Deposits are funds that customers place with a bank and that the bank is obligated to repay on demand, after a specific period of time or after expiration of some required notice period. Deposits are the primary funding source for most banks and, as a result, have a significant effect on a bank's liquidity. Banks use deposits in a variety of ways, primarily to fund loans and investments. Management should establish a procedure for determining the volatility and composition of the deposit structure to ensure that funds are employed profitably, while allowing for their potential withdrawal. Therefore, a bank's management should implement programs to retain and prudently expand the bank's deposit base.

Bankers place great significance on the deposit structure because favorable operating results depend, in part, on a core deposit base. Because of competition for funds, the need for most individuals and corporations to minimize idle funds, and the effect of disintermediation (the movement of deposits to other higher-yielding markets) on a bank's deposit base, bank management should adopt and implement a development and retention program for all types of deposits.

DEPOSIT DEVELOPMENT AND RETENTION PROGRAM

Important elements of the examination process are the review of a bank's deposit development and retention program and the methods used to determine the volatility and composition of the deposit structure. A bank's deposit development and retention program should include—

- a marketing strategy,
- projections of deposit structure and associated costs, and
- a formula for comparing results against projections.

To structure a deposit program properly, bank management must consider many factors, some of which include—

- the composition of the market-area economic base,
- the ability to employ deposits profitably,
- the adequacy of current operations (staffing and systems) and the location and size of banking quarters relative to the bank's volume of business,
- the degree of competition from banks and nonbank financial institutions and their programs to attract deposit customers, and
- the effects of the national economy and the monetary and fiscal policies of the federal government on the bank's service area.

The bank's size and the composition of its market determine how formal its deposit program should be. After a bank develops its deposit program, management must continue to monitor the above factors and correlate any findings to determine if adjustments are needed. The long-term success of any deposit program relates directly to the ability of management to make adjustments at the earliest possible time.

DEPOSIT STRUCTURE

Management should look not only at deposit growth but also at the nature of the deposit structure. To invest deposited funds properly in view of anticipated or potential withdrawals, management must be able to determine what percentage of the overall deposit structure is centered in core deposits, in fluctuating or seasonal deposits, and in volatile deposits. It is important that internal reports with information concerning the composition of the deposit structure be provided to management periodically. Management's lack of such knowledge could lead to an asset-liability mismatch, causing problems at a later date.

In analyzing the deposit structure, information gathered by the various examination procedures should be sufficient to allow the examiner to evaluate the composition of both volatile and core deposits. Ultimately, the examiner should be satisfied with management's efforts to plan for the bank's future.

Examiners must analyze the present and potential effect deposit accounts have on the financial condition of the bank, particularly with regard to the quality and scope of management's planning. The examiner's efforts should be directed to the various types of deposit accounts that the bank uses for its funding base. The

examiners assigned to the areas of funds management and to the analytical review of the bank's income and expenses should be informed of any significant change in interest-bearing deposit-account activity.

COST OF FUNDS

Interest paid on deposits is generally the largest expense to a bank. As a result, interest-bearing deposit accounts employed in a marginally profitable manner could have significant and lasting effects on bank earnings. The examiner should consider the following in evaluating the effect of interest-bearing deposit accounts on a bank's earnings:

- an estimated change in interest expense resulting from a change in interest rates on deposit accounts or a shift in funds from one type of account to another
- service-charge income
- projected operating costs
- changes in required reserves
- promotional and advertising costs
- the quality of management's planning

SPECIAL DEPOSIT-RELATED ISSUES

The examiner should keep the following issues in mind during an examination to ensure the bank is in compliance, where applicable.

Abandoned-Property Law

State abandoned-property laws generally are called escheat laws. Although escheat laws vary from state to state, they normally require a bank to remit the proceeds of any deposit account to the state treasurer when—

- the deposit account has been dormant for a certain number of years and
- the owner of the account cannot be located.

Service charges on dormant accounts should bear a direct relationship to the cost of servicing the accounts, which ensures that the charges are not excessive. A bank's board of directors (or a committee appointed by the board) should review the basis on which service charges on dormant accounts are assessed and should document the review. There have been occasions when excessive servicing charges have resulted in no proceeds being remitted at the time the account became subject to escheat requirements. In these cases, courts have required banks to reimburse the state. (See also the "Dormant Accounts" discussion later in this section.)

Bank Secrecy Act

Examiners should be aware of the Bank Secrecy Act when examining the deposit area and should follow up on any unusual activities or arrangements noted. The act was implemented by the Treasury Department's Financial Recordkeeping and Reporting of Currency and Foreign Transactions Regulation. For further information, see the *FFIEC Bank Secrecy Act Examination Manual,* section 208.63 of the Federal Reserve's Regulation H, and the Financial Crimes Enforcement Network (FinCEN)'s Bank Secrecy Act regulations at 31 CFR Chapter X. Prior to March 1, 2011, FINCEN's regulation was at 31 CFR 103. (See SR-11-4 and its interagency attachment.)

Banking Hours and Processing of Demand Deposits

The Board's Regulation CC (12 CFR 229), "Availability of Funds and Collection of Checks," and the Uniform Commercial Code (UCC) govern banking-day cutoff hours and the processing of deposits. A "banking day" is that part of a day on which an office of the bank is open to the public for carrying out substantially all of its banking functions. Saturdays, Sundays, and certain specified holidays are not banking days under Regulation CC, although such days might be banking days under the UCC if a bank is open for substantially all of its functions on those days.

Regulation CC requires a bank to make deposited funds available for withdrawal within a certain period after the banking day on which they are received. Cash deposits, wire transfers, and certain check deposits that pose little risk to the depositary bank (such as Treasury checks and cashier's checks) generally are to be made available for withdrawal by the business day

after the day of deposit. The time when the depositary bank must make other check deposits available for withdrawal depends on whether the check is local or nonlocal to the depositary bank. As of September 1, 1990, proceeds of local and nonlocal checks must be available for withdrawal by the second and fifth business day following deposit, respectively. However, Regulation CC allows a bank to set, within certain limits, cutoff hours, after which the bank will deem funds to be received on the next banking day for purposes of calculating the availability date (12 CFR 229.19). Different cutoff-hour limits apply to different types of deposits.

For the purpose of allowing banks to process checks, the UCC provides that a bank may set a cutoff hour of 2 p.m. or later and that items received after that time will be considered received as of the next banking day (UCC section 4-108). Under both the UCC and Regulation CC, both the banking day on which a bank is deemed to have received a check and the cutoff hour affect the time frames within which a bank must send the check through the forward-collection and return processes.

A bank that fails to set its cutoff hour appropriately, does not make funds available within the appropriate time frames, or processes checks in an untimely manner may be subject to civil liability for not performing its duties in accordance with various provisions of Regulation CC and the UCC.

Banking Accounts for Foreign Governments, Embassies, Missions, and Political Figures

On June 15, 2004, an interagency advisory concerning the embassy banking business and related banking matters was issued by the federal banking and thrift agencies (the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, the Office of Thrift Supervision, and the National Credit Union Administration (the agencies)). The advisory was issued in coordination with the U.S. Department of the Treasury's Financial Crimes Enforcement Network. The purpose of the advisory is to provide general guidance to banking organizations regarding the treatment of accounts for foreign governments, foreign embassies, and foreign political figures.

The joint interagency statement advises banking organizations that the decision to accept or reject an embassy or foreign government account is theirs alone to make. The statement advises that financial institutions should be aware that there are varying degrees of risk associated with such accounts, depending on the customer and the nature of the services provided. Institutions should take appropriate steps to manage such risks consistent with sound practices and applicable anti-money-laundering laws and regulations. The advisory also encourages banking organizations to direct questions about embassy banking to their primary federal bank regulators. (See SR-04-10.)

On March 24, 2011, an interagency advisory was issued to supplement SR-04-10, "Banking Accounts for Foreign Governments, Embassies, and Political Figures." The supplemental advisory provides information to financial institutions regarding the provision of account services to foreign embassies, consulates and to foreign missions in a manner that fulfills the needs of those foreign governments while complying with the provisions of the Bank Secrecy Act (BSA). It advises that financial institutions are expected to demonstrate the capacity to conduct appropriate risk assessments and implement the requisite controls and oversight systems to effectively manage the risk identified in these relationships with foreign missions. The advisory also confirms that it is the financial institution's decision to accept or reject a foreign mission account. (See SR-11-6 and the attached supplemental interagency advisory.)

Interagency Advisory on Accessing Accounts from Foreign Governments, Embassies, and Foreign Political Figures

The 2004 interagency advisory answers questions on whether financial institutions should conduct business with foreign embassies and whether institutions should establish account services for foreign governments, foreign embassies, and foreign political figures. As it would with any new account, an institution should evaluate whether or not to accept a new account for a foreign government, embassy, or political figure. That decision should be made by the institution's management, under standards and guidelines established by the board of directors, and should be based on the institution's own business objectives, its assessment of the risks

associated with particular accounts or lines of business, and its capacity to manage those risks. The agencies will not, in the absence of extraordinary circumstances, direct or encourage any institution to open, close, or refuse a particular account or relationship.

Providing financial services to foreign governments and embassies and to foreign political figures can, depending on the nature of the customer and the services provided, involve varying degrees of risk. Such services can range from account relationships that enable an embassy to handle the payment of operational expenses, for example, payroll, rent, and utilities, to ancillary services or accounts provided to embassy staff or foreign government officials. Each of these relationships potentially poses different levels of risk. Institutions are expected to assess the risks involved in any such relationships and to take steps to ensure both that such risks are appropriately managed and that the institution can do so in full compliance with its obligations under the BSA, as amended by the USA Patriot Act, and the regulations promulgated thereunder.

When an institution elects to establish financial relationships with foreign governments, embassies, or foreign political figures, the agencies, consistent with their usual practice of risk-based supervision, will make their own assessment of the risks involved in such business. As is the case with all accounts, the institution should expect appropriate scrutiny by examiners that is commensurate with the level of risk presented by the account relationship. As in any case where higher risks are presented, the institution should expect an increased level of review by examiners to ensure that the institution has in place controls and compliance oversight systems that are adequate to monitor and manage such risks, as well as personnel trained in the management of such risks and in the requirements of applicable laws and regulations.

Institutions that have or are considering taking on relationships with foreign governments, embassies, or political figures should ensure that such customers are aware of the requirements of U.S. laws and regulations to which the institution is subject. Institutions should, to the maximum extent feasible, seek to structure such relationships in order to conform them to conventional U.S. domestic banking relationships so as to reduce the risks that might be presented by such relationships.

Foreign-Currency Deposits

Domestic depository institutions are permitted to accept deposits denominated in foreign currency. Institutions should notify customers that such deposits are subject to foreign-exchange risk. The bank should convert such accounts to the U.S. dollar equivalent for purposes of reporting to the Federal Reserve. Examination staff should ascertain that all reports are in order and should evaluate the bank's use of such funds and its management of the accompanying foreign-exchange risk. Accounts denominated in foreign currency are not subject to the requirements of Regulation CC. (See SR-90-03 (IB), "Foreign (Non–U.S.) Currency Denominated Deposits Offered at Domestic Depository Institutions.")

International Banking Facilities

An international banking facility (IBF) is a set of asset and liability accounts segregated on the books of a depository institution. IBF activities are essentially limited to accepting deposits from and extending credit to foreign residents (including banks), other IBFs, and the institutions establishing the IBF. IBFs are not required to maintain reserves against their time deposits or loans. The examiner should follow the special examination procedures in the international section of this manual when examining an IBF.

Deposits Insured by the Federal Deposit Insurance Corporation

The Federal Deposit Insurance Corporation (FDIC) is an independent agency of the U.S. government. The FDIC protects depositors against the loss of their insured deposits due to the failure of an insured bank, savings bank, savings association, insured branch of a foreign bank, or other depository institution whose deposits are insured pursuant to the Federal Deposit Insurance Corporation Act. If a depositor's accounts at one FDIC-insured depository institution total up to $250,000 (or the standard maximum deposit insurance amount [SMDIA]), the funds are fully insured and protected. A depositor can have more than the SMDIA at one insured depository institution and still be fully insured provided the accounts meet certain requirements. In addition, federal law currently

provides for insurance coverage of up to $250,000 or the SMDIA.

The FDIC insurance covers all types of deposits received at an insured depository institution, including deposits in checking, negotiable order of withdrawal (NOW), and savings accounts; money market deposit accounts; and time deposits such as certificates of deposit (CDs). FDIC deposit insurance covers the balance of each depositor's account, dollar-for-dollar, up to the SMDIA, including the principal and any accrued interest through the date of an insured depository institution's closing.

Deposits in separate branches of an insured depository institution are not separately insured. Deposits in one insured institution are insured separately from deposits in another insured institution. Deposits maintained in different categories of legal ownership at the same depository institution can be separately insured. Therefore, it is possible to have deposits of more than the SMDIA at one insured institution and still be fully insured.

Deposit Insurance Reform Acts

On March 14, 2006, the FDIC amended its deposit insurance regulations (effective April 1, 2006) by issuing an interim rule with a request for public comment on or before May 22, 2006. (See 71 *Fed. Reg.* 14631, 71 *Fed. Reg.* 53550 (Sept. 12, 2006) and 12 CFR Part 330.) The interim rule implemented applicable revisions to the Federal Deposit Insurance Act made by the Federal Deposit Insurance Reform Act of 2005 (Reform Act) and the Federal Deposit Insurance Reform Conforming Amendments Act of 2005 (the Conforming Amendments Act). The Reform Act provided for consideration of inflation adjustments (cost-of-living adjustment) to increase the current SMDIA on a five-year cycle beginning on April 1, 2010.

Second, the Reform Act increased the deposit insurance limit for accounts up to $250,000, also subject to inflation adjustments. The types of accounts included are individual retirement accounts (IRAs),[1] eligible deferred compensation plan accounts,[2] and individual account plan accounts,[3] and any plan described in section 401(d) of the IRC, to the extent that participants and beneficiaries under such plans have a right to direct the investment of assets held in individual accounts maintained on their behalf by the plans.

Third, the Reform Act provided per-participant insurance coverage to employee benefit plan accounts, even if the depository institution at which the deposits are placed is not authorized to accept employee benefit plan deposits. The cost-of-living adjustment is to be calculated according to the Personal Consumption Expenditures Chain-type Price Index published by the U.S. Department of Commerce and rounded down to the nearest $10,000.

The Conforming Amendments Act created the term *government depositor* in connection with public funds described in and insured pursuant to section 11(a)(2) of the Federal Deposit Insurance Act (FDIA). (See 12 USC 1821(a)(2).) The Conforming Amendments Act provides that the deposits of a government depositor are insured in an amount up to the SMDIA, subject to the inflation adjustment described previously.

Deposit Insurance Rule Amendments

Retirement and Employee Benefit Plan Accounts

When deposits from a retirement or employee benefit plan (EBP)—such as a 401(k) retirement account, Keogh plan account, corporate pension plan, or profit-sharing program—are entitled to pass-through insurance, the SMDIA on FDIC insurance does not apply to the entire EBP account balance. Rather, the FDIC insurance coverage "passes through" to each owner or beneficiary, and the deposited funds of each individual EBP participant are insured up to the SMDIA.

The Reform Act and the Conforming Amendments Act, and the FDIC's March 23, 2006, interim rule eliminated the previous requirement that pass-through coverage for employee benefit plan accounts be dependent on the capital level of a depository institution where such deposits are placed. Pass-through coverage for employee benefit plan deposits was not available if the

1. IRAs described in section 408(a) of the Internal Revenue Code (IRC). (See 26 USC 408(a).)

2. Eligible deferred compensation plan accounts described in section 457 of the IRC. (See 26 USC 457.)

3. Individual account plan accounts such as those defined in section 3(34) of the Employee Retirement Income Security Act.

deposits were placed with an institution that was not permitted to accept brokered deposits because of the capital requirements. Insured institutions that are not "well capitalized" or "adequately capitalized" are now prohibited by the Reform Act from accepting employee benefit plan deposits. Under the Reform Act, employee benefit plan deposits accepted by an insured depository institution, even those prohibited from accepting such deposits, are nonetheless eligible for pass-through deposit insurance coverage. The rule's amendment (see 12 CFR 330.14) applies to all employee benefit plan deposits, including employee benefit plan deposits placed before April 1, 2006. The rule's other requirements in section 330.14 continue to apply. In particular, only the "noncontingent" interests of plan participants in an applicable plan are eligible for pass-through coverage. A "noncontingent interest" is an interest that can be determined without the evaluation of contingencies other than life expectancy. The maximum coverage for accounts is up to $250,000 or the SMDIA. These accounts continue to be made up of individual retirement accounts (the traditional IRAs and the Roth IRAs); section 457 deferred compensation plan accounts, "self-directed" Keogh plan accounts (or HR 10 accounts); and "self-directed" defined contribution plan accounts, which are primarily 40l(k) plan accounts. The term *self-directed* means that the plan participants have the right to direct how their funds are invested, including the ability to direct that the funds be invested at an FDIC-insured institution.

Reserve Requirements

The Monetary Control Act of 1980 and the Federal Reserve's Regulation D, "Reserve Requirements of Depository Institutions," establish two categories of deposits for reserve-requirement purposes. The first category is the transaction account, which represents a deposit or account from which the depositor or account holder is permitted to make orders of withdrawals by negotiable instrument, payment orders of withdrawal, telephone transfer, or similar devices for making payments to a third party or others. Transaction accounts include demand deposits, NOW accounts, automatic transfer (ATS) accounts, and telephone or preauthorized transfer accounts. The second category is the non-transaction deposit account, which includes all deposits that are not transaction accounts, such as (1) savings deposits, that is, money market deposit accounts and other savings deposits, and (2) time deposits, that is, time certificates of deposit and time deposits, open account. See Regulation D for specific definitions of the various deposit accounts.

Treasury Tax and Loan Accounts

Member banks may select either the "remittance-option" or the "note-option" method to forward deposited funds to the U.S. Treasury. With the remittance option, the bank remits the Treasury Tax and Loan (TT&L) account deposits to the Federal Reserve Bank the next business day after deposit. The remittance portion is not interest-bearing.

The note option permits the bank to retain the TT&L deposits. With the note option, the bank debits the TT&L remittance account for the amount of the previous day's deposit and simultaneously credits the note-option account. Thus, TT&L funds are now purchased funds evidenced by an interest-bearing, variable-rate, open-ended, secured note callable on demand by Treasury. Rates paid are ¼ of 1 percent less than the average weekly rate on federal funds. Interest is calculated on the weekly average daily closing balance in the TT&L note-option account. Although there is no required maximum note-option ceiling, banks may establish a maximum balance by providing written notice to the Federal Reserve Bank. As per 31 CFR 203.24, the TT&L balance requires the bank to pledge collateral to secure these accounts, usually from its investment portfolio. The note option is not included in reserve-requirement computations and is not subject to deposit insurance because it is classified as a demand note issued to the U.S. Treasury, a type of borrowing.

POTENTIAL PROBLEM AREAS

The following types of deposit accounts and related activities have above-average risk and, therefore, require the examiner's special attention.

Bank-Controlled Deposit Accounts

Bank-controlled deposit accounts, such as suspense, official checks, cash-collateral, dealer reserves, and undisbursed loan proceeds, are used to perform many necessary banking functions. However, the absence of sound administrative policies and adequate internal controls can cause significant loss to the bank. To ensure that such accounts are properly administered and controlled, the directorate must ensure that operating policies and procedures are in effect that establish acceptable purpose and use; appropriate entries; controls over posting entries; and the length of time an item may remain unrecorded, unposted, or outstanding. Internal controls that limit employee access to bank-controlled accounts, determine the responsibility for frequency of reconcilement, discourage improper posting of items, and provide for periodic internal supervisory review of account activity are essential to efficient deposit administration.

The deposit suspense account is used to process unidentified, unposted, or rejected items. Characteristically, items posted to such accounts clear in one business day. The length of time an item remains in control accounts often reflects on the bank's operational efficiency. This deposit type has a higher risk potential because the transactions are incomplete and require manual processing to be completed. As a result of the need for human interaction and the exception nature of these transactions, the possibility of misappropriation exists.

Official checks, a type of demand deposit, include bank checks, cashier's checks, expense checks, interest checks, dividend-payment checks, certified checks, money orders, and traveler's checks. Official checks reflect the bank's promise to pay a specified sum upon presentation of the bank's check. Because accounts are controlled and reconciled by bank personnel, it is important that appropriate internal controls are in place to ensure that account reconcilement is segregated from check origination. Operational inefficiencies, such as unrecorded checks that have been issued, can result in a significant understatement of the bank's liabilities. Misuse of official checks may result in substantial losses through theft.

Cash-collateral, dealer differential or reserve, undisbursed loan proceeds, and various loan escrow accounts are also sources of potential loss. The risk lies in inefficiency or misuse if the accounts become overdrawn or if funds are diverted for other purposes, such as the payment of principal or interest on bank loans. Funds deposited to these accounts should be used only for their stated purposes.

Brokered Deposits

As defined in Federal Deposit Insurance Corporation (FDIC) regulations, brokered deposits are funds a depository institution obtains, directly or indirectly, from or through the mediation or assistance of a deposit broker, for deposit into one or more deposit accounts (12 CFR 337.6). Thus, brokered deposits include both those in which the entire beneficial interest in a given bank deposit account or instrument is held by a single depositor and those in which the deposit broker pools funds from more than one investor for deposit in a given bank deposit account.

Section 29 of the Federal Deposit Insurance Act (the FDI Act) (12 USC 1831f(g)(1)) and the FDIC's regulations (12 CFR 337.6 (a)(5)) define *deposit broker* to mean—

- any person engaged in the business of placing deposits, or facilitating the placement of deposits, of third parties with insured depository institutions or the business of placing deposits with insured depository institutions for the purpose of selling interests in those deposits to third parties; and
- an agent or a trustee who establishes a deposit account to facilitate a business arrangement with an insured depository institution to use the proceeds of the account to fund a prearranged loan.

The term *deposit broker* does not include —

- an insured depository institution, with respect to funds placed with that depository institution;
- an employee of an insured depository institution, with respect to funds placed with the employing depository institution;
- a trust department of an insured depository institution, if the trust or other fiduciary relationship in question has not been established for the primary purpose of placing funds with insured depository institutions;
- the trustee of a pension or other employee benefit plan, with respect to funds of the plan;

- a person acting as a plan administrator or an investment adviser in connection with a pension plan or other employee benefit plan provided that person is performing managerial functions with respect to the plan;
- the trustee of a testamentary account;
- the trustee of an irrevocable trust,[4] as long as the trust in question has not been established for the primary purpose of placing funds with insured depository institutions;
- a trustee or custodian of a pension or profit-sharing plan qualified under section 401(d) or 403(a) of the Internal Revenue Code of 1986 (26 USC 401(d), 503(a)); or
- an agent or a nominee whose primary purpose is not the placement of funds with depository institutions; or
- an insured depository institution acting as an intermediary or agent of a U.S. government department or agency for a government-sponsored minority or women-owned depository institution deposit program.

A small- or medium-sized bank's dependence on the deposits of customers who reside or conduct their business outside of the bank's normal service area should be closely monitored by the bank and analyzed by the examiner. Such deposits may be the product of personal relationships or good customer service; however, large out-of-area deposits are sometimes attracted by liberal credit accommodations or significantly higher interest rates than competitors offer. Deposit growth that is due to liberal credit accommodations generally proves costly in terms of the credit risks taken relative to the benefits received from corresponding deposits, which may be less stable. Banks outside dynamic metropolitan areas are limited in growth because they usually can maintain stable deposit growth only as a result of prudent reinvestment in the bank's service area. Deposit development and retention policies should recognize the limits imposed by prudent competition and the bank's service area.

Historically, most banking organizations have not relied on funds obtained through deposit brokers to supplement their traditional funding sources. A concern regarding the activities of deposit brokers is that the ready availability of large amounts of funds through the issuance of insured obligations undercuts market discipline.

The use of brokered deposits by sound, well-managed banks can play a legitimate role in the asset-liability management of a bank and enhance the efficiency of financial markets. However, the use of brokered deposits also can contribute to the weakening of a bank by allowing it to grow at an unmanageable or imprudent pace and can exacerbate the condition of a troubled bank. Consequently, without proper monitoring and management, brokered and other highly rate-sensitive deposits, such as those obtained through the Internet, certificate of deposit (CD) listing services, and similar advertising programs, may be unstable sources of funding for an institution.

Deposits attracted over the Internet, through CD listing services, or through special advertising programs offering premium rates to customers without another banking relationship, require special monitoring. Although these deposits may not fall within the technical definition of ''brokered'' in 12 USC 1831f and 12 CFR 337.6, their inherent risk characteristics are similar to brokered deposits. That is, such deposits are typically attractive to rate-sensitive customers who may not have significant loyalty to the bank. Extensive reliance on funding products of this type, especially those obtained from outside a bank's geographic market area, has the potential to weaken a bank's funding position.

Some banks have used brokered and Internet-based funding to support rapid growth in loans and other assets. In accordance with the safety-and-soundness standards, a bank's asset growth should be prudent and its management must consider the source, volatility, and use of the funds generated to support asset growth. (See 12 CFR 208 appendix D-1.)

To compensate for the high rates typically offered for brokered deposits, institutions holding them tend to seek assets that carry commensurately high yields. These assets can often involve excessive credit risk or cause the bank to take on undue interest-rate risk through a mismatch in the maturity of assets and liabilities. The FDI Act (12 USC 1831f) includes certain restrictions on the use of brokered deposits to prohibit undercapitalized insured depository institutions from accepting funds obtained, directly or indirectly, by or through any deposit broker for deposit into one or more deposit accounts.

4. This exception does not apply to an agent or a trustee who establishes a deposit account to facilitate a business arrangement with an insured depository institution to use the proceeds of the account to fund a prearranged loan.

Capital Categories

For the purposes of section 29 of the FDI Act, the regulations of the FDIC and the Federal Reserve (for the FDIC, 12 CFR 325.103 and for the Federal Reserve, 12 CFR 208.43) provide the definitions of well-capitalized, adequately capitalized, and undercapitalized financial institutions (banks). These definitions are tied to percentages of leverage and risk-based capital. Section 29 of the FDI Act limits the rates of interest on brokered deposits that may be offered by insured depository institutions that are adequately capitalized or undercapitalized.

Well-capitalized bank. A bank is deemed to be *well capitalized* if it—

- has a total risk-based capital ratio of 10.0 percent or greater;
- has a tier 1 risk-based capital ratio of 6.0 percent or greater;
- has a leverage ratio of 5.0 percent or greater; and
- is not subject to any written agreement, order, capital directive, or prompt-corrective-action directive issued by the Board pursuant to section 8 of the FDI Act (12 USC 1818), the International Lending Supervision Act of 1983 (12 USC 3907), or section 38 of the FDI Act (12 USC 1831o), or any regulation thereunder, to meet and maintain a specific capital level for any capital measure.

A well-capitalized insured depository institution may solicit and accept, renew, or roll over any brokered deposit without restriction.

Adequately capitalized bank. A bank is deemed to be *adequately capitalized* if it—

- has a total risk-based capital ratio of 8.0 percent or greater;
- has a tier 1 risk-based capital ratio of 4.0 percent or greater;
- has—
  - — a leverage ratio of 4.0 percent or greater or
  - — a leverage ratio of 3.0 percent or greater if the bank is rated composite 1 under the CAMELS rating system in the most recent examination of the bank and is not experiencing or anticipating significant growth; and
- does not meet the definition of a well capitalized bank.

An adequately capitalized insured depository institution may not accept, renew, or roll over any brokered deposit unless it has applied for and been granted a waiver of this prohibition by the FDIC. If the insured depository institution has been granted a waiver by the FDIC, the institution may accept, renew, or roll over a brokered deposit. The institution may not pay an effective yield on the deposit that exceeds, by more than 75 basis points: (1) the effective yield paid on deposits of comparable size and maturity, and for deposits accepted, within the institution's normal market area[5] or (2) the "national rate" paid on deposits of comparable size and maturity for deposits accepted outside the institution's normal market area. The national rate is either 120 or 130 basis points of the current yield on similar-maturity U.S. Treasury obligations, depending on whether the deposit is FDIC insured or more than half uninsured (the portion of the deposit that is in excess of the FDIC-insured limit, as detailed in the rule).

If an FDIC-insured bank is adequately capitalized and does not have a waiver from the FDIC, it may not use a broker to obtain deposits. The following rate restrictions on deposits also apply: (1) the deposit rates may be no more than 75 basis points over the effective yield on deposits of comparable size and maturity within the bank's normal market area and (2) the deposit rates may not be based on a "national" rate.

Undercapitalized bank. A bank is deemed to be *undercapitalized* if it—

- has a total risk-based capital ratio that is less than 8.0 percent;
- has a tier 1 risk-based capital ratio that is less than 4.0 percent;
- has a leverage ratio that is less than 4.0 percent;[6] or
- has a leverage ratio that is less than 3.0 per-

5. For deposits obtained through Internet solicitations, the determination of the bank's "normal market area" is particularly problematic and difficult.

6. An exception is available when (1) the bank the (the insured depository institution) has a leverage ratio of 3.0 percent or greater, (2) the bank is rated composite 1 under the CAMELS rating system following its most-recent bank examination, and (3) the bank is not experiencing or anticipating significant growth.

cent, if the bank is rated composite 1 under the CAMELS rating system in the most recent examination of the bank and is not experiencing or anticipating significant growth.

An undercapitalized insured depository institution may not accept, renew, or roll over any brokered deposit. Also, an undercapitalized insured depository institution (and any employee of the institution) may not solicit deposits by offering an effective yield that exceeds by more than 75 basis points the prevailing effective yields on insured deposits of comparable maturity in the institution's normal market area or in the market area in which such deposits are being solicited.

Each examination should include a review for compliance with the FDIC's limitations on the acceptance of brokered deposits and guidelines on interest payments. The use of brokered deposits should be reviewed during all on-site examinations, even in those institutions not subject to the FDIC's restrictions. Given the potential risks involved in using brokered deposits, the examination should focus on the—

- rate of growth and the credit quality of the loans or investments funded by brokered deposits;
- corresponding quality of loan files, documentation, and customer credit information;
- ability of bank management to adequately evaluate and administer these credits and manage the resulting growth;
- degree of interest-rate risk involved in the funding activities and the existence of a possible mismatch in the maturity or rate sensitivity of assets and liabilities;
- composition and stability of the deposit sources and the role of brokered deposits in the bank's overall funding position and strategy; and
- effect of brokered deposits on the bank's financial condition and whether the use of brokered deposits constitutes an unsafe and unsound banking practice.

The examiner should identify relevant concerns in the examination report when brokered deposits amount to 5 percent or more of the bank's total deposits.

Risk-Management Expectations for Brokered Deposits

On May 11, 2001, the Federal Reserve Board and the other federal banking agencies (the agencies) issued a Joint Agency Advisory on Brokered and Rate-Sensitive Deposits. The advisory sets forth the following risk-management guidelines for brokered deposits. The bank's management is expected to implement risk-management systems that are commensurate in complexity with the liquidity and funding risks that the bank undertakes. (See SR-01-14.) Such systems should incorporate the following principles:

- *Proper funds-management policies.* A good policy should generally provide for forward planning, establish an appropriate cost structure, and set realistic limitations and business strategies. It should clearly convey the board's risk tolerance and should not be ambiguous about who holds responsibility for funds-management decisions.
- *Adequate due diligence when assessing deposit brokers.* Bank management should implement adequate due diligence procedures before entering any business relationship with a deposit broker. The agencies do not regulate deposit brokers.
- *Due diligence in assessing the potential risk to earnings and capital associated with brokered or other rate-sensitive deposits, and prudent strategies for their use.* Bankers should manage highly sensitive funding sources carefully, avoiding excessive reliance on funds that may be only temporarily available or which may require premium rates to retain.
- *Reasonable control structures to limit funding concentrations.* Limit structures should consider typical behavioral patterns for depositors or investors and be designed to control excessive reliance on any significant source(s) or type of funding. This includes brokered funds and other rate-sensitive or credit-sensitive deposits obtained through the Internet or other types of advertising.
- *Management information systems (MIS) that clearly identify nonrelationship or higher-cost funding programs and allow management to track performance, manage funding gaps, and monitor compliance with concentration and*

other risk limits. At a minimum, MIS should include a listing of funds obtained through each significant program, rates paid on each instrument and an average per program, information on maturity of the instruments, and concentration or other limit monitoring and reporting. Management also should ensure that brokered deposits are properly reported in the bank's Consolidated Reports of Condition and Income.[7]

- *Contingency funding plans that address the risk that these deposits may not "roll over" and provide a reasonable alternative funding strategy.* Contingency funding plans should factor in the potential for changes in market acceptance if reduced rates are offered on rate-sensitive deposits. The potential for triggering legal limitations that restrict the bank's access to brokered deposits under Prompt Corrective Action (PCA) standards, and the effect that this would have on the bank's liability structure, should also be factored into the plan.

Examiners should assess carefully the liquidity-risk management framework at all banks. Banks with meaningful reliance on brokered or other rate-sensitive deposits should receive the appropriate level of supervisory attention. Examiners should not wait for PCA provisions to be triggered or the viability of the bank to come into question, before raising relevant safety-and-soundness issues with regard to the use of these funding sources. If a determination is made that a bank's use of these funding sources is not safe and sound, or that these risks are excessive or that they adversely affect the bank's condition, then the examiner or central point of contact should recommend to the Reserve Bank management that it consider taking immediate appropriate supervisory action. The following represent potential red flags that may indicate the need to take such action to ensure the risks associated with brokered or other rate-sensitive funding sources are managed appropriately:

- ineffective management or the absence of appropriate expertise
- a newly chartered institution with few relationship deposits and an aggressive growth strategy
- inadequate internal audit coverage
- inadequate information systems or controls
- identified or suspected fraud
- high on- or off-balance-sheet growth rates
- use of rate-sensitive funds not in keeping with the bank's strategy
- inadequate consideration of risk, with management focus exclusively on rates
- significant funding shifts from traditional funding sources
- the absence of adequate policy limitations on these kinds of funding sources
- high loan delinquency rate or deterioration in other asset-quality indicators
- deterioration in the general financial condition of the institution
- other conditions or circumstances warranting the need for administrative action

Check Kiting

Check kiting occurs when—

- a depositor with accounts at two or more banks draws checks against the uncollected balance at one bank to take advantage of the float—that is, the time required for the bank of deposit to collect from the paying bank, and
- the depositor initiates the transaction with the knowledge that sufficient collected funds will not be available to support the amount of the checks drawn on all of the accounts.

The key to this deceptive practice, the most prevalent type of check fraud, is the ability to draw against uncollected funds. However, drawing against uncollected funds in and of itself does not necessarily indicate kiting. Kiting only occurs when the aggregate amount of drawings exceeds the sum of the collected balances in all accounts. Nevertheless, since drawing against uncollected funds is the initial step in the kiting process, management should closely monitor this activity. The requirements of Regulation CC, Availability of Funds and Collection of Checks, increased the risk of check kiting, and should be addressed in a bank's policies and procedures.

By allowing a borrower to draw against uncollected funds, the bank is extending credit that should be subject to an appropriate approval

7. See the FFIEC bank Call Report and Instructions for Consolidated Reports of Condition and Income, Schedule RC-E—Deposit Liabilities.

process. Accordingly, management should promptly investigate unusual or unauthorized activity since the last bank to recognize check kiting and pay on the uncollected funds suffers the loss. Check kiting is illegal and all suspected or known check kiting operations should be reported pursuant to established Federal Reserve policy. Banks should maintain internal controls to preclude loss from kiting, and the examiner should remember that in most cases kiting is not covered under Blanket Bond Standard Form 24.

Delayed Disbursement Practices

Although Regulation CC, Availability of Funds and Collection of Checks, stipulates time frames for funds availability and return of items, delayed disbursement practices (also known as remote disbursement practices) can present certain risks, especially concerning cashier's checks, which have next-day availability. Delayed disbursement is a common cash management practice that consists of arrangements designed to delay the collection and final settlement of checks by drawing checks on institutions located substantial distances from the payee or on institutions located outside the Federal Reserve cities when alternate and more efficient payment arrangements are available. Such practices deny depositors the availability of funds to the extent that funds could otherwise have been available earlier. A check drawn on an institution remote from the payee often results in increased possibilities of check fraud and in higher processing and transportation costs for return items.

Delayed disbursement arrangements could give rise to supervisory concerns because a bank may unknowingly incur significant credit risk through such arrangements. The remote location of institutions offering delayed disbursement arrangements often increases the collection time for checks by at least a day. The primary risk is payment against uncollected funds, which could be a method of extending unsecured credit to a depositor. Absent proper and complete documentation regarding the creditworthiness of the depositor, paying items against uncollected funds could be considered an unsafe or unsound banking practice. Furthermore, such loans, even if properly documented, might exceed the bank's legal lending limit for loans to one customer.

Examiners should routinely review a bank's practices in this area to ensure that such practices are conducted prudently. If undue or undocumented credit risk is disclosed or if lending limits are exceeded, appropriate corrective action should be taken.

Deposit Sweep Programs or Master-Note Arrangements

Deposit sweep programs or master-note arrangements (sweep programs) can be implemented on a bank level or on a parent bank holding company (BHC) level. On a bank level, these sweep programs exist primarily to facilitate the cash-management needs of bank customers, thereby retaining customers who might otherwise move their account to an entity offering higher yields. On a BHC level, the sweep programs are maintained with customers at the bank level, and the funds are upstreamed to the parent as part of the BHC's funding strategy. Sweep programs use an agreement with the bank's deposit customers (typically corporate accounts) that permits these customers to reinvest amounts in their deposit accounts above a designated level in overnight obligations of the parent bank holding company, another affiliate of the bank, or a third party. These obligations include instruments such as commercial paper, program notes, and master-note agreements. (See SR-90-31.)

The disclosure agreement regarding the sale of the nondeposit debt obligations should include a statement indicating that these instruments are not federally insured deposits or obligations of or guaranteed by an insured depository institution. In addition, banks and their subsidiaries that have issued or plan to issue nondeposit debt obligations should not market or sell these instruments in any public area of the bank where retail deposits are accepted, including any lobby area of the bank. This requirement exists to convey the impression or understanding that the purchase of such obligations by retail depositors of the subsidiary bank can, in the event of default, result in losses to individuals who believed they had acquired federally insured or guaranteed obligations.

Bank Policies and Procedures

Banking organizations with sweep programs should have adequate policies, procedures, and internal controls in place to ensure that the

activity is conducted in a manner consistent with safe and sound banking principles and in accordance with all banking laws and regulations. Bank policies and procedures should further ensure that deposit customers participating in a sweep program are given proper disclosures and information. When a sweep program is used as part of a funding strategy for a BHC or a nonbank affiliate, examiners should ensure that liquidity and funding strategies are carried out in a prudent manner.

Application of Deposit Proceeds

In view of the extremely short-term maturity of most swept funds, banks and BHCs are expected to exercise great care when investing the proceeds. Banks, from whom deposit funds are swept, have a fiduciary responsibility to their customers to ensure that such transactions are conducted properly. Appropriate uses of the proceeds of deposit sweep funds are limited to short-term bank obligations, short-term U.S. government securities, or other highly liquid, readily marketable, investment-grade assets that can be disposed of with minimal loss of principal.[8] When deposit sweep funds are invested in U.S. government securities, appropriate agreements must be in place, required disclosures must be made, and daily confirmations must be provided to the customer in accordance with the requirements of the Government Securities Act of 1986. Use of such proceeds to finance mismatched asset positions, such as those involving leases, loans, or loan participations, can lead to liquidity problems and are not considered appropriate. The absence of a clear ability to redeem overnight or extremely short-term liabilities when they become due should generally be viewed as an unsafe and unsound banking activity.

8. Some banking organizations have interpreted language in a 1987 letter signed by the secretary of the Board as condoning funding practices that may not be consistent with the principles set forth in a subsequent supervisory letter dated September 21, 1990, as well as with prior Board rulings. The 1987 letter involved a limited set of facts and circumstances that pertained to a particular banking organization; it did not establish or revise Federal Reserve policies on the proper use of the proceeds of short-term funding sources. In any event, banking organizations should no longer rely on the 1987 letter to justify the manner in which they use the proceeds of sweep programs. Banking organizations employing sweep programs are expected to ensure that these programs conform with the policies in this manual section.

Funding Strategies

A key principle underlying the Federal Reserve's supervision of banking organizations is that BHCs operate in a way that promotes the soundness of their subsidiary banks. BHCs are expected to avoid funding strategies or practices that could undermine public confidence in the liquidity or stability of their banks. Any funding strategy should maintain an adequate degree of liquidity at both the parent level and the subsidiary bank level. Bank management should avoid, to the extent possible, allowing sweep programs to serve as a source of funds for inappropriate uses at the BHC or at an affiliate. Concerns exist in this regard because funding mismatches can exacerbate an otherwise manageable period of financial stress and, in the extreme, undermine public confidence in a banking organization's viability.

Funding Programs

In developing and carrying out funding programs, BHCs should give special attention to the use of overnight or extremely short-term liabilities, since a loss of confidence in the issuing organization could lead to an immediate funding problem. Thus BHCs relying on overnight or extremely short-term funding sources should maintain a sufficient level of superior-quality assets (at a level at least equal to the amount of the funding sources') that can be immediately liquidated or converted to cash with minimal loss.

Dormant Accounts

A dormant account is one in which customer-originated activity has not occurred for a predetermined period of time. Because of this inactivity, dormant accounts are frequently the target of malfeasance and should be carefully controlled by a bank. Bank management should establish standards that specifically outline the bank's policy for the effective control of dormant accounts, addressing—

- the types of deposit categories that could contain dormant accounts, including demand, savings, and official checks;
- the length of time without customer-originated activity that qualifies an account to be identified as dormant;

- the controls exercised over the accounts and their signature cards, that is, prohibiting release of funds by a single bank employee; and
- the follow-up by the bank when ordinary bank mailings, such as account statements and advertising flyers, are returned to the bank because of changed addresses or other reasons for failure to deliver.

Employee Deposit Accounts

Historically, examiners have discovered various irregularities and potential malfeasance through review of employee deposit accounts. As a result, bank policy should establish standards that segregate or specially encode employee accounts and should encourage periodic internal supervisory review. In light of these concerns, examiners should review related bank procedures and practices, taking appropriate measures when warranted.

Overdrafts

The size, frequency, and duration of deposit-account overdrafts are matters that should be governed by bank policy and controlled by adequate internal controls, practices, and procedures. Overdraft authority should be approved in the same manner as lending authority and should never exceed the employee's lending authority. Systems for monitoring and reporting overdrafts should emphasize a secondary level of administrative control that is distinct from other lending functions so account officers who are less than objective do not allow influential customers to exploit their overdraft privileges. A bank's payment of overdrafts of executive officers and directors of the bank is generally prohibited under Regulation O. (See 12 CFR 215.4(e).) It is the board of directors' responsibility to review overdrafts as they would any other extension of credit. Overdrafts outstanding for more than 60 days, lacking mitigating circumstances, should be considered for charge-off. See SR-05-3/CA-05-2 and section 2130.1 on the February 18, 2005, Interagency Joint Guidance on Overdraft Protection Programs.

Payable-Through Accounts

A payable-through account is an accommodation offered to a correspondent bank or other customer by a U.S. banking organization whereby drafts drawn against client subaccounts at the correspondent are paid upon presentation by the U.S. banking institution. The subaccount holders of the payable-through bank are generally non–U.S. residents or owners of businesses located outside of the United States. Usually the contract between the U.S. banking organization and the payable-through bank purports to create a contractual relationship solely between the two parties to the contract. Under the contract, the payable-through bank is responsible for screening subaccount holders and maintaining adequate records with respect to such holders. The examiner should be aware of the potential effect of money laundering.

Public Funds

Public funds generally represent deposits of the U.S. government, as well as state and political subdivisions, and typically require collateral in the form of securities to be pledged against them. A bank's reliance upon public funds can cause potential liquidity concerns if the aggregate amount, as a percentage of total deposits, is material relative to the bank's asset-liability management practices. Another factor that can cause potential liquidity concerns relates to the volatile nature of these deposits.

This volatility occurs because the volume of public funds normally fluctuates on a seasonal basis due to timing differences between tax collections and expenditures. A bank's ability to attract public funds is typically based upon the government entity's assessment of three key points:

- the safety and soundness of the institution with which the funds have been placed
- the yield on the funds being deposited
- that such deposits are placed with a bank that can provide or arrange the best banking service at the least cost

Additionally, banks that offer competitive interest rates and provide collection, financial advisory, underwriting, and data processing services at competitive costs are frequently chosen as depositories. Public funds deposits acquired

through political influence should be regarded as particularly volatile. As a result, an examiner should pay particular attention to assessing the volatility of such funds in conjunction with the review of liquidity.

Zero-Balance Accounts

Zero-balance accounts (ZBAs) are demand deposit accounts used by a bank's corporate customers through which checks or drafts are received for either deposit or payment. The total amount received on any particular day is offset by a corresponding debit or credit to the account before the close of business to maintain the balance at or near zero. ZBAs enable a corporate treasurer to effectively monitor cash receipts and disbursements. For example, as checks arrive for payment, they are charged to a ZBA with the understanding that funds to cover the checks will be deposited before the end of the banking day. Several common methods used to cover checks include—

- wire transfers;
- depository transfer checks, a bank-prepared payment instrument used to transfer money from a corporate account in one bank to another bank;
- concentration accounts, a separate corporate demand deposit account at the same bank used to cover deficits or channel surplus funds relative to the ZBA; or
- extended settlement, a cash-management arrangement that does not require the corporate customer to provide same-day funds for payment of its checks.

Because checks are covered before the close of business on the day they arrive, the bank's exposure is not reflected in the financial statement. The bank, however, assumes risk by paying against uncollected funds, thereby creating unsecured extensions of credit during the day (which is referred to as a daylight overdraft between the account holder and the bank). If these checks are not covered, an overdraft occurs, which will be reflected on the bank's financial statement.

The absence of prudent safeguards and a lack of full knowledge of the creditworthiness of the depositor may expose the bank to large, unwarranted, and unnecessary risks. Moreover, the magnitude of unsecured credit risk may exceed prudent limits. Examiners should routinely review cash-management policies and procedures to ensure that banks do not engage in unsafe and unsound banking practices, making appropriate comments in the report of examination, as necessary.

1. To determine if the policies, practices, procedures, and internal controls regarding deposit accounts are adequate.
2. To determine if the bank's management implemented adequate risk-management systems for brokered and rate-sensitive deposits that are commensurate with the liquidity and funding risks the bank has undertaken.
3. To determine if the bank's policies, practices, procedures, and internal controls (including compliance oversight, management reporting, and staff training) for account relationships involving foreign governments, foreign embassies, and foreign political figures (as well as foreign-currency customer deposit accounts) are adequate for the varied risks posed by these accounts.
4. To determine if bank officers and employees are operating in conformance with the bank's established guidelines.
5. To evaluate the deposit structure and determine its characteristics and volatility.
6. To determine the scope and adequacy of the audit function.
7. To determine compliance with applicable laws and regulations.
8. To initiate corrective action when policies, practices, procedures, or internal controls are deficient, or when violations of laws or regulations are noted.

1. Determine the scope of the examination of the deposit-taking function. In so doing, consider the findings of prior examinations, related work prepared by internal and external auditors, deficiencies in internal controls noted within other bank functions, and the requirements of examiners assigned to review the asset/liability management and interest-rate risk aspects of the bank.
2. If required by the scope, implement the ''Deposit Accounts'' internal control questionnaire.
3. Test the deposit function for compliance with policies, procedures, and internal controls in conjunction with performing the remaining examination procedures. Also, obtain a listing of any deficiencies noted in the latest internal or external audit review, then determine if appropriate corrections have been made.
4. In conducting the examination, use available bank copies of printouts plus transactions journals or other visual media to minimize expense to the bank. However, if copies of these reports are not available, determine what information is necessary to complete the examination procedures and request that information from the bank.

   Obtain or prepare, as applicable, the reports indicated below, which are used for a variety of purposes, including the assessment of deposit volatility and liquidity, the assessment of the adequacy of internal controls, the verification of information on required regulatory reports, and the assessment of loss.

   a. For demand deposits and other transaction accounts:
      - trial balance
      - overdrafts
      - unposted items
      - nonsufficient-funds (NSF) report
      - dormant accounts
      - public funds
      - uncollected funds
      - due to banks
      - trust department funds
      - significant activity
      - suspected kiting report
      - matured certificates of deposit without an automatic renewal feature
      - large-balance report
   b. For official checks:
      - trial balance(s)
      - exception list
   c. For savings accounts:
      - trial balance
      - unposted items
      - overdrafts
      - dormant accounts
      - public funds
      - trust department funds
      - large-balance report
   d. For other time deposits:
      - trial balance(s)
      - large-balance report
      - unposted items
      - public funds
      - trust department funds
      - money market accounts
   e. For certificates of deposit:
      - trial balance(s)
      - unposted items
      - public funds
      - certificates of $100,000 or more
      - negotiable certificates of deposit
      - maturity reports
      - matured certificates of deposit
   f. For deposit sweep programs or master-note arrangements, list individually by deposit type and amount.
   g. For brokered deposits, list individually by deposit type, including amount and rate.
   h. For bank-controlled accounts:
      - reconcilement records for all such accounts
      - names and extensions of individuals authorized to make entries to such accounts
      - name and phone extension of reconcilement clerk(s)
   i. For the bank's foreign-currency customer deposit accounts and the deposit accounts for foreign governments, embassies, and political figures:
      - list of accounts and currency type
      - list of currency transactions over $10,000 for each account, and the copies of their Currency Transaction

Report or its equivalent, since the previous examination (See 31 CFR 1010.330 and its examples.)
- the most recent internal audit report covering the review of those accounts, the risks associated with the accounts, the internal controls over those accounts, and the staff's completion of the Currency Transaction Report
- the completed copies of the Report of Foreign (Non-U.S.) Currency Deposits, Form 2915, that have been submitted since the previous examination

5. Review the reconcilement of all types of deposit accounts. Verify the balances to department controls and the general ledger.
   a. Determine if reconciliation items are legitimate and if they clear within a reasonable time frame.
   b. Retain custody of all trial balances until items outstanding are resolved.
6. Review the reconciliation process for bank-controlled accounts, such as official checks and escrow deposits, by—
   a. determining if reconciling items are legitimate and if they clear within a reasonable time frame;
   b. scanning activity in such accounts to determine the potential for improper diversion of funds for various uses, such as—
      - political contributions,
      - loan payments (principal and interest), or
      - personal use; and
   c. determining if checks are being processed before their related credits.
7. Review the bank's operating procedures and reconciliation process relative to suspense accounts. Determine if—
   a. the disposition process of unidentified items is completed in a timely fashion;
   b. reports are generated periodically to inform management of the type, age, and amount of items in such accounts; and
   c. employees responsible for clearing suspense-account items are not shifting the items between accounts.
8. Evaluate the effectiveness of the written policies and procedures and of management's reporting methods regarding overdrafts and drawings against uncollected funds.
   a. Concerning overdrafts, determine if—
      - officer-approval limits have been established, and
      - a formal system of review and approval is in effect.
   b. Determine whether the depository institution has an overdraft-protection program and if it has adequate written policies and procedures to address the credit, operational, and other risks associated with those programs. See the February 18, 2005, interagency Joint Guidance on Overdraft Protection Programs (SR-05-3/CA-05-2). If the bank provides overdraft protection, perform the following procedures:
      - Obtain a master list of all depositors with formal overdraft protection.
      - Obtain a trial balance indicating advances outstanding and compare it with the master list to ensure compliance with approved limits.
      - Cross-reference the trial balance or master list to examiner loan line sheets.
      - Review credit files on significant formal agreements not cross-referenced above.
      - Ascertain whether there is ongoing monitoring of overdrafts to identify customers who may pose an undue credit risk to the bank.
      - Find out if the bank has incorporated into its overdraft-protection program prudent risk-management practices pertaining to account repayment and the suspension of a customer's overdraft-protection services when the customer does not satisfy repayment and eligibility requirements.
      - Determine whether overdrafts are properly and accurately reported according to generally accepted accounting principles on the bank's financial statements and on its Reports of Condition and Income (Call Reports). Verify that overdrafts are reported as loans on the Report of Condition.
      - Verify the existence of the bank's loss-estimation procedures for overdraft and fee balances. Determine if the procedures are adequately rigorous and if losses are properly accounted for as part of (1) the allowance for loan and lease losses (ALLL) or (2) the loss allowance for uncollectible fees (alternatively, the bank may recognize only

that portion of earned fees estimated to be collectible), if applicable.[1]
- When applicable, validate (1) whether the bank's overdraft commitments have been assigned the correct conversion factor, (2) whether they are accurately risk- weighted by obligor, and (3) if the commitment terms comply with the risk-based capital guidelines.
- Determine whether the bank has obtained assurances from its legal counsel that its overdraft-protection program is fully compliant with all applicable federal and state laws and regulations, including the Federal Trade Commission Act.
- When the bank contracts with third-party vendors to do information technology work, determine if the bank conducted proper due diligence before entering into the contract and that it followed the November 28, 2000, guidance on the Risk Management of Outsourced Technology Services. (See SR-00-17.)

c. Concerning drawings against uncollected funds, determine if—
- the uncollected-funds report reflects balances as uncollected until they are actually received;
- management is comparing reports of significant changes in balances and activity volume with uncollected-funds reports;
- management knows the reasons why a depositor is frequently drawing against uncollected funds;
- a reporting system to inform senior management of significant activity in the uncollected-funds area has been instituted; and
- appropriate employees clearly understand the mechanics of drawing against uncollected funds and the risks involved, especially in the area of potential check-kiting operations.

d. After completing steps 8.a., 8.b., and 8.c.—
- cross-reference overdraft and uncollected-funds reports to examiner loan line sheets;
- review the credit files of depositors with significant overdrafts, if available, or the credit files of depositors who frequently draw significant amounts against uncollected funds, for those depositors not cross-referenced in the preceding step;
- request management to charge off overdrafts deemed to be uncollectible; and
- submit a list of the following items to the appropriate examiner:
  — overdrafts considered loss, indicating borrower and amount
  — aggregate amounts overdrawn 30 days or more past due, for inclusion in past-due statistics

9. Review the bank's deposit development and retention policy, which is often included in the funds-management policy.
   a. Determine if the policy addresses the deposit structure and related interest costs, including the percentages of time deposits and demand deposits of—
      - individuals,
      - corporations, and
      - public entities.
   b. Determine if the policy requires periodic reports to management comparing the accuracy of projections with results.
   c. Assess the reasonableness of the policy, and ensure that it is routinely reviewed by management.
10. If a deposit sweep program or master-note arrangement exists, review the minutes of the board of directors for approval of related policies and procedures.
11. For banks with deposit sweep programs or master-note arrangements (sweep programs), compare practices for adherence to approved policies and procedures. Review the following:
    a. The purpose of the sweep program: Is it strictly a customer-accommodation transaction, or is it intended to fund certain assets at the holding company level or at an affiliate? Review funding transactions in light of liquidity and funding needs of the banking organization by referring to section 4020.1.
    b. The eligibility requirements used by the bank to determine the types of customers and accounts that may participate in a sweep program, including—
       - a list of customers participating in

1. Institutions may charge off uncollectible overdraft fees against the ALLL if such fees are recorded with overdraft balances as loans and if estimated credit losses on the fees are provided for in the ALLL.

sweep programs, with dollar amounts of deposit funds swept on the date of examination, and
- the name of the recipient(s) of swept funds.
  - — If the recipient is an affiliate of the bank, include a schedule of the instruments into which the funds were swept, including the effective maturity of these instruments.
  - — If the recipient is an unaffiliated third party, determine if the bank adequately evaluates the third party's financial condition at least annually. Also, verify if a fee is received by the bank for the transaction. If so, determine that the fee is disclosed in customer documentation.

c. Whether the proceeds of sweep programs are invested only in short-term bank obligations; short-term U.S. government securities; or other highly liquid, readily marketable, investment-grade assets that can be disposed of with minimal loss of principal.

d. Whether the bank and its subsidiaries have issued or plan to issue nondeposit debt obligations in any public area of the bank where retail deposits are accepted, including any lobby area of the bank.

e. Completed sweep-program documents to determine the following:
- Signed documents boldly disclose that the instrument into which deposit funds will be swept is not insured by the FDIC and is not an obligation of, or guaranteed by, the bank.
- Proper authorization for the instrument exists between the customer and an authorized representative of the bank.
- Signed documents properly disclose the name of the obligor and the type of instrument into which the depositor's funds will be swept. If funds are being swept into U.S. government securities held by the banking organization, verify that adequate confirmations are provided to customers in accordance with the Government Securities Act of 1986. (This act requires that all transactions subject to a repurchase agreement be confirmed in writing at the end of the day of initiation and that the confirmation confirms specific securities. If any other securities are substituted that result in a change of issuer, maturity date, par amount, or coupon rate, another confirmation must be issued at the end of the day during which the substitution occurred. Because the confirmation or safekeeping receipt must list specific securities, "pooling" of securities for any type of sweep program involving government securities is not permitted. Additionally, if funds are swept into other instruments, similar confirmation procedures should be applied.)
- Conditions of the sweep program are stated clearly, including the dollar amount (minimum or maximum amounts and incremental amounts), time frame of sweep, time of day the sweep transaction occurs, fees payable, transaction confirmation notice, prepayment terms, and termination notice.
- The length of any single transaction under sweep programs in effect has not exceeded 270 days and the amount is $25,000 or more (as stipulated by SEC policy). Ongoing sweep-program disclosures should occasionally be sent to the customer to ensure that the terms of the program are updated and the customer understands the terms.

f. Samples of advertisements (newspaper, radio, television spots, etc.) by the bank for sweep programs to determine if the advertisements—
- boldly disclose that the instrument into which deposit funds are swept is not insured by the FDIC and is not an obligation of, or guaranteed by, the bank, and
- are not enclosed with insured deposit statements mailed to customers.

g. Whether the sweep program has had a negative effect on bank liquidity or has the potential to undermine public confidence in the bank.
- Review the bank's federal funds and borrowing activities to ascertain whether borrowings appear high. If so, compare the bank's borrowing activity with daily balances of aggregate sweep transactions on selected dates to see if a correlation exists.

- If sweep activity is significant, compare the rates being paid on swept deposits with the yields received on the invested funds and with the rates on other overnight funding instruments, such as federal funds, to determine if they are reasonable.

12. Forward the following to the examiner assigned to asset/liability management:
    a. the amount of any deposit decline or deposit increase anticipated by management (the time period will be determined by the examiner performing asset/liability management)
    b. a listing by name and amount of any depositor controlling more than 1 percent of total deposits
    c. a listing, if available, by name and amount of any deposits held solely because of premium rates paid (brokered deposits)
    d. the aggregate amount of brokered deposits
    e. a maturity schedule of certificates of deposit, detailing maturities within the next 30, 60, 90, 180, and 360 days
    f. an assessment of the overall characteristics and volatility of the deposit structure
13. Analyze UBPR data on deposits and related expense ratios, and compare with peer-group norms to determine—
    a. variations from the norm, and
    b. trends in the deposit structure with respect to—
        - growth patterns, and
        - shifts between deposit categories.
14. Assess the volatility and the composition of the bank's deposit structure.
    a. Review the list of time certificates of deposit of $100,000 or more and related management reports, including those on brokered deposits, to determine—
        - whether concentrations of maturing deposits exist;
        - whether a concentration of deposits to a single entity exists;
        - the aggregate dollar volume of accounts of depositors outside the bank's normal service area, if significant, and the geographic areas from which any significant volume emanates;
        - the aggregate dollar volume of CDs that have interest rates higher than current publicly quoted rates within the market;
        - whether the bank is paying current market rates on CDs;
        - the dollar amount of brokered CDs, if any; and
        - the dollar volume of deposits obtained as a result of special promotions.
    b. *Federal Deposit Insurance Corporation Improvement Act of 1991* (12 USC 1831F).
        - If the bank is undercapitalized, as defined in the FDIC's regulation on brokered deposits, ensure that it is not accepting brokered deposits. (See 12 CFR 337.6.)
        - If the bank is only adequately capitalized, as defined in the FDIC's regulation and is accepting brokered deposits, ensure that a waiver authorizing acceptance of such deposits has been obtained from the FDIC and that the bank is in compliance with the interest-rate restrictions. (See 12 CFR 337.6(b)(2) and (3).)
    c. Determine if the bank has risk-management systems to monitor and control its liquidity and funding risks that are associated with the bank's brokered and rate-sensitive deposits.
    d. Ascertain if the bank's risk-management systems for its brokered and rate-sensitive deposits are adequate and if they are commensurate with the complexity of its liquidity and funding risks. Determine if the bank has the following:
        - proper funds-management policies;
        - adequate due diligence when assessing the risks associated with deposit brokers;
        - due diligence in assessing the potential risk to earnings and capital associated with brokered or other rate-sensitive deposits, and prudent strategies for their use;
        - reasonable control structures to limit funding concentrations;
        - management information systems (MIS) that clearly identify nonrelationship or higher-cost funding programs that allow management to track performance, manage funding gaps, and monitor compliance with concentration and other risk limits; and
        - contingency funding plans that address the risk that these deposits may

not "roll over" and provide a reasonable alternative funding strategy.

e. Review public funds and the bank's method of acquiring such funds to assess whether the bank uses competitive bidding in setting the interest rate paid on public deposits. If so, does the bank consider variables in addition to rates paid by competition in determining pricing for bidding on public deposits?

f. Review appropriate trial balances for all other deposits (demand, savings, and other time deposits). Review management reports that relate to large deposits for individuals, partnerships, corporations, and related deposit accounts to determine whether a deposit concentration exists.
   - Select, at a minimum, the 10 largest accounts to determine if the retention of those accounts depends on—
     - — criticizable loan relationships;
     - — liberal service accommodations, such as permissive overdrafts and drawings against uncollected funds;
     - — interbank correspondent relationships;
     - — deposits obtained as a result of special promotions; and
     - — a recognizable trend with respect to—
       - frequent significant balance fluctuations,
       - seasonal fluctuations, and
       - nonseasonal increases or decreases in average balances.

g. Elicit management's comments to determine, to the extent possible—
   - the potential renewal of large CDs that mature within the next 12 months;
   - if public fund deposits have been obtained through political influence;
   - if a significant dollar volume of accounts is concentrated in customers engaged in a single business or industry; and
   - if there is a significant dollar volume of deposits from customers who do not reside within the bank's service area.

15. Obtain information on competitive pressures and economic conditions and evaluate that information, along with current deposit trends, to estimate its effect on the bank's deposit structure.

16. Perform the following procedures to test for compliance with the applicable laws and regulations listed below:

a. *Regulation O (12 CFR 215), Loans to Executive Officers, Directors, and Principal Shareholders of Member Banks.* Review the overdraft listing to ensure that the bank has not paid an overdraft on any account of an executive officer or director, unless the payment is made according to—
   - a written, preauthorized, interest-bearing extension of a credit plan that provides a method of repayment, or
   - a written, preauthorized transfer from another account of that executive officer or director.

   Payment of inadvertent overdrafts in an aggregate amount of $1,000 or less is not prohibited, provided the account is not overdrawn more than five business days and the executive officer or director is charged the same fee charged to other customers in similar circumstances. Overdrafts are extensions of credit and must be included when considering each insider's lending limits and other extension-of-credit restrictions, as well as when considering the aggregate lending limit for all outstanding extensions of credit by the bank to all insiders and their related interests.

b. *12 USC 1972(2), Loans to Executive Officers, Directors, and Principal Shareholders of Correspondent Banks.* Review the overdraft listing to ensure that no preferential overdrafts exist from the bank under examination to the executive officers, directors, or principal shareholders of the correspondent bank.

c. *Section 22(e) of the Federal Reserve Act (12 USC 376), Interest on Deposits of Directors, Officers, and Employees.* Obtain a list of deposit accounts, with account numbers, of directors, officers, attorneys, and employees. Review the accounts for any exceptions to standard policies on service charges and interest rates paid that would suggest self-dealing or preferential treatment.

d. *Sections 23A and 23B of the Federal Reserve Act (12 USC 371c), and Regulation W.* Determine the existence of any non-intraday overdrawn affiliate accounts. If such overdrawn accounts are identified, review for compliance with

sections 23A and 23B of the act and with Regulation W.

e. *Regulation D (12 CFR 204), Reserve Requirements of Depository Institutions.* Review the accuracy of the deposit data used in the bank's reserve-requirement calculation for the examination date. When a bank issues nondeposit, uninsured obligations that are classified as "deposits" in the calculation of reserve requirements, examiners should determine if these items are properly categorized. Ascertain that the TT&L remittance option is included in the computations for reserve requirements.

f. *12 USC 501 and 18 USC 1004, False Certification of Checks.* Compare several certified checks by date, amount, and purchaser with the depositors' names appearing on uncollected-funds and overdraft reports of the same dates to determine that the checks were certified against collected funds.

g. *Uniform Commercial Code 4-108, Banking Hours and Processing of Items.*
   - Determine the bank's cutoff hour, after which items received are included in the processing for the next "banking day," to ensure that the cutoff hour is not earlier than 2:00 p.m.
   - If the bank's cutoff hour is before 2:00 p.m., advise management that failure to process items received before a 2:00 p.m. cutoff may result in civil liability for delayed handling of those items.

h. *Local escheat laws.* Determine if the bank is adhering to the local escheat laws with regard to all forms of dormant deposits, including official checks.

17. If applicable, determine if the bank is appropriately monitoring and limiting the foreign-exchange risk associated with foreign-currency deposits.
18. For a bank that accepts accounts from foreign governments, embassies, and political figures, evaluate—
    a. the existence and effectiveness of the bank's policies, procedures, compliance oversight, and management reporting with regard to such foreign accounts;
    b. whether the bank and its staff have the necessary controls, as well as the ability, to manage the risks associated with such foreign accounts;
    c. whether the bank's board of directors and staff can ensure full compliance with its obligations under the Bank Secrecy Act, as amended by the USA Patriot Act, and its regulations;
    d. the adequacy of the level of training of the bank's personnel responsible for managing the risks associated with such foreign accounts and for ensuring that the bank is and remains in compliance with the requirements of the applicable laws and regulations; and
    e. the effectiveness of the bank's program that communicates its policies and procedures for such foreign accounts to ensure that foreign government, embassy, and political-figure customers are fully informed of the requirements of applicable U.S laws and regulations.
19. Discuss overall findings with bank management. Prepare report comments on—
    a. policy deficiencies,
    b. noncompliance with policies,
    c. weaknesses in supervision and reporting,
    d. violations of laws and regulations, and
    e. possible conflicts of interest.
20. Update workpapers with any information that will facilitate future examinations.

Review the bank's internal controls, policies, practices, and procedures for demand and time deposit accounts. The bank's systems should be documented completely and concisely and should include, where appropriate, narrative descriptions, flow charts, copies of forms used, and other pertinent information.

For large institutions or those institutions that have individual demand and time deposit bookkeeping functions, the examiner should consider administering this questionnaire separately for each function, as applicable.

Questions pertain to both demand and time deposits unless otherwise indicated. Negative responses to the questions in this section should be explained, and additional procedures deemed necessary should be discussed with the examiner-in-charge. Items marked with an asterisk require substantiation by observation or testing.

OPENING DEPOSIT ACCOUNTS

*1. Are new-account documents prenumbered?
   a. Are new-account documents issued in strict numerical sequence?
   b. Are the opening of new accounts and access to unused new-account records and certificate of deposit (CD) forms handled by an employee who is not a teller or who cannot make internal entries to customer accounts or the general ledger?

*2. Does the institution have a written "know-your-customer" policy?
   a. Do new-account applications require sufficient information to clearly identify the customer?
   b. Are "starter" checks issued only after the verification of data on new transaction-account applications?
   c. Are checkbooks and statements mailed only to the address of record? If not, is a satisfactory explanation and description obtained for any other mailing address (post office boxes, a friend or relative, etc.)?
   d. Are the employees responsible for opening new accounts trained to screen depositors for signs of check kiting?

*3. Does the bank perform periodic inventories of new-account documents and CDs, and do the inventories include an accountability of numbers issued out of sequence or canceled prior to issuance?

*4. Are CDs signed by a properly authorized individual?

5. Are new-account applications and signature cards reviewed by an officer?

CLOSING DEPOSIT ACCOUNTS

1. Are signature cards for closed accounts promptly pulled from the active-account file and placed in a closed file?
2. Are closed-account lists prepared? If so, how frequently?
3. Is the closed-account list circulated to appropriate management?
4. Is verification of closed accounts, in the form of statements of "goodwill" letters, required? Are such letters mailed under the control of someone other than a teller or an individual who can make internal entries to an account (such as a private banker or branch manager)?

*5. For redeemed CDs:
   a. Are the CDs stamped paid?
   b. Is the disposition of proceeds documented to provide a permanent record as well as a clear audit trail?
   c. Are penalty calculations on CDs and on other time deposits that are redeemed before maturity rechecked by a second employee?

*6. Except for deposit-account agreements that authorize the transfer of deposited funds to other nondemand deposit accounts, are matured CDs that are not automatically renewable classified as demand deposits on the Call Report and on the Report of Transaction Accounts, Other Deposits and Vault Cash (FR 2900)?

DEPOSIT-ACCOUNT RECORDS

*1. Does the institution have documentation supporting a current reconcilement of each deposit-account category recorded on its general ledger, including customer accounts

and bank-controlled accounts such as dealer reserves, escrow, Treasury tax and loan, etc.? (Prepare separate workpapers for demand and time accounts, listing each account and the date and frequency of reconcilement, the general-ledger balance, the subsidiary-ledger balance, adjustments, and unexplained differences.)

*2. Are reconciliations performed by an individual or group not directly engaged in accepting or preparing transactions or in data entry to customers' accounts?

*3. If the size of the bank precludes full separation of duties between data entry and reconcilement, are reconcilement duties rotated on a formal basis, and is a record maintained to support such action?

*4. Are reconciliations reviewed by appropriate independent management, especially in circumstances when full separation of duties is not evident?

*5. Are periodic reports prepared for management, and do the reports provide an aging of adjustments and differences and detail the status of significant adjustments and differences?

*6. Has management adequately addressed any significant or long-outstanding adjustments or differences?

*7. Is the preparation of input and the posting of subsidiary demand deposit records performed or adequately reviewed by persons who do not also—
   a. accept or generate transactions?
   b. issue official checks or handle funds-transfer transactions?
   c. prepare or authorize internal entries (return items, reversals, and direct charges, such as loan payments)?
   d. prepare supporting documents required for disbursements from an account?
   e. perform maintenance on the accounts, such as changes of address, stop payments, holds, etc.?

*8. Are in-process, suspense, interoffice, and other accounts related to deposit accounts controlled or closely monitored by persons who do not have posting or reconcilement duties?

*9. Are periodic reports prepared for management on open items in suspense and on in-process, interoffice, overdrawn, and other deposit accounts, and do the reports include aging of items and the status of significant items?

10. If the bank's bookkeeping system is not automated, are deposit bookkeepers rotated?

11. Does the bank segregate the deposit account files of—
   a. employees and officers?
   b. directors?
   c. the business interests of employees and officers, or interests controlled by employees and officers?
   d. the business interests of directors, or interests controlled by directors?
   e. foreign goverments, embassies, and political figures?

*12. Are posting and check filing separated from statement preparation?

13. Are statements mailed or delivered to all customers as required by the bank's deposit-account agreement?

*14. Are customer transaction and interest statements mailed in a controlled environment that precludes any individual from receiving any statement not specifically authorized by the customer or the institution's policy (for example, dormant-account statements)?

DORMANT ACCOUNTS AND RETURNED MAIL

*1. Does the bank have formal policies and procedures for the handling of customers' transaction and interest statements that are returned as undeliverable? Does the policy—
   a. require that statements be periodically mailed on dormant accounts? If so, how often?
   b. prohibit the handling of dormant-account statements by (1) employees of the branch where the account is assigned, (2) the account officer, and (3) other individuals with exclusive control of accounts?
   c. require positive action to follow up on obtaining new addresses?
   d. place statements and signature cards for accounts for which contact cannot be re-established (the mail is returned more than once or is marked "deceased") into a controlled environment?
   e. require the bank to change the address on future statements to the department

of the bank (the controlled environment) designated to receive returned mail?

f. require a written request from the customer and verification of the customer's signature before releasing an account from the controlled environment?

*2. Are accounts for which contact cannot be re-established and that do not reflect recent activity removed from active files and clearly classified as dormant?

*3. Before returning a dormant account to active status, are transactions reactivating the account verified, and are independent confirmations obtained directly from the customer?

*4. Does transfer from dormant to active status require the approval of an officer who cannot approve transactions on dormant accounts?

INACTIVE ACCOUNTS

1. Are demand accounts that have been inactive for one year, and time accounts that have been inactive for three years, classified as inactive? If not, state the time period for classifying a demand or time account as inactive.
2. Does the bank periodically review the inactive accounts to determine if they should be placed in a dormant status, and are decisions to keep such accounts in active files documented?

HOLD MAIL

*1. Does the institution have a formal policy and procedure for handling statements and documents that a customer requests not to be mailed but that will be picked up at a location within the institution? Does the policy—

a. require that statements will not be held by an individual (an account officer, branch manager, bookkeeper, etc.) who could establish exclusive control over entries to and the delivery of statements for customer accounts?

b. discourage such pickup arrangements and grant them only after the customer provides a satisfactory reason for the arrangement?

c. require the customer to sign a statement describing the purpose of the request and the proposed times for pickup, and designate the individuals authorized to pick up the statement?

d. require the maintenance of signature cards for individuals authorized to pick up statements, and compare the authorized signatures with those who sign for statements held for pickup?

e. prohibit the delivery of statements to officers and employees requiring special attention unless it is part of the formal "hold-mail" function?

*2. Is a central record of hold-mail arrangements maintained in a control area that does not originate entries to customers' accounts? Does the record identify each hold-mail arrangement, the designated location for pickup, and the scheduled pickup times? Does the control area—

a. maintain current signature cards of individuals authorized to pick up statements?

b. obtain signed receipts showing the date of pickup, and compare the receipts with the signature cards?

c. follow up on the status of statements not picked up as scheduled?

*3. Does management review activity in hold-mail accounts that have not been picked up for extended periods of time (for example, one year), and, when there is no activity, place the accounts in a dormant status?

OVERDRAFTS

*1. Are overdraft authorization limits for officers formally established?

*2. Does the bank require an authorized officer to approve overdrafts?

*3. Is an overdraft listing prepared daily for demand deposit and time transaction accounts?

4. For banks processing overdrafts that are not automatically approved (a "pay none" system), is the nonsufficient-funds report circulated among bank officers?

*5. Are overdraft listings circulated among the officers?

6. Are the statements of accounts with large overdrafts reviewed for irregularities and prompt repayment?

7. Is an aged record of large overdrafts included in the monthly report to the board of directors or its committee, and does the report include the overdraft origination date?
8. Is there an established schedule of service charges?

UNCOLLECTED FUNDS

*1. Does the institution generate a daily report of drawings against uncollected funds for demand deposit and time transaction accounts?
   a. Is the computation of uncollected funds positions based on reasonable check-collection criteria?
   b. Can the reports, or a separate account activity report, be used to detect potential kiting conditions?
   c. If reports are not generated for time transaction accounts, is a system in place to control drawings against uncollected funds?
*2. Do authorized officers review the uncollected-funds reports and approve drawings against uncollected funds within established limits?
*3. Are accounts that frequently appear on the uncollected-funds or kite-suspect reports reviewed regardless of account balances? (For example, accounts with simultaneous large debits and credits can reflect low balances.)

ACCOUNTS FOR FOREIGN GOVERNMENTS, EMBASSIES, AND POLITICAL FIGURES

1. For bank relationships with a foreign government, embassy, or political figure:
   a. Has the board of directors established standards and guidelines for management to use when evaluating whether or not the bank should accept such new accounts?
   b. Are the standards and guidelines consistent with the bank's—
      - own business objectives,
      - assessment of the varying degrees of risks associated with particular foreign accounts or lines of business, and
      - capacity to manage those risks?
   c. Does the bank have adequate internal controls and compliance oversight systems to monitor and manage the varying degrees of risks associated with such foreign accounts? Do these internal controls and compliance systems ensure full compliance with the Bank Secrecy Act, as amended by the USA Patriot Act, and its respective regulations?
   d. Does the bank have personnel that are sufficiently trained in the management of such risks and in the requirements of applicable laws and regulations?
   e. Does the bank have policies and procedures for ensuring that such foreign-account customers receive adequate communications from the bank? Communications should ensure that these customers are made fully aware of the requirements of U.S laws and regulations to which the bank is subject.
   f. Does the bank seek to structure its relationships with such foreign-account customers so as to minimize the varying degrees of risks these customers may pose?

OTHER MATTERS

*1. Are account-maintenance activities (changes of address, status changes, rate changes, etc.) separated from data entry and reconciling duties?
*2. Do all internal entries other than service charges require the approval of appropriate supervisory personnel?
*3. If not included in the internal or external audit program, are employees' and officers' accounts, accounts of employees' and officers' business interests, and accounts controlled by employees and officers periodically reviewed for unusual or prohibited activity?
*4. For unidentified deposits:
   a. Are deposit slips kept under dual control?
   b. Is the disposition of deposit slips approved by an appropriate officer?
*5. For returned checks, unposted items, and

other rejects:
   a. Are daily listings of such items prepared?
   b. Are all items reviewed daily, and is disposition of items required within a reasonable time period? If so, indicate the time period.
   c. Are reports prepared for management that show items not disposed of within the established time frames?
6. Are customers immediately notified in writing of deposit errors?
7. Does the bank require a customer's signature for stop-payment orders?
8. For automatic transfer accounts:
   a. Are procedures in effect that require officer approval for transfers in excess of the savings balance?
   b. For nonautomated systems, are transfers made by employees who do not also handle cash, execute external funds transfers, issue official checks singly, or post subsidiary records?
9. For telephone transfer accounts:
   a. Do depositors receive an individual identification code for use in making transfers?
   b. Are transfers made by employees who do not also handle cash, execute external funds transfers, issue official checks singly, or post subsidiary records?

*10. If not included in the internal or external audit program, are accrual balances for the various types of deposits verified periodically by an authorized official? If so, indicate how often.

*11. Are accounts with a "hold-balance" status—those accounts on which court orders have been placed, those pledged as security to customers' loans, those pending the clearing of a large check, those for which the owner is deceased, and those for which the passbook has been lost—"locked out" for transactions unless the transaction is approved by appropriate management?

12. For passbook accounts:
   a. Do all entries to passbooks contain teller identification?
   b. Under a window-posting system, are recording media and passbooks posted simultaneously?
   c. Are tellers prohibited from holding customers' savings passbooks?
   d. If customers' passbooks are held, are they maintained under the institution's "hold-mail" program and kept under dual control?
   e. Are customers prohibited from withdrawing funds without a passbook? If not, state the policy.
13. For withdrawals from savings or other time accounts:
   a. Are withdrawal tickets canceled daily?
   b. Are procedures in place to preclude overdrafts?
   c. Are procedures in effect to place holds on, and to check for holds on, withdrawals over a stated amount? If so, indicate the amount.
14. For signature cards on demand and time accounts:
   a. Are procedures in effect to guard against the substitution of false signatures? Describe the procedures.
   b. Are signature cards stored to preclude physical damage?
   c. Are signatures compared for withdrawals and cashed checks? Describe the procedures.

OFFICIAL CHECKS, MONEY ORDERS, AND CERTIFIED CHECKS

*1. Are separate general-ledger accounts maintained for each type of official check?

*2. For each type of check issued:
   a. Are multicopy checks and certified-check forms used? If not, are detailed registers of disbursed checks maintained?
   b. Are all checks prenumbered and issued in sequence?
   c. Is check preparation and issuance separate from recordkeeping?
   d. Is the signing of checks in advance prohibited?
   e. Do procedures prohibit the issuance of a check before the credit is processed?

*3. Is the list authorizing bank personnel to sign official checks kept current? Does the list include changes in authorization limits, delete employees who no longer work at the bank, and indicate employees added to the list?

*4. Are appropriate controls in effect over check-signing machines (if used) and certification stamps?

*5. Are voided checks and voided certified-check forms promptly defaced and filed with paid checks?
*6. If reconcilements are not part of the overall deposit-reconciliation function—
   a. are outstanding checks listed and reconciled regularly to the general ledger? If so, state how often.
   b. is permanent evidence of reconcilements maintained?
   c. is there clear separation between the preparation of checks, data entry, and check reconcilement?
   d. are the reconcilements reviewed regularly by an authorized officer?
   e. are reconcilement duties rotated on a formal basis in institutions where size precludes the full separation of duties between data entry and reconcilement?
   f. are authorized signatures and endorsements checked by the filing clerk?
*7. For supplies of official checks:
   a. Are records of unissued official checks maintained centrally and at each location storing them?
   b. Are periodic inventories of unissued checks independently performed?
   c. Do the inventories include a description of all checks issued out of sequence?
   d. If users are assigned a supply, is that supply replenished on a consignment basis?
*8. Are procedures in effect to preclude certification of checks drawn against uncollected funds?

TREASURY TAX AND LOAN ACCOUNTS (31 CFR 203)

1. Do transfers from the remittance-option account to the Federal Reserve Bank occur the next business day after deposit?
2. When the note option is used, do transfers from the Treasury Tax and Loan (TT&L) demand deposit account occur the next business day after deposit?
*3. Has the TT&L-account reconcilement been completed in a timely manner and approved by a supervisor?
4. Has adequate collateral been pledged to secure the TT&L account?

AUDIT

*1. Are deposit-account activities audited on a sufficiently frequent basis?
*2. Does the scope of the audit program require, and do audit records support, substantive testing or quantitative measurements of deposit-account activities that, at a minimum, include the matters set forth in this questionnaire?
*3. Does the audit program include a comprehensive confirmation program with the customers of each deposit category maintained by the institution?
*4. Do audit department records support the execution of the confirmation program, and do the records reflect satisfactory follow-up of responses and of requests returned as undeliverable?
*5. Are audit and prior-examination recommendations for deposit-account activities appropriately addressed?

CONCLUSION

*1. Does the foregoing information provide an adequate basis for evaluating internal control in that deficiencies in areas not covered by this questionnaire do not significantly impair any controls? Explain negative answers briefly, and indicate any additional examination procedures deemed necessary.
*2. Are internal controls adequate on the basis of a composite evaluation, as evidenced by answers to the foregoing questions?

Borrowed funds are a common and practical method for banks of all sizes to meet customers' needs and enhance banking operations. For the purposes of this section, borrowings exclude long-term subordinated debt, such as capital notes and debentures (discussed in "Assessment of Capital Adequacy," section 3020.1). Borrowings may exist in a number of forms, both on a direct and indirect basis. Common sources of direct bank borrowings include Federal Home Loan Bank credit lines, federal funds purchased, loans from correspondent banks, repurchase agreements, negotiable certificates of deposit, and borrowings from the Federal Reserve discount window. These are discussed in some detail below. Other borrowings include bills payable to the Federal Reserve, interest-bearing demand notes issued to the U.S. Treasury (the Treasury tax and loan note option account), mortgages payable, due bills, and other types of borrowed securities. Indirect forms of borrowings include customer paper rediscounted and assets sold with the bank's endorsement or guarantee or subject to a repurchase agreement.

The primary reasons a bank may borrow include the following:

- To meet the temporary or seasonal loan or deposit withdrawal needs of its customers, if the borrowing period is temporary and the bank is quickly restored to a position in which the quantity of its principal earning assets and cash reserves is in proper relation to the requirements of its normal deposit volume.
- To meet large and unanticipated deposit withdrawals that may arise during periods of economic distress. The examiner should distinguish between "large and unanticipated deposit withdrawals" and a predeterminable contraction of deposits, such as the cessation of activities in a resort community or the withdrawal of funds on which the bank received adequate prior withdrawal notice. Those situations should be met through ample cash reserves and readily convertible assets rather than borrowing.
- To manage liabilities effectively. Generally, the effective use of this type of continuous borrowing is limited to money-center or large regional banks.

It is important to analyze each borrowing on its own merit to determine its purpose, effectiveness, and stability. Some of the more frequently used sources of borrowings are discussed below.

COMMON SOURCES OF BORROWINGS

Federal Home Loan Bank Borrowings

The Federal Home Loan Bank (FHLB) originally served solely as a source of borrowings to savings and loan companies. With the implementation of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA), FHLB's lending capacity was expanded to include banks.

Compared with borrowings from the discount window of the Reserve Banks, borrowings from the FHLB have fewer conditions. Both short-term and long-term borrowings, with maturities ranging from overnight to 30 years, are available to institutions at generally competitive interest rates. The flexibility of the facility enables bank management to use this source of funds for the purpose of asset/liability management, and it allows management to secure a favorable interest-rate spread. For example, FHLB borrowings may provide a lower-cost alternative to the conventional deposit, particularly in a highly competitive local market.

Management should be capable of explaining the purpose of the borrowing transaction. The borrowing transaction should then be analyzed to determine whether the arrangement achieved the stated purpose or whether the borrowings are a sign of liquidity deficiencies. Further, the borrowing agreement between the institution and the FHLB should be reviewed to determine the asset collateralizing the borrowings and the potential risks presented by the agreement. In some instances, the borrowing agreement may provide for collateralization by all assets not already pledged for other purposes.

The types of collateral necessary to obtain an FHLB loan include residential mortgage loans and mortgage-backed securities. The composite rating of an institution is a factor in both the approval for obtaining an FHLB loan and the level of collateral required.

Federal Funds Purchased

The day-to-day use of federal funds is a rather common occurrence, and federal funds are considered an important money market instrument. Many regional and money-center banks, acting in the capacity of correspondents to smaller community banks, function as both providers and purchasers of federal funds and, in the process of these transactions, often generate a small return.

A brief review of bank reserves is essential to a discussion of the federal funds market. As a condition of membership in the Federal Reserve System, member banks are required to maintain a portion of their deposits as reserves. Reserves can take the form of vault cash and deposits in the Reserve Bank. The amount of these reserve balances is reported weekly or quarterly and computed on the basis of the daily average deposit balances. For institutions that report their reserves on a weekly basis, required reserves are computed on the basis of daily average balances of deposits and Eurocurrency liabilities during a 14-day period ending every second Monday. Institutions that report their reserves on a quarterly basis compute their reserve requirement on the basis of their daily average deposit balances during a seven-day computation period that begins on the third Tuesday of March, June, September, and December. (See 12 CFR 204.3(c)–(d).)

Since member banks do not receive interest on the reserves, banks prefer to keep excess balances at a minimum to achieve the maximum utilization of funds. To accomplish this goal, banks carefully analyze and forecast their daily reserve position. Changes in the volume of required reserves occur frequently as the result of deposit fluctuations. Deposit increases require member banks to maintain more reserves; conversely, deposit decreases require less reserves.

The most frequent type of federal funds transaction is unsecured for one day and repayable the following business day. The rate is usually determined by overall money market rates as well as by the available supply of and demand for funds. In some instances, when the selling and buying relationship between two banks is quite continuous, something similar to a line of credit may be established on a funds-availability basis. Although the most common federal funds transaction is unsecured, the selling of funds can also be secured and for longer periods of time. Agency-based federal funds transactions are discussed in ‘‘Bank Dealer Activities,’’ section 2030.1.

Loans from Correspondent Banks

Small and medium-sized banks often negotiate loans from their principal correspondent banks. The loans are usually for short periods and may be secured or unsecured.

Repurchase Agreements

The terms ‘‘repurchase agreement’’[1] (repo) and ‘‘reverse repurchase agreement’’ refer to a type of transaction in which a money market participant acquires immediately available funds by selling securities and simultaneously agreeing to repurchase the securities after a specified time at a given price, which typically includes interest at an agreed-on rate. Such a transaction is called a repo when viewed from the perspective of the supplier of the securities (the borrower), and a reverse repo or matched sale-purchase agreement when described from the point of view of the supplier of funds (the lender).

Frequently, instead of resorting to direct borrowings, a bank may sell assets to another bank or some other party and simultaneously agree to repurchase the assets at a specified time or after certain conditions have been met. Bank securities as well as loans are often sold under a repo to generate temporary working funds. These kind of agreements are often used because the rate on this type of borrowing is less than the rate on unsecured borrowings, such as federal funds purchased.

The usual terms for the sale of securities under a repo require that, after a stated period of time, the seller repurchase the securities at a predetermined price or yield. A repo commonly includes a near-term maturity (overnight or a few days) and is usually arranged in large-dollar amounts. The lender or buyer is entitled to receive compensation for use of the funds provided to its counterparty. The interest rate paid on a repo is negotiated based on the rates on the underlying securities. U.S. government and agency securities are the most common type of

1. See sections 2015.1, 2020.1, and 4170.1.

instruments sold under repurchase agreements, since those types of repos are exempt from reserve requirements.

Although standard overnight and term repo arrangements in Treasury and federally related agency securities are most prevalent, market participants sometimes alter various contract provisions to accommodate specific investment needs or to provide flexibility in the designation of collateral. For example, some repo contracts allow substitutions of the securities subject to the repurchase commitment. These are called "dollar repurchase agreements" (dollar rolls), and the initial seller's obligation is to repurchase securities that are substantially similar, but not identical, to the securities originally sold. Another common repo arrangement is called a "flex repo," which, as implied by the name, provides a flexible term to maturity. A flex repo is a term agreement between a dealer and a major customer in which the customer buys securities from the dealer and may sell some of them back before the final maturity date.

Bank management should be aware of certain considerations and potential risks of repurchase agreements, especially when entering into large-dollar-volume transactions with institutional investors or brokers. Both parties in a term repo arrangement are exposed to interest-rate risk. It is a fairly common practice to have the collateral value of the underlying securities adjusted daily to reflect changes in market prices and to maintain the agreed-on margin. Accordingly, if the market value of the repo securities declines appreciably, the borrower may be asked to provide additional collateral. Conversely, if the market value of the securities rises substantially, the lender may be required to return the excess collateral to the borrower. If the value of the underlying securities exceeds the price at which the repurchase agreement was sold, the bank could be exposed to the risk of loss if the buyer is unable to perform and return the securities. This risk would obviously increase if the securities are physically transferred to the institution or broker with which the bank has entered into the repurchase agreement. Moreover, if the securities are not returned, the bank could be exposed to the possibility of a significant write-off, to the extent that the book value of the securities exceeds the price at which the securities were originally sold under the repurchase agreement. For this reason, banks should avoid pledging excessive collateral and obtain sufficient financial information on and analyze the financial condition of those institutions and brokers with whom they engage in repurchase transactions.

"Retail repurchase agreements" (retail repos)[2] for a time were a popular vehicle for some commercial banks to raise short-term funds and compete with certain instruments offered by nonbanking competitors. For booking purposes, a retail repo is a debt incurred by the issuing bank that is collateralized by an interest in a security that is either a direct obligation of or guaranteed as to principal and interest by the U.S. government or an agency thereof. Retail repos are issued in amounts not exceeding $100,000 for periods of less than 90 days. With the advent of money market certificates issued by commercial banks, the popularity of the retail repo declined.

Both retail and large-denomination, wholesale repurchase agreements are in many respects equivalent to short-term borrowings at market rates of interest. Therefore, banks engaging in repurchase agreements should carefully evaluate their interest-rate-risk exposure at various maturity levels, formulate policy objectives in light of the institution's entire asset and liability mix, and adopt procedures to control mismatches between assets and liabilities. The degree to which a bank borrows through repurchase agreements also should be analyzed with respect to its liquidity needs, and contingency plans should provide for alternative sources of funds.

Negotiable Certificates of Deposit

Certificates of deposit (CDs) have not been legally defined as borrowings and continue to be reflected as deposits for reporting purposes. However, the fundamental distinction between a negotiable money market CD as a deposit or as a borrowing is nebulous at best; in fact, the negotiable money market CD is widely recognized as the primary borrowing vehicle for many banks. Dependence on CDs as sources of funds is discussed in "Deposit Accounts," section 3000.1.

2. See sections 2015.1, 2020.1, and 4170.1.

Borrowings from the Federal Reserve

In accordance with the Board's Regulation A (12 CFR 201), the Federal Reserve Banks generally make credit available through the primary, secondary, and seasonal credit programs to any depository institution that maintains transaction accounts or nonpersonal time deposits.[3] However, the Federal Reserve expects depository institutions to rely on market sources of funds for their ongoing funding needs and to use these credit programs as a backup source of funding rather than a routine one. An institution that borrows primary credit may use those funds to finance sales of federal funds, but secondary and seasonal credit borrowers may not act as the medium or agent of another depository institution in receiving Federal Reserve credit except with the permission of the lending Federal Reserve Bank.

A Federal Reserve Bank is not obligated to extend credit to any depository institution but may lend to a depository institution either by making an advance secured by acceptable collateral or by discounting certain types of paper described in the Federal Reserve Act. Although Reserve Banks now always extend credit in the form of an advance, the Federal Reserve's credit facility nonetheless is known colloquially as the "discount window." Before lending to a depository institution, a Reserve Bank can require any information it believes is appropriate to ensure that the assets tendered as collateral are acceptable. A Reserve Bank also should determine prior to lending whether the borrowing institution is undercapitalized or critically undercapitalized. Operating Circular No. 10, "Lending," establishes the credit and security terms for borrowings from the Federal Reserve.

3. In unusual and exigent circumstances and after consultation with the Board, a Reserve Bank may extend credit to individuals, partnerships, and corporations that are not depository institutions if, in the judgment of the Reserve Bank, credit is not available from other sources and failure to obtain credit would adversely affect the economy. A Reserve Bank may extend credit to a nondepository entity in the form of an advance only if the advance is secured by a direct obligation of the United States or a direct obligation of, or an obligation that is fully guaranteed as to principal and interest by, any agency of the United States. An extension of credit secured by any other type of collateral must be in the form of a discount and must be authorized by an affirmative vote of at least five members of the Board.

Primary Credit

Reserve Banks may extend primary credit on a very short term basis (typically overnight) to depository institutions that the Reserve Banks judge to be in generally sound financial condition. Reserve Banks extend primary credit at a rate above the target federal funds rate of the Federal Open Market Committee. Minimal administrative requirements apply to requests for overnight primary credit, unless some aspect of the credit request appears inconsistent with the conditions of primary credit (for example, if a pattern of behavior indicates strongly that an institution is using primary credit other than as a backup source of funding). Reserve Banks also may extend primary credit to eligible institutions for periods of up to several weeks if such funding is not available from other sources. However, longer-term extensions of primary credit will be subject to greater administration than are overnight loans.

Reserve Banks determine eligibility for primary credit according to a uniform set of criteria that also is used to determine eligibility for daylight credit under the Board's Policy Statement on Payments System Risk. These criteria are based mainly on examination ratings and capitalization, although Reserve Banks also may use supplementary information, including market-based information when available. Specifically, an institution that is at least adequately capitalized and rated CAMELS 1 or 2 (or SOSA 1 and ROCA 1, 2, or 3) almost certainly would be eligible for primary credit. An institution that is at least adequately capitalized and rated CAMELS 3 (or SOSA 2 and ROCA 1, 2, or 3) generally would be eligible. An institution that is at least adequately capitalized and rated CAMELS 4 (or SOSA 1 or 2 and ROCA 4 or 5) would be eligible only if an ongoing examination indicated a substantial improvement in condition. An institution that is not at least adequately capitalized, or that is rated CAMELS 5 (or SOSA 3 regardless of the ROCA rating), would not be eligible for primary credit.

Secondary Credit

Secondary credit is available to institutions that do not qualify for primary credit. Secondary credit is available as a backup source of liquidity on a very short term basis, provided that the loan is consistent with a timely return to a reliance on

market sources of funds. Longer-term secondary credit is available if necessary for the orderly resolution of a troubled institution, although any such loan would have to comply with additional requirements for lending to undercapitalized and critically undercapitalized institutions. Unlike the primary credit program, secondary credit is not a minimal administration facility because Reserve Banks must obtain sufficient information about a borrower's financial situation to ensure that an extension of credit complies with the conditions of the program. Secondary credit is available at a rate above the primary credit rate.

Seasonal Credit

Seasonal credit is available under limited conditions to meet the needs of depository institutions that have seasonal patterns of movement in deposits and loans but that lack ready access to national money markets. In determining a depository institution's eligibility for seasonal credit, Reserve Banks consider not only the institution's historical record of seasonal fluctuations in loans and deposits, but also the institution's recent and prospective needs for funds and its liquidity conditions. Generally, only very small institutions with pronounced seasonal funding needs will qualify for seasonal credit. Seasonal credit is available at a flexible rate that takes into account the rate for market sources of funds.

Collateral Requirements

All loans advanced by the Reserve Bank must be secured to the satisfaction of the Reserve Bank. Collateral requirements are governed by Operating Circular No. 8. Reserve Banks require a perfected security interest in all collateral pledged to secure loans. Satisfactory collateral generally includes U.S. government and federal-agency securities, and, if they are of acceptable quality, mortgage notes covering one- to four-family residences; state and local government securities; and business, consumer, and other customer notes. Traditionally, collateral is held in the Reserve Bank vault. Under certain circumstances, collateral may be retained on the borrower's premises under a borrower-in-custody arrangement, or it may be held on the borrower's premises under the Reserve Bank's exclusive custody and control in a field warehouse arrangement. Collateral may also be held at the borrowing institution's correspondent or another third party. All book-entry collateral must be held at the Federal Reserve Bank. Definitive collateral, not in bearer form, must be properly assigned and endorsed.

Lending to Undercapitalized and Critically Undercapitalized Depository Institutions

Credit from any Reserve Bank to an institution that is "undercapitalized" may be extended or outstanding for no more than 60 days during which the institution is undercapitalized in any 120-day period.[4] An institution is considered undercapitalized if it is not critically undercapitalized under section 38 of the Federal Deposit Insurance Act (the FDI Act) but is either deemed undercapitalized under that provision and its implementing regulations or has received a composite CAMELS rating of 5 as of the most recent examination. A Reserve Bank may make or have outstanding advances or discounts to an institution that is deemed "critically undercapitalized" under section 38 of the FDI Act and its implementing regulations only during the five-day period beginning on the date the institution became critically undercapitalized or after consultation with the Board.

INTERNATIONAL BORROWINGS

International borrowings may be direct or indirect. Common forms of direct international borrowings include loans and short-term call money from foreign banks, borrowings from the Export-Import Bank of the United States, and overdrawn nostro (due from foreign banks—demand) accounts. Indirect forms of borrowing include notes and trade bills rediscounted with the central banks of various countries; notes, acceptances, import drafts, or trade bills sold with the bank's endorsement or guarantee; notes and other obligations sold subject to repurchase agreements; and acceptance pool participations.

4. Generally, a Reserve Bank also may lend to an undercapitalized institution during 60 calendar days after receipt of a certificate of viability from the Chairman of the Board of Governors or after consultation with the Board.

ANALYZING BORROWINGS

If a bank borrows extensively or in large amounts, the examiner should thoroughly analyze the borrowing activity. An effective analysis includes a review of the bank's reserve records, both required and maintained, to determine the frequency of deficiencies at the closing of reserve periods. The principal sources of borrowings, range of amounts, frequency, length of time indebted, cost, and reasons for the borrowings should be explored. The actual use of the funds should be verified.

Examiners should also analyze changes in a bank's borrowing position for signs of deterioration in its borrowing ability and overall creditworthiness. One indication of deterioration is the payment of large fees to money brokers to obtain funds because the bank is having difficulty obtaining access to conventional sources of borrowings. These ''brokered deposits'' are usually associated with small banks since they do not generally have ready access to alternative sources of funds available to larger institutions through the money and capital markets. Brokered deposits generally carry higher interest rates than alternative sources, and they tend to be particularly susceptible to interest-rate changes in the overall financial market. For further discussion of brokered deposits, see ''Deposit Accounts,'' section 3000.1.

Other indicators of deterioration in a bank's borrowing ability and overall creditworthiness include, but are not limited to, requests for collateral on previously unsecured credit lines or increases in collateral margins, the payment of above-market interest rates, or a shortening of maturities that is inconsistent with management's articulated balance-sheet strategies. If the examiner finds that a bank's borrowing position is not properly managed, appropriate comments should be included in the report of examination.

1. To determine if the policies, practices, procedures, and internal controls for borrowed funds are adequate.
2. To determine if bank officers are operating in conformance with the established guidelines.
3. To determine the scope and adequacy of the audit function.
4. To determine compliance with laws and regulations.
5. To initiate corrective action when policies, practices, procedures, or internal controls are deficient or when violations of laws or regulations have been noted.

1. If selected for implementation, complete or update the Borrowed Funds section of the Internal Control Questionnaire.
2. Based on the evaluation of internal controls and the work performed by the internal/external auditors, determine the scope of the examination.
3. Test for compliance with policies, practices, procedures, and internal controls in conjunction with performing the remaining examination procedures. Also obtain a listing of any audit deficiencies noted in the latest review done by internal/external auditors from the examiner assigned to "Internal Control" and determine if appropriate corrections have been made.
4. Obtain the listing of accounts related to domestic and international borrowed funds from the examiner assigned to "Examination Strategy."
5. Prepare or obtain a listing of borrowings, by type, and—
   a. agree or reconcile balances to department controls and general ledger, and
   b. review reconciling items for reasonableness.
6. From consultation with the examiners assigned to the various loan areas, determine that the following schedules were reviewed in the lending departments and that there was no endorsement, guarantee, or repurchase agreement which would constitute a borrowing:
   a. participations sold
   b. loans sold in full since the preceding examination
7. Based on the information obtained in steps 5 and and 6, and through observation and discussion with management and other examining personnel, determine that all borrowings are properly reflected on the books of the bank.
8. If the bank engages in any form of borrowing which requires written borrowing agreement(s), complete the following:
   a. Prepare or update a carry-forward workpaper describing the major terms of each borrowing agreement, and determine that the bank is complying with those terms.
   b. Review terms of past and present borrowing agreements for indications of deteriorating credit position by noting—
      - recent substantive changes in borrowing agreements,
      - increases in collateral to support borrowing transactions,
      - general shortening of maturities,
      - interest rates exceeding prevailing market rates,
      - frequent changes in lenders, and
      - large fees paid to money brokers.
   c. If the bank has obtained funds from money brokers (brokered deposits), determine—
      - why such deposits were originally obtained,
      - who the deposits were obtained from,
      - what the funds are used for,
      - the relative cost of brokered deposits in comparison to alternate sources of funds, and
      - the overall effect of the use of brokered deposits on the bank's condition and whether there appear to be any abuses related to the use of such deposits.
   d. If there is an indication that the bank's credit position has deteriorated, ascertain why.
9. If the bank engages in the issuance of retail repurchase agreements (retail repos), check for compliance with section 4170.1; also 2015.1 and 2020.1.
10. Determine the purpose of each type of borrowing and conclude whether the bank's borrowing posture is justified in light of its financial condition and other relevant circumstances.
11. Provide the examiner assigned to "Asset/Liability Management" the following information:
    a. A summary and an evaluation of the bank's borrowing policies, practices, and procedures. The evaluation should give consideration to whether the bank—
       - evaluates interest-rate-risk exposure at various maturity levels;
       - formulates policy objectives in light of the entire asset and liability mix, and liquidity needs;
       - has adopted procedures to control mis-

matches between assets and liabilities; and
- has contingency plans for alternate sources of funds in the event of a run-off of current funding sources.

b. An evaluation of the bank's adherence to established policies and procedures.
c. A repricing maturity schedule of borrowings.
d. A listing of prearranged federal funds lines and other lines of credit. Indicate the amount currently available under those lines, i.e., the unused portion of the lines.
e. The amount of any anticipated decline in borrowings over the next _____ day period. (The time period will be determined by the examiner assigned to "Asset/Liability Management.")

12. Prepare a list of all borrowings by category, on a daily basis for the period since the last examination. Also, include on the list short-term or overnight money market lending activities such as federal funds sold and securities purchased under resale agreement. For each category on the list, compute for the period between examinations—
    a. high point
    b. low point
    c. average amounts outstanding
    d. frequency of borrowing and lending activity, expressed in terms of number of days
13. Prepare, in appropriate report form, and discuss with appropriate management—
    a. the adequacy of written policies regarding borrowings;
    b. the manner in which bank officers are operating in conformance with established policy;
    c. the existence of any unjustified borrowing practices;
    d. any violation of laws or regulations; and
    e. recommended corrective action when policies, practices, or procedures are deficient; violations of laws or regulations exist; or when unjustified borrowing practices are being pursued.
14. Update the workpapers with any information that will facilitate future examinations.
15. Review the market value of collateral and collateral-control arrangements for repurchase agreements to ensure that excessive collateral has not been pledged and that the bank is not exposed to excessive credit risks.

Borrowed Funds
Internal Control Questionnaire
Effective date March 1984

Section 3010.4

Review the bank's controls, policies, practices and procedures for obtaining and servicing borrowed funds. The bank's system should be documented in a complete and concise manner and should include, where appropriate, narrative descriptions, flowcharts, copies of forms used and other pertinent information. Items marked with an asterisk require substantiation by observation or testing.

POLICY

1. Has the board of directors approved a written policy which:
   a. Outlines the objectives of bank borrowings?
   b. Describes the bank's borrowing philosophy relative to risk considerations, i.e., leverage/growth, liquidity/income?
   c. Provides for risk diversification in terms of staggered maturities rather than solely on cost?
   d. Limits borrowings by amount outstanding, specific type or total interest expense?
   e. Limits or restricts execution of borrowings by bank officers?
   f. Provides a system of reporting requirements to monitor borrowing activity?
   g. Requires subsequent approval of transactions?
   h. Provides for review and revision of established policy at least annually?

RECORDS

*2. Does the bank maintain subsidiary records for each type of borrowing, including proper identification of the obligee?

*3. Is the preparation, addition and posting of the subsidiary borrowed funds records performed or adequately reviewed by persons who do not also:
   a. Handle cash?
   b. Issue official checks and drafts?
   c. Prepare all supporting documents required for payment of debt?

*4. Are subsidiary borrowed funds records reconciled with the general ledger accounts at an interval consistent with borrowing activity, and are the reconciling items investigated by persons, who do not also:
   a. Handle cash?
   b. Prepare or post to the subsidiary borrowed funds records?

INTEREST

*5. Are individual interest computations checked by persons who do not have access to cash?

6. Is an overall test of the total interest paid made by persons who do not have access to cash?

7. Are payees on the checks matched to related records of debt, note or debenture owners?

8. Are corporate resolutions properly prepared as required by creditors and are copies on file for reviewing personnel?

9. Are monthly reports furnished to the board of directors reflecting the activity of borrowed funds, including amounts outstanding, interest rates, interest paid to date and anticipated future activity?

CONCLUSION

10. Is the foregoing information an adequate basis for evaluating internal control in that there are no significant deficiencies in areas not covered in this questionnaire that impair any controls? Explain negative answers briefly, and indicate any additional examination procedures deemed necessary.

11. Based on a composite evaluation, as evidenced by answers to the foregoing questions, internal control is considered (adequate/inadequate).

Complex Wholesale Borrowings

Effective date May 2001

Section 3012.1

Commercial banks rely on wholesale borrowings obtained from a number of financial intermediaries, including Federal Home Loan Banks, other commercial banks, and securities firms. These borrowings frequently have attractive features and pricing. If properly assessed and prudently managed, they can enhance a bank's funding options and assist in controlling interest-rate and liquidity risks. Some of the reasons that banks use these types of borrowings include the initial low cost of funds when compared with other liabilities with similar maturities. At the same time, certain wholesale borrowings have become more complex, and some structures include various types of embedded options.[1] If not thoroughly assessed and prudently managed, these more complex funding instruments have the potential over time to significantly increase a bank's sensitivity to market and liquidity risks. Maturity mismatches or the embedded options themselves can, in some circumstances, adversely affect a bank's financial condition, especially when the terms and conditions of the borrowings are misunderstood.

A growing use of wholesale borrowings, combined with the risks associated with the complex structures of some of these borrowings, makes it increasingly important for bank supervisors to assess the risks and risk-management processes associated with these sources of funds. The supervisory guidance provided below supplements and expands upon existing general guidance on bank funding and borrowings.[2] Where appropriate, examiners should (1) review the provisions of each significant borrowing agreement between the bank and the wholesale institution, (2) determine what assets collateralize the borrowing (or borrowings), and (3) identify the potential risks presented by the agreement. (See SR-01-8.)

In addition to determining if a bank follows the sound-practice guidance for bank liability management and funding in general, supervisors should take the following steps, as appropriate, when assessing a bank that has material amounts of wholesale borrowings:

- Review the bank's borrowing contracts for embedded options or other features that may affect the bank's liquidity and sensitivity to market risks. In addition, examiners should review the collateral agreements for fees, collateral-maintenance requirements (including triggers for increases in collateral), and other features that may affect the bank's liquidity and earnings.
- Assess the bank's management processes for identifying and monitoring the risks of the various terms of each borrowing contract, including penalties and option features over the expected life of the contract. Examiners should review for evidence that the bank's management, or an independent third party, completed stress tests (1) before the bank entered into the borrowing agreement (or agreements) and (2) periodically thereafter. If the bank relies on independent third-party testing, examiners should verify that management reviewed and accepted the underlying assumptions and test results. In any case, management should not be relying solely on the wholesaler's stress-test results. Also, the stress tests employed should cover a reasonable range of contractual triggers and external events. Such triggers or events include interest-rate changes that may result in the exercise of embedded options or the bank's termination of the agreement, which may entail prepayment penalties. In general, stress-test results should depict the potential impact of these variables on the individual borrowing facility, as well as on the overall earnings and liquidity position of the bank.
- Evaluate management processes for controlling risks, including interest-rate risks arising from the borrowings and liquidity risks. Proper controls include (1) hedges or other plans for minimizing the adverse effects of penalties or interest-rate changes and other triggers for embedded options and (2) contingent funding

1. Wholesale borrowings with embedded options may have variable interest payments or average lives or redemption values that depend on external measures such as reference rates, indexes, or formulas. Embedded options include putable, callable, convertible, and variable rate advances with caps, floors, collars, step-ups, or amortizing features. In addition, these types of borrowings may contain prepayment penalties.

2. See the supervisory guidance for "Borrowed Funds," section 3010.1; "Asset/Liability Management," section 4020.1; and "Interest-Rate Risk Management," section 4090.1. See also the *Trading and Capital-Markets Activities Manual*, sections 2030.1, "Liquidity Risk," and 3010.1, "Interest-Rate Risk Management." In general, this guidance collectively calls for supervisors to analyze the purpose, effectiveness, concentration exposure, and stability of borrowings and to assess bank management's understanding of liquidity and interest-rate risks associated with borrowing and funding strategies.

plans if borrowings or lines are terminated before the original expected maturity.

- Determine whether the asset/liability management committee or board of directors, as appropriate, is fully informed of the risks and ramifications of complex wholesale-borrowing agreements before engaging in the transactions and on an ongoing basis.
- Determine whether funding strategies for wholesale borrowings, especially those with embedded options, are consistent with both the portfolio objectives of the bank and the level of sophistication of the bank's risk management. Banks without the technical knowledge and whose risk-management systems are insufficient to adequately identify, assess, monitor, and control the risks of complex wholesale borrowings should not be using this funding.

Reliance on wholesale borrowings is consistent with safe and sound banking when management understands the risks of these activities and has systems and procedures in place to properly monitor and control the risks. Supervisors and examiners, however, should take appropriate steps to follow up on institutions that use complex funding instruments without adequately understanding their risks or without proper risk-management systems and controls. Examiners should also seek corrective action when funding mechanisms or strategies are inconsistent with prudent funding needs and objectives.

Complex Wholesale Borrowings
Examination Objectives

Effective date May 2001

Section 3012.2

1. To review the terms of wholesale-borrowing contracts to identify embedded options or other features that may affect the bank's liquidity and sensitivity to market risks.
2. To assess management's technical knowledge, systems, and processes for identifying, assessing, monitoring, and controlling the risks (including liquidity risk and interest-rate risk) associated with wholesale borrowing, and to assess the bank's stress-testing practices and contingency-funding plans.
3. To determine if the bank's board of directors or its asset/liability management committee is fully aware of the risks associated with and ramifications of engaging in complex wholesale-borrowing agreements.
4. To ascertain whether the bank's wholesale-borrowing funding and hedging strategies are consistent with its portfolio objectives and the level of management's sophistication.

1. Review the bank's borrowing contracts to identify embedded options or other features that may affect the bank's liquidity and sensitivity to market risks. Also review the collateral agreements to determine what fees, collateral-maintenance requirements (including triggers for increases in collateral), and other agreed-upon features may affect the bank's liquidity and earnings.
2. Assess the bank's management processes for identifying and monitoring the risks of the various terms of each borrowing contract, including penalties and option features over the expected life of the contract.
   a. Obtain and examine evidence to determine whether the bank's management, or an independent third party, completed stress tests before the bank entered into the borrowing agreement (or agreements) and periodically thereafter.
   b. If the bank relies on independent third-party testing, verify that management reviewed and accepted the underlying assumptions and test results.
3. Evaluate the management processes for controlling risks, including (1) interest-rate risks arising from the borrowings and (2) liquidity risks.
4. Determine if the asset/liability management committee or board of directors, as appropriate, is fully informed of the risks and ramifications of complex wholesale-borrowing agreements both before engaging in the transactions and on an ongoing basis.
5. Determine if funding strategies for wholesale borrowings, especially those with embedded options, are consistent with both the portfolio objectives of the bank and the level of sophistication of the bank's risk management.
6. Seek the corrective action taken by the institution when funding mechanisms or strategies are inconsistent with prudent funding needs and objectives.

As part of their executive compensation and retention programs, banks and other financial institutions (collectively referred to in this section as "institutions") often enter into deferred compensation agreements with selected employees. These agreements are generally structured as nonqualified retirement plans for federal income tax purposes and are based on individual agreements with selected employees.

Institutions often purchase bank-owned life insurance (BOLI) in connection with many of their deferred compensation agreements. (See sections 4042.1 and 2210.1 for an explanation of the accounting for BOLI transactions). BOLI may produce attractive tax-equivalent yields that offset some or all of the costs of the agreements.

Deferred compensation agreements are commonly referred to as *indexed retirement plans* (IRPs) or as *revenue-neutral plans.* The institution's designated management and accounting staff that is responsible for the institution's financial reporting must regularly review the accounting for deferred compensation agreements to ensure that the obligations under the agreements are appropriately measured and reported in accordance with generally accepted accounting principles (GAAP). In so doing, the management and accounting staff should apply and follow Accounting Principles Board Opinion No. 12, "Omnibus Opinion—1967," as amended by Statement of Financial Accounting Standards No. 106 (FAS 106), "Employers' Accounting for Postretirement Benefits Other Than Pensions" (hereafter referred to as APB 12).

IRPs are one type of deferred compensation agreement that institutions enter into with selected employees. IRPs are typically designed so that the spread each year, if any, between the tax-equivalent earnings on the BOLI covering an individual employee and a hypothetical earnings calculation is deferred and paid to the employee as a post-retirement benefit. This spread is commonly referred to as *excess earnings.* The hypothetical earnings are computed on the basis of a predefined variable index rate (for example, the cost of funds or the federal funds rate) times a notional amount. The notional amount is typically the amount the institution initially invested to purchase the BOLI plus subsequent after-tax benefit payments actually made to the employee. By including the after-tax benefit payments and the amount initially invested to purchase the BOLI in the notional amount, the hypothetical earnings reflect an estimate of what the institution could have earned if it had not invested in the BOLI or entered into the IRP with the employee. Each employee's IRP may have a different notional amount on which the index is based. The individual IRP agreements also specify the retirement age and vesting provisions, which can vary from employee to employee.

An IRP agreement typically requires the excess earnings that accrue before an employee's retirement to be recorded in a separate liability account. Once the employee retires, the balance in the liability account is generally paid to the employee in equal, annual installments over a set number of years (for example, 10 or 15 years). These payments are commonly referred to as the *primary benefit* or *pre-retirement benefit.*

An employee may also receive the excess earnings that are earned after his or her retirement. This benefit may continue until the employee's death and is commonly referred to as the *secondary benefit* or *post-retirement benefit.* The secondary benefit is paid annually, once the employee has retired, and is in addition to the primary benefit.

Examiners should be aware that some institutions may not be correctly accounting for the obligations under an IRP. Because many institutions were incorrectly accounting for IRPs, the federal banking and thrift agencies issued on February 11, 2004, an Interagency Advisory on Accounting for Deferred Compensation Agreements and Bank-Owned Life Insurance. (See SR-04-4.) The guidance is stated here, except for the information on the reporting of deferred compensation agreement obligations in the bank Call Reports and on changes in accounting for those agreements. Examiners should determine whether an institution's deferred compensation agreements are correctly accounted for. If the accounting is incorrect, assurance should be obtained from the institution's management that corrections will be made in accordance with GAAP and the advisory's instructions for changes in accounting. The examiner's findings should be reported in the examination report. Also report the nature of the accounting errors and the estimated financial impact that correcting the errors will have on the institution's

financial statements, including its earnings and capital position.

ACCOUNTING FOR DEFERRED COMPENSATION AGREEMENTS, INCLUDING IRPs

Deferred compensation agreements with select employees under individual contracts generally do not constitute post-retirement income plans (that is, pension plans) or post-retirement health and welfare benefit plans. The accounting for individual contracts that, when taken together, do not represent a post-retirement plan should follow APB 12. If the individual contracts, taken together, are equivalent to a plan, the plan should be accounted for under Statement of Financial Accounting Standards No. 87, "Employers' Accounting for Pensions," or under FAS 106.

APB 12 requires that an employer's obligation under a deferred compensation agreement be accrued according to the terms of the individual contract over the required service period to the date the employee is fully eligible to receive the benefits, or the *full eligibility date.* Depending on the individual contract, the full eligibility date may be the employee's expected retirement date, the date the employee entered into the contract, or a date between these two dates. APB 12 does not prescribe a specific accrual method for the benefits under deferred compensation contracts, stating only that the "cost of those benefits shall be accrued over that period of the employee's service in a systematic and rational manner." The amounts to be accrued each period should result in a deferred compensation liability at the full eligibility date that equals the then-present value of the estimated benefit payments to be made under the individual contract.

APB 12 does not specify how to select the discount rate to measure the present value of the estimated benefit payments. Therefore, other relevant accounting literature must be considered in determining an appropriate discount rate. An institution's incremental borrowing rate[1] and the current rate of return on high-quality fixed-income debt securities[2] should be the acceptable discount rates to measure deferred compensation agreement obligations. An institution must select and consistently apply a discount-rate policy that conforms with GAAP.

For each IRP, an institution should calculate the present value of the expected future benefit payments under the IRP at the employee's full eligibility date. The expected future benefit payments can be reasonably estimated. They should be based on reasonable and supportable assumptions and should include both the primary benefit and, if the employee is entitled to excess earnings that are earned after retirement, the secondary benefit. The estimated amount of these benefit payments should be discounted because the benefits will be paid in periodic installments after the employee retires. The number of periods the primary and any secondary benefit payments should be discounted may differ because the discount period for each type of benefit payment should be based on the length of time during which each type of benefit will be paid, as specified in the IRP.

After the present value of the expected future benefit payments has been determined, the institution should accrue an amount of compensation expense and a liability each year from the date the employee enters into the IRP until the full eligibility date. The amount of these annual accruals should be sufficient to ensure that a deferred compensation liability equal to the present value of the expected benefit payments is recorded by the full eligibility date. *Any method of deferred compensation accounting that does not recognize some expense for the primary benefit and any secondary benefit in each year from the date the employee enters into the IRP until the full eligibility date is not considered to be systematic and rational.*

Vesting provisions should be reviewed to ensure that the full eligibility date is properly determined because this date is critical to the measurement of the liability estimate. Because APB 12 requires that the present value of the expected benefit payments be recorded by the full eligibility date, institutions also need to consider changes in market interest rates to appropriately measure deferred compensation

1. Accounting Principles Board Opinion No. 21, "Interest on Receivables and Payables," paragraph 13, states in part that "the rate used for valuation purposes will normally be at least equal to the rate at which the debtor can obtain financing of a similar nature from other sources at the date of the transaction."

2. FAS 106, paragraph 186, states that "[t]he objective of selecting assumed discount rates is to measure the single amount that, if invested at the measurement date in a portfolio of high-quality debt instruments, would provide the necessary future cash flows to pay the accumulated benefits when due."

liabilities. Therefore, to comply with APB 12, institutions should periodically review both their estimates of the expected future benefits under IRPs and the discount rates used to compute the present value of the expected benefit payments, and revise those estimates and rates, when appropriate.

Deferred compensation agreements, including IRPs, may include noncompete provisions or provisions requiring employees to perform consulting services during post-retirement years. If the value of the noncompete provisions cannot be reasonably and reliably estimated, no value should be assigned to the noncompete provisions in recognizing the deferred compensation liability. Institutions should allocate a portion of the future benefit payments to consulting services to be performed in post-retirement years only if the consulting services are determined to be substantive. Factors to consider in determining whether post-retirement consulting services are substantive include but are not limited to (1) whether the services are required to be performed, (2) whether there is an economic benefit to the institution, and (3) whether the employee forfeits the benefits under the agreement for failure to perform such services.

APPENDIX—EXAMPLES OF ACCOUNTING FOR DEFERRED COMPENSATION AGREEMENTS

The following are examples of the full-eligibility-date accounting requirements for a basic deferred compensation agreement. The assumptions used in these examples are for illustrative purposes only. An institution must consider the terms of its specific agreements, the current interest-rate environment, and current mortality tables in determining appropriate assumptions to use in measuring and recognizing the present value of the benefits payable under its deferred compensation agreements.

Institutions that enter into deferred compensation agreements with employees, particularly more-complex agreements (such as IRPs), should consult with their external auditors and their respective Federal Reserve Bank to determine the appropriate accounting for their specific agreements.

Example 1: Fully Eligible at Agreement Inception

A company enters into a deferred compensation agreement with a 55-year-old employee who has worked five years for the company. The agreement states that, in exchange for the employee's past and future services and for his or her service as a consultant for two years after retirement, the company will pay an annual benefit of $20,000 to the employee, commencing on the first anniversary of the employee's retirement. The employee is fully eligible for the deferred compensation benefit payments at the inception of the agreement, and the consulting services are not substantive.

Other key facts and assumptions used in determining the benefits payable under the agreement and in determining the liability and expense the company should record in each period are summarized in the following table:

Expected retirement age	60
Number of years to expected retirement age	5
Discount rate (%)	6.75
Expected mortality age based on present age	70

At the employee's expected retirement date, the present value of a lifetime annuity of $20,000 that begins on that date is $142,109 (computed as $20,000 times 7.10545, the factor for the present value of 10 annual payments at 6.75 percent). At the inception date of the agreement, the present value of that annuity of $102,514 (computed as $142,109 times 0.721375, the factor for the present value of a single payment in five years at 6.75 percent) is recognized as compensation expense because the employee is fully eligible for the deferred compensation benefit at that date.

The following table summarizes *one* systematic and rational method of recognizing the expense and liability under the deferred compensation agreement:

	A	B	C	D (B + C)	E	F (E + D – A)
Year	*Benefit payment ($)*	*Service component ($)*	*Interest component ($)*	*Compensation expense ($)*	*Beginning-of-year liability ($)*	*End-of-year liability ($)*
0	–	102,514	–	102,514	–	102,514
1	–	–	6,920	6,920	102,514	109,434
2	–	–	7,387	7,387	109,434	116,821
3	–	–	7,885	7,885	116,821	124,706
4	–	–	8,418	8,418	124,706	133,124
5	–	–	8,985	8,985	133,124	142,109
6	20,000	–	9,593	9,593	142,109	131,702
7	20,000	–	8,890	8,890	131,702	120,592
8	20,000	–	8,140	8,140	120,592	108,732
9	20,000	–	7,339	7,339	108,732	96,071
10	20,000	–	6,485	6,485	96,071	82,556
11	20,000	–	5,572	5,572	82,556	68,128
12	20,000	–	4,599	4,599	68,128	52,727
13	20,000	–	3,559	3,559	52,727	36,286
14	20,000	–	2,449	2,449	36,286	18,735
15	20,000	–	1,265	1,265	18,735	0
Totals	200,000	102,514	97,486	200,000		

The following entry would be made at the inception date of the agreement (the final day of year 0) to record the service component of the compensation expense and related deferred compensation agreement liability:

	Debit	*Credit*
Compensation expense	$102,514	
Deferred compensation liability		$102,514

[To record the column B service component]

In each period after the inception date of the agreement, the company would adjust the deferred compensation liability for the interest component and any benefit payment. In addition, the company would reassess the assumptions used in determining the expected future benefits under the agreement and the discount rate used to compute the present value of the expected benefits in each period after the inception of the agreement, and revise the assumptions and rate, as appropriate.

Assuming that no changes were necessary to the assumptions used to determine the expected future benefits under the agreement or to the discount rate used to compute the present value of the expected benefits, the following entry would be made in year 1 to record the interest component of the compensation expense:

	Debit	*Credit*
Compensation expense	$6,920	
Deferred compensation liability		$6,920

[To record the column C interest component (computed by multiplying the prior-year column F balance by the discount rate)]

Similar entries (but for different amounts) would be made in year 2 through year 15 to record the interest component of the compensation expense.

The following entry would be made in year 6 to record the payment of the annual benefit:

	Debit	*Credit*
Deferred compensation liability	$20,000	
Cash		$20,000

[To record the column A benefit payment]

Similar entries would be made in year 7 through year 15 to record the payment of the annual benefit.

Example 2: Fully Eligible at Retirement Date

If the terms of the contract described in example 1 had stated that the employee is only entitled to receive the deferred compensation benefit if the sum of the employee's age and years of service equals 70 or more at the date of retirement, the employee would be fully eligible for the deferred compensation benefit at age 60, after rendering five more years of service. At the employee's expected retirement date, the present value of a lifetime annuity of $20,000 that begins on the first anniversary of that date is $142,109 (computed as $20,000 times 7.10545, the factor for the present value of 10 annual payments at 6.75 percent). The company would accrue this amount in a systematic and rational manner over the five-year period from the date it entered into the agreement to the date the employee is fully eligible for the deferred compensation benefit. Under *one* systematic and rational method, the annual service component accrual would be $24,835 (computed as $142,109 divided by 5.72213, the factor for the future value of five annual payments at 6.75 percent).

Other key facts and assumptions used in determining the benefits payable under the agreement and in determining the liability and expense the company should record in each period are summarized in the following table:

Expected retirement age	60
Number of years to expected retirement age	5
Discount rate (%)	6.75
Expected mortality age based on present age	70

The following table summarizes *one* systematic and rational method of recognizing the expense and liability under the deferred compensation agreement:

	A	B	C	D (B + C)	E	F (E + D – A)
Year	*Benefit payment ($)*	*Service component ($)*	*Interest component ($)*	*Compensation expense ($)*	*Beginning-of-year liability ($)*	*End-of-year liability ($)*
1	–	24,835	–	24,835	–	24,835
2	–	24,835	1,676	26,511	24,835	51,346
3	–	24,835	3,466	28,301	51,346	79,647
4	–	24,835	5,376	30,211	79,647	109,858
5	–	24,835	7,416	32,251	109,858	142,109
6	20,000	–	9,593	9,593	142,109	131,702
7	20,000	–	8,890	8,890	131,702	120,592
8	20,000	–	8,140	8,140	120,592	108,732
9	20,000	–	7,339	7,339	108,732	96,071
10	20,000	–	6,485	6,485	96,071	82,556
11	20,000	–	5,572	5,572	82,556	68,128
12	20,000	–	4,599	4,599	68,128	52,727
13	20,000	–	3,559	3,559	52,727	36,286
14	20,000	–	2,449	2,449	36,286	18,735
15	20,000	–	1,265	1,265	18,735	0
Totals	200,000	124,175	75,825	200,000		

No entry would be made at the inception date of the agreement. The following entry would be made in year 1 to record the service component of the compensation expense and related deferred compensation agreement liability:

	Debit	*Credit*
Compensation expense	$24,835	
Deferred compensation liability		$24,835

[To record the column B service component]

Similar entries would be made in year 2 through year 5 to record the service component of the compensation expense.

In each subsequent period, until the date the employee is fully eligible for the deferred compensation benefit, the company would adjust the deferred compensation liability for the total expense (the service and interest components). In each period after the full eligibility date, the company would adjust the deferred compensation liability for the interest component and any benefit payment. In addition, the company would reassess the assumptions used in determining the expected future benefits under the agreement and the discount rate used to compute the present value of the expected benefits in each period after the inception of the agreement, and revise the assumptions and rate, as appropriate.

Assuming no changes were necessary to the assumptions used to determine the expected

future benefits under the agreement or to the discount rate used to compute the present value of the expected benefits, the following entry would be made in year 2 to record the interest component of the compensation expense:

	Debit	*Credit*
Compensation expense	$1,676	
Deferred compensation liability		$1,676

[To record the column C interest component (computed by multiplying the prior-year column F balance by the discount rate)]

Similar entries (but for different amounts) would be made in year 3 through year 15 to record the interest component of the compensation expense.

The following entry would be made in year 6 to record the payment of the annual benefit:

	Debit	*Credit*
Deferred compensation liability	$20,000	
Cash		$20,000

[To record the column A benefit payment]

Similar entries would be made in year 7 through year 15 to record the payment of the annual benefit.

Although both bank directors and bank regulators must look carefully at the quality of bank assets and management and at the ability of the bank to control costs, evaluate risks, and maintain proper liquidity, capital adequacy is the area that triggers the most regulatory action, especially in view of prompt corrective action. The primary function of capital is to support the bank's operations, act as a cushion to absorb unanticipated losses and declines in asset values that could otherwise cause a bank to fail, and provide protection to uninsured depositors and debt holders in the event of liquidation. A bank's solvency promotes public confidence in the bank and the banking system as a whole by providing continued assurance that the bank will continue to honor its obligations and provide banking services. By exposing stockholders to a larger percentage of any potential loss, higher capital levels also reduce the subsidy provided to banks by the federal safety net. Capital regulation is particularly important because deposit insurance and other elements of the federal safety net provide banks with an incentive to increase their leverage beyond what the market—in the absence of depositor protection—would permit. Additionally, higher capital levels can reduce the need for regulatory supervision, thereby lowering costs to the banking industry and the government.

The Federal Reserve uses two ratios to help assess the capital adequacy of state members: the risk-based capital ratio and the tier 1 leverage ratio. State member banks may also be subject to separate capital requirements imposed by state banking supervisors.

OVERVIEW OF THE RISK-BASED CAPITAL MEASURE FOR STATE MEMBER BANKS

The Federal Reserve's risk-based capital guidelines (the guidelines) focus principally on the credit risk associated with the nature of banks' on- and off-balance-sheet exposures and on the type and quality of banks' capital. The risk-based capital guidelines apply to all state member banks. The information provided in this section should be used in conjunction with the guidelines, which are found in Regulation H (12 CFR 208, appendix A).

The risk-based capital guidelines provide a definition of capital and a framework for calculating risk-weighted assets by assigning assets and off-balance-sheet items to broad categories of credit risk. A bank's risk-based capital ratio is calculated by dividing its qualifying capital (the numerator of the ratio) by its risk-weighted assets (the denominator). The definition of qualifying capital is outlined below, as are the procedures for calculating risk-weighted assets.

The major objectives of the risk-based capital guidelines are to make regulatory capital requirements more sensitive to differences in credit-risk profiles among banking organizations; to factor off-balance-sheet exposures into the assessment of capital adequacy; to minimize disincentives to holding liquid, low-risk assets; and to achieve greater consistency in the evaluation of the capital adequacy of major banking organizations worldwide.

The guidelines set forth minimum supervisory capital standards that apply to all state member banks on a consolidated basis. Most banks are expected to operate with capital levels above the minimum ratios. Banking organizations that are undertaking significant expansion or that are exposed to high or unusual levels of risk are expected to maintain capital well above the minimum ratios; in such cases, the Federal Reserve may specify a higher minimum requirement. In addition, the risk-based capital ratio is used as a basis for categorizing institutions for purposes of prompt corrective action.[1]

For most institutions, the risk-based capital ratio focuses principally on broad categories of credit risk, although the framework for assigning assets and off-balance-sheet items to risk categories does incorporate elements of transfer risk as well as limited instances of interest-rate and market risk.[2] The framework incorporates risks arising from traditional banking activities as well as risks arising from nontraditional activities. The ratio does not, however, incorporate other factors that can affect an institution's financial condition. These factors include overall interest-rate exposure; liquidity, funding, and market risks; the quality and level of earnings;

1. See section 4133.1, "Prompt Corrective Action."

2. A small number of institutions are required to hold capital to support their exposure to market risk. For more information, see the "Market-Risk Measure" subsection below, SR-09-1, "Application of the Market Risk Rule in BHCs and SMBs," or the Federal Reserve's *Trading and Capital-Markets Activities Manual*, section 2110.1, "Capital Adequacy."

investment, loan portfolio, and other concentrations of credit; certain risks arising from nontraditional activities; the effectiveness of loan and investment policies; and management's overall ability to monitor and control financial and operating risks, including the risks presented by concentrations of credit and nontraditional activities. An overall assessment of capital adequacy must take into account these other factors, including, in particular, the level and severity of problem and classified assets as well as a bank's exposure to declines in the economic value of its capital due to changes in interest rates. For this reason, the final supervisory judgment on a bank's capital adequacy may differ significantly from conclusions that might be drawn solely from the level of its risk-based capital ratio.

DEFINITION OF CAPITAL

For the purpose of risk-based capital, a bank's total capital consists of two types of components: "core capital elements" (which are included in tier 1 capital) and "supplementary capital elements" (which are included in tier 2 capital). To qualify as an element of tier 1 or tier 2 capital, a capital instrument must be unsecured and may not contain or be covered by any covenants, terms, or restrictions that are inconsistent with safe and sound banking practices.

Tier 1 capital is generally defined as the sum of core capital elements. Core capital elements consist of common stock; related surplus; and retained earnings, including capital reserves and adjustments for the cumulative effect of foreign currency translation, net of any treasury stock; less net unrealized holding losses on available-for-sale equity securities with readily determinable fair values. For this purpose, net unrealized holding gains on such equity securities and net unrealized holding gains (losses) on available-for-sale debt securities are not included in common stockholders' equity.

The Components of Qualifying Capital

Core capital elements (tier 1 capital). The tier 1 component of a bank's qualifying capital must represent at least 50 percent of qualifying total capital and may consist of the following items that are defined as core capital elements:

1. Common stockholders' equity,
2. Qualifying noncumulative perpetual preferred stock (including related surplus), and
2. Minority interest in the equity accounts of consolidated subsidiaries.

Tier 1 capital is generally defined as the sum of core capital elements less any amounts of goodwill, other intangible assets, interest-only strips receivables and nonfinancial equity investments that are required to be deducted.

Common stockholders' equity. For purposes of calculating the risk-based capital ratio, common stockholders' equity is limited to common stock; related surplus; and retained earnings, including capital reserves and adjustments for the cumulative effect of foreign currency translation, net of any treasury stock; less net unrealized holding losses on available-for-sale equity securities with readily determinable fair values. For this purpose, net unrealized holding gains on such equity securities and net unrealized holding gains (losses) on available-for-sale debt securities are not included in common stockholders' equity.

Perpetual preferred stock. Perpetual preferred stock is defined as preferred stock that does not have a maturity date, that cannot be redeemed at the option of the holder of the instrument, and that has no other provisions that will require future redemption of the issue. Consistent with these provisions, any perpetual preferred stock with a feature permitting redemption at the option of the issuer may qualify as capital only if the redemption is subject to prior approval of the Federal Reserve. In general, preferred stock will qualify for inclusion in capital only if it can absorb losses while the issuer operates as a going concern (a fundamental characteristic of equity capital) *and* only if the issuer has the ability and legal right to defer or eliminate preferred dividends.

The only form of perpetual preferred stock that state member banks may consider as an element of tier 1 capital is noncumulative perpetual preferred. While the guidelines allow for the inclusion of noncumulative perpetual preferred stock in tier 1, it is desirable from a supervisory standpoint that voting common stockholders' equity remain the dominant form

of tier 1 capital. Thus, state member banks should avoid overreliance on preferred stock or non-voting equity elements within tier 1. Tier 1 capital elements represent the highest form of capital, namely, permanent equity.

Tier 2 capital consists of a limited amount of the allowance for loan and lease losses; perpetual preferred stock and related surplus that do not qualify for inclusion in tier 1 capital; certain other hybrid capital instruments; mandatory convertible securities; and limited amounts of term subordinated debt, intermediate-term preferred stock, including related surplus, long-term preferred stock with an original term of 20 years or more, and unrealized holding gains on qualifying equity securities.

Capital investments in unconsolidated banking and finance subsidiaries, and reciprocal holdings of other banking organizations' capital instruments, are deducted from a bank's capital. The sum of tier 1 and tier 2 capital less any deductions makes up total capital, which is the numerator of the total risk-based capital ratio. The maximum amount of tier 2 capital that may be included in a bank's qualifying total capital is limited to 100 percent of tier 1 capital (net of goodwill, other intangible assets, and interest-only strips receivables and nonfinancial equity investments that are required to be deducted).

RISK-WEIGHTING PROCESS

Each asset and off-balance-sheet item is assigned to one of four broad risk categories based on the perceived credit risk of the obligor or, if relevant, the guarantor or type of collateral. These risk categories are assigned weights of 0 percent, 20 percent, 50 percent, and 100 percent. The majority of items fall into the 100 percent risk-weight category. A brief explanation of the components of each category follows. For more detailed information, see the capital adequacy guidelines.

Risk Categories

Category 1: Zero Percent

Category 1 includes cash (domestic and foreign) owned and held in all offices of the bank or in transit, as well as gold bullion held in the bank's own vaults or in another bank's vaults on an allocated basis to the extent it is offset by gold bullion liabilities. The category also includes all direct claims on (including securities, loans, and leases), and the portions of claims that are directly and unconditionally guaranteed by, the central governments of the Organisation for Economic Co-operation and Development (OECD) countries and U.S. government agencies, as well as all direct local currency claims on, and the portions of local currency claims that are directly and unconditionally guaranteed by, the central governments of non-OECD countries, to the extent that the bank has liabilities booked in that currency. A claim is not considered to be unconditionally guaranteed by a central government if the validity of the guarantee depends on some affirmative action by the holder or a third party. Generally, securities guaranteed by the U.S. government or its agencies that are actively traded in financial markets, such as Government National Mortgage Association (GNMA) securities, are considered to be unconditionally guaranteed. This zero percent category also includes claims collateralized (1) by cash on deposit in the bank or (2) by securities issued or guaranteed by OECD central governments or (3) by U.S. government agencies for which a positive margin of collateral is maintained on a daily basis, fully taking into account any change in the bank's exposure to the obligor or counterparty under a claim in relation to the market value of the collateral held in support of that claim.

Category 2: 20 percent

Category 2 includes cash items in the process of collection, both foreign and domestic; short-term claims on (including demand deposits), and the portions of short-term claims that are guaranteed by, U.S. depository institutions and foreign banks; and long-term claims on, and the portions of long-term claims that are guaranteed by, U.S. depository institutions and OECD banks. This category also includes the portions of claims that are conditionally guaranteed by OECD central governments and U.S. government agencies, as well as the portions of local currency claims that are conditionally guaranteed by non-OECD central governments, to the extent that the bank has liabilities booked in that currency. In addition, this category includes claims on, and the portions of claims that are guaranteed by, U.S. government–sponsored agencies and claims on, and the portions of claims guaranteed by, the International Bank for

Reconstruction and Development (the World Bank), the International Finance Corporation, the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, the European Investment Bank, the European Bank for Reconstruction and Development, the Nordic Investment Bank, and other multilateral lending institutions or regional development banks in which the U.S. government is a shareholder or contributing member. General obligation claims on, or portions of claims guaranteed by the full faith and credit of, states or other political subdivisions of the United States or other countries of the OECD-based group are also assigned to this category. Category 2 also includes the portions of claims (including repurchase transactions) that are (1) collateralized by cash on deposit in the bank or by securities issued or guaranteed by OECD central governments or U.S. government agencies that do not qualify for the zero percent risk-weight category; (2) collateralized by securities issued or guaranteed by U.S. government–sponsored agencies; or (3) collateralized by securities issued by multilateral lending institutions or regional development banks in which the U.S. government is a shareholder or contributing member.

This risk category also includes claims on,[3a] or guaranteed by, a qualifying securities firm incorporated in the United States or other countries that are members of the OECD-based group of countries[3b] provided that (1) the qualifying securities firm has a long-term issuer credit rating, or a rating on at least one issue of long-term debt, in one of the three highest investment-grade rating categories from a nationally recognized statistical rating organization or (2) the claim is guaranteed by the firm's parent company and the parent company has such a rating. If ratings are available from more than one rating agency, the lowest rating will be used to determine whether the rating requirement has been met. This category also includes a collateralized claim on a qualifying securities firm in such a country, without regard to satisfaction of the rating standard, provided that the claim arises under a contract that (1) is a reverse-repurchase/repurchase agreement or securities-lending/borrowing transaction executed using standard industry documentation; (2) is collateralized by debt or equity securities that are liquid and readily marketable; (3) is marked to market daily; (4) is subject to a daily margin-maintenance requirement under the standard industry documentation; and (5) can be liquidated, terminated, or accelerated immediately in bankruptcy or a similar proceeding, and the security or collateral agreement will not be stayed or avoided, under applicable law of the relevant jurisdiction.[3c]

Category 3: 50 percent

Category 3 includes loans fully secured by first liens on one- to four-family residential properties (either owner-occupied or rented), or on multifamily residential properties, that meet certain criteria. To be included in category 3, loans must have been made in accordance with prudent underwriting standards, be performing in accordance with their original terms, and not be 90 days or more past due or carried in nonaccrual status. For the purposes of the 50 percent risk category, a loan modified on a permanent or trial basis solely pursuant to the U.S. Department of the Treasury's Home Affordable Mortgage Program will be considered to be performing in accordance with its original terms. The following additional criteria must be applied to a loan secured by a multifamily residential property that is included in this category: (1) all principal and interest payments on the loan must have been made on time for at least the year

3a. Claims on a qualifying securities firm that are instruments the firm, or its parent company, uses to satisfy its applicable capital requirements are not eligible for this risk weight.

3b. With regard to securities firms incorporated in the United States, qualifying securities firms are those securities firms that are broker–dealers registered with the Securities and Exchange Commission (SEC) and are in compliance with the SEC's net capital rule, 17 CFR 240.15c3-1. With regard to securities firms incorporated in any other country in the OECD-based group of countries, qualifying securities firms are those securities firms that a bank is able to demonstrate are subject to consolidated supervision and regulation (covering their direct and indirect subsidiaries, but not necessarily their parent organizations) comparable to that imposed on banks in OECD countries. Such regulation must include risk-based capital requirements comparable to those applied to banks under the Basel Accord.

3c. For example, a claim is exempt from the automatic stay in bankruptcy in the United States if it arises under a securities contract or a repurchase agreement subject to section 555 or 559 of the Bankruptcy Code, respectively (11 USC 555 or 559); a qualified financial contract under section 11(e)(8) of the Federal Deposit Insurance Act (12 USC 1821(e)(8)); or a netting contract between financial institutions under sections 401–407 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (12 USC 4401–4407) or the Board's Regulation EE (12 CFR 231).

preceding placement in this category, or, in the case of an existing property owner who is refinancing a loan on that property, all principal and interest payments on the loan being refinanced must have been made on time for at least the year preceding placement in this category; (2) amortization of the principal and interest must occur over a period of not more than 30 years, and the minimum original maturity for repayment of principal must not be less than seven years; and (3) the annual net operating income (before debt service) generated by the property during its most recent fiscal year must not be less than 120 percent of the loan's current annual debt service (115 percent if the loan is based on a floating interest rate) or, in the case of a cooperative or other not-for-profit housing project, the property must generate sufficient cash flow to provide comparable protection to the institution. Also included in category 3 are privately issued mortgage-backed securities, provided that (1) the structure of the security meets the criteria described in section III.B.3. of the risk-based measure of the capital guidelines (12 CFR 208, appendix A); (2) if the security is backed by a pool of conventional mortgages on one- to four-family residential or multifamily residential properties, each underlying mortgage meets the criteria described above for eligibility for the 50 percent risk category at the time the pool is originated; (3) if the security is backed by privately issued mortgage-backed securities, each underlying security qualifies for the 50 percent risk category; and (4) if the security is backed by a pool of multifamily residential mortgages, principal and interest payments on the security are not 30 days or more past due. Privately issued mortgage-backed securities that do not meet these criteria or that do not qualify for a lower risk weight are generally assigned to the 100 percent risk category.

Also assigned to category 3 are revenue (nongeneral obligation) bonds or similar obligations, including loans and leases, that are obligations of states or other political subdivisions of the United States (for example, municipal revenue bonds) or other countries of the OECD-based group, but for which the government entity is committed to repay the debt with revenues from the specific projects financed, rather than from general tax funds. Credit-equivalent amounts of derivative contracts involving standard risk obligors (that is, obligors whose loans or debt securities would be assigned to the 100 percent risk category) are included in the 50 percent category, unless they are backed by collateral or guarantees that allow them to be placed in a lower risk category.

Category 4: 100 percent

All assets not included in the categories above are assigned to category 4, which comprises standard risk assets. The bulk of the assets typically found in a loan portfolio would be assigned to the 100 percent category.

Category 4 includes long-term claims on, and the portions of long-term claims that are guaranteed by, non-OECD banks, and all claims on non-OECD central governments that entail some degree of transfer risk. This category includes all claims on foreign and domestic private-sector obligors not included in the categories above (including loans to nondepository financial institutions and bank holding companies); claims on commercial firms owned by the public sector; customer liabilities to the bank on acceptances outstanding that involve standard risk claims; investments in fixed assets, premises, and other real estate owned; common and preferred stock of corporations, including stock acquired for debts previously contracted; all stripped mortgage-backed securities and similar instruments; and commercial and consumer loans (except those assigned to lower risk categories due to recognized guarantees or collateral and loans secured by residential property that qualify for a lower risk weight). This category also includes claims representing capital of a qualifying securities firm.

This category also includes industrial-development bonds and similar obligations issued under the auspices of states or political subdivisions of the OECD-based group of countries for the benefit of a private party or enterprise when that party or enterprise, not the government entity, is obligated to pay the principal and interest. All obligations of states or political subdivisions of countries that do not belong to the OECD-based group are also assigned to category 4. The following assets are assigned a risk weight of 100 percent if they have not been deducted from capital: investments in unconsolidated companies, joint ventures, or associated companies; instruments that qualify as capital that are issued by other banking organizations; and any intangibles, including those that may have been grandfathered into capital.

Application of the Risk Weights

The appropriate aggregate dollar value of the amount in each risk category is multiplied by the risk weight associated with that category. The resulting weighted values for each of the risk categories are added together. The resulting sum is the bank's total risk-weighted assets and is the denominator of the risk-based capital ratio.

Risk Weighting of Off-Balance-Sheet Items

Off-balance-sheet items are incorporated into the risk-based capital ratio through a two-step process. First, an on-balance-sheet "credit-equivalent amount" is calculated, generally by multiplying the face amount of the item by a credit-conversion factor (except for direct-credit subsitutes and recourse obligations). Most off-balance-sheet items are assigned to one of the five credit-conversion factors: 0 percent, 10 percent, 20 percent, 50 percent, or 100 percent. These factors are intended to reflect the risk characteristics of the activity in terms of an on-balance-sheet equivalent. Second, once the credit-equivalent amount of the off-balance-sheet item is calculated, the resultant credit-equivalent amount is assigned to the appropriate risk category according to the obligor or, if relevant, the guarantor, the nature of any collateral, or external credit ratings. Briefly, the credit-conversion factors are as follows:

- *Items with a zero percent credit-conversion factor* include unused portions of commitments (with the exception of asset-backed commercial paper (ABCP) liquidity facilities) with an original maturity of one year or less, or which are unconditionally cancelable at any time, provided a separate credit decision is made before each drawing under the facility.
- *Items with a 10 percent credit-conversion factor* include unused portions of eligible ABCP liquidity facilities with an original maturity of one year or less.
- *Items with a 20 percent credit-conversion factor* include short-term, self-liquidating trade-related contingencies that arise from the movement of goods.
- *Items with a 50 percent credit-conversion factor* include transaction-related contingencies, which include bid bonds, performance bonds, warranties, standby letters of credit related to particular transactions, and performance standby letters of credit, as well as acquisitions of risk participations in performance standby letters of credit. In addition, this credit-conversion factor includes unused portions of commitments, including eligible ABCP liquidity facilities, with an original maturity exceeding one year; revolving-underwriting facilities; note-issuance facilities; and other similar arrangements.
- *Items with a 100 percent credit-conversion factor* include, except as otherwise provided within the risk-based capital guidelines, direct-credit substitutes, recourse obligations, sale and repurchase agreements, *ineligible* ABCP liquidity facilities, and forward agreements, as well as securities lent where the securities lender is at risk of loss.

See the risk-based capital guidelines for more information on the use, treatment, and application of credit-conversions factors for off-balance-sheet items and transactions.

For derivative contracts, the credit-equivalent amount for each contract is determined by multiplying the notional principal amount of the underlying contract by a credit-conversion factor and adding the resulting product (which is an estimate of potential future exposure) to the positive mark-to-market value of the contract (which is the current exposure). A contract with a negative mark-to-market value is treated as having a current exposure of zero. Where appropriate, a bank may offset positive and negative mark-to-market values of derivative contracts entered into with a single counterparty subject to a qualifying, legally enforceable, bilateral netting arrangement.

As a general rule, if the terms of a claim can change, the claim should be assigned to the risk category appropriate to the highest risk option available under the terms of the claim. For example, in a collateralized loan where the borrower has the option to withdraw the collateral before the loan is due, the loan would be treated as an uncollateralized claim for risk-based capital purposes. Similarly, a commitment that can be drawn down in the form of a loan or a standby letter of credit would be treated as a commitment to make a standby letter of credit, the higher risk option available under the terms of the commitment.

When an item may be assigned to more than one category, that item generally is assigned to

the lowest eligible risk category. For example, a mortgage originated by the bank for which a 100 percent Federal Housing Administration guarantee has been obtained would be assigned the 20 percent risk weight that is appropriate to claims conditionally guaranteed by a U.S. government agency, rather than the 100 percent risk weight that is appropriate to high loan-to-value single-family mortgages.

While the primary determinant of the risk category of a particular on-balance-sheet asset or off-balance-sheet credit-equivalent amount is the obligor, collateral or guarantees may be used to a limited extent to assign an item to a lower risk category than would be available to the obligor. The only forms of collateral that are recognized for risk-based capital purposes are cash on deposit in the lending bank;[4] securities issued or guaranteed by the central governments of the OECD-based group of countries,[5] U.S. government agencies, or U.S. government–sponsored agencies; and securities issued by multilateral lending institutions or regional development banks in which the U.S. government is a shareholder or contributing member. In order for a claim to be considered collateralized for risk-based capital purposes, the underlying arrangements must provide that the claim will be secured by recognized collateral throughout its term. A commitment may be considered collateralized for risk-based capital purposes to the extent that its terms provide that advances made under the commitment will be secured throughout their term.

The extent to which qualifying securities are recognized as collateral is determined by their current market value. The full amount of a claim for which a positive margin (that is, greater than 100 percent of the claim) of recognized collateral is maintained daily may qualify for a zero percent risk weight. The full amount of a claim that is 100 percent secured by recognized collateral may be assigned to the 20 percent risk category. For partially secured obligations, the secured portion is assigned a 20 percent risk weight. Any unsecured portion is assigned the risk weight appropriate for the obligor or guarantor, if any. The extent to which an off-balance-sheet item is secured by collateral is determined by the degree to which the collateral covers the face amount of the item before it is converted to a credit-equivalent amount and assigned to a risk category. For derivative contracts, this determination is made in relation to the credit-equivalent amount.

The only guarantees that are recognized for risk-based capital purposes are those provided by central or state and local governments of the OECD-based group of countries, U.S. government agencies, U.S. government–sponsored agencies, multilateral lending institutions or regional development banks in which the United States is a shareholder or contributing member, U.S. depository institutions, and foreign banks. If an obligation is partially guaranteed, the portion that is not fully covered is assigned the risk weight appropriate to the obligor or to any collateral. An obligation that is covered by two types of guarantees having different risk weights is apportioned between the two risk categories appropriate to the guarantors.

Minimum Risk-Based Capital Ratios

Banks are expected to meet a minimum ratio of capital to risk-weighted assets of 8 percent, with at least 4 percent taking the form of tier 1 capital. Banks that do not meet the minimum risk-based capital ratios, or that are considered to lack sufficient capital to support their activities, are expected to develop and implement capital plans acceptable to the Federal Reserve for achieving adequate levels of capital.[6] Such plans should satisfy the provisions of the guidelines or established arrangements that the Federal Reserve has agreed on with designated

4. There is a limited exception to the rule that cash must be on deposit in the lending bank to be recognized as collateral. A bank participating in a syndicated credit secured by cash on deposit in the lead bank may treat its pro rata share of the credit as collateralized, provided that it has a perfected interest in its pro rata share of the collateral.

5. The OECD-based group of countries comprises all full members of the Organization for Economic Cooperation and Development (OECD), as well as countries that have concluded special lending arrangements with the International Monetary Fund (IMF) associated with the Fund's General Arrangements to Borrow. The OECD's thirty member countries include Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. Any country that has rescheduled its external sovereign debt within the previous five years is not considered to be part of the OECD-based group of countries for risk-based capital purposes.

6. Under the prompt-corrective-action framework, banks that do not meet the minimum risk-based capital ratio are considered undercapitalized and must file capital-restoration plans that meet certain requirements.

banks. In addition, such banks should avoid any actions, including increased risk taking or unwarranted expansion, that would lower or further erode their capital positions. In these cases, examiners are to review and comment on banks' capital plans and their progress in meeting, and continuing to maintain, the minimum risk-based capital requirements.

The bank's board of directors and senior management should be encouraged to establish capital levels and ratios that are consistent with the bank's overall financial profile. When assessing the bank's capital adequacy, it is appropriate to include comments on risk-based capital in the open section of the examination report. Examiner comments should address the adequacy of the bank's plans and progress toward meeting the relevant target ratios.

Market-Risk Rule

Institutions are responsible for identifying their trading and other market risks and for implementing a sound risk-management program commensurate with those risks. Such programs should include appropriate quantitative metrics as well as ongoing qualitative analysis performed by competent, independent risk-management staff. At a minimum, institutions should reassess annually and adjust their market-risk management programs, taking into account changing firm strategies, market developments, organizational incentive structures, and evolving risk-management techniques.

In August 1996, the Federal Reserve amended its risk-based capital framework to incorporate a measure for market risk for state member banks. The market-risk rule is found in Regulation H (12 CFR 208), appendix E. Under the market-risk rule, certain institutions with significant exposure to market risk must measure that risk using their internal value-at-risk (VaR) measurement model and, subject to parameters in the market-risk rule, hold sufficient levels of capital to cover the exposure. The market-risk rule applies to any insured state member bank whose trading activity (the gross sum of its trading assets and liabilities) equals (1) 10 percent or more of its total assets or (2) $1 billion or more. On a case-by-case basis, the Federal Reserve may require an institution that does not meet these criteria to comply with the market-risk rule if deemed necessary for safety-and-soundness reasons. The Federal Reserve may also exclude an institution that meets the criteria if such exclusion is deemed to be consistent with safe and sound banking practices.

The market-risk rule supplements the risk-based capital rules for credit risk; an institution applying the market-risk rule remains subject to the requirements of the credit-risk rules but must adjust its risk-based capital ratio to reflect market risk. In January 2009, the Board issued SR-09-1, "Application of the Market Risk Rule in Bank Holding Companies and State Member Banks," which reiterated some of the market-risk rule's core requirements, provided guidance on certain technical aspects of the rule, and clarified several issues. SR-09-1 discusses (1) the core requirements of the market-risk rule, (2) the market-risk rule capital computational requirements, and (3) the communication and Federal Reserve requirements in order for a bank to use its VaR models. A bank that is applying the market-risk rule must hold capital to support its exposure to two types of risk: (1) general market risk arising from broad fluctuations in interest rates, equity prices, foreign exchange rates, and commodity prices, including risk associated with all derivative positions, and (2) specific risk arising from changes in the market value of debt and equity positions in the trading account due to factors other than broad market movements, including the credit risk of an instrument's issuer. A bank's covered positions include all trading-account positions as well as all foreign-exchange and commodity positions, whether or not they are in the trading account. Banks that are subject to the market-risk capital rules are precluded from applying those rules to positions held in the bank's trading book that act, in form or in substance, as liquidity facilities supporting asset-backed commercial paper (ABCP). (See the definition of *covered positions* in appendix E, section 2(a).) 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, organizations will be 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 notional amount of all eligible ABCP liquidity facilities with an original maturity of one year or less will be subject to a 10 percent conversion factor, as

described previously, regardless of whether the facility is carried in the trading account or the banking book.

Market Risk Rule Provisions for Securities Lending

On February 6, 2006, the Board approved a revision to Regulation H for its market-risk measure of the capital adequacy guidelines. (See 12 CFR 208, appendix E.) The amendment lessened and aligned the capital requirement of state member banks (those that have adopted the market-risk rule) to the risk involved with certain cash collateral that is posted in connection with securities-borrowing transactions.[6a] It also broadened the scope of counterparties for which favorable capital treatment would be applied. (See 71 *Fed. Reg.* 8932, February 22, 2006.) For a detailed description of the market-risk measure, see the Federal Reserve's *Trading and Capital-Markets Activities Manual*, section 2110.1.

Advanced Approaches Rule

The Board adopted an advanced capital adequacy framework, effective April 1, 2008, that implements, in the United States, the revised international capital framework (Basel II) developed by the Committee on Banking Supervision (See 12 CFR 208, appendix F or 72 *Fed. Reg.* 69287). The rule provides a risk-based capital framework that permits state member banks (SMBs) to use an internal ratings-based approach to calculate credit-risk capital requirements and advanced measurement approaches (AMA) in order to calculate regulatory operational-risk capital requirements. See also the revisions effective March 29, 2010, at 75 *Fed. Reg.* 4636.[6b]

AMA Interagency Guidance for Operational Risk

On June 3, 2011, the federal banking agencies (the agencies) issued *Interagency Guidance on the Advanced Measurement Approaches for Operational Risk* to address and clarify implementation issues related to the AMA in applying the agencies' advanced capital adequacy framework. This guidance focuses on the combination and use of the required AMA data elements—(1) internal operational loss event data; (2) external operational loss event data; (3) business environment and internal control factors; and (4) scenario analysis, which is discussed in greater detail. Governance and validation are also discussed since they ensure the integrity of a bank's AMA framework. (See SR-11-8 and its attachment.)

Establishment of a Risk-Based Capital Floor

Section 171(b)(2) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) requires the agencies to establish minimum leverage and risk-based capital requirements on a consolidated basis for insured depository institutions, depository institution holding companies,[6c] and nonbank financial companies supervised by the Board. These capital requirements cannot be less than the generally applicable capital requirements that apply to insured depository institutions.[6d]

On June 28, 2011, the agencies published a final rule (effective July 28, 2011) that amended the advanced approaches rules with a permanent floor equal to the minimum risk-based capital requirements under the general risk-based capi-

6a. See the Board staff's August 21, 2007, legal interpretation as to the appropriate risk-based capital risk weight to be applied to certain collateralized loans of cash.

6b. The revisions address the Financial Accounting Standards Board's adoption of Statements of Financial Accounting Standards Nos. 166 (ASC topic 860, "Transfers and Servicing") and 167 (ASC subtopic 810-10, "Consolidation—Overall"). These accounting standards make substantive changes to how banking organizations account for many items, including securitized assets, that had been previously excluded from these organizations' balance sheets.

6c. Section 171 of the Dodd-Frank Act (Pub. L. 111-203, section 171, 124 Stat. 1376, 1435-38 (2010)) defines "depository institution holding company" to mean a bank holding company or a savings and loan holding company (as those terms are defined in section 3 of the Federal Deposit Insurance Act) that is organized in the United States, including any bank or savings and loan holding company that is owned or controlled by a foreign organization, but does not include the foreign organization. (See section 171 of the Dodd-Frank Act, 12 USC 5371.)

6d. The "generally applicable" capital requirements are those established by the federal banking agencies to apply to insured depository institutions, regardless of total asset size or foreign exposure, under the prompt corrective action provisions of the Federal Deposit Insurance Act. See 12 USC 5371(a).

tal rules. (See the Board's press release and 76 *Fed. Reg.* 37620, June 28, 2011.) Banking organizations subject to the advanced approaches rules are required to, each quarter, calculate and compare their minimum tier 1 and total risk-based capital ratios as calculated under the general risk-based capital rules with the same ratios as calculated under the advanced approaches risk-based capital rules. They are to compare the lower of the two tier 1 risk-based capital ratios and the lower of the two total capital ratios to the minimum tier 1 ratio requirement and total capital ratio requirement of the advanced approaches rules to determine whether the minimum capital requirements are met.[6e] The amendment prevents the minimum capital requirements for a banking organization that has adopted the advanced approaches rule from declining below the minimum capital requirements that apply to insured depository institutions.

Documentation

Banks are expected to have adequate systems in place to compute their risk-based capital ratios. Such systems should be sufficient to document the composition of the ratios to be used for regulatory reporting and other supervisory purposes. Generally, supporting documentation will be expected to establish how banks track and report their capital components and on- and off-balance-sheet items that are assigned preferential risk weights, that is, risk weights less than 100 percent. Where a bank has inadequate documentation to support its assignment of a preferential risk weight to a given item, it may be necessary for examiners to assign an appropriate higher weight to that item. Examiners are expected to verify that banks are correctly reporting the information requested on the Reports of Condition and Income, which are used in computing banks' risk-based capital ratios.

SUPERVISORY CONSIDERATIONS FOR CALCULATING AND EVALUATING RISK-BASED CAPITAL

Certain requirements and factors should be considered in assessing the risk-based capital ratios and the overall capital adequacy of banks. Analysis of these requirements and factors may have a material impact on the amount of capital banks must hold to appropriately support certain activities for on- and off-balance-sheet items, and this analysis must be used in assessing compliance with the guidelines. The requirements and factors to be considered relate to certain capital elements, capital adjustments, balance-sheet activities, off-balance-sheet activities, and the overall assessment of capital adequacy.

Federal Reserve Review of a Capital Instrument

If the terms and conditions of a particular instrument cause uncertainty as to how the instrument should be treated for capital purposes, it may be necessary to consult with Federal Reserve staff for a final determination. The Federal Reserve will, on a case-by-case basis, determine whether a capital instrument has characteristics that warrant its inclusion in tier 1 or tier 2 capital, as well as determine any quantitative limit on the amount of an instrument that will be counted as an element of tier 1 or tier 2 capital. In making this determination, the Federal Reserve will consider the similarity of the instrument to instruments explicitly treated in the guidelines, the ability of the instrument to absorb losses while the bank operates as a going concern, the maturity and redemption features of the instrument, and other relevant terms and factors.

Redemptions of Capital

Redemptions of permanent equity or other capital instruments before their stated maturity could have a significant impact on a bank's overall capital structure. Consequently, a bank considering such a step should consult with the Federal Reserve before redeeming any equity or debt capital instrument (before maturity) if its redemption could have a material effect on the level or composition of the institution's capital base.[7]

6e. 12 CFR 208, appendix F, section 3.

7. Consultation would not ordinarily be necessary if an instrument was redeemed with the proceeds of, or replaced by, a like amount of a similar or higher-quality capital instrument and if the organization's capital position is considered fully adequate by the Federal Reserve.

Capital Elements

This subsection discusses the characteristics of the principal types of capital elements. It also covers terms and conditions that may disqualify an instrument from inclusion in a particular element of capital.

Common Stockholders' Equity

Common stockholders' equity includes common stock; related surplus; and retained earnings, including capital reserves and adjustments for the cumulative effect of foreign-currency translation, net of any treasury stock. A capital instrument that is not permanent or that has preference with regard to liquidation or the payment of dividends is not deemed to be common stock, regardless of whether it is called common stock. Other preferences may also call into question whether the capital instrument is common stock. Close scrutiny should be paid to the terms of common-stock issues of banks that have issued more than one class of common stock. If preference features are found in one of the classes, that class generally should not be treated as common stock.

From a supervisory standpoint, it is desirable that voting common stockholders' equity remain the dominant form of tier 1 capital. Accordingly, the risk-based capital guidelines state that banks should avoid overreliance on nonvoting equity elements in tier 1 capital. Nonvoting equity elements can arise in connection with common stockholders' equity when a bank has two classes of common stock, one voting and the other nonvoting. Alternatively, one class may have so-called super-voting rights entitling the holder to substantially more votes per share than the other class. In this case, the super-voting shares may have so many votes per share that the voting power of the other shares is effectively overwhelmed.

Banks that have nonvoting, or effectively nonvoting, common equity and tier 1 perpetual preferred stock in excess of their voting common stock are clearly overrelying on nonvoting equity elements in tier 1 capital. In such cases, it may be appropriate to reallocate some of the nonvoting equity elements from tier 1 capital to tier 2 capital.

Perpetual Preferred Stock

The risk-based capital guidelines define perpetual preferred stock as preferred stock that has no maturity date, cannot be redeemed at the option of the holder, and has no other provisions that will require future redemption of the issue. Perpetual preferred stock qualifies for inclusion in capital only if it can absorb losses while the issuer operates as a going concern and only if the issuer has the ability and legal right to defer or eliminate preferred dividends.

Perpetual preferred stock with a feature permitting redemption at the option of the issuer may qualify for tier 1 or unlimited tier 2 capital only if the redemption is subject to prior approval of the Federal Reserve. An issue that is convertible at the option of the issuer into another issue of perpetual preferred stock or a lower form of capital, such as subordinated debt, is considered to be redeemable at the option of the issuer. Accordingly, such a conversion must be subject to prior Federal Reserve approval.

Banks may include perpetual preferred stock in tier 1 capital only if the stock is noncumulative. A noncumulative issue may not permit the accruing or payment of unpaid dividends in any form, including the form of dividends payable in common stock. Perpetual preferred stock that calls for the accumulation and future payment of unpaid dividends is deemed to be cumulative, regardless of whether it is called noncumulative, and it is generally includable in tier 2 capital.

Perpetual preferred stock (including auction-rate preferred) in which the dividend rate is reset periodically based, in whole or in part, on the bank's financial condition or credit standing is excluded from tier 1 capital but may generally be included in tier 2 capital. The obligation under such instruments to pay out higher dividends when a bank's condition deteriorates is inconsistent with the essential precept that capital should provide both strength and loss-absorption capacity to a bank during periods of adversity.

Ordinarily, fixed-rate preferred stock and traditional floating- or adjustable-rate preferred stock—in which the dividend rate adjusts in relation to an independent index based solely on general market interest rates and is in no way tied to the issuer's financial condition—do not raise significant supervisory concerns, especially when the adjustable-rate instrument is accompanied by reasonable spreads and cap rates. Such instruments may generally be

included in tier 1 capital, provided they are noncumulative.

Some preferred-stock issues incorporate certain features that raise serious questions about whether these issues will truly serve as a permanent, or even long-term, source of capital. Such features include so-called exploding-rate mechanisms, or similar mechanisms, in which, after a specified period, the dividend rate automatically increases to a level that could create an incentive for the issuer to redeem the instrument. Perpetual preferred stock with this type of feature could cause the issuing bank to be faced with higher dividend requirements at a future date when the bank may be experiencing financial difficulties; it is generally not includable in tier 1 capital.

Traditional convertible perpetual preferred stock, which the holder can convert into a fixed number of common shares at a preset price, ordinarily does not raise supervisory concerns and generally qualifies as tier 1 capital, provided the stock is noncumulative. However, forms of preferred stock that the holder must or can convert into common stock at the market price prevailing at the time of conversion do raise supervisory concerns. Such preferred stock may be converted into an increasing number of common shares as the bank's condition deteriorates and as the market price of the common stock falls. The potential conversion of such preferred stock into common stock could pose a threat of dilution to the existing common shareholders. The threat of dilution could make the issuer reluctant to sell new common stock, or it could place the issuer under strong market pressure to redeem or repurchase the convertible preferred stock. Such convertible preferred stock should generally be excluded from tier 1 capital.

Perpetual preferred stock issues may include other provisions or pricing mechanisms that would provide significant incentives or pressures for the issuer to redeem the stock for cash, especially at a time when the issuer is in a weakened financial condition. As a general matter, an issue that contains such features would be ineligible for tier 1 treatment.

While no formal limit is placed on the amount of noncumulative perpetual preferred stock that may be included in tier 1 capital, the guidelines state that banks should avoid overreliance on preferred stock and other nonvoting equity elements in tier 1 capital. A bank that includes in tier 1 capital perpetual preferred stock in an amount in excess of its voting common stock is clearly overrelying on perpetual preferred stock in tier 1 capital. In such cases, it may be appropriate to reallocate the excess amount of perpetual preferred stock from tier 1 capital to tier 2 capital.

Forward Equity Transactions

Banking organizations have engaged in various types of forward transactions involving the repurchase of their common stock. In these transactions, the banking organization enters into an arrangement with a counterparty, usually an investment bank or another commercial bank, under which the counterparty purchases common shares of the banking organization, either in the open market or directly from the institution. The banking organization agrees that it will repurchase those shares at an agreed-on forward price at a later date (typically three years or less from the execution date of the agreement). These transactions are used to "lock in" stock repurchases at price levels that are perceived to be advantageous, and they are a means of managing regulatory capital ratios.

Some banking organizations have treated shares under forward equity arrangements as tier 1 capital. However, because these transactions can impair the permanence of the shares and typically have certain features that are undesirable from a supervisory point of view, shares covered by these arrangements have qualities that are inconsistent with tier 1 capital status. Accordingly, any common stock covered by forward equity transactions entered into after the issuance of SR-01-27 (November 9, 2001), other than those specified for deferred compensation or other employee benefit plans, will be excluded from the tier 1 capital of a state member bank, even if executed under a currently existing master agreement. The amount to be excluded is equal to the common stock, surplus, and retained earnings associated with the shares. This guidance does not apply to shares covered under traditional stock buyback programs that do not involve forward agreements.

Minority Interest in Equity Accounts of Consolidated Subsidiaries

Minority interest in equity accounts of consolidated subsidiaries is included in tier 1 capital because, as a general rule, this interest repre-

sents equity that is freely available to absorb losses in operating subsidiaries whose assets are included in a bank's risk-weighted asset base. While not subject to an explicit sublimit within tier 1, banks are expected to avoid using minority interest as an avenue for introducing into their capital structures elements that might not otherwise qualify as tier 1 capital (such as cumulative or auction-rate perpetual preferred stock) or that would, in effect, result in an excessive reliance on preferred stock within tier 1 capital. If a bank uses minority interest in these ways, supervisory concerns may warrant reallocating some of the bank's minority interest in equity accounts of consolidated subsidiaries from tier 1 to tier 2 capital.

Whenever a bank has included perpetual preferred stock of an operating subsidiary in minority interest, a possibility exists that such capital has been issued in excess of the subsidiary's needs, for the purpose of raising cheaper capital for the bank. Stock issued under these circumstances may, in substance if not in legal form, be secured by the subsidiary's assets. If the subsidiary fails, the outside preferred investors would have a claim on the subsidiary's assets that is senior to the claim that the bank, as a common shareholder, has on those assets. Therefore, as a general matter, issuances in excess of a subsidiary's needs do not qualify for inclusion in capital. The possibility that a secured arrangement exists should be considered if the subsidiary on-lends significant amounts of funds to the parent bank, is unusually well capitalized, has cash flow in excess of its operating needs, holds a significant amount of assets with minimal credit risk (for example, U.S. Treasury securities) that are not consistent with its operations, or has issued preferred stock at a significantly lower rate than the parent could obtain for a direct issue.

Some banks may use a nonoperating subsidiary or special-purpose entity (SPE) to issue perpetual preferred stock to outside investors. Such a subsidiary may be set up offshore so a bank can receive favorable tax treatment for the dividends paid on the stock. In such arrangements, a strong presumption exists that the stock is, in effect, secured by the assets of the subsidiary. It has been agreed internationally that a bank may not include in its tier 1 capital minority interest in the perpetual preferred stock of nonoperating subsidiaries. Furthermore, such minority interest may not be included in tier 2 capital unless a bank can conclusively prove that the stock is unsecured. Even if the bank's accountants have permitted the bank to account for perpetual preferred stock issued through an SPE as stock of the bank, rather than as minority interest in the equity accounts of a consolidated subsidiary, the stock may not be included in tier 1 capital and most likely is not includable in tier 2 capital.

Banks may also use operating or nonoperating subsidiaries to issue subordinated debt. As with perpetual preferred stock issued through such subsidiaries, a possibility exists that such debt is in effect secured and therefore not includable in capital.

Minority Interests in Small Business Investment Companies

Minority interests in small business investment companies (SBICs), in investment funds that hold nonfinancial equity investments, and in subsidiaries engaged in nonfinancial activities are not included in a bank's tier 1 or total capital base if the bank's interest in the company or fund is held under the legal authorities listed in section II.B.5.b. of the capital guidelines (12 CFR 208, appendix A).

Allowance for Loan and Lease Losses

The allowance for loan and lease losses is a reserve that has been established through a charge against earnings to absorb anticipated, but not yet identified, losses on loans or lease-financing receivables. The allowance excludes allocated transfer-risk reserves and reserves created against identified losses. Neither of these two types of reserves is includable in capital. The amount of the allowance for loan and lease losses that is includable in tier 2 capital is limited to 1.25 percent of risk-weighted assets.

Net Unrealized Holding Gains (Losses) on Securities Available for Sale

The Financial Accounting Standards Board's Statement No. 115 (FAS 115), "Accounting for Certain Investments in Debt and Equity Securities," created a new common stockholders' equity account known as "net unrealized holding gains (losses) on securities available for sale." Although this equity account is consid-

ered to be part of a bank's GAAP equity capital, this account should not be included in a bank's regulatory capital calculations. There are exceptions, however, to this rule. A bank that legally holds equity securities in its available-for-sale portfolio[8] may include up to 45 percent of the

8. Although banks are generally not allowed to hold equity securities except in lieu of debts previously contracted and certain mutual fund holdings, some banks have grandfathered holdings of equity securities in accordance with provisions of the National Bank Act, passed in the 1930s.

pretax net unrealized holding gains on those securities in tier 2 capital. These equity securities must be valued in accordance with generally accepted accounting principles and have readily determinable fair values. Unrealized holding gains may not be included in tier 2 capital if the Federal Reserve determines that the equity securities were not prudently valued. Moreover, if a bank experiences unrealized holding losses in its available-for-sale equity portfolio, these losses must be deducted from tier 1 capital.

Mandatory Convertible Debt Securities

Mandatory convertible debt securities are essentially subordinated-debt securities that receive special capital treatment because a bank has committed to repay the principal from proceeds obtained through the issuance of equity. Banks may include such securities (net of any stock issued that has been dedicated to their retirement) in the form of equity contract notes or equity commitment notes[9] issued before May 15, 1985, as unlimited elements of tier 2 capital, provided that the criteria set forth in 12 CFR 225, appendix B, are met. Consistent with these criteria, mandatory convertible notes are subject to a maximum maturity of 12 years, and a bank must receive Federal Reserve approval before redeeming (or repurchasing) such securities before maturity. The terms of the securities should note that such approval is required.

If a bank has issued common or perpetual preferred stock and dedicated the proceeds to the retirement or redemption of mandatory convertibles,[10] the portion of mandatory convertibles covered by the dedication no longer carries a commitment to issue equity and is effectively rendered into ordinary subordinated debt. Accordingly, the amount of the stock dedicated is netted from the amount of mandatory convertibles includable as unlimited tier 2 capital. The portion of such securities covered by dedications should be included in capital as subordinated debt, subject to amortization in the last five years of its life and limited, together with other subordinated debt and intermediate-term preferred stock, to 50 percent of tier 1 capital. For example, a bank has an outstanding equity contract note for $1 million and issues $300,000 of common stock, dedicating the proceeds to the retirement of the note. The bank would include the $300,000 of common stock in its tier 1 capital. The $700,000 of the equity contract note not covered by the dedication would be treated as an unlimited element of the bank's tier 2 capital. The $300,000 of the note covered by the dedication would be treated as subordinated debt.

In some cases, the indenture of a mandatory convertible debt issue may require the bank to set up segregated trust funds to hold the proceeds from the sale of equity securities dedicated to pay off the principal of the mandatory convertibles at maturity. The portion of mandatory convertible securities covered by the amount of such segregated trust funds is considered secured and may therefore not be included in capital. The maintenance of such a separate segregated fund for the redemption of mandatory convertibles exceeds the requirements of 12 CFR 225, appendix B. Accordingly, if a bank, with the agreement of the debtholders, seeks regulatory approval to eliminate the fund, the approval normally should be given unless supervisory concerns warrant otherwise.

Subordinated Debt and Intermediate-Term Preferred Stock

To qualify as supplementary capital, subordinated debt and intermediate-term preferred stock must have an original average maturity of at least five years. The average maturity of an obligation whose principal is repayable in scheduled periodic payments (for example, a so-called "serial-redemption issue") is the weighted average of the maturities of all such scheduled repayments. If the holder has the option to require the issuer to redeem, repay, or repurchase the instrument before the original stated maturity, maturity is defined as the earliest possible date on which the holder can put the instrument back to the issuing bank. This date may be much earlier than the instrument's stated maturity date. In the last five years before the

9. Equity contract notes are debt securities that obligate the holder to take common or perpetual preferred stock for repayment of principal. Equity commitment notes are redeemable only with the proceeds from the sale of common or perpetual preferred stock.

10. Such a dedication generally must be made in the quarter in which the new common or perpetual preferred stock is issued. There are no restrictions on the actual use of the proceeds of dedicated stock. For example, stock issued under dividend-reinvestment plans or issued to finance acquisitions may be dedicated to the retirement of mandatory convertible debt securities.

maturity of a limited-life instrument, the outstanding amount includable in tier 2 capital must be discounted by 20 percent a year. The aggregate amount of subordinated debt and intermediate-term preferred stock that may be included in tier 2 capital is limited to 50 percent of tier 1 capital.

Consistent with longstanding Federal Reserve policy, a bank may not repay, redeem, or repurchase a subordinated debt issue without the prior written approval of the Federal Reserve. The terms of the debt indenture should note that such approval is required. The Federal Reserve requires this approval to prevent a deteriorating institution from redeeming capital at a time when it needs to conserve its resources and to ensure that subordinated debtholders in a failing bank are not paid before depositors.

Close scrutiny should be given to terms that permit the holder to accelerate payment of principal upon the occurrence of certain events. The only acceleration clauses acceptable in a subordinated-debt issue included in tier 2 capital are those that are triggered by the issuer's insolvency, that is, the appointment of a receiver. Terms that permit the holder to accelerate payment of principal upon the occurrence of other events jeopardize the subordination of the debt since such terms could permit debtholders in a troubled institution to be paid out before the depositors. In addition, debt whose terms permit holders to accelerate payment of principal upon the occurrence of events other than insolvency does not meet the minimum five-year maturity requirement for debt capital instruments. Holders of such debt have the right to put the debt back to the issuer upon the occurrence of the named events, which could happen on a date well in advance of the debt's stated maturity.

Close scrutiny should also be given to the terms of those debt issues in which an event of default is defined more broadly than insolvency or a failure to pay interest or principal when due. There is a strong possibility that such terms are inconsistent with safe and sound banking practice, so the debt issue should not be included in capital. Concern is heightened where an event of default gives the holder the right to accelerate payment of principal or where other borrowings exist that contain cross-default clauses. Some events of default, such as issuing jumbo certificates of deposit or making additional borrowings in excess of a certain amount, may unduly restrict the day-to-day operations of the bank. Other events of default, such as change of control of the bank or disposal of a bank subsidiary, may limit the flexibility of management or banking supervisors to work out the problems of a troubled bank. Still other events of default, such as failure to maintain certain capital ratios or rates of return or to limit the amount of nonperforming assets or charge-offs to a certain level, may be intended to allow the debtholder to be made whole before a deteriorating institution becomes truly troubled. Debt issues that include any of these types of events of default are not truly subordinated and should not be included in capital. Likewise, banks should not include debt issues in capital that otherwise contain terms or covenants that could adversely affect the liquidity of the issuer; unduly restrict management's flexibility to run the organization, particularly in times of financial difficulty; or limit the regulator's ability to resolve problem-bank situations.

Debt issues, including mandatory convertible securities, in which interest payments are tied to the financial condition of the borrower should generally not be included in capital. The interest payments may be linked to the financial condition of an institution through various ways, such as (1) an auction-rate mechanism; (2) a preset schedule mandating interest-rate increases, either as the credit rating of the bank declines or over the passage of time;[11] or (3) a term that raises the interest rate if payment is not made in a timely fashion. These debt issues raise concerns because as the financial condition of a bank declines, it faces ever-increasing payments on its credit-sensitive subordinated debt at a time when it most needs to conserve its resources. Thus, credit-sensitive debt does not provide the support expected of a capital instrument to an institution whose financial condition is deteriorating; rather, the credit-sensitive feature can accelerate depletion of the institution's resources and increase the likelihood of default

11. Although payment on debt whose interest rate increases over time may not on the surface appear to be directly linked to the financial condition of the issuing bank, such debt (sometimes referred to as expanding- or exploding-rate debt) has a strong potential to be credit-sensitive in substance. Banks whose financial condition has strengthened are more likely to be able to refinance the debt at a lower rate than that mandated by the preset increase, whereas banks whose condition has deteriorated are less likely to do so. Moreover, just when these latter institutions would be in the most need of conserving capital, they would be under strong pressure to redeem the debt as an alternative to paying higher rates and would therefore accelerate the depletion of their resources.

on the debt. While such terms may be acceptable in perpetual preferred stock qualifying for tier 2 capital, they are not acceptable in a capital debt issue because a bank in a deteriorating financial condition does not have the option available in equity issues of eliminating the higher payments without going into default.

When a bank has included subordinated debt issued by an operating or nonoperating subsidiary in its capital, a possibility exists that the debt is in effect secured, and thus not includable in capital. Further details on arrangements regarding a bank's issuance of capital instruments through subsidiaries are discussed in an earlier subsection, "Minority Interest in Equity Accounts of Consolidated Subsidiaries."

Capital Adjustments

Intangible Assets

Goodwill and other intangible assets. Certain intangible assets are deducted from a bank's capital for the purpose of calculating the risk-based capital ratio.[12] Those assets include goodwill and certain other identifiable assets. These assets are deducted from the sum of the core capital components (tier 1 capital).

The only identifiable intangible assets that are eligible to be included in—that is, not deducted from—a bank's capital are marketable mortgage-servicing assets (MSAs), nonmortgage-servicing assets (NMSAs), and purchased credit-card relationships (PCCRs).[13] The total amount of MSAs and PCCRs that may be included in a bank's capital, in the aggregate, cannot exceed 100 percent of tier 1 capital. The total amount of NMSAs and PCCRs is subject to a separate aggregate sublimit of 25 percent of tier 1 capital. In addition, the total amount of credit-enhancing interest-only strips (I/Os) (both purchased and retained) that may be included in capital cannot exceed 25 percent of tier 1 capital. Amounts of MSAs, NMSAs, PCCRs, and credit-enhancing I/Os (both retained and purchased) in excess of these limitations, as well as all other identifiable intangible assets, including core deposit intangibles and favorable leaseholds, are to be deducted from a bank's core capital elements in determining tier 1 capital. However, identifiable intangible assets (other than MSAs and PCCRs) acquired on or before February 19, 1992, generally will not be deducted from capital for supervisory purposes, although they will continue to be deducted for applications purposes.

For purposes of calculating the limitations on MSAs, NMSAs, PCCRs, and credit-enhancing I/Os, tier 1 capital is defined as the sum of core capital elements, net of goodwill and net of all identifiable intangible assets other than MSAs, NMSAs, and PCCRs. This calculation of tier 1 is before the deduction of any disallowed MSAs, any disallowed NMSAs, any disallowed PCCRs, any disallowed credit-enhancing I/Os (both purchased and retained), any disallowed deferred tax assets, and any nonfinancial equity investments.

Banks may elect to deduct disallowed mortgage servicing assets, disallowed non-mortgage servicing assets, and disallowed credit-enhancing I/Os (both purchased and retained) on a basis that is net of any associated deferred tax liability. Deferred tax liabilities netted in this manner cannot also be netted against deferred tax assets when determining the amount of deferred tax assets that are dependent on future taxable income.

Banks must review the book value of goodwill and other intangible assets at least quarterly and make adjustments to these values as necessary. The fair value of MSAs, NMSAs, and PCCRs must also be determined at least quarterly. This determination of fair value should include adjustments for any significant changes in original valuation assumptions, including changes in prepayment estimates or account-attrition rates. Examiners will review both the book value and fair value assigned to these assets, as well as supporting documentation during the examination process. The Federal Reserve may require, on a case-by-case basis, an independent valuation of a bank's intangible assets or credit-enhancing I/Os.

Value limitation. The amount of eligible servicing assets and PCCRs that a bank may include in

12. Negative goodwill is a liability and is therefore not taken into account in the risk-based capital framework. Accordingly, a bank may not offset goodwill to reduce the amount of goodwill it must deduct from tier 1 capital.

13. Purchased mortgage-servicing rights (PMSRs) no longer exist under the most recent accounting rules that apply to servicing of assets. Under these rules (Financial Accounting Standards Board statements No. 122, "Accounting for Mortgage Servicing Rights," and No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities"), organizations are required to recognize separate servicing assets (or liabilities) for the contractual obligation to service financial assets that entities have either sold or securitized with servicing retained.

capital is further limited to the lesser of 90 percent of their fair value, or 100 percent of their book value, as adjusted for capital purposes in accordance with the instructions in the commercial bank Consolidated Report of Condition and Income (call report). The amount of I/Os that a bank may include in capital shall be its fair value. If both the application of the limits on MSAs, NMSAs, and PCCRs and the adjustment of the balance-sheet amount for these assets would result in an amount being deducted from capital, the bank would deduct only the greater of the two amounts from its core capital elements in determining tier 1 capital.

Consistent with longstanding Federal Reserve policy, banks experiencing substantial growth, whether internally or by acquisition, are expected to maintain strong capital positions substantially above minimum supervisory levels, without significant reliance on intangible assets or credit-enhancing I/Os.

An arrangement whereby a bank enters into a licensing or leasing agreement or similar transaction to avoid booking an intangible asset should be subject to particularly close scrutiny. Normally, such arrangements will be dealt with by adjusting the bank's capital calculation appropriately. In making an overall assessment of a bank's capital adequacy for applications purposes, the institution's quality and composition of capital are considered together with its holdings of tangible and intangible assets.

Credit-enhancing interest-only strips receivables (I/Os). Credit-enhancing I/Os are on-balance-sheet assets that, in form or substance, represent the contractual right to receive some or all of the interest due on transferred assets. I/Os expose the bank to credit risk directly or indirectly associated with transferred assets that exceeds a pro rata share of the bank's claim on the assets, whether through subordination provisions or other credit-enhancement techniques. Such I/Os, whether purchased or retained and including other similar "spread" assets, may be included in, that is, not deducted from, a bank's capital subject to the fair value and tier 1 limitations. (See sections II.B.1.d. and e. of the capital guidelines (12 CFR 208, appendix A).)

Both purchased and retained credit-enhancing I/Os, on a non-tax-adjusted-basis, are included in the total amount that is used for purposes of determining whether a bank exceeds the tier 1 limitation. In determining whether an I/O or other types of spread assets serve as a credit enhancement, the Federal Reserve will look to the economic substance of the transaction.

Disallowed Deferred Tax Assets

In response to the Financial Accounting Standards Board's Statement No. 109 (FAS 109), "Accounting for Income Taxes," the Federal Reserve adopted a limit on the amount of certain deferred tax assets that may be included in (that is, not deducted from) tier 1 capital for risk-based and leverage capital purposes. Under the rule, certain deferred tax assets can only be realized if an institution earns taxable income in the future. Those deferred tax assets are limited, for regulatory capital purposes, to the amount that the institution expects to realize within one year of the quarter-end report date (based on its projections of future taxable income for that year) or to 10 percent of tier 1 capital, whichever is less.

The reported amount of deferred tax assets, net of any valuation allowance for deferred tax assets, in excess of the lesser of these two amounts is to be deducted from a bank's core capital elements in determining tier 1 capital. For purposes of calculating the 10 percent limitation, tier 1 capital is defined as the sum of core capital elements, net of goodwill and net of all identifiable intangible assets other than MSAs, NMSAs, and PCCRs, but before the deduction of any disallowed MSAs, any disallowed NMSAs, any disallowed PCCRs, any disallowed credit-enhancing I/Os, any disallowed deferred tax assets, and any nonfinancial equity investments.

To determine the amount of expected deferred tax assets realizable in the next 12 months, a bank should assume that all existing temporary differences fully reverse as of the report date. Projected future taxable income should not include net operating-loss carry-forwards to be used during that year or the amount of existing temporary differences a bank expects to reverse within the year. Such projections should include the estimated effect of tax-planning strategies that the organization expects to implement to realize net operating losses or tax-credit carry-forwards that would otherwise expire during the year. A new 12-month projection does not have to be prepared each quarter. Rather, on interim report dates, the future-taxable-income projections may be used for their current fiscal year,

adjusted for any significant changes that have occurred or are expected to occur.

Deferred tax assets that can be realized from taxes paid in prior carry-back years or from future reversals of temporary differences are generally not limited. For banks that have a parent, however, this amount may *not* exceed the amount the bank could reasonably expect its parent to refund. The disallowed deferred tax assets are subtracted from tier 1 capital and also from risk-weighted assets.

Nonfinancial Equity Investments

In general, a bank must deduct from its core capital elements the sum of the appropriate percentages (as determined below) of the adjusted carrying value of all nonfinancial equity investments held by it or its direct or indirect subsidiaries. An equity investment includes the purchase, acquisition, or retention of any equity instrument (including common stock, preferred stock, partnership interests, interests in limited-liability companies, trust certificates, and warrants and call options that give the holder the right to purchase an equity instrument), any equity feature of a debt instrument (such as a warrant or call option), and any debt instrument that is convertible into equity.[14] The Federal Reserve may treat any other instrument (including subordinated debt) as an equity investment if, in its judgment, the instrument is the functional equivalent of equity or exposes the state member bank to essentially the same risks as an equity instrument.

A nonfinancial equity investment, subject to the risk-based capital rule (the rule), is an equity investment in a nonfinancial company made under the following authorities:

- the authority to invest in SBICs under section 302(b) of the Small Business Investment Act of 1958 (15 USC 682(b))
- the portfolio investment provisions of Regulation K (12 CFR 211.8(c)(3)), including the authority to make portfolio investments through Edge and agreement corporations

A nonfinancial company is an entity that engages in any activity that has not been determined to be permissible for the bank to conduct directly, or to be financial in nature or incidental to financial activities under section 4(k) of the Bank Holding Company Act (12 USC 1843(k)). The rule does not apply to investments made in companies that engage solely in banking and financial activities, nor does it apply to investments made by a state bank under the authority in section 24(f) of the Federal Deposit Insurance Act (FDI Act). The higher capital charges also do not apply to equity securities acquired and held by a bank as a bona fide hedge of an equity derivatives transaction it entered into lawfully, or to equity securities that are acquired in satisfaction of a debt previously contracted and that are held and divested in accordance with applicable law. The adjusted carrying value of these investments is not included in determining the total amount of nonfinancial equity investments held by the bank. (See SR-02-4 for a general discussion of the risk-based and leverage capital rule changes.)

The bank must deduct from its core capital elements the sum of the appropriate percentages, as stated in table 1, of the adjusted carrying value of all nonfinancial equity investments held by the bank or its direct or indirect subsidiaries. The amount of the percentage deduction increases as the aggregate amount of nonfinancial equity investments held by the bank increases as a percentage of its tier 1 capital.

The ‘‘adjusted carrying value’’ of investments is the aggregate value at which the investments are carried on the balance sheet of the bank, reduced by (1) any unrealized gains on those investments that are reflected in such carrying value but excluded from the bank's tier 1 capital and (2) associated deferred tax liabilities. For example, for investments held as available-for-sale (AFS), the adjusted carrying value of the investments would be the aggregate carrying value of the investments (as reflected on the consolidated balance sheet of the bank) *less* any unrealized gains on those investments that are included in other comprehensive income and not reflected in tier 1 capital, and associated deferred tax liabilities.[15] The total adjusted carrying value of any nonfinancial equity investment that is subject to deduction is excluded from the bank's risk-weighted assets and for purposes of computing the denominator of the bank's risk-based

14. This requirement generally does not apply to investments in nonconvertible senior or subordinated debt.

15. Unrealized gains on AFS equity investments may be included in supplementary capital to the extent permitted by the capital guidelines. In addition, the unrealized losses on AFS equity investments are deducted from tier 1 capital.

Table 1—Deduction for Nonfinancial Equity Investments

Aggregate adjusted carrying value of all nonfinancial equity investments held directly or indirectly by the bank (as a percentage of the tier 1 capital of the bank)[1]	*Deduction from core capital elements (as a percentage of the adjusted carrying value of the investment)*
Less than 15 percent	8 percent
15 percent to 24.99 percent	12 percent
25 percent and above	25 percent

1. For purposes of calculating the adjusted carrying value of nonfinancial equity investments as a percentage of tier 1 capital, tier 1 capital is defined as the sum of core capital elements net of goodwill and net of all identifiable intangible assets other than MSAs, NMSAs, and PCCRs, but before the deduction for any disallowed MSAs, any disallowed NMSAs, any disallowed PCCRs, any disallowed credit enhancing I/Os (both purchased and retained), any disallowed deferred tax assets, and any nonfinancial equity investments.

capital ratio.[16] The total adjusted carrying value is also deducted from average total consolidated assets when computing the leverage ratio.

The deductions are applied on a marginal basis to the portions of the adjusted carrying value of nonfinancial equity investments that fall within the specified ranges of the parent bank's tier 1 capital. The rule sets forth a "stair-step" approach under which each tier of capital charges applies, on a marginal basis, to the adjusted carrying value of the bank's aggregate nonfinancial equity investment portfolio that falls within the specified ratios of the organization's tier 1 capital. The stair-step approach reflects the fact that the financial risks to a bank from equity investment activities increase as the level of these activities accounts for a larger portion of the bank's capital, earnings, and activities. For example, if the adjusted carrying value of all nonfinancial equity investments held by a bank equals 20 percent of its tier 1 capital, then the amount of the deduction would be 8 percent of the adjusted carrying value of all investments up to 15 percent of the bank's tier 1 capital, and 12 percent of the adjusted carrying value of all investments in excess of 15 percent of the bank's tier 1 capital.

16. For example, if 8 percent of the adjusted carrying value of a nonfinancial equity investment is deducted from tier 1 capital, the entire adjusted carrying value of the investment will be excluded from risk-weighted assets when calculating the denominator for the risk-based capital ratio, and from average total consolidated assets when computing the leverage ratio.

With respect to consolidated SBICs, some equity investments may be in companies that are consolidated for accounting purposes. For investments in a nonfinancial company that is consolidated for accounting purposes under GAAP, the bank's adjusted carrying value of the investment is determined under the equity method of accounting (net of any intangibles associated with the investment that are deducted from the bank's core). Even though the assets of the nonfinancial company are consolidated for accounting purposes, these assets (as well as the credit-equivalent amounts of the company's off-balance-sheet items) should be excluded from the bank's risk-weighted assets for regulatory capital purposes.

The capital adequacy guidelines for state member banks establish *minimum* risk-based capital ratios. Banks are at all times expected to maintain capital commensurate with the level and nature of the risks to which they are exposed. The risk to a bank from nonfinancial equity investments increases with its concentration in such investments, and strong capital levels above the minimum requirements are particularly important when a bank has a high degree of concentration in nonfinancial equity investments (for example, in excess of 50 percent of tier 1 capital).

The Federal Reserve will monitor banks and apply heightened supervision, as appropriate, to equity investment activities, including where the bank has a high degree of concentration in nonfinancial equity investments, to ensure that each bank maintains capital levels that are appropriate in light of its equity investment activities. In addition, the Federal Reserve may

impose capital levels established by the capital adequacy rules, in light of the nature or performance of a particular organization's equity investments or the sufficiency of the organization's policies, procedures, and systems to monitor and control the risks associated with its equity investments.

SBIC investments. Investments may be made by banks in or through SBICs under section 4(c)(5) of the BHC Act and section 302(b) of the Small Business Investment Act. No deduction is required for nonfinancial equity investments that are held by a bank (1) through one or more SBICs that are consolidated with the bank or (2) in one or more SBICs that are not consolidated with the bank, to the extent that all such investments, in the aggregate, do not exceed 15 percent of the bank's tier 1 capital. Any nonfinancial equity investment that is held through or in an SBIC and that is not required to be deducted from tier 1 capital will be assigned a 100 percent risk weight and included in the bank's consolidated risk-weighted assets.[17]

To the extent the adjusted carrying value of all nonfinancial equity investments that a bank holds through one or more SBICs that are consolidated with the bank, or in one or more SBICs that are not consolidated with the bank, exceeds, in the aggregate, 15 percent of the bank's tier 1 capital, the appropriate percentage of such amounts (as set forth in table 1) must be deducted from the bank's core capital elements. In addition, the aggregate adjusted carrying value of *all* nonfinancial equity investments held through a consolidated SBIC and in a nonconsolidated SBIC (including any investments for which no deduction is required) must be included in determining, for purposes of table 1, the total amount of nonfinancial equity investments held by the bank in relation to its tier 1 capital.

Grandfather provisions. No deduction is required to be made for the adjusted carrying value of any nonfinancial equity investment (or portion of such an investment) that the bank made before March 13, 2000, or that the bank made on or after this date pursuant to a binding written commitment[18] entered into before March 13, 2000, provided that in either case the bank has continuously held the investment since the relevant investment date.[19] A nonfinancial equity investment made before March 13, 2000, includes any shares or other interests the bank received through a stock split or stock dividend on an investment made before March 13, 2000, provided the bank provides no consideration for the shares or interests received and the transaction does not materially increase the bank's proportional interest in the company. The exercise on or after March 13, 2000, of options or warrants acquired before March 13, 2000, is *not* considered to be an investment made before March 13, 2000, if the bank provides any consideration for the shares or interests received upon exercise of the options or warrants. Any nonfinancial equity investment (or portion thereof) that is not required to be deducted from tier 1 capital must be included in determining the total amount of nonfinancial equity investments held by the bank in relation to its tier 1

17. If a bank has an investment in an SBIC that is consolidated for accounting purposes but that is not wholly owned by the bank, the adjusted carrying value of the bank's nonfinancial equity investments through the SBIC is equal to the bank's proportionate share of the adjusted carrying value of the SBIC's equity investments in nonfinancial companies. The remainder of the SBIC's adjusted carrying value (that is, the minority interest holders' proportionate share) is excluded from the risk-weighted assets of the bank. If a bank has an investment in an SBIC that is not consolidated for accounting purposes, and the bank has current information that identifies the percentage of the SBIC's assets that are equity investments in nonfinancial companies, the bank may reduce the adjusted carrying value of its investment in the SBIC proportionately to reflect the percentage of the adjusted carrying value of the SBIC's assets that are not equity investments in nonfinancial companies. If a bank reduces the adjusted carrying value of its investment in a nonconsolidated SBIC to reflect financial investments of the SBIC, the amount of the adjustment will be risk-weighted at 100 percent and included in the bank's risk-weighted assets.

18. A "binding written commitment" means a legally binding written agreement that requires the bank to acquire shares or other equity of the company, or make a capital contribution to the company, under terms and conditions set forth in the agreement. Options, warrants, and other agreements that give a bank the right to acquire equity or make an investment, but do not require the bank to take such actions, are not considered a binding written commitment for purposes of this provision.

19. For example, if a bank made an equity investment in 100 shares of a nonfinancial company before March 13, 2000, the adjusted carrying value of that investment would not be subject to a deduction. However, if the bank made any additional equity investment in the company after March 13, 2000, such as by purchasing additional shares of the company (including through the exercise of options or warrants acquired before or after March 13, 2000) or by making a capital contribution to the company, and such investment was not made pursuant to a binding written commitment entered into before March 13, 2000, the adjusted carrying value of the additional investment would be subject to a deduction. In addition, if the bank sold and repurchased, after March 13, 2000, 40 shares of the company, the adjusted carrying value of those 40 shares would be subject to a deduction under this provision.

capital for purposes of table 1. In addition, any nonfinancial equity investment (or portion thereof) that is not required to be deducted from tier 1 capital will be assigned a 100 percent risk weight and included in the bank's consolidated risk-weighted assets. The following example illustrates these calculations.

A bank has $1 million in tier 1 capital and has nonfinancial equity investments with an aggregate adjusted carrying value of $375,000. Of this amount, $100,000 represents the adjusted carrying value of investments made before March 13, 2000, and an additional $175,000 represents the adjusted carrying value of investments made through the bank's wholly owned SBIC. The $100,000 in investments made before March 13, 2000, and $150,000 of the bank's SBIC investments would not be subject to the rule's marginal capital charges. These amounts are considered for purposes of determining the marginal charge that applies to the bank's covered investments (including the $25,000 of nonexempt SBIC investments). In this case, the total amount of the bank's tier 1 capital deduction would be $31,250. This figure is 25 percent of $125,000, which is the amount of the bank's total nonfinancial equity portfolio subject to the rule's marginal capital charges. The average tier 1 capital charge on the bank's entire nonfinancial equity portfolio would be 8.33 percent.

Investments in Unconsolidated Banking and Finance Subsidiaries and Other Subsidiaries

Generally, debt and equity capital investments and any other instruments deemed to be capital in unconsolidated banking and finance subsidiaries[20] are to be deducted from the consolidated capital of the parent bank, regardless of whether the investment is made by the parent bank or its direct or indirect subsidiaries.[21] Fifty percent of the investment is to be deducted from tier 1 capital and 50 percent from tier 2 capital. When tier 2 capital is not sufficient to absorb the portion (50 percent) of the investment allocated to it, the remainder (up to 100 percent) is to be deducted from tier 1 capital.

Advances to banking and finance subsidiaries (that is, loans, extensions of credit, guarantees, commitments, or any other credit exposures) not considered as capital are included in risk-weighted assets at the 100 percent risk weight (unless recognized collateral or guarantees dictate weighting at a lower percentage). However, such advances may be deducted from the parent bank's consolidated capital where examiners find that the risks associated with the advances are similar to the risks associated with capital investments, or if such advances possess risk factors that warrant an adjustment to capital for supervisory purposes. These risk factors could include the absence of collateral support or the clear intention of banks to allow the advances to serve as capital to subsidiaries regardless of form.

Although the Federal Reserve does not automatically deduct investments in other unconsolidated subsidiaries or investments in joint ventures and associated companies,[22] the level and nature of such investments should be closely monitored. Resources invested in these entities support assets that are not consolidated with the rest of the bank and therefore may not be generally available to support additional leverage or absorb losses of affiliated institutions. Close monitoring is also necessary because experience has shown that banks often stand behind the losses of affiliated institutions to protect the reputation of the organization as a whole. In some cases, this support has led to losses that have exceeded the investments in such entities.

Accordingly, for risk-based capital purposes, a bank may be required, on a case-by-case basis, to (1) deduct such investments from total capital; (2) apply an appropriate risk-weighted charge against the bank's pro rata share of the assets of the affiliated entity; (3) consolidate the entity on a line-by-line basis; or (4) operate with a risk-based capital ratio above the minimum. In determining the appropriate capital treatment for such actions, the Federal Reserve will generally take into account whether (1) the bank has significant influence over the financial or

20. A banking and finance subsidiary is generally defined as any company engaged in banking or finance in which the parent organization holds directly or indirectly more than 50 percent of the outstanding voting stock, or any such company which is otherwise controlled or capable of being controlled by the parent organization.

21. An exception to this deduction is to be made for shares acquired in the regular course of securing or collecting a debt previously contracted in good faith.

22. Such entities are defined in the instructions to the call report. Associated companies and joint ventures are generally defined as companies in which the bank owns 20 to 50 percent of the voting stock.

managerial policies or operations of the affiliated entity, (2) the bank is the largest investor in the entity, or (3) other circumstances prevail (such as the existence of significant guarantees from the bank) that appear to closely tie the activities of the affiliated company to the bank.

Reciprocal Holdings of Banking Organizations' Capital Instruments

Reciprocal holdings are intentional cross-holdings resulting from formal or informal arrangements between banking organizations to swap or exchange each other's capital instruments. Such holdings of other banking organizations' capital instruments are to be deducted from the total capital of an organization for the purpose of determining the total risk-based capital ratio. Holdings of other banking organizations' capital instruments taken in satisfaction of debts previously contracted or that constitute stake-out investments that comply with the Federal Reserve's policy statement on nonvoting equity investments (12 CFR 225.143) are not deemed to be intentional cross-holdings and are therefore not deducted from a bank's capital.

On-Balance-Sheet Activities

Claims on, and Guaranteed by, OECD Central Governments

The risk-based capital guidelines assign a zero percent risk weight to all direct claims (including securities, loans, and leases) on the central governments of the OECD-based group of countries and U.S. government agencies. Generally, the only direct claims banks have on the U.S. government and its agencies take the form of Treasury securities. Zero-coupon, that is, single-payment, Treasury securities trading under the U.S. Treasury's Separately Traded Registered Interest and Principal (STRIP) program are assigned to the zero percent risk category. A security that has been stripped by a private-sector entity, such as a brokerage firm, is considered an obligation of that entity and is accordingly assigned to the 100 percent risk category.

Claims that are directly and unconditionally guaranteed by an OECD-based central government or a U.S. government agency are also assigned to the zero percent risk category. Claims that are directly but conditionally guaranteed are assigned to the 20 percent risk category. A claim is considered to be conditionally guaranteed by a central government if the validity of the guarantee depends on some affirmative action by the holder or a third party. Generally, securities guaranteed by the U.S. government or its agencies that are actively traded in financial markets are considered to be unconditionally guaranteed. These include Government National Mortgage Association (GNMA or Ginnie Mae) and Small Business Administration (SBA) securities.

A limited number of U.S. government agency–guaranteed loans are deemed to be unconditionally guaranteed and can be assigned to the zero percent risk category. These include most loans guaranteed by the Export-Import Bank (Eximbank),[23] loans guaranteed by the U.S. Agency for International Development (AID) under its Housing Guaranty Loan Program, SBA loans subject to a secondary participation guaranty in accordance with SBA form 1086, and Farmers Home Administration (FmHA) loans subject to an assignment guaranty agreement in accordance with FmHA form 449-36.

Apart from the exceptions noted in the preceding paragraph, loans guaranteed by the U.S. government or its agencies are considered to be conditionally guaranteed. The guaranteed portion of such loans is assigned to the 20 percent risk category. These include, but are not limited to, loans guaranteed by the Commodity Credit Corporation (CCC), the Federal Housing Administration (FHA), the Overseas Private Investment Corporation (OPIC), the Department of Veterans Affairs (VA), and, except as indicated above, the FmHA and SBA. Loan guarantees offered by OPIC often guarantee against political risk. However, only that portion of a loan guaranteed by OPIC against commercial or credit risk may receive a preferential 20 percent risk weight. The portion of government trust certificates issued to provide funds for the refinancing of foreign military sales loans made by the Federal Financing Bank or the Defense Security Assistance Agency that are indirectly guaranteed by the U.S. government also qualify for the 20 percent risk weight.

23. Loans guaranteed under Eximbank's Working Capital Guarantee Program, however, receive a 20 percent risk weight.

Most guaranteed student loans are guaranteed by a state agency or nonprofit organization that does not have the full faith and credit backing of the state. The loans are then indirectly guaranteed or reinsured by the U.S. government's Guaranteed Student Loan Program. Under the program, a minimum percentage of the loan is reinsured, but a higher percentage could be guaranteed if the bank has experienced an overall low default rate on guaranteed student loans. Only the portion of the loan covered by the minimum guarantee under the program may be assigned to the 20 percent risk category; the remainder should be assigned a 100 percent risk weight.

Claims on, or Guaranteed by, a U.S. Government–Sponsored Agency

U.S. government–sponsored agencies are agencies originally established or chartered by the federal government to serve public purposes specified by the U.S. Congress. Such agencies generally carry out functions performed directly by the central government in other countries. The obligations of government-sponsored agencies generally are not explicitly guaranteed by the full faith and credit of the U.S. government. Claims (including securities, loans, and leases) on, or guaranteed by, such agencies are assigned to the 20 percent risk category. U.S. government–sponsored agencies include, but are not limited to, the College Construction Loan Insurance Association, Farm Credit Administration, Federal Agricultural Mortgage Corporation, Federal Home Loan Bank System, Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac), Federal National Mortgage Association (FNMA or Fannie Mae), Financing Corporation (FICO), Postal Service, Resolution Funding Corporation (REFCORP), Student Loan Marketing Association (SLMA or Sallie Mae), Smithsonian Institution, and Tennessee Valley Authority (TVA).

Loans Secured by First Liens on One- to Four-Family Residential Properties and Multifamily Residential Properties

Qualifying loans on one- to four-family residential properties, either owner-occupied or rented (as defined in the instructions to the call report), are accorded a 50 percent risk weight under the guidelines. Also eligible for the 50 percent risk weight are loans to builders with substantial project equity for the construction of one- to four-family residences that have been presold under firm contracts to purchasers who have obtained firm commitments for permanent qualifying mortgage loans and have made substantial earnest-money deposits.

In addition, qualifying multifamily residential loans that meet certain criteria may be assigned to the 50 percent risk category. These criteria are as follows: All principal and interest payments must have been made on time for at least one year preceding placement in the 50 percent risk category, amortization of the principal and interest must occur within 30 years, the minimum original maturity for repayment of principal cannot be less than seven years, and annual net operating income (before debt service) generated by the property during the most recent fiscal year must not be less than 120 percent of the loan's current annual debt service (115 percent if the loan is based on a floating interest rate). In the case of cooperative or other not-for-profit housing projects, the property must generate sufficient cash flow to provide comparable protection to the bank.

To ensure that only qualifying residential mortgage loans are assigned to this preferential risk weight, examiners are to review the one- to four-family and multifamily residential real estate loans that are included in the 50 percent risk category. Such loans are not eligible for preferential treatment unless they meet the following criteria: The loans are made subject to prudent underwriting standards, the loans are performing in accordance with their original terms and are not delinquent for 90 days or more or carried on nonaccrual status, and the loan-to-value ratios are conservative.[24] For the purpose of this last criterion, the loan-to-value ratio should be based on the value of the property determined by the most current appraisal or, if appropriate, the most current evaluation. Normally, this would be the appraisal or evaluation performed at the time the loan was originated.[25]

If a bank has assigned a 50 percent risk weight to residential mortgage loans made for

24. A conservative loan-to-value ratio for loans secured by multifamily residential property must not exceed 80 percent (or 75 percent if the loan is based on a floating interest rate).

25. When both first and junior liens are held by the bank and no intervening liens exist, these transactions are treated as single loans secured by a first lien for the purpose of determining the loan-to-value ratio.

the purpose of speculative real estate development or whose eligibility for such preferential treatment is otherwise questionable, and the amounts of nonqualifying loans are readily identifiable, such loans should be reassigned to the 100 percent risk-weight category. If material evidence exists that a bank has assigned a preferential risk weight to residential mortgage loans of questionable eligibility, but the amount of the inappropriately weighted amount cannot be readily identified, the overall evaluation of the bank's capital adequacy should reflect a higher capital requirement than would otherwise be the case.

Accrued Interest

Banks normally report accrued interest on loans and securities in "Other Assets" on the Call Report. The majority of banks will risk-weight the entire amount of accrued interest at 100 percent. However, for risk-based capital purposes, a bank is permitted to allocate accrued interest among the risk categories associated with the underlying claims, provided the bank has systems in place to carry out such an allocation accurately.

Off-Balance-Sheet Activities

Off-balance-sheet transactions include recourse obligations, direct-credit substitutes, residual interests, and asset- and mortgage-backed securities. The treatments for direct-credit substitutes, assets transferred with recourse, and securities issued in connection with asset securitizations and structured financings are described later in this section. The terms *asset securitizations* or *securitizations*, as used in this subsection, include structured financings, as well as asset-securitization transactions.

Assets Sold with Recourse

For risk-based capital adequacy purposes, a bank must hold capital against assets sold with recourse if the bank retains any risk of loss. To qualify as an asset sale with recourse, a transfer of assets must first qualify as a sale according to the GAAP criteria set forth in paragraph 14 of the Financial Accounting Standards Board's Statement No. 140 (FAS 140), "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." These criteria are summarized in the definition of "transfers of financial assets" in the glossary to the commercial bank Call Report instructions. If a transfer of assets does not meet these criteria, the assets must remain on the bank's balance sheet and are subject to the standard risk-based capital charge.

If a transfer of assets qualifies as a sale under GAAP but the bank retains any risk of loss or obligation for payment of principal or interest, then the transfer is considered to be a sale with recourse. A more detailed definition of an asset sale with recourse may be found in the definition of "sales of assets for risk-based capital purposes" in the glossary to the commercial bank Call Report instructions. Although the assets are removed from a bank's balance sheet in an asset sale with recourse, the credit-equivalent amount is assigned to the risk category appropriate to the obligor in the underlying transaction, after considering any associated guaranties or collateral. This assignment also applies when the contractual terms of the recourse agreement limit the seller's risk to a percentage of the value of the assets sold or to a specific dollar amount.

If, however, the risk retained by the seller is limited to some fixed percentage of any losses that might be incurred and there are no other provisions resulting in the direct or indirect retention of risk by the seller, the maximum amount of possible loss for which the selling bank is at risk (the stated percentage times the amount of assets to which the percentage applies) is subject to risk-based capital requirements. The remaining amount of assets transferred would be treated as a sale that is not subject to the risk-based capital requirements. For example, a seller would treat a sale of $1 million in assets with a recourse provision that the seller and buyer proportionately share in losses incurred on a 10 percent and 90 percent basis, respectively, and with no other retention of risk by the seller, as a $100,000 asset sale with recourse and a $900,000 sale not subject to risk-based capital requirements.

There are several exceptions to the general reporting rule for recourse transactions. The first exception applies to recourse transactions for which the amount of recourse the institution is contractually liable for is less than the capital requirement for the assets transferred under the recourse agreement. For such transactions, a bank must hold capital equal to its maximum contractual recourse obligation. For example,

assume an institution transfers a $100 pool of commercial loans and retains a recourse obligation of 2 percent. Ordinarily, the bank would be subject to an 8 percent capital charge, or $8. Because the recourse obligation is only 2 percent, however, the bank would be required to hold capital of $2 against the recourse exposure. This capital charge may be reduced further by the balance of any associated noncapital GAAP recourse liability account.

A second exception to the general rule applies to the transfer of small-business loans and to the transfer of leases on personal property with recourse. A bank that is considered to be well capitalized according to the Federal Reserve's prompt-corrective-action framework should include in risk-weighted assets only the amount of retained recourse—instead of the entire amount of assets transferred—in connection with a transfer of small-business loans or a transfer of leases on personal property with recourse, provided two conditions are met. First, the transaction must be treated as a sale under GAAP; second, the bank must establish a noncapital reserve that is sufficient to cover the bank's estimated liability under the recourse arrangement. With the Board's approval, this exception may also apply to a bank that is considered to be adequately capitalized under the prompt-corrective-action framework. The total outstanding amount of recourse retained under such transactions may not exceed 15 percent of a bank's total risk-based capital without Board approval.

Definitions

The capital adequacy guidelines provide special treatment for recourse obligations, direct-credit substitutes, residual interests, and asset- and mortgage-backed securities involved in asset-securitization activities. A brief discussion of some of the primary definitions follows.

Credit derivatives. Credit derivative means a contract that allows one party (the protection purchaser) to transfer the credit risk of an asset or off-balance-sheet credit exposure to another party (the protection provider). The value of a credit derivative is dependent, at least in part, on the credit performance of a ''reference asset.''

Credit-enhancing representations and warranties. When a bank transfers assets, including servicing rights, it customarily makes representations and warranties concerning those assets. When a bank purchases loan-servicing rights, it may also assume representations and warranties made by the seller or a prior servicer. These representations and warranties give certain rights to other parties and impose obligations on the seller or servicer of the assets. To the extent a bank's representations and warranties function as credit enhancements to protect asset purchasers or investors from credit risk, they are considered as recourse or direct-credit substitutes.

The Federal Reserve's risk-based capital adequacy rule is consistent with the agencies' long-standing recourse treatment of representations and warranties that effectively guarantee the performance or credit quality of transferred loans. However, banks typically make a number of factual warranties that are unrelated to the ongoing performance or credit quality of transferred assets. These warranties entail operational risk, as opposed to the open-ended credit risk inherent in a financial guaranty, and are not considered recourse or a direct-credit substitute. Warranties that create operational risk include warranties that assets have been underwritten or collateral appraised in conformity with identified standards, as well as warranties that provide for the return of assets in instances of incomplete documentation, fraud, or misrepresentation.

Warranties can impose varying degrees of operational risk. For example, a warranty that asset collateral has not suffered damage from potential hazards entails a risk that is offset to some extent by prudent underwriting practices requiring the borrower to provide hazard insurance to the bank. A warranty that asset collateral is free of environmental hazards may present acceptable operational risk for certain types of properties that have been subject to environmental assessment, depending on the circumstances. The appropriate limits for these operational risks are monitored through supervision of a bank's loan-underwriting, -sale, and -servicing practices. Also, a bank that provides warranties to loan purchasers and investors must include associated operational risks in its risk management of exposures arising from loan-sale or securitization-related activities. Banks should be prepared to demonstrate to examiners that operational risks are effectively managed.

Recourse or direct-credit-substitute treatment is required for warranties providing assurances

about the actual value of asset collateral, including that the market value corresponds to its appraised value or that the appraised value will be realized in the event of foreclosure and sale. Warranties such as these, which make representations about the future value of a loan or related collateral, constitute an enhancement of the loan transferred, and thus are recourse arrangements or direct-credit substitutes. When a seller represents that it "has no knowledge" of circumstances that could cause a loan to be other than investment quality, the representation is not recourse. Banks may limit recourse exposure with warranties that directly address the condition of the asset *at the time of transfer* (that is, creation of an operational warranty) and by monitoring compliance with stated underwriting standards. Alternatively, banks might create warranties with exposure caps that would permit it to take advantage of the low-level-recourse rule.

The definition of credit-enhancing representations and warranties excludes warranties—such as early-default clauses and similar warranties that permit the return of, or premium-refund clauses covering, one- to four-family residential first mortgage loans that qualify for a 50 percent risk weight for a maximum period of 120 days from the date of transfer. These warranties may cover only those loans that were originated within one year of the date of transfer.

A premium-refund clause is a warranty that obligates a seller who has sold a loan at a price in excess of par, that is, at a premium, to refund the premium, either in whole or in part, if the loan defaults or is prepaid within a certain period of time. Premium-refund clauses that cover assets guaranteed, in whole or in part, by the U.S. government, a U.S. government agency, or a government-sponsored enterprise are not included in the definition of credit-enhancing representations and warranties, provided the premium-refund clauses are for a period not to exceed 120 days from the date of transfer. The definition also does not include warranties that permit the return of assets in instances of misrepresentation, fraud, or incomplete documentation.

Early-default clauses. Early-default clauses typically give the purchaser of a loan the right to return the loan to the seller if the loan becomes 30 or more days delinquent within a stated period after the transfer, for example, four months after transfer. Once the stated period has expired, the early-default clause will no longer trigger recourse treatment, provided there are no other provisions that constitute recourse.

Direct-credit substitutes. The term *direct-credit substitute* refers to an arrangement in which a bank assumes, in form or in substance, credit risk associated with an on- or off-balance-sheet asset or exposure that was not previously owned by the bank (third-party asset), and the risk assumed by the bank exceeds the pro rata share of its interest in the third-party asset. If the bank has no claim on the third-party asset, then the bank's assumption of any credit risk on the third-party asset is a direct-credit substitute.

The term direct-credit substitute explicitly includes items such as purchased subordinated interests, agreements to cover credit losses that arise from purchased loan-servicing rights, credit derivatives, and lines of credit that provide credit enhancement. Some purchased subordinated interests, such as credit-enhancing I/O strips, are also residual interests for regulatory capital purposes.

Direct-credit substitutes include, but are not limited to—

- financial standby letters of credit that support financial claims on a third party that exceed a bank's pro rata share of losses in the financial claim;
- guarantees, surety arrangements, credit derivatives, and similar instruments backing financial claims that exceed a bank's pro rata share in the financial claim;
- purchased subordinated interests or securities that absorb more than their pro rata share of losses from the underlying assets;
- credit derivative contracts under which the bank assumes more than its pro rata share of credit risk on a third-party exposure;
- loans or lines of credit that provide credit enhancement for the financial obligations of an account party;
- purchased loan-servicing assets if the servicer is responsible for credit losses or if the servicer makes or assumes credit-enhancing representations and warranties with respect to the loans serviced (mortgage-servicer cash advances that meet the conditions of section III.B.3.a.x. of the guidelines (12 CFR 208, appendix A) are not direct-credit substitutes);
- clean-up calls on third-party assets (clean-up calls that are 10 percent or less of the original pool balance that are exercisable at the option

of the bank are not direct-credit substitutes); and
- liquidity facilities that provide liquidity support to ABCP (other than eligible ABCP liquidity facilities).

Clean-up calls. A clean-up call is an option that permits a servicer or its affiliate (which may be the originator) to take investors out of their positions in a securitization before all of the transferred loans have been repaid. The servicer accomplishes this by repurchasing the remaining loans in the pool once the pool balance has fallen below some specified level. This option in a securitization raises long-standing agency concerns that a bank may implicitly assume a credit-enhancing position by exercising the option when the credit quality of the securitized loans is deteriorating. An excessively large clean-up call facilitates a securitization servicer's ability to take investors out of a pool to protect them from absorbing credit losses, and thus may indicate that the servicer has retained or assumed the credit risk on the underlying pool of loans.

Generally, clean-up calls (whether or not they are exercised) are treated as recourse and direct-credit substitutes. The purpose of treating large clean-up calls as recourse or direct-credit substitutes is to ensure that a bank is not able to provide credit support to the trust investors by repaying its investment when the credit quality of the pool is deteriorating without holding capital against the exposure. The focus should be on the arrangement itself and not the exercise of the call. Thus, the existence, not the exercise, of a clean-up call that does not meet the requirements of the risk-based capital rule will trigger treatment as a recourse obligation or a direct-credit substitute. A clean-up call can function as a credit enhancement because its existence provides the opportunity for a bank (as servicer or an affiliate of a servicer) to provide credit support to investors by taking an action that is within the contractual terms of the securitization documents.

Because clean-up calls can also serve an administrative function in the operation of a securitization, a limited exemption exists for these options. When an agreement permits a bank that is a servicer or an affiliate of the servicer to elect to purchase loans in a pool, the agreement is not considered a recourse obligation or a direct-credit substitute if the agreement permits the banking organization to purchase the remaining loans in a pool when the balance of those loans is equal to or less than 10 percent of the original pool balance. This treatment will also apply to clean-up calls written with reference to less than 10 percent of the outstanding principal amount of securities. If, however, an agreement permits the remaining loans to be repurchased when their balance is greater than 10 percent of the original pool balance, the agreement is considered to be a recourse obligation or a direct-credit substitute. The exemption from recourse or direct-credit-substitute treatment for a clean-up call of 10 percent or less recognizes the real market need to be able to call a transaction when the costs of keeping it outstanding are burdensome. However, to minimize the potential for using such a feature as a means of providing support for a troubled portfolio, a bank that exercises a clean-up call should not repurchase any loans in the pool that are 30 days or more past due. Alternatively, the bank should repurchase the loans at the lower of their estimated fair value or their par value plus accrued interest.

Banks that repurchase assets pursuant to a clean-up call may do so based on an aggregate fair value for all repurchased assets. Banks do not have to evaluate each individual loan remaining in the pool at the time a clean-up call is exercised to determine fair value. Rather, the overall repurchase price should reflect the aggregate fair value of the assets being repurchased so that the bank is not overpaying for the assets and, in so doing, providing credit support to the trust investors. Examiners will review the terms and conditions relating to the repurchase arrangements in clean-up calls to ensure that transactions are done at the lower of fair value or par value plus accrued interest. Banks should be able to support their fair-value estimates. If the Federal Reserve concludes that a bank has repurchased assets at a price that exceeds the lower of these two amounts, the clean-up call provisions in its future securitizations may be treated as recourse obligations or direct-credit substitutes. Regardless of the size of the clean-up call, the Federal Reserve will closely scrutinize and take appropriate supervisory action for any transaction in which the bank repurchases deteriorating assets for an amount greater than a reasonable estimate of their fair value.

Eligible ABCP liquidity facility. An eligible ABCP liquidity facility is a liquidity facility that supports ABCP, in form or in substance, and is

subject to an asset-quality test at the time of draw that precludes funding against assets that are 90 days or more past due or in default. In addition, if the assets that an eligible ABCP liquidity facility is required to fund against are externally rated assets or exposures at the inception of the facility, the facility can be used to fund only those assets or exposures that are externally rated investment grade at the time of funding. Notwithstanding the eligibility requirements set forth in the two preceding sentences, a liquidity facility will be considered an eligible ABCP liquidity facility if the assets that are funded under the liquidity facility and which do not meet the eligibility requirements are guaranteed, either conditionally or unconditionally, by the U.S. government or its agencies or by the central government of an OECD country.

Externally rated. Externally rated is a term which means that an instrument or obligation has received a credit rating from a nationally recognized statistical rating organization.

Face amount. The face amount is the notional principal, or face value, amount of an off-balance-sheet item; the amortized cost of an asset not held for trading purposes; and the fair value of a trading asset.

Financial asset. A financial asset is cash or other monetary instrument, evidence of debt, evidence of an ownership interest in an entity, or a contract that conveys a right to receive or exchange cash or another financial instrument from another party.

Financial standby letters of credit. A financial standby letter of credit means a letter of credit or similar arrangement that represents an irrevocable obligation to a third-party beneficiary—

- to repay money borrowed by, advanced to, or for the account of a second party (the account party), or
- to make payment on behalf of the account party, in the event that the account party fails to fulfill its obligation to the beneficiary.

Spread accounts that function as credit-enhancing interest-only strips. A spread account is an on-balance-sheet asset that functions as a credit enhancement and that can represent an interest in expected interest and fee cash flows derived from assets an organization has sold into a securitization. In those cases, the spread account is considered to be a ‘‘credit-enhancing interest-only strip’’ and is subject to the concentration limit. (See SR-02-16.) However, any portion of a spread account that represents an interest in cash that has already been collected and is held by the trustee is a ‘‘residual interest’’ subject to dollar-for-dollar capital, but is not a credit-enhancing interest-only strip subject to the concentration limit. For example, assume that a bank books a single spread-account asset that is derived from two separate cash-flow streams:

- *A receivable from the securitization trust that represents cash that has already accumulated in the spread account.* In accordance with the securitization documents, the cash will be returned to the bank at some date in the future after having been reduced by amounts used to reimburse investors for credit losses. Based on the date when the cash is expected to be paid out to the bank, the present value of this asset is currently estimated to be $3.
- *A projection of future cash flows that are expected to accumulate in the spread account.* In accordance with the securitization documents, the cash, to the extent collected, will also be returned to the bank at some date in the future after having been reduced by amounts used to reimburse investors for credit losses. Based on the date when the cash is expected to be paid out to the bank, the present value of this asset is currently estimated to be $2.

Both components of the above spread account are considered to be residual interests under the current capital standards because both represent on-balance-sheet assets subject to more than their pro rata share of losses on the underlying portfolio of sold assets. However, the $2 asset that represents the bank’s retained interest in future cash flows exposes the organization to a greater degree of risk because the $2 asset presents additional uncertainty as to whether it will ever be collected. This additional uncertainty associated with the recognition of future subordinated excess cash flows results in the $2 asset being treated as a credit-enhancing interest-only strip, a subset of residual interests.

The face amount of all of the bank’s credit-enhancing interest-only strips is first subject to a 25 percent of tier 1 capital concentration limit.

Any portion of this face amount that exceeds 25 percent of tier 1 capital is deducted from tier 1 capital. This limit will affect both a bank's risk-based and leverage capital ratios. The remaining face amount of the bank's credit-enhancing interest-only strips, as well as the face amount of the spread-account receivable for cash already held in the trust, is subject to the dollar-for-dollar capital requirement established for residual interests, which affects only the risk-based capital ratios.

Credit-enhancing interest-only strips. A credit-enhancing interest-only (I/O) strip is an on-balance-sheet asset that, in form or substance, (1) represents the contractual right to receive some or all of the interest due on transferred assets and (2) exposes the bank to credit risk that exceeds its pro rata claim on the underlying assets, whether through subordination provisions or other credit-enhancing techniques. Thus, credit-enhancing I/O strips include any balance-sheet asset that represents the contractual right to receive some or all of the remaining interest cash flow generated from assets that have been transferred into a trust (or other special-purpose entity), after taking into account trustee and other administrative expenses, interest payments to investors, servicing fees, reimbursements to investors for losses attributable to the beneficial interests they hold, and reinvestment income and ancillary revenues[26] on the transferred assets. Credit-enhancing I/O strips are generally carried on the balance sheet at the present value of the expected net cash flow that the banking organization reasonably expects to receive in future periods on the assets it has securitized, adjusted for some level of prepayments if relevant to that asset class, and discounted at an appropriate market interest rate. Typically, when assets are transferred in a securitization transaction that is accounted for as a sale under GAAP, the accounting recognition given to the credit-enhancing I/O strip on the seller's balance sheet results in the recording of a gain on the portion of the transferred assets that has been sold. This gain is recognized as income, thus increasing the bank's capital position. The economic substance of a transaction will be used to determine whether a particular interest cash flow functions as a credit-enhancing I/O strip, and the Federal Reserve reserves the right to identify other cash flows or spread-related assets as credit-enhancing I/O strips on a case-by-case basis. For example, including some principal payments with interest and fee cash flows will not otherwise negate the regulatory capital treatment of that asset as a credit-enhancing I/O strip. Credit-enhancing I/O strips include both purchased and retained interest-only strips that serve in a credit-enhancing capacity, even though purchased I/O strips generally do not result in the creation of capital on the purchaser's balance sheet.

Loan-servicing arrangements. The definitions of recourse and direct-credit substitute cover loan-servicing arrangements if the bank, as servicer, is responsible for credit losses associated with the serviced loans. However, cash advances made by residential mortgage servicers to ensure an uninterrupted flow of payments to investors or the timely collection of the mortgage loans are specifically excluded from the definitions of recourse and direct-credit substitute, provided the residential mortgage servicer is entitled to reimbursement for any significant advances and this reimbursement is not subordinate to other claims. To be excluded from recourse and direct-credit-substitute treatment, the bank, as servicer, should make an independent credit assessment of the likelihood of repayment of the servicer advance before advancing funds, and should only make such an advance if prudent lending standards are met. Risk-based capital is assessed only against the amount of the cash advance, and the advance is assigned to the risk-weight category appropriate to the party obligated to reimburse the servicer.

If a residential mortgage servicer is not entitled to full reimbursement, then the maximum possible amount of any nonreimbursed advances on any one loan must be contractually limited to an insignificant amount of the outstanding principal on that loan. Otherwise, the servicer's obligation to make cash advances will not be excluded from the definitions of recourse and direct-credit substitute. Banks that act as servicers should establish policies on servicer advances and use discretion in determining what constitutes an "insignificant" servicer advance. The Federal Reserve will exercise its supervisory authority to apply recourse or direct-credit-substitute treatment to servicer cash advances that expose a bank, acting as servicer, to excessive levels of credit risk.

Liquidity facility. A liquidity facility refers to a

26. According to FAS 140, ancillary revenues include such revenues as late charges on the transferred assets.

legally binding commitment to provide liquidity support to ABCP by lending to, or purchasing assets from, any structure, program, or conduit in the event that funds are required to repay maturing ABCP.

Mortgage-servicer cash advance. A mortgage-servicer cash advance represents funds that a residential mortgage loan servicer advances to ensure an uninterrupted flow of payments, including advances made to cover foreclosure costs or other expenses to facilitate the timely collection of the loan.

A mortgage-servicer cash advance is not a recourse obligation or a direct-credit substitute if—

- the servicer is entitled to full reimbursement and this right is not subordinated to other claims on the cash flows from the underlying asset pool; or
- for any one loan, the servicer's obligation to make nonreimbursable advances is contractually limited to an insignificant amount of the outstanding principal balance of that loan.

Nationally recognized statistical rating organization (NRSRO). An NRSRO is an entity that is recognized by the Division of Market Regulation of the Securities and Exchange Commission (or any successor division) (the commission) as a nationally recognized statistical rating organization for various purposes, including the commission's uniform net capital requirements for brokers and dealers.

Recourse. Recourse means the retention by a bank, in form or in substance, of any credit risk directly or indirectly associated with an asset it has transferred that exceeds a pro rata share of the bank's claim on the asset. If a bank has no claim on a transferred asset, then the retention of any risk of credit loss is recourse. A recourse obligation typically arises when a bank transfers assets and retains an explicit obligation to repurchase the assets or absorb losses due to a default on the payment of principal or interest or any other deficiency in the performance of the underlying obligor or some other party. The definition of recourse is consistent with the banking agencies' long-standing use of this term, and incorporates existing agency practices regarding retention of risk in asset sales.

Second-lien positions do not, in most circumstances, constitute recourse for the bank receiving the third-party enhancement. Second mortgages or home equity loans generally will not be considered recourse arrangements unless they actually function as credit enhancements.

Third-party enhancements (for example, insurance protection) purchased by the originator of a securitization for the benefit of investors also do not generally constitute recourse. The purchase of enhancements for a securitization, when the bank is completely removed from any credit risk, will not, in most instances, constitute recourse. However, if the purchase or premium price is paid over time and the size of the payment is a function of the third-party's loss experience on the portfolio, such an arrangement indicates an assumption of credit risk and would be considered recourse.

Recourse may also exist implicitly if a bank provides credit enhancement beyond any contractual obligation to support assets it has sold. The following are examples of recourse arrangements:

- credit-enhancing representations and warranties made on the transferred assets
- loan-servicing assets retained pursuant to an agreement under which the bank will be responsible for credit losses associated with the loans being serviced (mortgage-servicer cash advances that meet the conditions of section III.B.3.a.x. of the guidelines (12 CFR 208, appendix A) are not recourse arrangements)
- retained subordinated interests that absorb more than their pro rata share of losses from the underlying assets
- assets sold under an agreement to repurchase, if the assets are not already included on the balance sheet
- loan strips sold without contractual recourse, when the maturity of the transferred loan is shorter than the maturity of the commitment under which the loan is drawn
- credit derivatives issued that absorb more than the bank's pro rata share of losses from the transferred assets
- clean-up calls at inception that are greater than 10 percent of the balance of the original pool of transferred loans (clean-up calls that are 10 percent or less of the original pool balance that are exercisable at the option of the bank are not recourse arrangements)
- liquidity facilities that provide liquidity support to ABCP (other than eligible ABCP liquidity facilities)

Residual interests. Residual interests are defined as any on-balance-sheet asset (1) that represents an interest (including a beneficial interest) created by a transfer that qualifies as a sale (in accordance with GAAP) of financial assets, whether through a securitization or otherwise, and (2) that exposes a bank to credit risk directly or indirectly associated with the transferred assets that exceeds a pro rata share of the bank's claim on the asset, whether through subordination provisions or other credit-enhancement techniques. Residual interests generally do not include interests purchased from a third party, except for credit-enhancing I/O strips. Examples of residual interests (assets) include credit-enhancing I/Os; spread accounts; cash-collateral accounts; retained subordinated interests; accrued but uncollected interest on transferred assets that, when collected, will be available to serve in a credit-enhancing capacity; and similar on-balance-sheet assets that function as a credit enhancement. The functional-based definition reflects the fact that securitization structures vary in the way they use certain assets as credit enhancements. Residual interests therefore include any retained on-balance-sheet asset that functions as a credit enhancement in a securitization, regardless of how a bank refers to the asset in financial or regulatory reports.

In general, the definition of residual interests includes only an on-balance-sheet asset that represents an interest created by a transfer of financial assets treated as a sale under GAAP, in accordance with FAS 140. Interests retained in a securitization or transfer of assets accounted for as a financing under GAAP are generally excluded from the definition of residual interest. In the case of GAAP financings, the transferred assets remain on the transferring bank's balance sheet and are, therefore, directly included in both the leverage and risk-based capital calculations. Further, when a transaction is treated as a financing, no gain is recognized from an accounting standpoint.

Sellers' interests generally do not function as a credit enhancement. Thus, if a seller's interest shares losses on a pro rata basis with investors, such an interest would not be considered a residual interest. However, banks should recognize that sellers' interests that are structured to absorb a disproportionate share of losses will be considered residual interests.

The definition of residual interest also includes overcollateralization and spread accounts because these accounts are susceptible to the potential future credit losses within the loan pools that they support, and thus are subject to valuation inaccuracies. Spread accounts and overcollateralizations that do not meet the definition of credit-enhancing I/O strips generally do not expose a bank to the same level of risk as credit-enhancing I/O strips, and thus are excluded from the concentration limit.

The capital treatment for a residual interest applies when a bank effectively retains the risk associated with that residual interest, even if the residual is sold. The economic substance of the transaction will be used to determine whether the bank has transferred the risk associated with the residual-interest exposure. Banks that transfer the risk on residual interests, either directly through a sale or indirectly through guarantees or other credit-risk-mitigation techniques, and then reassume this risk in any form will be required to hold risk-based capital as though the residual interest remained on the bank's books. For example, if a bank sells an asset that is an on-balance-sheet credit enhancement to a third party and then writes a credit derivative to cover the credit risk associated with that asset, the selling bank must continue to risk-weight, and hold capital against, that asset as a residual interest as if the asset had not been sold.

Risk participation. Risk participation means a participation in which the originating party remains liable to the beneficiary for the full amount of an obligation (for example, a direct-credit substitute) notwithstanding that another party has acquired a participation in that obligation.

Securitization. Securitization is the pooling and repackaging by a special-purpose entity of assets or other credit exposures into securities that can be sold to investors. Securitization includes transactions that create stratified credit-risk positions whose performance is dependent on an underlying pool of credit exposures, including loans and commitments.

Sponsor. A sponsor refers to a bank that establishes an ABCP 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.

Structured finance program. A structured finance program refers to a program where receivable interests and asset-backed securities issued by multiple participants are purchased by a special-purpose entity that repackages those exposures into securities that can be sold to investors. Generally, structured finance programs allocate credit risks between the participants and the credit enhancement provided to the program.

Recourse Obligations, Direct-Credit Substitutes, Residual Interests, and Asset- and Mortgage-Backed Securities

The risk-based capital treatment for recourse obligations, direct-credit substitutes, and asset- and mortgage-backed securities in connection with asset securitizations and structured financings is described below. The capital treatment described in this subsection applies to the bank's own positions.[27]

For banks that comply with the *market-risk rules*, except for liquidity facilities supporting ABCP (in form or in substance), positions in the trading book that arise from asset securitizations, including recourse obligations, residual interests, and direct-credit substitutes, should be treated according to the market-risk rules. However, these banks remain subject to the 25 percent concentration limit for credit-enhancing I/O strips.

Credit-Equivalent Amount

The credit-equivalent amount for a recourse obligation or a direct-credit substitute is the full amount of the credit-enhanced assets for which the bank directly or indirectly retains or assumes credit risk, multiplied by a 100 percent conversion factor. This treatment, however, does not apply to externally rated positions, senior positions not externally rated, residual interests, certain internally rated positions, and certain small-business loans and leases on personal property transferred with recourse.

Risk-Weight Factor for Off-Balance-Sheet Recourse Obligations and Direct-Credit Substitutes

To determine the bank's risk-weight factor for off-balance-sheet recourse obligations and direct-credit substitutes, the credit-equivalent amount is assigned to the risk category appropriate to the obligor in the underlying transaction, after considering any associated guarantees or collateral. For a direct-credit substitute that is an on-balance-sheet asset (for example, a purchased subordinated security), a bank must calculate risk-weighted assets using the amount of the direct-credit substitute and the full amount of the assets it supports, that is, all the more senior positions in the structure. Direct-credit substitutes that have been syndicated or in which risk participations have been conveyed or acquired are considered off-balance-sheet items that are converted at a 100 percent conversion factor. (See section III.D.1. of the guidelines (12 CFR 208, appendix A) for more capital-treatment details.)

Ratings-Based Approach—Externally Rated Positions

Each loss position in an asset-securitization structure functions as a credit enhancement for the more senior loss positions in the structure. A multilevel ratings-based approach is used to assess capital requirements on recourse obligations, residual interests (except credit-enhancing I/O strips), direct-credit substitutes, and senior and subordinated securities in asset securitizations. The approach uses credit ratings from the rating agencies to measure relative exposure to credit risk and determine the associated risk-based capital requirement. Using these credit ratings provides a way to use determinations of credit quality that are relied on by investors and other market participants to differentiate the regulatory capital treatment for loss positions representing different gradations of risk.

Under the ratings-based approach, the capital requirement for a position is computed by multiplying the face amount of the position by the appropriate risk weight, determined in accordance with the following tables.[28] Table 2 maps

27. The treatment also applies to banks that hold positions in their trading book but that are not otherwise subject to the market-risk rules.

28. The rating designations (for example, AAA, BBB, A-1, and P-1) used in the tables are illustrative only and do not indicate any preference for, or endorsement of, any particular rating-agency designation system.

Table 2—Risk-Weight Assignments for Externally Rated Long-Term Positions

Long-term rating category	*Rating-designation examples*	*Risk weight*
Highest or second-highest investment grade	AAA, AA	20 percent
Third-highest investment grade	A	50 percent
Lowest investment grade	BBB	100 percent
One category below investment grade	BB	200 percent

Table 3—Risk-Weight Assignments for Externally Rated Short-Term Positions

Short-term rating category	*Rating-designation examples*	*Risk weight*
Highest investment grade	A-1, P-1	20 percent
Second-highest investment grade	A-2, P-2	50 percent
Lowest investment grade	A-3, P-3	100 percent

long-term ratings to the appropriate risk weights. Table 3 maps short-term ratings for asset-backed commercial paper to the appropriate risk weights. The Federal Reserve has the authority, however, to override the use of certain ratings or the ratings on certain instruments, either on a case-by-case basis or through broader supervisory policy, if necessary or appropriate to address the risk that an instrument poses to a bank.

The ratings-based approach can be used for certain designated asset-backed securities (including asset-backed commercial paper), recourse obligations, direct-credit substitutes, and residual interests (other than credit-enhancing I/O strips). Credit-enhancing I/O strips have been excluded from the ratings-based approach because of their high risk profile. While the ratings-based approach is available for both traded and untraded positions, the approach applies different requirements to each type of position.

Ratings-Based Qualification for Corporate Bonds or Other Securities

Corporate bonds or other securities not related in any way to a securitization or structured finance program do not qualify for the ratings-based approach. Only mortgage- and asset-backed securities, recourse obligations, direct-credit substitutes, and residual interests (except credit-enhancing I/O strips) retained, assumed, or issued in connection with a securitization or structured finance program qualify for the ratings-based approach.

Corporate debt instruments, municipal bonds, and other securities that are not related to a securitization or structured finance program do not meet these definitions, and thus do not qualify for the ratings-based approach.

Traded Positions

A traded position is only required to be rated by one rating agency. A traded position is defined as a position that is externally rated and is retained, assumed, or issued in connection with an asset securitization, where there is a reasonable expectation that, in the near future, the rating will be relied on by unaffiliated investors to purchase the position or will be relied on by an unaffiliated third party to enter into a transaction involving the position, such as a purchase, loan, or repurchase agreement.

For a traded position that has received an external rating on a long-term position that is one grade below investment grade or better, or that has received a short-term rating that is investment grade, the bank multiplies the face amount of the position by the appropriate risk weight, determined in accordance with tables 2 and 3. Stripped mortgage-backed securities and

other similar instruments, such as interest-only or principal-only strips that are not credit enhancements, must be assigned to the 100 percent risk category. If a traded position has received more than one external rating, the lowest single rating will apply. Moreover, if a rating changes, the bank must use the new rating.

Table 3, for short-term ratings, is not identical to table 2, for long-term ratings, because the rating agencies do not assign short-term ratings using the same methodology as they use for long-term ratings. Each short-term rating category covers a range of longer-term rating categories.[29] For example, a P-1 rating could map to a long-term rating that is as high as Aaa or as low as A3.

Externally Rated, Nontraded Positions

For a rated, but untraded, position to be eligible for the ratings-based approach, it must meet certain conditions. To qualify, the position (1) must be rated by more than one rating agency; (2) must have received an external rating on a long-term position that is one grade below investment grade or better or, for a short-term position, a rating that is investment grade or better by all rating agencies providing a rating; (3) must have ratings that are publicly available; and (4) must have ratings that are based on the same criteria used to rate traded securities. If the ratings are different, the lowest single rating will determine the risk-weight category to which the position will be assigned. This treatment does not apply to a credit-enhancing I/O strip.

Split or Partially Rated Instruments

For instruments that have been assigned separate ratings for principal and interest (split or partially rated instruments), the Federal Reserve will apply to the entire instrument the risk weight that corresponds to the lowest component rating. For example, a purchased subordinated security whose principal component is rated BBB, but whose interest component is rated B, is subject to the gross-up treatment accorded to direct-credit substitutes rated B or lower. Similarly, if a portion of an instrument is unrated, the entire position will be treated as if it was unrated. In addition to this regulatory capital treatment, the Federal Reserve may also, as appropriate, adversely classify and require write-downs for an other-than-temporary impairment on unrated and below-investment-grade securities, including split or partially rated securities. (See SR-02-16.)

Senior Positions Not Externally Rated

A position that is not externally rated (an unrated position), but that is senior or preferred in all respects (including collateralization and maturity) to a rated position that is traded, is treated as if it had the rating assigned to the rated position. The bank must satisfy the Federal Reserve that such treatment is appropriate. Senior unrated positions qualify for the risk weighting of the subordinated rated positions in the same securitization transaction as long as the subordinated rated position (1) is traded and (2) remains outstanding for the entire life of the unrated position, thus providing full credit support until the unrated position matures.

Recourse obligations and direct-credit substitutes (other than residual interests) that do not qualify for the ratings-based approach (or for the internal-ratings, program-ratings, or computer-program-ratings approaches outlined below) receive "gross-up" treatment, that is, the bank holding the position must hold capital against the amount of the position, plus all more senior positions, subject to the low-level-exposure requirement.[30] This grossed-up amount is placed into a risk-weight category according to the obligor or, if relevant, according to the guarantor or nature of the collateral. The grossed-up amount multiplied by both the risk weight and 8 percent is never greater than the full capital charge that would otherwise be imposed on the

29. See, for example, *Moody's Global Ratings Guide*, June 2001, p.3.

30. Gross-up treatment means that a position is combined with all more senior positions in the transaction. The result is then risk-weighted based on the obligor or, if relevant, the guarantor or the nature of the collateral. For example, if a bank retains a first-loss position (other than a residual interest) in a pool of mortgage loans that qualify for a 50 percent risk weight, the bank would include the full amount of the assets in the pool, risk-weighted at 50 percent, in its risk-weighted assets for purposes of determining its risk-based capital ratio. The low-level-exposure rule provides that the dollar amount of risk-based capital required for assets transferred with recourse should not exceed the maximum dollar amount for which a bank is contractually liable.

assets if they were on the banking organization's balance sheet.[31]

Residual Interests

Credit-Enhancing I/O Strips

After applying the concentration limit to credit-enhancing I/O strips (both purchased and retained), a bank must maintain risk-based capital for a credit-enhancing I/O strip (both purchased and retained), regardless of the external rating on that position, equal to the remaining amount of the credit-enhancing I/O strip (net of any existing associated deferred tax liability), even if the amount of risk-based capital required to be maintained exceeds the full risk-based capital requirement for the assets transferred. Transactions that, in substance, result in the retention of credit risk associated with a transferred credit-enhancing I/O strip will be treated as if the credit-enhancing I/O strip was retained by the bank and not transferred.

Other Residual Interests

Residual interests that are not eligible for the ratings-based approach receive dollar-for-dollar treatment. Dollar-for-dollar treatment means, effectively, that one dollar in total risk-based capital must be held against every dollar of a residual interest retained on the balance sheet (net of any existing associated deferred tax liability), even if the amount of risk-based capital required to be maintained exceeds the full risk-based capital requirement for the assets transferred. This capital treatment applies to all residual interests, except for credit-enhancing I/O strips that have already been deducted from tier 1 capital under the concentration limit.[32] Transactions that, in substance, result in the retention of credit risk associated with a transferred residual interest will be treated as if the residual interest was retained by the bank and not transferred.

When the aggregate capital requirement for residual interests and other recourse obligations in connection with the same transfer of assets exceeds the full risk-based capital requirement for those assets, a bank must maintain risk-based capital equal to the greater of the risk-based capital requirement for the residual interest or the full risk-based capital requirement for the assets transferred.

Accrued Interest Receivables Held on Credit Card Securitizations

In a typical credit card securitization, an institution transfers a pool of credit card receivables to a trust, as well as the rights to receive future payments of principal, interest, and fee income from those receivables. If a securitization transaction qualifies as a sale under FAS 140, the selling institution removes the receivables that were sold from its reported assets and continues to carry any retained interests in the transferred receivables on its balance sheet; the right to these future cash flows should be reported as an accrued interest receivable (AIR) asset.[33,34] Any accrued amounts (cash flows) the institution collects (for example, accrued fees and finance charges) generally must be transferred to the trust and will be used first by the trustee for the benefit of third-party investors to satisfy more senior obligations and for the payment of trust expenses (such as servicing fees, investor-certificate interest, and investor-principal charge-offs). Any remaining excess fee and finance charges will flow back to the seller.

Because the AIR asset constitutes a subordinated residual (retained) interest in the trans-

31. For assets that are assigned to the 100 percent risk-weight category, the minimum capital charge is 8 percent of the amount of assets transferred, and banking organizations are required to hold 8 cents of capital for every dollar of assets transferred with recourse. For assets that are assigned to the 50 percent risk-weight category, the minimum capital charge is 4 cents of capital for every dollar of assets transferred with recourse.

32. Residual interests that are retained or purchased credit-enhancing I/O strips are first subject to a capital concentration limit of 25 percent of tier 1 capital. For risk-based capital purposes (but not for leverage capital purposes), once this concentration limit is applied, a banking organization must then hold dollar-for-dollar capital against the face amount of credit-enhancing I/O strips remaining.

33. The AIR represents fees and finance charges that have been accrued on receivables that the institution has securitized and sold to other investors. For example, in credit card securitizations, this accrued interest receivable asset may include both finance charges billed but not yet collected and finance charges accrued but not yet billed on the securitized receivables.

34. Some institutions may categorize part or all of this receivable as a loan, a "due from trust" account, a retained interest in the trust, or as part of an interest-only strip receivable.

ferred securitized assets, it meets the definition of recourse exposure for risk-based capital purposes. Recourse exposures (such as the AIR asset) require risk-based capital against the full, risk-weighted amount of the assets transferred with recourse, subject to the low-level-recourse rule.[35] The AIR asset serves as a credit enhancement to protect third-party investors in the securitization from credit losses, and it meets the definition of a residual interest under the risk-based capital adequacy rules for the treatment of recourse arrangements. Under those rules, an institution must hold dollar-for-dollar capital against residual interests, even if that amount exceeds the full equivalent risk-based capital charge on the transferred assets.[36] The institution is expected to hold risk-based capital in an amount consistent with the subordinated nature of the AIR asset.

In accounting for the sale, the AIR asset is treated as a subordinated retained interest of credit card receivables when computing the gain or loss on sale. Consistent with GAAP, this means that the value of the AIR, at the date of transfer, must be adjusted based on its relative fair (market) value. This adjustment will typically result in the carrying amount of the AIR being lower than its book (face) value prior to securitization. The AIR should be reported in regulatory reports as ''Other Assets'' and not as a loan receivable. (See SR-02-12 and SR-02-22).

Other Unrated Positions

A position (but not a residual interest) maintained in connection with a securitization and that is not rated by a rating agency may be risk-weighted based on the bank's internal determination of the credit rating of the position, as specified in table 4, multiplied by the face amount of the position. The bank may use three approaches to determine the capital requirements for certain unrated direct-credit substitutes and recourse obligations. Under each of these approaches, the bank must satisfy the Federal Reserve that the use of the approach is appropriate for the particular bank and for the exposure being evaluated. The risk weight that may be applied to an exposure under these alternative approaches is limited to a minimum of 100 percent.

Internal Risk-Rating Systems for Asset-Backed Commercial Paper Programs

A bank that has a qualifying internal risk-rating system can use that system to apply the ratings-based approach to its unrated direct-credit substitutes in asset-backed commercial paper programs. Internal risk ratings could be used to qualify such a credit enhancement for a risk weight of 100 percent or 200 percent under the ratings-based approach, but not for a risk weight of less than 100 percent.

Most sophisticated banking organizations that participate extensively in the asset-securitization business assign internal risk ratings to their credit exposures, regardless of the form of the exposure. Usually, internal risk ratings more finely differentiate the credit quality of a banking organization's exposures than the categories the banking agencies use to evaluate credit risk during bank examinations (pass, substandard, doubtful, or loss). An individual bank's internal risk ratings may be associated with a certain probability of default, loss in the event of default, and loss volatility.

The credit enhancements that sponsors obtain for their commercial paper conduits are rarely rated or traded. If an internal risk-ratings approach were not available for these unrated credit enhancements, the provider of the enhancement would have to obtain two ratings solely to avoid the gross-up treatment that would otherwise apply to nontraded positions in asset securitizations for risk-based capital purposes. However, before a provider of an enhancement decides whether to provide a credit enhancement for a particular transaction (and at what price), the provider will generally perform its own analysis of the transaction to evaluate the amount of risk associated with the enhancement. An internal risk-ratings approach, therefore, is potentially less costly than a ratings-based approach that relies exclusively on ratings by the rating agencies for the risk weighting of these positions.

35. The low-level-recourse rule limits the maximum risk-based capital requirement to the lesser of a banking organization's maximum contractual exposure or the full capital charge against the outstanding amount of assets transferred with recourse.

36. For a complete description of the appropriate capital treatment for recourse, residual interests, and credit-enhancing interest-only strips, see ''Recourse, Direct Credit Substitutes, and Residual Interests in Asset Securitizations,'' 66 *Fed. Reg.* 59614 (November 29, 2001).

Table 4—Risk-Weight Assignments for Unrated Positions Using the Alternative Approaches[1]

Rating category	*Rating-designation examples*	*Risk weight*
Highest or second-highest investment grade	AAA, AA	100 percent
Third-highest investment grade	A	100 percent
Lowest investment grade	BBB	100 percent
One category below investment grade	BB	200 percent

1. such as the internal ratings approach

Internal risk ratings that correspond to the rating categories of the rating agencies can be mapped to risk weights under the Federal Reserve's capital standards. This mapping can be done in a way that would make it possible to differentiate the riskiness of various unrated direct-credit substitutes in asset-backed commercial paper programs based on credit risk. The use of internal risk ratings, however, may raise concerns about the accuracy and consistency of the ratings, especially because the mapping of ratings to risk-weight categories will give banks an incentive to rate their risk exposures in a way that minimizes the effective capital requirement. A bank engaged in asset-backed commercial paper securitization activities that wishes to use the internal risk-ratings approach must therefore be able to demonstrate to the satisfaction of the Federal Reserve, before relying on its internal ratings, that the bank's internal credit-risk rating system is adequate. Adequate internal risk-rating systems usually have the following characteristics:

- The internal risk ratings are an integral part of an effective risk-management system that explicitly incorporates the full range of risks arising from the bank's participation in securitization activities. The system must also fully take into account the effect of such activities on the bank's risk profile and capital adequacy.
- The ratings link to measurable outcomes, such as the probability that a position will experience any losses, the expected losses on that position in the event of default, and the degree of variance in losses given default on that position.
- The ratings separately consider the risk associated with the underlying loans and borrowers, as well as the risk associated with the specific positions in a securitization transaction.
- The ratings identify gradations of risk among "pass" assets, and not just among assets that have deteriorated to the point that they fall into "watch" grades. Although it is not necessary for a bank to use the same categories as the rating agencies, its internal ratings must correspond to the ratings of the rating agencies so that the Federal Reserve can determine which internal risk rating corresponds to each rating category of the rating agencies. A bank would be responsible for demonstrating, to the satisfaction of the Federal Reserve, how these ratings correspond with the rating-agency standards that are used as the framework for the asset-securitization portion of the risk-based capital rule. This correlation is necessary so that the mapping of credit ratings to risk-weight categories in the ratings-based approach can be applied to internal ratings.
- The ratings classify assets into each risk grade using clear, explicit criteria, even for subjective factors.
- Independent credit-risk-management or loan-review personnel assign or review the credit-risk ratings. These personnel should have adequate training and experience to ensure that they are fully qualified to perform this function.
- An internal audit procedure periodically verifies that internal risk ratings are assigned in accordance with the bank's established criteria.[37]

37. The audit may be performed by any group within the organization that is qualified to audit the system and is independent of both the group that makes the decision to extend credit to the asset-backed commercial paper program and the groups that develop and maintain the internal credit-risk rating system. (See SR-02-16.)

- The performance of internal ratings is tracked over time to evaluate how well risk grades are being assigned, make adjustments to the rating system when the performance of the rated positions diverges from assigned ratings, and adjust individual ratings accordingly.
- Credit-risk rating assumptions are consistent with, or more conservative than, the credit-risk rating assumptions and methodologies of the rating agencies.

If it determines that a bank's rating system is not adequate, the Federal Reserve may preclude the bank from applying the internal risk-ratings approach to new transactions for risk-based capital purposes until the deficiencies have been remedied. Additionally, depending on the severity of the problems identified, the Federal Reserve may decline to rely on the internal risk ratings that the bank had applied to previous transactions for purposes of determining its regulatory capital requirements.

Ratings of Specific Unrated Positions in Structured Financing Programs

A bank may also use a rating obtained from a rating agency for an unrated direct-credit substitute or recourse obligation (other than a residual interest) that is assumed or retained in connection with a structured finance program, if a rating agency has reviewed the terms of the program (according to the specifications set by the rating agency) and stated a rating for positions associated with the program. If the program has options for different combinations of assets, standards, internal credit enhancements, and other relevant factors, and if the rating agency specifies ranges of rating categories to them, the bank may apply the rating category that corresponds to the bank's position. To rely on a program rating, the bank must demonstrate to the Federal Reserve's satisfaction that the credit-risk rating assigned to the program meets the same standards generally used by rating agencies for rating traded positions.

The bank must also demonstrate to the Federal Reserve's satisfaction that the criteria underlying the rating agency's assignment of ratings for the structured financing program are satisfied for the particular position. If a bank participates in a securitization sponsored by another party, the Federal Reserve may authorize the bank to use this approach based on a programmatic rating obtained by the sponsor of the program.

Banks with limited involvement in securitization activities may find the above alternative to be useful. In addition, some banks extensively involved in securitization activities already rely on ratings of the credit-risk positions under their securitization programs as part of their risk-management practices. Such banks can rely on these ratings for regulatory capital purposes if the ratings are part of a sound overall risk-management process and the ratings reflect the risk of nontraded positions to the banks.

This approach in a structured financing program can be used to qualify a direct-credit substitute or recourse obligation (but not a residual interest) for a risk weight of 100 percent or 200 percent of the face value of the position under the ratings-based approach, but not for a risk weight of less than 100 percent.

Credit-Assessment Computer Programs

A bank (particularly a bank with limited involvement in securitization activities) may use an internal ratings-based approach if it is using an acceptable credit-assessment computer program, developed by a rating agency, to determine the rating of a direct-credit substitute or a recourse obligation (but not a residual interest) issued in connection with a structured finance program. To be used by a bank for risk-based capital purposes, a computer program must have been developed by a rating agency. Further, the bank must demonstrate to the satisfaction of the Federal Reserve that the computer program's credit assessments correspond credibly and reliably to the rating standards of the rating agencies for traded positions in securitizations and with the rating of traded positions in the financial markets. The latter would generally be shown if investors and other market participants significantly used the computer program for risk-assessment purposes. In addition, the bank must demonstrate to the Federal Reserve's satisfaction that the program was designed to apply to its particular direct-credit substitute or recourse exposure and that it has properly implemented the computer program. In general, sophisticated banks with extensive securitization activities should use this approach only if the computer program is an integral part of their risk-management systems and if the bank's systems fully capture the risks from its securitization activities. This computer-program approach can

be used to qualify a direct-credit substitute or recourse obligation (but not a residual interest) for a risk weight of 100 percent or 200 percent of the face value of the position under the ratings-based approach, but not for a risk weight of less than 100 percent.

Limitations on Risk-Based Capital Requirements

Low-Level Exposure

If a bank's maximum contractual exposure to loss retained or assumed in connection with a recourse obligation or a direct-credit substitute, except for a residual interest, is less than the effective risk-based capital requirement for the enhanced assets, the risk-based capital requirement is limited to the maximum contractual exposure, less any recourse liability account established in accordance with GAAP. This limitation does not apply when a bank provides credit enhancement beyond any contractual obligation to support assets it has sold.

Mortgage-Related Securities or Participation Certificates Retained in a Mortgage Loan Swap

If a bank holds a mortgage-related security or a participation certificate as a result of a mortgage loan swap with recourse, capital is required to support the recourse obligation plus the percentage of the mortgage-related security or participation certificate that is not covered by the recourse obligation. The total amount of capital required for the on-balance-sheet asset and the recourse obligation, however, is limited to the capital requirement for the underlying loans, calculated as if the bank continued to hold the loans as on-balance-sheet assets.

Related On-Balance-Sheet Assets

If a recourse obligation or a direct-credit substitute also appears as a balance-sheet asset, the balance-sheet asset is not included in a bank's risk-weighted assets to the extent the value of the balance-sheet asset is already included in the off-balance-sheet credit-equivalent amount for the recourse obligation or direct-credit substitute. In the case of loan-servicing assets and similar arrangements with embedded recourse obligations or direct-credit substitutes, both the on-balance-sheet assets and the related recourse obligations and direct-credit substitutes must be separately risk-weighted and incorporated into the risk-based capital calculation.

Asset-Backed Commercial Paper Program Assets and Related Minority Interests

An asset-backed commercial paper (ABCP) program typically is a program through which a bank 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.[38] 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 bank's customers, primarily (that is, more than 50 percent of the ABCP's issued liabilities) through the issuance of externally rated commercial paper into the market. Typically, the sponsoring bank 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.[39]

Under the Board's risk-based capital rule, a bank that qualifies as a primary beneficiary and must consolidate an ABCP program that is defined as a variable interest entity under GAAP may not exclude the consolidated ABCP program's assets from risk-weighted assets when it consolidates ABCP program assets. The bank must assess the appropriate risk-based capital charge against any exposures of the bank arising in connection with such ABCP programs, including direct-credit substitutes, recourse obligations, residual interests, liquidity facilities, and loans, in accordance with sections III.B.5., III.C., and III.D. of the risk-based capital rule (12 CFR

38. 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.

39. 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.

208, appendix A). A bank sponsoring a program issuing ABCP that does not meet the rule's definition of an ABCP program must include the program's assets in the institution's risk-weighted asset base.

Liquidity facilities supporting ABCP. Liquidity facilities supporting ABCP often take the form of commitments to lend to, or 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.

A bank 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 bank to credit risk.

Short-term commitments with an original maturity of one year or less expose banks 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 exposure. The Board's capital guidelines impose a 10 percent credit-conversion factor on eligible short-term liquidity facilities supporting ABCP. A 50 percent credit-conversion factor applies to eligible long-term ABCP liquidity facilities. These credit-conversion factors apply 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 where 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. However, if a bank (1) does not meet this definition and must include the program's assets in its risk-weighted asset base or (2) otherwise 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 bank that support 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.[40]

Overlapping exposures to an ABCP program. A bank 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 bank 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 bank 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 bank 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 pool-specific liquidity facilities that cover 100 percent of each of the underlying asset pools. The bank would be required to hold capital against 10 percent of the underlying asset pools because it is providing the program-wide credit enhancement. The bank would also be required to hold capital against 90 percent of the liquidity facilities it is providing to each of the underlying asset pools.

If different banks 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 banks, some systemic duplication may occur where multiple banking organiza-

40. See section 4030.1 and also the Board staff's October 12, 2007, legal interpretation regarding the risk-based capital treatment of ABCP liquidity facilities.

tions have overlapping exposures to the same ABCP program.

Asset-quality test. 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 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.[41] Further, they generally must also be classified substandard under that policy.

The rule's asset-quality test specifically allows a bank to reflect certain guarantees providing credit protection to the bank providing the liquidity facility. In particular, the "days-past- due limitation" is not applied with respect to assets that are either conditionally or unconditionally guaranteed by the U.S. government or its agencies or by another OECD central government. To qualify as an eligible ABCP liquidity facility, 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 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, the "investment-grade" limitation is not applied in 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. If the asset-quality tests are not met (that is, if a bank actually funds through the liquidity facility assets that do not satisfy the facility's asset-quality tests), the liquidity facility will be considered a recourse obligation or a direct-credit substitute and generally will be converted at 100 percent.

Risk-Based Capital Treatment of Certain Off-Balance-Sheet Items and Certain Other Types of Transactions

Distinction Between Financial and Performance Standby Letters of Credit

For risk-based capital purposes, the vast majority of standby letters of credit a bank issues are considered financial in nature. On the one hand, in issuing a financial standby letter of credit, a bank guarantees that the account party will fulfill a contractual financial obligation that involves payment of money. On the other hand, in issuing a performance standby letter of credit, a bank guarantees that the account party will fulfill a contractual nonfinancial obligation, that is, an obligation that does not entail the payment of money. For example, a standby letter of credit that guarantees that an insurance company will pay as required under the terms of a policy is deemed to be financial and is converted at 100 percent, while a letter of credit that guarantees a contractor will pave a street according to certain specifications is deemed to be performance related and is converted at 50 percent. Financial standby letters of credit have a higher conversion factor in large part because, unlike performance standby letters of credit, they tend to be drawn down only when the account party's financial condition has deteriorated.

Participations of Off-Balance-Sheet Transactions

If a standby letter of credit or commitment has been participated to other institutions in the form of a syndication, as defined in the instructions to the Call Report, that is, if each bank is

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

responsible only for its pro rata share of loss and there is no recourse to the originating bank, each bank includes only its pro rata share of the standby or commitment in its risk-based capital calculation.

The treatment differs, however, if the participation takes the form of a conveyance of a risk participation. In such a participation, the originating bank remains liable to the beneficiary for the full amount of the standby or commitment if the institution that has acquired the participation fails to pay when the instrument is drawn. Under this arrangement, the originating bank is exposed to the credit risk of the institution that has acquired the conveyance rather than that of the account party. Accordingly, for risk-based capital purposes, the originating bank should convert the full amount of the standby or commitment to an on-balance-sheet credit-equivalent amount. The credit-equivalent amount of the portion of the credit that has not been conveyed is assigned to the risk category appropriate to the obligor, after giving effect to any collateral or guarantees. The portion that has been conveyed is assigned either to the same risk category as the obligor or to the risk category appropriate to the institution acquiring the participation, whichever category carries the lower risk weight. Any remainder is assigned to the risk category appropriate to the obligor, guarantor, or collateral. For example, the pro rata share of the full amount of the assets supported, in whole or in part, by a direct-credit substitute conveyed as a risk participation to a U.S. domestic depository institution or foreign bank is assigned to the 20 percent risk category. Risk participations with a remaining maturity of over one year that are conveyed to non-OECD banks are to be assigned to the 100 percent risk category, unless a lower risk category is appropriate to the obligor, guarantor, or collateral.

Commitments

Commitments are defined as any legally binding arrangements that obligate a bank to extend credit in the form of loans or leases; to purchase loans, securities, or other assets; or to participate in loans and leases. Commitments also include overdraft facilities, revolving credit, home equity and mortgage lines of credit, eligible ABCP liquidity facilities, and similar transactions. Normally, commitments involve a written contract or agreement and a commitment fee, or some other form of consideration. Commitments are included in weighted-risk assets regardless of whether they contain "material adverse change" clauses or other provisions that are intended to relieve the issuer of its funding obligation under certain conditions. In the case of commitments structured as syndications, where the bank is obligated solely for its pro rata share, only the bank's proportional share of the syndicated commitment is taken into account in calculating the risk-based capital ratio.

Commitments to make off-balance-sheet transactions. As specified in the instructions to the Call Report, a commitment to make a standby letter of credit is considered to be a standby letter of credit. Accordingly, such a commitment should be converted to an on-balance-sheet credit-equivalent amount at 100 percent if it is a commitment to make a financial standby letter of credit or at 50 percent if it is a commitment to make a performance standby letter of credit.

A commitment to make a commitment is treated as a single commitment whose maturity is the combined maturity of the two commitments. For example, a 6-month commitment to make a 1-year commitment is considered to be a single 18-month commitment. Since the maturity is over one year, such a commitment would receive the 50 percent conversion factor appropriate to long-term commitments, rather than the zero percent conversion factor that would be accorded to separate unrelated short-term commitments of six months and one year.

A commitment to make a commercial letter of credit may be treated either as a commitment or as a commercial letter of credit, whichever results in the lower conversion factor. Normally, this would mean that a commitment under one year to make a commercial letter of credit would be treated as a commitment and converted at zero percent, while a similar commitment of over one year would be treated as a commercial letter of credit and converted at 20 percent.

If a commitment facility is structured so that it can be drawn down in several forms, such as a standby letter of credit, a loan, or a commercial letter of credit, the entire facility should be treated as a commitment to extend credit in the form that incurs the highest capital charge. Thus, if a facility could be drawn down in any of the three forms just cited, the entire facility would be treated as a commitment to issue a standby letter of credit and would be converted

at 100 percent, rather than treated as a commitment to make a loan or commercial letter of credit, which would have a lower conversion factor.

Unused commitments. Except for eligible ABCP liquidity facilities,[42] unused portions of commitments, including underwriting commitments, and commercial and consumer credit commitments that have an original maturity of one year or less are converted at zero percent.

Unused commitments that have an original maturity of over one year are converted at 50 percent. For this purpose, original maturity is defined as the length of time between the date the commitment is issued and the earliest date on which (1) the bank has the permanent ability to, at its option, unconditionally cancel[43] (without cause) the commitment[44] and (2) the bank is scheduled to (and as a normal practice actually does) review the facility to determine whether the unused commitment should be extended. (It should be noted that the term of any loan advances that can be made under a commitment is not taken into account in determining the commitment's maturity.) Under this definition of original maturity, commitments with a nominal original maturity of more than one year can be treated as having a maturity of one year or less for risk-based capital purposes only if the issuing bank (1) has full and unconditional discretion to cancel the commitment without cause and without notice on each and every day after the first year and (2) conducts at least annually a formal credit review of the commitment, including an assessment of the credit quality of the obligor.

It should be noted that a bank is not deemed able to unconditionally cancel a commitment if it is required to give, or is presumed to be required to give, any advance notice of cancellation. Accordingly, so-called evergreen commitments, which require the bank to give advance notice of cancellation to the obligor or which permit the commitment to roll over automatically (that is, on the same terms and without a thorough credit review) unless the bank gives notice otherwise, are not unconditionally cancelable. Thus, any such commitment whose term from date of issuance could exceed one year is subject to the 50 percent conversion factor.

A bank may issue a commitment that expires within one year, with the understanding that the commitment will be renewed upon expiration subject to a thorough credit review of the obligor. Such a commitment may be converted at zero percent only if (1) the renegotiation process is carried out in good faith, involves a full credit assessment of the obligor, and allows the bank flexibility to alter the terms and conditions of the new commitment; (2) the bank has absolute discretion to decline renewal or extension of the commitment; and (3) the renegotiated commitment expires within 12 months from the time it is made. Some commitments contain unusual renegotiation arrangements that would give the borrower a considerable amount of advance notice that a commitment would not be renewed. Provisions of this kind can have the effect of creating a rolling commitment arrangement that should be treated for risk-based capital purposes as a long-term commitment and should therefore be converted to a credit-equivalent amount at 50 percent. Normally, the renegotiation process should take no more than six to eight weeks, and in many cases it should take a shorter period of time. The renegotiation period should immediately precede the expiration date of the commitment and should be reasonably short and appropriate to the complexity of the transaction. The reasons for provisions in a commitment arrangement that would appear to allow for a protracted renegotiation period should be thoroughly documented by the bank and reviewed by the examiner.

As mentioned above, a commitment to make a commitment is treated as a single commitment whose maturity is the combined maturity of the two commitments. Although such commitments whose combined maturity is in excess of one year are generally considered long-term, if the customer has a bona fide business reason for requesting a new commitment to supersede the unexpired one, such as an unanticipated increase in the volume of business or a change in the customer's cash flow and credit needs, then the commitment would not automatically be consid-

42. Unused portions of eligible ABCP liquidity facilities with an original maturity of one year of less are converted at 10 percent.

43. A bank's option to cancel a commitment under a material adverse change clause is not considered to be an option to unconditionally cancel a commitment.

44. In the case of consumer home equity or mortgage lines of credit secured by liens on one- to four-family residential properties, the bank is deemed able to unconditionally cancel the commitment for the purpose of this criterion if, at its option, it can prohibit additional extensions of credit, reduce the credit lines, and terminate the commitment to the full extent permitted by relevant federal law.

ered long-term. However, if the bank exhibits a pattern and practice of extending short-term commitments before their expiration—either for one customer or more broadly within the bank—then such extended commitments would be viewed as long-term. This treatment generally would apply to all commitments, including traditional commercial paper liquidity lines.

Other criteria for determining whether a facility is short- or long-term include the actual level of risk associated with the transaction and whether that level of risk is more characteristic of a long-term (as opposed to a short-term) commitment. Liquidity facilities issued in connection with asset-backed commercial paper programs, when judged by these criteria, seem to possess risk characteristics that are less than those associated with typical short-term commercial loan commitments. One of these characteristics is the short-term nature of the securitized receivables. The receivables that are securitized in asset-backed commercial paper programs tend to be of very short average maturity—often in the range of 30 to 60 days. Advances under asset-backed commercial paper liquidity facilities generally are very rare, and when such advances are made, it is against pools of very high-quality performing receivables that would generally liquidate very quickly. These facilities are further protected against credit risk by significant amounts of overcollateralization, as well as other credit enhancements.

A series of short-term commitments would generally be treated as a single commitment whose original maturity is the combined maturities of the individual commitments in the series. Also, a commitment may be structured to be drawn down in a number of tranches, some exercisable in one year or less and others exercisable in over one year. The full amount of such a commitment is deemed to be over one year and converted at 50 percent. Some long-term commitments may permit the customer to draw down varying amounts at different times to accommodate, for example, seasonal borrowing needs. The 50 percent conversion factor should be applied to the maximum amount that could be drawn down under such commitments.

Credit-Equivalent Computations for Derivative Contracts

Applicable derivative contracts. Credit-equivalent amounts are computed for each of the following off-balance-sheet contracts:

- interest-rate contracts
  - — single-currency interest-rate swaps
  - — basis swaps
  - — forward rate agreements
  - — interest-rate options purchased (including caps, collars, and floors purchased)
  - — any other instrument linked to interest rates that gives rise to similar credit risks (including when-issued securities and forward deposits accepted)
- exchange-rate contracts
  - — cross-currency interest-rate swaps
  - — forward foreign-exchange-rate contracts
  - — currency options purchased
  - — any other instrument linked to exchange rates that gives rise to similar credit risks
- equity derivative contracts
  - — equity-linked swaps
  - — equity-linked options purchased
  - — forward equity-linked contracts
  - — any other instrument linked to equities that gives rise to similar credit risks
- commodity (including precious metal) derivative contracts
  - — commodity-linked swaps
  - — commodity-linked options purchased
  - — forward commodity-linked contracts
  - — any other instrument linked to commodities that gives rise to similar credit risks
- credit derivatives
  - — credit-default swaps
  - — total-rate-of-return swaps
  - — other types of credit derivatives

Exceptions. Exchange-rate contracts with an original maturity of 14 or fewer calendar days and derivative contracts traded on exchanges that require daily receipt and payment of cash-variation margin may be excluded from the risk-based ratio calculation. Gold contracts are accorded the same treatment as exchange-rate contracts, except that gold contracts with an original maturity of 14 or fewer calendar days are included in the risk-based ratio calculation. Over-the-counter options purchased are included and treated in the same way as other derivative contracts.

Calculation of credit-equivalent amounts. The credit-equivalent amount of a derivative contract (excluding credit derivatives) that is not subject to a qualifying bilateral netting contract is equal to the sum of—

Table 5—Conversion-Factor Matrix

Remaining maturity	*Interest-rate*	*Foreign-exchange-rate and gold*	*Equity*	*Precious metals (excluding gold)*	*Other commodity (excluding precious metals)*
One year or less	0.0	1.0	6.0	7.0	10.0
Over one to five years	0.5	5.0	8.0	7.0	12.0
Over five years	1.5	7.5	10.0	8.0	15.0

- the current exposure (sometimes referred to as the replacement cost) of the contract, and
- an estimate of the potential future credit exposure of the contract.

The current exposure is determined by the mark-to-market value of the contract. If the mark-to-market value is positive, then the current exposure is equal to that mark-to-market value. If the mark-to-market value is zero or negative, then the current exposure is zero. Mark-to-market values are measured in dollars, regardless of the currency or currencies specified in the contract, and should reflect changes in the underlying rates, prices, and indexes, as well as in counterparty credit quality.

The potential future credit exposure of a contract, including a contract with a negative mark-to-market value, is estimated by multiplying the notional principal amount of the contract by a credit-conversion factor. Banks should use, subject to examiner review, the effective rather than the apparent or stated notional amount in this calculation. The conversion factors (in percent) are in table 5. The Board has noted that these conversion factors, which are based on observed volatilities of the particular types of instruments, are subject to review and modification in light of changing volatilities or market conditions.

For a contract that is structured such that on specified dates any outstanding exposure is settled and the terms are reset so that the market value of the contract is zero, the remaining maturity is equal to the time until the next reset date. Such resetting interest-rate contracts must have a minimum conversion factor of 0.5 percent.

For a contract with multiple exchanges of principal, the conversion factor is multiplied by the number of remaining payments in the contract. A derivative contract not included in the definitions of interest-rate, exchange-rate, equity, or commodity contracts is included in the risk-based capital calculation and is subject to the same conversion factors as a commodity, excluding precious metals.

No potential future credit exposure is calculated for a single-currency interest-rate swap in which payments are made based on two floating-rate indexes, so-called floating/floating or basis swaps. The credit exposure on these contracts is evaluated solely on the basis of their mark-to-market values.

Avoidance of double-counting. In certain cases, credit exposures arising from derivative contracts may be reflected, in part, on the balance sheet. To avoid double counting these exposures in the assessment of capital adequacy and, perhaps, assigning inappropriate risk weights, examiners may need to exclude counterparty credit exposures arising from the derivative instruments covered by the guidelines from balance-sheet assets when calculating a bank's risk-based capital ratios. This exclusion will eliminate the possibility that an organization could be required to hold capital against both an off-balance-sheet and on-balance-sheet amount for the same item. This treatment is not accorded to margin accounts and accrued receivables related to interest-rate and exchange-rate contracts.

The aggregate on-balance-sheet amount excluded from the risk-based capital calculation is equal to the lower of—

- each contract's positive on-balance-sheet amount, or
- its positive market value included in the off-balance-sheet risk-based capital calculation.

For example, a forward contract that is marked to market will have the same market value on the balance sheet as is used in calculating the credit-equivalent amount for off-balance-sheet exposures under the guidelines. Therefore, the on-balance-sheet amount is not included in the risk-based capital calculation. When either the contract's on-balance-sheet amount or its market value is negative or zero, no deduction from on-balance-sheet items is necessary for that contract.

If the positive on-balance-sheet asset amount exceeds the contract's market value, the excess (up to the amount of the on-balance-sheet asset) should be included in the appropriate risk-weight category. For example, a purchased option will often have an on-balance-sheet amount equal to the fee paid until the option expires. If that amount exceeds market value, the excess of carrying value over market value would be included in the appropriate risk-weight category for purposes of the on-balance-sheet portion of the calculation.

Netting of swaps and similar contracts. Netting refers to the offsetting of positive and negative mark-to-market values in the determination of a current exposure to be used in the calculation of a credit-equivalent amount. Any legally enforceable form of bilateral netting (that is, netting with a single counterparty) of derivative contracts is recognized for purposes of calculating the credit-equivalent amount provided that—

- the netting is accomplished under a written netting contract that creates a single legal obligation, covering all included individual contracts, with the effect that the organization would have a claim to receive, or an obligation to receive or pay, only the net amount of the sum of the positive and negative mark-to-market values on included individual contracts if a counterparty, or a counterparty to whom the contract has been validly assigned, fails to perform due to default, insolvency, liquidation, or similar circumstances;
- the bank obtains written and reasoned legal opinions that in the event of a legal challenge—including one resulting from default, insolvency, liquidation, or similar circumstances—the relevant court and administrative authorities would find the bank's exposure to be such a net amount under—
  - — the law of the jurisdiction in which the counterparty is chartered or the equivalent location in the case of noncorporate entities, and if a branch of the counterparty is involved, then also under the law of the jurisdiction in which the branch is located;
  - — the law that governs the individual contracts covered by the netting contract; and
  - — the law that governs the netting contract;
- the bank establishes and maintains procedures to ensure that the legal characteristics of netting contracts are kept under review in light of possible changes in relevant law; and
- the bank maintains documentation in its files that is adequate to support the netting of rate contracts, including a copy of the bilateral netting contract and necessary legal opinions.

A contract containing a walkaway clause is not eligible for netting for purposes of calculating the credit-equivalent amount.

By netting individual contracts for the purpose of calculating credit-equivalent amounts of derivative contracts, a bank represents that it has met the requirements of the risk-based measure of the capital adequacy guidelines for bank holding companies and that all the appropriate documents are in the organization's files and available for inspection by the Federal Reserve. The Federal Reserve may determine that a bank's files are inadequate or that a netting contract, or any of its underlying individual contracts, may not be legally enforceable. If such a determination is made, the netting contract may be disqualified from recognition for risk-based capital purposes, or underlying individual contracts may be treated as though they are not subject to the netting contract.

The credit-equivalent amount of contracts that are subject to a qualifying bilateral netting contract is calculated by adding—

- the current exposure of the netting contract (net current exposure), and
- the sum of the estimates of the potential future credit exposures on all individual contracts subject to the netting contract (gross potential future exposure), adjusted to reflect the effects of the netting contract.

The net current exposure of the netting contract is determined by summing all positive and negative mark-to-market values of the individual contracts included in the netting contract. If the net sum of the mark-to-market values is

positive, then the current exposure of the netting contract is equal to that sum. If the net sum of the mark-to-market values is zero or negative, then the current exposure of the netting contract is zero. The Federal Reserve may determine that a netting contract qualifies for risk-based capital netting treatment even though certain individual contracts may not qualify. In these instances, the nonqualifying contracts should be treated as individual contracts that are not subject to the netting contract.

Gross potential future exposure (A_{gross}) is calculated by summing the estimates of potential future exposure for each individual contract subject to the qualifying bilateral netting contract. The effects of the bilateral netting contract on the gross potential future exposure are recognized through the application of a formula that results in an adjusted add-on amount (A_{net}). The formula, which employs the ratio of net current exposure to gross current exposure (NGR), is expressed as—

$$A_{net} = (0.4 \times A_{gross}) + 0.6(\text{NGR} \times A_{gross})$$

The NGR may be calculated in accordance with either the counterparty-by-counterparty approach or the aggregate approach. Under the counterparty-by-counterparty approach, the NGR is the ratio of the net current exposure for a netting contract to the gross current exposure of the netting contract. The gross current exposure is the sum of the current exposures of all individual contracts subject to the netting contract. Net negative mark-to-market values for individual netting contracts with the same counterparty may not be used to offset net positive mark-to-market values for other netting contracts with the same counterparty.

Under the aggregate approach, the NGR is the ratio of the sum of all the net current exposures for qualifying bilateral netting contracts to the sum of all the gross current exposures for those netting contracts (each gross current exposure is calculated in the same manner as in the counterparty-by-counterparty approach). Net negative mark-to-market values for individual counterparties may not be used to offset net positive current exposures for other counterparties.

A bank must consistently use either the counterparty-by-counterparty approach or the aggregate approach to calculate the NGR. Regardless of the approach used, the NGR should be applied individually to each qualifying bilateral netting contract to determine the adjusted add-on for that netting contract.

In the event a netting contract covers contracts that are normally excluded from the risk-based ratio calculation—for example, exchange-rate contracts with an original maturity of 14 or fewer calendar days or instruments traded on exchanges that require daily payment and receipt of cash-variation margin—an institution may elect to either include or exclude all mark-to-market values of such contracts when determining net current exposure, provided the method chosen is applied consistently.

Examiners should review the netting of off-balance-sheet derivative contracts used by banks when calculating or verifying risk-based capital ratios to ensure that the positions of such contracts are reported gross, unless the net positions of those contracts reflect netting arrangements that comply with the netting requirements listed previously.

Credit Derivatives

Credit derivatives are off-balance-sheet arrangements that allow one party (the beneficiary) to transfer credit risk of a reference asset—which the beneficiary may or may not own—to another party (the guarantor).[45] Many banks increasingly use these instruments to manage their overall credit-risk exposure. In general, credit derivatives have three distinguishing features:

- the transfer of the credit risk associated with a reference asset through contingent payments based on events of default and, usually, the prices of instruments before, at, and shortly after default (reference assets most often take the form of traded sovereign and corporate debt instruments or syndicated bank loans)
- the periodic exchange of payments or the payment of a premium rather than the payment of fees customary with other off-balance-sheet credit products, such as letters of credit
- the use of an International Swap Derivatives Association (ISDA) master agreement and the legal format of a derivatives contract

45. Credit derivatives generally fall into three basic transaction types: total-rate-of-return swaps, credit-default swaps, and credit-default or credit-linked notes. For a more in-depth description of these types of credit derivatives, see the Federal Reserve's *Trading and Capital-Markets Activities Manual*, section 4350.1, "Credit Derivatives," as well as SR-96-17.

For risk-based capital purposes, total-rate-of-return swaps and credit-default swaps generally should be treated as off-balance-sheet direct-credit substitutes.[46] The notional amount of a contract should be converted at 100 percent to determine the credit-equivalent amount to be included in the risk-weighted assets of a guarantor.[47] A bank that provides a guarantee through a credit derivative transaction should assign its credit exposure to the risk category appropriate to the obligor of the reference asset or any collateral. On the other hand, a bank that owns the underlying asset upon which effective credit protection has been acquired through a credit derivative may, under certain circumstances, assign the unamortized portion of the underlying asset to the risk category appropriate to the guarantor (for example, the 20 percent risk category if the guarantor is an OECD bank).

Whether the credit derivative is considered an eligible guarantee for purposes of risk-based capital depends on the actual degree of credit protection. The amount of credit protection actually provided by a credit derivative may be limited depending on the terms of the arrangement. In this regard, for example, a relatively restrictive definition of a default event or a materiality threshold that requires a comparably high percentage of loss to occur before the guarantor is obliged to pay could effectively limit the amount of credit risk actually transferred in the transaction. If the terms of the credit derivative arrangement significantly limit the degree of risk transference, then the beneficiary bank cannot reduce the risk weight of the "protected" asset to that of the guarantor bank. On the other hand, even if the transfer of credit risk is limited, a bank providing limited credit protection through a credit derivative should hold appropriate capital against the underlying exposure while it is exposed to the credit risk of the reference asset.

A bank providing a guarantee through a credit derivative may mitigate the credit risk associated with the transaction by entering into an offsetting credit derivative with another counterparty—a so-called back-to-back position. A bank that has entered into such a position may treat the first credit derivative as being guaranteed by the offsetting transaction for risk-based capital purposes. Accordingly, the notional amount of the first credit derivative may be assigned to the risk category appropriate to the counterparty providing credit protection through the offsetting credit derivative arrangement (for example, the 20 percent risk category if the counterparty is an OECD bank).

In some instances, the reference asset in the credit derivative transaction may not be identical to the underlying asset for which the beneficiary has acquired credit protection. For example, a credit derivative used to offset the credit exposure of a loan to a corporate customer may use as the reference asset a publicly traded corporate bond of that customer, with the credit quality of the bond serving as a proxy for the on-balance-sheet loan. In such a case, the underlying asset would still generally be considered guaranteed for capital purposes, as long as both the underlying asset and the reference asset are obligations of the same legal entity and have the same level of seniority in bankruptcy. In addition, a bank offsetting credit exposure in this manner would be obligated to demonstrate to examiners that (1) there is a high degree of correlation between the two instruments; (2) the reference instrument is a reasonable and sufficiently liquid proxy for the underlying asset so that the instruments can be reasonably expected to behave in a similar manner in the event of default; and (3) at a minimum, the reference asset and underlying asset are subject to mutual cross-default provisions. A bank that uses a credit derivative that is based on a reference asset that differs from the protected underlying asset must document the credit derivative being used to offset credit risk, and must link it directly to the asset or assets whose credit risk the transaction is designed to offset. The documentation and the effectiveness of the credit derivative transaction are subject to examiner review. A bank providing credit protection through such an arrangement must hold capital against the risk exposures that are assumed.

Some credit derivative transactions provide credit protection for a group or basket of reference assets and call for the guarantor to absorb

46. Unlike total-rate-of-return swaps and credit-default swaps, credit-linked notes are on-balance-sheet assets or liabilities. A guarantor bank should assign the on-balance-sheet amount of the credit-linked note to the risk category appropriate to either the issuer or the reference asset, whichever is higher. For a beneficiary bank, cash consideration received in the sale of the note may be considered as collateral for risk-based capital purposes.

47. A guarantor bank that has made cash payments representing depreciation on reference assets may deduct such payments from the notional amount when computing credit-equivalent amounts for capital purposes.

losses on only the first asset in the group that defaults. Once the first asset in the group defaults, the credit protection for the remaining assets covered by the credit derivative ceases. If examiners determine that the credit risk for the basket of assets has effectively been transferred to the guarantor and the beneficiary banking organization owns all of the reference assets included in the basket, then the beneficiary may assign the asset with the smallest dollar amount in the group—if less than or equal to the notional amount of the credit derivative—to the risk category appropriate to the guarantor. Conversely, a bank extending credit protection through a credit derivative on a basket of assets must assign the contract's notional amount of credit exposure to the highest risk category appropriate to the assets in the basket.

In addition to holding capital against credit risk, a bank that is subject to the market-risk rule (see "Market-Risk Measure" earlier in this section) must hold capital against market risk for credit derivatives held in its trading account. (For a description of market-risk capital requirements for credit derivatives, see SR-97-18.)

Using Credit Derivatives to Synthetically Replicate Collateralized Loan Obligations

Credit derivatives can be used to synthetically replicate collateralized loan obligations (CLOs). Banking organizations (BOs) can use CLOs and their synthetic variants to manage their balance sheets and, in some instances, transfer credit risk to the capital markets. Such transactions allow economic capital to be more efficiently allocated, resulting in, among other things, improved shareholders' returns.

The issue for BOs is how synthetic CLOs should be treated under the risk-based and leverage capital guidelines.[48] Supervisors and examiners need to fully understand these complex structures and identify the relative degree of transference and retention of the securitized portfolio's credit risk. They must determine whether the institution's regulatory capital is adequate given the retained credit exposures.

A CLO is an asset-backed security that is usually supported by a variety of assets, including whole commercial loans, revolving-credit facilities, letters of credit, banker's acceptances, or other asset-backed securities. In a typical CLO transaction, the sponsoring banking organization (SBO) transfers the loans and other assets to a bankruptcy-remote special-purpose vehicle (SPV), which then issues asset-backed securities consisting of one or more classes of debt. This type of transaction represents a so-called cash-flow CLO. It enables the sponsoring institution (SI) to reduce its leverage and risk-based capital requirements, improve its liquidity, and manage credit concentrations.

The first synthetic CLO (issued in 1997) used credit-linked notes (CLNs).[49] Rather than transferring assets to the SPV, the sponsoring bank issued CLNs to the SPV, individually referencing the payment obligation of a particular company, or "reference obligor." The notional amount of the CLNs issued equaled the dollar amount of the reference assets the sponsor was hedging on its balance sheet. Other structures have evolved that use credit-default swaps to transfer credit risk and create different levels of risk exposure, but that hedge only a portion of the notional amount of the overall reference portfolio.[50]

Traditional CLO structures usually transfer assets into the SPV. In synthetic securitizations, the underlying exposures that make up the reference portfolio remain in the institution's banking book.[51] The credit risk is transferred into the SPV through credit-default swaps or CLNs. The institution is thus able to maintain client confidentiality and avoid sensitive client-relationship issues that arise from loan-transfer-notification requirements, loan-assignment provisions, and loan-participation restrictions.

Corporate credits are assigned to the 100 percent risk-weighted asset category. In the case of high-quality investment-grade corporate exposures, the associated 8 percent capital requirement may exceed the economic capital that the sponsoring bank sets aside to cover the credit

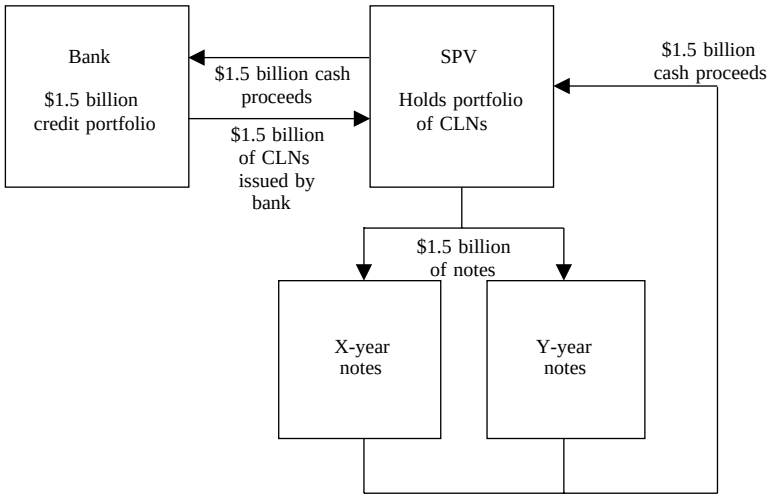
48. See SR-99-32 and its November 15, 1999, attachment, an FRB-OCC capital interpretation on synthetic CLOs.

49. CLNs are obligations whose principal repayment is conditioned upon the performance of a referenced asset or portfolio. The assets' performance may be based on a variety of measures, such as movements in price or credit spread, or the occurrence of default.

50. A credit-default swap is similar to a financial standby letter of credit in that the institution writing the swap provides, for a fee, credit protection against credit losses associated with a default on a specified reference asset or pool of assets.

51. "Banking book" refers to nontrading accounts. See the definition of "trading accounts" in the glossary for the instructions to the bank Call Report.

Figure 1—Transaction 1



risk of the transaction. Therefore, one of the apparent motivations behind CLOs and other securitizations is to more closely align the SI's regulatory capital requirements with the economic capital required by the market.

Synthetic CLOs can raise questions about their capital treatment when calculating the risk-based and leverage capital ratios. Capital treatments for three synthetic CLO transactions follow. They are discussed from the perspective of the investors and the SBOs.

Transaction 1—Entire notional amount of the reference portfolio is hedged. In the first type of synthetic securitization, the SBO, through a synthetic CLO, hedges the entire notional amount of a reference-asset portfolio. An SPV acquires the credit risk on a reference portfolio by purchasing CLNs issued by the SBO. The SPV funds the purchase of the CLNs by issuing a series of notes in several tranches to third-party investors. The investor notes are in effect collateralized by the CLNs. Each CLN represents one obligor and the bank's credit-risk exposure to that obligor, which could take the form of bonds, commitments, loans, and counterparty exposures. Since the noteholders are exposed to the full amount of credit risk associated with the individual reference obligors, all of the credit risk of the reference portfolio is shifted from the sponsoring bank to the capital markets. The dollar amount of notes issued to investors equals the notional amount of the reference portfolio. In the example shown in figure 1, this amount is $1.5 billion.

If any obligor linked to a CLN in the SPV defaults, the SI will call the individual CLN and redeem it based on the repayment terms specified in the note agreement. The term of each CLN is set so that the credit exposure (to which it is linked) matures before the maturity of the CLN, which ensures that the CLN will be in place for the full term of the exposure to which it is linked.

An investor in the notes issued by the SPV is exposed to the risk of default of the underlying reference assets, as well as to the risk that the SI will not repay principal at the maturity of the notes. Because of the linkage between the credit quality of the SI and the issued notes, a downgrade of the sponsor's credit rating most likely will result in the notes also being downgraded. Thus, a BO investing in this type of synthetic CLO should assign the notes to the higher of the risk categories appropriate to the underlying reference assets or the issuing entity.

For purposes of risk-based capital, the SBOs may treat the cash proceeds from the sale of CLNs that provide protection against underlying reference assets as cash collateralizing these assets.[52] This treatment would permit the refer-

52. The CLNs should not contain terms that would significantly limit the credit protection provided against the underlying reference assets, for example, a materiality threshold that requires a relatively high percentage of loss to occur

ence assets, if carried on the SI's books, to be assigned to the zero percent risk category to the extent that their notional amount is fully collateralized by cash. This treatment may be applied even if the cash collateral is transferred directly into the general operating funds of the institution and is not deposited in a segregated account. The synthetic CLO would not confer any benefits to the SBO for purposes of calculating its tier 1 leverage ratio because the reference assets remain on the organization's balance sheet.

Transaction 2—High-quality, senior risk position in the reference portfolio is retained. In the second type of synthetic CLO transaction, the SBO hedges a portion of the reference portfolio and retains a high-quality, senior risk position that absorbs only those credit losses in excess of the junior-loss positions. In some recent synthetic CLOs, the SBO has used a combination of credit-default swaps and CLNs to essentially transfer to the capital markets the credit risk of a designated portfolio of the organization's credit exposures. Such a transaction allows the SI to allocate economic capital more efficiently and to significantly reduce its regulatory capital requirements.

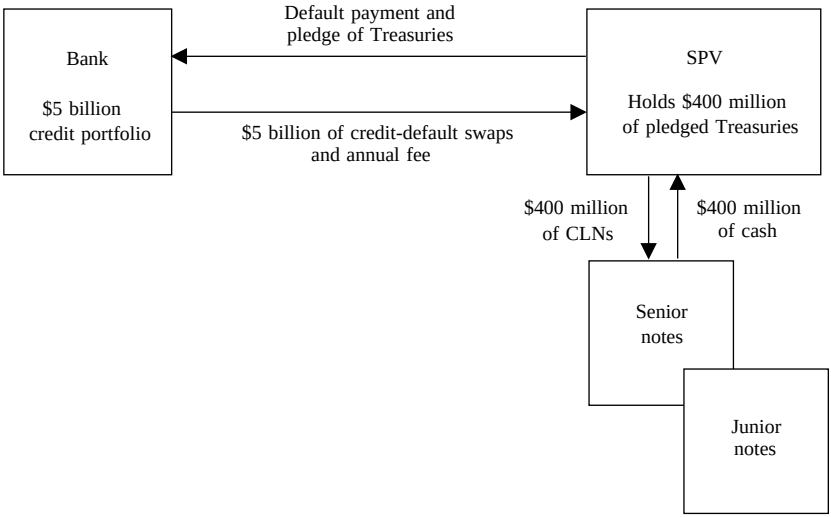
In the structure illustrated in figure 2, the SBO purchases default protection from an SPV for a specifically identified portfolio of banking-book credit exposures, which may include letters of credit and loan commitments. The credit risk on the identified reference portfolio (which continues to remain in the sponsor's banking book) is transferred to the SPV through the use of credit-default swaps. In exchange for the credit protection, the SI pays the SPV an annual fee. The default swaps on each of the obligors in the reference portfolio are structured to pay the average default losses on all senior unsecured obligations of defaulted borrowers.

To support its guarantee, the SPV sells CLNs to investors and uses the cash proceeds to purchase U.S. government Treasury notes. The SPV then pledges the Treasuries to the SBO to cover any default losses.[53] The CLNs are often issued in multiple tranches of differing seniority and in an aggregate amount that is significantly less than the notional amount of the reference portfolio. The amount of notes issued typically is set at a level sufficient to cover some multiple of expected losses, but well below the notional amount of the reference portfolio being hedged.

before CLN payments are adversely affected, or a structuring of CLN post-default payments that does not adequately pass through credit-related losses on the reference assets to investors in the CLNs.

53. The names of corporate obligors included in the reference portfolio may be disclosed to investors in the CLNs.

Figure 2—Transaction 2



There may be several levels of loss in this type of synthetic securitization. The first-loss position may consist of a small cash reserve, sufficient to cover expected losses. The cash reserve accumulates over a period of years and is funded from the excess of the SPV's income (that is, the yield on the Treasury securities plus the credit-default-swap fee) over the interest paid to investors on the notes. The investors in the SPV assume a second-loss position through their investment in the SPV's senior and junior notes, which tend to be rated AAA and BB, respectively. Finally, the SBO retains a high-quality, senior risk position that would absorb any credit losses in the reference portfolio that exceed the first- and second-loss positions.

Typically, no default payments are made until the maturity of the overall transaction, regardless of when a reference obligor defaults. While operationally important to the SBO, this feature has the effect of ignoring the time value of money. Thus, the Federal Reserve expects that when the reference obligor defaults under the terms of the credit derivative and when the reference asset falls significantly in value, the SBO should, in accordance with GAAP, make appropriate adjustments in its regulatory reports to reflect the estimated loss that takes into account the time value of money.

For risk-based capital purposes, BOs investing in the notes must assign them to the risk weight appropriate to the underlying reference assets.[54] The SBO for such transactions must include in its risk-weighted assets its retained senior exposure in the reference portfolio, to the extent these underlying assets are held in its banking book. The portion of the reference portfolio that is collateralized by the pledged Treasury securities may be assigned a zero percent risk weight. Unless the SBO meets the stringent minimum conditions for transaction 2 that are outlined in the minimum conditions explanation below, the remainder of the portfolio should be risk-weighted according to the obligor of the exposures.

When the SI has virtually eliminated its credit-risk exposure to the reference portfolio through the issuance of CLNs, and when the other stringent minimum conditions are met, the institution may assign the uncollateralized portion of its retained senior position in the reference portfolio to the 20 percent risk weight. However, to the extent that the reference portfolio includes loans and other on-balance-sheet assets, an SBO involved in such a synthetic securitization would not realize any benefits in the determination of its leverage ratio.

In addition to the three stringent minimum conditions, the Federal Reserve may impose other requirements as it deems necessary to ensure that the SI has virtually eliminated all of its credit exposure. Furthermore, the Federal Reserve retains the discretion to increase the risk-based capital requirement assessed against the retained senior exposure in these structures, if the underlying asset pool deteriorates significantly.

Federal Reserve staff will make a case-by-case determination, based on a qualitative review, as to whether the senior retained portion of an SBO's synthetic securitization qualifies for the 20 percent risk weight. The SI must be able to demonstrate that virtually all the credit risk of the reference portfolio has been transferred from the banking book to the capital markets. As they do when BOs are engaging in more traditional securitization activities, examiners must carefully evaluate whether the institution is fully capable of assessing the credit risk it retains in its banking book and whether it is adequately capitalized given its residual risk exposure. The Federal Reserve will require the SBO to maintain higher levels of capital if it is not deemed to be adequately capitalized given the retained residual risks. In addition, an SI involved in synthetic securitizations must adequately disclose to the marketplace the effect of the transaction on its risk profile and capital adequacy.

The Federal Reserve may consider an SBO's failure to require the investors in the CLNs to absorb the credit losses that they contractually agreed to assume to be an unsafe and unsound banking practice. In addition, such a failure generally would constitute "implicit recourse" or support to the transaction, which would result in the SBO's losing preferential capital treatment on its retained senior position.

If an SBO of a synthetic securitization does not meet the stringent minimum conditions, it may still reduce the risk-based capital requirement on the senior risk position retained in the banking book by transferring the remaining credit risk to a third-party OECD bank through the use of a credit derivative. Provided the credit derivative transaction qualifies as a guarantee

54. Under this type of transaction, if a structure exposes investing BOs to the creditworthiness of a substantive issuer, for example, the SI, then the investing institutions should assign the notes to the higher of the risk categories appropriate to the underlying reference assets or the SI.

under the risk-based capital guidelines, the risk weight on the senior position may be reduced from 100 percent to 20 percent. Institutions may not enter into nonsubstantive transactions that transfer banking-book items into the trading account to obtain lower regulatory capital requirements.[55]

Minimum conditions. The following stringent minimum conditions are those that SIs must meet to use the synthetic securitization capital treatment for transaction 2. The Federal Reserve may impose additional requirements or conditions as deemed necessary to ascertain that the SBO has sufficiently isolated itself from the credit-risk exposure of the hedged reference portfolio.

- *Condition 1—Demonstration of transfer of virtually all of the risk to third parties.* Not all transactions structured as synthetic securitizations transfer the level of credit risk needed to receive the 20 percent risk weight on the retained senior position. To demonstrate that a transfer of virtually all of the risk has been achieved, institutions must—
  - — produce credible analyses indicating a transfer of virtually all of the credit risk to substantive third parties;
  - — ensure the absence of any early-amortization or other credit performance–contingent clauses;[56]
  - — subject the transaction to market discipline through the issuance of a substantive amount of notes or securities to the capital markets;
  - — have notes or securities rated by a nationally recognized credit rating agency;
  - — structure a senior class of notes that receives the highest possible investment-grade rating, for example, AAA, from a nationally recognized credit rating agency;
  - — ensure that any first-loss position retained by the SI in the form of fees, reserves, or other credit enhancements—which effectively must be deducted from capital—is no greater than a reasonable estimate of expected losses on the reference portfolio; and
  - — ensure that the SI does not reassume any credit risk beyond the first-loss position through another credit derivative or any other means.
- *Condition 2—Demonstration of ability to evaluate remaining banking-book risk exposures and provide adequate capital support.* To ensure that the SI has adequate capital for the credit risk of its unhedged exposures, an institution is expected to have adequate systems that fully account for the effect of those transactions on its risk profiles and capital adequacy. In particular, its systems should be capable of fully differentiating the nature and quality of the risk exposures an institution transfers from the nature and quality of the risk exposures it retains. Specifically, to gain capital relief institutions are expected to—
  - — have a credible internal process for grading credit-risk exposures, including (1) adequate differentiation of risk among risk grades, (2) adequate controls to ensure the objectivity and consistency of the rating process, and (3) analysis or evidence supporting the accuracy or appropriateness of the risk-grading system;
  - — have a credible internal economic capital-assessment process that defines the institution to be adequately capitalized at an appropriate insolvency probability and that readjusts, as necessary, its internal economic capital requirements to take into account the effect of the synthetic-securitization transaction. In addition, the process should employ a sufficiently long time horizon to allow necessary adjustments in the event of significant losses. The results of an exercise demonstrating that the organization is adequately capitalized after the securitization transaction must be presented for examiner review;
  - — evaluate the effect of the transaction on the nature and distribution of the nontransferred banking-book exposures. This analysis should include a comparison of the banking book's risk profile and economic capital requirements before and after the transaction, including the mix of exposures by risk grade and business or economic sector. The analysis should also

55. For instance, a lower risk weight would not be applied to a nonsubstantive transaction in which the SI (1) enters into a credit derivative transaction to pass the credit risk of the senior retained portion held in its banking book to an OECD bank and then (2) enters into a second credit derivative transaction with the same OECD bank, in which it reassumes into its trading account the credit risk initially transferred.

56. Early-amortization clauses may generally be defined as features that are designed to force a wind-down of a securitization program and rapid repayment of principal to asset-backed securities investors if the credit quality of the underlying asset pool deteriorates significantly.

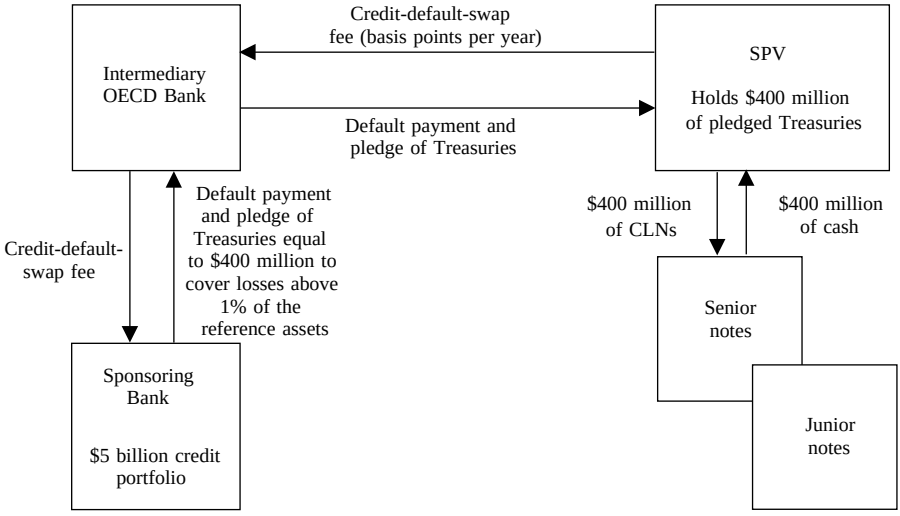
identify any concentrations of credit risk and maturity mismatches. Additionally, the bank must adequately manage and control the forward credit exposure that arises from any maturity mismatch. The Federal Reserve retains the flexibility to require additional regulatory capital if the maturity mismatches are substantive enough to raise a supervisory concern. Moreover, as stated above, the SBO must demonstrate that it meets its internal economic capital requirement subsequent to the completion of the synthetic securitization; and

— perform rigorous and robust forward-looking stress testing on nontransferred exposures (remaining banking-book loans and commitments), transferred exposures, and exposures retained to facilitate transfers (credit enhancements). The stress tests must demonstrate that the level of credit enhancement is sufficient to protect the sponsoring bank from losses under scenarios appropriate to the specific transaction.

- *Condition 3—Provide adequate public disclosures of synthetic CLO transactions regarding their risk profile and capital adequacy.* In their 10-K and annual reports, SIs must adequately disclose to the marketplace the accounting, economic, and regulatory consequences of synthetic CLO transactions. In particular, institutions are expected to disclose—
  — the notional amount of loans and commitments involved in the transaction;
  — the amount of economic capital shed through the transaction;
  — the amount of reduction in risk-weighted assets and regulatory capital resulting from the transaction, both in dollar terms and in terms of the effect in basis points on the risk-based capital ratios; and
  — the effect of the transaction on the distribution and concentration of risk in the retained portfolio by risk grade and sector.

Transaction 3—Retention of a first-loss position. In the third type of synthetic transaction, the SBO may retain a subordinated position that absorbs first losses in a reference portfolio. The SBO retains the credit risk associated with a first-loss position and, through the use of credit-default swaps, passes the second- and senior-loss positions to a third-party entity, most often an OECD bank. The third-party entity, acting as an intermediary, enters into offsetting credit-

Figure 3—Transaction 3



default swaps with an SPV, thus transferring its credit risk associated with the second-loss position to the SPV.[57] The SPV then issues CLNs to the capital markets for a portion of the reference portfolio and purchases Treasury collateral to cover some multiple of expected losses on the underlying exposures. (See figure 3.)

Two alternative approaches could be used to determine how the SBO should treat the overall transaction for risk-based capital purposes. The first approach employs an analogy to the low-level capital rule for assets sold with recourse. Under this rule, a transfer of assets with recourse that contractually is limited to an amount less than the effective risk-based capital requirements for the transferred assets is assessed a total capital charge equal to the maximum amount of loss possible under the recourse obligation. If this rule was applied to an SBO retaining a 1 percent first-loss position on a synthetically securitized portfolio that would otherwise be assessed 8 percent capital, the SBO would be required to hold dollar-for-dollar capital against the 1 percent first-loss risk position. The SI would not be assessed a capital charge against the second and senior risk positions.[58]

The second approach employs a literal reading of the capital guidelines to determine the SBO's risk-based capital charge. In this instance, the one percent *first-loss position* retained by the SI would be treated as a guarantee, that is, a direct-credit substitute, which would be assessed an 8 percent capital charge against its face value of one percent. The *second-loss position*, which is collateralized by Treasury securities, would be viewed as fully collateralized and subject to a zero percent capital charge. The senior-loss position guaranteed by the intermediary bank would be assigned to the 20 percent risk category appropriate to claims guaranteed by OECD banks.[59]

It is possible that the second approach may result in a higher risk-based capital requirement than the dollar-for-dollar capital charge imposed by the first approach. This depends on whether the reference portfolio consists primarily of loans to private obligors or of undrawn long-term commitments, which generally have an effective risk-based capital requirement that is one-half of the requirement for loans, since such commitments are converted to an on-balance-sheet credit-equivalent amount using the 50 percent conversion factor. If the reference pool consists primarily of drawn loans to private obligors, then the capital requirement on the senior loss position would be significantly higher than if the reference portfolio contained only undrawn long-term commitments. As a result, the capital charge for the overall transaction could be greater than the dollar-for-dollar capital requirement set forth in the first approach.

SIs will be required to hold capital against a retained first-loss position in a synthetic securitization equal to the higher of the two capital charges resulting from application of the first and second approaches, as discussed above. Further, although the SBO retains only the credit risk associated with the first-loss position, it still should continue to monitor all the underlying credit exposures of the reference portfolio to detect any changes in the credit-risk profile of the counterparties. This is important to ensure that the institution has adequate capital to protect against unexpected losses. Examiners should determine whether the sponsoring bank has the capability to assess and manage the retained risk in its credit portfolio after the synthetic securitization is completed. For risk-based capital purposes, BOs investing in the notes must assign them to the risk weight appropriate to the underlying reference assets.[60]

Reservation of Authority

The Federal Reserve reserves its authority to determine, on a case-by-case basis, the appropriate risk weight for assets and credit-equivalent

57. Because the credit risk of the senior position is not transferred to the capital markets but remains with the intermediary bank, the SBO should ensure that its counterparty is of high credit quality, for example, at least investment grade.

58. A BO that sponsors this type of synthetic securitization would not realize any benefits with respect to the determination of its leverage ratio since the reference assets remain on the SI's balance sheet.

59. If the intermediary is a BO, then it could place both sets of credit-default swaps in its trading account and, if subject to the Federal Reserve's market-risk capital rules, use its general-market-risk model and, if approved, specific-risk model to calculate the appropriate risk-based capital requirement. If the specific-risk model has not been approved, then the SBO would be subject to the standardized specific-risk capital charge.

60. Under this type of transaction, if a structure exposes investing BOs to the creditworthiness of a substantive issuer, for example, the SI, then the investing institutions should assign the notes to the higher of the risk categories appropriate to the underlying reference assets or the SI.

amounts and the appropriate credit-conversion factor for off-balance-sheet items. The Federal Reserve's exercise of this authority may result in a higher or lower risk weight for an asset or credit-equivalent amount, or in a higher or lower credit-conversion factor for an off-balance-sheet item. This reservation of authority explicitly recognizes that the Federal Reserve retains sufficient discretion to ensure that banks, as they develop novel financial assets, will be treated appropriately under the regulatory capital standards. Under this authority, the Federal Reserve reserves its right to assign risk positions in securitizations to appropriate risk categories on a case-by-case basis, if the credit rating of the risk position is determined to be inappropriate.

Board Approved Exceptions to Risk-Based Capital Guidelines (Reservation of Authority) Involving Securities Lending

Securities lent by a bank are treated in one of two ways, depending upon whether the lender is at risk of loss. If a bank, as agent for a customer, lends the customer's securities and does not indemnify the customer against loss, then the transaction is excluded from the risk-based capital calculation. Alternatively, if a bank lends its own securities or, acting as agent for a customer, lends the customer's securities and indemnifies the customer against loss, the transaction is converted at 100 percent and assigned to the risk-weight category appropriate to the obligor, or, if applicable, to any collateral delivered to the lending bank or the independent custodian acting on the lending bank's behalf. When a bank is acting as agent for a customer in a transaction involving the lending or sale of securities that is collateralized by cash delivered to the bank, the transaction is deemed to be collateralized by cash on deposit for purposes of determining the appropriate risk-weight category, provided that (1) any indemnification is limited to no more than the difference between the market value of the securities and the cash collateral received and (2) any reinvestment risk associated with that cash collateral is borne by the customer. See the "Risk-Weighting Process" discussion in this section and also the discussion in section 2030.1 on bank dealer securities-lending or -borrowing transactions.

Certain agency securities-lending arrangements (May 2003 exception for "cash-collateral transactions"). In response to a bank's inquiry, the Board issued a May 14, 2003, interpretation for the risk-based capital treatment of certain European agency securities' lending arrangements in which the bank, acting as agent, lends securities of a client and receives cash collateral from the borrower. The transaction is marked-to-market daily and a positive margin of cash collateral relative to the market value of the securities lent is maintained at all times. If the borrowing counterparty defaults on the securities loaned through, for example, failure to post margin when required, the transaction is immediately terminated and the cash collateral is used by the bank to repurchase in the market the securities lent in order to restore them to the client. The bank indemnifies its client against the risk that, in the event of counterparty default, the amount of cash collateral may be insufficient to repurchase the amount of securities lent. Thus, the indemnification is limited to the difference between the value of the cash collateral and the repurchase price of the replacement securities. In addition, the bank, again acting as agent, reinvests, on the client's behalf, the cash collateral received from the borrower. The reinvestment transaction takes the form of a cash loan to a counterparty that is fully collateralized by government or corporate securities (through, for example, a reverse repurchase agreement). Like the first transaction, the reinvestment transaction is subject to daily marking-to-market and remargining and is immediately terminable in the event of counterparty default. The bank issues an indemnification to the client against the reinvestment risk, which is similar to the indemnification the bank gives on the original securities-lending transaction.

The Federal Reserve Board's current risk-based capital guidelines treat indemnifications issued in connection with agency securities-lending activities as off-balance-sheet guarantees that are subject to capital charges. Under the guidelines, the bank's first indemnification would receive the risk weight of the securities-borrowing counterparty because of the bank's indemnification of the client's reinvestment risk on the cash collateral. (See 12 CFR 208, appendix A, section III.D.1.c.) The bank's second indemnification would receive the lower of the risk weight of the reverse repurchase counterparty or the collateral, unless it was fully collateralized with margin by OECD government

securities, which would qualify for a zero percent risk weight. (See 12 CFR 208, appendix A, sections III.D.1.a. and b.)

The bank inquired about the possibility of assigning a zero percent risk weight for both indemnifications, given the low risk they pose to the bank. The Board approved an exception to its risk-based capital guidelines for the bank's agency securities-lending transactions. The Board approved this exception under the reservation of authority provision contained in the guidelines. This provision permits the Board, on a case-by-case basis, to determine the appropriate risk weight for any asset or off-balance-sheet item that imposes risks on a bank that are incommensurate with the risk weight otherwise specified in the guidelines. (See 12 CFR 208, appendix A, section III.A.)

This exception applies to the bank's agency securities-lending transactions collateralized by cash where the bank indemnifies its client against (1) the risk that, in the event of default by the securities borrower, the amount of cash collateral may be insufficient to repurchase the amount of securities lent and (2) the reinvestment risk associated with lending the cash collateral in a transaction fully collateralized by securities (for example, in a reverse repurchase transaction).

The capital treatment the Board approved for these transactions relies upon an economic measurement of the amount of risk exposure the bank has to each of its counterparties. Under this approved approach, the bank does not use the notional amount of underlying transactions that are subject to client indemnifications as the exposure amount for risk-based capital purposes. Rather, the bank must use an economic exposure amount that takes into account the market value of collateral and the market price volatilities of (1) the instruments delivered by the bank to the counterparty and (2) the instruments received by the bank from the counterparty. This approach builds on best practices of banks for measuring their credit exposure amounts for purposes of managing internal single-borrower exposure limits, as well as upon existing concepts incorporated in the Basel Accord and the Board's risk-based capital and market risk rules. The bank, under this exception, is required to determine an unsecured loan equivalent amount for each of the counterparties to which, as agent, the bank lends securities collateralized by cash or lends cash collateralized by securities. As described below, the unsecured loan equivalent amount will be assigned the risk weight appropriate to the counterparty.

To determine the unsecured loan equivalent amount, the bank must add together its current exposure to the counterparty and a measure for potential future exposure (PFE) to the counterparty. The current exposure is the sum of the market value of all securities and cash lent to the counterparty under the bank's indemnified arrangements, less the sum of all securities and cash received from the counterparty as collateral under the indemnified arrangements. The PFE calculation is to be based on the market volatilities of the securities lent and the securities received, as well as any foreign exchange rate volatilities associated with any cash or securities lent or received.

The Board considered two methods for incorporating market volatilities into the PFE calculation: (1) the bank's own estimates of those volatilities based on a year's historical observation of market prices with no recognition of correlation effects or (2) a value-at-risk (VaR) type model. The bank was calculating daily, counterparty VAR estimates for its agency lending transactions and it had a VaR model that had been approved for purposes of the Board's market risk rule. The Board determined that the bankt could use a VaR model to calculate the PFE for each of its counterparties.

The bank must calculate the VaR using a five-day holding period and a 99th percentile one-tailed confidence interval based on market price data over a one-year historical observation period. The data set used should be updated no less frequently than once every three months and should be reassessed whenever market prices are subject to material changes. For each counterparty, the bank is required to calculate daily an unsecured loan equivalent amount, including the VaR PFE component. These calculations will be subject to supervisory review to ensure they are in line with the quarter-end calculations used to determine regulatory capital requirements.

To qualify for the capital treatment outlined above, the securities-lending and cash loan transactions covered by the bank's indemnification must meet the following conditions:

- the transactions are fully collateralized
- any securities lent or taken as collateral are eligible for inclusion in the trading book and are liquid and readily marketable

- any securities lent or taken as collateral are marked-to-market daily
- the transactions are subject to a daily margin maintenance requirement

Further, the transactions must be executed under a bilateral netting agreement or an equivalent arrangement. These arrangements must (1) provide the non-defaulting party the right to promptly terminate and close out all transactions under the agreement upon an event of default, including insolvency or bankruptcy of the counterparty; (2) provide for the netting of gains and losses on transactions (including the value of any collateral) terminated and closed out under the agreement so that a single net amount is owed by one party to the other; (3) allow for the prompt liquidation or setoff of collateral upon the occurrence of an event of default; (4) be conducted, together with the rights arising from the conditions required in provisions 1 and 3 above, under documentation that is legally binding on all parties and legally enforceable in each relevant jurisdiction upon the occurrence of an event of default and regardless of the counterparty's insolvency or bankruptcy; and (5) be conducted under documentation for which the bank has completed sufficient legal review to verify it meets provision 4 above and for which the bank has a well-founded legal basis for reaching this conclusion.

With regard to the counterparty VaR model that the bank uses, the bank is required to conduct regular and rigorous backtesting procedures, subject to supervisory review, to ensure the validity of the correlation factors used by the bank and the stability of these factors over time. The bank was not subject to a formal backtesting procedure requirement at the time the letter was issued. However, if supervisory review determines that the bank's counterparty VaR model or its backtesting procedures have material deficiencies and the bank does not take appropriate and expeditious steps to rectify those deficiencies, supervisors may take action to adjust the bank's capital calculations. Such action could range from imposing a multiplier on the VaR estimates of PFE calculated by the bank to disallowing the use of its counterparty VaR model and requiring use of the own estimates approach to determine the PFE component of the unsecured loan equivalent amounts.

The capital treatment that the Board approved in the letter has been and will be made available to similarly situated institutions that request and receive Board approval for such treatment.

Certain agency securities-lending arrangements (August 2006 exception for "securities-collateral transactions"). In response to an inquiry made by a bank, a Board interpretation was issued on August 15, 2006, which discussed the regulatory capital treatment of certain securities-lending transactions. In these transactions, the bank, acting as agent for its clients, lends its clients' securities and receives liquid securities collateral in return (the securities-collateral transactions).[61] Each securities loan is marked-to-market daily, and the bank calls for additional margin as needed to maintain a positive margin of collateral relative to the market value of the securities lent at all times. The bank also agrees to indemnify its clients against the risk that, in the event of borrower default, the market value of the securities collateral is insufficient to repurchase the amount of securities lent.

If the borrower were to default, the bank would be in a position to terminate a securities-collateral transaction and sell the collateral in order to purchase securities to replace the securities that were originally lent. The bank's exposure under a securities-collateral transaction would be limited to the difference between the purchase price of the replacement securities and the market value of the securities collateral.

The bank requested that the Federal Reserve Board approve another exception to the capital guidelines that would permit the bank to measure its exposure amounts for risk-based capital purposes with respect to the securities-collateral transactions under the methodology of the bank's prior May 14, 2003, approval (the prior approval). The Board, again, determined that, under its current risk-based capital guidelines, the capital charges for these securities-lending arrangements would exceed the amount of economic risk posed to the bank, which would result in capital charges that would be significantly out of proportion to the risk posed. The Board therefore approved an August 15, 2006, exception to its risk-based capital guidelines according to the prior approval, allowing the bank to compute its regulatory capital for these transactions using a loan-equivalent methodology. In so doing, the bank would assign the risk weight of the counterparty to the exposure amount of all such

61. The liquid securities collateral includes government agency, government-sponsored entity, corporate debt or equity, or asset-backed or mortgage-backed securities.

transactions with the counterparty. Specifically, the Board granted the bank its request to use an unsecured loan equivalent amount (calculated as current exposure plus a VaR-modeled PFE) for the securities-collateral transactions for risk-based capital purposes. The Board approved the exception under the reservation authority provision contained in its capital guidelines.

Overall Assessment of Capital Adequacy

The following factors should be taken into account in assessing the overall capital adequacy of a bank.

Capital Ratios

Capital ratios should be compared with regulatory minimums and with peer-group averages. Banks are expected to have a minimum total risk-based capital ratio of 8 percent. However, because risk-based capital does not take explicit account of the quality of individual asset portfolios or the range of other types of risks to which banks may be exposed, such as interest-rate, liquidity, market, or operational risks, banks are generally expected to operate with capital positions above the minimum ratios. Institutions with high or inordinate levels of risk are also expected to maintain capital well above the minimum levels.

The minimum tier 1 leverage ratio is 3 percent. However, an institution operating at or near these levels is expected to have well-diversified risk, including no undue interest-rate risk exposure, excellent asset quality, high liquidity, and good earnings, and to generally be considered a strong banking organization, rated composite 1 under the CAMELS rating system of banks. For all but the most highly rated banks meeting the above conditions, the minimum tier 1 leverage ratio is 3 percent plus an additional cushion of at least 100 to 200 basis points.

Impact of Management

Strategic planning. One of management's most important functions is to lead the organization by designing, implementing, and supporting an effective strategic plan. Strategic planning is a long-term approach to integrating asset deployment, funding sources, capital formation, management, marketing, operations, and information systems to achieve success. Strategic planning helps the organization more effectively anticipate and adapt to change. Management must also ensure that planning information as well as corporate goals and objectives are effectively communicated throughout the organization. Effective strategic planning allows the institution to be more proactive than reactive in shaping its own future. The strategic plan should clearly outline the bank's capital base, anticipated capital expenditures, desirable capital level, and external capital sources. Each of these areas should be evaluated in consideration of the degree and type of risk that management and the board of directors are willing to accept.

Growth. Capital is necessary to support a bank's growth; however, it is the imposition of required capital ratios that controls growth. Because a bank has to maintain a minimum ratio of capital to assets, it will only be able to grow so fast. For example, a rapid growth in a bank's loan portfolio may be a cause of concern, for it could indicate that a bank is altering its risk profile by reducing its underwriting standards.

Dividends. Examiners should review historical and planned cash-dividend payout ratios to determine whether dividend payments are impairing capital adequacy.[62] Excessive dividend payouts may result from several sources:

- If the bank is owned by a holding company, the holding company may be requiring excessive dividend payments from the bank to fund the holding company's debt-repayment program, expansion goals, or other cash needs.
- The bank's board of directors may be under pressure from individual shareholders to provide funds to repay bank stock debt or to use for other purposes.
- Dividends may be paid or promised to support a proposed equity offering.

Access to additional capital. Banks that do not generate sufficient capital internally may require external sources of capital. Large, independent institutions may solicit additional funding from the capital markets. Smaller institutions may rely on a bank holding company or a principal shareholder or control group to provide addi-

62. See also "Dividends," section 4070.1.

tional funds, or on the issuance of new capital instruments to existing or new investors. Current shareholders may resist efforts to obtain additional capital by issuing new capital instruments because of the diluting effect of the new capital. In deciding whether to approve obtaining additional capital in this manner, shareholders must weigh the dilution against the possibility that, without the additional funds, the institution may fail.

Under Federal Reserve policy, a bank holding company is expected to serve as a source of strength to its subsidiary banks. A bank holding company can fulfill this obligation by having enough liquidity to inject funds into the bank or by having access to the same sources of additional capital, that is, current or existing shareholders, as outlined above.

Financial Considerations

Capital levels and ratios should be evaluated in view of the bank's overall financial condition, including the following areas.

Asset quality. The final supervisory judgment on a bank's capital adequacy may differ significantly from conclusions that may be drawn solely from the level of a bank's risk-based capital ratio. Generally, the main reason for this difference is the evaluation of asset quality. Final supervisory judgment of a bank's capital adequacy should take into account examination findings, particularly those on the severity of problem and classified assets and investment or loan portfolio concentrations, as well as on the adequacy of the bank's allowance for loan and lease losses.

Balance-sheet composition. A bank whose earning assets are not diversified or whose credit culture is more risk-tolerant is generally expected to operate with higher capital levels than a similar-sized institution with well-diversified, less-risky investments.

Earnings. An adequately capitalized, growing bank should have a consistent pattern of capital augmentation by earnings retention. Poor earnings can have a negative effect on capital adequacy in two ways. First, any losses absorbed by capital reduce the ability of the remaining capital to fulfill that function. Second, the impact of losses on capital is magnified by the fact that a bank generating losses is incapable of replenishing its capital accounts internally.

Funds management. A bank with undue levels of interest-rate risk should be required to strengthen its capital positions, even though it may meet the minimum risk-based capital standards. Assessments of capital adequacy should reflect banks' appropriate use of hedging instruments. Other things being equal, banks that have appropriately hedged their interest-rate exposure will be permitted to operate with lower levels of capital than those banks that are vulnerable to interest-rate changes. While the Federal Reserve does not want to discourage the use of legitimate hedging vehicles, some instruments, in particular interest-only strips (IOs) and principal-only strips (POs), raise concerns. IOs and POs have highly volatile price characteristics as interest rates change, and they are generally not considered appropriate investments for most banks. However, some sophisticated banks may have the expertise and systems to appropriately use IOs and POs as hedging vehicles.

Off-balance-sheet items and activities. Once funded, off-balance-sheet items become subject to the same capital requirements as on-balance-sheet items. A bank's capital levels should be sufficient to support the quality and quantity of assets that would result from a significant portion of these items being funded within a short time.

Adequacy of and Compliance with Capital-Improvement Plans

Capital-improvement plans are required for banks operating with capital ratios below regulatory minimums as required by the prompt-corrective-action part of the Federal Deposit Insurance Act, as well as for some banks operating under supervisory actions. Examiners should review any such plans and determine their adequacy and reasonableness, keeping in mind that banks may meet required capital-to-asset ratios in three ways:

- They may issue more capital. In doing so, banks must weigh the need for additional capital against the dilution of market value that will result.
- They may retain earnings rather than paying them out as dividends.

- They may sell assets. By reducing the amount of total assets, a bank reduces the amount of capital necessary to meet the required ratios.

Inadequate Allowance for Loan and Lease Losses

An inadequate allowance for loan and lease losses (ALLL) will require an additional charge to current income. Any charge to current income will reduce the amount of earnings available to supplement tier 1 capital. Because the amount of the ALLL that can be included in tier 2 capital is limited to 1.25 percent of gross risk-weighted assets, an additional provision may increase the ALLL level above this limit, thereby resulting in the excess portion being excluded from tier 2 capital.

Ineligible Collateral and Guarantees

The risk-based capital guidelines recognize only limited types of collateral and guarantees. Other types of collateral and guarantees may support the asset mix of the bank, particularly within its loan portfolio. Such collateral or guarantees may serve to substantially improve the overall quality of a loan portfolio and other credit exposures, and should be considered in the overall assessment of capital adequacy.

Market Value of Bank Stock

Examiners should review trends in the market price of the bank's stock and whether stock is trading at a reasonable multiple of earnings or a reasonable percentage (or multiple) of book value. A bank's low stock price may merely be an indication that it is undervalued, or it may be indicative of regional or industry-wide problems. However, a low-valued stock may also indicate that investors lack confidence in the institution; such lack of support could impair the bank's ability to raise additional capital in the capital markets.

Subordinated Debt in Excess of Limits

The total of term subordinated debt and intermediate-term preferred stock that may be included in tier 2 capital is limited to 50 percent of tier 1 capital. Amounts issued or outstanding in excess of this limit are not included in the risk-based capital calculation but should be taken into consideration when assessing the bank's funding and financial condition.

Unrealized Asset Values

Banks often have assets on their books that are carried at significant discounts below current market values. The excess of the market value over the book value (historical cost or acquisition value) of assets such as investment securities or banking premises may represent capital to the bank. These unrealized asset values are not included in the risk-based capital calculation but should be taken into consideration when assessing capital adequacy. Particular attention should be given to the nature of the asset, the reasonableness of its valuation, its marketability, and the likelihood of its sale.

Accounting for Defined Benefit Pension and Other Postretirement Plans

In September 2006, the Financial Accounting Standards Board adopted the Statement of Financial Accounting Standard No. 158, "Employers Accounting for Defined Benefit Pension and Other Postretirement Plans" (FAS 158). The standard requires, as early as December 31, 2006, that a bank, bank holding company, or other banking or thrift organization that sponsors a single-employer defined benefit postretirement plan—such as a pension plan or health care plan—to recognize the overfunded or underfunded status of each such plan as an asset or liability on its balance sheet with corresponding adjustments recognized in accumulated other comprehensive income (AOCI), a component of equity capital. After a banking organization initially applies FAS 158, changes in the benefit plan asset or liability reported on the organization's balance sheet will be recognized in the year in which the changes occur and will result in an increase or decrease in AOCI. Postretirement plan amounts carried in AOCI are adjusted as they are subsequently recognized in earnings as components of the plans' net periodic benefit cost.

The Federal Reserve Board, along with other federal bank and thrift regulatory agencies (the

Agencies[63]), issued a joint press release on December 14, 2006, in which they announced that FAS 158 will not affect a banking organizations' regulatory capital. The agencies decided, until they can determine otherwise through a rulemaking, that banks should exclude from regulatory capital any amounts recorded in AOCI resulting from the adoption and application of FAS 158. The purpose of this exclusion is to neutralize the effect of the application of FAS 158 on regulatory capital, including the reporting of the risk-based and leverage capital measures.

TIER 1 LEVERAGE RATIO FOR STATE MEMBER BANKS

The Federal Reserve has adopted a minimum ratio of tier 1 capital to average total assets to assist in the assessment of the capital adequacy of state member banks. The principal objective of this measure (which is intended to be used as a supplement to the risk-based capital measure) is to place a constraint on the maximum degree to which a state member bank can leverage its equity capital base.

The guidelines implementing the tier 1 leverage ratio are found in Regulation H (12 CFR 208), appendix B, and apply to all state member banks on a consolidated basis. The ratio is to be used in the examination and supervisory process, as well as in the analysis of applications acted on by the Federal Reserve.

A bank's tier 1 leverage ratio is calculated by dividing its tier 1 capital (the numerator of the ratio) by its average total consolidated assets (the denominator of the ratio). For purposes of calculating this ratio during an examination, examiners may use the bank's average total assets as of the last Call Report date. The ratio will be calculated using period-end assets whenever necessary, on a case-by-case basis. For the purpose of this leverage ratio, the definition of tier 1 capital as set forth in the risk-based capital guidelines in appendix A of the Federal Reserve's Regulation H is used. Average total consolidated assets are defined as the quarterly average total assets (defined net of the allowance for loan and lease losses) reported on the bank's Reports of Condition and Income (Call Reports), less goodwill; amounts of mortgage-servicing assets, nonmortgage-servicing assets, and purchased credit-card relationships that, in the aggregate, are in excess of 100 percent of tier 1 capital; amounts of nonmortgage-servicing assets and purchased credit-card relationships that, in the aggregate, are in excess of 25 percent of tier 1 capital; amounts of credit-enhancing interest-only strips that are in excess of 25 percent of tier 1 capital; all other identifiable intangible assets; any investments in subsidiaries or associated companies that the Federal Reserve determines should be deducted from tier 1 capital; deferred tax assets that are dependent on future taxable income, net of their valuation allowance, in excess of the limitations set forth in section II.B. of appendix A of Regulation H; and the amount of the total adjusted carrying value of nonfinancial equity investments that is subject to a deduction from tier 1 capital.

Under the tier 1 leverage ratio guidelines, the minimum level of tier 1 capital to total assets for strong state member banks is 4 percent, unless they are rated composite 1 under the UFIRS (CAMELS) rating system of banks. Institutions not meeting these characteristics, as well as institutions with supervisory, financial, or operational weaknesses, are expected to operate well above minimum capital standards. Institutions experiencing or anticipating significant growth are also expected to maintain capital ratios, including tangible capital positions, well above the minimum levels. Moreover, higher capital ratios may be required for any banking institution if warranted by its particular circumstances or risk profile. In all cases, institutions should hold capital commensurate with the level and nature of the risks, including the volume and severity of problem loans, to which they are exposed.

A bank that does not have a 4 percent leverage ratio (3 percent if it is rated a composite CAMELS 1) is considered undercapitalized under the prompt-corrective-action framework and must file a capital-restoration plan that meets certain requirements.

De Novo Banks

Initial capital in a de novo state member bank should be reasonable in relation to the bank's location, business plan, competitive environment, and state law. At a minimum, however, a

63. The Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision.

de novo bank must maintain a tangible tier 1 leverage ratio (core capital elements minus all intangible assets divided by average total assets minus all intangible assets) of 9 percent for the first three years of operations. The applicant must provide projections of asset growth and earnings performance that reasonably support the bank's ability to maintain this ratio without reliance on additional capital injections. Even though a 9 percent tangible leverage ratio is not required after the third year, de novo banks are expected to maintain capital ratios that are commensurate with ongoing safety-and-soundness concerns and that are generally well in excess of regulatory minimums. (See SR-91-17.)

1. To determine the adequacy of capital.
2. To determine compliance with the risk-based and tier 1 leverage capital adequacy guidelines.
3. To determine if the policies, practices, and procedures with regard to the capital adequacy guidelines are adequate.
4. To determine if the bank's officers and employees are operating in conformity with the Board's established capital adequacy guidelines.
5. To evaluate the propriety and consistency of the bank's present and planned level of capitalization in light of the risk-based and leverage capital guidelines, as well as existing conditions and future plans.
6. To initiate corrective action when policies, procedures, or capital are deficient.
7. To evaluate whether—
   a. the institution is fully capable of assessing the credit risk associated with the collateralized loan obligations (CLOs) it retains in its banking book (nontrading accounts); and
   b. the institution is adequately capitalized given its residual risk exposure involving CLOs.

VERIFICATION OF THE RISK-BASED CAPITAL RATIO

Examiners should verify that the bank has adequate systems in place to compute and document its risk-based capital ratios. Small banks with capital ratios well in excess of established minimums may not have a system explicitly designed to capture risk-based capital information. In addition, depending on a bank's current capital structure and ratios, all procedures may not apply.

1. Verify that the bank is correctly reporting the risk-based capital information requested on the Reports of Condition and Income.

For the qualifying components of capital (the ratio's numerator):

2. Determine if management is adhering to the underlying terms of any currently outstanding stock issues.
3. Review common stock to ensure that the bank is in compliance with the terms of any underlying agreements and to determine if more than one class exists. When more than one class exists, review the terms for any preference or nonvoting features. If the terms include such features, determine whether the class of common stock qualifies for inclusion in tier 1 capital.
4. Review any perpetual and long-term preferred stock for the following:
   a. Compliance with terms of the underlying agreements carefully noting—
      - adherence to the cumulative or noncumulative nature of the stock and
      - adherence to any conversion rights.
   b. Proper categorization as tier 1 or tier 2 for capital adequacy purposes, noting the following requirements:
      - Tier 1 perpetual preferred stock must have the following characteristics:
        — no maturity date
        — cannot be redeemed at the option of the holder
        — unsecured
        — ability to absorb losses
        — ability and legal right for issuer to defer or eliminate dividends
        — any issuer-redemption feature must be subject to prior Federal Reserve approval
        — noncumulative
        — fixed rate or traditional floating or adjustable rate
        — must not contain features that would require or create an incentive for the issuer to redeem or repurchase the instrument, such as an "exploding rate," an auction-rate pricing mechanism, or a feature that allows the stock to be converted into increasing numbers of common shares
      - Perpetual preferred stock, includable within tier 2 capital without a sublimit, must have the characteristics listed above for tier 1 perpetual preferred stock, but perpetual preferred stock does not otherwise qualify for inclusion in tier 1 capital. For example, cumulative or auction-rate perpetual preferred stock, which does not qualify for tier 1 capital, may be includable in tier 2 capital.
5. Verify that minority interest in equity accounts of consolidated subsidiaries included in tier 1 capital consists only of qualifying tier 1 capital elements. Determine whether any perpetual preferred stock of a subsidiary that is included in minority interest is secured by the subsidiary's assets; if so, that stock may not be included in capital.
6. Review the intermediate-term preferred stock and subordinated debt instruments included in capital for the following:
   a. Compliance with terms of the underlying agreements, noting that subordinated debt containing the following terms may not be included in capital:
      - interest payments tied to the bank's financial condition
      - acceleration clauses or broad conditions of events of default that are inconsistent with safe and sound banking practices
   b. Compliance with restrictions on the inclusion of such instruments in capital by verifying that the aggregate amount

of both types of instruments does not exceed 50 percent of tier 1 capital (net of goodwill) and that the portions includable in tier 2 capital possess the following characteristics:
- unsecured
- minimum five-year original weighted average maturity
- in the case of subordinated debt, contains terms stating that the debt (1) is not a deposit, (2) is not insured by a federal agency, (3) cannot be redeemed without prior approval from the Federal Reserve, and (4) is subordinated to depositors and general creditors

c. Appropriate amortization, if the instruments have a remaining maturity of less than five years.

7. Determine, through review of minutes of board of directors meetings, if a stock offering or subordinated debt issue is being considered. If so, determine that management is aware of the risk-based capital requirements for inclusion in capital.
8. Review any mandatory convertible debt securities for the following:
   a. Compliance of the terms with the criteria set forth in 12 CFR 225 (Regulation Y), appendix B.
   b. Notification in the terms of agreement that the redemption or repurchase of such securities before maturity is subject to prior approval from the Federal Reserve.
   c. The treatment of the portions of such securities covered by the issuance of common or perpetual preferred stock dedicated to the repayment of the securities, bearing in mind the following:
      - The amount of the security covered by dedicated stock should be treated as subordinated debt and is subject, together with other subordinated debt and intermediate-term preferred stock, to a sublimit within tier 2 capital of 50 percent of tier 1 capital, as well as to amortization in the last five years of life.
      - The portion of a mandatory convertible security that is not covered by dedication qualifies for inclusion in tier 2 capital without any sublimit and without being subject to amortization in the last five years of life.
9. Verify that the amount of the allowance for loan and lease losses included in tier 2 capital has been properly calculated and disclosed, and verify that the supporting computations of that amount have been adequately documented.

For the calculation of risk-weighted assets (the ratio's denominator):

10. Determine whether the bank consolidates, in accordance with the Financial Accounting Standards Board's FIN 46-R, the assets of any asset-backed commercial paper (ABCP) program that it sponsors.
    a. Determine whether the bank's ABCP program meets the definition of a *sponsored ABCP program* under the Federal Reserve's risk-based capital guidelines. If the bank does consolidate the assets of an ABCP program, review the documentation of its risk-based capital ratio calculations, and determine whether the associated ABCP program's assets and minority interests were excluded from the bank's risk-weighted asset base (and also if they were excluded from tier 1 capital—the ratio's numerator). See section III.B.6. of the risk-based capital guidelines (12 CFR 208, appendix A).
    b. Determine whether any of the bank's liquidity facilities meet the definition and requirements of an *eligible ABCP liquidity facility* under the Federal Reserve's risk-based capital guidelines. See section III.B.3.a.iv. of the risk-based capital guidelines (12 CFR 208, appendix A).
    c. Determine from the bank's supporting documentation of its risk-based capital ratios whether the bank held risk-based capital against its eligible ABCP liquidity facilities.
    d. Determine whether the bank applied the correct conversion factors to the eligible ABCP liquidity facilities when it determined the amount of risk-weighted assets for its risk-based capital ratios. See section III.D. of the risk-based capital guidelines (12 CFR 208, appendix A).
       - For those eligible ABCP liquidity facilities having an original maturity of one year or less, determine if a 10 percent credit-conversion factor was used.
       - For those eligible ABCP liquidity facilities having an original maturity

exceeding one year, determine if a 50 percent credit-conversion factor should have been used.

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

11. Verify that each on- and off-balance-sheet item has been assigned to the appropriate risk category in accordance with the risk-based capital guidelines. Close attention should be paid to the underlying obligor, collateral, and guarantees, and to assignment to a risk category based on the terms of a claim. The claim should be assigned to the risk category appropriate to the highest risk option available under the terms of the transaction. Verify that the bank's documentation supports the assignment of preferential risk weights. If necessary, recalculate the value of risk-weighted assets.
12. Verify that all off-balance-sheet items have been converted properly to credit-equivalent amounts based on the risk-based capital guidelines. Close attention should be paid to the proper reporting of assets sold with recourse, financial and performance standby letters of credit, participations of off-balance-sheet transactions, and commitments.

VERIFICATION OF THE TIER 1 LEVERAGE RATIO

1. Verify that the bank has correctly calculated tier 1 capital in accordance with the definition of tier 1 capital, as set forth in the risk-based capital guidelines.
2. Verify that the bank has properly calculated average total consolidated assets, which are defined as the quarterly average total assets as reported on the Call Report, less goodwill and any other intangible assets and any investments in subsidiaries that the Federal Reserve determines should be deducted from tier 1 capital.

OVERALL ASSESSMENT OF CAPITAL ADEQUACY

1. For banks that do not meet the minimum risk-based tier 1 leverage capital standards or that are otherwise considered to lack sufficient capital to support their activities, examine the bank's capital plans for achieving adequate levels of capital. In conjunction with management of the appropriate Reserve Bank, determine whether the plans are acceptable to the Federal Reserve. Review and comment on these plans and any progress achieved in meeting the requirements.
2. The review processes discussed in "Overall Conclusions Regarding Condition of the Bank," section 5020.1, require an evaluation of the propriety and consistency of the bank's present and planned level of capitalization in light of existing conditions and future plans. In this regard, the examiner assigned to assessing capital adequacy should do the following:
   a. Using the latest Uniform Bank Performance Report (UBPR), analyze applicable ratios involving capital funds, comparing these ratios with those of the bank's peer group and investigating trends or significant variations from peer-group averages.
   b. Determine, with regard to the bank's overall financial condition, that the bank's capital is sufficient to compensate for any instabilities or deficiencies in the asset and liability mix and in quality, as described in the "Funds Management" paragraph ("Financial Considerations" subsection of section 3020.1).
   c. Determine if the bank's earnings performance enables it to fund its expansion adequately, to remain competitive in the market, and to replenish or increase its capital funds as needed.
   d. Analyze trends in the bank's deposit and borrowed funds structure to determine whether capital is maintained at a level sufficient to sustain depositor and lender confidence.
   e. If the allowance for loan and lease losses is determined to be inadequate, analyze the impact of current and potential losses on the bank's capital structure. See "Analytical Review and Income and Expense," section 4010.1.
   f. Consider the impact of any management deficiencies on present and projected capital.
   g. Determine if there are any assets or contingent accounts whose quality rep-

resents an actual or potential serious weakening of capital.

h. Consider the potential impact of any proposed changes in controlling ownership (if approved) on the projected capital position.

i. Analyze assets that are considered undervalued on the balance sheet and carried at below-market values. The excess of fair value over cost may represent an additional cushion to the bank.

j. Consider the cushion for absorbing losses that may be provided by any subordinated debt or intermediate-term preferred stock not included in tier 2 capital because of the 50 percent of tier 2 capital limitation, or that is not included in capital for tier 1 leverage ratio purposes.

k. Analyze any collateral and guarantees supporting assets that may not be taken into account for risk-based or tier 1 leverage capital purposes, and consider these collateral and guarantees in the overall assessment of capital adequacy.

l. Evaluate the bank's overall asset quality, and determine whether the bank needs to strengthen its capital position based on the following:
   - the severity of problem and classified assets
   - investment or loan- portfolio concentrations
   - the adequacy of loan-loss reserves

m. Analyze the bank's interest-rate risk and use of hedging instruments. Determine if the bank should strengthen its capital position because of undue levels of risk. Review hedging instruments for the use of interest-only strips (IOs) and principal-only strips (POs) (which raise concerns), and review management's expertise in using hedging instruments.

n. Determine whether the sponsoring bank is able to assess and manage the retained risk in its credit portfolio after the issuance of synthetic collateralized loan obligations (CLOs).

o. If the bank has used the special risk-based regulatory capital treatment for synthetic CLOs, verify that the stringent minimum conditions have been met for that treatment.

3. Review capital adjustments such as goodwill and intangible assets by performing the following procedures:
   a. Verify the existence of adequate documentation concerning book and fair values and the amortization method.
   b. Verify that intangibles are being reduced in accordance with the amortization method. If the book carrying amount exceeds the fair value, the intangible should be written down or off.
   c. Determine if the bank is performing a quarterly review of the book and fair values and the quality of all intangibles.
   d. Verify that goodwill and other nonqualifying identifiable intangibles are deducted from tier 1 capital.
   e. Determine the proper inclusion of other identifiable intangibles included in tier 1 capital by verifying that the criteria and limitations outlined in the risk-based capital guidelines are met.
4. In light of the analysis conducted in step 2 (under "Overall Assessment of Capital Adequacy"), and in accordance with the Federal Reserve's capital adequacy guidelines, determine any appropriate supervisory action with regard to the bank's capital adequacy.
5. Review the following items with the examiner-in-charge in preparation for discussion with appropriate management:
   a. all deficiencies noted with respect to the capital accounts
   b. the adequacy of present and projected capital
6. Ascertain through minutes, reports, etc., or through discussions with management, how the future plans of the bank (for example, growth through commercial lending, retail operations, etc.) will affect the bank's asset quality, capital position, and other areas of its balance sheet.
7. Prepare comments for the examination report on the bank's capital position, including any deficiencies noted.
8. Update the workpapers with any information that will facilitate future examinations.

Review the bank's internal controls, policies, practices, and procedures concerning capital. The bank's system should be documented in a complete and concise manner and should include, where appropriate, narrative descriptions, flowcharts, copies of forms used, and other pertinent information. Items marked with an asterisk require substantiation by observation or testing.

GENERAL

1. Has the bank established procedures to ensure that—
   a. all components of capital are accurately categorized and reported for purposes of the risk-based and leverage capital measures?
   b. all on-and off-balance-sheet items are accurately risk-weighted and reported for purposes of the risk-based capital measures?
   c. categorization of on- and off-balance-sheet items and capital for purposes of the risk-based capital measures is adequately documented?
   d. the bank is in compliance with the terms of any contractual agreements underlying capital instruments?
   e. management and the board of directors consider the requirements of the risk-based capital guidelines for inclusion in capital of stock or debt prior to issuance?
2. Does the bank prepare a periodic analysis of its risk-based and leverage capital positions to assess capital adequacy for both current and anticipated needs?

*3. Has the board of directors authorized specific bank officers to—
   a. sign stock certificates?
   b. maintain custody of unissued stock certificates?
   c. maintain stock journals and records?

*4. Are capital transactions verified by more than one person before stock certificates are issued?

*5. Are stock certificates and debentures handled by persons who do not also record those transactions?

*6. Does the bank maintain a stock certificate book with certificates serially numbered by the printer?

*7. Is the stock certificate book maintained under dual control?

*8. Does the bank's policy prohibit the signing of blank stock certificates?

*9. Does the bank maintain a shareholders' ledger that shows the total number of shares owned by each stockholder?

*10. Does the bank maintain a stock transfer journal disclosing names, dates, and amounts of transactions?

*11. Does the bank cancel surrendered stock certificates?

*12. Are inventories of unissued notes or debentures—
   a. maintained under dual control?
   b. counted periodically by someone other than the person responsible for their custody?

*13. When transfers are made—
   a. are notes or debentures surrendered and promptly cancelled?
   b. are surrendered notes or debentures inspected to determine that proper assignment has been made and that new notes or debentures agree in amount?

CONCLUSION

14. Indicate additional procedures used in arriving at conclusions.
15. Are internal controls of capital adequate based on a composite evaluation, as evidenced by answers to the foregoing questions?

Assessing Risk-Based Capital—Direct-Credit Substitutes Extended to ABCP Programs

Effective date October 2007

Section 3030.1

The Federal Reserve Board and the other federal banking agencies (the agencies)[1] amended their risk-based capital standards on November 29, 2001, to adopt a new capital framework for banking organizations (includes bank holding companies) engaged in securitization activities (the securitization capital rule).[2] In March 2005, the agencies issued interagency guidance that clarifies how banking organizations are to use internal ratings that they assign to asset pools purchased by their asset-backed commercial paper (ABCP) programs in order to appropriately risk-weight any direct-credit substitutes (for example, guarantees) extended to such programs. For state member bank examination purposes, the interagency guidance has been reformatted for examiner use as examination objectives, examination procedures, and an internal control questionnaire. The guidance uses the term "banking organization." In this section, the guidance should be interpreted to mean the application of the risk-based capital guidelines to all state member banks on a consolidated basis.

The guidance sets forth an analytical framework for assessing the broad risk characteristics of direct-credit substitutes[3] that a banking organization provides to an ABCP program it sponsors. The guidance provides specific information on evaluating direct-credit substitutes issued in the form of program-wide credit enhancements, as well as an approach to determine the risk-based capital charge for these enhancements. (See SR-05-6 and its attachment. Also, see sections 3020.1, "Assessment of Capital Adequacy," and 4030.1, "Asset Securitization.")

The securitization capital rule permits banking organizations with qualifying internal risk-rating systems to use those systems to apply the internal-ratings approach to their unrated direct-credit substitutes extended to ABCP programs[4] that they sponsor by mapping internal risk ratings to external rating equivalents. These external credit rating equivalents are organized into three ratings categories: investment-grade (BBB and above) credit risk, high non-investment-grade (BB+ through BB-) credit risk, and low non-investment-grade (below BB-) credit risk. These rating categories can then be used to determine whether a direct-credit substitute provided to an ABCP program should be (1) assigned to a risk weight of 100 percent or 200 percent or (2) subject to the "gross-up" treatment, as summarized in the table on the next page.[5] (See appendix A for a more detailed description of ABCP programs.)

As the table indicates, the minimum risk weight available under the internal risk-ratings approach is 100 percent, regardless of the internal rating.[6] Conversely, positions rated below BB- receive the gross-up treatment. That is, the banking organization holding the position must maintain capital against the amount of the position plus all more senior positions.[7] Application of gross-up treatment, in many cases, will result in a full dollar-for-dollar capital charge (the equivalent of a 1,250 percent risk weight) on direct-credit substitutes that fall into the low non-investment-grade category. In addition, the risk-based capital requirement applied to a direct-credit substitute is subject to the low-level-exposure rule. Under the rule, the amount of required risk-based capital would be limited to the lower of a full dollar-for-dollar capital charge against the direct-credit substitute or the effective risk-based capital charge (for example, 8 percent) for the entire amount of assets in the

1. The Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision.

2. See 66 *Fed. Reg.* 59614 (November 29, 2001). See also 12 C.F.R. 208, appendix A, section III.B.3.

3. *Direct-credit substitute* means an arrangement in which a banking organization assumes, in form or in substance, credit risk associated with an on- or off-balance-sheet credit exposure that it did not previously own (that is, a third-party asset) and the risk it assumes exceeds the pro rata share of its interest in the third-party asset. If the banking organization has no claim on the third-party asset, then the organization's assumption of any credit risk with respect to the third-party asset is a direct-credit substitute.

4. ABCP programs include multiseller ABCP conduits, credit arbitrage ABCP conduits, and structured investment vehicles.

5. The rating designations (for example, "BBB-" and "BB+") used in the table are illustrative only and do not indicate any preference for, or endorsement of, any particular rating designation system.

6. Exposures externally rated by a nationally recognized statistical rating organization (NRSRO) above BBB+ are eligible for lower risk weights (that is, 20 percent for AAA and AA, 50 percent for A).

7. *Gross-up treatment* means that a position is combined with all more senior positions in the transaction. The resulting amount is then risk-weighted based on the obligor or, if relevant, the guarantor or the nature of the collateral.

Internal risk-rating equivalent	*Ratings category*	*Risk weighting*
BBB- or better	Investment grade	100%
BB+ to BB-	High non-investment grade	200%
Below BB-	Low non-investment grade	Gross-up treatment

ABCP program.[8]

The use of internal risk rattings under the securitization capital rule is limited to determining the risk-based capital charge for unrated direct-credit substitutes that banking organizations provide to ABCP programs. Thus, banking organizations may not use the internal-ratings approach to derive the risk-based capital requirement for unrated direct-credit substitutes extended to other transactions. Approved use of the internal rating-based approach for ABCP programs under the securitization capital rule will have no bearing on the overall appropriateness of a banking organization's internal risk-rating system for other purposes.

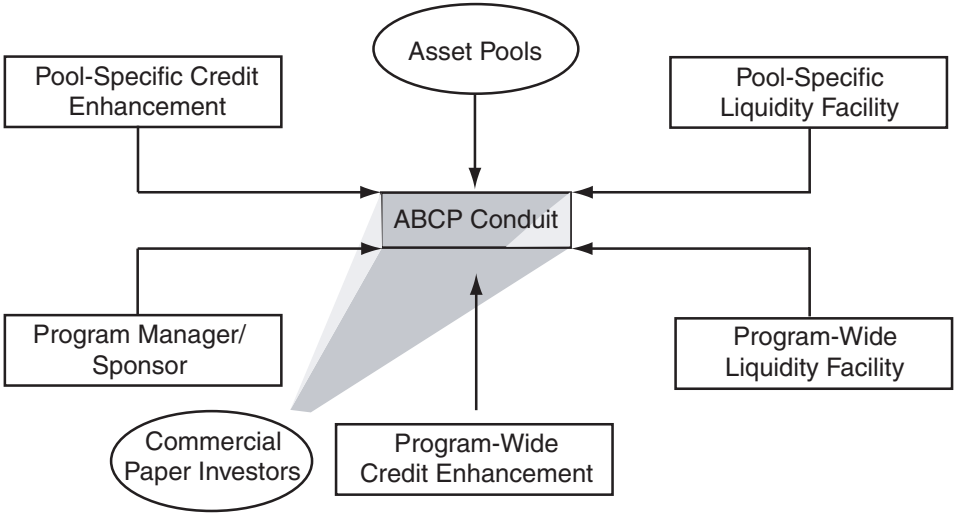
Most rated commercial paper issued out of an ABCP program is supported by program-wide credit enhancement, which is a direct-credit substitute. Often the sponsoring banking organization provides, in whole or in part, program-wide credit enhancement to the ABCP program. Program-wide credit enhancement may take a number of different forms, including an irrevocable loan facility, a standby letter of credit, a financial guarantee, or a subordinated debt.

The interagency guidance also discusses the weakest-link approach. This approach is used for calculating the risk-based capital requirement and assumes that the risk of the program-wide credit enhancement is directly dependent on the quality (that is, internal rating) of the riskiest transaction(s) within the ABCP program. (See step 9 of the examination procedures, section 3030.3.) More specifically, the weakest-link concept presupposes the probability that the program-wide credit enhancement that will be drawn is equal to the probability of default of the transaction(s) with the weakest transaction risk rating.

A process is provided that is designed to aid in determining the regulatory capital treatment for program-wide credit enhancements, provided to an ABCP program. The *key underlying principles* are as follows:

1. The determination of the credit quality of the program-wide credit enhancement shall be based on the risk of draw and subsequent loss, which depends directly on the quality of the credit-enhanced assets funded through the ABCP program.
2. An estimate of the risk of draw for the program-wide credit enhancement is derived from the quality (rating) of the riskiest credit(s) within the ABCP program, which is often indicated by the internal rating a banking organization assigns to a transaction's pool-specific liquidity facility. Other credit risks (for example, seller/servicer risk) to the program-wide credit enhancement may also be considered.
3. The weakest-link approach assigns risk-based capital against the program-wide credit enhancement in rank order of the internal ratings starting with the lowest-rated positions supported by the program-wide credit enhancement. Therefore, if all of the positions supported by the program-wide credit enhancement are internally rated investment grade, the banking organization would risk-weight the notional amount of the program-wide credit enhancement at 100 percent and there would be no need to proceed further. However, for positions supported by the program-wide credit enhancement that are non-investment grade, banking organizations can use the formula-driven weakest-link approach illustrated in step 9 of the examination procedures to generate the appropriate amount of risk-based capital to be assessed against an unrated position.

8. The low-level-exposure rule provides that the dollar amount of risk-based capital required for a recourse obligation or direct-credit substitute should not exceed the maximum dollar amount for which a banking organization is contractually liable. (See 12 C.F.R 208, appendix A, section III.B.3.g.i.)



ASSESSMENT OF INTERNAL RATING SYSTEMS

The guidance is organized in the form of a decision tree that (1) provides an outline of the key decisions that examiners and sponsoring banking organizations should consider when reviewing internal risk-rating systems for ABCP programs and (2) provides supervisors with more-specific information on how to assess the adequacy of these systems. Many of the qualitative and quantitative factors used to evaluate risk in this guidance are comparable with rating agency criteria (for example, criteria from S&P, Moody's, and Fitch) because the ABCP program sponsors generally use the rating methodologies of nationally recognized statistical rating organizations (NRSROs) when assessing the credit quality of their risk exposures to ABCP programs. The guidance has two primary goals:

- provide information to banking organizations to ensure the accuracy and consistency of the ratings assigned to transactions in an ABCP program
- assist supervisors in assessing the adequacy of a banking organization's internal risk-rating system based on the nine key criteria set forth in the securitization capital rule[9]

APPENDIX A—OVERVIEW OF ABCP PROGRAMS

ABCP programs provide a means for corporations to obtain relatively low-cost funding by selling or securitizing pools of homogenous assets (for example, trade receivables) to special-purpose entities (SPEs/ABCP programs). The ABCP program raises funds for purchase of these assets by issuing commercial paper into the marketplace. The commercial paper investors are protected by structural enhancements provided by the seller (for example, overcollateralization, spread accounts, early-amortization triggers, etc.) and by credit enhancements (for example, subordinated loans or guarantees) provided by banking organization sponsors of the ABCP program and by other third parties. In addition, liquidity facilities are also present to ensure the rapid and orderly repayment of commercial paper should cash-flow difficulties emerge. ABCP programs are nominally capitalized SPEs that issue commercial paper. A sponsoring banking organization establishes the ABCP program but usually does not own the conduit's equity, which is often held by unaffiliated third-party management companies that specialize in owning such entities, and are structured to be bankruptcy remote.

9. 12 C.F.R. 208, appendix A, III.B.3.f.i.

Typical Structure

ABCP programs are funding vehicles that banking organizations and other intermediaries establish to provide an alternative source of funding to themselves or their customers. In contrast to term securitizations, which tend to be amortizing, ABCP programs are ongoing entities that usually issue new commercial paper to repay maturing commercial paper. The majority of ABCP programs in the capital markets are established and managed by major international commercial banking organizations. As with traditional commercial paper, which has a maximum maturity of 270 days, ABCP is short-term debt that may either pay interest or be issued at a discount.

Types of ABCP Programs

Multiseller programs generally provide working capital financing by purchasing or advancing against receivables generated by multiple corporate clients of the sponsoring banking organizations. These programs are generally well diversified across both sellers and asset types.

Single-seller programs are generally established to fund one or more types of assets originated by a single seller. The lack of diversification is generally compensated for by increased program-wide credit enhancement.

Loan-backed programs fund direct loans to corporate customers of the ABCP program's sponsoring banking organization. These loans are generally closely managed by the banking organization and have a variety of covenants designed to reduce credit risk.

Securities-arbitrage programs invest in securities that generally are rated AA- or higher. They generally have no additional credit enhancement at the seller/transaction level because the securities are highly rated. These programs are typically well diversified across security types. The arbitrage is mainly due to the difference between the yield on the securities and the funding cost of the commercial paper.

Structured investment vehicles (SIVs) are a form of a securities-arbitrage program. These ABCP programs invest in securities typically rated AA- or higher. SIVs operate on a market-value basis similar to market value CDOs in that they must maintain a dynamic overcollateralization ratio determined by analysis of the potential price volatility on securities held in the portfolio. SIVs are monitored daily and must meet strict liquidity, capitalization, leverage, and concentration guidelines established by the rating agencies.

Key Parties and Roles

Key parties for an ABCP program include the following:

- program management/administrators
- credit-enhancement providers
- liquidity-facility providers
- seller/servicers
- commercial paper investors

Program Management

The sponsor of an ABCP program initiates the creation of the program but typically does not own the equity of the ABCP program, which is provided by unaffiliated third-party investors. Despite not owning the equity of the ABCP program, sponsors usually retain a financial stake in the program by providing credit enhancement, liquidity support, or both, and they play an active role in managing the program. Sponsors typically earn fees—such as credit-enhancement, liquidity-facility, and program-management fees—for services provided to their ABCP programs.

Typically, an ABCP program makes arrangements with various agents/servicers to conduct the administration and daily operation of the ABCP program. This includes such activities as purchasing and selling assets, maintaining operating accounts, and monitoring the ongoing performance of each transaction. The sponsor is also actively engaged in the management of the ABCP program, including underwriting the assets purchased by the ABCP program and the type/level of credit enhancements provided to the ABCP program.

Credit-Enhancement Providers

The sponsoring banking organization typically provides pool-specific and program-wide backup

liquidity facilities, and program-wide credit enhancements, all of which are usually unrated (pool-specific credit enhancement, such as overcollateralization, is provided by the seller of the assets). These enhancements are fundamental for obtaining high investment-grade ratings on the commercial paper issued to the market by the ABCP program. Seller-provided credit enhancement may exist in various forms and is generally sized based on the type and credit quality of the underlying assets as well as the quality and financial strength of seller/servicers. Higher-quality assets may only need partial support to achieve a satisfactory rating for the commercial paper. Lower-quality assets may need full support.

Liquidity-Facility Providers

The sponsoring banking organization and in some cases, unaffiliated third parties, provide pool-specific or program-wide liquidity facilities. These backup liquidity facilities ensure the timely repayment of commercial paper under certain conditions, such as financial market disruptions or if cash-flow timing mismatches occur, but generally not under conditions associated with the credit deterioration of the underlying assets or the seller/servicer to the extent that such deterioration is beyond what is permitted under the related asset-quality test.

Commercial Paper Investors

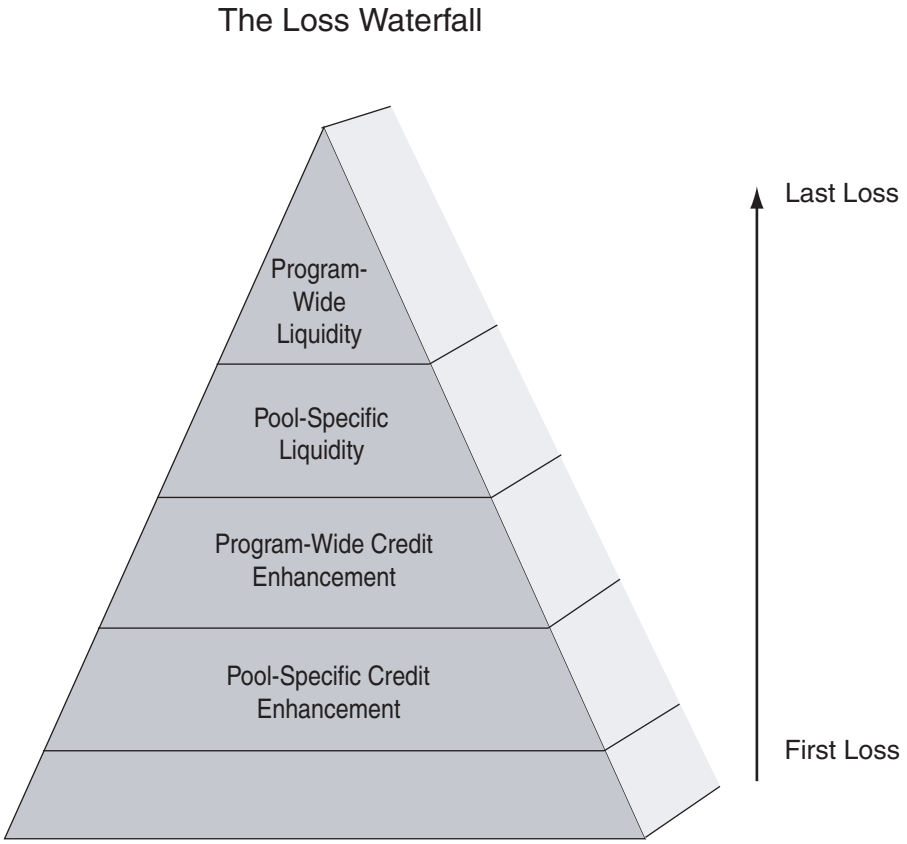
Commercial paper investors are typically institutional investors, such as pension funds, money market mutual funds, bank trust departments, foreign banks, and investment companies. Commercial paper maturities range from 1 day to 270 days, but most frequently are issued for 30 days or less. There is a limited secondary market for commercial paper since issuers can closely match the maturity of the paper to the investors' needs. Commercial paper investors are generally repaid from the reissuance of new commercial paper or from cash flows stemming from the underlying asset pools purchased by the program. In addition, to ensure timely repayment in the event that new commercial paper cannot be issued or if anticipated cash flows from the underlying assets do not occur, ABCP programs utilize backup liquidity facilities. In addition, the banking organization can purchase the ABCP from the conduit if the commercial paper cannot be issued. Pool-specific and program-wide credit enhancements also protect commercial paper investors from deterioration of the underlying asset pools.

The Loss Waterfall

The loss waterfall diagram (on the next page) for the exposures of a typical ABCP program generally has four legally distinct layers. However, most legal documents do not specify which form of credit or liquidity enhancement is in a priority position after pool-specific credit enhancement is exhausted due to defaults. For example, after becoming aware of weakness in the seller/servicer or in asset performance, an ABCP program sponsor may purchase assets out of the conduit using pool-specific liquidity. Liquidity agreements must be subject to a valid asset-quality test that prevents the purchase of defaulted or highly delinquent assets. Liquidity facilities that are not limited by such an asset-quality test are to be viewed as credit enhancement and are subject to the risk-based capital requirements applicable to direct-credit substitutes.

Pool-Specific Credit Enhancement

The form and size of credit enhancement for each particular asset pool is dependent upon the nature and quality of the asset pool and the seller/servicer's risk profile. In determining the level of credit enhancement, consideration is given to the seller/servicer's financial strength, quality as a servicer, obligor concentrations, and obligor credit quality, as well as the historic performance of the asset pool. Credit enhancement is generally sized to cover a multiple level of historical losses and dilution for the particular asset pool. Pool-specific credit enhancement can take several forms, including overcollateralization, cash reserves, seller/servicer guarantees (for only highly rated seller/servicers), and subordination. Credit enhancement can either be dynamic (that is, increases as the asset pool's performance deteriorates) or static (that is, fixed percentage). Pool-specific credit enhancement is generally provided by the seller/servicer (or carved out of the asset pool in the case of overcollateralization) but may be provided by other third parties.



The ABCP program sponsor or administrator will generally set strict eligibility requirements for the receivables to be included in the purchased asset pool. For example, receivable eligibility requirements will establish minimum credit ratings or credit scores for the obligors and the maximum number of days the receivable can be past due.

Usually the purchased asset pools are structured (credit-enhanced) to achieve a credit-quality equivalent of investment grade (that is, BBB or higher). The sponsoring banking organization will typically utilize established rating agency criteria and structuring methodologies to achieve the desired internal rating level. In certain instances, such as when ABCP programs purchase ABS, the pool-specific credit enhancement is already built into the purchased ABS and is reflected in the security's credit rating. The internal rating on the pool-specific liquidity facility provided to support the purchased asset pool will reflect the inclusion of the pool-specific credit enhancement and other structuring protections.

Program-Wide Credit Enhancement

The second level of contractual credit protection is the program-wide credit enhancement, which may take the form of an irrevocable loan facility, a standby letter of credit, a surety bond from a monoline insurer, or an issuance of subordinated debt. Program-wide credit enhancement protects commercial paper investors if one or more of the underlying transactions exhaust the pool-specific credit enhancement and other structural protections. The sponsoring banking organization or third-party guarantors are providers of this type of credit protection. The program-wide credit enhancement is generally sized by the rating agencies to cover the potential of multiple defaults in the underlying portfolio of transactions within ABCP conduits and takes into

account concentration risk among seller/servicers and industry sectors.

Pool-Specific Liquidity

Pool-specific liquidity facilities are an important structural feature in ABCP programs because they ensure investors of timely payments on the issued commercial paper by smoothing timing differences in the payment of interest and principal on the pooled assets and ensuring payments in the event of market disruptions. The types of liquidity facilities may differ among various ABCP programs and may even differ among asset pools purchased by a single ABCP program. For instance, liquidity facilities may be structured either in the form of (1) an asset-purchase agreement, which provides liquidity to the ABCP program by purchasing nondefaulted assets from a specific asset pool, or (2) a loan to the ABCP program, which is repaid solely by the cash flows from the underlying assets.[10] Some older ABCP programs may have both pool-specific liquidity and program-wide liquidity coverage, while more-recent ABCP programs tend to utilize only pool-specific facilities. Typically, the seller-provided credit enhancement continues to provide credit protection on an asset pool that is purchased by a liquidity banking organization so that the institution is protected against credit losses that may arise due to subsequent deterioration of the pool.

Pool-specific liquidity, when drawn prior to the ABCP program's credit enhancements, is subject to the credit risk of the underlying asset pool. However, the liquidity facility does not provide direct-credit enhancement to the commercial paper holders. Thus, the pool-specific liquidity facility generally is in an economic second-loss position after the seller-provided credit enhancements and prior to the program-wide credit enhancement even when the legal documents state that the program-wide credit enhancement would absorb losses prior to the pool-specific liquidity facilities. This is because the sponsor of the ABCP program would most likely manage the asset pools in such a way that deteriorating portfolios or assets would be put to the liquidity banking organizations prior to any defaults that would require a draw against the program-wide credit enhancement.[11] While the liquidity banking organization is exposed to the credit risk of the underlying asset pool, the risk is mitigated by the seller-provided credit enhancement and the asset-quality test.[12] At the time that the asset pool is put to the liquidity banking organization, the facility is usually fully drawn because the entire amount of the pool that qualifies under the asset-quality test is purchased by the banking organization. However, with respect to revolving transactions (such as credit card securitizations) it is possible to average less than 100 percent of the commitment.

Program-Wide Liquidity

The senior-most position in the waterfall, program-wide liquidity, is provided in an amount sufficient to support that portion of the face amount of all the commercial paper that is issued by the ABCP program that is necessary to achieve the desired external rating on the issued paper. Progam-wide liquidity also provides liquidity in the event of a short-term disruption in the commercial paper market. In some cases, a liquidity banking organization that extends a direct liquidity loan to an ABCP program may be able to access the program-wide credit enhancement to cover losses while funding the underlying asset pool.

APPENDIX B—CREDIT-APPROVAL MEMORANDUM

The credit-approval memorandum typically should include a description of the following:

1. *Transaction structure.* In the beginning of the credit-approval memorandum, the sponsoring banking organization will outline the structure of the transaction, which includes a

10. Direct-liquidity loans to an ABCP program may be termed a *commissioning agreement* (most likely in a foreign bank program) and may share in the security interest in the underlying assets when commercial paper ceases to be issued due to deterioration of the asset pool.

11. In fact, according to the contractual provisions of some conduits, a certain level of draws on the program-wide credit enhancement is a condition for unwinding the conduit program, which means that this enhancement is never meant to be used.

12. An asset-quality test or liquidity-funding formula determines how much funding the liquidity banking organization will extend to the conduit based on the quality of the underlying asset pool at the time of the draw. Typically, liquidity banking organizations will fund against the conduit's purchase price of the asset pool less the amount of defaulted assets in the pool.

discussion of the asset type that would be purchased by the ABCP program and the liquidity facilities (and possibly credit enhancements) that the sponsoring banking organization is providing to the transaction. Generally, the sponsoring banking organization indicates the type and dollar volume of the liquidity facility that the institution is seeking to extend to the transaction, such as a $250 million short-term pool-specific liquidity facility, as well as the type of first-loss credit enhancement that is provided by the seller, such as overcollateralization. The asset purchase by the ABCP conduit from the seller may be described as a two-step sale that first involves the sale of the assets (for example, trade receivables) to an SPV on a true-sale basis and then involves the sale of the assets by the SPV to the ABCP program. Other features of the structure should be described, such as if the transaction is a revolving transaction with a one-year revolving period.

In addition, the sponsoring banking organization typically obtains true-sale and nonconsolidation opinions from the seller's external legal counsel. The opinions should identify the various participants in the transaction—including the seller, servicer, and trustee—as appropriate. For instance, the seller of the assets is identified as the party that would act as the servicer of the assets and who is responsible for all the representations and warranties associated with the sold assets.

2. *Asset seller's risk profile.* The assessment of the asset seller's risk profile should consider its past and expected future financial performance, its current market position and expected competitiveness going forward, as well as its current debt ratings. For example, the sponsor may review the seller's leverage, generation of cash flow, and interest coverage ratios, and whether the seller is at least investment grade. Also, the sponsoring banking organization may attempt to anticipate the seller's ability to continue to perform under more-adverse economic conditions. In addition, some sponsors may take other information into account, such as KMV ratings, to confirm their internal view of the seller's financial strength.
3. *Underwriting standards.* A discussion of the seller's current and historical underwriting standards should be included in the transaction summary. For certain types of assets, such as auto loans, the sponsoring banking organization should consider the seller's use of credit scoring and the minimum acceptable loan score that may be included in the asset pool. In addition, the credit-approval memorandum may include an indication of whether the underwriting standards have remained relatively constant over time or whether there has been a recent tightening or loosening.
4. *Asset-eligibility criteria.* In order to reduce the ABCP program's exposure to higher-risk assets, an ABCP program generally specifies minimum asset-eligibility criteria. This is particularly true for revolving transactions since the seller's underwriting standards may change so that the credit quality of the assets purchased by the ABCP program can be adversely affected. While eligibility criteria may be designed for specific transactions, there is a common set of criteria that are generally applicable, including those that exclude the purchase of defaulted assets or assets past due more than a specified number of days appropriate for the specific transaction; limiting excess concentration to an individual obligor; excluding the purchase of assets of obligors that are affiliates of the seller; or limiting the tenor of the assets to be purchased. Other criteria also may require that the obligor be a resident of a certain country and that the asset is payable in a particular currency. All of these criteria are intended to reduce the credit risk inherent in the asset pool to be purchased by the ABCP program. A strong set of eligibility criteria may reduce the necessary credit enhancement provided by the selling organization.
5. *Collection process.* Often, if the seller/servicer has a senior unsecured debt rating of at least BBB-, cash collections may be commingled with the seller/servicer's cash until such time as periodic payments are required to be made to the ABCP program. Documentation should provide an ABCP program with the ability to take steps to control the cash flows when necessary and include covenants to redirect cash flows or cause the segregation of funds into a bankruptcy-remote SPE upon the occurrence of certain triggers. A description of how checks, cash, and debit payments are to be handled may be discussed. For instance, documentation may

state that payments by check must be processed on the same day they are received by the lockbox and that after the checks clear, the cash is deposited in a segregated collection account at the sponsoring banking organization. Also, the documents may describe the types of eligible investments in which the cash may be invested, which are usually highly rated, liquid investments such as government securities and A1/P1+ commercial paper.

6. *Assets' characteristics.* Usually, a transaction summary will provide a description of the assets that will be sold into the program and outline relevant pool statistics. For instance, there likely will be a discussion of the weighted average loan balance, weighted average credit score (if appropriate), weighted average original term, and weighted average coupon, as well as the ranges of each characteristic. In addition, the portfolio may be segmented by the sponsoring banking organization's internal-rating grades to give an indication of each segment's average credit quality (as evidenced by an average credit score) and share of the portfolio's balances. Many times, the sponsor will identify concentrations to individual obligors or geographic areas, such as states.
7. *Dilution.* Certain asset types (for example, trade receivables) purchased by ABCP programs may be subject to dilution, which is the evaporation of the asset due to customer returns of sold goods, warranty claims, disputes between the seller and its customers, as well as other factors. For instance, the seller of the assets to the ABCP program may permit its customers to return goods, at which point the receivables cease to exist. The likelihood of this risk varies by asset type and is typically addressed in the transaction summary. For instance, in sales of credit card receivables to an ABCP program, the risk of dilution is small due to the underlying diversity of the obligors and merchants. While the pool-specific liquidity facilities often absorb dilution initially, the seller generally is required to establish a reserve to cover a multiple of expected dilution, which is based on historical information. The adequacy of the dilution reserve is reviewed at the inception of the transaction and may or may not be incorporated in the seller-provided credit enhancement that is provided on the pool of assets sold to the ABCP program.
8. *Historical performance.* As a prelude to sizing the pool-specific credit enhancement provided by the seller, the sponsoring banking organization will review the historical performance of the seller's portfolio, including consideration of losses (that is, loss rate and loss severity), delinquencies, dilutions, and the turnover rate.[13] An indication of the direction of losses and delinquencies, and the reasons behind any increase or decrease are often articulated. For instance, an increase in losses may reflect losses due to specific industry-related problems and general economic downturns. Typically, the rating agencies prefer at least three years' worth of historical information on the performance of the seller's asset pools, although the rating agencies periodically permit transactions to have less information. As a result, a sponsoring banking organization likely will require the same degree of information as a rating agency whether this is a full three-year history or a lesser amount, as appropriate, when assessing the credit quality of its liquidity and credit-enhancement exposures.
9. *Termination events.* ABCP programs usually incorporate commercial paper stop-issuance or wind-down triggers to mitigate losses that may result from a deteriorating asset pool or some event that may hinder the ABCP programs' ability to repay maturing commercial paper. Such triggers may be established at either the pool level or program-wide level, and may, if hit, require the ABCP program to immediately stop issuing commercial paper to fund (1) new purchases from a particular seller or (2) any new purchases regardless of the seller. In addition, such triggers may require the ABCP program to begin liquidating specific asset pools or its entire portfolio.

   The rating agencies consider these structural safeguards, which are designed to protect the ABCP program from credit deterioration over time, in determining the rating on an ABCP program's commercial paper. In many ABCP programs, there may be a provision that requires the program to wind down if a certain percentage of the program-wide credit enhancement has been used to

13. The turnover rate of a receivables portfolio is a measure of how fast the outstanding assets are paid off. For example, if a seller had sales of $4,000 in the prior year and an average portfolio balance of $1,000, then the turnover rate of the portfolio is four.

cover losses (for example, 25 percent).

Examples of pool-specific triggers include the insolvency or bankruptcy of the seller/servicer; downgrade of the seller's credit rating below a specific rating grade; or deterioration of the asset pool to the point where charge-offs, delinquencies, or dilution rises above predetermined levels. Program-wide triggers may include (1) the ABCP program's failure to repay maturing commercial paper or (2) when draws reduce the program-wide credit enhancement below a stated threshold.

Assessing Risk-Based Capital (RBC)—Direct-Credit Substitutes Extended to ABCP Programs

Examination Objectives

Effective date October 2007

Section 3030.2

Unless otherwise specified, examiners should weigh the importance and significance of the objectives being assessed when he or she determines a final conclusion.

INTERNAL RISK-RATING SYSTEM

1. To determine if the banking organization has a robust internal risk-rating system.
2. To determine if the banking organization generally has sound risk-management practices and principles.

INTERNAL RISK-RATING SYSTEM FOR ABCP SECURITIZATION EXPOSURES

1. To determine the extent to which the banking organization integrates its ABCP internal risk-rating process with its credit-risk management framework.
2. To qualitatively assess the suitability of the banking organization's risk-rating process relative to the transactions and type of assets securitized.
3. To assess the adequacy of the credit-approval process.

INTERNALLY RATED EXPOSURES

1. To determine whether the banking organization applies its internal risk-rating system to liquidity facilities and credit enhancements extended to ABCP programs.
2. To determine whether the assigned internal ratings incorporate all of the risks associated with rated exposures extended to ABCP programs.

MONITORING OF ABCP PROGRAMS BY RATING AGENCIES

1. To confirm that the commercial paper issued by the ABCP programs is rated by one or more nationally recognized statistical rating organizations (NRSROs).
2. To verify that NRSROs are monitoring the ABCP programs in order to ensure the maintenance of minimum standards for the respective ABCP program's rating.

UNDERWRITING STANDARDS AND MANAGEMENT OVERSIGHT

1. To assess the quality and robustness of the underwriting process.

INTERNAL-RATING CONSISTENCY WITH RATINGS ISSUED BY THE RATING AGENCIES

1. To confirm that whenever ABCP program transactions are externally rated, internal ratings are consistent with, or more conservative than, those issued by NRSROs.

FIRST-LOSS POSITION FOR PROGRAM-WIDE CREDIT ENHANCEMENT

1. To assertain the rank order, if possible, of the risk assumed by the various direct-credit substitutes and liquidity facilities in the ABCP program—determining the order in which various exposures would absorb losses.
2. To determine if third-party investors provide program-wide credit enhancement to the ABCP conduit.
3. To determine if the spread that third-party investors or the banking organization charges for taking program-wide credit-enhancement risk is generally within the market's investment-grade pricing range.

CONCENTRATIONS OF NON-INVESTMENT GRADE SELLER/SERVICERS

1. To determine if the sponsoring banking organization is exposed to an inordinate amount of seller/servicer risk.

UNDERLYING ASSETS OF THE ABCP PROGRAM STRUCTURED TO INVESTMENT-GRADE RISK

1. To obtain the internal rating for the program-wide credit enhancement in order to determine the banking organization's assessment of the credit quality of the risk exposure.
2. To rank-order the underlying transactions in the ABCP program on the basis of internal risk ratings in order to determine the notional amount of transactions falling in each of the three ratings categories: investment grade (BBB- or better), high non-investment grade (BB+ to BB-), and low non-investment grade (below BB-).
3. To determine a risk-based capital requirement for the program-wide credit enhancement.

Assessing Risk-Based Capital (RBC)—Direct-Credit Substitutes Extended to ABCP Programs

Examination Procedures

Effective date October 2007

Section 3030.3

DECISION TREE

The decision tree is intended to assist examiners in determining the adequacy of the internal rating systems used for rating direct-credit substitutes extended to asset-backed commercial paper (ABCP) programs. If examiners consider a banking organization's internal rating system adequate, then the institution may use the internal ratings assigned to calculate the risk-based capital charge for unrated direct-credit substitutes, including program-wide credit enhancements. The determination process can essentially be broken down into individual steps that start by answering broad fundamental risk questions and end with examining more-detailed ABCP program-specific characteristics.

The first six steps (1–6) of the process focus on evaluating the banking organization's risk-rating system, while the final three steps (7–9) are used to determine the amount of risk-based capital to be assessed against program-wide credit enhancements.

PERFORMING THE EXAMINATION PROCEDURES

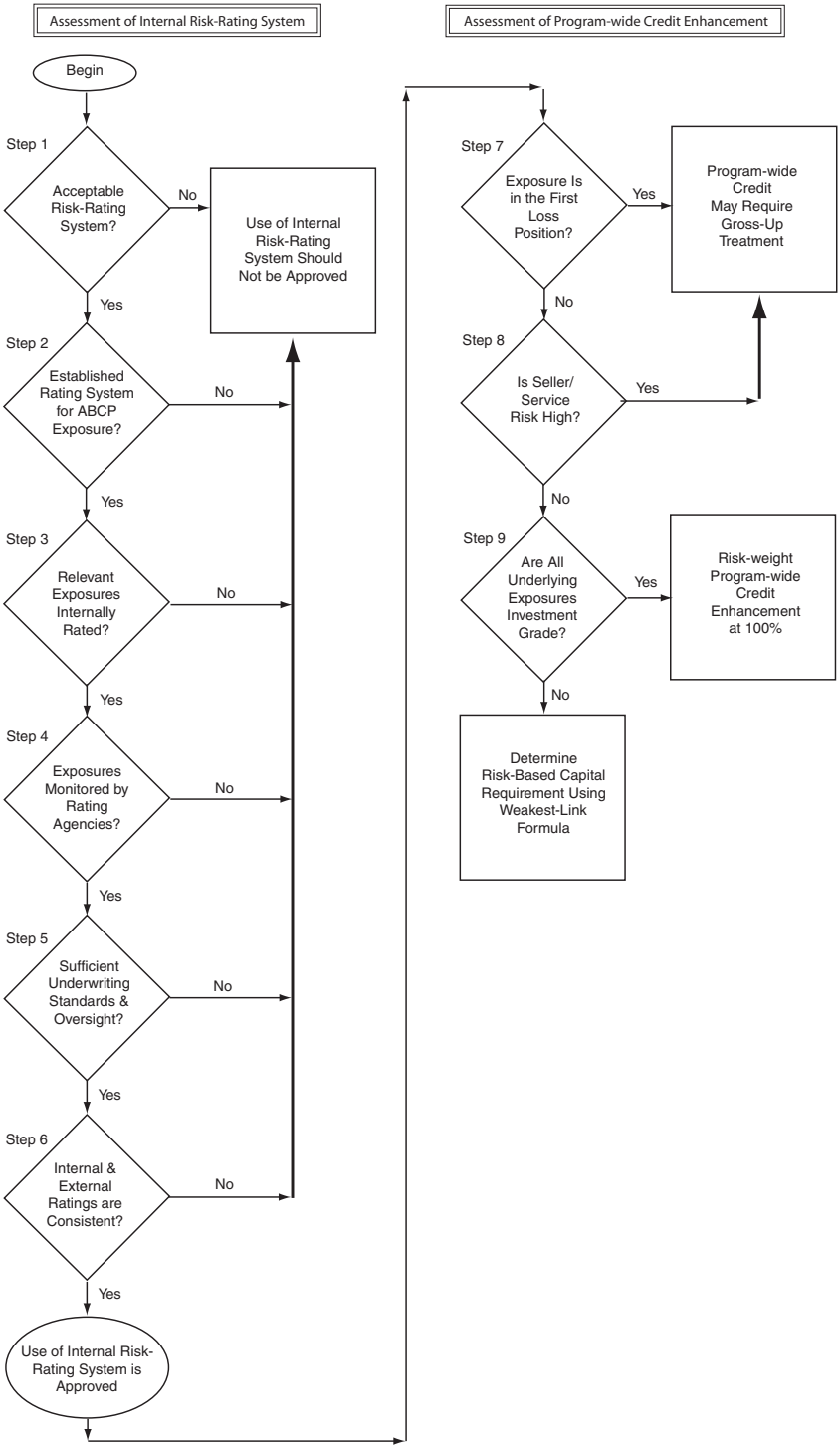
Examiners should be mindful that evaluating the adequacy of internal risk-rating systems generally depends on both subjective judgments and objective information generated in each step of the process. When performing the examination procedures, the examiner may determine that certain observed weaknesses in meeting specific supervisory expectations may not necessarily be severe enough to conclude that the internal risk-rating system is inadequate. In some cases, compensating strengths in components of the risk-rating system may offset observed weaknesses. However, examiners should take such weaknesses into consideration in formulating their overall conclusion and consider them when developing recommendations to improve the internal risk-rating process. Failure to meet the regulatory requirements and follow the supervisory guidance typically is an indication of unsafe and unsound banking practices in the risk management of ABCP programs. Where failures are observed, examiners should conclude that use of the internal-ratings approach for exposures to ABCP programs is inappropriate for purposes of the respective provisions of the risk-based capital rule.

While this guidance has been designed to address common industry underwriting and risk-management practices, it may not sufficiently address all circumstances. For unique cases not adequately addressed by the guidance, examiners should review the specific facts and circumstances with the responsible Reserve Bank management in conjunction with the Board's Banking Supervision and Regulation staff before rendering a final conclusion.

Organizing the Examination Process

When organizing the examination, examiners should note if the banking organization operates multiple ABCP conduits. In some cases, a banking organization may manage individual ABCP conduits out of different legal entities or lines of business, and each conduit may focus on different business strategies.

1. Before initiating the examination process, determine—
   a. the number of ABCP conduits sponsored by the banking organization,
   b. which ABCP conduits have direct-credit substitutes provided by the banking organization, and
   c. from what areas within the organization these activities are conducted.
2. When multiple ABCP conduits exist, assess whether the banking organization applies the internal risk-rating system consistently to each program with identical policies, procedures, and controls.
3. If the banking organization operates ABCP program activities out of different legal entities or lines of business, or if the application of an internal rating system varies from program to program, evaluate the adequacy of each unique application.
4. Consider limiting any Federal Reserve approval of the use of internal ratings to those programs that have been examined and determined to meet the requirements outlined in this guidance.


Assessment of Internal Risk-Rating System
Begin
Step 1
Acceptable Risk-Rating System?
No
Use of Internal Risk-Rating System Should Not be Approved
Yes
Step 2
Established Rating System for ABCP Exposure?
No
Yes
Step 3
Relevant Exposures Internally Rated?
No
Yes
Step 4
Exposures Monitored by Rating Agencies?
No
Yes
Step 5
Sufficient Underwriting Standards & Oversight?
No
Yes
Step 6
Internal & External Ratings are Consistent?
No
Yes
Use of Internal Risk-Rating System is Approved
Assessment of Program-wide Credit Enhancement
Step 7
Exposure Is in the First Loss Position?
Yes
Program-wide Credit May Require Gross-Up Treatment
No
Step 8
Is Seller/ Service Risk High?
Yes
No
Step 9
Are All Underlying Exposures Investment Grade?
Yes
Risk-weight Program-wide Credit Enhancement at 100%
No
Determine Risk-Based Capital Requirement Using Weakest-Link Formula

Banking organizations may have established ABCP lines of business from which they coordinate client relationships, transaction-origination activities, funding activities, and ABCP conduit management. An inspection of such "front-office" operations can provide important insight into the unique characteristics of the banking organization's ABCP program. Examiners should focus the examination's review on the areas of the organization where credit decisions and credit-risk management are housed and where oversight of the internal risk-rating system is maintained.

5. Consider the factors listed below while conducting the banking organization's examination. When any of these factors are observed, perform a more thorough review of its internal controls, risk management, and potential weaknesses before approving the banking organization's internal risk-rating system.

   Although observation of a single factor may not be compelling enough for withholding approval, the examiner's observation of one or more of these factors should result in the adoption of a more conservative bias as the examination procedures are performed.

   If a combination of the risk factors identified below is observed during the examination process, the examiner may determine that the internal risk-rating system should not be relied upon for assessing the risk-based capital treatment for direct-credit substitutes provided to ABCP programs.

   The following factors should be considered:

   1. The sponsoring banking organization has a short track record and is inexperienced in the management of an ABCP program.
   2. The transaction-specific credit enhancement is solely in the form of excess spread.
   3. Significantly higher ABCP program costs exist for program-wide credit enhancement as compared with the internal and external benchmarks for investment-grade risk.
   4. The sponsoring banking organization fails to maintain historical ratings-migration data or the migration data of required credit-enhancement levels.
   5. There is an excessive number of transaction-rating migrations (both internal and external), or excessive collateral calls are necessary to enhance transaction-level credit enhancement to maintain an internal risk rating.
   6. The transactional due-diligence, approval, or execution documentation is poorly prepared.
   7. A significant number of problem transactions are taken out of the ABCP program through liquidity draws.
   8. There is no independent review or oversight of the internal rating system or the assigned transaction ratings. A review conducted by internal parties within the sponsoring/administrating banking organization may still be considered independent so long as the business unit conducting the review does not report to the unit that is responsible for the ABCP program's transactions.
   9. The transaction-underwriting and risk-management functions of an ABCP program sponsor/administrator, other than routine outside audit reviews, are delegated to unaffiliated third parties.
   10. The ABCP conduit commercial paper is not rated lower than A-2/P2 on an ongoing basis by the rating agencies.

   If examiners observe either of the following two factors, the banking organization should not receive Federal Reserve approval to use the internal-ratings approach. (See the examination procedures for more detail.)

   11. The banking organization does not have, in the examiner's view, an established or acceptable internal risk-rating system to assess the credit quality of its exposures to its ABCP programs.
   12. Relevant direct-credit substitutes or liquidity facilities are not internally risk rated.

Step 1—Acceptable Internal Risk-Rating Systems

1. Determine if the banking organization is able to satisfactorily demonstrate how its internal risk-rating system corresponds to the rating agencies' standards used as the framework for complying with the securitization requirements in the risk-based capital rule. Ascertain whether the credit ratings map to the risk-weight categories in the ratings-based approach so they can be applied to internal ratings.

2. If a separate supervisory team has conducted a detailed evaluation of the robustness and effectiveness of the banking organization's overall internal ratings system, use the inspection work to assess the application of internal ratings specific to the banking organization's ABCP programs. Consider reducing the procedures to a quick review of the previous examination's findings.
3. If there was no previous evaluation of the banking organization's risk-rating system or if documentation of the evaluation findings is unavailable, perform a full review of the organization's risk-rating system.
4. Ascertain whether the banking organization's overall risk-rating process is generally consistent with the fundamental elements of sound risk management and with the rating assumptions and methodologies of the rating agencies.
   a. Determine if the internal ratings are incorporated into the credit-approval process and are considered in the pricing of credit.
   b. Find out if the internal lending and exposure limits are linked to internal ratings.
5. Verify that the internal risk-rating system for ABCP programs contains the following nine criteria:
   a. The internal credit-risk system is an integral part of the banking organization's risk-management system, which explicitly incorporates the full range of risks arising from its participation in securitization activities.
   b. Internal credit ratings are linked to measurable outcomes, such as the probability that the position will experience any loss, the position's expected loss given default, and the degree of variance in losses given default on that position.
   c. The banking organization's internal credit-risk system separately considers (1) the risk associated with the underlying loans or borrowers and (2) the risk associated with the structure of a particular securitization transaction.
   d. The banking organization's internal credit-risk system identifies gradations of risk among "pass" assets and other risk positions.
   e. The banking organization has clear, explicit criteria, including subjective factors, that are used to classify assets into each internal risk grade.
   f. The banking organization has independent credit-risk management or loan-review personnel assigning or reviewing the credit-risk ratings.
   g. The banking organization has an internal audit procedure that periodically verifies that internal risk ratings are assigned in accordance with the organization's established criteria.
   h. The banking organization (1) monitors the performance of the internal credit-risk ratings assigned to nonrated, nontraded direct-credit substitutes over time to determine the appropriateness of the initial credit-risk rating assignment and (2) adjusts individual credit-risk ratings, or the overall internal credit-risk ratings system, as needed.
   i. The internal credit-risk system makes credit-risk rating assumptions that are consistent with, or more conservative than, the credit-risk rating assumptions and methodologies of the nationally recognized statistical rating organizations (NRSROs).

If all of the above supervisory guidance is not adhered to, the use of internal ratings under the risk-based capital rule should not be approved.

Step 2—Use of an Established Internal Risk-Rating System Tailored to ABCP Securitization Exposures

1. Determine if an internal rating system exists that assesses exposures (for example, liquidity facilities) provided to ABCP programs.
2. Ascertain whether there is evidence that the ABCP internal risk-rating process is an integrated component of the enterprise-wide credit-risk management process. This includes—
   a. risk ratings that are a fundamental portfolio management tool and
   b. internal ratings that are considered in credit and pricing decisions.
3. Evaluate whether the management team and staff are experienced with the types of assets and facilities internally rated for the ABCP program.
4. Determine if there is meaningful differentiation of risk. Verify that—
   a. separate ratings are applied to borrowers and facilities that separately consider the

risk associated with the underlying loans and borrowers, as well as the risk associated with the specific positions in a securitization transaction, and

b. a distinct set of rating criteria exists for each grade. The banking organization should have classified its assets into each risk grade using clear, explicit criteria, even for subjective factors.

5. Verify that the risk-ratings criteria for ABCP transactions are documented with specific methodologies detailed for different asset types.
6. Find out if the banking organization includes a transaction summary[1] as part of its credit-approval process. The transaction summary should include a description of the following: transaction structure, seller/servicer's risk profile,[2] relevant underwriting criteria, asset-eligibility criteria, collection process, asset characteristics, dilution and historical loss rates, and trigger and termination events. (See appendix B of section 3030.1 for a more detailed description of the above transaction-summary categories.)
7. Before reaching a final assessment, consult with the other examiners who have conducted reviews of the banking organization's other risk-rating systems, including the corporate risk-rating system.

Step 3—Relevant Internally Rated Exposures

1. Verify that the banking organization internally rates all relevant exposures to ABCP programs, such as pool-specific liquidity facilities.
2. Ascertain if the banking organization maps its internal ratings to the full scale of external ratings provided by the NRSROs.

Step 4—ABCP Program Monitored by Rating Agencies

1. Verify that the commercial paper issued by the ABCP program has been rated in the second-highest short-term rating category (A2, P2, or F2) or higher.
2. Confirm that there is evidence that rating agencies are actively monitoring the structuring methodologies and credit quality of the transactions purchased by the ABCP conduit.
   a. *Prescreened programs.* Confirm that NRSROs are prescreening each new transaction placed in the ABCP program.
   b. *Post-review programs.* Find out if ABCP program transactions are monitored by the NRSROs via monthly or quarterly reports. Determine if the banking organization is promptly forwarding information on new transactions and transactions experiencing deterioration to the NRSROs (for example, through monthly reports).

Step 5—Sufficient Underwriting Standards and Management Oversight

1. Determine if the banking organization has internal policies addressing underwriting standards that are applicable to ABCP programs.
2. For each ABCP transaction, ascertain whether the institution applies the following factors in its underwriting process:

a. General Portfolio Characteristics:

- an understanding of the operations of the businesses that originates the assets being securitized
- a review of the general terms offered to the customer
- a determination of the quality of assets and from which legal entity assets are originated
- a determination of customer, industry, and geographic concentrations
- an understanding of the recent trends in the business that may affect any historical information about the assets

b. Legal Structure of the Transaction:

- A general structuring of transactions as "bankruptcy-remote" via a legal "true sale" of assets rather than as

1. The transaction summary may not be specifically identified, but its elements would be part of the credit-approval process.

2. The seller/servicer's risk profile may be developed by a group within the banking organization other than the ABCP program group and incorporated into the transaction summary by reference.

secured loans. (This reduces the likelihood that a creditor of the seller can successfully challenge the security interest in the asset pool in the event of seller insolvency.) Determine if the banking organization maintains copies of true-sale opinions in the facility file or as a part of the facility's legal documents.

- An appropriate management level in the credit-approval hierarchy that is responsible for reviewing transactions that do not have a bankruptcy-remote "true-sale" structure.
- Uniform commercial code (UCC) filings and searches on securitized assets. (UCC filings are often needed to ensure that asset transfers resist third-party attack [that is, are "perfected"]). UCC searches often ensure that asset transfers are not subject to a higher-priority security interest (that is, that the banking organization's interests are "first priority"). If such filings and searches have not been performed, examiners should make further inquiry. There may be a satisfactory reason for not using the UCC filing system.
- Transactions that include a contractual representation or a legal opinion ensuring that there are no provisions, such as negative pledges or limitations on the sale of assets, that would prohibit the securitization transaction.

c. *Transaction-Specific Credit Enhancements*

Transaction-specific credit enhancement takes a variety of forms depending upon the asset type. For instance, credit enhancement relating to trade receivables may consist of the following types of reserves:

- loss reserve—reserves related to obligor default risk
- dilution reserve—reserves related to non-cash reductions of balances
- servicing reserve—reserves related to fees for servicing and trustees

The loss and dilution reserves typically account for most of the reserves. Reserves may take a number of different forms, including recourse to the seller (if the seller is of high credit quality), funded cash reserves, and overcollateralization.

(1) Determine if the credit-approval chain carefully scrutinizes transactions in which reserves are in the form of recourse to a seller with weak credit quality.
(2) Ascertain if the banking organization's criteria for structuring the appropriate reserve levels are generally consistent with rating agency criteria for a particular asset class.
(3) Review and consider the relevant rating agency methodology when evaluating reserves for any particular transaction.

d. *Eligibility Criteria*

Eligibility criteria are structured into securitization transactions to restrict (or limit) the inclusion of certain categories of receivables as appropriate to the particular transaction. Examples of such restricted categories may include:

- delinquent receivables (based on a stated aging policy, such as 30 days past due)
- receivables of bankrupt obligors
- foreign receivables
- affiliate receivables
- receivables of obligors with delinquent balances above a certain amount
- bill and hold receivables
- unearned receivables
- non-U.S.-dollar-denominated receivables
- receivables subject to offset
- disputed receivables
- receivables with a payment date beyond a specified time horizon
- post-petition receivables

The above list is illustrative and should not be considered comprehensive.

(1) Conduct further analysis when there is a lack of any specific eligibility criteria (for example, those listed above) that warrants a further determination as to whether the banking

organization has taken appropriate measures to alleviate any particular risk arising from the lack of a specific feature.

e. Concentrations

(1) Analyze obligor, industry, and geographic concentrations.
(2) Ascertain if the appropriate concentration limits have been established within transaction documents, often within the eligibility criteria.

f. Trigger Events and Termination Events

The inclusion of trigger and termination events plays a critical role in securitization structures. It is standard practice to have trigger or termination events related to the performance of the assets and, depending upon the asset type, to the seller/servicer. Trigger events are comparable to performance covenants in corporate debt and provide a lender with the ability to accelerate a transaction, when appropriate. In addition, such triggers create incentives that allow the seller and the banking organization to negotiate higher levels of credit enhancement or add further restrictions to eligibility criteria when the receivables' performance metrics indicate deterioration beyond an established trigger level. In a similar way, termination events are established to begin the early termination of the transaction when the receivable performance deteriorates. Typical trigger events are based on one or more of the following performance metrics:

- asset coverage ratio
- delinquencies
- losses
- dilution

Termination events may include these same metrics but may also include the bankruptcy, insolvency, change of control of the seller/servicer, or the failure of the servicer to perform its responsibilities in full.

g. Due-Diligence Reviews

(1) Ascertain if the banking organization conducts due-diligence reviews prior to closing its ABCP transactions. Determine if such reviews were tailored to the asset type being securitized and the availability of audit information. A frequent public asset-backed securities (ABS) issuer that accesses conduit funding or a seller that has strong credit quality may be eligible for a post-closing review, provided recent audit results are obtained. If not, it should be subject to pre-closing review. For example, a review tailored to trade receivables should focus on most of the following:
   - Confirming the receivable information (balances, sales, dilution, write-offs, etc.) previously provided by the seller, with the seller's books and records over at least two reporting periods. Such a review might be performed by a third-party auditor.
   - Sampling invoices against the seller's aged trial balance to test the accuracy of agings.
   - Sampling past invoices to determine ultimate resolution (paid, credited, written-off, etc.)
   - Sampling credits against their respective invoices to test the dilution horizon.
   - Sampling write-offs to determine timing and reasons for write-offs.
   - Reviewing significant customer concentrations, including delinquent balances.
   - Determining systems capability with respect to transaction reporting and compliance.
   - Reviewing credit files for completeness and conformity with credit policies.
   - Reviewing collection systems and determining the portion of cash going into segregated lockboxes or bank accounts.
   - Reviewing internal and external auditor reports to the extent that such documents are available for review.

- Noting any unusual items that may complicate the receivable transaction.

(2) Determine if ABCP transactions are reviewed at least annually.
- Confirm that the banking organization verifies the accuracy of the monthly servicer's transaction reports, including compliance with sale and servicing requirements.
- Determine if an increased review frequency is needed for any issues raised in prior reviews, transactions with higher-risk sellers, and transactions serviced out of multiple locations.

h. Cash Management

(1) Assess a seller's cash-management practices. Commingling of cash collections can cause a loss in the perfected security interest of cash flows, particularly in the event of seller insolvency.
- Determine if, preferably, the banking organization requires that all payment collections flow into a single, segregated lockbox account to minimize cash-commingling risk.
- For trade receivables, find out if the banking organization requires that the cash collections be reinvested in new receivables to eliminate cash-commingling risk.

(2) For higher-risk sellers, determine if the banking organization—
- establishes an account in the name of the trust or special-purpose vehicle (SPV) into which collections could be swept on a daily basis or
- requires that settlement be done weekly, or daily, ensuring that there are always sufficient receivables to cover investments and reserves.

i. Reporting

When underwriting a portfolio, it is important to decide what information should be required in the monthly report.

(1) Determine if quarterly, or more frequent, reports for a trade receivable transaction include the following:
- beginning balances
- sales
- cash collections
- dilution or credits
- write-offs
- ending balances
- delinquencies by aging bucket
- ineligible assets
- total eligible receivables
- excess concentrations
- net receivable balance
- conduit investment
- conduit's purchased interest
- calculation of receivable performance termination events
- top 10 obligor concentrations

(2) Ascertain if the banking organization has established other special reporting requirements based on the particular pool of receivables being securitized.

j. Receivable Systems

(1) Because of the significant reporting requirements in a securitization transaction, verify that the banking organization assesses—
- the seller's receivable systems to determine if they will be sufficient to provide the required information and
- the seller's data backup and disaster recovery systems.

k. Quality of Seller/Servicer

(1) Verify that the banking organization performs an assessment of the creditworthiness of the seller that is conducted from the relationship side.

(2) Determine if the banking organization conducts a more focused assessment on the seller/servicer's management team that is involved in the day-to-day receivables operation (that is, credit, accounting, sales, servicing, etc.).

l. Performance Monitoring

(1) Find out whether the banking organization has developed and uses a performance-monitoring plan that periodically monitors the portfolio.
- Determine if there is appropriate monitoring that allows the designated administrator to review relevant pool performance to evaluate the level of available funding under the asset-quality tests in the related liquidity facility.
- Determine if the banking organization tests these conditions when the seller reports performance data relating to an underlying transaction (usually monthly or quarterly).

Typically, a liquidity facility has a funding condition based on asset quality whereby the liquidity provider will not advance against any receivable that is considered defaulted. A performance-monitoring plan may entail monitoring the run rate of defaulted assets so that the potential losses do not exceed the loss protection.

m. Post-Closing Monitoring

(1) Determine if the banking organization's underwriting team assists the portfolio management team in developing all of the items that should be tracked on the transaction, including the development of a spreadsheet that ensures the capture and calculation of the appropriate information.

n. Underwriting Exceptions

(1) If a banking organization approves a transaction after it has agreed to an exception from standard underwriting procedures, find out if the banking organization closely monitors and periodically evaluates the policy exception.

Banking organizations may utilize variations of the above-listed underwriting standards.

(2) Evaluate the robustness of the underwriting process and determine if it is comparable to stated rating agency criteria. If weaknesses in the underwriting process are found, determine if there are any existing compensating strengths and any other relevant factors to be considered when determining its overall assessment.

(3) If the examiner determines that the supervisory expectations generally are not met, he or she should not recommend to the appropriate Reserve Bank supervisory official that the use of internal ratings, under the securitization capital rule, be approved.

Step 6—Consistency of Internal Ratings of ABCP Program's Exposures with Ratings Issued by the Rating Agencies

1. Find out if any underlying transactions funded through ABCP programs are externally rated by one or more rating agencies.
2. Confirm if the mapping of the internal ratings assigned to these transactions is consistent with, or more conservative than, those issued by NRSROs.
3. When the underlying transactions are split-rated by two or more rating agencies, determine if the internal ratings are consistent with the most conservative (lowest) external rating.
4. Ascertain that the above exceptions do not represent more than a small fraction of the total number of transactions that are externally rated. If such exceptions exist, determine if there are generally an equal or larger percentage of externally rated transactions where internal ratings are more conservative than the external rating.

If supervisory expectations are not met, then the internal risk-rating system may not be appropriately mapped to the external ratings of an NRSRO. In such cases, further review of the adequacy of the banking organization's risk-rating system must be undertaken before the use of internal ratings under the securitization capital rule can be approved.

Determine Adequacy of Internal Ratings Systems

If, through the examination process, the internal risk-rating system utilized for ABCP exposures is found to be inadequate, then the banking organization may not apply the internal risk-ratings approach to ABCP exposures for risk-based capital purposes until the organization has remedied the deficiencies. Banking organizations that have adequate risk-rating systems that are well integrated into risk-management processes applied to ABCP programs may be approved for use of the internal risk-ratings approach.

Once a banking organization's internal rating system is deemed adequate, the organization may use its internal ratings to slot ABCP exposures, including pool-specific liquidity facilities, into the appropriate rating category (investment grade, high non-investment grade, and low non-investment grade), and apply the corresponding risk weights. However, due to the unique nature of program-wide credit enhancements, further guidance is provided in steps 7 through 9 to help establish the appropriate capital requirement.

Step 7—Determination of Whether Program-Wide Credit Enhancements Are in the First-Loss Position

1. Determine if the ABCP program documentation confirms that the program-wide credit enhancement is not the first-loss credit enhancement for any transaction in the ABCP program and is, at worst, in the second-economic-loss position, usually after transaction-specific credit enhancements.
2. Verify if the spread charged for the program-wide credit enhancement is the spread range of investment-grade exposures of a term securitization. Consider other factors that may influence pricing, such as availability of the credit enhancement.
3. Find out if the financial guarantee providers, such as AMBAC, FSA, and FGIC, participate in a program-wide credit-enhancement tranche either on a senior position or on a pari-passu position with other providers. The risk taken by these institutions is usually investment grade.
   a. Compare the price of the guarantee charged by these institutions to the pricing ranges of non-investment-grade and investment-grade exposures of the sponsoring banking organization, the loan syndication market, and the bond market. This may be a gauge as to whether a third party considers the risk as investment grade or non-investment grade.
   b. Reference such sources for reviewing market pricing as Loan Pricing Corporation's Gold Sheets and Bloomberg (for bond spreads). A range or average pricing for both investment-grade and non-investment-grade syndicated loans can be found in the Gold Sheets.
   c. Similarly, review also the price the sponsor/banking organization is charging for its respective portion of the program-wide credit enhancement.

Step 8—Risk Levels Posed by Concentrations of Non-Investment-Grade Seller/Servicers

1. Confirm that the banking organization's internal risk-rating systems properly account for the existence of seller/servicer risk.

   An asset originator (that is, the entity selling the assets to the ABCP program) typically is the servicer and essentially acts as the portfolio manager for the ABCP program's investment. The servicer identifies receivables eligible for the ABCP program and manages to preserve the investment on behalf of the banking organization sponsoring the ABCP program. As previously discussed, servicer risk can be partially mitigated through seller allocation and structuring payments to protect against commingling of cash.
2. Determine if the banking organization has specific transaction structures, such as a backup servicer, in place to mitigate servicer risk.
3. Ascertain if exposure to an excessive number of non-investment-grade servicers adversely affects the overall credit quality of the ABCP program, exposing the conduit to the higher bankruptcy risk that inherently exists with non-investment-grade obligors.
4. Use the benchmarks below to assess the banking organization's potential exposures to non-investment-grade seller/servicer con-

centrations in its ABCP program. Depending on the circumstances, concentrations exceeding these benchmarks may be considered as unsafe and unsound banking practices.

a. Determine, based on the grid below, the percentage of securitized assets from non-investment-grade servicers to the total outstandings of an ABCP program that has a lower weighted average rating of all the transactions in the program. For example, if the ABCP program transactions have a weighted average rating equivalent to "BBB," no more than 30 percent of the total outstandings of the ABCP program should be represented by non-investment-grade seller/servicers. However, an ABCP program that has transactions structured to a higher weighted average rating, such as a single "A" equivalent, could have up to 60 percent of the outstandings originated by non-investment-grade seller/servicers without causing undue concerns.

Weighted average rating equivalent of transactions	*Servicer percentage below investment grade*
AA	90%
AA–	80%
A+	70%
A	60%
A–	50%
BBB+	40%
BBB	30%
BBB–	20%
BB+	10%

Step 9—The Portion of Underlying Assets of the ABCP Program Structured to Investment-Grade Risk

1. Determine the appropriate amount of risk-based capital that should be assessed against the program-wide credit enhancement based on the internal risk ratings of the underlying transactions in the ABCP program.
   a. If *all* underlying transactions are rated investment grade, risk-weight the notional amount of the program-wide credit enhancement at 100 percent.
   b. If one or more of the underlying transactions are internally rated below investment grade, then consider using the following weakest-link approach to calculate an appropriate risk-based capital charge for the program-wide credit enhancement.

The approach takes into account the internal ratings assigned to each underlying transaction in an ABCP program. These transaction-level ratings are typically based on the internal assessment of a transaction's pool-specific liquidity facility and the likelihood of its being drawn. The transactions are rank-ordered by their internal rating and then bucketed into the three ratings categories: investment grade, high non-investment grade, and low non-investment grade. The program-wide credit enhancement is then assigned an appropriate risk weight based upon the notional amount of transactions in each ratings bucket.

Under the weakest-link approach, the risk of loss corresponds first to the weakest transactions to which the program-wide credit enhancement is exposed. Banking organizations should begin with the lowest bucket (low non-investment grade) and then move to the next-highest rating bucket until the entire amount of the program-wide credit enhancement has been assigned. The assigned risk weights and their associated capital charges are then aggregated. However, if the risk-based capital charge for the non-investment-grade asset pools equals or exceeds the 8 percent charge against the entire amount of assets in the ABCP program, then the risk-based capital charge is limited to the 8 percent against the program's assets.

Banking organizations that sponsor ABCP programs may have other methodologies to quantify risk across multiple exposures. For example, collateralized debt obligation (CDO) ratings methodology takes into account both the probability of loss on each underlying transaction and correlations between the underlying transactions. This and other methods may generate capital requirements equal to or more conservative than those arrived at via the weakest-link method. Regardless of the approach used, well-managed institutions should be able to support their risk-based capital calculations.

Weakest-Link Formula

IF [(0.16 * NI1) + NI2**] ≥ (0.08 * PROG), THEN RBC = (0.08 x PROG)
Else
Capital = [0.08 * (PWC - (NI1 + NI2))] + 0.16 * NI1] + [NI2**]

**Although the term NI2 should reflect a gross-up charge under the securitization capital rule (that is, an effective 1,250 percent risk weight), for the sake of simplicity a dollar-for-dollar charge is used here. The reason for using dollar-for-dollar is based on the assumption that the NI2 portion of an ABCP pool is typically smaller than the gross-up charge would be on the entire pool. Thus, instead of grossing-up the NI2 portion and then applying the low-level-exposure rule (which, if NI2 is less than the gross-up charge, will yield a dollar-for-dollar capital charge), the term just assumes the dollar-for-dollar amount.

In any event, the risk-based capital charge on the program-wide credit enhancement will never exceed the maximum contractual amount of that program-wide credit enhancement (that is, the low-level-exposure rule).

RBC = Risk-based capital
PROG = Notional amount of all underlying exposures in the program
PWC = Notional amount of program-wide credit enhancement
IG = Notional amount of exposures rated BBB- or better
NI1 = Notional amount of exposures rated between BB+ and BB-
NI2 = Notional amount of exposures rated below BB-

Example 1

ABCP program size (PROG) = $1,000 MM

Program-wide credit enhancement (PWC) = $100 MM

Total amount of investment grade (IG) = $995 MM

Total amount of high non-investment grade (NI1) = $4 MM

Total amount of low non-investment grade (NI2) = $1 MM

Weakest Link

RBC = IF [(0.16 * 4) + 1] ≥ (0.08 * 1,000), then
RBC = (0.08 * 1,000)
= $1.64 MM < $80 MM

Else

RBC = [(0.08 * (100 - (4 + 1))] + (0.16 * 4) + (1)

RBC = (7.60) + (0.64) + (1)
= $ 9.24 MM

Example 2

ABCP program size (PROG) = $1,000 MM

Program-wide credit enhancement (PWC) = $150 MM

Total amount of investment grade (IG) = $940 MM

Total amount of high non-investment grade (NI1) = $50 MM

Total amount of low non-investment grade (NI2) = $10 MM

Weakest Link

RBC = IF [(0.16 * 50) + 10] ≥ (0.08 * 1,000), then RBC = (0.08 * 1,000) = $18 MM
< $80 MM

Else

RBC = [(0.08 * (150 - (50+10))] + (0.16 * 50) + (10)

RBC = (7.20) + (8.00) + (10)
= $25.2MM

Example 3

ABCP program size (PROG) = $1,000 MM
Program-wide credit enhancement (PWC) = $150 MM
Total amount of investment grade (IG) = $0 MM
Total amount of high non-investment grade (NI1) = $500 MM
Total amount of low non-investment grade (NI2) = $500 MM

Weakest Link

RBC = IF [(0.16 * 500) + 500] ≥ (0.08 * 1,000), THEN RBC = (0.08 * 1,000) = $580 MM > $80 MM

Therefore,

RBC = (0.08 * 1,000) = $80 MM

Because $580 MM is greater than the $80 MM capital charge that would apply if all of the assets supported by the PWC were on-balance-sheet, the maximum risk-based capital charge is $80 MM.

When the sum of all non-investment-grade asset pools (that is, NI1 + NI2) exceeds the amount of the program-wide credit enhancement, the weakest-link formula would result in too much risk-based capital being assessed. If this situation arises, banking organizations should first apply the gross-up treatment to the NI2 asset pools and then assess 16 percent risk-based capital against an amount of the NI1 asset pools that, when added with the NI2 asset pools, would equal the amount of the program-wide credit enhancement. For example, if the program-wide credit enhancement is $100 on underlying transactions totaling $1,000, and the underlying exposures are $10 low non-investment grade, $100 high non-investment grade, and $890 investment grade, then risk weighting will be based on the gross-up approach for $10 and assigning the remaining $90 to the 200 percent risk-weight category, as shown below:

$10 * 1,250% * 8%	=	$10.00
$90 * 200% * 8%	=	$14.40
Total		$24.40

Finally, the aggregate capital charge, $24.40 in this case, is then compared to the capital charge imposed on the underlying transactions if all the program assets were on the banking organization's balance sheet (that is, 0.08 * $1,000 = $80); the lower amount prevails. This establishes the capital charge for the program-wide credit enhancement.

Assessing Risk-Based Capital—Direct-Credit Substitutes Extended to ABCP Programs

Internal Control Questionnaire

Effective date October 2007

Section 3030.4

1. Does the banking organization have an acceptable risk-rating system?
2. Does the banking organization use an established internal risk-rating system tailored to ABCP securitization exposures?
3. Are the relevant exposures internally rated?
4. Are the ABCP programs monitored by rating agencies?
5. Are there sufficient underwriting standards and management oversight?
6. Are internal ratings of ABCP program exposures consistent with ratings issued by the rating agencies?
7. Is program-wide credit enhancement in the first-loss position?
8. Do concentrations of non-investment-grade seller/services pose an excessive level of risk?
9. What portion of the underlying assets of the ABCP programs is structured to investment-grade risk?