes documenting meetings held since the last examination should be available for review.
-
2. Determine whether any material changes have occurred since the last review regarding originations and purchases, servicing, or managing securitized portfolios.
-
3. Based on results from the previous steps and discussions with the EIC and other appropriate supervisors, determine the scope and objectives of the examination including which of the following examination procedures are necessary to meet examination objectives. You should tailor the procedures to the specific activities and risks faced by the thrift institution.
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Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

4. As examination procedures are performed, test for compliance with established policies and confirm the existence of appropriate internal controls. Identify any area that has inadequate supervision or poses undue risk, and discuss the need to perform additional or expanded procedures with the EIC.
-

Management Oversight

5. Review the thrift's securitization business plan. Determine it is appropriate for the securitization activities of the thrift and that it has been reviewed by management and approved by the board of directors.
-

6. Consider whether the business plan is reasonable and achievable in light of the thrift's capital position, size, and expertise of staff, market conditions, and current economic forecasts.
-

7. Determine whether the thrift has and is following adequate policies and operating procedures for securitization activities. At a minimum, policies should address:
- Permissible securitization activities including individual responsibilities, and limits.
 - Authority levels and responsibility designations covering:
 - Transaction approvals and cancellations.
 - Segregation of duties.
 - Counterparty approvals for all outside entities the thrift is doing business with (originators, servicers, packagers, trustees, credit enhancers, underwriters, and investors).
 - Systemic transaction monitoring.

Exam Date: _____

Prepared By: _____

Reviewed By: _____

Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- Pricing approvals.
- Risk exposure limits by:
 - Type of assets under securitization.
 - Individual transaction dollar size.
 - Aggregate transactions outstanding (because of the moral recourse implicit in the thrift institution's name on the securities).
 - Geographic concentrations of transactions (individually and in aggregate).
 - Maturities of transactions (particularly important in evergreen deals, that is, credit cards and home equity lines).
 - Originators (for purchased assets), credit enhancers, trustees, and servicers.
- Quality standards for all transactions in which the thrift plans to participate. Standards should extend to all counterparties conducting business with the thrift institution.
- Minimum MIS reports to be presented to senior management and the board or appropriate committees. (During reviews of applicable meeting minutes, ascertain which reports are presented and the depth of discussions held).

8. Review the organizational structure and determine who is responsible for coordinating securitization activities.

- Determine whether the board of directors or appropriate committee and management have a separate securitization steering committee. If so, review committee minutes for significant information.
- Determine who is responsible for major decisions and how final decisions are executed.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

9. Assess the expertise and experience of management responsible for securitization activities. Conduct interviews and review personnel files and resumes to determine whether management and other key staff members possess appropriate experience or technical training to perform their assigned functions.

10. Review incentive plans covering personnel involved in the securitization process.

- Determine that management approves incentive plans and orients plans toward quality execution and long term profitability rather than high volume, short term asset production and sales.
- Ensure that senior management and the board of directors are aware of any substantial payments or bonuses made under these plans.

11. Evaluate the pricing system used in all aspects of securitization. Determine whether decision makers use an effective pricing system to determine whether prospective transactions will be profitable and monitor cash flows and the profitability of ongoing securitizations.

Risk Management

12. Determine whether the risk management process is effective and based on timely and accurate information. Evaluate its adequacy in managing significant risks in each area of the securitization process.

- Ascertain whether management has identified all significant risks in each of the thrift's planned roles.
 - Determine how management monitors and controls these risks.
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Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

13. Determine that appropriate legal counsel has reviewed the thrift's obligations from securitization activities and all pertinent legal documents.

- Also, ensure that an independent party checks the financial and statistical information in the prospectus for accuracy.

14. Determine that the scope of credit and compliance reviews includes loans originated for securitization or purchased for that purpose.

- Ascertain appropriateness of scope, frequency, independence, and competency of reviews in view of the thrift's activity volume and risk exposure.
- Credit and compliance reviews should include:
 - Loans on the thrift's books and not yet securitized.
 - Loans in process of being securitized.
 - Completed deals that bear the thrift institution's name or in which the thrift has ongoing responsibilities (servicer, trustee, etc.).
 - How the securitization process affects the overall credit quality of the nonsecuritized portfolio.

Portfolio Management

15. Determine whether management's assessment of the quality of loan origination and credit risk management includes all managed assets (receivables in securitization programs and on-balance-sheet assets). This assessment should include reports detailing both on-balance-sheet assets and off-balance-sheet assets. The assessment should include:

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- A review of the number and dollar volume of existing past-due loans, early payment defaults, and repurchased loans from securitized asset pools. The review should also compare the thrift's performance to industry and peer group averages.
- An analysis of the cause of delinquencies and repurchases.
- The effect on delinquencies and losses of altered underwriting practices, new origination sources, and new products.
- Determination of whether repurchases or other workout actions compromised the sales status of problem credits or related assets.
- Credit quality trends of each overall portfolio (e.g., score distribution).

16. Determine whether the thrift performs periodic stress tests of securitized asset pools. Determine whether these tests:

- Consider the appropriate variables affecting performance according to asset or pool type.
- Are conducted well in advance of approaching designated early amortization triggers.
- Are adequately documented.
- Reveal the financial impact of adjusting the asset capitalized on the balance sheet.

17. If third parties provide credit or liquidity enhancements for thrift-sponsored asset-backed securities, determine whether their credit rating has been downgraded recently or whether their credit quality has deteriorated. If so, determine what actions the thrift has taken to mitigate the effects of these events.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

18. Assess whether the institution has adequately integrated securitization activities into liquidity planning. Consider whether:
- The cash flows from scheduled maturities of revolving asset-backed securities are coordinated to minimize potential liquidity concerns.
 - The impact of unexpected funding requirements due to early amortization events are factored into contingency funding plans for liquidity.
 - The effect of not being able to securitize additional asset pools are factored into liquidity concerns.
-

Internal and External Audit

19. Review the thrift's internal audit program for securitization activities. Determine whether it includes objectives, written procedures, an audit schedule, and reporting systems that are appropriate in view of the thrift's volume of activity and risk exposure.
- Review the education, experience, and ongoing training of the internal audit staff and evaluate its independence and expertise in auditing securitization activities.
 - Determine whether comprehensive audits of all securitization areas are conducted in a timely manner. Ensure that the scope of internal audit includes:
 - An evaluation of compliance with pooling and servicing agreement requirements.
 - Periodic verification of the accuracy of both internal and external portfolio performance reports.
 - A determination of the accuracy of other internally generated reports that are provided to senior management and the board of directors.
 - Review management's responses to audit reports for timeliness and implementation of corrective action when appropriate.
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Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

20. Review the most recent engagement letter, external audit report, and management letter of the external auditors that address the institution's securitization activities. Determine:
- To what extent the external auditors rely on the internal audit staff and the internal audit report.
 - Whether the external auditor rendered an opinion on the effectiveness of internal controls for the major products or services related to securitization.
 - Whether management promptly and effectively responds to the external auditor's concerns and recommendations. Assess whether management makes changes to operating and administrative procedures that are appropriate responses to report findings.
 - The level of testing the external auditors performed on the various capitalized assets values, and including the periodic impairment analysis and methodologies associated with the audit process.

Management Information Systems

21. Review management information systems to determine whether they provide appropriate information for monitoring securitization activities.
- Evaluate reports produced for each capacity in which the thrift is involved, including:
 - Tracking reports to monitor overall securitization activity.
 - Performance reports by portfolio and specific product type. Reports should reflect performance of both assets in securitized pools and total managed assets. Reports should include:
 - Credit quality (e.g., delinquencies, losses, portfolio aging, accounts re-aged).
 - Profitability (by individual transaction and product type).

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- Actual performance compared with expected performance (portfolio yields, other fee income, monthly principal payment rates, purchase rates, charge-offs, etc.).
- Cost to service.
- Evaluate whether:
 - The frequency and detail of report generation is commensurate with volume and risk exposure.
 - Reports are distributed to, and reviewed by, appropriate management, board committees, or both.

-
22. Determine whether investor reporting is accurate and timely. Compare internal performance reports with those provided to investors. Determine the controls used by the institution to insure accurate reporting. *Note:* Examiners can supplement this procedure by comparing internal reports with information reported by external sources (such as Bloomberg, Fitch, and Moody's). Bring discrepancies to management's attention immediately.
-

Accounting and Risk-Based Capital

23. Determine whether the thrift is classifying securitization transactions appropriately as "sales" or "financings," and that the thrift has a system to ensure that independent personnel review transactions and evaluate and concur with accounting treatment.
-
24. For transactions that qualify for sales treatment under FAS 140, review the written policies and procedures to determine whether they:
- Allocate the previous book-carrying amount between the assets sold and the retained interests based on their fair market values on the date of transfer.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- Adjust the net proceeds received in the exchange by recording, on the balance sheet, the fair market value of any guarantees, recourse obligations, or derivatives such as put options, forward commitments, interest rate swaps, or currency swaps.
- Recognize gain or loss only on assets sold.
- Continue to carry on the balance sheet any retained interest in the transferred assets. Such balance sheet items should include servicing assets, accrued interest receivable, beneficial debt or equity interests in the special purpose entity, or retained undivided interests.

25. Determine whether the asset values and periodic impairment analyses for servicing assets and rights to future excess interest (IO strips) are consistent with FAS 140 and regulatory accounting requirements.

- Determine whether the thrift has a reasonable method for determining fair market value of the assets.
- Determine whether recorded servicing and IO strip asset values are reviewed periodically and adjusted for changes in market conditions.
- For servicing assets, verify that:
 - Servicing assets are appropriately stratified by predominant risk characteristics (e.g., asset type, interest rate, date of origination, or geographic location).
 - All impairments are recognized through a valuation allowance to the servicing asset.
 - Impairment is assessed at least quarterly.
 - Assumptions and calculations are documented and consistent with industry norms.
 - Servicing assets are not recorded at a value greater than their original allocated cost.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- Servicing fees are at market terms and the relationship is profitable to the thrift.
- Compare actual servicing costs to contract rates and determine if a servicing liability should be recorded (Servicing Costs are greater than Adequate Compensation “the amount of benefit of servicing that would fairly compensate a substitute servicer”).
- For IO strip assets, verify that:
 - Valuation considers changes in expected cash flows due to current and projected volatility of interest rates, default rates, and prepayment rates.
 - IO strips are recorded at fair market value consistent with available-for-sale or trading securities.
 - The fair value is based on the assumptions including forecasted excess spread (gross yield, less investor coupon, less servicing cost, less credit losses), discount rate, receivable life, and the amount of assets securitized.
- Determine that servicing assets and IO strips are accorded appropriate risk-based capital treatment.

-
26. For revolving trusts, review procedures for accounting for new sales of receivables to the trust.
- Verify that accrued interest on receivables sold is accounted for properly and does not contain a possible recourse provision.
 - Determine whether gain or loss is properly booked.
 - Sample and/or determine the initial credit quality versus the current credit quality of the securitized assets.
 - Determine if the assets being transferred to the master trust are lowering the remaining credit quality of the on-book portfolio.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

27. Determine whether the thrift maintains capital reserves for securitized assets in accordance with OTS policy and capital regulations. Determine whether the method for calculating the reserves is reasonable. Please refer to the discussion in Appendix B.

Recourse Transactions

28. Determine whether the thrift transfers loans with recourse. If so, determine whether:
- Written policies guide management with respect to the type and amount of recourse it can offer.
 - Adequate management information systems exist to track all recourse obligations.
 - Asset sales with recourse are reported appropriately in Thrift Financial Report.
 - The thrift's systems prevent it from making payments greater than its contractual obligation to purchasers if recourse is limited.

-
29. Determine whether the thrift has developed written standards for refinancing, renewing, or restructuring loans previously sold in asset-backed securities transactions. The written standards should:
- Distinguish a borrower's valid desire to reduce an interest rate through renewal or refinancing from an attempt to salvage weak credits through renewal, refinancing, or restructuring.
 - Prevent the thrift from repurchasing distressed loans from the securitized credit pool and disguising their delinquency in the thrift's loan portfolio.
 - Determine the extent and reason for all repurchases of assets transferred or sold.
 - Compare the actual repurchases to the contractual obligation to repurchase the receivable.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

Securitization Functions

The following guidelines supplement the procedures in the Overview Section. You will often perform these procedures by product (loan) type and you should coordinate them with other examination areas to avoid duplication of effort.

Originations

30. Determine whether senior management or the board is directly involved in decisions concerning the quality and types of assets that are to be securitized as well as those to be retained on the balance sheet. Ensure that written policies:

- Outline objectives relating to securitization activities.
- Establish limits or guidelines for:
 - Quality of loans originated.
 - Maturity of loans originated.
 - Geographic dispersion of loans.
 - Acceptable range of loan yields.
 - Credit quality.
 - Acceptable types of collateral.
 - Types of loans.

31. Determine whether the credit standards for loans to be securitized are the same as the ones for loans to be retained.

- If not, ascertain whether management consciously made this decision and that it is clearly stated in the securitization business plan.
- If higher quality loans are to be securitized in order to gain initial market acceptance, determine whether the thrift limits the amount of lower quality assets it

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

originates or retains. Also, determine whether the allowance for loan and lease losses (ALLL) and capital are adjusted for the higher proportion of risk in total assets. In addition, ensure that the ALLL is not based solely on historical trends but rather based on projected loss rates given the planned portfolio quality shifts.

- Determine whether there are sufficient administrative and collection personnel on hand to properly administer and collect lower quality credits and anticipated volume of problem loans.
- Ensure that the same level of collection effort is expended for both nonsecuritized and securitized portfolios. If collection efforts are different, determine the impact on the thrift's nonsecuritized portfolio.

32. Ensure that there is a complete separation of duties between the credit approval process and loan sales/securitization effort. Determine whether lending personnel are solely responsible for:

- The granting or denial of credit to customers.
- Credit approvals of resale counterparties.

33. Ensure that loans to be sold or securitized are segregated or otherwise identified on the books of the originating thrift. Also, determine that the thrift is following appropriate accounting standards regarding market valuation procedures on assets held for sale.

34. If loans are granted or denied based on a credit scoring system, ascertain whether the system was developed based on empirically derived data. Ensure that it is periodically revalidated.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

Purchased Loans

35. Determine whether the thrift has written procedures on acquiring portfolios for possible securitization. If so, determine whether the procedures are adequate given the volume and complexity of the potential purchases.

36. Evaluate management's method of determining whether prospective asset purchases meet the quality standards represented by the seller. Ensure that the process considers whether purchased assets are compatible with the thrift's data systems, administration and collection systems, credit review talent, and compliance standards, particularly consumer protection laws.

37. Evaluate the credit quality of the loans purchased to the bank's current credit standards. If the acquired portfolio is of lower credit quality or does not meet the thrift's current credit standards, ensure proper approvals from both senior management and the board were obtained.

38. If the thrift has recently purchased a portfolio for use in a securitization transaction, review the due diligence work papers to assess their adequacy and compliance with policy.

39. Determine whether the thrift conducts post-purchase reviews on acquired portfolios and, if so, what procedures are used. Identify who receives the results and whether appropriate follow-up action is taken (changes in quality standards, due diligence procedures, termination of counterparty relationships, etc.). In addition, determine if the thrift effectively tracks the performance of the acquired portfolio.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

40. Ensure that operating systems segregate or otherwise identify loans being held for resale. Review accounting practices to ensure appropriate treatment of assets held for resale.

41. Evaluate the measures taken to control pipeline exposure.

- If presales are routine, determine whether credit approval and diversification standards for purchasers are administered by people who are independent of the asset purchasing and packaging processes.
- Evaluate the reasonableness of limits on inventory positions that are not presold or hedged.
- If assets held for resale are required to be hedged, ensure that controls over hedging include:
 - An approved list of hedging instruments.
 - Minimum acceptable correlation between the assets held for sale and the hedging vehicle.
 - Maximum exposure limits to unhedged loan commitments under various interest rate simulations.
 - Credit limits on forward sale exposure to a single counterparty
 - A prohibition against speculation.
 - Acceptable reporting systems for hedging transactions.

Servicing

42. Determine whether written policies are in place for servicing activities that:

- Outline objectives for the servicing department.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- Specify procedures for valuing retained servicing rights.
 - Require legal counsel to review each transaction for conflicts of interest when the thrift institution serves in multiple capacities.
-
43. Determine whether MIS reports for the servicing operation provide adequate information to monitor servicing activities.
-
44. Evaluate management's planning process for future servicing activities.
-
45. Determine whether the thrift has contracted for an appropriate amount of errors and omissions insurance to cover the risks associated with the added transaction volumes from securitization activities.
-
46. Determine whether internal or external auditors review the servicing function. Determine whether they:
- Verify loan balances.
 - Verify notes, mortgages, security interests, collateral, etc., with outside custodians.
 - Review loan collection and repossession activities to determine that the servicer:
 - Promptly identifies problem loans.
 - Charges off loans in a timely manner.
 - Follows written guidelines for extensions, renegotiations, and renewal of loans.
 - Clears stale items from suspense accounts in a timely manner.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- Accounts for servicing fees properly (by amortizing excess servicing fees, for example).
-

Collections

47. Review policies and procedures for collecting delinquent loans.
- Determine whether collection efforts are consistent with pooling and servicing agreement guidelines.
 - Determine whether the thrift documents all attempts to collect past-due payments, including the date(s) of borrower contact, the nature of communication, and the borrower's response/comment.
 - Evaluate methods used by management to ensure that collection procedures comply with applicable state and federal laws and regulations.
 - Evaluate any collection procedures, that are different between the pooling and servicing agreement and the thrift's standard practices.
-

Overall Conclusions

48. Prepare a summary memorandum detailing the results of the asset securitization examination. Address the following:
- Adequacy of risk management systems, including the thrift institution's ability to identify, measure, monitor, and control the risks of securitization.
 - Adequacy of the strategic plan or business plan for asset securitization.
 - Adequacy of policies and operating procedures and adherence thereto.
 - Quality and depth of management supervision and operating personnel.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

Asset-Backed Securitization Program

Wkp. Ref.

- Adequacy of management information systems.
- Propriety of accounting systems and regulatory reporting.
- Compliance with applicable laws, rulings, and regulations.
- Adequacy of audit, compliance, and credit reviews.
- Recommended corrective action regarding deficient policies, procedures, or practices and other concerns.
- Commitments received from management to address concerns.
- The impact of securitization activities on reputation risk, strategic risk, credit risk, transaction risk, operational risk, liquidity risk, and compliance risk.
- The impact of securitization activities on the thrift institution's earnings and capital given the potential risk associated with capitalized assets. Further, assess core operating income verses securitization income flows.
- The thrift institution's future prospects based on current securitization market trends.
- Other matters of significance.

49. Discuss examination findings and conclusions with the EIC. Based on this discussion, set up a meeting with thrift management to share findings and obtain any necessary commitments for corrective action.

50. Ensure that your review meets the objectives of this Handbook Section. State your findings and conclusions, and appropriate recommendations for any necessary corrective measures on the appropriate work papers and report pages.

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

**Asset-Backed Securitization
Program**

Wkp. Ref.

Examiner's Summary, Recommendations, and Comments

Exam Date: _____
Prepared By: _____
Reviewed By: _____
Docket #: _____

**Office of the Comptroller of the Currency
Federal Deposit Insurance Corporation
Board of Governors of the Federal Reserve System
Office of Thrift Supervision**

December 13, 1999

INTERAGENCY GUIDANCE ON ASSET SECURITIZATION ACTIVITIES

BACKGROUND AND PURPOSE

Recent examinations have disclosed significant weaknesses in the asset securitization practices of some insured depository institutions. These weaknesses raise concerns about the general level of understanding and controls among institutions that engage in such activities. The most frequently encountered problems stem from: (1) the failure to recognize and hold sufficient capital against explicit and implicit recourse obligations that frequently accompany securitizations, (2) the excessive or inadequately supported valuation of “retained interests,”¹ (3) the liquidity risk associated with over reliance on asset securitization as a funding source, and (4) the absence of adequate independent risk management and audit functions.

The Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Board of Governors of the Federal Reserve System, and the Office of Thrift Supervision, hereafter referred to as “the Agencies,” are jointly issuing this statement to remind financial institution managers and examiners of the importance of fundamental risk management practices governing asset securitization activities. This guidance supplements existing policy statements and examination procedures issued by the Agencies and emphasizes the specific expectation that any securitization-related retained interest claimed by a financial institution will be supported by documentation of the interest’s fair value, utilizing reasonable, conservative valuation assumptions that can be objectively verified. Retained interests that lack such objectively verifiable support or that fail to meet the supervisory standards set forth in this document will be classified as loss and disallowed as assets of the institution for regulatory capital purposes.

¹ In securitizations, a seller typically retains one or more interests in the assets sold. **Retained interests** represent the right to cash flows and other assets not used to extinguish bondholder obligations and pay credit losses, servicing fees and other trust related fees. For the purposes of this statement, **retained interests** include over-collateralization, spread accounts, cash collateral accounts, and interest only strips (IO strips). Although servicing assets and liabilities also represent a retained interest of the seller, they are currently determined based on different criteria and have different accounting and risk-based capital requirements. See applicable comments in Statement of Financial Accounting Standard No. 125, “Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities” (FAS 125), for additional information about these interests and associated accounting requirements.

The Agencies are reviewing institutions' valuation of retained interests and the concentration of these assets relative to capital. Consistent with existing supervisory authority, the Agencies may, on a case-by-case basis, require institutions that have high concentrations of these assets relative to their capital, or are otherwise at risk from impairment of these assets, to hold additional capital commensurate with their risk exposures. Furthermore, given the risks presented by these activities, the Agencies are actively considering the establishment of regulatory restrictions that would limit or eliminate the amount of certain retained interests that may be recognized in determining the adequacy of regulatory capital. An excessive dependence on securitizations for day-to-day core funding can also present significant liquidity problems - either during times of market turbulence or if there are difficulties specific to the institution itself. As applicable, the Agencies will provide further guidance on the liquidity risk associated with over reliance on asset securitizations as a funding source and on implicit recourse obligations.

CONTENTS	Page
Description of Activity	2
Independent Risk Management Function	4
Valuation and Modeling Process	6
Use of Outside Parties.....	7
Internal Controls	7
Audit Function or Internal Review	8
Regulatory Reporting.....	8
Market Discipline and Disclosures.....	9
Risk-Based Capital for Recourse and Low Level Recourse Transactions	10
Institution Imposed Concentration Limits on Retained Interests	11
Summary	11

DESCRIPTION OF ACTIVITY

Asset securitization typically involves the transfer of on-balance sheet assets to a third party or trust. In turn the third party or trust issues certificates or notes to investors. The cash flow from the transferred assets supports repayment of the certificates or notes. For several years, large financial institutions, and a growing number of regional and community institutions, have been using asset securitization to access alternative funding sources, manage concentrations, improve financial performance ratios, and more efficiently meet customer needs. In many cases, the discipline imposed by investors who buy assets at their fair value has sharpened selling institutions' credit risk selection, underwriting, and pricing practices. Assets typically securitized by institutions include credit card receivables, automobile receivable paper, commercial and residential first mortgages, commercial loans, home equity loans, and student loans.

While the Agencies continue to view the use of securitization as an efficient means of financial intermediation, we are concerned about events and trends uncovered at recent examinations. Of particular concern are institutions that are relatively new users of securitization techniques and institutions whose senior management and directors do not have the requisite knowledge of the

effect of securitization on the risk profile of the institution or are not fully aware of the accounting, legal and risk-based capital nuances of this activity. Similarly, the Agencies are concerned that some institutions have not fully and accurately distinguished and measured the risks that have been transferred versus those retained, and accordingly are not adequately managing the retained portion. It is essential that institutions engaging in securitization activities have appropriate front and back office staffing, internal and external accounting and legal support, audit or independent review coverage, information systems capacity, and oversight mechanisms to execute, record, and administer these transactions correctly.

Additionally, we are concerned about the use of inappropriate valuation and modeling methodologies to determine the initial and ongoing value of retained interests. Accounting rules provide a method to recognize an immediate gain (or loss) on the sale through booking a “retained interest;” however, the carrying value of that interest must be fully documented, based on reasonable assumptions, and regularly analyzed for any subsequent value impairment. The best evidence of fair value is a quoted market price in an active market. In circumstances where quoted market prices are not available, accounting rules allow fair value to be estimated. This estimate must be based on the “best information available in the circumstances.”² An estimate of fair value must be supported by reasonable and current assumptions. If a best estimate of fair value is not practicable, the asset is to be recorded at zero in financial and regulatory reports.

History shows that unforeseen market events that affect the discount rate or performance of receivables supporting a retained interest can swiftly and dramatically alter its value. Without appropriate internal controls and independent oversight, an institution that securitizes assets may inappropriately generate “paper profits” or mask actual losses through flawed loss assumptions, inaccurate prepayment rates, and inappropriate discount rates. Liberal and unsubstantiated assumptions can result in material inaccuracies in financial statements, substantial write-downs of retained interests, and, if interests represent an excessive concentration of the institution’s capital, the demise of the sponsoring institution.

Recent examinations point to the need for institution managers and directors to ensure that:

- Independent risk management processes are in place to monitor securitization pool performance on an aggregate and individual transaction level. An effective risk management function includes appropriate information systems to monitor securitization activities.
- Conservative valuation assumptions and modeling methodologies are used to establish, evaluate and adjust the carrying value of retained interests on a regular and timely basis.
- Audit or internal review staffs periodically review data integrity, model algorithms, key underlying assumptions, and the appropriateness of the valuation and modeling process for the securitized assets retained by the institution. The findings of such reviews should be reported directly to the board or an appropriate board committee.

² FAS 125, at par. 43

- Accurate and timely risk-based capital calculations are maintained, including recognition and reporting of any recourse obligation resulting from securitization activity.
- Internal limits are in place to govern the maximum amount of retained interests as a percentage of total equity capital.
- The institution has a realistic liquidity plan in place in case of market disruptions.

The following sections provide additional guidance relating to these and other critical areas of concern. Institutions that lack effective risk management programs or that maintain exposures in retained interests that warrant supervisory concern may be subject to more frequent supervisory review, more stringent capital requirements, or other supervisory action.

INDEPENDENT RISK MANAGEMENT FUNCTION

Institutions engaged in securitizations should have an independent risk management function commensurate with the complexity and volume of their securitizations and their overall risk exposures. The risk management function should ensure that securitization policies and operating procedures, including clearly articulated risk limits, are in place and appropriate for the institution's circumstances. A sound asset securitization policy should include or address, at a minimum:

- A written and consistently applied accounting methodology;
- Regulatory reporting requirements;
- Valuation methods, including FAS 125 residual value assumptions, and procedures to formally approve changes to those assumptions;
- Management reporting process; and
- Exposure limits and requirements for both aggregate and individual transaction monitoring.

It is essential that the risk management function monitor origination, collection, and default management practices. This includes regular evaluations of the quality of underwriting, soundness of the appraisal process, effectiveness of collections activities, ability of the default management staff to resolve severely delinquent loans in a timely and efficient manner, and the appropriateness of loss recognition practices. Because the securitization of assets can result in the current recognition of anticipated income, the risk management function should pay particular attention to the types, volumes, and risks of assets being originated, transferred and serviced. Both senior management and the risk management staff must be alert to any pressures on line managers to originate abnormally large volumes or higher risk assets in order to sustain ongoing income needs. Such pressures can

lead to a compromise of credit underwriting standards. This may accelerate credit losses in future periods, impair the value of retained interests and potentially lead to funding problems.

The risk management function should also ensure that appropriate management information systems (MIS) exist to monitor securitization activities. Reporting and documentation methods must support the initial valuation of retained interests and ongoing impairment analyses of these assets. Pool performance information has helped well-managed institutions to ensure, on a qualitative basis, that a sufficient amount of economic capital is being held to cover the various risks inherent in securitization transactions. The absence of quality MIS hinders management's ability to monitor specific pool performance and securitization activities more broadly. At a minimum, MIS reports should address the following:

Securitization summaries for each transaction - The summary should include relevant transaction terms such as collateral type, facility amount, maturity, credit enhancement and subordination features, financial covenants (termination events and spread account capture “triggers”), right of repurchase, and counterparty exposures. Management should ensure that the summaries are distributed to all personnel associated with securitization activities.

Performance reports by portfolio and specific product type - Performance factors include gross portfolio yield, default rates and loss severity, delinquencies, prepayments or payments, and excess spread amounts. The reports should reflect performance of assets, both on an individual pool basis and total managed assets. These reports should segregate specific products and different marketing campaigns.

Vintage analysis for each pool using monthly data - Vintage analysis helps management understand historical performance trends and their implications for future default rates, prepayments, and delinquencies, and therefore retained interest values. Management can use these reports to compare historical performance trends to underwriting standards, including the use of a validated credit scoring model, to ensure loan pricing is consistent with risk levels. Vintage analysis also helps in the comparison of deal performance at periodic intervals and validates retained interest valuation assumptions.

Static pool cash collection analysis - This analysis entails reviewing monthly cash receipts relative to the principal balance of the pool to determine the cash yield on the portfolio, comparing the cash yield to the accrual yield, and tracking monthly changes. Management should compare the timing and amount of cash flows received from the trust with those projected as part of the FAS 125 retained interest valuation analysis on a monthly basis. Some master trust structures allow excess cash flow to be shared between series or pools. For revolving asset trusts with this master trust structure, management should perform a cash collection analysis for each master trust structure. These analyses are essential in assessing the actual performance of the portfolio in terms of default and prepayment rates. If cash receipts are less than those assumed in the original valuation of the retained interest, this analysis will provide management and the board with an early warning of possible problems with collections or extension practices, and impairment of the retained interest.

Sensitivity analysis - Measuring the effect of changes in default rates, prepayment or payment rates, and discount rates will assist management in establishing and validating the carrying value of the retained interest. Stress tests should be performed at least quarterly. Analyses should consider potential adverse trends and determine “best,” “probable,” and “worst case” scenarios for each event. Other factors to consider are the impact of increased defaults on collections staffing, the timing of cash flows, “spread account” capture triggers, over-collateralization triggers, and early amortization triggers. An increase in defaults can result in higher than expected costs and a delay in cash flows, decreasing the value of the retained interests. Management should periodically quantify and document the potential impact to both earnings and capital, and report the results to the board of directors. Management should incorporate this analysis into their overall interest rate risk measurement system.³ Examiners will review the analysis conducted by the institution and the volatility associated with retained interests when assessing the Sensitivity to Market Risk component rating.

Statement of covenant compliance - Ongoing compliance with deal performance triggers as defined by the pooling and servicing agreements should be affirmed at least monthly. Performance triggers include early amortization, spread capture, changes to over-collateralization requirements, and events that would result in servicer removal.

VALUATION AND MODELING PROCESSES

The method and key assumptions used to value the retained interests and servicing assets or liabilities must be reasonable and fully documented. The key assumptions in all valuation analyses include prepayment or payment rates, default rates, loss severity factors, and discount rates. The Agencies expect institutions to take a logical and conservative approach when developing securitization assumptions and capitalizing future income flows. It is important that management quantifies the assumptions on a pool-by-pool basis and maintains supporting documentation for all changes to the assumptions as part of the valuation process, which should be done no less than quarterly. Policies should define the acceptable reasons for changing assumptions and require appropriate management approval.

An exception to this pool-by-pool valuation analysis may be applied to revolving asset trusts if the master trust structure allows excess cash flows to be shared between series. In a master trust, each certificate of each series represents an undivided interest in all of the receivables in the trust. Therefore, valuations are appropriate at the master trust level.

In order to determine the value of the retained interest at inception, and make appropriate adjustments going forward, the institution must implement a reasonable modeling process to comply with FAS 125. The Agencies expect management to employ reasonable and conservative valuation

³ Under the Joint Agency Policy Statement on Interest Rate Risk, institutions with a high level of exposure to interest rate risk relative to capital will be directed to take corrective action. Savings associations can find OTS guidance on interest rate risk in Thrift Bulletin 13a - Management of Interest Rate Risk, Investment Securities, and Derivative Activities.

assumptions and projections, and to maintain verifiable objective documentation of the fair value of the retained interest. Senior management is responsible for ensuring the valuation model accurately reflects the cash flows according to the terms of the securitization's structure. For example, the model should account for any cash collateral or over-collateralization triggers, trust fees, and insurance payments if appropriate. The board and management are accountable for the "model builders" possessing the necessary expertise and technical proficiency to perform the modeling process. Senior management should ensure that internal controls are in place to provide for the ongoing integrity of MIS associated with securitization activities.

As part of the modeling process, the risk management function should ensure that periodic validations are performed in order to reduce vulnerability to model risk. Validation of the model includes testing the internal logic, ensuring empirical support for the model assumptions, and back-testing the models with actual cash flows on a pool-by-pool basis. The validation process should be documented to support conclusions. Senior management should ensure the validation process is independent from line management as well as the modeling process. The audit scope should include procedures to ensure that the modeling process and validation mechanisms are both appropriate for the institution's circumstances and executed consistent with the institution's asset securitization policy.

USE OF OUTSIDE PARTIES

Third parties are often engaged to provide professional guidance and support regarding an institution's securitization activities, transactions, and valuing of retained interests. The use of outside resources does not relieve directors of their oversight responsibility, or senior management of its responsibilities to provide supervision, monitoring, and oversight of securitization activities, and the management of the risks associated with retained interests in particular. Management is expected to have the experience, knowledge, and abilities to discharge its duties and understand the nature and extent of the risks presented by retained interests and the policies and procedures necessary to implement an effective risk management system to control such risks. Management must have a full understanding of the valuation techniques employed, including the basis and reasonableness of underlying assumptions and projections.

INTERNAL CONTROLS

Effective internal controls are essential to an institution's management of the risks associated with securitization. When properly designed and consistently enforced, a sound system of internal controls will help management safeguard the institution's resources, ensure that financial information and reports are reliable, and comply with contractual obligations, including securitization covenants. It will also reduce the possibility of significant errors and irregularities, as well as assist in their timely detection when they do occur. Internal controls typically: (1) limit authorities, (2) safeguard access to and use of records, (3) separate and rotate duties, and (4) ensure both regular and unscheduled reviews, including testing.

The Agencies have established operational and managerial standards for internal control and information systems.⁴ An institution should maintain a system of internal controls appropriate to its size and the nature, scope, and risk of its activities. Institutions that are subject to the requirements of FDIC regulation 12 CFR Part 363 should include an assessment of the effectiveness of internal controls over their asset securitization activities as part of management's report on the overall effectiveness of the system of internal controls over financial reporting. This assessment implicitly includes the internal controls over financial information that is included in regulatory reports.

AUDIT FUNCTION OR INTERNAL REVIEW

It is the responsibility of an institution's board of directors to ensure that its audit staff or independent review function is competent regarding securitization activities. The audit function should perform periodic reviews of securitization activities, including transaction testing and verification, and report all findings to the board or appropriate board committee. The audit function also may be useful to senior management in identifying and measuring risk related to securitization activities. Principal audit targets should include compliance with securitization policies, operating and accounting procedures (FAS 125), and deal covenants, and accuracy of MIS and regulatory reports. The audit function should also confirm that the institution's regulatory reporting process is designed and managed in such a way to facilitate timely and accurate report filing. Furthermore, when a third party services loans, the auditors should perform an independent verification of the existence of the loans to ensure balances reconcile to internal records.

REGULATORY REPORTING

The securitization and subsequent removal of assets from an institution's balance sheet requires additional reporting as part of the regulatory reporting process. Common regulatory reporting errors stemming from securitization activities include:

- Failure to include off-balance sheet assets subject to recourse treatment when calculating risk-based capital ratios;
- Failure to recognize retained interests and retained subordinate security interests as a form of credit enhancement;
- Failure to report loans sold with recourse in the appropriate section of the regulatory report; and
- Over-valuing retained interests.

An institution's directors and senior management are responsible for the accuracy of its regulatory reports. Because of the complexities associated with securitization accounting and risk-based capital treatment, attention should be directed to ensuring that personnel who prepare these reports maintain

⁴ Safety and Soundness Standards 12 CFR Part 3 (OCC), 12 CFR Part 570 (OTS).

current knowledge of reporting rules and associated interpretations. This often will require ongoing support by qualified accounting and legal personnel.

Institutions that file the Report of Condition and Income (Call Report) should pay particular attention to the following schedules on the Call Report when institutions are involved in securitization activities: *Schedule RC-F: Other Assets*; *Schedule RC-L: Off Balance Sheet Items*; and *Schedule RC-R: Regulatory Capital*. Institutions that file the Thrift Financial Report (TFR) should pay particular attention to the following TFR schedules: *Schedule CC: Consolidated Commitments and Contingencies*, *Schedule CCR: Consolidated Capital Requirement*, and *Schedule CMR: Consolidated Maturity and Rate*.

Under current regulatory report instructions, when an institution's supervisory agency's interpretation of how generally accepted accounting principles (GAAP) should be applied to a specified event or transaction differs from the institution's interpretation, the supervisory agency may require the institution to reflect the event or transaction in its regulatory reports in accordance with the agency's interpretation and amend previously submitted reports.

MARKET DISCIPLINE AND DISCLOSURES

Transparency through public disclosure is crucial to effective market discipline and can reinforce supervisory efforts to promote high standards in risk management. Timely and adequate information on the institution's asset securitization activities should be disclosed. The information contained in the disclosures should be comprehensive; however, the amount of disclosure that is appropriate will depend on the volume of securitizations and complexity of the institution. Well-informed investors, depositors, creditors and other bank counterparties can provide a bank with strong incentives to maintain sound risk management systems and internal controls. Adequate disclosure allows market participants to better understand the financial condition of the institution and apply market discipline, creating incentives to reduce inappropriate risk taking or inadequate risk management practices. Examples of sound disclosures include:

- Accounting policies for measuring retained interests, including a discussion of the impact of key assumptions on the recorded value;
- Process and methodology used to adjust the value of retained interests for changes in key assumptions;
- Risk characteristics, both quantitative and qualitative, of the underlying securitized assets;
- Role of retained interests as credit enhancements to special purpose entities and other securitization vehicles, including a discussion of techniques used for measuring credit risk; and
- Sensitivity analyses or stress testing conducted by the institution showing the effect of changes in key assumptions on the fair value of retained interests.

RISK-BASED CAPITAL FOR RECOURSE AND LOW LEVEL RECOURSE TRANSACTIONS

For regulatory purposes, recourse is generally defined as an arrangement in which an institution retains the risk of credit loss in connection with an asset transfer, if the risk of credit loss exceeds a pro rata share of the institution's claim on the assets.⁵ In addition to broad contractual language that may require the selling institution to support a securitization, recourse can also arise from retained interests, retained subordinated security interests, the funding of cash collateral accounts, or other forms of credit enhancements that place an institution's earnings and capital at risk. These enhancements should generally be aggregated to determine the extent of an institution's support of securitized assets. Although an asset securitization qualifies for sales treatment under GAAP, the underlying assets may still be subject to regulatory risk-based capital requirements. Assets sold with recourse should generally be risk-weighted as if they had not been sold.

Securitization transactions involving recourse may be eligible for "low level recourse" treatment.⁶ The Agencies' risk-based capital standards provide that the dollar amount of risk-based capital required for assets transferred with recourse should not exceed the maximum dollar amount for which an institution is contractually liable. The "low level recourse" treatment applies to transactions accounted for as sales under GAAP in which an institution contractually limits its recourse exposure to less than the full risk-based capital requirements for the assets transferred. Under the low level recourse principle, the institution holds capital on approximately a dollar-for-dollar basis up to the amount of the aggregate credit enhancements.

Low level recourse transactions should be reported in Schedule RC-R of the Call Report or Schedule CCR of the TFR using either the "direct reduction method" or the "gross-up method" in accordance with the regulatory report instructions.

If an institution does not contractually limit the maximum amount of its recourse obligation, or if the amount of credit enhancement is greater than the risk-based capital requirement that would exist if the assets were not sold, the low level recourse treatment does not apply. Instead, the institution must hold risk-based capital against the securitized assets as if those assets had not been sold.

Finally, as noted earlier, retained interests that lack objectively verifiable support or that fail to meet the supervisory standards set for in this document will be classified as loss and disallowed as assets of the institution for regulatory capital purposes.

⁵ The risk-based capital treatment for sales with recourse can be found at 12 CFR Part 3 Appendix A, Section (3)(b)(1)(iii) {OCC}, 12 CFR Part 567.6(a)(2)(i)(c) {OTS}. For a further explanation of recourse see the glossary entry "Sales of Assets for Risk-Based Capital Purposes" in the instructions for the Call Report.

⁶ The banking agencies' low level recourse treatment is described in the Federal Register in the following locations: 60 Fed. Reg. 17986 (April 10, 1995) (OCC); 60 Fed. Reg. 8177 (February 13, 1995) (FRB); 60 Fed. Reg. 15858 (March 28, 1995) (FDIC). OTS has had a low level recourse rule in 12 CFR Part 567.6(a)(2)(i)(c) since 1989. A brief explanation is also contained in the instructions for regulatory reporting in section RC-R for the Call Report or schedule CCR for the TFR.

INSTITUTION IMPOSED CONCENTRATION LIMITS ON RETAINED INTERESTS

The creation of a retained interest (the debit) typically also results in an offsetting “gain on sale” (the credit) and thus generation of an asset. Institutions that securitize high yielding assets with long durations may create a retained interest asset value that exceeds the risk-based capital charge that would be in place if the institution had not sold the assets (under the existing risk-based capital guidelines, capital is not required for the amount over eight percent of the securitized assets). Serious problems can arise for institutions that distribute contrived earnings only later to be faced with a downward valuation and charge-off of part or all of the retained interests.

As a basic example, an institution could sell \$100 in subprime home equity loans and book a retained interest of \$20 using liberal “gain on sale” assumptions. Under the current capital rules, the institution is required to hold approximately \$8 in capital. This \$8 is the current capital requirement if the loans were never removed from the balance sheet (eight percent of \$100 = \$8). However, the institution is still exposed to substantially all of the credit risk, plus the additional risk to earnings and capital from the volatility of the retained interest. If the value of the retained interest decreases to \$10 due to inaccurate assumptions or changes in market conditions, the \$8 in capital is insufficient to cover the entire loss.

Normally, the sponsoring institution will eventually receive any excess cash flow remaining from securitizations after investor interests have been met. However, recent experience has shown that retained interests are vulnerable to sudden and sizeable write-downs that can hinder an institution’s access to the capital markets, damage its reputation in the market place, and in some cases, threaten its solvency. Accordingly, the Agencies expect an institution’s board of directors and management to develop and implement policies that limit the amount of retained interests that may be carried as a percentage of total equity capital, based on the results of their valuation and modeling processes. Well constructed internal limits also serve to lessen the incentive of institution personnel to engage in activities designed to generate near term “paper profits” that may be at the expense of the institution’s long term financial position and reputation.

SUMMARY

Asset securitization has proven to be an effective means for institutions to access new and diverse funding sources, manage concentrations, improve financial performance ratios, and effectively serve borrowing customers. However, securitization activities also present unique and sometimes complex risks that require board and senior management attention. Specifically, the initial and ongoing valuation of retained interests associated with securitization, and the limitation of exposure to the volatility represented by these assets, warrant immediate attention by management.

Moreover, as mentioned earlier in this statement, the Agencies are studying various issues relating to securitization practices, including whether restrictions should be imposed that would limit or eliminate the amount of retained interests that qualify as regulatory capital. In the interim, the Agencies will review affected institutions on a case-by-case basis and may require, in appropriate circumstances, that institutions hold additional capital commensurate with their risk exposure. In

addition, the Agencies will study, and issue further guidance on, institutions' exposure to implicit recourse obligations and the liquidity risk associated with over reliance on asset securitization as a funding source.

CAPITAL TREATMENT FOR RECOURSE, DIRECT CREDIT SUBSTITUTES, AND RESIDUAL INTERESTS

On November 29, 2001, OTS and the other federal banking agencies issued a new capital rule for recourse, direct credit substitutes, and residual interests in asset securitizations. The new capital rule addresses many aspects of risk resulting from asset securitization. While it integrates some aspects of OTS's existing capital rules and guidance for recourse and direct credit substitutes, the new rule is far more extensive because of a very complex, evolving securitization marketplace. This Appendix outlines and highlights some aspects of the rule that pertain to securitizations. However, because of the complex nature of the rule, you should also refer to the rule itself and its extensive preamble published in the Federal Register, both of which are available on the OTS web site.

In addition, you can find the definitions pertaining to the new rule along with other terms used in the OTS capital regulations in 12 CFR §567.1, and the capital treatment from the new rule in §567.6(b). Refer also to CEO Letter No. 162, "Implicit Recourse in Asset Securitizations," and to CEO Letter No. 163, "Capital Treatment of Recourse, Direct Credit Substitutes, and Residual Interests in Asset Securitizations." These CEO letters, issued by OTS on May 23, 2002, provide important supplementary information.

You should also note that through the rule's reservation of authority, OTS will look to the substance of a transaction regardless of how the allocation of risk is categorized by others. OTS may find that the proposed capital treatment by the thrift does not appropriately reflect risk to the institution. OTS may then require the thrift to apply another risk weight, conversion factor, or treatment that OTS deems appropriate.

Recourse, In General

The term "recourse" refers to an institution's retention, in form or in substance, of any credit risk directly or indirectly associated with an asset it has sold. A recourse obligation typically arises when an institution transfers an asset in a sale (a sale ac-

ording to generally accepted accounting principles) and retains an obligation to repurchase the asset or to otherwise absorb losses on the asset. Examples of recourse obligations include:

- Assets sold under an agreement to repurchase.
- Credit-enhancing representations and warranties related to sold assets.
- Retained loan servicing with an agreement under which the savings association is responsible for losses associated with the loans serviced (except for Servicer Cash Advances as defined in §567.1).
- Clean-up calls on assets sold (except for clean-up calls that are 10 percent or less of the original pool balance and that are exercisable at the option of the savings association).
- Credit derivatives that absorb more than the savings association's pro rata share of losses on transferred assets.
- Loan strips sold where the maturity of the transferred portion of the loan is shorter than the commitment under which the loan is drawn.

Recourse can also exist implicitly. Implicit recourse generally arises when a thrift institution repurchases assets, absorbs losses, or otherwise supports assets that it has sold, in instances where it is not contractually required to do so. Refer also to CEO Letter No. 162.

As with other off-balance-sheet exposures, you must convert a recourse exposure to an on-balance-sheet asset by obtaining a credit equivalent amount. In the case of a simple loan sale with recourse, which may or may not involve asset securitization, you convert the entire balance of the loans sold to an on-balance-sheet asset using the 100 percent conversion factor. (For information about converting off-balance-sheet assets to on-balance-sheet assets using conversion factors, refer to §567.6(a)(2), as well as the Thrift Financial Report Instruction Manual.)

In many instances, an institution retains a recourse exposure that is limited in dollar amount or as a percentage of assets transferred, but is designed to absorb the first losses that occur for the entire pool of transferred assets. The recourse exposure thus

absorbs more than its pro rata share of losses. As a result, the general capital treatment for most recourse exposures is “gross-up,” whereby the institution must hold capital for the full amount of the transferred assets as if they were still on the balance sheet. OTS applies this relatively rigorous capital treatment because the recourse exposure receives more than its pro rata share of risk; it has the concentrated risk of all of the assets senior to it in the pool.

Therefore, using the required gross-up approach you obtain the credit equivalent amount by multiplying the full amount of the credit-enhanced assets for which the savings institution directly or indirectly retains or assumes credit risk by a 100 percent conversion factor. You assign this credit equivalent amount to the risk-weight category appropriate to the obligor in the underlying transaction after considering any associated guarantees or collateral. However:

- A thrift institution does not have to hold recourse capital for Qualifying 1-4 Family Loans that a thrift institution has sold, if the sales contract allows only a 120-day period for return of those loans. The loans must have been originated within one year before sale. This exception would apply to a simple loan sale as well as a sale of loans into a securitization.
- There is an exception to the gross-up treatment for low-level recourse exposures where recourse is legally and contractually limited to an amount less than the on-balance-sheet capital requirement. OTS limits the capital requirement to the maximum exposure rather than the full capital charge.
- A ratings based approach allows an institution to reduce its capital requirement for lower-risk, highly rated recourse exposures – Section C below.

Example: Recourse Sale of Loans

Thrift has sold \$100 in Qualifying 1-4 Family (that is, 50 percent risk weight) Loans into a securitization with an agreement to repurchase them for up to 180 days: Capital requirement (until the recourse period expires) is: $(\$100) \times (100\% \text{ conversion factor}) \times (50\% \text{ r.w.}) \times (8\%) = \4

Note: If the sales agreement limited the recourse to 120 days or less, there would be no capital requirement.

When a thrift’s recourse exposure is in a “first loss” or other subordinated position, the thrift must gross-up the entire pool above it (all the more senior exposure), before converting it to an on-balance-sheet credit equivalent amount. However, the ratings-based approach can apply (see Ratings-Based Approach Section).

Example: Recourse Sale with a First Loss Position Using Gross-up

An institution has retained the “1st dollar loss” subordinated interest of \$5 in a securitization of \$100 in Qualifying 1-4 Family Loans. Capital requirement is $(\$100) \times (50\% \text{ r.w.}) \times (8\%) = \4 . That is, the thrift must gross-up its exposure to include all exposures that are more senior to the piece that the thrift owns (in this case the entire pool). This example assumes that the first dollar loss position is not a credit-enhancing IO Strip (See Residual Interests Section below).

Example: Low-Level Recourse

An institution contractually limits its maximum recourse exposure to less than the normal on-balance-sheet capital requirement for the assets sold with recourse. For example, if an institution sells a \$100,000 mortgage loan with 1 percent recourse, it is liable for \$1,000 in losses. Instead of requiring the savings association to hold \$4,000 in capital (assuming the loan qualifies for 50 percent risk weight), OTS requires the institution hold \$1,000 in capital, the maximum recourse exposure.

Direct Credit Substitutes

An institution can guaranty, purchase, or assume a recourse exposure from another organization. We generally refer to these exposures as direct credit substitutes. A purchased subordinated security is an example of a direct credit substitute. Direct credit substitutes can be on- or off-balance-sheet. Examples of such direct credit substitutes include:

- Financial standby letters of credit that support financial claims on a third party that exceed the

savings institution's pro rata share of the financial claim.

- Purchased subordinated interests that absorb more than their pro rata share of losses from the underlying assets.

When a thrift purchases a subordinated asset-backed security or similar interest, the thrift generally must gross-up the risk exposure in order to determine the capital requirement. This means that the thrift must hold capital against the total amount of the subordinated security plus all assets senior to it. However, the low-level recourse rule can apply to direct credit substitutes, and the ratings-based approach may apply (see Ratings-Based Approach Section below).

Example: Direct Credit Substitute – Purchased Subordinated Interest

An institution has purchased the “1st dollar loss” subordinated interest of \$5 in a securitization of \$100 in Qualifying 1-4 Family Loans. Capital requirement is $(\$100) \times (50\% \text{ r.w.}) \times (8\%) = \4 . That is, the thrift must gross-up its exposure to include all exposures that are more senior to the security that the thrift owns (in this case the entire pool). This example assumes that the first dollar loss position is not a credit-enhancing IO Strip (See Residual Interests Section below).

Capital Treatment for Residual Interests

Residual interests are on-balance-sheet risk exposures arising from sales (transfers) of financial assets that expose a thrift to credit risk on those transferred assets that exceeds a pro rata share of any claim that the thrift has on the assets. Residual interests do not include interests purchased from a third party, except for credit-enhancing interest-only strips (see below). A primary example of a residual is a retained subordinated interest on assets formerly owned by the institution.

The standard capital treatment for most residual interests is dollar-for-dollar. That is, the thrift must hold one dollar in capital for every one dollar in residual interests.

Example: Residual Interests

An institution has retained the “first dollar loss” subordinated interest of \$15 in its own securitization of \$100 in Qualifying 1-4 Family Loans. The risk based capital requirement is \$15. (That is, \$1 of capital for \$1 of residual interests – dollar-for-dollar capital.)

There are two approaches to reporting dollar-for-dollar capital on the TFR:

- The super risk-weight approach, where you multiply the asset balance by 12.5, before risk weighting it. Because 12.5 is the reciprocal of 8 percent, after multiplying the asset by the 8 percent risk-based capital requirement, the result is dollar-for-dollar capital.
- The simplified method, where you deduct the exposure from total capital.

Credit-Enhancing Interest-Only Strips

Credit-enhancing interest-only strips (IOs), whether retained or purchased, pose higher risk than most other residuals. If a thrift has a concentration of more than 25 percent of Tier One Capital in IOs, it must deduct from Tier One Capital, the portion of IOs that exceeds 25 percent of Tier 1 Capital.

Example: Credit-Enhancing IO Strip

The institution has the “1st dollar loss” subordinated interest (whether retained or purchased) that is a credit-enhancing IO strip, of \$15 in a securitization of subprime auto loans. Core Capital is \$40 at onset. The thrift does not have any other IOs.

- (1) 25% of \$40 is \$10. \$15 exceeds \$10 by \$5, so you deduct \$5 from Core Capital.
- (2) New Core Capital is \$35.
- (3) The institution must also hold \$10 in Risk-Based Capital for this exposure because you deduct the same amount, \$5, as above from the IO strip. The thrift must hold dollar-for-dollar risk-based capital against the remaining balance.

The Ratings-Based Approach

The ratings-based approach allows for the possibility of a lower risk-based capital requirement (reflecting less risk) for certain recourse, direct credit substitutes, and residual interests arising from asset securitization. Ratings must be from one or more Nationally Recognized Statistical Rating Organizations (NRSROs). (See §567.1, i.e. Standard & Poors, Moody’s, and Fitch Ratings.)

There are exceptions:

- Credit-enhancing IO strips are not eligible for the Ratings-Based Approach.
- Bonds not in security form are not eligible.
- Bonds not backed by assets are not eligible.

In general, the following schedule applies to long-term ratings:

<i>Long-Term Rating Category</i>	<i>Examples</i>	<i>Risk Weight</i>
<i>Highest or second highest investment grade.....</i>	<i>AAA or AA</i>	<i>20%</i>
<i>Third highest investment grade ...</i>	<i>A</i>	<i>50%</i>
<i>Lowest investment grade</i>	<i>BBB</i>	<i>100%</i>
<i>One category below investment grade</i>	<i>BB</i>	<i>200%</i>
<i>More than one category below investment grade, or unrated</i>	<i>B or unrated</i>	<i>Not eligible for ratings-based approach.</i>

Note: There is also a separate short-term rating table. Refer to the regulations.

The Ratings-Based Approach makes a distinction between “traded” and “nontraded” positions. Non-traded positions require the following:

- An external rating by more than one NRSRO
- Minimum rating assigned by each NRSRO that meets all of the following:
 - Long Term: At least one category below investment grade.
 - Short Term: Investment Grade.
 - Rating must be publicly available.
 - Rating must be based on the same criteria as for traded positions.

Note: The capital regulations allow for use of a thrift’s internal ratings in limited circumstances after initial and ongoing OTS approval. The thrift must use software and ratings that correspond credibly and reliably to the NRSRO ratings.

Program Ratings

Program Ratings can be used for certain risk exposures in specific secondary market loan programs. A thrift may make use of program ratings after OTS has reviewed the nature of the program and accepts, under specific conditions, a rating assigned to a particular risk exposure that the thrift retains. The rating must correspond credibly and reliably with an NRSRO rating.

SECURITIZATION INFORMATION REQUESTS

You may find the following data, to be supplied by the institution before the examination, useful in your examination efforts. The information should be for the most recent quarter end. In addition, you should ask the thrift to summarize all significant adjustments to its policy or practices associated with the securitization activity since the last examination.

Risk Management

1. A copy of the strategic or business plans for asset securitization activities.
 2. Primary and contingency liquidity funding plans as they relate to securitization activities.
 3. Copies of all written policies and procedures on asset securitization, that cover the following:
 - a. Establishing and monitoring adherence to risk limits, include:
 - i. Exposure limits for both aggregate and individual transactions.
 - ii. Procedures on how changes can be made to those limits or exceptions approved.
 - b. Hedging and correlation requirements.
 - c. Accounting methodology, including written standards for:
 - i. Initial valuation of assets and liabilities arising out of securitization activities.
 - ii. Recording gains on sale.
 - iii. Periodic valuation of residual and servicing assets.
 - iv. Investor account management.
 - v. Interest and fee accruals.
 - vi. Delinquency reporting.
 - d. Sensitivity analysis, including:
 - i. Policies that govern acceptable methodologies and assumptions.
 - ii. Procedures used to formally approve changes to assumptions.
 - e. Internal controls.
 - f. Internal audit.
 - g. Collection practices.
 - h. Loss migration.
 - i. Investor reporting.
4. A listing and account description of all general ledger accounts associated with the securitization function and corresponding SC or SO Thrift Financial Report (TFR) line items.
 5. A copy of the most recent performance statistics for securitizations reported to the trustee.
 6. Copy of current organizational chart of the asset securitization unit of the bank including phone numbers for each individual.
 7. A list and meeting schedules for all board and/or senior management committees that oversee asset securitization activities. Please make meeting minutes available for our review.
 8. Access to the prospectus or series supplement and pooling and servicing agreement for each outstanding transaction.
 9. Information detailing the potential contractual or contingent liability from guarantees, underwriting, and servicing of securitized assets.
 10. Provide a list of all third party vendors (accountants, rating agency personnel, investment bankers, law firms, etc.) used by the institution for securitized or serviced assets, including:
 - a. Services rendered.
 - b. The contact person for each vendor.

- c. Access to contracts.
- d. Copies of the latest analysis as to assessment of performance.
- e. Most recent audit report, either by you or third party.
- f. The latest financial analysis on the company contracted.

Residual Valuation

- 11. A description of your residual valuation modeling process, and the validation of the model.
- 12. A copy of the residual valuation model input and output supporting the values reported in the most recent TFR and initial value estimate.
- 13. Documentation either internal or external used to support the assumptions used to value the retained interests (discount rate, gross yields, default rate, loss severity rate, prepayments) for both the initial and current estimates.

Management Information Systems

- 14. A description of the risk measurement and monitoring system for securitization activities and copies of all related MIS reports (that is, tracking reports, exposure reports, valuation reports, profitability analyses, etc.) for the most recent TFR filing.
- 15. A copy of management reports used for tracking and monitoring the performance of loan production with different characteristics for the last month end and most recent TFR filing.
- 16. A credit score distribution for your production (nonsecuritized) and outstanding servicing portfolio (securitized).
- 17. Securitization summaries for each outstanding transaction (see attached sample report format).
- 18. Performance reports by portfolio and specific product type. Performance factors include gross portfolio yield, default rates and loss severity,

delinquencies, prepayments, and excess spread amounts.

- 19. Vintage analysis for each pool securitized using monthly data.
- 20. Copies of your most recent static pool cash collections analyses.
- 21. Sensitivity analysis as required by FAS 140.
- 22. Statement of covenant compliance for all relevant deal triggers.
- 23. The most recent quarter end summary report from both nonsecuritized and securitized assets detailing the number of accounts and dollars outstanding for assets that have been:
 - a. Modified.
 - b. Re-written.
 - c. Extended.
 - d. Restructured.
 - e. Repurchased.
 - f. Re-aged.
 - g. Assumed.
 - h. Made to facilitate.

Regulatory Reporting and Risk-Based Capital

- 24. Access to the supporting work papers, and a description of how the IO strip, servicing assets, and other credit enhancing assets are reported on the TFR.
- 25. A schedule supporting the core and risk-based capital calculations for the securitization activity.

FAS 140

26. Copies of the general ledger entries demonstrating the initial entries made when a deal was closed (i.e., removing transferred assets from the books and recording retained interests).
27. A description of current accounting practices for loan fees and costs.
28. The most recently completed impairment analysis and initial valuation calculation for servicing assets and liabilities, interest-only strip securities/residuals. Please identify clearly how current and future monthly cash flows from securitizations support current asset carrying values.
29. The most recently completed impairment analysis and initial valuation calculation for servicing assets. Explain your procedures and methods.
30. Please provide the valuation and accounting treatment for overcollateralization balances and retained portions of securitizations.

Audit

31. A copy of the most recent Internal Audit Plan and a listing of current audit ratings and outstanding audit findings, by area specific to the securitization function.
32. Copies of the most recent internal and external audit reports addressing asset securitization and management's response to deficiencies. In addition, access to external audit work papers to be made available upon request.

Servicing Practices

33. A description of the current processes, time frames, and procedures, for timely loss recognition and nonaccrual treatment for defaulted loans.
34. A description of the terms and conditions for re-aging, extension, modification, and loss miti-

gation activities. Please provide the monthly reports used to monitor these activities.

35. A copy of the most recently prepared management report for servicing that outlines operational results. Please include securitization and loan portfolio vintage level delinquency, roll rates, loss severity factors, and cumulative loss-to-date information.
36. Provide a list of servicing fees received and evidence that the fee represents adequate compensation pursuant to SFAS No. 140.
37. Identify and explain any recourse provisions in servicing contracts.
38. A listing of all servicer advances on a per transaction basis and whether or not such advances have credit enhancing features.

Market Acceptance

39. Access to the Correspondence file(s) showing requests from and responses to rating agencies, investors, etc.
40. A copy of all investor, rating agency, or other third party audits of servicing activities and PMI companies, and insurance wrap companies.
41. Rating changes on outstanding securities, if any.
42. Are there tranches that are nonrated, but more senior in the securitization structure to rated tranches.