WHAT'S NEW IN THIS REVISED SECTION

Effective July 2009, this section was revised to delete a reference to SR-95-17 that was superseded by SR-98-12 (see section 2126.1).

2128.0.1 SUPERVISORY POLICY—STRUCTURED NOTES

This section discusses supervisory policy with regard to structured notes and their increased use by banking organizations. Examiners should be mindful of these instruments, whether they are used in the banking organization's trading, investment, or trust activities. Some of these instruments can expose investors to significant losses as interest rates, foreign-exchange rates, and other market indices change. Consequently, during examinations or inspections, examiners need to ensure that banks and bank holding companies that hold structured notes do so according to their own investment policies and procedures and with a full understanding of the risks and price sensitivity of these instruments under a broad range of market conditions.

Structured notes, many of which are issued by U.S. government agencies, government-sponsored entities, and other organizations with high credit ratings, are debt securities whose cash flows are dependent on one or more indices in ways that create risk characteristics of forwards or options. They tend to have medium-term maturities and reflect a wide variety of cash-flow characteristics that can be tailored to the needs of individual investors.

As such, these notes may offer certain advantages over other financial instruments used to manage market risk. In particular, they may reduce counterparty credit risk, offer operating efficiencies and lower transaction costs, require fewer transactions, and more specifically address an institution's risk exposures. Risk to principal is typically small. Accordingly, when structured notes are analyzed and managed properly, they can be acceptable investments and trading products for banks.

However, structured notes can also have characteristics that cause them to be inappropriate holdings for many banking organizations, including depository institutions. They can have substantial price sensitivity; they can be complex and difficult to evaluate; and they may also reflect high amounts of leverage relative to fixed-income instruments with comparable face values. Their customized features and embedded options may also make them difficult to price and can reduce their liquidity. Consequently, banking organizations considering the purchase of structured notes should determine whether these factors are compatible with their investment horizons and with their overall portfolio strategies.

There are a wide variety of structured notes, with names such as single- or multi-index floaters, inverse floaters, index-amortizing notes, step-up bonds, and range bonds. These simple, though sometimes cryptic, labels can belie the potential complexity of these notes and their possibly volatile and unpredictable cash flows, which can involve both principal and interest payments. Some notes employ "trigger levels" at which cash flows can change significantly, or caps or floors, which can also substantially affect their price behavior.

The critical factor for examiners to consider is the ability of management to understand the risks inherent in these instruments and to satisfactorily manage the market risks of their institution. Therefore, examiners should evaluate the appropriateness of these securities institution by institution, with a knowledge of management's expertise in evaluating such instruments, the quality of the relevant information systems, and the nature of its overall exposure to market risk. This evaluation may include a review of the stress-test capabilities. Failure of management to adequately understand the dimensions of the risks in these and similar financial products can constitute an unsafe and unsound practice for banking organizations.

When making investment decisions, some banking organizations may focus only on the low credit risk and favorable yields of structured notes and either overlook or underestimate their market and liquidity risks. Consequently, where these notes are material, examiners should discuss their role in the organization's risk-management process and assess management's recognition of their potential volatility.

The risks inherent in such complex instruments and relevant risk-management standards have been addressed in a variety of previously issued supervisory guidance, including SR-letters and supervisory manuals. This guidance includes SR-90-16, standards for investing in asset-backed securities (see section 2128.02);

SR-93-69 (see section 2125.0) and SR-98-12 (see section 2126.1), examination guidance for reviewing investment securities and end-user derivatives activities and the *Trading and Capital-Markets Activities Manual.* Although these documents may not specifically cite structured notes, they all help to highlight the following important supervisory and risk-management practices that are relevant to these instruments:

1. the importance of policies, approved by the board of directors, that address the goals and objectives expected to be achieved with such products and that set limits on the amount of funds that may be committed to them
2. the need for management to fully understand the risks these instruments can present, including their potentially reduced liquidity in secondary markets and the price volatility that any embedded options, leveraging, or other characteristics can create
3. the need for adequate information systems and internal controls for managing the risks under changing market conditions
4. the importance of clear lines of authority for making investment decisions and for evaluating and managing the institution's securities activities that involve such instruments

For additional information, see SR-97-21 and SR-91-4. See also sections 3010.3 and 4040.1 of the *Trading and Capital-Markets Activities Manual* for more-detailed guidance.

Asset securitization typically involves the transfer of potentially illiquid on-balance-sheet assets (for example, mortgages, loans, leases, other assets) to a third party or trust who, in turn, issues certificates or notes to investors. The cash flow from the transferred assets supports repayment of the certificates or notes issued by the trust. Firms use asset securitization to access alternative funding sources, manage loan concentrations, improve financial-performance ratios, and more efficiently meet customers' financing needs. Assets that typically are securitized include credit card receivables and automobile receivable paper, commercial and residential first mortgages, commercial loans, home-equity loans, and student loans.

See section 4030.1, "Asset Securitization," of the *Commercial Bank Examination Manual* for more information on

- why firms engage in securitization activities;
- the securitization process;
- the risks associated with various types of asset securitizations;
- risk-management concerns associated with asset securitizations;
- capital considerations related to asset securitizations;
- accounting and reporting considerations (see also the instructions for completing the FR Y-9C, "Consolidated Financial Statements for Holding Companies"); and
- supervisory considerations.

For community and regional banking organizations, the Securitization Examination Documentation (ED) module provides more detailed examination procedures for examination staff.

WHAT'S NEW IN THIS REVISED SECTION

Effective July 2015, section 2128.03.3.3 is revised to delete a footnote reference to SR-05-13 and its attachment, "Interagency Guidance on the Eligibility of Asset-Backed Commercial Paper Program Liquidity Facilities and the Resulting Risk-Based Capital Treatment," which is superseded by SR-15-6, "Interagency Frequently Asked Questions on the Regulatory Capital Rule." Subsection 2128.03.4 is also revised to delete a reference to SR-05-13.

2128.03.1 CREDIT-SUPPORTED AND ASSET-BACKED COMMERCIAL PAPER AS AN ALTERNATIVE FUNDING SOURCE

The issuance of commercial paper provides an alternative to bank borrowing for large corporations (nonfinancial and financial) and municipalities. Generally, commercial paper issuers are those with high credit ratings. Some corporations with lower credit ratings have been able to issue commercial paper by obtaining credit enhancements[1] (credit support from a firm with a high credit rating) or other high-quality asset collateral (asset-backed commercial paper) to allow them to enter the market as issuers. An example of credit-supported commercial paper is one supported by a letter of credit (LOC), the terms of which specify that the bank issuing the LOC guarantees that the bank will pay off the commercial paper if the issuer fails to pay off the commercial paper upon maturity.[2] A credit enhancement could also consist of a surety bond from an insurance company.

2128.03.2 COMMERCIAL BANK INVOLVEMENT IN CREDIT-ENHANCED AND ASSET-BACKED COMMERCIAL PAPER

A number of commercial banks have become involved in credit-enhanced and asset-backed commercial paper programs. These securitization programs enable banks to help arrange short-term financing support for their customers without having to extend credit directly. This arrangement provides borrowers with an alternative source of funding and allows banks to earn fee income for managing the programs. Fees are earned for providing credit and liquidity enhancements to these programs.

Involvement in credit-enhanced and asset-backed commercial paper programs, however, can have potentially significant implications for organizations' credit- and liquidity-risk exposure. Therefore, examiners need to be fully informed on the fundamentals of these programs, on the risks associated with these programs, and on the examination and inspection procedures for banking organizations engaged in this activity.

Asset-backed commercial paper programs have been in existence since the early 1980s and have grown substantially since then. These programs use a special-purpose entity (SPE) to acquire receivables generally originated either by corporations or sometimes by the advising bank itself.[3] The SPEs, which are owned by third parties,[4] fund their acquisitions of receivables by issuing commercial paper that is to be repaid from the cash flow of the receivables.

Bank involvement in an ABCP program can range from advising the program to advising and providing all of the required credit and liquidity enhancements in support of the SPE's commercial paper. Typically, the advising bank or an affiliate performs a review to determine if the receivables of potential program participants (that is, corporate sellers) are eligible for purchase by the SPE. The scope of the review is similar to that used in structuring securitizations collateralized by credit card receivables or automobile-secured loans.

Once the bank (or its affiliate) determines that a receivables portfolio has an acceptable credit-risk profile, it approves the purchase of the portfolio at a discounted price by the SPE. The bank or its affiliate may also act as the operating agent for the SPE, which entails structuring the sale of receivable pools to the SPE and then

1. This paper is usually called *credit-supported commercial paper.*
2. This arrangement is usually referred to as *LOC paper.*

3. To date, the type of receivables that have been included in the programs are trade receivables, installment sales contracts, financing leases, and noncancelable portions of operating leases and credit card receivables.
4. Employees of an investment banking firm or some other third party generally own the equity of the SPE. The advising bank can specifically avoid owning the stock if it does not want to raise the issue of whether it must consolidate the SPE for accounting purposes.

overseeing the performance of the pools on an ongoing basis.

The SPE pays for the receivables by issuing commercial paper in an amount equal to the discounted price paid for the receivables. The difference between the face value of the receivables and the discounted price paid provides, as discussed below, the first level of credit protection for the commercial paper. The individual companies selling their receivables traditionally act as the servicer for receivables sold to an SPE; that is, they are responsible for collecting principal and interest payments from the obligors and passing these funds on to the SPE on a periodic basis. The SPE then distributes the proceeds to the holders of the commercial paper.

Asset-backed commercial paper programs typically have several levels of credit enhancement cushioning the commercial paper purchaser from potential loss. As noted above, the first level of loss protection is provided by the difference between the face value of the receivables purchased and the discounted price paid for them, known as "holdback" or "overcollateralization." In some cases, the terms of the sale also give the SPE recourse back to the seller if there are defaults on the receivables. The amount of overcollateralization and recourse varies from pool to pool and depends, in part, on the quality of the receivables in the pool and the desired credit rating for the paper to be issued. Usually, the level of credit protection provided by overcollateralization is specified in terms of some multiple of historical loss experience for similar assets.

In addition to overcollateralization and recourse, secondary credit enhancements are also customarily provided. Secondary credit enhancements include letters of credit, surety bonds, or other backup facilities that obligate a third party to purchase pools of receivables from the SPE at a specified price. In addition to credit enhancements, the programs generally have liquidity enhancements to ensure that the SPE can meet maturing-paper obligations.

The rating agencies typically require an SPE's commercial paper to have secondary enhancements aggregating 100 percent of the amount outstanding in order to receive the highest credit rating. These enhancements are generally structured in one of two ways. In the first, a commercial bank enters into a single agreement under which it is unconditionally obligated to provide funding for all or any portion of maturing commercial paper that an SPE cannot pay from other sources. The obligation to fund may be triggered by credit losses, a liquidity shortfall, or both. In the second, two separate agreements that jointly cover 100 percent of an SPE's outstanding commercial paper are established.

The first agreement, typically an irrevocable letter of credit, is primarily intended to absorb credit losses that exceed the first tier of credit enhancement for the commercial paper. The second arrangement is a "liquidity" facility that may or may not provide credit support. This second structure will often have a letter of credit equaling 10 percent to 15 percent of outstandings, with the liquidity facility covering the remaining 90 to 85 percent.

2128.03.3 RISK-BASED CAPITAL ASSET-BACKED COMMERCIAL PAPER PROGRAM ASSETS

An asset-backed commercial paper (ABCP) program typically is a program through which a banking organization provides funding to its corporate customers by sponsoring and administering a bankruptcy-remote special-purpose entity that purchases asset pools from, or extends loans to, those customers.[5] The asset pools in an ABCP program might include, for example, trade receivables, consumer loans, or asset-backed securities. The ABCP program raises cash to provide funding to the banking organization's customers through the issuance of externally rated commercial paper into the market. Typically, the sponsoring banking organization provides liquidity and credit enhancements to the ABCP program. These enhancements aid the program in obtaining high credit ratings that facilitate the issuance of the commercial paper.[6] (See SR-05-13 and SR-92-11.)

On June 12, 2009, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards no. 166, "Accounting for Transfers of Financial Assets, an Amendment of FASB Statement No. 140" (FAS 166) and Statement of Financial Account-

5. The definition of *ABCP program* generally includes structured investment vehicles (entities that earn a spread by issuing commercial paper and medium-term notes and using the proceeds to purchase highly rated debt securities) and securities arbitrage programs.

6. A bank is considered the "sponsor of an ABCP program" if it establishes the program; approves the sellers permitted to participate in the program; approves the asset pools to be purchased by the program; or administers the program by monitoring the assets, arranging for debt placement, compiling monthly reports, or ensuring compliance with the program documents and with the program's credit and investment policy.

ing Standards no. 167, "Amendments to FASB Interpretation no. 46 (R)" (FAS 167). FAS 166 and FAS 167 modified the accounting treatment under U.S. generally accepted accounting principles (GAAP) of certain structured financing transactions involving a special purpose entity. Under FAS 167, banking organizations should consolidate assets, liabilities, and equity in certain variable interest entities (VIEs) that were not consolidated under the standards that FAS 166 and FAS 167 replaced, or FIN 46 (January 2003) and FIN 46-R (December 2003).[7] The agencies'[8] risk-based capital and leverage rules require banking organizations to include consolidated assets that are held by VIEs under the leveraged and risk-based capital rules and, therefore, included in their leveraged and risk-based capital ratios. FIN 46-R required the consolidation of many ABCP programs onto the balance sheets of banking organizations. Banking organizations that are required to consolidate ABCP program assets must include all of the program assets (mostly receivables and securities) and liabilities (mainly commercial paper) on their balance sheets for purposes of the Consolidated Financial Statements for Bank Holding Companies (FR Y-9C Report) or the bank Reports of Condition and Income (Call Reports).

An ABCP program is defined as a program that primarily issues (that is, more than 50 percent) externally rated commercial paper backed by assets or other exposures held in a bankruptcy-remote, special-purpose entity. Thus, a banking organization sponsoring a program issuing ABCP must continue to include the program's assets on a consolidated basis in the institution's risk-weighted asset base.

2128.03.3.1 Liquidity Facilities Supporting ABCP

Liquidity facilities supporting ABCP often take the form of commitments to lend to, or to purchase assets from, the ABCP programs in the event that funds are needed to repay maturing commercial paper. Typically, this need for liquidity is due to a timing mismatch between cash collections on the underlying assets in the program and scheduled repayments of the commercial paper issued by the program.

7. These standards are now included in the FASB Accounting Standards Codification Topic 810, "Consolidation."

8. The Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision.

A banking organization that provides liquidity facilities to ABCP is exposed to credit risk regardless of the term of the liquidity facilities. For example, an ABCP program may require a liquidity facility to purchase assets from the program at the first sign of deterioration in the credit quality of an asset pool, thereby removing such assets from the program. In such an event, a draw on the liquidity facility exposes the banking organization to credit risk.

Short-term commitments with an original maturity of one year or less expose banking organizations to a lower degree of credit risk than longer-term commitments. This difference in the degree of credit risk is reflected in the risk-based capital requirement for the different types of exposures through liquidity facilities. The Board's risk-based capital guidelines impose a 10 percent credit-conversion factor on unused portions of eligible short-term liquidity facilities supporting ABCP. A 50 percent credit-conversion factor applies to eligible ABCP liquidity facilities having a maturity of greater than one year. To be an eligible ABCP liquidity facility and qualify for the 10 or 50 percent credit-conversion factor, the facility must be subject to an asset-quality test at the time of inception that does not permit funding against (1) assets that are 90 days or more past due, (2) assets that are in default, and (3) assets or exposures that are externally rated below investment grade at the time of funding if the assets or exposures were externally rated at the inception of the facility. However, a liquidity facility may also be an eligible liquidity facility if it funds against assets that are guaranteed—either conditionally or unconditionally—by the U.S. government, U.S. government agencies, or by an OECD central government, regardless of whether the assets are 90 days past due, in default, or externally rated investment grade.

The 10 or 50 percent credit-conversion factor applies regardless of whether the structure issuing the ABCP meets the rule's definition of an ABCP program. For example, a capital charge would apply to an eligible short-term liquidity facility that provides liquidity support to ABCP when the ABCP constitutes less than 50 percent of the securities issued by the program, thus causing the issuing structure not to meet the rule's definition of an ABCP program. If a banking organization (1) does not meet this definition, it must include the program's assets in its risk-weighted asset base or (2) it chooses to include the program's assets in risk-weighted

assets, then no risk-based capital requirement will be assessed against any liquidity facilities provided by the banking organization that supports the program's ABCP. Ineligible liquidity facilities will be treated as recourse obligations or direct-credit substitutes for the purposes of the Board's risk-based capital guidelines.

The resulting credit-equivalent amount would then be risk-weighted according to the underlying assets or the obligor, after considering any collateral or guarantees, or external credit ratings, if applicable. For example, if an eligible short-term liquidity facility providing liquidity support to ABCP covered an asset-backed security (ABS) externally rated AAA, then the notional amount of the liquidity facility would be converted at 10 percent to an on-balance-sheet credit-equivalent amount and assigned to the 20 percent risk-weight category appropriate for AAA-rated ABS.[9]

2128.03.3.2 Overlapping Exposures to an ABCP Program

A banking organization may have multiple overlapping exposures to a single ABCP program (for example, both a program-wide credit enhancement and multiple pool-specific liquidity facilities to an ABCP program that is not consolidated for risk-based capital purposes). A banking organization must hold risk-based capital only once against the assets covered by the overlapping exposures. Where the overlapping exposures are subject to different risk-based capital requirements, the banking organization must apply the risk-based capital treatment that results in the highest capital charge to the overlapping portion of the exposures.

For example, assume a banking organization provides a program-wide credit enhancement that would absorb 10 percent of the losses in all of the underlying asset pools in an ABCP program and also provides pool-specific liquidity facilities that cover 100 percent of each of the underlying asset pools. The banking organization would be required to hold capital against 10 percent of the underlying asset pools because it is providing the program-wide credit enhancement. The banking organization would also be required to hold capital against 90 percent of the liquidity facilities it is providing to each of the underlying asset pools. For risk-based capital purposes, the banking organization would not be required to hold capital against any credit enhancements or liquidity facilities that compromise the same program assets.

If different banking organizations have overlapping exposures to an ABCP program, however, each organization must hold capital against the entire maximum amount of its exposure. As a result, while duplication of capital charges will not occur for individual banking organizations, some systemic duplication may occur where multiple banking organizations have overlapping exposures to the same ABCP program.

9. See section III.B.3.c. of the guidelines (12 C.F.R. 225, appendix A).

2128.03.3.3 Asset-Quality Test

In order for a liquidity facility, either short- or long-term, that supports ABCP *not* to be considered a recourse obligation or a direct-credit substitute, it must meet the rule's risk-based capital definition of an *eligible ABCP liquidity facility*. An eligible ABCP liquidity facility must meet a reasonable asset-quality test that, among other things, precludes funding assets that are 90 days or more past due or in default. When assets are 90 days or more past due, they typically have deteriorated to the point where there is an extremely high probability of default. Assets that are 90 days past due, for example, often must be placed on nonaccrual status in accordance with the agencies' Uniform Retail Credit Classification and Account Management Policy.[10] Further, they generally must also be classified Substandard under that policy.

In addition to the above, if the assets covered by the liquidity facility are initially externally rated (at the time the facility is provided) the facility can be used to fund only those assets that are externally rated investment grade at the time of funding. The practice of purchasing assets that are externally rated below investment grade out of an ABCP program is considered to be the equivalent of providing credit protection to the commercial paper investors. Thus, liquidity facilities permitting purchases of below-investment-grade securities will be considered either recourse obligations or direct-credit substitutes.

However, neither the "90-days-past-due" limitation nor the "investment grade" limitation apply to the asset-quality test with respect to assets that are conditionally or unconditionally guaranteed by the U.S. government or its agencies or by another OECD central government.

10. See 65 *Fed. Reg.* 36904 (June 12, 2000).

An ABCP liquidity facility is considered to be in compliance with the requirement for an asset-quality test if (1) the liquidity provider has access to certain types of acceptable credit enhancements and (2) the notional amount of such credit enhancements available to the liquidity facility provider exceeds the amount of underlying assets that are 90 days or more past due, defaulted, or below investment grade for which the liquidity provider may be obligated to fund under the facility. In this circumstance, the liquidity facility may be considered "eligible" for purposes of the risk-based capital rule because the provider of the credit enhancement generally bears the credit risk of the assets that are 90 days or more past due, in default, or below investment grade rather than the banking organization providing liquidity.

The following forms of credit enhancements are generally acceptable for purposes of satisfying the asset quality test:

- "funded" credit enhancements that the banking organization may access to cover delinquent, defaulted, or below-investment-grade assets, such as overcollateralization, cash reserves, subordinated securities, and funded spread accounts;
- surety bonds and letters of credit issued by a third party with a nationally recognized statistical rating organization rating of single A or higher that the banking organization may access to cover delinquent, defaulted, or below-investment-grade assets, provided that the surety bond or letter of credit is irrevocable and legally enforceable; and
- one month's worth of excess spread that the banking organization may access to cover delinquent, defaulted, or below-investment-grade assets if the following conditions are met: (1) excess spread is contractually required to be trapped when it falls below 4.5 percent (measured on an annualized basis) and (2) there is no material adverse change in the banking organization's ABCP underwriting standards. The amount of available excess spread may be calculated as the average of the current month's and the two previous months' excess spread.

Recourse directly to the seller, other than the funded credit enhancements enumerated above, regardless of the seller's external credit rating, is not an acceptable form of credit enhancement for purposes of satisfying the asset quality test. Seller recourse—for example, a seller's agreement to buy back nonperforming or defaulted loans or downgraded securities—may expose the liquidity provider to an increased level of credit risk. A decline in the performance of assets sold to an ABCP conduit may signal impending difficulties for the seller.

11. Reserved footnote.

If the amount of acceptable credit enhancement associated with the pool of assets is less than the current amount of assets that are 90 days or more past due, in default, or below investment grade that the liquidity facility provider may be obligated to fund against, the liquidity facility should be treated as recourse or a direct credit substitute. The full amount of assets supported by the liquidity facility would be subject to a 100 percent credit conversion factor.[12] The Federal Reserve Board reserves the right to deem an otherwise eligible liquidity facility to be, in substance, a direct credit substitute if a banking organization uses the liquidity facility to provide credit support.

The banking organization is responsible for demonstrating to the Federal Reserve Board whether acceptable credit enhancements cover the 90 days or more past due, defaulted, or below-investment-grade assets that the organization may be obligated to fund against in each seller's asset pool. If the banking organization cannot adequately demonstrate satisfaction of the conditions in the above-referenced interagency guidance, the Federal Reserve Board further reserves the right to determine that a credit enhancement is unacceptable for purposes of the requirement for an asset quality test and, therefore, it may deem the liquidity facility to be ineligible.

2128.03.3.4 Market Risk Capital Requirements for ABCP Programs

Any facility held in the trading book whose primary function, in form or in substance, is to provide liquidity to ABCP—even if the facility does not qualify as an eligible ABCP liquidity facility under the rule—will be subject to the banking-book risk-based capital requirements. Specifically, banking organizations are required to convert the notional amount of all trading-book positions that provide liquidity to ABCP to credit-equivalent amounts by applying the appropriate banking-book credit-conversion factors. For example, the full amount of all eligible

12. See 12 CFR 208, appendix A, section III.B.3.b.i.

ABCP liquidity facilities with an original maturity of one year or less will be subject to a 10 percent conversion factor, regardless of whether the facility is carried in the trading account or the banking book.

2128.03.4 BOARD-OF-DIRECTORS POLICIES PERTAINING TO CREDIT-ENHANCED OR ASSET-BACKED COMMERCIAL PAPER

A banking organization (that is, a bank or a bank holding company) participating in an asset-backed commercial paper program should ensure that such participation is clearly and logically integrated into its overall strategic objectives. Furthermore, management should ensure that the risks associated with the various roles that the institution may play in such programs are fully understood and that safeguards are in place to manage the risks properly.

Appropriate policies, procedures, and controls should be established by a banking organization before it participates in asset-backed commercial paper programs. Significant policies and procedures should be approved and reviewed periodically by the organization's board of directors. These policies and procedures should ensure that the organization follows prudent standards of credit assessment and approval regardless of the role an institution plays in an asset-backed commercial paper program. Such policies and procedures would be applicable to all pools of receivables to be purchased by the SPE as well as to the extension of any credit enhancements and liquidity facilities. Procedures should include an initial, thorough credit assessment of each pool for which the banking organization had assumed credit risk, followed by periodic credit reviews to monitor performance throughout the life of the exposure. Furthermore, the policies and procedures should outline the credit-approval process and establish in-house exposure limits, on a consolidated basis, with respect to particular industries or organizations, that is, companies from which the SPE purchased the receivables as well as the receivable obligors themselves. Controls should include well-developed management information systems and monitoring procedures.

Institutions should analyze the receivables pools underlying the commercial paper as well as the structure of the arrangement. This analysis should include a review of—

1. the characteristics, credit quality, and expected performance of the underlying receivables;
2. the banking organization's ability to meet its obligations under the securitization arrangement; and
3. the ability of the other participants in the arrangement to meet their obligations.

Banking organizations providing credit enhancements and liquidity facilities should conduct a careful analysis of their funding capabilities to ensure that they will be able to meet their obligations under all foreseeable circumstances. The analysis should include a determination of the impact that fulfillment of these obligations would have on their interest-rate risk exposure, asset quality, liquidity position, and capital adequacy.

Examiners should carefully review the asset-backed commercial paper facilities provided by banking organizations to ensure that they are applying, for risk-based capital purposes, the proper conversion factors to their obligations supporting asset-backed commercial paper programs. In addition, examiners should determine whether the previously discussed policies are operative and that institutions are adequately managing their risk exposure. If not appropriate for the open section, a discussion of the size, effectiveness, and risks associated with asset-backed commercial paper programs should be included in the confidential section of the examination or inspection report. See SR-92-11.

2128.03.5 INSPECTION OBJECTIVES

1. To determine whether the banking organization (that is, a bank or a bank holding company) participating in an asset-backed commercial paper program has included this participation in its overall strategic objectives.
2. To determine whether management fully understands the risks associated with the banking organization's involvement in credit-enhancement and asset-backed commercial paper programs and whether appropriate safeguards are in place to properly manage those risks.
3. To ascertain that the appropriate policies, procedures, and controls have been established by the banking organization before participating in asset-backed commercial paper programs.
4. To verify whether existing managerial and internal controls include well-developed

management information systems and monitoring procedures.

5. To determine whether the banking organization has conducted a careful analysis of its funding capabilities to ensure that it will be able to meet its obligations under all foreseeable circumstances.
6. To ensure that all asset-backed securities owned, any assets sold with recourse, retained interests, and variable interest entities (VIEs) (for example, asset-backed commercial paper [ABCP] programs, those that are defined as VIEs under generally accepted accounting principles) are properly accounted for on the banking organization's books and are correctly reported on its regulatory reports.
7. To determine that capital is commensurate with, and that there are accurate determinations of the risk weights for, the risk exposures arising from recourse obligations, direct-credit substitutes, asset- and mortgage-backed securities, ABCP programs and ABCP liquidity facilities, and other asset-securitization transactions.

2128.03.6 INSPECTION PROCEDURES

1. Review the minutes of board of directors or executive committee meetings. Establish whether the significant policies and procedures for credit-enhanced or asset-backed commercial paper have been approved and reviewed periodically by the organization's board of directors.
   a. Determine whether the policies are operative and whether institutions are adequately managing their risk exposure.
   b. Determine whether the policies and procedures are applicable to all pools of receivables to be purchased by the SPE as well as to the extension of any credit enhancements and liquidity facilities.
2. Determine if the organization follows prudent standards of credit assessment and approval.
   a. Ascertain whether the procedures include an initial, thorough credit assessment of each pool for which the organization had assumed credit risk. The initial review should be followed by periodic credit reviews to monitor performance throughout the life of the exposure.
   b. Determine if the policies and procedures outline the credit-approval process and establish in-house exposure limits, on a consolidated basis, with respect to particular industries or organizations, that is, companies from which the SPE purchased the receivables as well as the receivable obligors themselves.
   c. Determine whether the organization analyzes the receivables pools underlying the commercial paper as well as analyzes the structure of the arrangement. Does the analysis include a review of—
      - the characteristics, credit quality, and expected performance of the underlying receivables;
      - the ability of the banking organization to meet its obligations under the securitization arrangement; and
      - the ability of the other participants in the arrangement to meet their obligations?
3. Review the organization's funding obligations and commitments, and determine whether there is sufficient liquidity to satisfy those funding requirements. Include a determination of the impact that fulfillment of these obligations would have on their interest-rate risk exposure, asset quality, liquidity position, and capital adequacy.
4. Review carefully the risk-based capital calculations for ABCP facilities to ensure that they are applying, for risk-based capital purposes, the proper conversion factors to their obligations supporting the asset-backed commercial paper programs.
5. Determine if the banking organization consolidates, in accordance with GAAP, the assets of any ABCP program or other such program that it sponsors.
   a. Determine if the banking organization's ABCP program met the definition of a sponsored ABCP program under the risk-based capital guidelines.
   b. Verify that the assets of the banking organization's eligible ABCP program and any associated minority interest were included in the banking organization's calculation of its risk-based capital ratios.
   c. Ascertain whether the liquidity facilities the banking organization extends to the ABCP program satisfy the risk-based capital requirements, including the appropriate asset-quality test, of an eligible ABCP program liquidity facility. (See 12 C.F.R. 225, appendix A, section III.B.3.a.iv.)
   d. Determine whether the banking organization applied the correct credit-conversion

factor to the eligible ABCP liquidity facilities when it determined the amount of risk-weighted assets for its risk-based capital ratios. (See 12 C.F.R. 225, appendix A, section III.D.)

e. Determine if all ineligible ABCP liquidity facilities were treated as either direct-credit substitutes or as recourse obligations, as required by the risk-based capital guidelines.

f. If the banking organization had multiple overlapping exposures, determine if the banking organization applied the risk-based capital treatment that resulted in the highest capital charge. (See 12 CFR 225, appendix A, section III.B.6.c.)

6. Include in the inspection report a discussion of the size, effectiveness, and risks associated with ABCP programs (include the discussion in the confidential section of the inspection report if not appropriate for the open section).

Implicit Recourse Provided to Asset Securitizations (Risk Management and Internal Controls) Section 2128.04

Implicit recourse arises when a bank holding company[1] provides credit support to one of more of its securitizations beyond its contractual obligation. Implicit recourse, like contractual recourse, exposes a bank holding company to the risk of loss arising from deterioration in the credit quality of the underlying assets of the securitization. Implicit recourse is of supervisory concern because it demonstrates that the securitizing bank holding company is reassuming risk associated with the securitized assets—risk that the bank holding company initially transferred to the marketplace. For risk-based capital purposes, bank holding companies deemed to be providing implicit recourse are generally required to hold capital against the entire outstanding amount of assets sold, as though the assets remained on the bank holding company's books.

Banking organizations have typically provided implicit recourse in situations where the originating banking organization perceived that the failure to provide this support, even though not contractually required, would damage its future access to the asset-backed securities market. An originating bank holding company can provide implicit recourse in a variety of ways. The ultimate determination as to whether implicit recourse exists depends on the facts. The following actions point to a finding of implicit recourse:

1. selling assets to a securitization trust or other special-purpose entity (SPE) at a discount from the price specified in the securitization documents, which is typically par value
2. purchasing assets from a trust or other SPE at an amount greater than fair value
3. exchanging performing assets for nonperforming assets in a trust or other SPE
4. funding credit enhancements[2] beyond contractual requirements

By providing implicit recourse, a bank holding company signals to the market that it still holds the risks inherent in the securitized assets, and, in effect, the risks have not been transferred. Accordingly, examiners must be attentive to bank holding companies that provide implicit support, given the risk these actions pose to a bank holding company's financial condition. Increased attention should be given to situations where a bank holding company is more likely to provide implicit support.

Particular attention should be paid to revolving securitizations, such as those used for credit card lines and home equity lines of credit, in which receivables generated by the lines are sold into the securitizations. These securitizations typically provide that, when certain performance criteria hit specified thresholds, no new receivables can be sold into the securitization, and the principal on the bonds issued will begin to pay out. These early-amortization events are intended to protect investors from further deterioration in the underlying asset pool. Once an early-amortization event has occurred, the bank holding company could have difficulties using securitization as a continuing source of funding and, at the same time, have to fund the new receivables generated by the lines of credit on its balance sheet. Thus, bank holding companies have an incentive to avoid early amortization by providing implicit support to the securitization.

Examiners should be alert for securitizations that are approaching early-amortization triggers, such as a decrease in the excess spread[3] below a certain threshold or an increase in delinquencies beyond a certain rate. Providing implicit recourse can pose a degree of risk to a bank holding company's financial condition and to the integrity of its regulatory and public financial statements and reports. Examiners should review securitization documents (for example, pooling and servicing agreements) to ensure that the selling institution limits any post-sale support to that specified in the terms and conditions in the securitization documents. Examiners should also review a sample of receivables transferred between the seller and the trust to ensure that these transfers were conducted in accordance with the contractual terms of the securitization, particularly in cases where the overall credit quality of the securitized loans or receivables has deteriorated. While bank hold-

1. The reference to implicit-recourse activities of bank holding companies is intended to include all of a bank holding company's domestic and foreign subsidiaries supervised by the Federal Reserve, as well as its federally insured depository institutions and other entities that are subject to this interpretation and guidance of the Federal Financial Institutions Examination Council (FFIEC).

2. Credit enhancements include retained subordinated interests, asset-purchase obligations, overcollateralization, cash-collateral accounts, spread accounts, and interest-only strips.

3. Excess spread generally is defined as finance-charge collections minus certificate interest, servicing fees, and charge-offs allocated to the series.

ing companies are not prohibited from providing implicit recourse, such support will generally result in higher capital requirements.

Examiners should recommend that prompt supervisory action be taken when implicit recourse is identified. To determine the appropriate action, examiners need to understand the bank holding company's reasons for providing support and the extent of the impact of this support on the bank holding company's earnings and capital. As with contractual recourse, actions involving noncontractual post-sale credit enhancement generally result in the requirement that the bank holding company hold risk-based capital against the entire outstanding amount of the securitized assets. The Federal Reserve may require the bank holding company to bring all assets in existing securitizations back on the balance sheet for risk-based capital purposes, as well as require the bank holding company to increase its minimum capital ratios. The Federal Reserve may prevent a bank holding company from removing assets from its risk-weighted asset base on future transactions until the bank holding company demonstrates its intent and ability to transfer risk to the marketplace. The Federal Reserve may consider other actions to ensure that the risks associated with implicit recourse are adequately reflected in the capital ratios. For example, supervisors may require the bank holding company to deduct residual interests from tier 1 capital as well as hold risk-based capital on the underlying assets. (See SR-02-15.)

The following examples illustrate post-sale actions that banking organizations may take with respect to assets they have securitized. These examples are intended to provide guidance on whether these actions would be considered implicit recourse for risk-based capital and other supervisory purposes. A key factor in each scenario and analysis is the potential risk of loss a bank holding company's earnings and capital may be exposed to as a result of its actions.

Account Removal: Example 1a

Facts. A bank holding company originates and services credit card receivables throughout the country. The bank holding company decides to divest those credit card accounts of customers who reside in specific geographic areas where the bank holding company lacks a significant market presence. To achieve the maximum sales price, the sale must include both the credit card relationships and the receivables. Because many of the credit card receivables are securitized through a master-trust structure, the bank holding company needs to remove the receivables from the trust. The affected receivables are not experiencing any unusual performance problems. In that respect, the charge-off and delinquency ratios for the receivables to be removed from the trust are substantially similar to those for the trust as a whole.

The bank holding company enters into a contract to sell the specified credit card accounts before the receivables are removed from the trust. The terms of the transaction are arm's length, wherein the bank holding company will sell the receivables at market value. The bank holding company separately agrees to purchase the receivables from the trust at this same price. Therefore, no loss is incurred as a result of removing the receivables from the trust. The bank holding company will remove from the trust only those receivables that are due from customers located in the geographic areas where the bank holding company lacks a significant market presence, and it will remove all such receivables from the trust.

Analysis. The removal of the above-described receivables from the trust does not constitute implicit recourse for regulatory capital purposes. Supporting factors for this conclusion include the following:

1. The bank holding company's earnings and capital are not exposed to actual or potential risk of loss as a result of removing the receivables from the trust.
2. There is no indication that the receivables are removed from the trust because of performance concerns.
3. The bank holding company is removing the receivables from the trust for a legitimate business purpose other than to systematically improve the quality of the trust's assets. The legitimate business purpose is evidenced by the bank holding company's prearranged, arm's-length sale agreement that facilitates exiting the business in identified geographic locations.

Examiners should review the terms and conditions of the transaction to ensure that the market value of the receivables is documented and well supported before concluding that this transaction does not represent implicit recourse. Examiners should also ensure that the selling bank holding company has not provided the pur-

chaser with any guarantees or credit enhancements on the sold receivables.

Account Removal: Example 1b

Facts. After the establishment of a master trust for a pool of credit card receivables, the receivables in the trust begin to experience adverse performance. A combination of lower-than-expected yields and higher-than-anticipated charge-offs on the pool causes spreads to compress significantly (although not to zero). The bank holding company's internally generated forecasts indicate that spreads will likely become negative in the near future. Management takes action to support the trust by purchasing the low-quality (delinquent) receivables from the trust at par, although their market value is less than par. The receivables purchased from the trust represent approximately one-third of the trust's total receivables. This action improves the overall performance of the trust and avoids a potential early-amortization event.

Analysis. The purchase of low-quality receivables from a trust at par constitutes implicit recourse for regulatory capital purposes. The purchase of low-quality receivables at an above-market price exposes the bank holding company's earnings and capital to potential future losses from assets that had previously been sold. Accordingly, the bank holding company is required to hold risk-based capital for the remaining assets in the trust as if they were retained on the balance sheet, as well as hold capital for the assets that were repurchased.

Additions of Future Assets or Receivables: Example 2a

Facts. Months after the issuance of credit card asset-backed securities, charge-offs and delinquencies on the underlying pool of receivables rise dramatically. A rating agency places the securities on watch for a potential rating downgrade. The securitization documents require the bank holding company to transfer new receivables to the securitization trust at par value. However, to maintain the rating on the securities, the bank holding company begins to sell replacement receivables into the trust at a discount from par value.

Analysis. The sale of receivables to the trust at a discount constitutes implicit recourse for regulatory capital purposes. The sale of assets at a discount from the price specified in the securitization documents, par value in this example, exposes the bank holding company's earnings and capital to future losses. The bank holding company must hold regulatory capital against the outstanding assets in the trust.

Additions of Future Assets or Receivables: Example 2b

Facts. A bank holding company established a credit card master trust. The receivables from the accounts placed in the trust were, on average, of lesser quality than the receivables from certain affinity accounts retained on the bank holding company's balance sheet. Under the criteria for selecting the receivables to be transferred to the master trust, the bank holding company was prevented from including the better-performing affinity accounts in the initial pool of accounts because the affinity-relationship contract was expiring. The bank holding company and the affinity client subsequently revised the terms of their contract, enabling the affinity accounts to meet the selection criteria and be included in future securitization transactions. Later, rising charge-offs within the pool of receivables held by the trust caused spread compression in the trust. To improve the performance of the assets in the trust, the bank holding company begins to include the better-performing and now-eligible receivables from the affinity accounts among the receivables sold to the trust. This action improves the trust's performance, including its spread levels and charge-off ratios. However, the replacement assets were sold at par in accordance with the terms of the trust agreement, so no current or future charge to the bank holding company's earnings or capital will result from these asset sales. As another result of this action, the performance of the trust's assets closely tracks the credit card receivables that remain on the bank holding company's balance sheet.

Analysis. The actions described above do not constitute implicit recourse for regulatory capital purposes. The bank holding company did not incur any additional risk to earnings or capital after the affinity accounts met the selection criteria for replacement assets and after the associated receivables were among the receivables sold to the trust. The replacement assets were sold at par in accordance with the terms of the

trust agreement, so no future charge to earnings or capital will result from these asset sales. The sale of replacement assets into a master-trust structure is part of normal trust management.

In this example, the credit card receivables that remain on the bank holding company's balance sheet closely track the performance of the trust's assets. Nevertheless, examiners should ascertain whether a securitizing bank holding company sells disproportionately higher-quality assets into securitizations while retaining comparatively lower-quality assets on its books. If a bank holding company engages in this practice, examiners should consider its effect on the bank holding company's capital adequacy.

Additions of Future Assets or Receivables: Example 2c

Facts. A bank holding company establishes a credit card master trust composed of receivables from accounts that were generally of lower quality than the receivables retained on the bank holding company's balance sheet. The difference in the two portfolios is primarily due to logistical and operational problems that prevent the bank holding company from including certain better-quality affinity accounts in the initial pool from which accounts were selected for securitization. Rising charge-offs and other factors later result in margin compression on the assets in the master trust, which causes some concern in the market regarding the stability of the outstanding asset-backed securities. A rating agency places several tranches of the securities on its watch list for a potential rating downgrade. In response to the margin compression, as part of the bank holding company's contractual obligations, spread accounts are increased for all classes by trapping excess spread in conformance with the terms and conditions of the securitization documents. To stabilize the quality of the receivables in the master trust, as well as to preclude a downgrade, the bank holding company takes several actions beyond its contractual obligations:

1. Affinity accounts are added to the pool of receivables eligible for inclusion in the trust. This change results in improved overall trust performance. However, these receivables are sold to the trust at par value, consistent with the terms of the securitization documents, so no current or future charge to the bank holding company's earnings or capital will result from these asset sales.
2. The charge-off policy for cardholders that have filed for bankruptcy is changed from criteria that were more conservative than industry standards, the applicable Federal Reserve classification policy for bank holding companies, and the FFIEC Uniform Retail Credit Classification and Account Management Policy to criteria that conform to industry standards, the Federal Reserve's standards, and the FFIEC's policy.
3. Charged-off receivables held by the trust are sold to a third party. The funds generated by this sale, effectively accelerating the recovery on these receivables, improve the trust's spread performance.

Analysis. The actions described above do not constitute implicit recourse for regulatory capital purposes. None of the noncontractual actions result in a loss or expose the bank holding company's earnings or capital to the risk of loss. Because of the margin compression, the bank holding company is obligated to increase the spread accounts in conformance with the terms and conditions of the securitization documents. To the extent this results in an increase in the value of the subordinated spread accounts (residual interests) on the bank holding company's balance sheet, the bank holding company will need to hold additional capital on a dollar-for-dollar basis for the additional credit risk it retains. In contrast, if the bank holding company increased the spread accounts beyond its contractual obligation under the securitization documents, this action would be considered a form of implicit recourse. None of the other actions the bank holding company took would affect its earnings or capital:

1. Like other additions to credit card trusts, the additions of receivables from the new affinity accounts were made at par value, in accordance with the securitization documents. Therefore, the additions of receivables from the new affinity accounts would not affect the bank holding company's earnings or capital.
2. The trust's policy on the timing of charge-offs on accounts of cardholders who have filed for bankruptcy was changed to meet the less stringent standards of the industry and those required under the Federal Reserve's policy in order to improve trust performance, at least temporarily. Nonetheless, this would not affect the bank holding company's earnings or capital.

3. In accordance with the securitization documents, proceeds from recoveries on charged-off accounts are the property of the trust. These and other proceeds would continue to be paid out in accordance with the pooling and servicing agreement. No impact on the bank holding company's earnings or capital would result.

Modification of Loan-Repayment Terms: Example 3

Facts. In performing the role of servicer for its securitization, a bank holding company is authorized under its pooling and servicing agreement to modify loan-repayment terms when it appears that this action will improve the likelihood of repayment on the loan. These actions are part of the bank holding company's process of working with customers who are delinquent or otherwise experiencing temporary financial difficulties. All of the modifications are consistent with the bank holding company's internal loan policy. However, in modifying the loan terms, the contractual maturity of some loans may be extended beyond the final maturity date of the most junior class of securities sold to investors. When this occurs, the bank holding company repurchases these loans from the securitization trust at par.

Analysis. The combination of the loan-term modification for securitized assets and the subsequent repurchase constitutes implicit recourse for regulatory capital purposes. While the modification of loan terms is permitted under the pooling and servicing agreement, the repurchase of modified loans with extended maturities at par exposes the bank holding company's earnings and capital to potential risk of loss.

Servicer's Payment of Deficiency Balances: Example 4

Facts. A wholly owned subsidiary of a bank holding company originates and services a portfolio of home equity loans. After liquidation of the collateral for a defaulted loan, the subsidiary makes the trust whole in terms of principal and interest if the proceeds from the collateral are not sufficient. However, there is no contractual commitment that requires the subsidiary to support the pool in this manner. The payments made to the trust to cover deficient balances on the defaulted loans are not recoverable under the terms of the pooling and servicing agreement.

Analysis. The subsidiary's action constitutes implicit recourse to the bank holding company for regulatory capital purposes. This action is considered implicit recourse because it adversely affects the bank holding company's earnings and capital since the bank holding company absorbs losses on the loans resulting from the actions taken by its subsidiary. Further, no mechanism exists to provide for and ensure that the subsidiary will be reimbursed for the payments made to the trust. In addition, examiners will consider any servicer advance a credit enhancement if the servicer is not entitled to full reimbursement[4] or if the reimbursement is subordinate to other claims.

Reimbursement of Credit Enhancer's Actual Losses: Example 5

Facts. A bank holding company sponsoring a securitization arranges for an unrelated third party to provide a first-loss credit enhancement, such as a financial standby letter of credit, that will cover losses up to the first 10 percent of the securitized assets. The bank holding company agrees to pay a fixed amount as an annual premium for this credit enhancement. The third party initially covers actual losses that occur in the underlying asset pool in accordance with its contractual commitment under the letter of credit. Later, the bank holding company agrees not only to pay the credit enhancer the annual premium on the credit enhancement, but also to reimburse the credit enhancer for the losses it absorbed during the preceding year. This reimbursement for actual losses was not originally provided for in the contractual arrangement between the bank holding company and the credit-enhancement provider.

Analysis. The bank holding company's subsequent reimbursement of the credit-enhancement provider's losses constitutes implicit recourse because the bank holding company's reimbursement of losses went beyond its contractual obligations. Furthermore, the Federal Reserve would consider any requirement contained in the original credit-enhancement contract that obligates the bank holding company to reim-

4. A servicer advance will also be considered a form of credit enhancement if, for any one loan, nonreimbursable advances are not contractually limited to an insignificant amount of that loan's outstanding principal.

burse the credit-enhancement provider for its losses to be a recourse arrangement.

2128.04.1 INSPECTION OBJECTIVES

1. To identify asset-securitization transactions in which the bank holding company has provided implicit recourse.
2. To ascertain whether implicit recourse provided to asset-securitization transactions may be detrimental to the bank holding company's earnings performance, capital adequacy, and financial condition.
3. To initiate quick supervisory action, which may include increased minimum-capital requirements, when implicit recourse is identified.

2128.04.2 INSPECTION PROCEDURES

1. Be attentive to situations in which the bank holding company may have provided implicit support to an asset-securitization transaction.
2. Be alert for securitizations that are approaching early-amortization triggers, such as a decrease in the excess spread below a certain threshold or an increase in delinquencies beyond a certain rate.
3. Review securitization documents to ensure that the selling institution limits any post-sale support to that specified in the terms and conditions in the securitization documents.
4. Review a sample of receivables transferred between the seller and the trust to ensure that the transfers were conducted in accordance with the contractual terms of the securitization, particularly in cases where the overall credit quality of the securitized loans or receivables has deteriorated.
5. Review the terms and conditions of the securitization transactions reviewed to ensure that the market value of the receivables is documented and well supported.
6. Ascertain that the selling bank holding company has not provided a purchaser with any guarantees or credit enhancements on the sold receivables.
7. Ascertain whether a securitizing bank holding company sells disproportionately higher-quality assets into securitizations while retaining comparatively lower-quality assets on its books. Evaluate the effect of this practice on the bank holding company's earnings and capital adequacy.
8. Provide appropriate written documentation and recommend that prompt supervisory action be taken when implicit recourse is identified.

A bank holding company's board of directors and senior management are responsible for initiating policies and procedures, and for monitoring processes and internal controls, that will provide reasonable assurance that the bank holding company's contracts and commitments do not include detrimental covenants that affect its safety and soundness. When examiners review a bank holding company's securitization contracts and related documentation, they should be alert to any covenants that use adverse supervisory actions or the breach of supervisory thresholds as triggers for early-amortization events or the transfer of servicing. Examples of such supervisory actions can include a downgrade in the banking organization's RFI/C(D) or CAMELS rating, an enforcement action, or a downgrade in a depository institution's prompt-corrective-action capital category. The inclusion of supervisory-linked covenants in securitization documents is considered to be an ''unsafe and unsound banking practice'' that undermines the objective of supervisory actions and thresholds. An early amortization or transfer of servicing triggered by such events can create or exacerbate liquidity and earnings problems for a bank holding company that may lead to further deterioration in its financial condition.

Covenants that contain triggers tied, directly or indirectly, to supervisory actions or thresholds can also result in the early amortization of a securitization at a time when the sponsoring organization's ability to access other funding sources is limited. If an early-amortization event occurs, investors may lose confidence in the stability of the sponsoring organization's asset-backed securities, thus limiting its ability to raise new funds through securitization. At the same time, the organization must fund new receivables on the balance sheet, potentially resulting in liquidity problems. Moreover, the existence of a supervisory-linked trigger potentially could inhibit supervisors from taking action intended to address problems at a troubled organization because the action could trigger an event that worsens its condition or causes its failure.

The Federal Reserve is concerned that covenants related to supervisory actions may obligate a bank holding company's management to disclose confidential information, such as RFI/C(D) or CAMELS ratings. Disclosure of such information by a banking organization's directors, officers, employees, attorneys, or independent auditors, without explicit authorization by its primary regulator, violates supervisory information disclosure rules and policies and may result in follow-up supervisory action.

Because of the supervisory concerns about covenants that are linked to supervisory actions, a federal bank interagency advisory was issued on May 23, 2002. (See SR-02-14.) The advisory emphasizes that a banking organization's management and board of directors should ensure that covenants related to supervisory actions or thresholds are not included in securitization documents. Covenants that provide for the early termination of the transaction or compel the transfer of servicing due, directly or indirectly, to the occurrence of a supervisory action or event will be criticized, under appropriate circumstances, as an unsafe and unsound banking practice. The Federal Reserve (and other supervisors) may also take other supervisory actions, such as requiring additional capital or denying capital relief for risk-based capital calculations, regardless of the treatment under generally accepted accounting principles (GAAP).

Examiners should consider the potential impact of such covenants in existing transactions when evaluating both the overall condition of the bank holding company and the specific component ratings of capital, liquidity, and management. Early-amortization triggers will specifically be considered in the context of the bank holding company's overall liquidity position and contingency funding plan. For organizations with limited access to other funding sources or a significant reliance on securitization, the existence of these triggers presents a greater degree of supervisory concern. Any bank holding company that uses securitization as a funding source should have a viable contingency funding plan in the event it can no longer access the securitization market. Examiners should encourage bank holding company management to amend, modify, or remove covenants linked to supervisory actions from existing transactions. Any impediments a bank holding company may have to taking such actions should be documented and discussed with the appropriate supervisory staff of its responsible Reserve Bank.

2128.05.1 INSPECTION OBJECTIVES

1. During the review of securitization activities and contracts, to be alert to securitization

documents containing covenants that have triggers tied, directly or indirectly, to supervisory actions or thresholds.
2. Under appropriate circumstances, to criticize as an unsafe and unsound banking practice the inclusion of covenants in a securitization-transaction document when the covenants provide for the early termination of the transaction or compel the transfer of servicing due, directly or indirectly, to the occurrence of a supervisory action or event.
3. To determine if the bank holding company has a viable contingency funding plan that it can use if it can no longer access the securitization market.

2128.05.2 INSPECTION PROCEDURES

1. Review a sample of the bank holding company's securitization contracts and related documentation.
2. Evaluate the overall condition of the bank holding company, as well as the specific component ratings of capital, liquidity, and management.
3. If the bank holding company uses securitization as a funding source, determine its overall liquidity position and whether it has an adequate and viable contingency funding plan that can be used if the bank holding company can no longer access the securitization market.
4. Determine the potential impact of any early-amortization triggers or transfer of servicing within the asset-securitization contracts (any covenants that use adverse supervisory actions or the crossing of supervisory thresholds as triggers for early-amortization events or the transfer of servicing).
5. Encourage bank holding company management to amend, modify, or remove from existing transactions any securitization covenants linked to supervisory actions.
6. Report to and consult with Reserve Bank supervisory staff on any impediments the directors and senior management of the bank holding company have to amending, modifying, or removing any such detrimental securitization convenants.

WHAT'S NEW IN THIS REVISED SECTION

This section has been revised to replace, as appropriate, the references to FAS 125 with either FAS 140 or FAS 157. The Financial Accounting Standards Board (FASB), issued in September 2000, FAS 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities (a replacement of FAS No. 125)." FAS 157, "Fair Value Measurements," was issued in September 2006 and was made effective on November 15, 2007.

2128.06.05 RETAINED INTERESTS FROM SECURITIZATION ACTIVITIES

Securitization activities present unique and sometimes complex risks that require the attention of senior management and the board of directors. Retained interests from securitization activities, including interest-only strips receivable, arise when a banking organization (BO) keeps an interest in the assets sold to a securitization vehicle that, in turn, issues bonds to investors.[1]

The methods and models BOs use to value retained interests and the difficulties in managing exposure to these volatile assets can raise supervisory concerns. Under generally accepted accounting principles (GAAP), a BO recognizes an immediate gain (or loss) on the sale of assets, in part, by recording its retained interest at fair value. The valuation of the retained interest is based on the present value of future cash flows in excess of the amounts needed to service the bonds and cover credit losses and other fees of the securitization vehicle.[2]

Determinations of fair value should be based on reasonable assumptions about factors such as discount rates, projected credit losses, and prepayment rates. Bank supervisors expect retained interests to be supported by verifiable documentation of fair value in accordance with GAAP. In the absence of such support, the retained interests, for regulatory reporting purposes, should not be carried as assets on a BO's books, but should be charged off. Other supervisory concerns include failure to recognize and hold sufficient capital against recourse obligations generated by securitizations, and the absence of an adequate independent audit function.

The supervisory guidance focuses on and incorporates important fundamental concepts of risk-management and risk-focused supervision: active oversight by senior management and the board of directors, the use of effective policies and limits, accurate and independent procedures to measure and assess risk, and the maintenance of strong internal controls.[3] The guidance stresses sound risk-management, modeling, valuation, and disclosure practices for asset securitization; complements previous supervisory guidance issued on this subject; and supplements existing policy statements and examination-inspection procedures.[4] Emphasis is placed on the expectation that a BO's securitization-related retained interest must be supported by documentation of the interest's fair value, using reasonable valuation assumptions that can be objectively verified. Retained interests that lack such objectively verifiable support or that fail to meet these supervisory standards will be classified as loss and disallowed for inclusion as assets of the BO for regulatory capital purposes. See SR-99-37 and the more complete text of its referenced interagency guidance on the risk mangement and valuation of retained interests arising from asset securitization activities. See also SR-03-4 and its attachment and section 3071.0.

Examiners will review a BO's valuation of retained interests and the concentration of these assets relative to capital. Consistent with existing supervisory authority, BOs may be required, on a case-by-case basis, to hold additional capital commensurate with their risk exposures.[5] An

1. The term "banking organization" (BO) refers to any federally supervised banking organization. This includes federally insured, federally chartered financial institutions that are supervised by a federal bank or savings association supervisory authority, as well as bank holding companies and their nonbank subsidiaries.

2. See Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standard No. 140 (FAS 140), "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities (a replacement of FASB Statement No. 125)."

3. See SR-96-14, "Risk-Focused Safety-and-Soundness Examinations and Inspections" (section 2124.0 of this manual), and SR-95-51, "Rating the Adequacy of Risk-Management Processes and Internal Controls at State Member Banks and Bank Holding Companies" (section 4070.1 of this manual).

4. See SR-97-21, "Risk Management and Capital Adequacy of Exposures Arising from Secondary-Market Credit Activities," and SR-96-30, "Risk-Based Capital Treatment for Spread Accounts That Provide Credit Enhancement for Securitized Receivables."

5. For instance, a BO has high concentrations of retained

excessive dependence on securitizations for day-to-day core funding can present significant liquidity problems during times of market turbulence or if there are difficulties specific to the BO.

2128.06.1 ASSET SECURITIZATION

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. BOs use asset securitization to access alternative funding sources, manage concentrations, improve financial-performance ratios, and more efficiently meet customer needs. Assets typically securitized include credit card receivables, automobile receivable paper, commercial and residential first mortgages, commercial loans, home equity loans, and student loans.

Senior management and directors must have the requisite knowledge of the effect of securitization on the BO's risk profile and must be fully aware of the accounting, legal, and risk-based capital nuances of this activity. BOs must fully and accurately distinguish and measure the risks that are transferred versus those retained, and must adequately manage the retained portion. It is essential that BOs 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.

Appropriate valuation and modeling methodologies must be used. They must be able 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, in part, through booking a "retained interest." The carrying value, however, of that interest must be fully documented, based on reasonable assumptions, and regularly analyzed for any subsequent impairment in value. The best evidence of fair value is a quoted market price in an active market. When 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."[6] 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. (See FAS 140, para. 71.)

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, a BO 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 retained interests represent an excessive concentration of the sponsoring BO's capital, the BO's demise. BO managers and directors need to ensure the following:

1. 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.
2. Appropriate valuation assumptions and modeling methodologies are used to establish, evaluate, and adjust the carrying value of retained interests on a regular and timely basis.
3. 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 the BO retains. The findings of such reviews should be reported directly to the board or an appropriate board committee.
4. Accurate and timely risk-based capital calculations are maintained, including recognition and reporting of any recourse obligation resulting from securitization activity.
5. Internal limits are in place to govern the maximum amount of retained interests as a percentage of total equity capital.
6. A realistic liquidity plan is in place for the BO in case of market disruptions.

interests relative to its capital or is otherwise at risk from impairment of these assets.

6. See FAS 157, "Fair Value Measurements."

2128.06.2 INDEPENDENT RISK-MANAGEMENT FUNCTION

BOs 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 BO's circumstances. A sound asset securitization policy should include or address, at a minimum—

1. a written and consistently applied accounting methodology;
2. regulatory reporting requirements;
3. valuation methods, including FAS 157 valuation assumptions, and procedures to formally approve changes to those assumptions;
4. a management reporting process; and
5. 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. 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 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 will help well-managed BOs 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.

At a minimum, MIS reports should address the following:

1. *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 for each transaction are distributed to all personnel associated with securitization activities.
2. *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 the performance of assets, both on an individual-pool basis and total managed assets. These reports should segregate specific products and different marketing campaigns.
3. *Vintage analysis for each pool using monthly data.* Vintage analysis will help 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 with 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.
4. *Static-pool cash-collection analysis.* A static-pool cash-collection analysis involves 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 monthly the timing and amount of cash flows received from the trust with those projected as part of the FAS 157 retained-interest valuation analysis. 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.

5. *Sensitivity analysis.* A sensitivity analysis measures the effect of changes in default rates, prepayment or payment rates, and discount rates to 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 that need to be considered 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, thus 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.[7] Examiners will review the BO-conducted analysis and the volatility associated with retained interests when assessing the Sensitivity to Market Risk component rating (the "S" in the CAMELS rating system for banks or the "M" for the BHC rating system[8]).
6. *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 overcollateralization requirements, and events that would result in servicer removal.

7. The Joint Agency Policy Statement on Interest-Rate Risk (see SR-96-13 and section 2127.0) advises institutions with a high level of exposure to interest-rate risk relative to capital that they will be directed to take corrective action.

8. See sections 4070.0 and 4070.1.

2128.06.3 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. BOs are expected to take a logical appropriate approach when developing securitization assumptions and capitalizing future income flows. It is important that management quantifies the assumptions at least quarterly on a pool-by-pool basis and maintains supporting documentation for all changes to the assumptions as part of the valuation. 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.

To determine the value of the retained interest at inception, and make appropriate adjustments going forward, the BO must implement a reasonable modeling process to comply with FAS 157. Management is expected to employ appropriate valuation assumptions and projections, and to maintain verifiable objective documentation of the fair value of the retained interest. Senior management is responsible for ensuring that 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 overcollateralization 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 to reduce vulner-

ability to model risk. Validation of the model includes testing the internal logic, ensuring empirical support for the model assumptions, and back-testing the models using 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 and from the modeling process. The audit scope should include procedures to ensure that the modeling process and validation mechanisms are both appropriate for the BO's circumstances and executed consistent with its asset securitization policy.

2128.06.4 USE OF OUTSIDE PARTIES

Third parties are often engaged to provide professional guidance and support regarding a BO's securitization activities, transactions, and valuing of retained interests. The use of outside resources does not relieve directors of their oversight responsibility, or relieve senior management of its responsibilities to provide supervision, monitoring, and oversight of securitization activities, particularly the management of the risks associated with retained interests. Management is expected to have the experience, knowledge, and abilities to discharge its duties and understand the nature and extent of the risks retained interests present, and to have 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.

2128.06.5 INTERNAL CONTROLS

Effective internal controls are essential to a BO'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 BO'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, and assist in their timely detection. 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.

Operational and managerial standards have been established for internal control and information systems.[9] A system of internal controls should be maintained that is appropriate to the BO's size and the nature, scope, and risk of its activities.[10]

2128.06.6 AUDIT FUNCTION OR INTERNAL REVIEW

A BO's board of directors is responsible for ensuring 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 140), deal covenants, and the accuracy of MIS and regulatory reports. The audit function also should confirm that the BO's regulatory reporting process is designed and managed 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 that balances reconcile to internal records.

2128.06.7 REGULATORY REPORTING OF RETAINED INTERESTS

The securitization and subsequent removal of assets from a BO's balance sheet requires additional reporting as part of the regulatory reporting process. Common regulatory reporting errors stemming from securitization activities may include—

9. See the safety-and-soundness standards for national banks at 12 CFR 30 (OCC), and for savings associations at 12 CFR 570 (OTS).

10. BOs that are subject to the requirements of FDIC regulation 12 CFR 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.

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

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

2128.06.8 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 BO's asset securitization activities should be disclosed. The information 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 BO. Well-informed investors, depositors, creditors, and other counterparties can provide a BO with strong incentives for maintaining sound risk-management systems and internal controls. Adequate disclosure allows market participants to better understand the BO's financial condition and apply market discipline, creating incentives to reduce inappropriate risk taking or inadequate risk-management practices. Examples of sound disclosures include—

1. accounting policies for measuring retained interests, including a discussion of the impact of key assumptions on the recorded value;
2. the process and methodology used to adjust the value of retained interests for changes in key assumptions;
3. risk characteristics, both quantitative and qualitative, of the underlying securitized assets;
4. the 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
5. sensitivity analyses or stress-testing conducted by the BO, showing the effect of changes in key assumptions on the fair value of retained interests.

2128.06.9 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 its claim on the assets.[11] In addition to broad contractual language that may require the seller to support a securitization, recourse can arise from retained interests, retained subordinated security interests, the funding of cash-collateral accounts, or other forms of credit enhancements that place a BO's earnings and capital at risk. These enhancements should generally be *aggregated* to determine the extent of a BO'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.[12] 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 a BO is contractually liable. The low-level-recourse treatment applies to transactions accounted for as sales under GAAP in which a BO 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 BO holds

11. See the risk-based capital treatment for sales with recourse at 12 CFR 3, appendix A, section (3)(b)(1)(iii) (OCC), and 12 CFR 567.6(a)(2)(i)(c) (OTS). For a further explanation of recourse, see the glossary of the Call Report instructions, ''Sales of Assets for Risk-Based Capital Purposes.''

12. See 60 *Fed. Reg.* 8177, February 13, 1995 (FRB).

capital on approximately a dollar-for-dollar basis up to the amount of the aggregate credit enhancements.

If a BO 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 BO must hold risk-based capital against the securitized assets as if those assets had not been sold. Retained interests that lack objectively verifiable support or that fail to meet the supervisory standards set forth in this section will be classified as loss and disallowed as assets of the BO for regulatory capital purposes.

2128.06.10 CONCENTRATION LIMITS IMPOSED ON RETAINED INTERESTS

The creation of a retained interest asset (the debit) typically also results in an offsetting "gain on sale" (the credit). BOs 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 it had not sold the assets (under the existing risk-based capital guidelines, capital is not required for the amount over 8 percent of the securitized assets). Serious problems can arise for those BOs 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 an example, a BO could sell $100 in subprime home-equity loans and book a retained interest of $20 using innapropriate valuation assumptions. Under the current capital rules, the BO 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 (8 percent of $100 = $8). However, the institution is still exposed to substantially all 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 the inappropriate assumptions or changes in market conditions, the $8 in capital is insufficient to cover the entire loss.

Normally, the sponsor 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 a BO's access to the capital markets; damage its reputation in the marketplace; and, in some cases, threaten its solvency. A BO's board of directors and management is expected 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 lessen the incentives for a BO's personnel to engage in activities designed to generate near-term "paper profits" that may be at the expense of its long-term financial position and reputation.

2128.06.11 INSPECTION OBJECTIVES

1. To determine whether the BO's retained interests from asset securitization are properly documented, valued, and accounted for.
2. To verify that the amount of those retained interests not supported by adequate documentation has been charged off for regulatory reporting purposes and that the involved assets are not used for risk-based calculation purposes.
3. To ascertain the existence of sound risk modeling, management information systems (MIS), and disclosure practices for asset securitization.
4. To obtain assurances that the board of directors and management oversee sound policies and internal controls concerning the recording and valuation of retained interests derived from asset securitization activities.
5. To determine if liquidity problems may arise as the result of an overdependence on asset securitization activities for day-to-day core funding.
6. To determine that sufficient capital is held commensurate with the risk exposures arising from recourse obligations generated by asset securitizations.
7. To determine whether there is an independent audit function that is capable of evaluating retained interests involving asset securitization activities.

2128.06.12 INSPECTION PROCEDURES

1. Determine the existence of independent risk-management processes and MIS, and whether they are being used to monitor

securitization-pool performance on an aggregate and individual transaction level.

2. Review the MIS reports and determine whether the reports provide—
   a. securitization summaries for each transaction;
   b. performance reports by portfolio and specific product type;
   c. vintage analysis for each pool using monthly data;
   d. static-pool cash-collection analysis;
   e. sensitivity analysis; and
   f. a statement of covenant compliance.
3. Review the BO's valuation assumptions and modeling methodologies, and determine if they are appropriate and are being used to establish, evaluate, and adjust the carrying value of retained interests on a regular and timely basis.
4. Determine if 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 that the BO retains.
5. Review the risk-based capital calculations, and determine if they include recognition and reporting of any recourse obligation resulting from securitization activities.
6. Ascertain that internal limits govern the amount of retained interests held as a percentage of total equity capital.
7. Establish that an adequate liquidity contingency plan is in place and that it will be used in the event of market disruptions. Determine further whether liquidity problems may arise as the result of an overdependence on asset securitization activities for day-to-day core funding.
8. Determine whether consistent, conservative accounting practices are in place that satisfy the reporting requirements of regulatory supervisors, GAAP reporting requirements, and valuation assumptions and methods. Ascertain that adequate disclosures of asset securitization activities are made commensurate with the volume of securitizations and the complexities of the BO.
9. Establish that risk-exposure limits and requirements exist and are adhered to on an aggregate and individual transaction basis.

Subprime lending presents unique and significantly greater risk to banking organizations (BOs) associated with the activity,[1] raising issues about how well they are prepared to manage and control those risks. Subprime-lending institutions need strong risk-management practices and internal controls, as well as board-approved policies and procedures that appropriately identify, measure, monitor, and control all associated risks. BOs considering or engaging in this type of lending should recognize the additional risks inherent in this activity and determine if these risks are acceptable and controllable, given their organization's financial condition, asset size, level of capital support, and staff size.

In response to concerns about subprime lending, the statement Interagency Guidance on Subprime Lending was issued on March 1, 1999.[2] The statement's objective is to increase awareness among examiners and financial institutions of some of the pitfalls and hazards of this type of lending. (See SR-99-06.) Additional interagency examination guidance was issued on January 31, 2001, to further strengthen the supervision of certain institutions, primarily those institutions having subprime-lending programs with an aggregate credit exposure equaling or exceeding 25 percent of their tier 1 capital.[3] (See SR-01-04.) The aggregate credit exposure includes principal outstanding and committed, accrued and unpaid interest, and any retained residual interests[4] relating to securitized subprime loans. The Federal Reserve may also apply the additional guidelines to certain smaller subprime portfolios, such as those experiencing rapid growth or adverse performance trends, those administered by inexperienced management, and those with inadequate or weak controls. The subprime-lending policy statements are directed primarily to insured depository institutions and their subsidiaries. As such, the guidance applies to bank holding companies with regard to their oversight and supervision of insured depository institutions. Bank holding companies should also consider the statements' guidance as they supervise the lending activities of their nonbanking subsidiaries. Bank holding company examiners should consider this guidance in conjunction with the loan-administration and lending-standards inspection guidance in section 2010.2 and with the guidance for asset securitization in section 2128.02. The interagency subprime-lending policy statements are described below.

1. The term ''banking organizations'' refers to bank holding companies and their banking and nonbanking subsidiaries.

2. The statement was adopted and issued by the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision.

3. The March 1999 and January 2001 subprime-lending interagency guidance is consolidated within this section. To focus on the supervisory guidance that applies primarily to institutions having subprime-lending programs equaling or exceeding 25 percent of tier 1 capital, see the January 2001 release specifically. The March 1999 interagency supervisory guidance applies to all institutions that engage in subprime lending.

4. Residual interests are on-balance-sheet assets that represent interests (including beneficial interests) in transferred financial assets retained by a seller (or transferor) after a securitization or other transfer of financial assets. They are structured to absorb more than a pro rata share of credit loss related to the transferred assets through subordination provisions or other credit-enhancement techniques.

2128.08.1 INTERAGENCY GUIDANCE ON SUBPRIME LENDING

Insured depository institutions traditionally avoided lending to customers with poor credit histories because of the higher risk of default and resulting loan losses. However, some lenders[5] extend their risk-selection standards to attract lower-credit-quality accounts. Moreover, previous turmoil in the equity and asset-backed securities markets has caused some nonbank subprime specialists to exit the market, which created increased opportunities for financial institutions to enter, or expand their participation in, the subprime-lending business

The term ''subprime lending'' is defined for this statement as extending credit to borrowers who exhibit characteristics indicating a significantly higher risk of default than traditional bank lending customers.[6] Subprime borrowers represent a broad spectrum of debtors, ranging from those who have repayment problems because of an adverse event, such as job loss or medical emergency, to those who persistently mismanage their finances and debt obligations. Subprime borrowers typically have weakened credit histories that include payment delinquencies and possibly more severe problems, such as charge-offs, judgments, and bankruptcies. They

5. The terms ''lenders,'' ''financial institutions,'' and ''institutions'' refer to insured depository institutions and their subsidiaries.

6. For purposes of this statement, loans to customers who are not subprime borrowers are referred to as ''prime.''

may also display reduced repayment capacity as measured by credit scores, debt-to-income ratios, or other criteria that may encompass borrowers with incomplete credit histories. Generally, subprime borrowers will display a range of one or more credit-risk characteristics, such as—

1. two or more 30-day delinquencies in the last 12 months, or one or more 60-day delinquencies in the last 24 months;
2. judgment, foreclosure, repossession, or charge-off in the prior 24 months;
3. bankruptcy in the last five years;
4. relatively high default probability as evidenced by, for example, a credit bureau risk score (FICO) of 660 or below (depending on the product or collateral), or by other bureau or proprietary scores with an equivalent default-probability likelihood; or
5. debt-service-to-income ratio of 50 percent or greater, or an otherwise limited ability to cover family living expenses after deducting total monthly debt-service requirements from monthly income.

Subprime loans are loans to borrowers displaying one or more of these characteristics at the time of origination or purchase.

This guidance applies to direct extensions of credit; the purchase of subprime loans from other lenders, including delinquent or credit-impaired loans purchased at a discount; the purchase of subprime automobile or other financing "paper" from lenders or dealers; and the purchase of loan companies that originate subprime loans. Subprime lending does not include loans to borrowers who have had minor, temporary credit difficulties but are now current. Also, the subprime-lending guidance does not generally apply to prime loans that develop credit problems after acquisition; loans initially extended in subprime programs that are later upgraded, as a result of their performance, to programs targeted to prime borrowers; and community development loans as defined in the Community Reinvestment Act (CRA) regulations that may have some higher risk characteristics, but are otherwise mitigated by guarantees from government programs, private credit enhancements, or other appropriate risk-mitigation techniques.

Subprime loans command higher interest rates and loan fees than those offered to standard-risk borrowers. Subprime loans can be profitable, provided the price charged by the lender is sufficient to cover higher loan-loss rates and overhead costs related to underwriting, servicing, and collecting the loans. The ability to securitize and sell subprime portfolios at a profit while retaining the servicing rights has made subprime lending attractive to a larger number of institutions, further increasing the number of subprime lenders and loans. Some financial institutions have experienced losses attributable to ill-advised or poorly structured subprime-lending programs. The losses have attracted greater supervisory attention to subprime lending and the ability of an insured depository institution to manage the unique risks associated with this activity.

Institutions should recognize the additional risks inherent in subprime lending and determine if these risks are acceptable and controllable given the institution's staff, financial condition, size, and level of capital support. Institutions that engage in a small volume of subprime lending should have systems in place commensurate with their level of risk.

2128.08.1.1 Risk Management

The following items are essential components of a well-structured risk-management program for subprime lenders:

1. *Planning and strategy.* Before engaging in subprime lending, the board and management should ensure that proposed activities are consistent with the institution's overall business strategy and risk tolerances, and that all involved parties have properly acknowledged and addressed critical business risk issues. These issues include the costs associated with attracting and retaining qualified personnel, investments in the technology necessary to manage a more complex portfolio, a clear solicitation and origination strategy that allows for after-the-fact assessment of underwriting performance, and the establishment of appropriate feedback and control systems. The risk-assessment process should extend beyond credit risk and appropriately incorporate operating, compliance, and legal risks. Finally, the planning process should set clear objectives for performance, including the identification and segmentation of target markets or customers, as well as set performance expectations and benchmarks for each segment and the portfolio as a whole. Institutions establishing a subprime-lending program should proceed slowly and

cautiously into this activity to minimize the impact of unforeseen personnel, technology, or internal-control problems and to determine if favorable initial profitability estimates are realistic and sustainable.

2. *Staff expertise*. Subprime lending requires specialized knowledge and skills that many financial institutions may not possess. Marketing, account-origination, and collections strategies and techniques often differ from those employed for prime credit; thus, it may not be sufficient to have the same lending staff responsible for both subprime loans and other loans. Additionally, servicing and collecting subprime loans can be very labor intensive. If necessary, the institution should implement programs to train staff. The board should ensure that staff possess sufficient expertise to appropriately manage the risks in subprime lending and that staffing levels are adequate for the planned volume of subprime activity. The experience, or seasoning, of staff and loans should be taken into account as performance is assessed over time.
3. *Lending policy*. A subprime-lending policy should be appropriate to the size and complexity of the institution's operations and should clearly state the goals of the subprime-lending program. While not exhaustive, the following lending standards should be addressed in any subprime-lending policy:
   a. types of products offered as well as those that are not authorized
   b. portfolio targets and limits for each credit grade or class
   c. lending and investment authority clearly stated for individual officers, supervisors, and loan committees
   d. a framework for pricing decisions and profitability analysis that considers all costs associated with the loan, including origination costs, administrative or servicing costs, expected charge-offs, and capital
   e. evaluation of collateral and appraisal standards
   f. well-defined and specific underwriting parameters (that is, acceptable loan term, debt-to-income ratios, and loan-to-collateral-value ratios for each credit grade and a minimum acceptable credit score) that are consistent with any applicable supervisory guidelines[7]
   g. procedures for separate tracking and monitoring of loans approved as exceptions to stated policy guidelines
   h. credit-file documentation requirements, such as applications, offering sheets, loan and collateral documents, financial statements, credit reports, and credit memoranda to support the loan decision
   i. a correspondent/broker/dealer approval process, including measures to ensure that loans originated through this process meet the institution's lending standards

   If the institution elects to use credit scoring (including applications scoring) for approvals or pricing, the scoring model should be based on a development population that captures the behavioral and credit characteristics of the subprime population targeted for the products offered. Because of the significant variance in characteristics between the subprime and prime populations, institutions should not rely on models developed solely for products offered to prime borrowers. Further, the model should be reviewed frequently and updated as necessary to ensure that assumptions remain valid.
4. *Purchase evaluation*. As they evaluate expected profits, institutions that purchase subprime loans from other lenders or dealers must give due consideration to the cost of servicing these assets and to the loan losses that may be experienced. For instance, some lenders who sell subprime loans charge borrowers high up-front fees, which are usually financed into the loan. This provides an incentive for originators to produce a high volume of loans with little emphasis on quality, to the detriment of a potential purchaser. Further, subprime loans, especially those purchased from outside the institution's lending area, are at special risk for fraud or misrepresentation (that is, the quality of the loan may be less than the loan documents indicate).

   Institutions should perform a thorough due-diligence review before committing to purchase subprime loans. Institutions should not accept loans from originators that do not meet their underwriting criteria, and they should regularly review loans offered to ensure that loans purchased continue to meet

7. Extensions of credit secured by real estate, whether the credit is subprime or otherwise, are subject to the Interagency Guidelines for Real Estate Lending Policies, which establish supervisory loan-to-value (LTV) limits on various types of real estate loans and impose limits on an institution's aggregate investment in loans that exceed the supervisory LTV limits. (See 12 C.F.R. 208, appendix C.)

those criteria. Deterioration in the quality of purchased loans or in the portfolio's actual performance versus expectations requires a thorough reevaluation of the lenders or dealers who originated or sold the loans, as well as a reevaluation of the institution's criteria for underwriting loans and selecting dealers and lenders. Any such deterioration may also highlight the need to modify or terminate the correspondent relationship or to adjust underwriting and dealer or lender selection criteria.

5. *Loan-administration procedures*. After the loan is made or purchased, loan-administration procedures should provide for the diligent monitoring of loan performance and establish sound collection efforts. To minimize loan losses, successful subprime lenders have historically employed stronger collection efforts, such as calling delinquent borrowers frequently, investing in technology (for example, using automatic dialing for follow-up telephone calls on delinquent accounts), assigning more experienced collection personnel to seriously delinquent accounts, moving quickly to foreclose or repossess collateral, and allowing few loan extensions. This aspect of subprime lending is very labor intensive but critical to the program's success. To a large extent, the cost of such efforts can be a tradeoff with future loss expectations, when an institution analyzes the profitability of subprime lending and assesses its appetite to expand or continue this line of business. Subprime-loan-administration procedures should be in writing and at a minimum should detail—
   a. billing and statement procedures;
   b. collection procedures;
   c. content, format, and frequency of management reports;
   d. asset-classification criteria;
   e. methodology to evaluate the adequacy of the allowance for loan and lease losses (ALLL);
   f. criteria for allowing loan extensions, deferrals, and re-agings;
   g. foreclosure and repossession policies and procedures; and
   h. loss-recognition policies and procedures.
6. *Loan review and monitoring*. Once an institution books the loans, designated staff must perform an ongoing analysis of subprime loans, not only on an aggregate basis but also for subportfolios. Information systems should be in place to segment and stratify the institution's portfolio (for example, by originator, loan-to-value, debt-to-income ratios, or credit scores), and assigned staff should produce reports that management can use to evaluate the performance of subprime loans. The review process should focus on whether performance meets expectations. Institutions then need to consider the source and characteristics of loans that do not meet expectations and make changes in their underwriting policies and loan-administration procedures to restore performance to acceptable levels.

   When evaluating actual performance against expectations, it is particularly important that management review credit scoring, pricing, and ALLL-adequacy models. Models driven by the volume and severity of historical losses experienced during an economic expansion may have little relevance in an economic slowdown, particularly in the subprime market. Management should ensure that models used to estimate credit losses or to set pricing allow for fluctuations in the economic cycle and are adjusted to account for other unexpected events.
7. *Consumer protection*. Institutions that originate or purchase subprime loans must take special care to avoid violating fair lending and consumer protection laws and regulations. Higher fees and interest rates combined with compensation incentives can foster predatory pricing or discriminatory "steering" of borrowers to subprime products for reasons other than the borrower's underlying creditworthiness. An adequate compliance-management program must identify, monitor, and control the consumer protection hazards associated with subprime lending.

   Subprime mortgage lending may trigger the special protections of the Home Ownership and Equity Protection Act of 1994, subtitle B of title I of the Riegle Community Development and Regulatory Improvement Act of 1994. This act amended the Truth in Lending Act to provide certain consumer protections in transactions involving a class of nonpurchase, closed-end home mortgage loans. Institutions engaging in this type of lending must also be thoroughly familiar with the obligations set forth in Regulation Z (12 C.F.R. 226.32), Regulation X, and the Real Estate Settlement Procedures Act (RESPA) (12 U.S.C. 2601) and should adopt policies and implement practices that ensure compliance.

   The Equal Credit Opportunity Act makes it unlawful for a creditor to discriminate

against an applicant on a prohibited basis regarding any aspect of a credit transaction. Similarly, the Fair Housing Act prohibits discrimination in connection with residential real estate–related transactions. Loan officers and brokers must treat all similarly situated applicants equally and without regard to any prohibited-basis characteristic (for example, race, sex, or age). This is especially important with respect to how loan officers or brokers assist customers in preparing their applications or otherwise help them to qualify for loan approval.

8. *Securitization and sale*. To increase their loan-production and -servicing income, some subprime lenders originate loans and then securitize and sell them in the asset-backed securities market. Strong demand from investors and favorable accounting rules often allow securitization pools to be sold at a gain, providing further incentive for lenders to expand their subprime-lending program. However, the securitization of subprime loans carries inherent risks, including interim credit risk and liquidity risk, that are potentially greater than those for securitizing prime loans. Accounting for the sale of subprime pools requires assumptions that can be difficult to quantify, and erroneous assumptions could lead to the significant overstatement of an institution's assets. Moreover, the practice of providing support and substituting performing loans for nonperforming loans to maintain the desired level of performance on securitized pools has the effect of masking credit-quality problems.

   Institutions should recognize the volatility of the secondary market for subprime loans and the significant liquidity risk incurred when originating a large volume of loans intended for securitization and sale. Investors can quickly lose their appetite for risk in an economic downturn or when financial markets become volatile. As a result, institutions that have originated, but have not yet sold, pools of subprime loans may be forced to sell the pools at deep discounts. If an institution lacks adequate personnel, risk-management procedures, or capital support to hold subprime loans originally intended for sale, these loans may strain an institution's liquidity, asset quality, earnings, and capital. Consequently, institutions actively involved in the securitization and sale of subprime loans should develop a contingency plan that addresses back-up purchasers of the securities or the attendant servicing functions, alternate funding sources, and measures for raising additional capital.

   Institutions should refer to the Statement of Financial Accounting Standards No. 140 (FAS 140), "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities," for guidance on accounting for these transactions. If a securitization transaction meets FAS 140 sale or servicing criteria, the seller must recognize any gain or loss on the sale of the pool immediately and carry any retained interests in the assets sold (including servicing rights/obligations and interest-only strips) at fair value. Management should ensure that the key assumptions used to value these retained interests are reasonable and well supported, both for the initial valuation and for subsequent quarterly revaluations. In particular, management should consider the appropriate discount rates, credit-loss rates, and prepayment rates associated with subprime pools when valuing these assets. Since the relative importance of each assumption varies with the underlying characteristics of the product types, management should segment securitized assets by specific pool, as well as by predominant risk and cash-flow characteristics, when making the underlying valuation assumptions. In all cases, however, institutions should take a conservative approach when developing securitization assumptions and capitalizing expected future income from subprime lending pools. Institutions should also consult with their auditors as necessary to ensure their accounting for securitizations is accurate.

9. *Reevaluation*. Institutions should periodically evaluate whether the subprime-lending program has met profitability, risk, and performance goals. Whenever the program falls short of original objectives, an analysis should be performed to determine the cause, and the program should be modified appropriately. If the program falls far short of the institution's expectations, management should consider terminating it. Questions that management and the board need to ask may include the following:
   a. Have cost and profit projections been met?
   b. Have projected loss estimates been accurate?
   c. Has the institution been called upon to provide support to enhance the quality

and performance of loan pools it has securitized?

d. Were the risks inherent in subprime lending properly identified, measured, monitored, and controlled?

e. Has the program met the credit needs of the community that it was designed to address?

2128.08.1.2 Examination Review and Analysis

The following supervisory guidance (up to the inspection objectives) applies only to the examination of a bank holding company's federally insured subsidiary banks that have subprime-lending programs equaling or exceeding 25 percent of tier 1 capital and to those insured banks that have other designated subprime programs referenced in SR-01-4.

The heightened risk levels and potential volatility in delinquency and loss rates posed by subprime-lending programs warrant examiners' increased ongoing attention. The risks inherent in subprime-lending programs call for frequent reviews. There are generally two levels of review appropriate for subprime activities:

1. *Portfolio-level reviews* include assessments of underwriting standards, marketing practices, pricing, management information and control systems (quality control, audit and loan review, vendor management, compliance), portfolio performance, and the appropriate application of regulatory and internal allowance and capital policies.
2. *Transaction-level testing* includes the testing of individual loans for compliance with underwriting and loan-administration guidelines; the appropriate treatment of loans under delinquency, re-aging, and cure programs; and the appropriate application of regulatory and internal allowance and capital policies.

Examiners should perform a portfolio-level review and some transaction testing at each institution engaged in subprime lending, during each regularly scheduled examination cycle. The Federal Reserve will perform regular off-site supervisory monitoring and may require subprime lenders to supply supplementary information about their subprime portfolios between examinations. The examiner's findings from transaction-level testing and portfolio-level reviews should be incorporated into the conclusions about overall asset quality, the adequacy of the ALLL and capital, and the adequacy of portfolio risk-management practices.

2128.08.1.2.1 Transaction-Level Testing

Subprime-loan portfolios contain elevated risks, and actual subprime-lending practices often can deviate from stated policy and procedural guidance. Therefore, examiners should supplement the portfolio-level examination procedures with transaction-level testing to determine whether—

1. individual loans adhere to existing policy, underwriting, risk-selection, and pricing standards;
2. individual loans and portfolios are classified in accordance with the subprime-lending guidelines described in this section, or in other Federal Reserve credit-extending supervisory guidance;
3. management, board, and regulatory reporting is accurate and timely;
4. existing loans conform to specified account-management standards (such as over-limits, line increases, reductions, cancellations, re-scoring, or collections);
5. key risk controls and control processes are adequate and functioning as intended;
6. roll rates and other loss-forecasting methods used to determine ALLL levels are accurate and reliable; and
7. lending practices exist that may appear unsafe, unsound, or abusive and unfair.

2128.08.1.3 Adequacy of the ALLL

Examiners should assess the adequacy of the ALLL to ensure that the portion allocated to the subprime portfolio is sufficient to absorb estimated credit losses for this portfolio. Consistent with interagency policy,[8] the term "estimated credit losses" means an estimate of the amount that is not likely to be collected; that is, net charge-offs that are likely to be realized given the facts and circumstances as of the evaluation date.[9] These estimated losses should meet the

8. The Interagency Policy Statement on the Allowance for Loan and Lease Losses was issued December 21, 1993, and the ALLL methodologies and documentation standards were issued July 2, 2001.

9. Estimates of credit losses should include accrued interest and other accrued fees (for example, uncollected credit card fees or uncollected late fees) that have been added to the

criteria for accrual of loss contingency, as set forth under generally accepted accounting principles (GAAP), consistent with supervisory ALLL policy.

2128.08.1.3.1 New Entrants to the Business

In some instances, an institution (for example, a newly chartered institution or an existing institution entering the subprime-lending business) may not have sufficient previous loss experience to estimate an allowance for subprime-lending activities. In such cases, industry statistics or another institution's loss data for similar loans may be a better starting point to determine the ALLL than the institution's own data for developing loss rates. When an institution uses loss rates developed from industry statistics or from other institutions to determine its ALLL, it should demonstrate and document that the attributes of the loans in its portfolio or portfolio segment are similar to those in the other institution's (or industry's) portfolio.

2128.08.1.3.2 Pools of Subprime Loans—Not Classified

The ALLL required for subprime loans should be sufficient to absorb at least all estimated credit losses on outstanding balances over the current operating cycle, typically 12 months. The board of directors and management are expected to ensure that the institution's process for determining an adequate level for the ALLL is based on a comprehensive and adequately documented analysis of all significant factors. The consideration factors should include historical loss experience, ratio analysis, peer-group analysis, and other quantitative analysis as a basis for the reasonableness of the ALLL. To the extent that the historical net charge-off rate is used to estimate expected credit losses, it should be adjusted for changes in trends, conditions, and other relevant factors, including business volume, underwriting, risk selection, account-management practices, and current economic or business conditions that may alter such experience. The allowance should represent a prudent, conservative estimate of losses that allows a reasonable margin for imprecision. Institutions should clearly document loss estimates and the allowance methodology in writing. This documentation should describe the analytical process used, including—

1. portfolio-segmentation methods applied;
2. loss-forecasting techniques and assumptions employed;
3. definitions of terms used in ratios and model computations;
4. relevance of the baseline loss information used;
5. rationale for adjustments to historical experience; and
6. a reconciliation of forecasted loss rates to actual loss rates, with significant variances explained.

2128.08.1.4 Classification Guidelines for Subprime Lending

Well-managed subprime lenders should recognize the heightened loss characteristics in their portfolios and internally classify their delinquent accounts well before the time frames outlined in the retail classification policy issued by the Federal Financial Institutions Examination Council (FFIEC) on June 12, 2000. Examiners should classify subprime loans and portfolios in accordance with the guidelines in this section and other applicable Federal Reserve supervisory guidelines. Classified loans are loans that are not protected adequately by the current sound worth and paying capacity of the borrower or the collateral pledged. As such, full liquidation of the debt may be in jeopardy. Pools of classified subprime loans (to include, at a minimum, all loans past due 90 days or more) should be reviewed for impairment, and an adequate allowance should be established consistent with existing interagency policy.

2128.08.1.4.1 Individual Loans

Examiners should not automatically classify or place loans in special mention merely because they are subprime. Rather, classifications should

loan balances and, as a result, that are reported as part of the institution's loans on the balance sheet. An institution may include these types of estimated losses in either the ALLL or a separate valuation allowance, which would be netted against the aggregated loan balance for regulatory reporting purposes. When accrued interest and other accrued fees are not added to the loan balances and are not reported as part of loans on the balance sheet, the collectibility of these accrued amounts should nevertheless be evaluated to ensure that the institution's income is not overstated.

reflect the borrower's capacity and willingness to repay and the adequacy of collateral pledged. Loans to borrowers that do not have the capacity to service their loans generally will be classified substandard. When repayment capacity is insufficient to support the orderly liquidation of the debt, and the collateral pledged is insufficient to mitigate risk of loss, then a more severe classification and nonaccrual is warranted. Subprime loans that are past due 90 days or more should be classified at least substandard based on a reasonable presumption that their past-due status indicates an inadequate capacity or unwillingness to repay. A more stringent classification approach may be appropriate based on the historical loss experience of a particular institution. Classification of other subprime loans as doubtful or loss will be based on examiners' analysis of the borrower's capacity to repay, and on the quality of institution underwriting and account-management practices as evidenced in the loan file or by other documentation.

In some cases, the repayment of principal, interest, and fees on some subprime loans may be overly dependent on collateral pledged. This occurs when the risk of default is so high that an abundance of collateral is taken to mitigate risk of loss in the event of default. From a safety-and-soundness perspective, institutions should be discouraged from lending solely on the basis of collateral pledged. Such loans will generally be classified substandard. Further, when the borrower does not demonstrate the capacity to service the loan from sources other than collateral pledged, the loan may be placed on nonaccrual.

2128.08.1.4.2 Portfolios

When the portfolio review or loan sample indicates serious concerns with credit-risk selection practices, underwriting standards, or loan quality, examiners should consider classifying or criticizing the entire portfolio or segments of the portfolio. Such a decision may be appropriate in cases where risk is inordinately high or delinquency reports reflect performance problems. Some subprime-lending portfolios may pose very high risk. These may include portfolios of unsecured loans or secured, high loan-to-value loans to borrowers who clearly exhibit inadequate capacity to repay the debt in a reasonable time frame. Most such portfolios should be classified at least substandard.

2128.08.1.5 Required Documentation for Cure Programs

Cure programs, including such practices as re-aging, extensions, renewals, rewrites, or other types of account restructuring, are subject to the standards outlined in the retail classification policy. In accordance with that policy, cure programs should be used only when the institution has substantiated the customer's renewed willingness and ability to repay. Examiners will expect institutions to maintain documentation supporting their analysis of the customer's renewed ability and willingness to repay the loan at the time it is extended, renewed, or deferred. When the institution cannot demonstrate both the willingness and ability of the customer to repay, the loan should not be renewed, extended, deferred, or rewritten, and the loan should be moved back to its pre-cure delinquency status. Documentation should include one or more of the following:

1. a new verification of employment
2. a recomputed debt-to-income ratio indicating sufficient improvement in the borrower's financial condition to support orderly repayment
3. a refreshed credit score or updated bureau report
4. a file memo evidencing discussion with the customer

When documentation of the customer's renewed willingness and ability to repay the loan is absent or deficient, management practices should be criticized.

2128.08.1.6 Predatory or Abusive Lending Practices

The term ''subprime'' is often misused to refer to certain predatory or abusive lending practices. Lending practices can be designed to responsibly provide service to customers and enhance credit access for borrowers with special credit needs. Subprime lending that is appropriately underwritten, priced, and administered can serve these goals.

Some forms of subprime lending may be abusive or predatory, however. Lending practices may be designed to transfer wealth from the borrower to the lender or loan originator without a commensurate exchange of value. This is sometimes accomplished when the lender structures a loan to a borrower who has little or no ability to repay the loan from sources other than

the collateral pledged. When default occurs, the lender forecloses or otherwise takes possession of the borrower's property (generally the borrower's home or automobile). In other cases, the lender may use the threat of foreclosure or repossession to induce duress on the borrower for payment. Typically, predatory lending involves at least one, and perhaps all three, of the following elements:

1. making unaffordable loans based on the assets of the borrower rather than on the borrower's ability to repay an obligation
2. inducing a borrower to refinance a loan repeatedly in order to charge high points and fees each time the loan is refinanced (that is, "loan flipping")
3. engaging in fraud or deception to conceal the true nature of the loan obligation or ancillary products from an unsuspecting or unsophisticated borrower

Loans to borrowers who do not demonstrate the capacity to repay the loan, as structured, from sources other than the collateral pledged are generally considered unsafe and unsound. Such lending practices should be criticized in the examination report as imprudent. Further, examiners should refer any loans with the aforementioned characteristics to Federal Reserve consumer compliance/fair lending specialists for additional review.

2128.08.1.7 Capitalization

The Federal Reserve's minimum capital requirements generally apply to portfolios that exhibit substantially lower risk profiles than those that exist in subprime-loan programs. Therefore, these requirements may not be sufficient to reflect the risks associated with subprime portfolios.

Subprime-lending activities can present a greater-than-normal risk for financial institutions and the deposit insurance funds; therefore, the level of capital institutions need to support this activity should be commensurate with the additional risks incurred. Each subprime lender is responsible for quantifying the amount of capital needed to offset the additional risk in subprime-lending activities and for fully documenting the methodology and analysis supporting the amount specified.

The amount of additional capital necessary will vary according to the volume and type of subprime activities conducted and the adequacy of the institution's risk-management program. An institution's overall capital adequacy will be evaluated on a case-by-case basis through on-site examinations and off-site monitoring procedures, considering, among other factors, the institution's own documented analysis of the capital needed to support subprime lending. Institutions that are determined to have insufficient capital must correct the deficiency within a reasonable time frame or be subject to supervisory action. In light of the higher risks associated with this type of lending, higher minimum-capital requirements may be imposed on institutions engaging in subprime lending.

The sophistication of this analysis should be commensurate with the size, concentration level, and relative risk of the institution's subprime-lending activities and should consider the following elements:

1. portfolio-growth rates
2. trends in the level and volatility of expected losses
3. the level of subprime-loan losses incurred over one or more economic downturns, if such data or analyses are available
4. the impact of planned underwriting or marketing changes on the credit characteristics of the portfolio, including the relative levels of risk of default, loss in the event of default, and the level of classified assets
5. any deterioration in the average credit quality over time due to adverse selection or retention
6. the amount, quality, and liquidity of collateral securing the individual loans
7. any asset, income, or funding-source concentrations
8. the degree of concentration of subprime credits
9. the extent to which current capitalization consists of residual assets or other potentially volatile components
10. the degree of legal or reputation risk associated with the subprime business lines pursued
11. the amount of capital necessary to support the institution's other risks and activities

Given the higher risk inherent in subprime-lending programs, examiners should reasonably expect, as a starting point, that an institution would hold capital against such portfolios in an amount that *is one and one-half to three times greater* than what is appropriate for nonsubprime assets of a similar type. Refinements

should depend on the factors analyzed above, with particular emphasis on the trends in the level and volatility of loss rates, and on the amount, quality, and liquidity of collateral securing the loans. Institutions should have capital ratios that are well above the averages for their traditional peer groups or other similarly situated institutions that are not engaged in subprime lending.

Some subprime asset pools warrant increased supervisory scrutiny and monitoring, but not necessarily additional capital. For example, well-secured loans to borrowers who are slightly below what is considered prime quality may entail minimal additional risks compared with prime loans, and they may not require additional capital if adequate controls are in place to address the additional risks. On the other hand, institutions that underwrite higher-risk subprime pools, such as unsecured loans or high loan-to-value second mortgages, may need significantly higher levels of capital, perhaps as high as 100 percent of the loans outstanding, depending on the level and volatility of risk.

2128.08.1.7.1 Stress Testing

An institution's capital adequacy analysis should include stress testing as a tool for estimating unexpected losses in its subprime-lending pools. Institutions should project the performance of their subprime-loan pools under conservative stress-test scenarios, including an estimation of the portfolio's susceptibility to deteriorating economic, market, and business conditions. Portfolio stress testing should include "shock" testing of basic assumptions, such as delinquency rates, loss rates, and recovery rates on collateral. Stress tests should also consider other potentially adverse scenarios, such as changing attrition or prepayment rates; changing utilization rates for revolving products; changes in credit score distribution; and changes in the capital-market demand for whole loans or asset-backed securities supported by subprime loans. These are representative examples; actual factors will vary by product, market segment, and the size and complexity of the portfolio relative to the institution's overall operations. Whether stress tests are performed manually, or through automated modeling techniques, it is expected that—

1. the process is clearly documented, rational, and easily understood by the institution's board and senior management;
2. the inputs are reliable and relate directly to the subject portfolios (for example, baseline loss history or default probabilities should reflect each segment of the institution's portfolio and not just a blend of prime and subprime borrowers);
3. assumptions are well documented and conservative; and
4. any models are subject to a comprehensive validation process.

The results of the stress-test exercises should be a documented factor in the analysis and determination of capital adequacy for the subprime portfolios.

Institutions that engage in subprime-lending programs without adequate procedures to estimate and document the level of capital necessary to support their activities should be criticized. Where capital is deemed inadequate to support the risk in subprime-lending activities, examiners should consult with their Reserve Bank supervisory official to determine the appropriate course of action. Such actions may include requiring additional capital in accordance with the Federal Reserve's capital adequacy rules or requiring the institution to submit an acceptable capital plan in accordance with safety-and-soundness guidelines.

2128.08.1.8 Subprime-Lending Examiner Responsibilities

Using the interagency guidance and any supplemental Federal Reserve guidelines, examiners should assess carefully management's ability to administer the higher risk in subprime portfolios. The examiner should judge management's ability to manage the risk involved in the subprime-lending program, in particular, the quality of the risk-management and control processes in place, and more importantly, the extent to which management is adhering to those processes. When examiners determine that risk-management practices are deficient, they should criticize management and initiate corrective action. Such actions may include formal or informal enforcement actions or a plan to achieve adequate capitalization. When a primary supervisor determines that an institution's risk-management practices are materially deficient, the primary supervisor may instruct the institution to discontinue its subprime-lending programs.

2128.08.1.9 Appendix—Questions and Answers for Examiners Regarding the Expanded Guidance for Subprime-Lending Programs

To assist examiners who review subprime-lending activities, the following questions and answers were developed to provide additional guidance on the expanded interagency guidance that was issued on January 31, 2001.

2128.08.1.9.1 Applicability of the Guidance

Question 1: Does the guidance apply to all institutions?

No. The guidance will not affect the vast majority of insured institutions engaged in traditional consumer lending. The guidance applies to institutions that systematically target the subprime market through programs that employ tailored marketing, underwriting standards, and risk selection.

The guidance does not address traditional consumer lending that has historically been the mainstay of community banking. It does not apply to institutions extending credit to subprime borrowers as part of their standard community-lending process, or making loans to subprime borrowers as an occasional exception to a prime-lending program, even if the aggregate of these loans totals more than 25 percent of tier 1 capital. Such institutions continue to be subject to the normal supervisory process.

Institutions engaging in subprime-lending programs generally have knowingly and purposefully focused on the subprime-lending markets through planned business strategies, tailored products, and explicit borrower targeting. In instances where significant exposures to subprime borrowers are identified, examiners should consider the institution's marketing program, loan products, pricing, underwriting standards and practices, and portfolio performance to determine if the institution has a program that warrants the supervision and safeguards outlined in the guidance.

Question 2: Does the guidance apply when an institution offers a product that attracts a disproportionate number of subprime borrowers, but which the institution does not explicitly identify as subprime?

A subprime program commonly features products specifically tailored to borrowers with weakened credit histories. Such products often differ substantially in pricing and terms from products offered to prime borrowers, and they usually have separate and distinctly different underwriting standards. An institution offering a product that attracts a disproportionate number of borrowers with weakened credit histories likely has a subprime program whether or not the activity is called a subprime program. The guidance will apply to these programs when the resultant aggregate credit exposure is at least 25 percent of the institution's tier 1 capital.

Institutions with significant programs are expected to have the necessary risk-management and internal-control systems in place to properly identify, measure, monitor, and control the inherent risks in their subprime portfolios. Risk management and controls for these programs typically involve enhanced performance monitoring, intensive collection activities, and other loss-mitigation strategies. If an institution systematically targets the subprime market but does not segregate these loans from its prime portfolio, it is doubtful that the institution has the necessary risk-management and control systems in place to safely engage in the activity.

2128.08.1.9.2 Subprime Characteristics

Question 3: Why does the Expanded Guidance for Subprime Lending Programs use a credit bureau risk score (FICO) of 660 as a cutoff point for subprime lending?

The guidance does not use credit scores, or any other single risk factor, as a definitive cutoff point for subprime lending. The characteristics listed are not explicit, bright-line definitions. The range of credit characteristics used to describe subprime borrowers is intended to help examiners identify lenders that are engaged in subprime-lending programs. These characteristics describe borrowers with varying, but significantly higher, probabilities of default than prime borrowers. The guidance states that "this list is illustrative rather than exhaustive and is not meant to define specific parameters for all borrowers."

A credit bureau score of 660 (FICO) is used only as an example to illustrate a credit score that generally indicates a higher default probability. The guidance indicates the probability of default, as evidenced by the credit score, will vary by product and collateral. The subprime

guidance lists several characteristics that denote a higher probability of default. Examiners are directed to use these characteristics as a starting point to expand their review of lending programs targeting subprime borrowers in accordance with risk-focused examination procedures. The severity of risk may vary significantly for the different characteristics listed, as well as for the type and quality of collateral. Examiners should take this into consideration when reviewing the portfolio and determining the adequacy of loan-loss reserves and capital.

The characteristics used in the guidance are well recognized in the investment and lending industries. A number of public debt rating agencies and financial institutions, including the government-sponsored enterprises (GSEs), use similar credit characteristics to differentiate risk among borrowers. Specific examples include the following:

1. Fitch defines a subprime borrower as "...one with a credit profile worse than that of a prime A quality borrower, whose credit report would typically reveal no recent mortgage delinquencies and whose credit profile would yield a credit score in the range above 680." Fitch's mortgage credit grade matrix lists the following credit-history elements for A- the highest subprime grade: one 30-day delinquency in the last 12 months on a mortgage debt; one 30-day delinquency in the last 24 months on installment debt, or two 30-day delinquencies in the last 24 months on revolving debt; bankruptcy in past five years; chargeoff or judgments exceeding $500 in the past 24 months; and/or a debt-to-income ratio of 45 percent.[10]
2. Standard & Poor's subprime-mortgage underwriting guidelines define subprime A- characteristics as two or more 30-day delinquencies on mortgage and consumer credit, one 60-day delinquency on consumer credit, debt-to-income ratio of 45 percent, and no bankruptcy in the past five years. Standard & Poor's also "...considers subprime borrowers to have a FICO credit score of 659 or below."[11]
3. Standard & Poor's has classified nonprime B auto securitization pools as having occasional delinquencies and minor charge-offs on revolving debt, static pool net losses of 3.1 percent to 7.5 percent, and FICO credit scores ranging from 620–679.[12]
4. Freddie Mac has used the FICO score of 660 or below to designate higher-risk borrowers requiring more comprehensive review. Freddie Mac views a score in the 620–660 range as an indication that the "borrower's willingness to repay debt as agreed is uncertain." FICO scores below 620 are placed in the "cautious-review category," and Freddie Mac considers scores below 620 "as a strong indication that the borrower's credit reputation is not acceptable..."[13]

2128.08.1.9.3 Capital Guidance

Question 4: If an institution is engaged in subprime lending as described by the guidance, does the 1.5-to-3-times capital described in the guidance automatically apply?

No. The expanded interagency guidance on subprime lending is flexible examination guidance; the capital range does not automatically apply because the guidance is not a capital rule or regulation. Rather, the guidance describes an expectation that subprime lenders hold sufficient loan-loss reserves and capital to offset the additional risks that may exist in subprime activities. The agencies expect institutions to have methodologies and analyses in place to support and document the level of reserves and capital needed for the additional risks assumed. The higher the risk, the more reserves and capital needed to support the activity. Institutions with lower-risk subprime portfolios may not need additional reserves and capital. In addition, examiners are reminded that subprime lending is only one element in the evaluation of the institution's overall capital adequacy. If the analysis shows that the institution has adequate capital for all its assets and activities, including subprime lending, there is no additional capital requirement arising from the guidance.

Examiners are instructed not to unilaterally require additional reserves and capital based on the guidance. Any determination made by an examiner that an institution's reserves or capital are deficient will be discussed with the institu-

10. Fitch IBCA, Duff & Phelps, "Rating U.S. Residential Subprime Mortgage Securities," March 16, 2001: 2.
11. Standard & Poor's, "U.S. Residential Subprime Mortgage Criteria," Structured Finance, 1999: 12, 169.
12. Standard & Poor's, "Auto Loan Criteria and Market Overview 1998," Structured Finance Ratings Asset-Backed Securities, 6.
13. Freddie Mac, Single-Family Seller/Servicer Guide, chapter 37, section 37.6, "Using FICO Scores in Underwriting," March 7, 2001.

tion's management and with each agency's appropriate supervisory office before a final decision is made.

Question 5: Are the regulatory expectations for higher capital levels consistent with capital levels supporting subprime assets outside the insured banking industry?

Yes. The regulatory expectations of higher capital maintenance are consistent with expectations in the capital markets. The 1.5-to-3-times-capital multiple is risk based, for example, the level of additional capital varies by relative loan quality and is applied only to the subprime portfolio, not the institution's entire asset structure. This is consistent with the financial marketplace's assessment of relative risk in subprime assets outside the banking industry. For example, the amount of credit enhancement required for subprime securitization structures varies according to the level and volatility of perceived credit risk in the underlying assets. In addition, publicly traded subprime-finance companies (that are not currently suffering from adverse ratings) maintain equity-capital-to-managed-asset ratios that are 1.5 to as much as 6 times (depending on loan type and relative quality) those of finance companies that do not specialize in subprime loans.

2128.08.2 INSPECTION OBJECTIVES

1. To assess and evaluate the extent of subprime-lending activities; whether management has adequately planned for these activities; and whether management has developed and maintains board-approved policies and procedures, systems, and internal controls that identify, measure, monitor, and control the additional risks in a manner that is commensurate with the risks associated with the subprime-lending program.
2. To conduct portfolio-level reviews and transaction-level testing of the subprime-lending activities, assessing the quality and performance of the subprime-loan portfolios and subprime-lending program, including its profitability, delinquency, and potential and actual loss experience.
3. To assess the adequacy of the ALLL for the subprime-loan portfolio.

2128.08.3 INSPECTION PROCEDURES

1. Determine whether the subprime-lending activities are consistent with the bank holding company's overall business strategy and risk tolerances, and that critical business risks have been identified and considered.
2. Assess whether the bank holding company has the financial capacity, including capital adequacy, to conduct the high-risk activity of subprime lending safely, without any undue concentrations of credit.
3. Ascertain if management has committed the necessary resources, including, in particular, technology and skilled personnel, to manage and control the risks associated with the volume and complexity of the bank holding company's subprime-lending programs.
4. Determine whether the bank holding company's contingency plans (including those of its banking and nonbanking subsidiaries) are adequate to address alternative funding sources, including back-up purchasers of any subprime loan–backed securities issued by the bank holding company or of the attendant servicing functions, and methods of raising additional capital during an economic downturn or when financial markets become volatile.
5. Determine if management has established adequate lending standards that are appropriate for the size and complexity of the bank holding company's operations, including those of its subsidiaries, and if management is maintaining proper controls over the program. (See in section 2128.08.1.1 for the lending standards that should be included in the subprime-loan program.)
6. Incorporate the results of the loan-administration portfolio-level and transaction-level testing reviews into the conclusions about overall asset quality, the adequacy of the ALLL and capital, and the adequacy of portfolio risk-management practices.
7. Review securitization transactions for compliance with FAS 140 and this guidance, including whether the bank holding company and its subsidiaries have provided any support to maintain the credit quality of loan pools they have securitized.
8. Evaluate the ALLL and regulatory capital allocated to support subprime-lending programs, including whether the total protection for subprime-asset programs and the levels for each component are adequate.
9. Ascertain that a sound risk-management program exists that includes the ability of

management to determine and quantify appropriate levels for each component of the program.

10. Evaluate the bank holding company's documented analysis of the capital needed to support its subprime-lending activities. Ascertain whether the capital levels are risk sensitive, that is, does allocated capital reflect the level and variability of loss estimates within reasonably conservative parameters? Determine if there is a direct link between the expected loss rates used to determine the required ALLL and the unexpected loss estimates used to determine capital. Document and reference the bank holding company's overall subprime capital evaluation in the inspection comments and conclusions regarding capital adequacy.
11. Analyze the performance of the subprime-lending program, including its profitability, delinquency, and loss experience.
12. Consider management's response to adverse performance trends, such as higher-than-expected prepayments, delinquencies, charge-offs, customer complaints, and expenses.
13. Determine if the bank holding company's subprime-lending program effectively manages the credit, market, liquidity, reputational, operational, and legal risks associated with subprime-lending operations.
14. Classify loans of the parent bank holding company and its nonbank subsidiaries according to the following criteria:
    a. Classify as substandard loans to borrowers that do not have the capacity to service their loans.
    b. Classify as at least substandard subprime loans that are 90 days or more past due based on a reasonable presumption that their past-due status indicates an inadequate capacity or unwillingness to repay.
    c. Consider classifying or criticizing the entire portfolio or segments of the portfolio when the portfolio review or loan sample indicates serious concerns with credit-risk-selection practices, underwriting standards, or loan quality.
    d. Classify as substandard high-risk unsecured loan portfolios or secured high loan-to-value loans to borrowers who clearly exhibit inadequate capacity to repay the debt in a reasonable time frame.
15. Report as unsafe and unsound imprudent loans to borrowers who do not demonstrate the capacity to repay the loan, as structured, from sources other than the pledged collateral.
16. Carefully assess the ability of the parent bank holding company's board of directors and management to oversee and administer the higher risk in subprime portfolios, including those of its nonbank subsidiaries. If risk-management practices are deficient, criticize management and reach specific agreements with the board of directors and senior management to initiate corrective action.

When a financial institution participates in a complex structured finance transaction (CSFT), it bears the usual market, credit, and operational risks associated with the transaction.[1] In some circumstances, a financial institution may also face heightened legal or reputational risks due to its involvement in a CSFT. For example, a financial institution may face heightened legal or reputational risks if a customer's regulatory, tax, or accounting treatment for a CSFT, or disclosures to investors concerning the CSFT in the customer's public filings or financial statements, do not comply with applicable laws, regulations, or accounting principles.

The agencies have long expected financial institutions to develop and maintain robust control infrastructures that enable them to identify, evaluate, and address the risks associated with their business activities.[2] Financial institutions must also conduct their activities in accordance with applicable statutes and regulations. Therefore, financial institutions engaged in CSFTs are expected to have policies and procedures that are designed to allow the institution to effectively manage and address the full range of risks associated with its CSFT activities, including the elevated legal or reputational risks that may arise in connection with certain CSFTs. The agencies continue to believe that this is important.

This section sets forth the Interagency Statement on Sound Practices Concerning Elevated-Risk Complex Structured Finance Activities, issued January 11, 2007. The supervisory guidance addresses risk-management principles that should assist institutions to identify, evaluate, and manage the heightened legal and reputational risks that may arise from their involvement in CSFTs. The guidance is focused on those CSFTs that may present heightened levels of legal or reputational risk to the institution and are defined as "elevated-risk CSFTs." Such transactions are typically conducted by a limited number of large financial institutions.[3] (See SR-07-05 and 72 *Fed. Reg.* 1,372, January 11, 2007.)

1. The term *financial institutions* is not limited to federally insured depository institutions. It refers broadly to bank holding companies (other than foreign banks), national banks, state banks, federal and state savings associations, savings and loan holding companies, U.S. branches and agencies of foreign banks, and SEC-registered broker-dealers and investment advisors.

2. The agencies are the Board of Governors of the Federal Reserve System (FRB), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), the Office of Thrift Supervision (OTS), and the Securities and Exchange Commission (SEC).

2128.09.1 INTERAGENCY STATEMENT ON SOUND PRACTICES CONCERNING ELEVATED-RISK COMPLEX STRUCTURED FINANCE ACTIVITIES

Financial markets have grown rapidly over the past decade, and innovations in financial instruments have facilitated the structuring of cash flows and allocation of risk among creditors, borrowers, and investors in more efficient ways.

Financial derivatives for market and credit risk, asset-backed securities with customized cash-flow features, specialized financial conduits that manage pools of assets, and other types of structured finance transactions serve important business purposes, such as diversifying risks, allocating cash flows, and reducing cost of capital. As a result, structured finance transactions have become an essential part of U.S. and international capital markets. Financial institutions have played and continue to play an active and important role in the development of structured finance products and markets, including the market for the more complex variations of structured finance products.

When a financial institution participates in a complex structured finance transaction (CSFT), it bears the usual market, credit, and operational risks associated with the transaction. In some circumstances, a financial institution may also face heightened legal or reputational risks due to its involvement in a CSFT. For example, in some circumstances, a financial institution may face heightened legal or reputational risk if a customer's regulatory, tax, or accounting treatment for a CSFT, or disclosures to investors concerning the CSFT in the customer's public filings or financial statements, do not comply with applicable laws, regulations, or accounting principles. Indeed, in some instances, CSFTs have been used to misrepresent a customer's financial condition to investors, regulatory authorities, and others. In these situations, investors have been harmed and financial institutions

3. The statement will not affect or apply to the vast majority of financial institutions, including most small institutions.

have incurred significant legal and reputational exposure. In addition to legal risk, reputational risk poses a significant threat to financial institutions because the nature of their business requires them to maintain the confidence of customers, creditors, and the general marketplace.

The agencies have long expected financial institutions to develop and maintain robust control infrastructures that enable them to identify, evaluate, and address the risks associated with their business activities. Financial institutions must also conduct their activities in accordance with applicable statutes and regulations.

2128.09.2 SCOPE AND PURPOSE OF STATEMENT

This statement was issued to describe the types of risk-management principles that the agencies believe may help a financial institution to identify CSFTs that may pose heightened legal or reputational risks to the institution and to evaluate, manage, and address these risks within the institution's internal control framework.[4]

Structured finance transactions encompass a broad array of products with varying levels of complexity. Most structured finance transactions, such as standard public mortgage-backed securities transactions, public securitizations of retail credit cards, asset-backed commercial paper conduit transactions, and hedging-type transactions involving "plain vanilla" derivatives and collateralized loan obligations, are familiar to participants in the financial markets, and these vehicles have a well-established track record. These transactions typically would not be considered CSFTs for the purpose of this statement.

Because this statement focuses on sound practices related to CSFTs that may create heightened legal or reputational risks—transactions that typically are conducted by a limited number of large financial institutions—it will not affect or apply to the vast majority of financial institutions, including most small institutions. As in all cases, a financial institution should tailor its internal controls so that they are appropriate in light of the nature, scope, complexity, and risks of its activities. Thus, for example, an institution that is actively involved in structuring and offering CSFTs that may create heightened legal or reputational risk for the institution should have a more formalized and detailed control framework than an institution that participates in these types of transactions less frequently. The internal controls and procedures discussed in this statement are not all inclusive, and, in appropriate circumstances, an institution may find that other controls, policies, or procedures are appropriate in light of its particular CSFT activities.

Because many of the core elements of an effective control infrastructure are the same regardless of the business line involved, this statement draws heavily on controls and procedures that the agencies previously have found to be effective in assisting a financial institution to manage and control risks and identifies ways in which these controls and procedures can be effectively applied to elevated-risk CSFTs. Although this statement highlights some of the most significant risks associated with elevated-risk CSFTs, it is not intended to present a full exposition of all risks associated with these transactions. Financial institutions are encouraged to refer to other supervisory guidance prepared by the agencies for further information concerning market, credit, operational, legal, and reputational risks, as well as internal audit and other appropriate internal controls.

This statement does not create any private rights of action and does not alter or expand the legal duties and obligations that a financial institution may have to a customer, its shareholders, or other third parties under applicable law. At the same time, adherence to the principles discussed in this statement would not necessarily insulate a financial institution from regulatory action or any liability the institution may have to third parties under applicable law.

2128.09.3 IDENTIFICATION AND REVIEW OF ELEVATED-RISK COMPLEX STRUCTURED FINANCE TRANSACTIONS

A financial institution that engages in CSFTs should maintain a set of formal, written, firm-wide policies and procedures that are designed to allow the institution to identify, evaluate,

4. As used in this statement, the term *financial institution* or *institution* refers to state member banks and bank holding companies (other than foreign banking organizations) in the case of the FRB, national banks in the case of the OCC, federal and state savings associations and savings and loan holding companies in the case of the OTS, state nonmember banks in the case of the FDIC, and registered broker-dealers and investment advisors in the case of the SEC. The U.S. branches and agencies of foreign banks supervised by the FRB, the OCC, and the FDIC also are considered to be financial institutions for purposes of this statement.

assess, document, and control the full range of credit, market, operational, legal, and reputational risks associated with these transactions. These policies may be developed specifically for CSFTs or included in the set of broader policies governing the institution generally. A financial institution operating in foreign jurisdictions may tailor its policies and procedures as appropriate to account for, and comply with, the applicable laws, regulations, and standards of those jurisdictions.[5]

Financial institution's policies and procedures should establish a clear framework for the review and approval of individual CSFTs. These policies and procedures should set forth the responsibilities of the personnel involved in the origination, structuring, trading, review, approval, documentation, verification, and execution of CSFTs. Financial institutions may find it helpful to incorporate the review of new CSFTs into their existing new product policies. In this regard, a financial institution should define what constitutes a "new" complex structured finance product and establish a control process for the approval of such new products. In determining whether a CSFT is new, a financial institution may consider a variety of factors, including whether it contains structural or pricing variations from existing products; whether the product is targeted at a new class of customers; whether it is designed to address a new need of customers; whether it raises significant new legal, compliance, or regulatory issues; and whether it or the manner in which it would be offered would materially deviate from standard market practices. An institution's policies should require new complex structured finance products to receive the approval of all relevant control areas that are independent of the profit center before the product is offered to customers.

2128.09.3.1 Identifying Elevated-Risk CSFTs

As part of its transaction and new product approval controls, a financial institution should establish and maintain policies, procedures, and systems to identify elevated-risk CSFTs. Because of the potential risks they present to the institution, transactions or new products identified as elevated-risk CSFTs should be subject to heightened reviews during the institution's transaction or new product approval processes. Examples of transactions that an institution may determine warrant this additional scrutiny are those that (either individually or collectively) appear to the institution during the ordinary course of its transaction approval or new product approval process to—

1. lack economic substance or business purpose;
2. be designed or used primarily for questionable accounting, regulatory, or tax objectives, particularly when the transactions are executed at year end or at the end of a reporting period for the customer;
3. raise concerns that the client will report or disclose the transaction in its public filings or financial statements in a manner that is materially misleading or inconsistent with the substance of the transaction or applicable regulatory or accounting requirements;
4. involve circular transfers of risk (either between the financial institution and the customer or between the customer and other related parties) that lack economic substance or business purpose;
5. involve oral or undocumented agreements that, when taken into account, would have a material impact on the regulatory, tax, or accounting treatment of the related transaction, or the client's disclosure obligations;[6]
6. have material economic terms that are inconsistent with market norms (for example, deep "in the money" options or historic rate rollovers); or
7. provide the financial institution with compensation that appears substantially disproportionate to the services provided or investment made by the financial institution or to the credit, market, or operational risk assumed by the institution.

The examples listed previously are provided for illustrative purposes only, and the policies and procedures established by financial institu-

5. In the case of U.S. branches and agencies of foreign banks, these policies, including management, review, and approval requirements, should be coordinated with the foreign bank's group-wide policies developed in accordance with the rules of the foreign bank's home country supervisor and should be consistent with the foreign bank's overall corporate and management structure as well as its framework for risk management and internal controls.

6. This item is not intended to include traditional, nonbinding "comfort" letters or assurances provided to financial institutions in the loan process where, for example, the parent of a loan customer states that the customer (that is, the parent's subsidiary) is an integral and important part of the parent's operations.

tions may differ in how they seek to identify elevated-risk CSFTs. The goal of each institution's policies and procedures, however, should remain the same: to identify those CSFTs that warrant additional scrutiny in the transaction or new product approval process due to concerns regarding legal or reputational risks.

Financial institutions that structure or market, act as an advisor to a customer regarding, or otherwise play a substantial role in a transaction may have more information concerning the customer's business purpose for the transaction and any special accounting, tax, or financial disclosure issues raised by the transaction than institutions that play a more limited role. Thus, the ability of a financial institution to identify the risks associated with an elevated-risk CSFT may differ depending on its role.

2128.09.3.2 Due-Diligence, Approval, and Documentation Process for Elevated-Risk CSFTs

Having developed a process to identify elevated-risk CSFTs, a financial institution should implement policies and procedures to conduct a heightened level of due diligence for these transactions. The financial institution should design these policies and procedures to allow personnel at an appropriate level to understand and evaluate the potential legal or reputational risks presented by the transaction to the institution and to manage and address any heightened legal or reputational risks ultimately found to exist with the transaction.

2128.09.3.2.1 Due Diligence

If a CSFT is identified as an elevated-risk CSFT, the institution should carefully evaluate and take appropriate steps to address the risks presented by the transaction with a particular focus on those issues identified as potentially creating heightened levels of legal or reputational risk for the institution. In general, a financial institution should conduct the level and amount of due diligence for an elevated-risk CSFT that is commensurate with the level of risks identified. A financial institution that structures or markets an elevated-risk CSFT to a customer, or that acts as an advisor to a customer or investors concerning an elevated-risk CSFT, may have additional responsibilities under the federal securities laws, the Internal Revenue Code, state fiduciary laws or other laws or regulations and, thus, may have greater legal and reputational risk exposure with respect to an elevated-risk CSFT than a financial institution that acts only as a counterparty for the transaction. Accordingly, a financial institution may need to exercise a higher degree of care in conducting its due diligence when the institution structures or markets an elevated-risk CSFT or acts as an advisor concerning such a transaction than when the institution plays a more limited role in the transaction.

To appropriately understand and evaluate the potential legal and reputational risks associated with an elevated-risk CSFT that a financial institution has identified, the institution may find it useful or necessary to obtain additional information from the customer or to obtain specialized advice from qualified in-house or outside accounting, tax, legal, or other professionals. As with any transaction, an institution should obtain satisfactory responses to its material questions and concerns prior to consummation of a transaction.[7]

In conducting its due diligence for an elevated-risk CSFT, a financial institution should independently analyze the potential risks to the institution from both the transaction and the institution's overall relationship with the customer. Institutions should not conclude that a transaction identified as being an elevated-risk CSFT involves minimal or manageable risks solely because another financial institution will participate in the transaction or because of the size or sophistication of the customer or counterparty. Moreover, a financial institution should carefully consider whether it would be appropriate to rely on opinions or analyses prepared by or for the customer concerning any significant accounting, tax, or legal issues associated with an elevated-risk CSFT.

2128.09.3.2.2 Approval Process

A financial institution's policies and procedures should provide that CSFTs identified as having elevated legal or reputational risk are reviewed and approved by appropriate levels of control and management personnel. The designated approval process for such CSFTs should include representatives from the relevant business line(s) and/or client management, as well as from appropriate control areas that are indepen-

7. Of course, financial institutions also should ensure that their own accounting for transactions complies with applicable accounting standards, consistently applied.

dent of the business line(s) involved in the transaction. The personnel responsible for approving an elevated-risk CSFT on behalf of a financial institution should have sufficient experience, training, and stature within the organization to evaluate the legal and reputational risks, as well as the credit, market, and operational risks to the institution.

The institution's control framework should have procedures to deliver the necessary or appropriate information to the personnel responsible for reviewing or approving an elevated-risk CSFT to allow them to properly perform their duties. Such information may include, for example, the material terms of the transaction, a summary of the institution's relationship with the customer, and a discussion of the significant legal, reputational, credit, market, and operational risks presented by the transaction.

Some institutions have established a senior management committee that is designed to involve experienced business executives and senior representatives from all of the relevant control functions within the financial institution (including such groups as independent risk management, tax, accounting, policy, legal, compliance, and financial control) in the oversight and approval of those elevated-risk CSFTs that are identified by the institution's personnel as requiring senior management review and approval due to the potential risks associated with the transactions. While this type of management committee may not be appropriate for all financial institutions, a financial institution should establish processes that assist the institution in consistently managing the review and approval of elevated-risk CSFTs on a firmwide basis.[8]

If, after evaluating an elevated-risk CSFT, the financial institution determines that its participation in the CSFT would create significant legal or reputational risks for the institution, the institution should take appropriate steps to address those risks. Such actions may include declining to participate in the transaction or conditioning its participation upon the receipt of representations or assurances from the customer that reasonably address the heightened legal or reputational risks presented by the transaction. Any representations or assurances provided by a customer should be obtained before a transaction is executed and be received from, or approved by, an appropriate level of the customer's management. A financial institution should decline to participate in an elevated-risk CSFT if, after conducting appropriate due diligence and taking appropriate steps to address the risks from the transaction, the institution determines that the transaction presents unacceptable risk to the institution or would result in a violation of applicable laws, regulations, or accounting principles.

8. The control processes that a financial institution establishes for CSFTs should take account of, and be consistent with, any informational barriers established by the institution to manage potential conflicts of interest, insider trading, or other concerns.

2128.09.3.2.3 Documentation

The documentation that financial institutions use to support CSFTs is often highly customized for individual transactions and negotiated with the customer. Careful generation, collection, and retention of documents associated with elevated-risk CSFTs are important control mechanisms that may help an institution monitor and manage the legal, reputational, operational, market, and credit risks associated with the transactions. In addition, sound documentation practices may help reduce unwarranted exposure to the financial institution's reputation.

A financial institution should create and collect sufficient documentation to allow the institution to—

1. Document the material terms of the transaction,
2. Enforce the material obligations of the counterparties,
3. Confirm that the institution has provided the customer any disclosures concerning the transaction that the institution is otherwise required to provide, and
4. Verify that the institution's policies and procedures are being followed and allow the internal audit function to monitor compliance with those policies and procedures.

When an institution's policies and procedures require an elevated-risk CSFT to be submitted for approval to senior management, the institution should maintain the transaction-related documentation provided to senior management as well as other documentation, such as minutes of the relevant senior management committee, that reflect senior management's approval (or disapproval) of the transaction, any conditions imposed by senior management, and the factors considered in taking such action. The institution should retain documents created for elevated-risk CSFTs in accordance with its record reten-

tion policies and procedures as well as applicable statutes and regulations.

2128.09.3.3 Other Risk-Management Principles for Elevated-Risk CSFTs

2128.09.3.3.1 General Business Ethics

The board and senior management of a financial institution also should establish a "tone at the top" through both actions and formalized policies that sends a strong message throughout the financial institution about the importance of compliance with the law and overall good business ethics. The board and senior management should strive to create a firm-wide corporate culture that is sensitive to ethical or legal issues as well as the potential risks to the financial institution that may arise from unethical or illegal behavior. This kind of culture coupled with appropriate procedures should reinforce business-line ownership of risk identification, and encourage personnel to move ethical or legal concerns regarding elevated-risk CSFTs to appropriate levels of management. In appropriate circumstances, financial institutions may also need to consider implementing mechanisms to protect personnel by permitting the confidential disclosure of concerns.[9] As in other areas of financial institution management, compensation and incentive plans should be structured, in the context of elevated-risk CSFTs, so that they provide personnel with appropriate incentives to have due regard for the legal, ethical, and reputational risk interests of the institution.

2128.09.3.3.2 Reporting

A financial institution's policies and procedures should provide for the appropriate levels of management and the board of directors to receive sufficient information and reports concerning the institution's elevated-risk CSFTs to perform their oversight functions.

9. The agencies note that the Sarbanes-Oxley Act of 2002 requires companies listed on a national securities exchange or inter-dealer quotation system of a national securities association to establish procedures that enable employees to submit concerns regarding questionable accounting or auditing matters on a confidential, anonymous basis. (See 15 U.S.C. 78j-1(m).)

2128.09.3.3.3 Monitoring Compliance with Internal Policies and Procedures

The events of recent years evidence the need for an effective oversight and review program for elevated-risk CSFTs. A financial institution's program should provide for periodic independent reviews of its CSFT activities to verify and monitor that its policies and controls relating to elevated-risk CSFTs are being implemented effectively and that elevated-risk CSFTs are accurately identified and received proper approvals. These independent reviews should be performed by appropriately qualified audit, compliance, or other personnel in a manner consistent with the institution's overall framework for compliance monitoring, which should include consideration of issues such as the independence of reviewing personnel from the business line. Such monitoring may include more frequent assessments of the risk arising from elevated-risk CSFTs, both individually and within the context of the overall customer relationship, and the results of this monitoring should be provided to an appropriate level of management in the financial institution.

2128.09.3.3.4 Audit

The internal audit department of any financial institution is integral to its defense against fraud, unauthorized risk taking, and damage to the financial institution's reputation. The internal audit department of a financial institution should regularly audit the financial institution's adherence to its own control procedures relating to elevated-risk CSFTs, and further assess the adequacy of its policies and procedures related to elevated-risk CSFTs. Internal audit should periodically validate that business lines and individual employees are complying with the financial institution's standards for elevated-risk CSFTs and appropriately identifying any exceptions. This validation should include transaction testing for elevated-risk CSFTs.

2128.09.3.3.5 Training

An institution should identify relevant personnel who may need specialized training regarding CSFTs to be able to effectively perform their oversight and review responsibilities. Appropriate training on the financial institution's policies and procedures for handling elevated-risk CSFTs is critical. Financial institution personnel involved in CSFTs should be familiar with the

institution's policies and procedures concerning elevated-risk CSFTs, including the processes established by the institution for identification and approval of elevated-risk CSFTs and new complex structured finance products and for the elevation of concerns regarding transactions or products to appropriate levels of management. Financial institution personnel involved in CSFTs should be trained to identify and properly handle elevated-risk CSFTs that may result in a violation of law.

2128.09.4 CONCLUSION

Structured finance products have become an essential and important part of the U.S. and international capital markets, and financial institutions have played an important role in the development of structured finance markets. In some instances, however, CSFTs have been used to misrepresent a customer's financial condition to investors and others, and financial institutions involved in these transactions have sustained significant legal and reputational harm. In light of the potential legal and reputational risks associated with CSFTs, a financial institution should have effective risk-management and internal control systems that are designed to allow the institution to identify elevated-risk CSFTs; to evaluate, manage, and address the risks arising from such transactions; and to conduct those activities in compliance with applicable law.

Banking organizations must establish and maintain sound risk-management policies and procedures and effective internal controls over their use of credit derivatives. Credit derivatives are off-balance-sheet financial instruments that are used to assume or lay off credit risk on loans and other assets, some only to a limited extent. They allow one party (the beneficiary) to transfer the credit risk of a ''reference asset,'' which it often actually owns, to another party (the guarantor).[1] This arrangement allows the guarantor party to assume the credit risk associated with the reference asset without directly purchasing it. Unlike traditional guarantee arrangements, credit-derivative transactions often are documented using master agreements developed by the International Swaps and Derivatives Association (ISDA) that are similar to those governing swaps or options. Since credit derivatives are privately negotiated financial contracts, they expose the user to credit risk as well as liquidity risk (thin secondary market for credit derivatives), operational risk (instruments used for speculation rather than hedging), counterparty risk (default), and legal risk (the contracts may be deemed illegal).

Banking organizations use credit-derivative instruments either as end-users, purchasing credit protection from or providing credit protection to third parties, or as dealers intermediating such protection. Credit derivatives are used to manage overall credit-risk exposure. A banking organization may use credit derivatives to mitigate its concentration to a particular borrower or industry without severing the customer relationship. In addition, organizations that are approaching established in-house limits on counterparty credit exposure could continue to originate loans to a particular industry, using credit derivatives to transfer the credit risk to a third party.

Banking organizations may also use credit derivatives to diversify their portfolios by assuming the associated credit exposures and revenue returns to different borrowers or industries without actually purchasing the underlying assets. Nonbank companies may serve as counterparties to credit-derivative transactions with banks to gain access to the commercial bank loan market. Such entities may not lend or may not have the facilities or staff to adequately administer a loan portfolio.

Under some credit-derivative arrangements, a beneficiary may pay a fee to the guarantor in exchange for a guarantee against any loss that may occur, usually in excess of a prespecified amount, if the reference asset defaults (a ''credit-default swap''). Alternatively, the beneficiary may pay the total return on a reference asset, including any appreciation in the asset's price, to a guarantor in exchange for a spread over funding costs plus any depreciation in the value of the reference asset (a ''total-rate-of-return swap'').

Credit derivatives and their market are likely to take on various forms, such as the market for put options on specific corporate bonds or loans. While the payoffs of these puts are expressed in terms of a strike price, rather than a default event, if the strike price is sufficiently high, credit risk effectively could be transferred from the buyer of the put to the writer of the put. See SR-96-17.

2129.0.1 SUPERVISORY AND EXAMINER GUIDANCE

In reviewing credit derivatives, examiners should consider the credit risk associated with the reference asset as the primary risk, as they do for loan participations or guarantees. A banking organization providing credit protection through a credit derivative may be as exposed to the credit risk of the reference asset as it would be if the asset were on its own balance sheet. Thus, for supervisory purposes, the exposure generally should be treated as if it were a letter of credit or other off-balance-sheet guarantee.[2] This treatment would apply, for example, in determining a banking organization's overall credit exposure to a borrower for purposes of evaluating concentrations of credit. The overall exposure should include exposure it assumes

1. For purposes of this supervisory guidance, when the beneficiary owns the reference asset, it will be referred to as the ''underlying'' asset. However, in some cases, the reference asset and the underlying asset are not the same. For example, the credit-derivative contract may reference the performance of an ABC Company bond, while the beneficiary banking organization may actually own an ABC Company loan. The use of the term ''guarantor'' does not necessarily refer to a guarantor involving a suretyship contract. The transferred risk can be in a primary liability of the acquiring party that assumes the credit risk.

2. Credit derivatives that are based on a broad-based index, such as the Lehman Brothers Bond Index or the S&P 500 stock index, could be treated for capital and other supervisory purposes as a derivative contract. This determination should be made on a case-by-case basis.

by acting as a guarantor in a credit-derivative transaction where the borrower is the obligor of the reference asset.

Banking organizations providing credit protection through a credit derivative should hold capital and reserves against their exposure to the reference asset.[3] This broad principle holds for all credit derivatives, except for credit-derivative contracts that incorporate periodic payments for depreciation or appreciation, including most total-rate-of-return swaps. For these transactions, the guarantor can deduct the amount of depreciation paid to the beneficiary from the notional amount of the contract in determining the amount of reference exposure subject to a capital charge.

In some cases (for example, total-rate-of-return swaps), the guarantor also is exposed to the credit risk of the counterparty, which for derivative contracts generally is measured as the replacement cost of the credit-derivative transaction plus an add-on for the potential future exposure of the derivative to market price changes. For banking organizations acting as dealers that have matching offsetting positions, the counterparty risk stemming from credit-derivative transactions could be the principal risk to which the dealer banks are exposed.

In reviewing a credit derivative entered into by a beneficiary banking organization, the examiner should review the organization's credit exposure to the guarantor, as well as to the reference asset—if the asset is actually owned by the beneficiary. The degree to which a credit derivative, unlike most other credit-guarantee arrangements, transfers the credit risk of an underlying asset from the beneficiary to the guarantor may be uncertain or limited. The degree of risk transference depends on the terms of the transaction. For example, some credit derivatives are structured so that a payout only occurs when a predefined event of default or a downgrade below a prespecified credit rating occurs.[4] Others may require a payment only when a defined default event occurs *and* a predetermined materiality (or loss) threshold is exceeded. Default payments themselves may be based on an average of dealer prices for the reference asset during some period of time after default using a prespecified sampling procedure or may be specified in advance as a set percentage of the notional amount of the reference asset. Finally, the term of many credit-derivative transactions is shorter than the maturity of the underlying asset and, thus, provides only temporary credit protection to the beneficiary.

Examiners must ascertain whether the amount of credit protection a beneficiary receives by entering into a credit derivative is sufficient to warrant treatment of the derivative as a guarantee for regulatory capital and other supervisory purposes. Those arrangements that provide virtually complete credit protection to the underlying asset will be considered effective guarantees for purposes of asset classification and risk-based capital calculations. On the other hand, if the amount of credit risk transferred by the beneficiary is severely limited or uncertain, then the limited credit protection provided by the derivative should not be taken into account for these purposes.

In this regard, examiners should carefully review credit-derivative transactions in which the reference asset is not identical to the asset actually owned by the beneficiary banking organization. For the derivative contract to be considered as providing effective credit protection, the examiner must review the arrangement and be satisfied that the reference asset is an appropriate proxy for the loan or other asset, whose credit exposure the banking organization intends to offset. To determine this, examiners should consider, among other factors, whether the reference asset and owned asset have the same obligor and seniority in bankruptcy and whether both contain mutual cross-default provisions.

A banking organization's management should not enter into credit-derivative transactions unless it has the ability to understand and manage the credit and other risks associated with these instruments in a safe and sound manner. Accordingly, examiners should determine the appropriateness of these instruments on an entity-by-entity basis, taking into account management's expertise in evaluating the instruments used; the adequacy of relevant policies, including position limits; and the quality of the banking organization's relevant information systems and internal controls.[5]

3. For guidance on risk-based capital treatment of credit derivatives, see section 4060.3.5.3.9.

4. It may also be necessary to review the credit documentation of the primary obligor to determine the degree of transferred risk.

5. For further guidance on examining the risk-management practices of banking organizations, including guidance on derivatives, that examiners may find helpful in reviewing an organization's management of its credit-derivative activity, see sections 2125.0, 2126.0, 2128.0, and 4070.1. See also the *Commercial Bank Examination Manual* and the *Trading and Capital-Markets Activities Manual*.

2129.0.2 TYPES OF CREDIT DERIVATIVES

The most widely used types of credit derivatives are credit-default swaps and total-rate-of-return (TROR) swaps.[6] While the timing and structure of the cash flows associated with credit default and TROR swaps differ, the economic substance of both arrangements is that they seek to transfer the credit risk on the asset(s) referenced in the transaction.

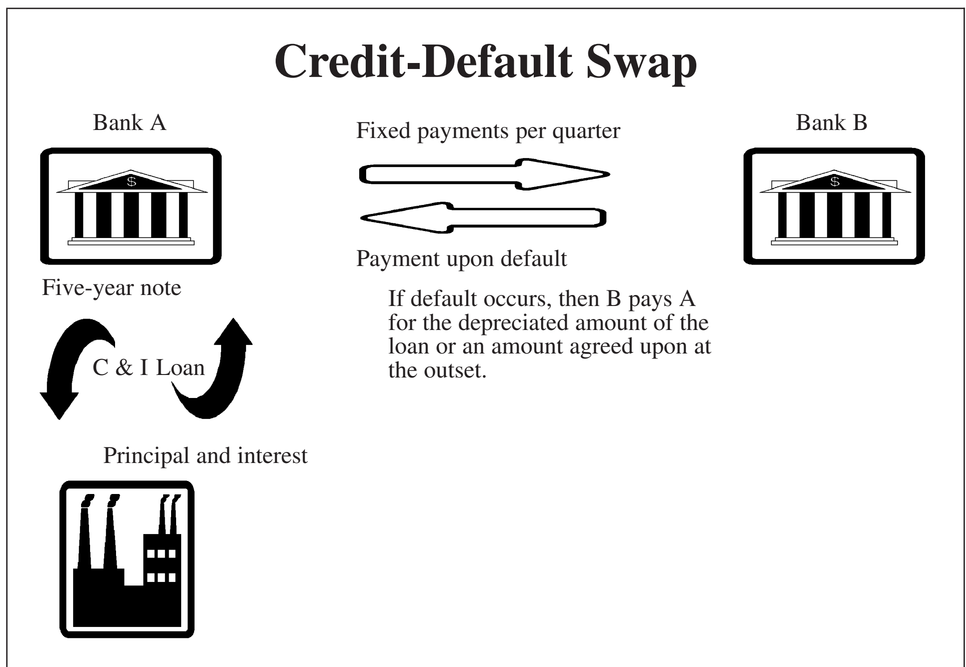
6. Another less common form of credit derivative is the *credit-linked note*, which is an obligation that is based on a reference asset. Credit-linked notes are similar to structured notes with embedded credit derivatives. If there is a credit event, the repayment of the bond's principal is based on the price of the reference asset. A credit-linked note may be a combination of a regular bond and a credit option. The note can promise to make periodic interest payments and a large lump-sum payment when the bond matures. The credit option on the note may allow the issuer to reduce the note's payments if a primary financial indicator or variable deteriorates. When reviewing these transactions, examiners should consider the purchasing banking organization's exposure to the underlying reference asset as well as the exposure to the issuing entity.

2129.0.2.1 Credit-Default Swaps

The purpose of a credit-default swap is to provide protection against credit losses associated with a default on a specified reference asset. The swap purchaser (the beneficiary) "swaps" the credit risk with the provider of the swap (the guarantor). The transaction is very similar to a guarantee or financial standby letter of credit.

In a credit-default swap, illustrated in figure 1, the beneficiary (Bank A) agrees to pay to the guarantor (Bank B) a quarterly or annual fee, typically amounting to a certain number of basis points on the par value of the reference asset. In return, the guarantor agrees to pay the beneficiary an agreed-upon, market-based, post-default amount or a predetermined fixed percentage of the value of the reference asset if there is a default. The guarantor makes no payment until there is a default. A default is strictly defined in the contract to include, for example, bankruptcy, insolvency, or payment default, and the event of default itself must be publicly verifiable. The guarantor may not be obliged to

Figure 1
Credit-Default Swap Cash-Flow Diagram



make any payments to the beneficiary until a preestablished amount of loss has been exceeded in conjunction with a default event (called a materiality threshold).

The swap is terminated if the reference asset defaults before the maturity of the swap. The amount owed by the guarantor is the difference between the reference asset's initial principal (or notional) amount and the actual market value of the defaulted, reference asset. The methodology for establishing the post-default market value of the reference asset should be set out in the contract. Often, the market value of the defaulted reference asset may be determined by sampling dealer quotes. The guarantor may have the option to purchase the defaulted, underlying asset and pursue a workout with the borrower directly, an action it may take if it believes that the "true" value of the reference asset is higher than that determined by the swap-pricing mechanism. Alternatively, the swap may call for a fixed payment in the event of default, such as a percentage of the notional value of the reference asset.

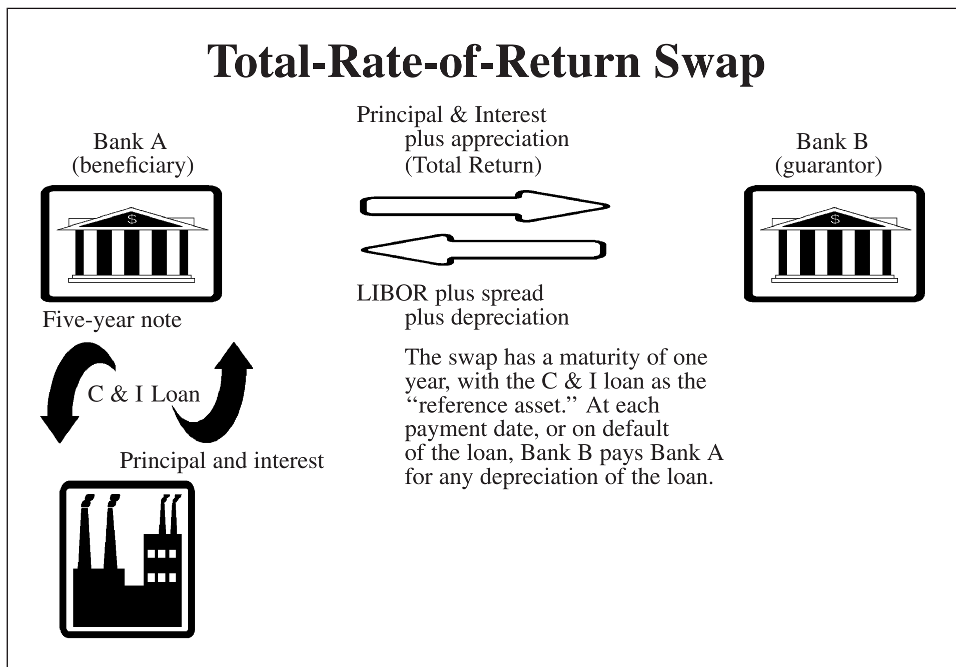
2129.0.2.2 Total-Rate-of-Return Swaps

In a total-rate-of-return (TROR) swap, illustrated in figure 2, the beneficiary (Bank A) agrees to pay the guarantor (Bank B) the "total return" on the reference asset, which consists of all contractual payments, as well as any appreciation in the market value of the reference asset. To complete the swap arrangement, the guarantor agrees to pay LIBOR plus a spread and any depreciation to the beneficiary.[7] Since it bears the risks and rewards of ownership over the term of the swap, the guarantor in a TROR swap could be viewed as having synthetic ownership of the reference asset.

At each payment-exchange date (including when the swap matures) or on default, at which point the swap may terminate, any depreciation

7. The reference asset is often a floating-rate instrument, for example, a prime-based loan. Thus, if both sides of a TROR swap are based on floating rates, interest-rate risk is effectively eliminated with the exception of some basis risk.

Figure 2
Total-Rate-of-Return Swap Cash-Flow Diagram



or appreciation in the amortized value of the reference asset is calculated as the difference between the notional principal balance of the reference asset and the "dealer price."[8] The dealer price is generally determined either by referring to a market quotation source or by polling a group of dealers, and the price reflects changes in the credit profile of the reference obligor and reference asset.

If the dealer price is less than the notional amount of the contract (the hypothetical original price of the reference asset), then the guarantor must pay the difference to the beneficiary, absorbing any loss caused by a decline in the credit quality of the reference asset.[9] Thus, a TROR swap differs from a standard direct credit substitute in that the guarantor is guaranteeing not only against default of the reference obligor, but also against a deterioration in that obligor's credit quality, which can occur even if there is no default.

TROR swaps allow banking organizations to diversify credit risk and at the same time maintain confidentiality of their client's financial records since the borrowing entity's financial records are held by the originating lender. When the loans are sold, the records are transferred to the new acquiring lender. TROR swaps generally involve fewer administrative costs than those involved in a loan-sales transaction. Risk diversification can thus be achieved at a reduced cost.

2129.0.3 OTHER SUPERVISORY ISSUES

The decision to treat credit derivatives as guarantees could have significant supervisory implications for the way examiners treat concentration risk, classified assets, the adequacy of the allowance for loan and lease losses (ALLL),[10] and transactions involving affiliates. Examples of how credit derivatives that effectively transfer credit risk could affect supervisory procedures are discussed below.

8. Depending on contract terms, a TROR swap may not terminate on default of the reference asset. Instead, payments would continue to be made on subsequent payment dates based on the reference asset's post-default prices until the swap's contractual maturity.

9. As in a credit-default swap, the guarantor may have the option of purchasing the underlying asset from the beneficiary at the dealer price and trying to collect from the borrower directly.

10. See sections 2010.7 and 2065.2.

2129.0.3.1 Credit Exposure

For internal purposes of managing credit risk, banking organizations are encouraged to develop policies to determine how credit-derivative activity will be used to manage credit exposures. For example, a banking organization's internal credit policies may set forth situations in which it is appropriate to reduce credit exposure to an underlying obligor through credit-derivative transactions. Such policies need to address when credit exposure is effectively reduced and how all credit exposures will be monitored, including those resulting from credit-derivative activities.

2129.0.3.2 Concentrations of Credit

Concentrations of credit may be defined as—

- loans collateralized by a common security;
- loans to one borrower or related group of borrowers;
- loans that depend on a particular agricultural commodity;
- aggregate loans to major employers, their employees, and their major suppliers;
- loans within industry groups;
- out-of-territory loans;
- the aggregate amount of paper purchased from any one source; or
- those loans that often have been included in other homogeneous risk groupings.

Credit concentrations, by their nature, depend on common key factors, and when weaknesses develop, they have an adverse impact on each individual loan making up the concentration.[11] Generally, examiners should not consider a banking organization's asset concentration to a particular borrower reduced because of the existence of a nongovernment guarantee on one of the borrower's loans since the underlying concentration to the borrower still exists. However, examiners should consider how the banking organization manages the concentration, which could include the use of nongovernmental guarantees. Asset concentrations are to be listed in the confidential "Administrative and Other Matters" page D of the inspection report to highlight that the ultimate risk to the banking organization stems from these concentrations,

11. See sections 2010.2, 2010.7, and 2065.2.

although the associated credit risk may be mitigated by the existence of nongovernmental guarantees.

Any nongovernment guarantee will be included with other exposures to the guarantor to determine if there is an asset concentration with respect to the guarantor. Thus, the use of credit derivatives will increase the beneficiary's concentration exposure to the guarantor without reducing the concentration risk of the underlying borrower. Similarly, a guarantor banking organization's exposure to all reference assets will be included in its overall credit exposure to the reference obligor.

2129.0.3.3 Classification of Assets

The criteria used to classify assets are primarily based on their degree of risk and the likelihood of repayment, as well as on the potential effect of the assets on the bank's safety and soundness.[12] When evaluating the quality of a loan, examiners should review the overall financial condition of the borrower; the borrower's credit history; any secondary sources of repayment, such as guarantees; and other factors. The primary focus in the review of a loan's quality is the original source of payment. The assessment of the credit quality of a troubled loan, however, should take into account support provided by a "financially responsible guarantor."[13]

The protection that a credit derivative from a financially responsible guarantor provides on an underlying asset may be sufficient to preclude classification of the underlying asset or reduce the severity of classification. Sufficiency *depends on the extent of credit protection that is provided*. To be considered a guarantee for purposes of determining the classification of assets, a credit derivative must transfer the credit risk from the beneficiary to the financially responsible guarantor; the financially responsible guarantor must have *both* the financial capacity and willingness to provide support for the credit; the guarantee (the credit-derivative contract) must be legally enforceable; and the guarantee must provide support for repayment of the indebtedness, in whole or in part, during the remaining term of the underlying asset.

However, credit derivatives tend to have a shorter maturity than the underlying asset being protected. Furthermore, it is uncertain whether the credit derivative will be renewed once it matures. Thus, when determining whether to classify an underlying asset protected by a credit derivative, examiners need to consider the *term* of the credit derivative in relation to the maturity of the protected underlying asset, the probability that the protected underlying asset will default while the guarantee is in force, and whether the credit risk has actually been transferred. In general, the beneficiary banking organization continues to be exposed to the credit risk of the classified underlying asset when the maturity of the credit derivative is shorter than the underlying asset. Thus, in these situations of maturity mismatch, the examiner's presumption may be against a diminution of the severity of the underlying asset's classification.

For guarantor banking organizations, examiners should review the credit quality of individual reference assets in derivative contracts in the same manner as other credit instruments, such as standby letters of credit. Thus, examiners should evaluate a credit derivative in which a banking organization provides credit protection based on the overall financial condition and resources of the reference obligor; the obligor's credit history; and any secondary sources of repayment, such as collateral. As a rule, exposure from providing credit protection through a credit derivative should be classified if the reference asset is classified.[14]

2129.0.3.4 Transactions Involving Affiliates

Credit-derivative transactions can involve two or more legal entities (affiliates) within the same banking organization. Thus, transactions between or involving affiliates raise important supervisory issues, especially whether such arrangements are effective guarantees of affiliate obligations or transfers of assets and their related credit exposure between affiliates. Banking organizations should carefully consider existing supervisory guidance on interaffiliate

12. Loans that exhibit potential weaknesses are categorized as "substandard," while those with well-defined weaknesses and a distinct possibility of loss are either "doubtful" or "loss."

13. See section 5010.10 of this manual and section 2060.1 of the *Commercial Bank Examination Manual*.

14. A guarantor banking organization providing credit protection through the use of a credit derivative on a classified asset of a beneficiary bank may preclude classification of *its derivative contract* by laying off the risk exposure to another financially responsible guarantor. This could be accomplished through the use of a second offsetting credit-derivative transaction.

transactions before entering into credit-derivative arrangements involving affiliates, particularly when substantially the same objectives could be met using traditional guarantee instruments.

2129.0.4 INSPECTION OBJECTIVES

1. To determine if the banking organization is providing credit protection through a credit derivative.
2. To ascertain whether the banking organization has and maintains sound risk-management policies and procedures and effective internal controls over the use of credit derivatives.
3. To review and evaluate existing risk involving credit-derivative arrangements.
4. To ascertain whether adequate capital and reserves are held against exposures to reference assets, including whether risk-based capital computations have accounted for any additional risk resulting from derivative arrangements.

2129.0.5 INSPECTION PROCEDURES

1. Consider credit risk associated with reference assets as primary risks. Determine whether the credit-risk exposure is treated as if it was a letter of credit or other off-balance-sheet guarantee.
2. Review the organization's credit exposure to the guarantor, as well as to the reference asset. Determine if the asset is actually owned by the beneficiary.
3. Ascertain whether the amount of credit protection a beneficiary receives when entering into a credit derivative is sufficient to warrant treatment of the derivative as a guarantee for regulatory capital and other supervisory purposes.
4. Review credit-derivative transactions in which the reference asset is not identical to the asset actually owned by the beneficiary banking organization.
   a. Ascertain if the reference asset is an appropriate proxy for loans or other assets whose credit exposure the banking organization intends to offset.
   b. Consider whether the reference asset and owned asset have the same obligor and seniority in bankruptcy and whether both contain mutual cross-default provisions.
5. Determine whether management has the ability to understand and manage the credit and other risks associated with credit derivatives in a safe and sound manner. Consider management's expertise in evaluating the instruments; the adequacy of relevant policies, including position limits; and the quality of the banking organization's relevant management information systems and internal controls.
6. Evaluate the management of a banking organization's asset concentration to a particular borrower, which could include the use of nongovernmental guarantees on one or more of the borrower's loans. List the asset concentrations in the confidential "Administrative and Other Matters" page D of the inspection report.
7. Review the quality of loans and the overall financial condition of the borrower; the borrower's credit history; any secondary sources of repayment, such as financially responsible guarantors; and other factors.
8. When determining whether to classify an underlying asset protected by a credit derivative, compare the *term* of the credit derivative in relation to the maturity of the protected underlying asset, the probability that the protected underlying asset will default while the guarantee is in force, and whether the credit risk has actually been transferred.
9. For guarantor banking organizations, review the credit quality of individual reference assets in derivative contracts in the same manner as other credit instruments, such as standby letters of credit.
   a. Evaluate a credit derivative in which a banking organization provides credit protection based on the overall financial condition and resources of the reference obligor; the obligor's credit history; and any secondary sources of repayment, such as collateral.
   b. If the reference asset is classified, classify the exposure from providing credit protection through a credit derivative.

2129.05.05 RISK IDENTIFICATION AND RISK MANAGEMENT OF SECONDARY MARKET CREDIT ACTIVITIES

A firm engages secondary-market credit activities, such as loan syndications, loan sales and participations, credit derivatives, and asset securitizations. These activities can enhance both credit availability and a firm's profitability, but managing the risks of these activities poses increasing challenges. The risks involved, while not new to banking, may be less obvious and more complex than the risks of traditional lending activities. Concentrations in certain secondary-market credit activities involve credit, liquidity, operational, legal, and reputational risks that may not be fully recognized by management or adequately incorporated in a firm's risk-management systems. In reviewing these activities, examiners should assess whether a firm fully understands and adequately manages the full range of the risks involved in secondary-market credit activities.

Improvements in technology, greater standardization of lending products, and the use of credit enhancements have helped to increase dramatically the volume of loan syndications, loan sales, loan participations, asset securitizations, and credit guarantees undertaken by commercial banks, affiliates of holding companies, and some U.S. branches and agencies of foreign banks. In addition, credit derivatives permit firms to trade credit risk, manage it in isolation from other types of risk, and maintain credit relationships while transferring the associated credit risk. If appropriately managed, such relationships can improve the availability of credit to businesses and consumers, allow management to better tailor the mix of credit risk within loan and securities portfolios, and improve overall bank profitability.

This section identifies some of the important risks involved in several of the more common types of secondary-market credit activities. Guidance is provided on sound risk-management practices, along with special considerations that examiners should consider in assessing the risk-management systems for these activities. A firm's failure to adequately understand the risks inherent in secondary market credit activities and the failure to incorporate such risk within its risk-management systems and internal capital allocations may constitute an unsafe and unsound banking practice.

A firm should incorporate the full range of risks of their secondary-market credit activities into their overall risk-management systems. In particular, examiners should determine whether firms are recognizing the risks of secondary-market credit activities by

(1) adequately identifying, quantifying, and monitoring these risks;
(2) providing sufficient information on the extent and depth of these risks to senior management and the firm's board of directors;
(3) conducting ongoing stress testing to identify potential losses and liquidity needs under adverse circumstances; and
(4) setting adequate minimum internal standards for allowances or liabilities for losses, capital, and contingency funding.

Incorporating secondary-market credit activities into a firm's risk-management systems and internal capital adequacy allocations is particularly important.[1]

Certain credit and liquidity enhancements that a firm requires for its secondary-market credit activities can make the evaluation of risks less straightforward than evaluating the risks involved in traditional on-balance-sheet lending activities. These enhancements, or guarantees, generally include recourse provisions; securitization structures that entail credit-linked early amortization and collateral-replacement events; and direct-credit substitutes, such as letters of credit and subordinated interests that, in effect, provide credit support to secondary-market instruments and transactions.[2]

The transactions involving credit and liquidity enhancements tend to be complex and may expose a firm to additional obligations that may not become evident until a transaction has dete-

1. For a more general discussion of risk management, see SR-95-51, "Rating the Adequacy of Risk Management Processes and Internal Controls at State Member Banks and Bank Holding Companies" and SR-98-12, "Investment Securities and End-User Derivatives Activities."

2. Examiners should also refer to the Board's regulatory capital rules at 12 CFR part 217 (Regulation Q). In addition, firms have retained the risk of loss, that is, recourse, on sales and securitizations of assets when, in accordance with generally accepted accounting principles, they record on their balance sheets interest-only strips receivables or other assets that serve as credit enhancements. For more information, see the instructions to the Reports of Condition and Income and the FR-Y9 series reports.

riorated. In substance, such activities move the credit risk off the balance sheet by shifting risks associated with traditional on-balance-sheet assets into off-balance-sheet contingent liabilities. Given the potential complexity and, in some cases, the indirect nature of these enhancements, the actual credit-risk exposure can be difficult to assess, especially in the context of traditional credit-risk limit, measurement, and reporting systems.

Moreover, many secondary-market credit activities involve reputational, liquidity, operational, and legal risks that are not readily identifiable and may be difficult to control. For example, recourse provisions and certain asset-backed security structures can give rise to significant reputational- and liquidity-risk exposures, and ongoing management of underlying collateral in securitization transactions can expose a firm to unique operating and legal risks.

For a firm providing credit enhancements in connection with loan sales and securitizations, and a firm involved in credit derivatives and loan syndications, examiners should assess whether the firm's systems and processes adequately identify, measure, monitor, and control the risks involved in the secondary-market credit activities. In particular, the risk-management systems employed should include the identification, measurement, and monitoring of these risks, as well as an appropriate methodology for the internal allocation of capital and reserves. The stress testing conducted within the risk-measurement element of the management system should fully incorporate the risk exposures of these activities under various scenarios in order to identify their potential effect on a firm's liquidity, earnings, and capital adequacy. Moreover, senior management should have sufficient information to assess the risks associated with these activities, as well as whether contingency plans are adequate to deal with possible adverse conditions.

2129.05.1 CREDIT RISKS IN SECONDARY-MARKET CREDIT ACTIVITIES

A firm should be aware that the credit risk involved in many secondary-market credit activities may not always be obvious. For certain types of loan sales and securitization transactions, a firm may actually be exposed to essentially the same credit risk that arises from traditional lending activities, even though a particular transaction may, superficially, appear to have isolated the firm from credit risk. For instance, an off-balance-sheet transaction may not result in a commensurate reduction in credit risk. Such transactions include loan sales with recourse; credit derivatives; direct-credit substitutes, such as letters of credit; liquidity facilities extended to securitization programs; and certain asset-securitization structures (for example, securitized credit card receivables).

2129.05.1.1 Loan Syndications

A firm should periodically review syndication underwriting standards and pricing practices to verify that they remain consistent over time with (1) the degree of risk associated with the activity and (2) the potential for unexpected economic developments to adversely affect borrower creditworthiness.

A firm may be asked to make a commitment to participate in a loan syndication within a shorter period of time that may limit the time for the firm to conduct its risk assessment. Therefore, examiners will periodically review underwriting standards and consider whether a firm performs an independent credit analysis of the syndicated credit instead of placing undue reliance on the analysis of the lead underwriter or on commercial-loan credit ratings. A firm should avoid making an irrevocable commitment to participate in a syndication until the firm completes its own risk assessment.

2129.05.1.2 Credit Derivatives

Credit derivatives are generally off-balance-sheet financial instruments that are used by a firm to assume or mitigate the credit risk of loans and other assets.[3] A firm employs these instruments, either as end-users, purchasing credit protection from—or providing credit protection to—third parties, or as dealers intermediating such protection. In reviewing credit derivatives, supervisors should consider the credit risk associated with the referenced asset, as well as general market risk and the risk of the counterparty to the contract.

With respect to credit-derivative transactions in which a firm is mitigating the credit risk of its assets, examiners will review those situations in which the referenced assets are not identical to

3. Credit-linked notes are on-balance-sheet instruments.

the assets actually owned by the firm. Examiners should consider whether the referenced asset is an appropriate proxy for the risks posed by the underlying loan or other assets of the derivative transaction.

2129.05.1.3 Recourse Obligations, Direct-Credit Substitutes, and Liquidity Facilities

2129.05.1.3.1 Recourse Obligations

Partial, first-loss recourse obligations retained when selling assets, as well as the extension of partial credit enhancements (for example, 10 percent letters of credit), can be a source of concentration credit risk by exposing a firm to the full amount of expected losses on the protected assets. For instance, the credit risk associated with whole loans or a pool of loans that are sold to secondary-market investors can often be concentrated within the partial, first-loss recourse obligations retained by the firm selling and securitizing the assets. In these situations, even though a firm may have reduced its exposure to catastrophic loss on the assets sold, the firm generally retains the same credit-risk exposure as if the firm continued to hold the loans or assets on its balance sheet.

2129.05.1.3.2 Direct-Credit Substitutes

A firm should consider the level of credit concentration risk that arise from the extension of partial direct-credit substitutes, such as the purchase of subordinated interests and the extension of letters of credit. For example, a firm that sponsors certain asset-backed commercial paper programs, or so-called remote-origination conduits, can be exposed to a high degree of credit risk even though its notional exposure is minimal. In these situations, the sponsoring firm refers an existing corporate customer to the conduit, which becomes the new lender to that customer. The conduit funds this lending activity by issuing commercial paper that, in turn, is guaranteed by the sponsoring firm. The net result is that the sponsoring firm has much the same credit-risk exposure through its guarantee as it would have on a direct loan to that corporate borrower and held on-balance-sheet. However, this credit extension is an off-balance-sheet transaction, and the associated risks may not be fully addressed in the firm's risk-management system.

2129.05.1.3.3 Liquidity Facilities

A firm that extends liquidity facilities to securitized transactions, particularly asset-backed commercial paper programs, may be exposed to a high degree of credit risk that may be embedded within a facility's provisions. Liquidity facilities are commitments to extend short-term credit to cover temporary shortfalls in cash flow of an asset-backed commercial paper. While all commitments embody some degree of credit risk, certain commitments extended to asset-backed commercial paper programs to provide liquidity may subject a firm to the credit risk of the underlying asset pool, often trade receivables, or to the credit risk of a specific company using the program for funding. Often the stated purpose of such liquidity facilities is to provide funds to the program to retire maturing commercial paper when a mismatch occurs in the maturities of the underlying receivables and the commercial paper, or when a disruption occurs in the commercial paper market. However, depending on the provisions of the facility—such as whether the facility covers dilution of the underlying receivable pool—credit risk can be shifted from the program's explicit credit enhancements to the liquidity facility.[4] Such provisions may enable certain programs to fund riskier assets and yet maintain the credit rating on the program's commercial paper without increasing the program's credit-enhancement levels.

2129.05.1.4 Asset-Securitization Structures

The structure of various securitization transactions can result in a firm retaining the underlying credit risk for a pool of assets that the firm securitized. An example of this contingent credit-risk retention is credit card securitizations in which the securitizing organization explicitly sells the credit card receivables to a master trust but, in practice, retains the majority of the economic risk of loss associated with the assets—because of the credit protection provided to investors by the excess yield, spread accounts, and structural provisions of the securitization.

4. Dilution essentially occurs when the receivables in the underlying asset pool—before collection—are no longer viable financial obligations of the customer. For example, dilution can arise from returns of consumer goods or unsold merchandise by retailers to manufacturers or distributors.

Excess yield provides the first level of credit protection that can be drawn upon to cover cash shortfalls between the principal and coupon owed to investors and the investors' pro rata share of the master trust's net cash flows. The excess yield is equal to the difference between the overall yield on the underlying credit card portfolio and the master trust's operating expenses.[5] The second level of credit protection is provided by the spread account, which is essentially a reserve funded initially from the excess yield.

The structural provisions of credit card securitizations generally provide credit protection to investors through the triggering of early-amortization events. Such an event usually is triggered when the underlying pool of credit card receivables deteriorates beyond a certain point and requires that the outstanding credit card securities begin amortizing early to pay off investors before the prior credit enhancements are exhausted. As the early amortization accelerates the redemption of principal (paydown) on the security, the credit card accounts that were assigned to the master credit card trust return to the securitizing institution more quickly than had originally been anticipated, thus exposing the firm to liquidity pressures and to further credit losses on the returned accounts.

2129.05.2 REPUTATIONAL RISKS

A firm's secondary-market credit activities give rise to reputational risks. Loan-syndication underwriting may present significant reputational-risk exposure to lead underwriters because syndicate participants may seek to hold the lead underwriter responsible for actual or perceived inadequacies in the loan's underwriting practices, even though participants are responsible for conducting an independent due-diligence in evaluating the credit.

There is the possibility that pressure may be brought to bear on the lead participant to repurchase portions of the syndication if the credit deteriorates in order to protect its reputation in the market, even though the syndication was sold without recourse. In addition, when there is deterioration in the syndicated credit, a participant may pursue legal action against the lead organization. One way to mitigate reputational risk in a syndication is for a firm to determine whether a possible participant in the syndication is able to conduct its own evaluation of the credit risks involved in the transaction.

A firm that sponsors an asset-backed security may also be acting as the servicer, administrator, or liquidity provider in the securitization transaction. Therefore, a firm should assess the potential losses and risk exposure associated with reputational risk arising from these activities. An asset securitization with deterioration of performance may result in a negative market reaction that could increase the spreads on a firm's future issuances. In order to avoid potentially adverse implications on future issuances, a firm may provide support to its securitization transactions by improving the performance of the securitized asset pool. For example, a firm may sell discounted receivables or add higher-quality assets to the securitized asset pool. Thus, a firm's voluntary support of its securitization in order to protect the firm's reputation can adversely affect the sponsoring or issuing organization's earnings and capital. A firm may take these actions to avoid either a rating downgrade or an early amortization of the outstanding asset-backed securities.

2129.05.3 LIQUIDITY RISKS

The existence of recourse provisions in asset sales, the extension of liquidity facilities to securitization programs, and the early-amortization triggers of certain asset-securitization transactions can involve significant liquidity risk to institutions engaged in these secondary-market credit activities. A firm should consider whether its liquidity contingency plans fully incorporate the potential risk posed by its secondary-market credit activities. With the issuance of new asset-backed securities, the issuing firm should determine the potential effect on its liquidity at the inception of each transaction and throughout the life of the securities to better ascertain its future funding needs.

A firm's contingency plans should consider the need to obtain replacement funding and specify the possible alternative funding sources, addressing the amortization of outstanding asset-backed securities. This is particularly important for securitizations with revolving receivables, such as credit cards, when an early amortization of the asset-backed securities could

5. The monthly excess yield is the difference between the overall yield on the underlying credit card portfolio and the master trust's operating expenses. It is calculated by subtracting from the gross portfolio yield the (1) coupon paid to investors; (2) charge-offs for that month; and (3) servicing fee, usually 200 basis points paid to the firm sponsoring the securitization.

unexpectedly return the outstanding balances of the securitized accounts to the issuing firm's balance sheet. An early amortization of a firm's asset-backed securities could impede its ability to fund itself—either through reissuance or other borrowings—since the firm's reputation with investors and lenders may be adversely affected.

2129.05.4 INCORPORATING THE RISKS OF SECONDARY-MARKET CREDIT ACTIVITIES INTO RISK MANAGEMENT

Supervisors should verify that a firm incorporates the risks involved in its secondary-market credit activities in its overall risk-management system. The system should entail

(1) information on risk exposures for the firm's senior management;
(2) review, approval, and adoption of appropriate policies, procedures, and guidelines to manage the risks involved;
(3) appropriate processes to measure and monitor risks; and
(4) appropriate internal controls to verify the integrity of the management process with respect to these activities.

The formality and sophistication with which the risks of these activities are incorporated into a firm's risk-management system should be commensurate with the nature and volume of its secondary-market credit activities. A firm with significant secondary-market activity should have a more robust risk-management process to monitor and control the risks of this activity.

2129.05.4.1 Role of the Board of Directors

The board of directors should consider the capacity of the firm's risk management framework when overseeing aspects of the firm's strategy arising from the firm's secondary-market credit activities. The board should also review any corresponding risk management or controls enhancements that are necessary to align with the risk appetite. The board should review and approve all significant policies relating to the management of risk arising from secondary-market credit activities based on the firm's strategy, risk appetite, risk-management capacity, and structure.

A firm involved in securitization activities should have appropriate policies, procedures, and controls with respect to underwriting asset-backed securities; funding the possible return of revolving receivables (for example, credit card receivables and home equity lines); and establishing limits on exposures to individual institutions, types of collateral, and geographic and industrial concentrations. A lead firm in a loan syndication should have policies and procedures in place describing the instances when portions of syndications may be repurchased. Furthermore, a firm participating in a loan syndication should not place undue reliance on the credit analysis performed by the lead organization. Rather, the participant should have clearly defined policies and procedures addressing its own due diligence in analyzing the risks inherent in the transaction.

2129.05.4.2 Role of Senior Management

Senior management is responsible for understanding the credit, market, liquidity, operational, legal, and reputational risks arising from the firm's secondary-market credit activities. Senior management is also responsible for implementing a risk-management structure that is commensurate with the level of the organization's activities. Senior management should confirm that the risk exposures are fully incorporated into information provided to the firm's board of directors. Senior management is responsible for ensuring that the risks arising from secondary-market credit activities are adequately managed on both a short-term and long-term basis. Senior management should establish adequate policies and procedures for incorporating the risk of these activities into the overall risk-management process of the institution. Such policies should clarify that the economic substance of the risk exposures generated by these activities is identified, monitored, and controlled. Senior management should provide the institution's board of directors with sufficient, timely, and well-organized information about secondary-market activities so that the board can understand the risks posed by secondary-market credit activities.

2129.05.4.3 Management Information and Risk-Measurement Systems

A firm's management information and risk-measurement systems should fully incorporate

the risks involved in its secondary-market credit activities. A firm should be able to identify credit exposures from all secondary-market credit activities and be able to measure, quantify, and control those exposures on a fully consolidated basis. The economic substance of the credit exposures of secondary-market credit activities should be fully incorporated into the firm's efforts to quantify its credit risk, including efforts to establish more formal grading of credits to allow for statistical estimation of loss-probability distributions. Secondary-market credit activities should also be included in any aggregations of credit risk by borrower, industry, or economic sector.

It is particularly important that a firm's information systems can identify and segregate those credit exposures arising from the firm's loan-sale and securitization activities. Such exposures include the sold portions of participations and syndications, exposures arising from the extension of credit-enhancement and liquidity facilities, the effects of an early-amortization event, and the investment in asset-backed securities. The information that senior management provides to the board of directors should be appropriately tailored in order to enable the board to make sound, well-informed decisions, and consider potential risk.

2129.05.4.4 System of Internal Controls

The board oversees and holds senior management accountable for establishing and maintaining an effective system of internal controls that, among other things, enforces the official lines of authority and the appropriate separation of duties in managing the firm's risks. These internal controls should be commensurate with the firm's activities and associated risks. Moreover, these internal controls should provide reasonable assurance of reliable financial reporting (in published financial reports and regulatory reports), including adequate allowances or liabilities for expected losses.

2129.05.5 STRESS TESTING

The use of stress testing, including consideration of multiple market events that could affect a firm's credit exposures and securitization activities, is another important element of risk management. Stress testing involves identifying possible events or changes in market behavior that could have unfavorable effects on the firm and assessing its ability to withstand them. Stress testing should consider the probability of adverse events, as well as likely worst-case scenarios. Such an analysis should be done on a consolidated basis and consider, for instance, the effect of higher-than-expected levels of delinquencies and defaults, as well as the consequences of early-amortization events with respect to credit card securities that could raise concerns regarding the firm's capital adequacy and its liquidity and funding capabilities. Stress-test analyses should also include contingency plans regarding the actions management might take, given certain situations.

2129.05.6 CAPITAL ADEQUACY

A firm should fully support the risk exposures of its secondary-market credit activities with adequate capital. A firm should validate that its capital position is sufficiently strong to support the risks associated with these activities on a fully consolidated basis and should maintain adequate capital in affiliated entities engaged in these activities. The Federal Reserve's Regulation Q (12 CFR part 217) establishes minimum capital ratios, and a firm exposed to high or above-average degrees of risk is therefore expected to operate above the minimum capital standards.

Examiners should review the substance of secondary-market transactions when assessing underlying risk exposures. For example, partial, first-loss direct-credit substitutes providing credit protection to a securitization transaction can, in substance, involve much the same credit risk as that involved in holding the entire asset pool on the firm's balance sheet. Examiners should assess whether banking organizations have appropriately allocated capital against the economic substance of credit exposures arising from early-amortization events and liquidity facilities associated with securitized transactions.[6]

If, in the examiner's judgment, a firm's capital level is not sufficient to absorb potential losses from such credit exposures, examiners should reflect this deficiency in the firm's report of examination and supervisory ratings, as appropriate. Furthermore, examiners should discuss the capital deficiency with the firm's management and, if necessary, its board of directors.

6. For further information, refer to the Board's regulatory capital rule at 12 CFR part 217 (Regulation Q).

In these situations, a firm will be expected to develop and implement a plan for strengthening its overall capital adequacy to levels deemed appropriate given the firm's risk exposure.

2129.05.7 INSPECTION OBJECTIVES

1. To determine whether a firm's risk-management systems accurately identify the risk exposures stemming from secondary-market activities.
2. To determine whether there has been a lowering of credit standards as a result of the firm's secondary-market credit activities.
3. To determine whether the firm's management system performs stress testing to evaluate the risk exposures of secondary-market credit activities under various scenarios and to evaluate the potential effect of the activities on the firm's liquidity, earnings, and capital adequacy.
4. To assess the effectiveness of any liquidity contingency plans as the plans relate to secondary-market credit activities, including the need to obtain replacement funding.
5. To determine whether the board of directors is fully informed of the risks involved in secondary-market activities and whether it approves policies, to mitigate credit, liquidity, operational, legal, reputational, and other risks.
6. To determine whether the firm's capital planning and positions support the risks associated with secondary-market credit activities.
7. To ascertain whether there is an effective system of internal controls to monitor and contain the risks associated with secondary-market activities.

2129.05.8 INSPECTION PROCEDURES

1. Determine whether the firm's senior management
   a. adequately identifies, quantifies, and monitors risks involved in secondary-market credit activities;
   b. clearly communicates the extent and depth of those risks in discussions, presentations, and inspection reports that are delivered to the board of directors and senior officials of the institution;
   c. presents to the board of directors, for its approval, all significant policies relating to the risk management of secondary-market activities;
   d. conducts periodic stress testing to identify potential losses and liquidity needs under adverse and worst-case scenarios; and
   e. has set adequate minimum internal standards for allowances or liabilities for losses, capital, and contingency funding.
2. Assess whether the firm's risk-management systems and processes adequately identify, measure, monitor, and control all of the risks involved in the firm's secondary-market credit activities.
3. Determine whether the various risks associated with secondary-market activities are incorporated into contingency plans, including replacement funding plans and identified alternative funding sources, to lessen the impact of those risks.
4. Assess the appropriateness of loan-syndication contract agreements, underwriting documentation, and relevant correspondence with loan-syndication contractual parties to establish whether
   a. the firm's management has performed adequate credit investigations and evaluations of the syndicate loans, the syndicate participants, and the extent of the firm's credit-risk exposures;
   b. the syndication customers are in a position to evaluate the credit risks involved in the transaction; and
   c. undue reliance is placed on the lead underwriter, the participants, or on commercial-loan credit ratings of the participants.
5. For credit derivatives—
   a. analyze the credit risk associated with the reference asset, the general market risk, and the counterparty risk; and
   b. determine, for those reference assets that are not identical assets actually owned, whether the reference asset is an appropriate proxy for the loan or other assets whose credit exposure is to be offset.
6. Review the substance of secondary-market transactions, when evaluating and analyzing underlying risk exposures.
7. Assess the appropriateness of the firm's methods for internally allocating capital against the economic substance of credit exposures that arise from amortization events and liquidity facilities associated with securitized transactions.

8. Incorporate the evaluation of potential risks and losses from credit exposures, including management deficiencies, into the report of examination and the firm's supervisory ratings, as appropriate.