X RISK MANAGEMENT AND EXAMINATION ISSUES

INTRODUCTION

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 securitizations 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.

A bank's strategic decision to engage in securitization activities should only be made in the context of the bank's overall growth plans, profitability objectives, funding alternatives, and operational capacities. Examiners should expect management and the board to:

- Have the request knowledge of the effects of securitization on the risk profile of the bank and be fully aware of the accounting, legal, and risk-based capital nuances associated with this activity.
- Understand the impact market and economic conditions will have on the nature of the risks inherent to securitization activities.
- Identify and clearly understand those risks that remain with the bank after the credit card receivables have been transferred to investors and credit enhancement providers.
- Fully and accurately distinguish and measure the risks that have been transferred versus those that have been retained and adequately manage both the retained and sold portions.

This chapter discusses the risks present in securitization activities, management's responsibilities to mitigate risks, reporting requirements, and examination considerations. In 1999, the Federal banking agencies issued FIL-109-99, *Interagency Guidance on Asset Securitization Activities* (Asset Securitization Guidance) to highlight the importance of fundamental risk management practices governing asset securitization activities. In addition to many other considerations, this chapter encompasses the bulk of this guidance, updated to reflect certain changes in regulatory and accounting rules.

ASSESSING THE RISK

The risks associated with securitization activities are credit, liquidity, reputation, operational (includes transaction, compliance, and legal risk), and strategic risk. In accordance with the Asset Securitization Guidance, examiners should assess management's understanding of these risks and whether or not management takes appropriate steps to minimize, measure, monitor, and control the bank's exposure to these risks. Management is expected to develop a framework within which securitization risks can be effectively monitored from inception to final maturity. These risks are presented in more detail below with the more significant risks presented first.

Credit Risk

Credit risk arises from the cardholders' failures to repay their credit card debts or other wise perform as agreed. Securitization structures are designed to reduce the credit exposure of the assets sold by transferring the unexpected portion of the default risk to credit enhancement providers and investors. Typically, the bank serves as the credit enhancement provider by either retaining a subordinated bond, CEIO strip, or other type of credit enhancement. The first loss exposure assumed by the bank as the originator and often the servicer of the receivables is a function of its acceptance of excess portfolio yield as a residual interest. As pool performance deteriorates and charge-offs increase, excess spreads decline and thus the value of the CE IO strip declines. Once the excess spread is exhausted, the risks of credit default then customarily shift to the other credit enhancements, including those retained by the bank, such as spread accounts or subordinated bonds. Since losses significant enough to trigger early amortization events have been infrequent, plus the originating bank typically holds the most subordinated bond, the bank, in effect, retains most of the credit risks of the receivables even if they have been considered sold for accounting purposes. This retention of credit risk on the underlying receivables is not always apparent since it is concentrated in a smaller residual interest. This retained risk, coupled with improper residual interest valuations and “paper profits” generated by the sales accounting, were the catalysts for the 2001 revisions of the regulatory capital standards to address the treatment of recourse obligations, residual interests, and direct credit substitutes that expose banking organizations primarily to credit risk.

In addition, loan performance that deviates from the projected performance reflects poorly on the underwriting and risk assessment capabilities of the originating bank. Credit card receivable performance is publicly available and monitored by market participants and the rating agencies. Poor credit quality and performance may limit the bank’s future access to the securitization markets, affecting the pricing of subsequent issues or impacting funding costs from alternative sources. Therefore, in addition to the credit risk existing in on-book residual interests, the bank also retains an additional degree of credit risk attributed to moral recourse. Banks may be compelled to absorb more losses or provide greater credit enhancements than contractually required in the securitization documents in order to preserve its reputation with the markets, and, thus, its access to market funding. However, bank management needs to be extremely cautious when providing non-contractual enhancements as they could be viewed as implicit recourse. A determination of implicit recourse could compromise the transaction’s legal standing as a sale, which could have material implications on both funding and capital positions and perhaps tax consequences. The Regulatory Capital, Designation of Receivables, and Credit Enhancement Chapters provide further discussions on implicit recourse.

Since originating banks absorb most of the expected losses from both on- and off-balance sheet and securitized pools, examiners should expect management to instill sound underwriting and credit administration practices to protect against excessive credit risk and losses. The Risk Management Examination Manual for Credit Card Activities provides considerable information regarding the entire underwriting, monitoring, and credit administration practices. Examiners reviewing securitization activities should coordinate their review with those examiners reviewing asset quality and credit administration practices for the on-book receivables. Bank management is expected to insure that all loans, retained and sold, are subject to the same underwriting and administration practices. In addition to prudent underwriting, bank management should produce and examiners should review the various monitoring reports, which should incorporate reporting on a managed basis, to assess the credit risk exposure and its potential impact to earnings and capital.

While credit risk is viewed as the most significant risk that needs to be managed for any credit card issuing bank, managing credit risk for a bank that also uses the securitization market for funding takes on another dimension since it also impact a bank’s ability to access and maintain this funding source. Poor performance of the underlying receivables could limit this funding source or, in a worst-case scenario, lead to an early amortization event and perhaps a liquidity crisis that could threaten the bank’s viability.

Liquidity Risk

Liquidity risk arises from a bank’s inability to manage unplanned changes in funding sources, which if significant could threaten its viability, or in meeting its obligations at a reasonable cost without incurring significant loses. Securitizations can provide liquidity for balance sheet assets as well as funding for leveraging origination capacity but it can also *increase* liquidity risk. The possibility that the bank may not be able to sell subsequent charges on the accounts and may need to fund these on balance-sheet as a result of either scheduled or early amortization raises liquidity concerns. Liquidity risk also arises from the bank's failure to recognize or address changes in market conditions that may impact its ability to liquidate assets quickly and with minimal loss.

Securitizations provide banks with a ready source of managed liquidity, particularly given the advent of the de-linked structure, and also increase a bank's access to, and presence in, the capital markets. While securitizations can provide an attractive alternative funding source, too much reliance on any single funding vehicle increases liquidity risk. Monoline credit card companies typically rely heavily on the securitization market for funding given their lack of a retail banking network and access to core deposit funding. In addition to securitizations, monolines typically fund with higher-cost wholesale funds, such as brokered deposits and borrowings. Securitizations often provide a cheaper **all-in funding cost**.

The primary liquidity risk is the potential that a large pool of assets could require balance sheet funding at unexpected or unplanned (or ill-planned) times. This risk is magnified in banks where management does not properly structure maturities of individual series within the master trust and thus creates maturity concentrations.

In order to appropriately manage liquidity risk, examiners should expect management to factor implications of securitization into daily and intermediate- to long-term liquidity planning, strategic planning, and contingency planning. Each asset sale should be viewed not only for its individual impact on funding but also for its affects on the aggregate funding position. For example, management should determine if each securitization transaction, particularly if it is sufficiently large, creates a potentially unsafe concentration in this type of funding, creates a maturity concentration, or its structure results in excessive volumes of residual interests held on the balance sheet.

Examiners should review the liquidity implications of the bank's securitization activities in relation to the bank's normal liquidity management process, including contingency planning. Liquidity factors to consider include, but are not limited to:

- The number of transactions or volume of certificates scheduled to amortize in a particular period of time.
- The length of amortization periods (bullet, one month, six months, etc.).
- The existence and type of early amortization triggers.
- Management's plans and timing for meeting future funding requirements.
- Plans for new issuances.
- Alternative sources of funding.
- Operational concerns associated with new issuances.

At a minimum, contingency planning should include the identification of alternative funding sources available for the full amount of securities expected to amortize over the next reporting period. Contingency plans should also provide for funding alternatives in the event of a complete withdrawal from the securitization market or in the event of a reduction in credit availability.

Early warnings mechanisms related to early amortization triggers, which are often set off by three successive months of negative cash flows (excess spread) on the pool of receivables, should be in place. Prudent monitoring allows management to be alerted well in advance of approaching triggers so that preventative measures can be considered and incorporated into shorter-term liquidity planning.

Capital Risk

Even if the bank has sufficient funding sources available, the bank may have insufficient capital to support unplanned balance sheet growth related to a complete withdrawal from the securitization market. Most banks that securitize credit card receivables will internally establish minimum capital to managed assets levels and report this information in public documents.

Ultimately, capital must be sufficient to absorb or protect against losses arising from credit and other factors. These other factors include having sufficient capital to:

- Possibly fund new receivables if access to the securitization market is eliminated or curtailed.
- Withstand additional costs associate with funding in poor market conditions.
- Protect against losses arising from inadequate servicing, reimbursements or fines arising from failing to comply with all consumer laws and regulations, reimbursements arising from representations and warranties made in support of the transaction, or any other losses stemming from other legal liabilities.

Reputation Risk

A negative reputation primarily impacts a bank's ability to obtain reasonable funding and thus presents liquidity risk. Reputation risk is the risk to liquidity, earnings, and capital arising from negative public perception. Reputation risk can expose the bank to difficulty accessing the markets for funding (includes securitizations, stock issuances, and debt issuances), acquiring and retaining customers, and increased legal and regulatory scrutiny that could result in fines, reimbursements, and possibly stricter rules. Poor lending decisions and operational controls could lead to a damaged reputation.

Reputation risk also has a qualitative nature, reflecting the strength of an organization's franchise value and how it is perceived by other market participants. This perception is usually tied to performance over time. A credit card issuing and securitizing bank, arguably, stakes its reputation most heavily on the quality of the underlying receivables and the efficiency at which it can service those receivables.

Asset performance that falls short of expectations will reflect poorly on the underwriting and risk assessment and selection capabilities of the bank. Since the performance of the securitized pool is publicly disclosed and closely monitored, market participants will quickly highlight potential problems that may have been less obvious if the bank was not actively seeking funding from the markets. The best evidence of how the market perceives a particular securitizer is how it accepts and prices newly-issued certificates or notes. Acceptance and pricing include subscription levels (under or over subscribed), enhancement requirements, and required pricing spreads.

The most effective method of controlling reputation risk is by establishing and operating within a sound business plan complimented by prudent and effective risk management and control frameworks. As noted previously, the need to maintain a good reputation in the markets can entice management to provide non-contractual support to the securitized pool of assets in order to improve the pool's performance. By doing so, management needs to be fully cognizant of the potential long-term market, accounting, legal, and regulatory consequences since such actions could result in a determination of implicit recourse.

Operational Risk

Operational risk is defined as the risk to earnings and capital from inadequate or failed internal processes, people or systems, or from external events; and from the processes for measuring, monitoring and controlling these exposures. Operational risk includes, but is not limited to, transaction, compliance, and legal risks. Losses sustained and/or publicity surrounding process or system failures can harm the bank's reputation and thus its access to funding sources as well.

Transaction risk is a function of the bank's internal controls, information systems, employee integrity, and operating procedures. Transaction risk increases when the business activity is complex, such as with securitizations, and management does not fully understand its responsibilities. This risk is inherently heightened when management is responsible for the servicing and administration of the credit card receivables. As servicer, the bank is responsible for a variety of functions. Poor administration of these responsibilities, such as incorrect loan and payment processing, insufficient collections of delinquent payments, untimely or inaccurate investor reporting, and other servicing problems, increases the bank's expose to transaction risk.

Transaction processing can increase considerably if the bank's decision to embark on securitizations and leverage origination capacity results in rapid growth without sufficient systems capacity or personnel. Excessive volumes may overextend the existing systems and personnel and contribute to technical and human error. In addition, management, investors, regulators, and the rating agencies require a variety of timely and accurate reporting. This task can become more complex if it involves loan sources from multiple affiliates with different processing and reporting systems, multiple asset pools such as those acquired via a merger or acquisition, or when bank-sponsored conduits have pooled receivables from various third-party originators. Trustees and investors have little tolerance for errors in reporting.

Operational risk increases if the bank expands or enters into new markets and products that are then sold into the securitization vehicle. For example, if a bank expands into the subprime market, it may not have sufficient underwriting, collection, or monitoring expertise that is typically associated with higher-risk borrowers. Or, it may not have sufficient information systems capacity or flexibility to address new products. For example, a bank may decide to offer a rewards program, but lacks sufficient coordination, capacity, or expertise to adequate monitor and capture the rewards program and respective points. Examiners should expect management to have developed system enhancements that provide timely and accurate information on the securitized and on-book portfolios.

Consumer complaints usually stem from servicing or loan quality issues. Complaint monitoring allows management to assess potential legal or reputation risk associated with servicing the underlying assets. Non-conformance or violations of laws, rules, regulations, prescribed practices, ethical standards, and governing contracts could present compliance and ultimately legal risk. Compliance risk arises in situations where the laws or rules governing certain bank products or activities of the bank may be ambiguous or untested. Compliance risk also exposes the bank to fines, civil money penalties, restitution or reimbursement, reduced franchise value, limited business opportunities, lessened expansion potential, and lack of contract enforceability.

Since the bank remains the owner of the accounts even when the receivables are sold and securitized, it is still responsible for compliance with consumer laws and regulations, including fair lending and other anti-discrimination laws, affecting the underwriting and servicing practices of the bank. The complex and changing nature of securitization activities requires knowledgeable and experienced management and guidance from competent professionals, such as accountants, attorneys, investment bankers, and others. It is reasonable to expect that management has provided for review by legal and accounting professional any initial structure decisions and any new or unusual actions proposed by management during the life of a series.

Strategic Risk

Poor strategic planning and managerial decisions can place a bank's liquidity, earnings, and capital at risk and should be reflected primarily in the management assessment and rating. Examiners are charged with determining if a bank's decision to engage in securitization activities is prudently accompanied by sufficient resources to carry out the strategic goals. These resources include proper communication channels, operating systems, delivery networks, reporting systems, and managerial capacity and capabilities. Before the bank participated in securitization activities, management should have performed a risk assessment to determine if the risks involved and the resources available were consistent with the bank's overall strategic and financial objectives. Examiners should review the risk assessment and determine if, at a minimum, it includes the following:

- An evaluation of the cost of securitizing credit card receivables compared to the cost of alternative funding sources, including any additional or upgrades in technology and personnel, particularly if also providing the servicing.
- An assessment of the initial cost of the transaction.
- A determination as to the ongoing costs and attendant risks related to each series.

This analysis should be fully documented and support management's decision to engage in securitization activities. The personnel involved in the securitization process should be delineated and made a part of management's analysis and risk assessment.

MANAGEMENT RESPONSIBILITIES

The foremost responsibility of management is to assess the risks involved in the securitization of credit card receivables before the bank participates in such activities. Once the risks are assessed, management should integrate all securitization activities into the bank's strategic plan. At a minimum, the strategic plan should include liquidity objectives, performance objectives, and procedures for maintaining capital levels commensurate to the risks involved. Examiners should determine if proper policies and procedures were in place before the bank engaged in securitization activities. Those policies should address and provide guidance in these areas:

- Accounting.
- Managing the legal risk.
- Minimizing conflicts of interest.
- Avoiding undue concentrations in the pool of credit card receivables.
- On-going monitoring.

Sound operating policies and procedures are critical to management's ability to identify, measure, monitor, and control the risks associated with securitization activities. In accordance with the Asset Securitization Guidance, examiners should expect that the bank has appropriate front- and back-office staffing, internal and external accounting expertise, legal support, audit or independent review coverage, information systems capacity, and oversight mechanisms to execute, record, and administer these transactions correctly.

As noted in the Residual Interest Valuation and Modeling Chapter, unforeseen market events that affect the performance of the underlying receivables or the discount rate supporting the residual interest can dramatically impact the value of the residual interest and, thus, impact earnings and capital. Without appropriate internal controls and independent oversight, a bank that securitizes credit card receivables may inappropriately report higher earnings performance and capital level.

When the bank engages in securitization activities, examiners should assess whether or not its management has provided for and requires:

- Independent risk management processes designed to monitor securitization pool performance.
- Conservative valuation assumptions and modeling methodologies to establish, evaluate, and adjust the carrying value of residual interests on a regular and timely basis.
- Audit or internal review staffs to periodically review data integrity, model algorithms, key underlying assumptions, and the appropriateness of the valuation and modeling process

for the residual interests retained by the bank. The findings of such a review should be reported directly to the board or an appropriate board committee.

- Accurate and timely risk-based capital calculations, including recognition and reporting of any recourse obligation, implicit or direct.
- Internal limits to govern the maximum amount of residual interests as a percentage of total equity capital.
- The institution to have a realistic liquidity plan in place in case of market disruptions.

Independent Risk Management Function

Examiners should expect institutions engaged in securitization activities to 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 bank's circumstances. A sound asset securitization policy should include, at a minimum:

- A written and consistently applied accounting methodology.
- Regulatory and investor reporting requirements.
- Valuation methods, including a description of the valuation model's construction and assumptions and procedures to formally approve changes to the assumptions.
- A management reporting process.
- Exposure limits and requirements for both aggregate and individual transaction monitoring.
- Limits on the amount of residual interests that may be carried as a percentage of total equity capital, based on the results of the valuation and modeling processes.

The risk management function should monitor origination, collection, and default management practices. This includes regular evaluations of the quality of underwriting, effectiveness of collections activities, ability to resolve severely delinquent loans in a timely and efficient manner, and the appropriateness of loss recognition practices. Because securitization can result in the current recognition of anticipated income, the risk management function should also address the types, volumes, and risks of assets being originated, transferred, and serviced. Examiners should be on the look out for any pressures placed on line managers to originate abnormally large volumes or higher-risk assets in order to sustain ongoing income needs. Such pressures can lead to compromised credit underwriting standards which potentially accelerate credit losses in future periods, impair the value of residual interests, and potentially lead to funding problems.

In accordance with the Asset Securitization Guidance, examiners should expect that the bank has appropriate management information systems (MIS) in place to monitor securitization activities. Reporting and documentation methods should support the initial valuation of residual interests and ongoing impairment analyses of these assets. Pool performance information has helped well-managed institutions to ensure 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, examiners should expect the MIS reports to 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. The summaries should be distributed to all personnel responsible for securitization activities.
- *Performance reports by portfolio and specific product type* **-** Performance factors include gross portfolio yield, charge-off rate, delinquencies, payments, and excess spread amounts. The reports should reflect performance of the credit card receivables, both on

balance sheet and managed. These reports should segregate specific products and marketing campaigns.

- *Vintage analysis using monthly data* **-** Vintage analysis helps management understand historical performance trends and their implications for future default rates, principal payment rates, and delinquencies, and, therefore, residual interest values. Vintage analysis helps in the comparison of deal performance at periodic intervals and validates residual 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 changes. On a monthly basis, management should be comparing the timing and amount of cash flows received from the trust with those projected as part of the residual interest valuation analysis consistent with FAS 140. These analyses are essential in assessing the actual performance of the portfolio. If cash receipts are less than those assumed in the original valuation of the residual interest, this analysis provides management with an early warning of possible problems with collections or extension practices and impairment of the residual interests. This type of analysis is expanded upon in the Back Testing Section of the Residual Interest Valuation and Modeling chapter.
- *Sensitivity analysis* **-** Measuring the effect of changes in yields, default rates, principal payment rates, and discount rates assists management in establishing and validating the carrying value of residual interests. 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, and early amortization triggers. An increase in defaults can result in higher than expected costs and a delay in cash flows, thereby decreasing the value of the residual interests. Management should be periodically quantifying and documenting the potential impact to earnings and capital and reporting the results to the board**.** Management should be incorporating this analysis into its overall interest rate risk measurement system. Examiners should review the analysis conducted by management and the volatility associated with residual interests when assessing the Sensitivity to Market Risk component rating. Stress Testing is expanded upon in the Residual Interest Valuation and Modeling chapter.
- *Statement of covenant compliance* - Ongoing compliance with each series’ performance triggers as defined by the pooling and servicing agreements should be affirmed at least monthly. Performance triggers include early amortization, spread capture, and events that would result in servicer removal. Examiners should review the report to ensure that the triggers are calculated correctly as specified in the prospectus, pooling and servicing agreement, or offering circular.

Examiners should also compare internal performance reports with those provided to investors and the regulatory agencies. Management should be able to reconcile any discrepancies, which often occur due to different calculation time frames, such as one month annualized, one quarter annualized, or year-to-date annualized performance ratios.

Effective internal routines and controls are essential to managing risks associated with securitization activities. When properly designed and consistently enforced, a sound system of internal control over all securitization activities helps management safeguard the bank’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 timely detection when they do occur. The Committee of Sponsoring Organizations of the Treadway Committee (COSO) issued *Internal Control over Financial Reporting – Guidance for Smaller Public Companies* in June 2006, which examiners may reference for additional guidance when assessing smaller public companies that are involved in credit card securitizations.

Internal routine and controls typically include:

- Limiting authorities.
- Safeguarding access to and use of records.
- Separating and rotating duties.
- Ensuring both regular and unscheduled reviews, including testing.

Examiners should assess the institution's internal control structure and requirements to determine whether it is appropriate for the bank's size and the nature, scope, and risk of its activities. The management of institutions that are subject to the requirements of FDIC regulation Part 363 of the FDIC's regulations *Annual Independent Audits and Reporting Requirements* and have $1 billion or more in total assets should be performing an assessment of the effectiveness of the internal controls over those elements of their securitization activities that affect the information reported in the financial statements as part of management's assessment of the overall effectiveness of the internal control structure and procedures for financial reporting. The assessment implicitly includes the internal controls over financial information that is included in regulatory reports.

Valuation and Modeling Processes

The method and key assumptions used to value the residual interests and servicing assets or liabilities must be reasonable and fully documented. Examiners need to determine if management takes a logical and conservative approach when developing assumptions and capitalizing future income flows. The assumptions should be quantified and any changes to the assumptions should be fully documented as part of management's valuation process, which should be done no less than quarterly. Policies should define the acceptable reasons for changing assumptions and require appropriate management approval.

In order to determine the value of the residual interest at inception and make appropriate adjustments going forward, the institution must be implementing a reasonable modeling process. Examiners should review the valuation assumptions and projections to determine if they are reasonable and conservative and that management maintains verifiable objective documentation of the fair value of the residual interest. Senior management is responsible for ensuring the valuation model accurately reflects the cash flows according to the terms of the securitization's structure. In accordance with the Asset Securitization Guidance, the board and management are accountable for ensuring that those individuals responsible for building the model or reviewing the acquisition of the model possess the necessary expertise and technical proficiency.

As part of the modeling process, examiners should expect that the risk management function ensures that periodic validations are performed in order to reduce vulnerability to model risk. 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. Valuation and modeling, including validation, are discussed in detail in the Residual Interest Valuation and Modeling chapter.

Use of Outside Parties

Banks often engage third parties to provide professional guidance and support regarding securitization activities, structures, and transactions. In addition, third parties are frequently used for core operating functions, such as for developing the valuation model (both its construction and the assumptions used), validating the accuracy of the model and integrity of the model's assumptions, and providing internal and/or external audit functions. Some institutions may also outsource other core functions such as marketing, underwriting, and servicing of the underlying receivables. The use of outside resources, especially for those core functions noted above, does not relieve directors of their oversight responsibility. Nor does it relieve senior management of its responsibilities to provide supervision, monitoring, and oversight of securitization activities, and the management of the risks associated with residual interests in particular. Examiners should expect management to have the experience, knowledge, and abilities to discharge its duties; to understand the nature and extent of the risks presented by securitization activities; and to develop the policies and procedures necessary to implement an effective risk management system to control such risks.

Outside parties are often used to develop a valuation model. As noted in the Residual Interest Valuation and Modeling chapter, banks often purchase or contract out the creation of a valuation model but management may not fully understand the model's design. A bank may have good models, but if users do not understand how to use them completely, the resultant values produced by the model may be flawed. Conversely, if the acquired model contains material structural flaw, and if management does not fully understand its design, it may not be able to identify these flaws and again could be producing and reporting inaccurate residual interest values. In addition, outside parties may be used to assist with determining the key assumptions used in the valuation model. Examiners should expect management to have provided outside parties with all the necessary data to derive assumptions and to understand and assess the reasonableness of any assumptions provided by outside parties. Management should be able to clearly demonstrate to the examiners its due diligence process for both selecting the appropriate third-party to assist in the valuation process and assuring that the resultant models, their assumptions, and output are reasonable and reliable.

Outside parties are also often used to perform the validation and audit of the residual interest valuation process. Validation and audit are two distinct processes. Validation refers to the process by which a person or persons independent of the valuation process validates the integrity of the model construction and its assumptions. Internal review or audit is the process by which a person or persons reviews the valuation procedures and processes to ensure that the person doing the validation is in fact independent, the validation scope is sufficiently detailed to ensure a suitable validation process is achieved, and that the validation is occurring at appropriate times and intervals. The person or persons conducting the validation should not be the same person or persons completing the internal review or audit. This concept is consistent with concepts contained in the *Interagency Policy Statement on the Internal Audit Function and Its Outsourcing.*

If the bank has outsourced other core functions such as marketing, underwriting, and servicing of the underlying receivables, examiners should determine if management has performed and provided for appropriate due diligence of the third-parties and oversight of their activities. Even if the receivables solicited, underwritten, and serviced by a third-party, such as in a Rent-a-Bin arrangement, are sold into a securitization vehicle, the bank remains as the owner of the account and continues to be exposed to significant risks that may be exacerbated by inappropriate actions of the third party. The Risk Management Examination Manual for Credit Card Activities contains several discussions on third-party arrangements in a general chapter on third parties and in its Credit Card Issuing Rent-a-BIN, Merchant Processing, and Third Party Relationships chapters. If the bank has used outside parties for certain securitization-related functions, examiners should refer to that manual.

Internal Audit Function or Internal Review

Examiners should obtain and review the qualifications of the internal audit staff or those responsible for the independent review function and the most recent internal audit or review findings to determine if the staff is qualified to review securitization activities, if the review is adequate in scope, and if the findings are significant. During the examination process, examiners should determine if:

- The audit staff is independent from the decision making and daily operating processes.
- The internal audit program consists of periodic reviews of securitization activities, including transaction testing and verification.
- Findings are reported to the board or appropriate board committee.

- Principal audit targets include compliance with securitization policies, operating and accounting procedures, and series' covenants, as well as the accuracy of information systems and reports.
- The audit function confirms that the institution's regulatory reporting process is designed and managed in such a way as to facilitate timely and accurate report filing.
- Appropriate tracking and follow-up procedures of audit findings are established.

Furthermore, when a third party services the receivables, examiners should determine if the auditors perform an independent verification to ensure receivable balances reconcile to internal records. If management has not provided for such verification, examiners should contact the regional office to determine if it is prudent to complete their own testing of the third-party's records.

If recent internal audits or reviews are insufficient in scope or present critical findings, examiners should consider expanding their review of the areas that were not sufficiently addressed in the scope or where deficiencies are presented. For identified deficiencies, examiners should determine how and why the deficiencies occurred, any actions management has taken or plans to take in response to the findings, and the impact the deficiencies may have on the bank's financial condition or management assessment.

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. 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, examiners should determine if personnel who prepare these reports have the prerequisite knowledge of reporting rules and associated interpretations.

Regulatory agencies have revised and expanded the information collected in the Reports of Condition and Income (Call Reports) to facilitate a more effective analysis of the impact of securitization and asset sale activities on bank credit exposures. For banks engaged in securitization activities, examiners should pay particular attention to the following schedules: *Schedule RC-S - Servicing, Securitization, and Asset Sale Activities; Schedule RC-R – Risk-Based Capital; Schedule RC-I – Report of Income; Schedule RC-F – Other Assets,* and *Schedule RC-L – Off Balance Sheet Items.*

Schedule RC-S should be completed on a fully consolidated basis. *Schedule RC-S* includes information on assets that have been securitized or sold and are not reportable on the balance sheet of the Report of Condition, except for certain on-balance-sheet retained interest-only strips, subordinated securities and other enhancements, and seller's interests, which are included in *Schedule RC-S*. Examiners should refer to the Call Report instructions for these respective schedules as well as its glossary for specific instructions and information.

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. FAS 140 sets forth required disclosures, and Appendix C to FAS 140 provides specific examples that illustrate the required disclosures. Well-informed investors, depositors, creditors and other 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.

Paragraph 17 of FAS 140 details the disclosure requirements. For purposes of this manual, the focus is specifically on paragraphs 17 (h) and (i) of FAS 140, as amended, which pertain to securitizations that are accounted for as sales and in which the transferor (bank) has a continuing involvement in the transaction, respectively. Examiners should refer to the pronouncement for the exact language for each requirement. Briefly, these sections of Paragraph 17 require the following minimum disclosures:

- Accounting policies and methodologies used in determining the fair value for the initial and subsequent measurement and valuations of interests that continue to be held by the transferor and the methodologies used to determine their fair value.
- A description of its continuing involvement with the transferred assets, such as servicing, recourse arrangements, and restrictions on interests that continue to be held.
- Any related gain or loss recorded on the transaction.
- A discussion of the key assumptions used to measure the initial and subsequent fair values of any interests that continue to be held by the transferor. These disclosures should include, at a minimum, information about discount rates, expected weighted average life of the underlying receivables (a function of the expected principal payment rate), and anticipated credit losses.
- A discussion of cash flows between the transferor (bank) and the securitization vehicle, including proceeds from new securitizations, principal collections that have been re-invested in the revolving securitization, any delinquent receivables that the securitization vehicle has put back to and have been repurchased by the transferor, servicing fees, and cash flows on interests that continue to be held by the transferor.
- For all managed assets (both on and off-balance sheet receivables), the risk characteristics of the underlying securitized receivables, including delinquencies at the end of the reporting period, net credit losses during the reporting period, and the principal amount of securitized receivables outstanding at the end of the reporting period that has been derecognized (reported as sold) and the portion that continues to be recognized on the transferor's balance sheet.
- Sensitivity analysis or stress testing conducted by the institution showing the effect on the fair value of the interests the transferor continues to hold of two or more unfavorable changes in each of the key assumptions and a description of the sensitivity analysis or stress test methodology, objectives, and limitations.

Paragraph 17 also addresses disclosure requirements for servicing assets and liabilities. FAS 156, which was issued in March 2006, amended certain provisions of FAS 140, one of which is the disclosure requirements for servicing assets and liabilities. FAS 156, which, among other things, gives banks the option of either subsequently measuring each class of servicing assets and/or liabilities at fair value or at amortized cost, the following disclosure requirements will apply:

- Management's basis for determining the bank's classes of servicing assets and liabilities.
- A description of the risks inherent in servicing assets and liabilities and a description of any instruments used to mitigate the income statement effect of changes in fair value of the servicing assets and liabilities.
- The amount of contractually specified servicing fees, ancillary fees, or late fees earned during the reporting period, including a description of where these fees are reported on the income statement.
- *For classes of servicing assets and liabilities subsequently measured at fair value*, the activity in each class of servicing assets and liabilities during the reporting period and a description of where changes in the fair value are reported in the income statement, including beginning and ending balances, additions, disposals, changes in fair value resulting from changes in valuation inputs or assumptions used in the valuation models and from other reasons, and any other changes affecting the balance. The disclosure should also include a description of the valuation techniques used to estimate the fair values. Specific examples of what should be included in the descriptions are provided in the actual pronouncement.

- *For classes of servicing assets and liabilities subsequently amortized* and assessed for impairment, the activity in each class or servicing assets and liabilities during the reporting period and a description of where changes in the carrying amount are reported in the income statement, including beginning and ending balances, additions, disposals, amortization, application of valuation allowance, other than temporary impairments, and any other changes affecting the balance and a description of those changes. The disclosure should also include the fair value of the servicing assets and liabilities at the beginning and end of the period, if practicable to estimate, and the description of the valuation techniques used to estimate the fair value. It should also include the risk characteristics of the underlying financial assets and the activity in any valuation allowance for impairment of recognized servicing assets.

REPORT OF EXAMINATION CONSIDERATIONS

The effects securitizations have on the bank's overall financial condition need to be considered when assigning CAMELS ratings and preparing the Report of Examination. The Risk Management Examination Manual for Credit Card Activities provides discussion on the various CAMELS components when a bank is engaged in credit card lending. When examining banks that engage in credit card securitizations, examiners should also consider some of the unique implications that securitizations have on the bank's risk profile.

Capital

Capital should be assessed in light of asset quality and balance sheet composition. A significant concentration in higher-risk residual interest and the quality of the on-book receivables impacts both capital and asset quality.

In addition to the standard capital measurements and criteria assessed, examiners should also consider the book value of residual interests to equity capital when assessing the quality of capital. As noted throughout this manual, securitizations allow banks to leverage capital and generate profits that are contingent on future cash flows. An important component of this assessment is the amount of equity capital that supports higher-risk, more volatile residual interests. If, for example, residual interests represent a significant percentage of equity capital, the bank inherently presents greater risk to the deposit insurance fund. This inherent risk, however, may be mitigated by sound and effective risk management practices, such as prudent account solicitation, underwriting, and collection practices; conservative valuations of the residual interests; sound liquidity and contingency funding policies; and effective independent review and validation practices.

In addition, since a bank that securitizes and retains residual interests in the sold loans typically bears the first risk of loss, and commonly all the loss exposure, on the sold assets barring a catastrophic event, examiners should consider assessing the ability of equity capital to meet the credit risk contained in managed assets (managed asset exposure) by reviewing equity capital to managed assets ratios. When calculating this ratio, examiners should reduce the equity capital number by the amount of the CE IO strip, since if the assets were still on the banks books, the bank would not have been able to record this future income in capital. This analysis is similar to that performed by the rating agencies when monitoring the performance of companies that have significant involvement in the securitization market. Furthermore, for banks that have a heavy reliance on securitizations funding concentration issues may impact the examiner's assessment of capital. If the bank is unable or unwilling to access securitization-based funding, it may have to fund the receivables on balance sheet, which, if significant in volume, could cause a material reduction in the leverage capital ratio.

While the risk-based capital rules, which are discussed in the Regulatory Capital Chapter, incorporate the inherent risk and volatility of residual interests and attempt to quantify this risk in the risk-based capital measurements, the leverage ratio is not adjusted for this elevated risk. In the event of a possible bank failure and subsequent receivership, it is the amount of equity capital, as measured by the leverage ratio, which impacts the loss to the deposit insurance fund. As a result, while the risk-based capital ratios are very telling about the risk present as a result of securitization activities, the composition and quality of capital as viewed through the leverage ratio and residual interests to equity capital ratio are also important considerations when assessing capital, especially when examining a problem bank.

Asset Quality

On-book receivables are normally listed for adverse classification in accordance with the Uniform Retail Credit Classification and Account Management Policy, and sometimes even more broadly if the credit risk presented by the receivables so warrants, as noted in the Risk Management Examination Manual for Credit Card Activities. Examiners should also assess the residual interests for potential adverse classification.

Regardless of where the residual assets are held on the balance sheet, the examiners should consider the *Uniform Agreement on the Classification of Assets and Appraisal of Securities Held by Banks and Thrifts* (FIL-70-2004) (Uniform Agreement) when determining whether or not the residual interests should be adversely classified. The Uniform Agreement, however, does provide flexibility, and examiners may assign a more or less severe classification (or decide not to classify) when justified based on applicable facts and circumstances. In addition, not all residual interests are rated, so examiners will need to make an assessment about whether or not the non-rated residual interest would have received a sub-investment grade rating or presents characteristics of sub-investment quality. The following example illustrates one possible way of assessing non-rated residual interests. If, for example, the bank holds a non-rated subordinated bond from a particular series and the next senior bond in that series was rated BBB or BB, it may be reasonable to assume that the more junior non-rated bond would have received a sub-investment grade rating as well and, thus, warrants adverse classification.

Management may disagree with the aforementioned approach. A possible counter view could be that if, for example, the next senior bond in the series was rated BBB, the un-rated bond would have been rated a BBB- rather than BB. If management presents this counter view, examiners should consider any documentation provided by management to support this view and determine if it is reasonable. The most significant considerations should be any credit enhancement supporting the un-rated piece, the performance of the underlying receivables (which would translate into the value of the CE IO strip; a likely credit enhancement for the un-rated bond), and the remaining time to maturity. The remaining time to maturity could present a complicated issue. For example, if a bank holds a basic corporate bond that has a sub-investment grade rating but at the time of the examination there are only one or two months before it matures, examiners *may* choose not to adversely classify the bond if management can demonstrate that it is highly likely the bank will be repaid in full at maturity and the bank has no intention of purchasing a similarly-rated bond from the same corporation. With revolving credit card securitizations, an examiner may not reach this same conclusion. For example, even if there is only one or two months before an un-rated, presumably sub-investment grade bond matures, management may intend to issue a new series out of the master trust as a result of the maturing series. Thus, the current bond on the books would likely be replaced by another bond issued under the new series secured by the same receivables. However, what is not known is under what conditions the new bond will be issued (credit-enhancements, term, price, etc.). Again, it is up to examiners to use judgment when determining whether or not assets warrant adverse classification. Regardless of whether or not the assets are adversely classified, their risk characteristics must be considered in the assessment of asset quality.

Determining adverse classification of other residual interests, particularly the CE IO strip, cash collateral account, and spread account, is less straight forward. Typically the CE IO strip absorbs the first credit losses, and is therefore the most subordinated residual interest, and serves as a credit enhancement to the investor certificates, including subordinated certificates held by the bank. Continuing with the example, if the CE IO strip serves as a credit enhancement for the bank's non-rated subordinated bond that is considered to be the credit equivalent of sub-investment quality, then it is logical to assume that the CE IO strip should also be considered sub-investment quality and listed for adverse classification accordingly. Similar logic could be applied to other residual interests, such as CCAs and spread accounts, if the securitization documents specify that these assets are also credit enhancements for the non-rated subordinated bond.

Not all securitizations are the same so examiners should not automatically assume that a CCA or a spread account serves as a credit enhancement for all investor certificates. For example, some securitizations are structured so that the CCA and/or spread account serves as a credit enhancement for only certain bond classes, such as the Class A and B bond holders but not the Class C holders. These accounts may still warrant adverse classification, but a different type of analysis would be necessary to determine if such a designation is warranted. While the most common risk characteristic is credit quality, the value of the CE IO strip is also impacted by payment rates. The Uniform Agreement suggests that adverse classification for reasons other than credit risk is possible; therefore, in addition to the credit risk present in the CE IO strip, the risk of a possible decline in the value of the CE IO strip due to higher principal payments may also be present.

Management may challenge the notion of adversely classifying cash, such as when a cash collateral account is held on deposit at the bank or the funds are invested in short-term liquid assets. In this situation, the first assessment should be to make sure that the cash collateral account is appropriately identified as a residual interest and that related Call Report and risk-based capital guidance is followed. The second assessment is to determine the asset's credit risk or the likelihood that the bank will be entitled to the full fair value of the cash held in the cash collateral account. Again, despite the fact that the cash collateral account, if held at the bank, is cash, it is restricted cash that exists for the benefit of the investor certificate holders. This asset needs to be assessed based on its nature, not simply its name. Continuing with the example, the securitization documentation may state that the CE IO strip absorbs the first loss and that if there is a shortfall in the excess spread for any given month or months, then the short fall comes out of the cash collateral account. In this scenario, if the retained subordinated bond is considered sub-investment quality based on its stated or implied rating, then again it is reasonable to assume that the cash collateral account also demonstrates sub-investment quality characteristics since it serves as a credit enhancement to that bond and it may warrant adverse classification. These interpretations of the Uniform Agreement are not hard and fast rules, and examiners should use their judgment and the flexibility allowed by the Uniform Agreement to ensure an accurate representation of the bank's asset quality is put forward.

Since the bank, through its residual interest holdings, typically bears all the credit losses on the sold receivables, in addition to standard adversely classified assets ratios and analysis, examiners could also consider assessing asset quality using managed data. Such data could include managed charge-off ratios, managed delinquency ratios, and managed cardholder quality indicators, such as average FICO score on the managed portfolio and/or percentage of cardholder balances with FICO scores below a certain threshold. Examiners may also want to consider applying the retail classification criteria to the managed receivables and view these as a percentage of Tier One capital (less the CE IO strip) as another way to assess the bank's credit risk. While it may not be necessary to present this data in the asset quality ratio page, it could be used to support examiners' conclusions about the asset quality rating, particularly in cases when there is some concern expressed by either the bank or regulators about the reasonableness of adversely classifying certain residual interests using the Uniform Agreement approach noted previously.

Leveraging afforded by securitizations creates the potential for the bank to outgrow control systems, potentially increasing credit risk. A sound credit culture instilled throughout the organization and controlled growth are keys to mitigating credit-risk. In addition, enhancement requirements on securitizations provide an indication of the rating agencies' perception of credit risk in the underlying receivables. Higher enhancements and/or higher pricing spreads typically indicate that the rating agencies and investment community perceive a higher degree of credit risk. Enhancement levels and pricing should be compared to others in the industry to gauge the degree of credit risk perceived by the rating agencies and potential investors.

An important concept to keep in mind is that securitizations do not reduce credit risk; they merely redistribute that risk. The key is to determine where the credit risk lies following the securitization of the receivables. Was the credit risk transferred to the investors, a third-party guarantor, or does it remain with the bank? In most cases, all but catastrophic credit risk remains with the bank; therefore, typically the bank retains the same degree of credit risk that it had if the receivables had not been sold. Examiners should assess both capital and asset quality with this in mind.

Earnings

Financial institutions that securitize a significant volume of credit card receivables experience a significantly different earnings picture than traditional banks. In credit card securitizations, credit card receivables are taken off the bank's balance sheet while a residual income stream generated from the receivables continues to flow to the bank. Securitization changes the bank's income composition such that a securitizing bank typically reports a lower net interest margin (NIM), lower provisions for loan and lease loss (PLLL) expense, and higher fee income. The NIM is decreased as a result of lower balance sheet earnings assets and the PLLL is decreased by the amount which would previously have been reported if the credit card receivables that were securitized had remained on the books. Non-interest income is increased as a result of servicing income and the continued gain (typically) on loans sold recorded with each monthly transfer of receivables (during the revolving period) returned to the bank by the securitization trust after allocating all cash flows to the investors.

Income generated by securitization activities needs to be considered in the earnings assessment. The quality of earnings is influenced by securitizations since earnings are impacted by gain on sale accounting, periodic valuation adjustments on residual interests, and provision releases (negative provisions) at the time of the initial sales. Examiners should attempt to quantify the impact of these non-core earnings sources on reported earnings. The analyst and investment communities are increasingly wary of non-core earnings, which could impact access to, and the cost of, market-based funding.

Securitizations do not change the true operating performance of the credit card portfolio. Securitization accounting allows the bank to accelerate and record estimates of future cash flows that are dependent on the performance of the underlying receivables. Since this is an estimate, any inaccuracies or overly-optimistic assumptions will directly impact the CE IO strip valuation and thus the earnings assessment. When a bank is involved with securitizations, the profitability analysis should be looked at as if the assets remained on the bank's balance sheet or on a cash flow basis. The actual cash flow, whether the assets are sold or not, is roughly the same. Most credit card securitizers present financial statements on both a managed and owned basis. Typically, the income statement will reflect a column on a managed basis, a column reflecting the impact due to securitizations, and then an income statement on an owned basis. This type of presentation provides a good starting point for assessing a bank's earnings performance and how that performance is impacted as a result of securitizations. Supplemental earnings indices used to evaluate a bank with securitization activities include:

- *Return on Estimated Managed* Assets – This ratio measures the return on assets by adding all receivables securitized to the average assets and represents the overall profitability of the bank on a managed basis.
- *Average Cost of Securitization versus Average Balance Sheet Funding Cost* – This ratio measures the off-balance sheet funding cost in relation to the balance-sheet funding cost.
- *Excess Finance Charges to Securitized Assets* – This ratio measures the

profitability of the bank's securitized receivables after all obligations of the trust have been met.

- *Excess Finance Charges to Non-interest Income* – This ratio measures the amount of income from securitization activities in relation to total non-interest income.

Examiners need to consider all examination findings, including any identified overstatement in the valuation of residual interests, when assessing the impact securitizations have on the bank's earnings performance.

Liquidity

Credit card securitizations are considered one of the most important financing innovations in the card industry's history, particularly for those entities where a majority of their business is credit card lending. Banks that securitize essentially transform a pool of credit card receivables into cash which is then typically used to fund more credit card receivables (versus being a funding source for other banking activities). Securitization can be an effective funding method. Given adequate planning and an efficient process, it can create a more liquid balance sheet as well as leverage origination capacity. However, it can also be a volatile source of funding and is closely tied to the asset quality of the securitized receivables. Certain structures as well as excessive reliance on a single funding vehicle may actually increase liquidity risk.

The liquidity assessment should include identifying exactly how reliant a bank is on securitizations for funding by reviewing securitizations as a percentage of managed credit card receivables. Although bank management should establish prudent limitations, regulators have not established a specific benchmark for determining concentrations. For example, in one bank securitizations funding 50 percent of managed receivables may be acceptable if performance is good and stable and sufficient alternatives exist, yet for another bank, securitizations funding 30 percent of managed assets may be problematic if the securitization is performing poorly (or has a higher volatility and thus potential for poor performance) and the bank has minimal or undesirable alternative funding. In addition, the advent of the de-linked structure gives securitizers greater funding flexibilities with securitizations. A bank may have securitized a pool of receivables but only sold the Class C certificates (typically the triple-B rated bonds) and retained the Class A and Class B. If funding needs increase, the bank could quickly and easily sell these higher investment grade certificates in the market place. Examiners need to assess each case individually to determine if a funding concentration exists and, if so, if the concentration presents heightened liquidity concerns. While comparing a bank's specific funding structure to others in the industry is encouraged and extremely useful, a bank that is an outlier does not necessarily mean it is problematic, but it certainly will require increased scrutiny to determine if effective controls or contingency plans are in place to mitigate the risk

If examiners determine that a funding concentration exists in credit-sensitive securitizations, the bank may (or examiners may require that a bank) compensate for this concentration, particularly if funding a subprime portfolio, by retaining a sufficient amount of on-balance sheet funding or by having alternative funding sources already in place. The amount of on-balance sheet funding needed depends on the performance of the securitizations and anticipated funding needs. For example, if excess spreads are expected to decline due to deteriorating performance of the underlying receivables, examiners may suggest (or require depending on the circumstance) that management hold enough liquid assets on balance sheet to meet a certain time frame of funding requirements, such as three or six months or more. Funding requirements typically include maturing deposits, receivable growth, and maturing securitizations. On balance sheet funding should provide management with sufficient time to execute back-up liquidity plans, such as asset sales, new securitizations, access to borrowing facilities, and debt and/or equity issuances.

Considerations and risks associated with using securitization as a funding source include, but are not limited to:

- *Early amortization clauses* – Revolving credit card securitizations have early amortization clauses that are designed to protect investors if the performance of the receivables does not meet the specified criteria. If early amortization is triggered, the trustee will begin using the principal payments received from the cardholders (as collected and remitted by the servicer) to make principal payments to the bondholders earlier than originally scheduled. As a result, the trustee will not be using those principal payments to purchase new receivables (new charges on the accounts) from the bank, and the bank will have to fund these new receivables on its balance sheet. Bank management must monitor deal performance in order to anticipate cash flow and funding ramifications due to early amortization clauses. While the trustee can seek a waiver of an early amortization, there is no guarantee that such a waiver would be granted, and those types of waivers usually require the bank to provide compensation which could be quite costly.
- *Limitations of residual assets* - If the bank has a concentration of residual interests to capital, its overall cash flow might be dependent on the residual cash flows from the performance of the underlying receivables. If that performance is worse than projected, the bank's overall cash flow will be less than anticipated. In addition, residual assets that the bank retains typically do not have an active market and are not acceptable collateral to pledge for borrowings. Thus, they are essentially illiquid. Furthermore, if the bank has established (or the regulators have required) a limit on the volume of residual assets and the bank is near or at that limit, it may not be able to complete any new (increase) securitizations. If a bank is in a growth mode, this situation could present a funding issue.
- *Marketplace reputation* - A bank's marketplace reputation is crucial to its ability to generate cash from future securitizations. If this reputation is damaged, the bank might not be able to economically securitize assets and generate cash from future sales of credit card receivables to the trust. This is especially true for banks that are relatively new to the securitization market. Also, if the loans held-for-sale are funded with short-term funding, the bank will have to find alternative funding sources if it is not able to sell the receivables quickly.
- *Investor demands* - Card portfolios comprised of higher-risk assets or that reflect unusual volatility can be difficult to securitize and/or sell. For example, investors often quickly lose their appetite for risk in an economic downturn or when financial markets become volatile. Further, developments such as a rise in delinquencies or charge-offs could have significant implications. For example, the securitization of assets whose performance has deteriorated may result in a negative market reaction that could increase the spreads on a bank's subsequent issues. Or, similar deterioration may result in the bank having to increase enhancements (such as a spread account). In all, a bank can sell and operate in the asset-backed market at a reasonable cost only if it is able to meet investors' demands.
- *Time to implement* - A first-time securitization deal may take a few months (and sometimes longer) to complete. Subsequent deals are usually processed quicker, and in some instances may take less than a month. Nonetheless, securitization still takes time to complete and that timing should be factored into the bank's liquidity plans. Other credit facilities or funding sources (such as a warehouse facility) are usually needed to provide flexibility during deal negotiations.
- *Capital allocation* - Banks originating credit card receivables specifically for securitization sometimes depend too much on securitization markets to absorb new ABS issues and might only allocate just enough capital to support a flow of assets to the securitization market. This strategy could cause funding difficulties if circumstances were to force the bank to hold assets on its books.

There are a variety of ways for management to mitigate some of the risks associated with credit card securitizations. One way is to correlate maturities of securitizations with overall planned balance sheet growth. Management should also have adequate monitoring systems in place to alert it well in advance of an approaching trigger. This advance warning mechanism allows management time to consider preventative actions as well as factor the maturity and potential funding needs of the receivables into shorter-term liquidity planning. Liquidity implications of securitizations should be considered in a bank's day-to-day liquidity management and the contingency funding plan. Each contemplated securitization should be analyzed for its impact on liquidity both as an individual transaction and as it affects the aggregate funds position.

Sensitivity to Market Risk

In addition to traditional interest rate risk assessments performed on the on-balance sheet assets and liabilities, examiners should expect that institutions that securitize and retain an interest in the securitized pool of receivables complete assessments of the impact changing market interest rates have on the excess spread generated by the transferred receivables and fair value of the residual assets. Securitization of credit card receivables can pose interest rate risk even though the receivables are sold. Investor coupon rates tied to an index different than the underlying assets results in basis risk within a series, which can adversely affect future income. Different pricing intervals on the credit card receivables and the coupon rate paid on the investor certificates can have the same effect.

Pricing and basis risk are present in every securitized portfolio of credit card receivables and those risks must be prudently managed to minimize their impact on prospective earnings. A poorly structured issue will affect the amount of excess spread returned to the bank. A high degree of interest rate risk within a securitized pool of receivables can also result in an early amortization event and cause liquidity and capital concerns. For example, if a pool of receivables that are predominately fixed-rate support variable-rate investor certificates issued in a securitization, in a rising interest rate environment, the excess spread will likely decline, perhaps to the point of triggering an early amortization event. This scenario, however, is less likely today than in the past when credit card issuers offered more fixed-rate products. Today, banks that securitize credit card receivables do so with the intent of matching the timing and pricing structure of the underlying receivables with the coupon paid on the investor certificates. However, with the popular use of variable-rate pricing on receivables comes the risk of increased charge-offs in a rising interest rate environment, particularly for subprime issuers who have a higher percentage of cardholders making only the minimum payment. The risk in this situation is that the charge off rate increases at a faster pace than the corresponding increase in the yield. The opposite situation is true as well; in a declining rate environment, the risk is that the decline in the yield is faster than the actual decline in the charge-off rate. This situation is not isolated to changing market interest rates, but can also occur do to changing underwriting practices (either taking on more credit risk or reducing credit risk).

Depending on the interest rate environment and pricing structure of the underlying receivables, examiners should determine if the bank's sensitivity analysis used to assess the vulnerability of the excess spread to changing market interest rates incorporates either explicit or implied floors or ceilings and any other **hedging instruments**. For example, many banks will not price cards over a certain threshold, even those banks with risk-based pricing structures (**universal default** rates), even if not expressly prohibited by the terms of the cardholder agreement. In these banks, there may be situations where cardholders are already paying a rate at or near an implied ceiling, and, as such, when the bank completes it sensitivity analysis (for example, assumes rate increase 100 or 200 basis points) it should be capturing this implied ceiling in its sensitivity analysis.

Residual assets from credit card securitization activities are sometimes sizeable components of the bank's balance sheet. In addition to the impact market interest rates have on the excess spread (monthly excess cash flow component of the discounted cash flow valuation technique commonly applied to valuing the CE IO strip), interest rates are important inputs in determining discount rates for valuing the residual assets, and changes in the assumed rate could substantially affect the carrying values. Examiners should review how the bank determines the sensitivity of the fair value of the residual interests to assumed changes in the discount rates.

Most asset liability managers attempt to minimize interest rate risk in their securitization activities by procuring financial derivative instruments, such as, interest rate swaps, basis swaps, caps, or floors as part of the securitization structure. The trust's use of financial derivatives must be specifically permitted by the pooling and servicing agreement (or other securitization documents) and, when used, are generally obtained at the inception of the transaction. The rating agencies will analyze the type of instruments, the strength of the counterparties, and will consider the affect of the financial derivatives when assigning a rating to the certificates in each series.

Examiners should identify and evaluate the presence of any basis or repricing risk and review the securitization documents to determine if financial derivatives are allowed. If the bank uses financial derivatives to minimize interest rate risk in the securitization, examiners should assess these derivatives to determine if management performed appropriate due diligence prior to entering into the arrangement (counterparty risk, etc.), if the derivatives are mitigating the risk as intended, and if they are properly accounted for under current accounting rules. The transaction must be accounted for properly and reviewed against FAS 140, FAS 133, *Accounting for Derivative Instruments and Hedging Activities,* and FAS 155 *Accounting for Certain Hybrid Financial Instruments – An Amendment of FASB Statements No. 133 and 140* criteria. Any significant concerns should be addressed with management and appropriately commented on in the Report of Examination.