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The analysis of financial factors should be conducted in four primary parts, namely: (1) parent only, (2) banking subsidiary(ies), (3) nonbank subsidiary(ies), and (4) consolidated organization. In view of the fact that all BHCs are not structured in the same organizational and financial manner, it is important that examiners be flexible in their approach and be judicious in their use of ratio analysis and peer group comparisons. There is no substitute for using sound judgment and creativity while performing an analysis, providing all of the pertinent information is available. The summary and conclusions should follow from the information presented in the analysis.

The analysis is intended to determine the financial strengths and weaknesses of an organization and the impact of conditions at the parent company and nonbank subsidiary which could adversely affect the condition of the banking subsidiary. As a regulatory agency, a goal of the Federal Reserve System is to safeguard and protect the soundness of commercial banks. The System oversees holding company banking and

nonbanking activities to assure the continued safety and soundness of individual banks and the industry as a whole.

The analysis of financial factors resulting from the inspection of a bank holding company is essentially a finding of facts and an expression of judgment. In conducting an appraisal of a holding company's condition, the financial analysis of the organization, based on a "building block" or "component" approach, should provide the examiner with a solid foundation from which to proceed. In order to complete the analysis it is first necessary to accumulate sufficient information concerning the parent company, bank and nonbanking subsidiary(ies) and the consolidated organization. A final analysis should not be attempted until these integral parts have been thoroughly reviewed.

The completion of the financial analysis will culminate with the preparation of a rating for the bank holding company. Manual section 4070.0, entitled "Bank Holding Company Rating System," presents the rating system in its entirety.



#### 4010.0.1 INTRODUCTION AND SCOPE OF THE ANALYSIS

The cash flow analysis is *applicable to all bank holding companies with consolidated assets in excess of \$1 billion, those that have substantive fixed charges or debt outstanding*, as well as select others at the option of the Reserve Bank. Key parts of the analysis involve the use of:

1. A standardized “Cash Flow Statement (Parent)” page (refer to manual sections 5010.23 and 5020.13 for the illustrated pages) which includes computation of the cash earnings coverage ratios and analyses; regarding the results;
2. Earnings cash flow coverage ratios to measure the parent company’s ability:
  - a. To pay its fixed charges, including interest costs, lease expense, income taxes, retirement of long-term debt (including sinking fund provisions), and preferred stock cash dividends, and
  - b. To pay common stock cash dividends.
3. Guidelines for supervisory determination of parent company debt servicing capacity.

The cash flow statement page of the inspection report presents the cash earnings and the cash expenditures of the parent company. Within the statement are the key components to be used in the “Fixed Charge Coverage Ratio,” which measures the parent company’s ability to meet its fixed obligations, and a “Common Stock Cash Dividend Coverage Ratio” which measures the ability of the remaining, or residual, earnings to cover common stock dividends.

#### 4010.0.2 CASH FLOW STATEMENT

The cash flow statement is an effective tool used in understanding how a particular bank holding company operates. Its primary objective is to summarize the financing and investing activities of the holding company, including the extent to which the entity has generated funds (externally and internally) during the period. The cash flow statement is related to both the income statement and the balance sheet and provides information that otherwise can be obtained only partially by interpreting each of those statements.

An analysis of past cash flow statements can supply important information regarding the uses of funds, such as internal asset growth or acquisitions, as well as data on the sources of funds used and the financing needs of management. A

projected cash flow statement will focus on the need for future funds, its applications, and the sources from which they are likely to be available.

Specifically, the analysis of the cash flow statement is necessary for a thorough understanding of a bank holding company and the nature of its operations to the extent that it provides information on such areas as:

1. Utilization of funds provided by operations;
2. Use of funds from a new debt issue or sale of stock;
3. Source of funds used for acquisitions or additional capital contributions;
4. Means of payment of a dividend in the face of an operating loss;
5. Means of debt repayment and stock redemption.

While the cash flow statement provides an overall perspective of a holding company’s utilization of available funds, it does not, by itself, indicate possible or actual difficulties the parent company may have in meeting its fixed obligations from internally generated funds. Fixed obligations or fixed charges are those recurring expenses which must be paid as they fall due, which includes interest expense, lease expense, sinking fund requirements, scheduled debt repayments and preferred dividends.

One ratio that may be used to calculate the strength of a parent company’s earnings to meet its fixed charges or obligations is the *Fixed Charge Coverage Ratio* (FCCR). The components of the ratio are included on the “Cash Flow Statement (Parent)” page. The Fixed Charge Coverage Ratio (FCCR) measures the parent company’s ability to pay for *fixed* contractual obligations if management is to *retain control of the organization*, thereby satisfying the expectation of creditors and preferred stockholders. Net income *after taxes* is used in the formula. Interest and lease expenses are already deducted to arrive at the net income figure and must be added back to obtain the earnings available to pay such charges. Interest expense is usually the largest component among all “fixed charges,” and the ability to pay this expense from earnings cash flow is critical to an assurance of continued refunding of the parent company’s debt. It measures not only the extent to which net cash operating earnings covers the debt servicing requirements of the parent company, but the capacity to pay income taxes and preferred stock

cash dividends as well, thereby meeting the expectations that creditors and preferred shareholders have for the protection of their respective interests. The need for *better than a 1:1* coverage is therefore critical.

Another important formula, required to be calculated is the *Common Stock Cash Dividend Coverage Ratio* (CSCDCR) which measures the ability of the parent company to pay common stock cash dividends. The CSCDCR will show, in turn, whether the residual cash earnings of the parent company are sufficient to pay the common stock cash dividend and, if not, the amount that must be provided from other sources of cash, such as the liquidation of assets or additional borrowings, to cover the shortfall.

Significant shortfalls in the CSCDCR are to be scrutinized in light of the Board's November 1985 Policy Statement on "Cash Dividends Not Fully Covered by Earnings." According to the statement, a bank holding company should not maintain its existing rate of cash dividends on common stock unless:

1. The holding company's net income available to common stockholders over the past year has been sufficient to fully fund the dividends; *and*

2. The prospective rate of earnings retention appears consistent with the organization's capital needs, asset quality, and overall financial condition.

A bank holding company whose cash dividends are inconsistent with the above criteria is to give serious consideration to cutting or eliminating its dividends. The need for *at least a 1:1 coverage* is therefore critical.

The two ratios<sup>1</sup> are calculated as follows:

$$\text{FCCR} = \frac{\text{After tax cash income (1) + interest expense (2) + lease \& rental expense (3)}}{\text{interest expense (2) + lease \& rental expense (3) + contractual long-term debt retired (4) + preferred stock dividend payments (5)}}$$

$$\text{CSCDCR} = \frac{\text{After tax cash income (1)} - [\text{Contractual long-term debt retired (4) + preferred stock dividend payments (5)}]}{\text{Common Stock Dividend Payments (6)}}$$

Note that the Cash Flow Statement (Parent) page presents only cash items included in the parent's income and therefore the analyst can use its income figures without any need to adjust for noncash items.

Both the Fixed Charge Coverage and the Common Stock Cash Dividends Coverage ratios are considered inadequate at less than 1:1. If a holding company is generating funds which provide at least dollar-for-dollar coverage, no criticism need be made. However, the examiner should be aware that these ratios, as well as others, are merely guidelines and good judgment must prevail. A ratio of 1.02:1 may pass the test, but it is only barely adequate. No criticism may necessarily be warranted for the period covered by the 1.02:1 ratio, but it may be indicative of a deteriorating trend over the past few years. Accordingly, an appropriate comment concerning the trend may be warranted.

When reviewing these ratios, it should be kept in mind that certain components in the numerator can to some degree be altered at the discretion of management. For example, by altering the dividends paid by bank subsidiaries, the amount of funds available to the parent to cover fixed charges can be increased or decreased. For this reason, the fixed charge and funds flow ratios should be analyzed in conjunction with a review of the dividend payout ratios of the subsidiary banks. Cash flow ratios that otherwise appear adequate may be a cause for concern if the banks are paying out dividends that are too high in relation to capital or overall condition. Analysts should evaluate the bank dividend payout ratios in light of the bank's capital and financial condition. Only in this way can the analyst gain a better understanding of the quality of the parent's cash flow and its potential effect on bank subsidiaries.

Ratios of less than 1:1 coverage show that internally generated funds are not sufficient to meet a parent company's needs. In many cases, the examiner may find low coverage ratios yet all fixed charges were paid as agreed. Had they not been, the company would have incurred severe financial difficulties long before the start of the inspection. Therefore, when less than adequate ratios appear and obligations are paid

1. The numbered ( ) items correspond to the numbered lines on the "Cash Flow Statement (Parent)" page.

on time, the examiner must determine what other source of funds was utilized to make up the shortfall and to permit the timely payment of obligations.

#### 4010.0.3 SUPERVISORY DETERMINATION AS TO ADEQUACY OF PARENT COMPANY CASH FLOW

A supervisory determination about the adequacy of parent company cash flow, and its use as a measure of parent company debt servicing capacity, requires more information than just the results of the Fixed Charge Coverage and Common Stock Cash Dividend Coverage Ratios. The typical major parent company does not generate an earnings cash flow by conducting banking operations itself, although it nevertheless may incur a heavy external debt on behalf of its operating subsidiaries which are the generators of the actual earnings cash flow. Therefore, the parent company earnings cash flow may not be indicative of the *actual* earnings power of the entire banking organization. For example, the cash earnings of the parent company may be kept low by management to avoid State or local income tax liability and/or to increase leveraged lending volumes at the subsidiary level. Conversely, cash earnings may be forced to the parent company through imprudent levels of upstream cash dividend payments which eventually will endanger the operating subsidiaries and the parent itself.

A supervisory determination about the adequacy of parent company cash flow must take place at *two levels*: (1) by analyzing the results of the two coverage ratios using the net earnings cash flow *realized* by the parent company, *and* (2) by analyzing the effect that upstream cash flow to the parent company has had, and can be expected to have, on the financial condition of the bank subsidiaries and the significant non-bank subsidiaries. The latter focus should be on significant nonbank subsidiaries whose capital and dividend policies are subject to separate regulation—such as thrifts—or subsidiaries with significant external funding, whose creditors presumably monitor capital and dividend policies of the subsidiary.

#### 4010.0.4 SPECIFIC GUIDELINES FOR DEBT SERVICING CAPACITY

The specific guidelines for debt servicing capacity are as follows:

1. The adequacy or inadequacy of parent

company cash flow, and thereby the capacity to sustain the parent company's debt, is determined ultimately from the results of the Fixed Charge and Common Stock Cash Dividend Coverage Ratios, and the related analysis of the effects of upstream cash flow on the financial condition of the key subsidiaries.

2. For those parent companies with material amounts of long-term debt, coverage ratios in excess of 1:1 will not necessarily be considered sufficient to sustain the parent company's leverage *unless*: *first*, the Tier 1 capital positions of the bank subsidiaries are considered adequate; *second*, that the bank holding company's consolidated Tier 1 capital position is considered adequate; and *third*, the parent's liquidity is judged adequate. If that is not the case, then a critical comment on the "Examiner's Comments" page should be made regarding the potentially excessive leverage of the parent, as well as that of its subsidiaries. A specific period of time should be established for the management of the bank holding company to submit a capital improvement program acceptable to the System. *Moreover*, where the capital positions, bank and consolidated, are considered adequate but the dividend payout ratios are excessive, it is indicative of a potential future debt servicing problem and should be brought to management's attention. Since the earnings level may not be sustainable, corrective action must be taken within a specified period of time.

3. For coverage ratios of less than 1:1, there is a presumption of a critical comment on the "Examiner's Comments" page of the inspection report *unless* the shortfall is prudently planned,<sup>2</sup> insignificant in amount and/or the trend of earnings cash flow and dividend policies clearly point toward a return to sufficient parent company earnings cash flow coverage.

a. In circumstances where the Tier 1 capital position of *any bank subsidiary* is considered inadequate, a written program of corrective action should be required, including the steps necessary to reestablish positive earnings cash flow coverage at the parent company.

b. In circumstances where the Tier 1 *consolidated* capital position of the holding company is considered inadequate, a written pro-

2. A planned cash flow shortfall might typically occur when the parent elects to reduce (or not increase) dividends from subsidiaries because it anticipated an excess cash or liquid asset position from certain *external sources* (i.e., stock or debt issuance, dividend reinvestment plans, or tax refunds) sufficient to cover the deficiency.

gram of corrective action should be required, including the steps necessary to reestablish positive earnings cash flow coverage at the parent company.

c. In circumstances where the Tier 1 capital position of *each bank subsidiary* and the consolidated Tier 1 capital position of the bank holding company is considered adequate, but there is a developed trend of inadequate earnings cash flow coverage at the parent company level or excessive dividend payouts from the subsidiaries, a written program of corrective action should be required to reestablish and maintain a positive earnings cash flow at the parent company.

#### 4010.0.5 SOURCES OF FUNDS TO MAKE UP SHORTFALLS

Basically, there are three source categories, other than current earnings, that could be used to make up any deficit: (1) liquidation of assets, (2) proceeds from a stock offering, or (3) borrowed funds. These sources must be thoroughly analyzed to determine the extent they were and could still be utilized. It must be kept in mind that the use of these sources cannot permanently eliminate a shortfall in the flow of funds from current operations. These alternative sources only alleviate temporarily the effects of a shortfall. Nevertheless, a deficit could have been intentionally allowed to occur because the holding company knew of funds coming from these alternate sources. For example, the parent knew of an impending stock sale and cut dividends from subsidiaries significantly. In future years, dividends from subsidiaries could be restored to normal proportions, bringing the ratios up to adequate levels.

At this point, it must be determined what, if any, criticism is necessary when an unplanned shortfall is made up by any of these alternate sources. The necessity of liquidating assets to meet cash needs may warrant a critical comment. The parent's advances to subsidiaries and its investment in marketable securities are considered temporary investments. That is, the holding company may reasonably expect to sell its securities and be repaid on its advances to subsidiaries within a reasonably short period of time. In the case of advances to a problem subsidiary, repayments may not be forthcoming. Nevertheless, if the parent does receive partial payments, such funds are available to meet cash

needs. The concern to the examiner is the extent to which such temporary investments can be relied upon before they are fully exhausted. If the continued liquidation of those investments to meet cash needs has fully exhausted the assets or will do so in the near future, then appropriate critical comments are warranted. Such comments should stress that the liquidation of the investment portfolio and the advances to subsidiaries can no longer be considered a reliable source of funds.

Another method which may be used by a holding company to overcome a flow of funds deficiency is the sale of capital stock which is an effective source for generating permanent funds for the parent. However, it must be recognized that the primary reason for the stock offering was something other than covering the shortfall (i.e., debt repayment, capital contributions to subsidiaries, acquisitions). Therefore, it cannot be relied upon as a consistent annual source to supplement internally generated funds from operations. Also, it should be realized that the sale of stock will increase future funding requirements as additional dividends will have to be paid. Consequently, where no significant improvement in internal operations is contemplated in future periods, an appropriate comment is warranted indicating the potential problem.

Holding companies also compensate for inadequate funds flow with borrowed money. Although not a permanent source of funds, long-term debt is a source similar to the sale of stock. Its main purpose, however, was not to cover the shortfall. Long-term debt cannot be considered as a reliable, consistent annual source, and moreover, its existence creates new funding requirements.

Short-term debt is perhaps the most commonly used source to cover a deficit cash flow from operations and its use is of serious concern from a supervisory viewpoint. Unlike long-term debt and equity issues, short-term borrowings (i.e., bank loans, commercial paper) are readily available to holding companies which can and do rely on this source year after year for support. As a consequence, this indebtedness increases fixed charges and where material improvement in earnings does not develop, the shortfall could increase in subsequent periods thereby necessitating even larger borrowing requirements. This practice may jeopardize the parent's liquidity position since short-term liabilities rise without a corresponding increase in liquid assets as the borrowed funds are used to pay expenses. Here, an appropriate comment is warranted indicating the problems.

#### 4010.0.6 REPORTING THE RESULTS

If the coverage ratios are less than 1:1, then appropriate comments are necessary to explain the external source utilized to make up the shortfall. The supporting details may be shown within the comments section of the Cash Flow Statement. More significant comments should be included on the “Analysis of Financial Factors” page or the “Examiner’s Comments” page. The examiner may include prior years’ results for comparative purposes.

#### 4010.0.7 INSPECTION OBJECTIVES

1. To determine the ability of the parent to manage its cash position and operate within debt service and funding requirements.
2. To measure the parent’s ability to meet its fixed obligations and its dependency on borrowed funds to meet its cash needs.
3. To determine if the parent company’s dividends to stockholders are covered by residual cash earnings.
4. To analyze any cash flow transaction which may adversely affect the financial stability of the parent.
5. To discuss with parent company management:
  - a. Deficit cash flows arising from internal operations;
  - b. Steps management has taken, or plans to take, to restore adequate cash earnings coverage for fixed charges and dividend payments and whether such plans should be commensurate with the maintenance of adequate loan loss reserves and Tier 1 capital levels in the bank and major nonbank subsidiaries.
  - c. Any parent company borrowings or restructurings needed to sustain dividend payments to shareholders; and
  - d. The need to increase cash flow although there may be no deficit in current cash flow coverage.

#### 4010.0.8 INSPECTION PROCEDURES

1. Prepare the “Cash Flow Statement (Parent)” FR 1225.
  - a. Analyze each item of the parent company’s comparative balance sheet and income statement. Since accrual figures may be used for all accounts except tax and dividend payments, adjustment to the figures may be necessary for the difference between accrual and cash basis accounting.

- b. Examine the underlying nature of period increases or decreases for the balances listed on the financial statements, particularly any material transactions that aided in averting coverage ratio shortfalls.

- c. Note contractual long-term debt retired (net decrease in borrowed funds, including sinking fund provisions) as a memo item on the bottom of the page, where indicated.

- d. Compute the fixed charge and common stock cash dividend coverage ratios as illustrated on the page. *The numbered items in the formula correspond with the numbered items on the “Cash Flow Statement (Parent)” page.*

- e. Answer the six questions on the “Cash Flow Statement (Parent)” page that prompt an analysis.

#### 2. Analyze the Results.

- a. If there is full coverage, no problem should be assumed. However, *the underlying assets and transactions that provided for the coverage should be examined to make certain that “no problem” does, in fact, exist.*

- b. If a shortfall exists, provide guidelines to the parent company’s management for developing a workable contingency plan, using your “good examiner judgement”, considering the viability of all sources in resolving the shortfall.

- Review the *sources* for making up shortfalls:
  - Liquidation or sale of assets, *giving full consideration to external market concerns and losses that may result from the sales.*
  - Proceeds from stock offerings.
  - Increase in borrowed funds, including a restructuring of short term debt to long term debt.
  - Sale of capital stock.
  - Payments from subsidiaries on advances in the form of amortization or interest.
  - Short term debt.

#### 3. Report the Results.

- a. *When an “engineered” (planned) shortfall exists, indicate that one does exist, the reasons therefore, and the degree of severity to which it should be addressed, either as part of the answers to the questions on the “Cash Flow Statement (Parent)”, the “Analysis of Financial Factors” page, or the “Examiner’s Comments” page. Provide management’s assessment as to*

whether planned short falls will occur in the future.

b. When an *unplanned shortfall exists*, determine the extent of criticism that is to be made when short falls are lessened or corrected by an imprudent use of *alternative sources*.

Based on the severity of the situation, determine whether the comments will be provided in the inspection report as answers to the questions on the Cash Flow Statement, or within the content of the “Analysis of Financial Factors” page, or the “Examiner’s Comments” page.

*BHC financial leverage* is the use of debt to supplement the equity in a company's capital structure. It is anticipated that funds generated through borrowings will be invested and earn a rate of return above their cost so that the net interest margin generated will improve the company's net income, providing a higher rate of return on stockholders' equity which has otherwise remained constant. Since no creditor or lender would be willing to extend credit without the cushion and safety provided by the stockholders' equity, this borrowing process is also referred to as "trading on equity." That is, utilizing the existence of a given amount of equity capital as a borrowing base. Stockholders and management often view leveraging as a favorable financial alternative because if owners have provided only a small portion of total financing, much of the financial risk will be borne by the lenders, alleviating the need of the stockholders to assume the total risk. In addition, by raising funds through long-term debt, the owners gain the benefits of maintaining control of the firm with a limited investment rather than diluting existing ownership via the sale of additional capital stock.

There are, however, some unfavorable aspects in this type of financing. As a holding company substitutes debt for equity, keeping its asset size constant, its leverage ratio will increase. The increase in leverage increases the probability that a company may go into default since a larger portion of the income stream generated by earning assets must then be used to meet increased fixed charges (interest expense). (This assumes that increases in future earnings are not anticipated. While earnings may be sufficient to meet fixed interest expenses at the time the debt is issued, it is possible that future earnings will not be sufficient to meet the increased expenses.) In addition, utilization of leverage reduces management flexibility in making future decisions because lenders impose restrictive covenants that may limit future debt issues, limit dividend payments, or impose constraints on specific operating ratios. However, not all of the effects of increased leverage are unfavorable. Additional long-term debt may have the favorable effect of extending maturities on obligations and may improve liquidity.

Leverage ratios measure the contribution of owners compared with the financing provided by lenders. Companies with low leverage ratios generally have less exposure to loss when the economy is in a recession, but they may also have lower expected returns when the economy

booms. Firms with high leverage ratios run the risk of large losses but also have a chance of earning high rates of return on equity and assets. Thus, if a company earns more on the borrowed funds than it pays in interest, the return to the owners is increased. For example, if the company earns 10 percent on assets and debt costs 8 percent, there is a 2 percent differential accruing to the stockholders. However, if the return on assets falls to 7 percent, the differential between that figure and the cost of debt must be made up from total profits.

A bank holding company is composed of at least two tiers, parent and subsidiary, and each tier may issue long-term debt in its own name. Several different types of long-term debt instruments are utilized by holding companies. Corporations make use of instruments such as debentures, convertible debentures, term loans, capital notes and mortgage notes. (See Manual section 2080.0—"Funding"). While most issues are generally sold to the public, in some cases, issues of subsidiaries have been placed directly with another subsidiary, the parent company, or perhaps with an unaffiliated banking institution. Alternatively, issues presently held on the books of the parent may have been originally issued by one of the subsidiaries and later transferred to the parent. These transfers have often occurred at the time of the formation of the holding company when debt of the subsidiaries was assumed by the parent.

The proceeds of parent company long-term debt may be advanced to banking subsidiaries as debt or invested in banking subsidiaries as equity. When parent debt is issued, and the proceeds are advanced to subsidiaries as debt, a condition of "*simple leverage*" exists. When such proceeds are invested in subsidiaries as equity, a condition of "*double leverage*" is said to exist since the increase in the subsidiary bank's capital base will allow the bank to increase its own borrowings.<sup>1</sup> In effect, the

1. Parent company "*total leverage*" may be defined as the relationship between equity at the parent level and the total assets of the parent company. Such assets typically consist of investments in bank and nonbank subsidiaries, advances to affiliates, deposits with bank affiliates and securities. A useful related measure of parent company leverage is "*investment leverage*" which may be defined as the relationship between parent equity and its equity investments in subsidiaries. Since the equity which has been invested in subsidiaries can, and often is, further leveraged by external borrowings of such subsidiaries, this type of parent company investment leverage can lead to what is referred to as "*double leverage*."

parent's capital injection which was funded by debt, provides the bank with greater debt capacity, thereby allowing the bank to borrow additional funds on its own. Therefore, the original borrowing by the parent has, in effect, been compounded when the bank borrows based on its newly injected equity.

If the parent debt is reinvested as equity in a bank, the servicing of interest and principal is usually provided by dividends paid to the parent by the bank subsidiaries. The bank dividends, however, may become restricted based on the bank's earning power which may not provide for sufficient retention of earnings to support its asset growth. Problems may be less severe when parent debt is downstreamed as debt to the bank subsidiary. When the terms and maturities of the indentures match, the obligation of a bank to meet its interest and principal payments to the parent are contractual and represent fixed charges (interest is tax deductible) which will continue up to the maturity of the note. When funds are downstreamed as equity and the bank typically issues dividends to its parent, it is easier to restrict the flow of funds from the bank than if the funds were downstreamed as debt which results in bank payments of interest expense. Bank dividend declarations are subject to limitations imposed by sections 5199(b) (12 U.S.C. 60) and 5204 (12 U.S.C. 56) of the United States Revised Statutes, while interest payments are not subject to such restrictions.

#### 4010.1.1 ACQUISITION DEBT

Some holding companies use debt for the acquisition of subsidiary banks. The Board believes that a high level of acquisition debt can impair

the holding company's ability to act as a source of strength to its bank subsidiaries, and thus does not favor the use of a substantial amount of acquisition debt in bank holding company formations. However, the Board recognizes that the use of acquisition debt in the formation of certain holding companies may be necessary, particularly when transferring the ownership of small community banks (approximately \$150 million or less), and the maintenance of local ownership in those banks. To this end, and in the interest of maintaining a safe and sound banking system, the Board has adopted a policy for assessing financial factors in the formation of small one-bank holding companies. (see Manual section 2090.2)

#### 4010.1.2 INSPECTION CONSIDERATIONS

Generally, it is not the examiner's responsibility to criticize the method of term financing used by a bank holding company. The examiner, however, should be familiar with the various types of leveraging and the possible ramifications that they may have on a holding company structure. While the use of ratios may show an excessive leverage position, indicating vulnerability, it is primarily the corporation's earning power that dictates the acceptable level of debt. Accordingly, the examiner should compute a holding company's ability to meet its fixed charges (as detailed in the preceding section) to determine the appropriateness of the leverage position. If the company's earnings do not support the present fixed charge requirements, or if a declining trend is noted, appropriate comments are warranted.



*WHAT'S NEW IN THIS REVISED SECTION*

*This section has been revised to incorporate a reference to the “Liquidity Risk” sections (3005.1 to 3005.5) of the Federal Reserve System’s Trading and Capital-Markets Activities Manual. These sections provide additional guidance on evaluating a banking organization’s liquidity management.*

4010.2.1 INTRODUCTION

Liquidity is generally defined as the ability of a company to meet its short-term obligations, to convert assets into cash or to obtain cash, or to roll over or issue new short-term debt. “Short-term” is generally viewed as a time span of up to a year. Since a bank holding company does not have the full range of asset and liability management options available to it that a bank does in managing its liquidity position, a BHC needs to have a sufficient cushion of liquid assets to support maturing liabilities. Certain assets that would not normally be considered current may be readily sold to avert a liquidity squeeze. For example, a holding company may be participating in long-term loans originated by a small business investment company (SBIC) subsidiary. If these loans are of good quality, the parent’s share may be sold at little or no discount to that SBIC subsidiary, another subsidiary, or an unaffiliated company to obtain the needed cash. Consequently, the breakdown of assets segregating those that are current would not necessarily be indicative of liquid assets, given the nature of bank holding company investments. Therefore, liquid assets are defined as those assets that are readily available as cash or that can be converted into cash on an arm’s-length basis without considerable loss.

Liquidity problems are usually a matter of the degree of severity. A less serious liquidity problem may mean that the company is unable to take advantage of profitable business opportunities. A more serious lack of liquidity may mean that a company is unable to pay its short-term obligations and is in default—this can lead to the forced sale of long-term investments and assets and, in its most severe form, to insolvency and bankruptcy. (See SR-86-17 and SR-85-37.) See also the “Liquidity Risk” sections (3005.1 to 3005.5) of the Federal Reserve System’s *Trading and Capital-Markets Activities Manual*. These sections provide additional guid-

ance on evaluating a banking organization’s liquidity management.

4010.2.2 SUPERVISORY APPROACH TO ANALYZING PARENT COMPANY LIQUIDITY

For bank holding companies with consolidated assets in excess of \$1 billion or material amounts of debt outstanding, or others, at the option of the Reserve Bank, the analytical approach to parent company liquidity will include the following key elements:

1. Evaluate parent company liquidity by analyzing the *contractual* maturity structure of assets and liabilities, extending this analysis to consider the underlying liquidity of the parent’s intercompany advances and deposits. Any judgment of *adequate* parent company liquidity must be keyed to a finding that the parent has adequate liquid assets, on an underlying basis, to meet its short-term debt obligations.
2. Estimate the underlying liquidity of parent liabilities and assets, giving particular attention to interest-bearing deposits in and advances to subsidiaries. Emphasis should be placed on asset quality and the liquidity profile of the bank and key nonbank subsidiaries. The estimates are to be reflected in a statement of “Parent Company Liquidity Position” as restated data, with appropriate explanations as to the basis for the restatement.
3. Use the five contractual and estimated underlying maturity categories on the statement of “Parent Company Liquidity Position” to slot in data. The data categories are—
  - a. up to 30 days,
  - b. up to 90 days,
  - c. up to one year,
  - d. one to two years, and
  - e. beyond two years.

The schedule provides for the use of effective remaining maturity categories for the parent company’s short-term assets and liabilities, highlighting funding surpluses or deficits at key specified periods of time. *Examiners have the option of including the statement in the inspection report in order to substantiate or clarify particular judgments.*

4. Use the conclusions drawn from the statement of “Parent Company Liquidity Position” as a basis for discussions with management. Examiners should also comment on their findings in detail on the “Analysis of Financial Factors” page in the inspection report.
5. Ascertaining whether an organization with significant funding activities has in place—
  - a. internal parent liquidity management policies that address and limit the use of short-term funding sources to support various subsidiaries, and
  - b. an internal contingency plan for maintaining parent liquidity under adverse situations.

### 4010.2.3 STATEMENT OF PARENT COMPANY LIQUIDITY POSITION

The purpose of the statement of “Parent Company Liquidity Position” is to provide a consistent method for analyzing parent liquidity. The schedule is *not* intended to address the issue of interest sensitivity. While only conclusions drawn from the schedule of estimated effective maturities are to appear in the inspection report, examiners should also collect data on contractual (remaining life) maturities of parent assets and liabilities. Examiners will treat all externally funded nonbank entities of the parent company in a similar fashion.

The maturity categories appearing on the schedule are a basic analytical framework for looking at funding mismatches and are not necessarily appropriate for all organizations. As such, categories can be adjusted to fit particular circumstances. On a conceptual basis, the 30-day period corresponds to a period during which markets might be in temporary disarray due to an external shock. For the largest companies with substantial overnight and very short-term funding operations, an additional 1- to 7-day category may be needed. The 31- to 90-day period allows for gauging the parent’s ability to withstand internal adversity and demonstrate a return to “normal” business operations. The 91-day to one-year period is a reasonable planning horizon over which an organization might be able to readjust its internal funding policies substantially. In addition, the up-to-one-year categories, as a group, complement the cash-flow analysis of debt-servicing capacity by specifically addressing maturing debt that must be

either paid or rolled over at prevailing rates. The one- to two-year category provides an early indication of any funding imbalances that management would have to address in the reasonably near term. As a practical matter, the over-two-year category has limited analytical value in most cases and is included principally to make certain that all deposits and advances are accounted for.

Using these categories, funding surpluses or deficits can be identified for specific maturity intervals. For examiners evaluating gaps based on estimated “underlying” maturities, guidelines on acceptable practices for funding surpluses and shortfalls are set. Examiners would be expected to place particular emphasis on the up-to-30-day period, in which a net liquidity surplus would be expected to provide at least that much time for a parent to ride out a shock. Similarly, the up-to-90-day period would be viewed as the relevant time to demonstrate to the market that problems are being addressed appropriately and are being brought under control. Imbalances in the 91-day to one-year categories would generally have less significance due to greater uncertainty regarding the assumptions that would go into any adjustments.

A logical point for assessing parent liquidity is an assessment of the contractual maturity structure of the holding company’s balance sheet. Contractual maturities of assets and normal runoff of liabilities are to be slotted into the five maturity categories depicted. Once completed, the examiner is provided with an initial indication of whether the parent has an adequate cushion of short-term liquid assets within the 0- to 30-day and the 0- to 90-day categories to cover short-term liabilities or whether a pattern of significant short-term funding gaps exists. Certainly, the identification of such gaps gives guidance on obvious areas for further analysis. However, the absence of short-term funding shortfalls on a strictly contractual basis gives only limited comfort, as the parent’s underlying liquidity still must be analyzed more deeply.

### 4010.2.4 ANALYSIS OF UNDERLYING SOURCES TO FUND DEBT AND MEET OTHER OBLIGATIONS

Adjustments to the schedule that better reflect the parent’s liquidity position will be made as the next step in the analysis. These adjustments require the examiner’s judgment on the underlying liquidity of the parent’s assets and liabilities; particular emphasis placed on interest-

bearing deposits with bank subsidiaries and advances to both bank and nonbank subsidiaries.

#### 4010.2.4.1 Interest-Bearing Deposits with Subsidiary Banks

The parent's interest-bearing deposits<sup>1</sup> with the subsidiary bank(s) may represent either the temporary placement of idle funds or a more permanent source of bank funding. Temporary deposits typically are structured to mature in 90 days or less, are generally not substantial in relation to the overall size of the bank, are usually supported by substantial holdings of highly liquid bank assets, and could be repaid without triggering marketplace concerns regarding the organization's overall funding needs. Therefore, if this pattern exists, the temporary deposits may be considered highly liquid and slotted in the 0- to 30-day (or 0- to 7-day) period on the schedule, regardless of their contractual maturity dates.

Interest-bearing deposits with the subsidiary bank(s) that serve as a permanent source of bank funds are typically substantial in relation to the size of the bank and are usually placed to fund bank expansion without additional bank borrowings. Here, judgments regarding underlying liquidity should be keyed to the CAMELS ratings on the bank's liquidity and asset quality, as well as reasoned judgments on the bank's ability to liquidate assets or replace the funds in the marketplace through additional borrowings. Asset quality is critical, as it is a leading indicator of bad news that will ultimately pull down earnings and undermine market confidence. As a general principle, the liquidity of the parent's deposits in bank(s) should be no better than the liquidity of the bank(s) and should be subject to downgrading if bank asset quality is suspect. If bank asset quality is worse than fair, the liquidity of these funds should be downgraded. For banks with asset quality rated fair, the parent's deposits might still be considered liquid, but a closer analysis of the particular situation would be warranted.

Under the assumption that the bank's asset quality and liquidity positions do not negatively impact the bank's ability to liquidate or replace these funds, such deposits may be slotted in the 0- to 30-day (or 0- to 7-day for large institu-

tions) period on the schedule, regardless of the contractual maturity. However, if these deposits are substantial, their replacement may trigger market concerns. At this point, the examiner's judgment is necessary to determine an acceptable level at which a portion of the deposits could be replaced in the marketplace without triggering such concerns. A starting point for the examiner should be to evaluate the funding gaps appearing on the contractual maturity schedule with particular attention paid to the 0- to 90-day period (0 to 30 days for large institutions). While it may be impossible for the bank(s) to replace all the parent's deposits without triggering concerns, the bank(s) may be able to replace only the portion necessary to eliminate the negative cumulative funding gap in the given time period. If even this amount is deemed to be substantial, the examiner may have no other alternative but to treat the deposits in accordance with the contractual maturity. For clarification, the following example is provided.

The contractual maturity schedule of a large holding company reflects a negative cumulative gap of \$400 million in the 0- to 30-day time frame. The company's balance sheet includes \$2.5 billion in interest-bearing deposits at the subsidiary bank(s), with \$1 billion maturing in 30 days and \$1.5 billion in 31 to 90 days.

In the examiner's judgment, the entire \$1.5 billion due in over 30 days qualifies to be slotted in the under-30-day category,<sup>2</sup> but the bank would face liquidity pressures to replace this amount prior to its original maturity. However, \$400 million, the amount needed to eliminate the negative cumulative gap position, could be replaced by the bank without undue market concern. Therefore, \$400 million from the 31- to 90-day period should be re-slotted in the appropriate under 30-day-period.

#### 4010.2.5 ADVANCES TO SUBSIDIARIES

Given the typical composition of bank holding company assets, the examiner is likely to have difficulty determining the degree of liquidity inherent in advances to subsidiaries.

For those subsidiaries with satisfactory asset quality, the examiner can usually assume the subsidiary could sell qualifying assets to affil-

1. In concept, the parent could also have advances to bank subsidiaries. Such advances are either booked as deposits (typically off-shore time deposits to avoid reserve requirements) or as instruments qualifying as tier 1 or tier 2 capital. To the extent that advances to banks are encountered, the analysis follows the same approach used with deposits.

2. Subject to early withdrawal penalties, which will be eliminated in consolidation.

ate bank(s) up to the quantitative limitations of section 23A, as long as the affiliated bank(s) are judged to have adequate liquidity. The examiner can also assume that a subsidiary that has an established program of secondary-market asset sales could at least continue or even modestly expand the scope of the program. For subsidiaries without a program of asset sales, but whose assets are of the type that are readily marketable in the secondary market, a *limited* asset-sale program could be considered to provide some asset liquidity. However, caution should be used in estimating the magnitude of such sales, particularly because large transactions could not be accomplished quickly without risking market visibility and without broadcasting concerns about the corporation's funding.

When nonbank advances are substantial, the parent has little or no practical access to the funds advanced. While an arm's-length sale of such a subsidiary or a large portion of its assets to a bank affiliate may not generate a loss, the funding requirements for a large transaction at the bank level would probably initiate marketplace concerns.<sup>3</sup> Similarly, asset sales to an unaffiliated party that are significantly above normal would not only trigger market concerns but would probably also result in a significant discount. Furthermore, although it is possible that another nonbank subsidiary may act as the funding vehicle, the subsidiary's ability to generate the required funds may be restricted at best. Such restrictions may include marketplace concerns, as well as limitations on the maximum leverage positions or on the creation of senior debt embedded in debt covenants.

Advances to a subsidiary may be either short term or long term and are made for a variety of reasons, including providing a temporary source of income for the parent, enhancing a subsidiary's liquidity position, and supporting a subsidiary's operations. Therefore, the purpose of the loan, its maturity, and the degree to which high-quality assets of a subsidiary cover the amount due to the parent should also be considered in order to properly categorize advances.

#### 4010.2.6. LIQUIDITY AND LIABILITIES OF THE PARENT

For liabilities of the parent, the policy presump-

tion should be that their contractual maturity reflects the underlying availability of funds. Exceptions will reflect special circumstances, such as funding from foreign ownership interests or partners in joint ventures who have equity interests and an ongoing business relationship. The presence of backup lines of credit for commercial paper, while especially desirable in the case of regional companies, should not, by itself, cause an examiner to assume that the underlying maturity of a parent's short-term debt is materially longer than its contractual term or that these lines will always be readily available. In fact, organizations experiencing considerable problems, particularly asset-quality and liquidity problems, may find that these facilities are no longer available.

The examiner should thus review backup lines on a case-by-case basis and be aware of any escape clauses in interbank agreements. Specifically, for companies with a composite 3 or worse bank holding company RFI/C(D) rating or lead banks whose asset quality is a declining 3 or worse *or* whose asset quality *and* liquidity are rated 3 or worse, it is recommended that backup lines with "material adverse change" or similar escape clauses *not* be regarded as satisfactory support to an imbalanced parent company funding position.

Furthermore, certain holding companies' liabilities may often include unamortizing debt instruments. The company's ability to retire or replace such issues at maturity should be evaluated as part of the organization's overall liquidity analysis. If management intends to roll over the maturing issues, the evaluation should be based on the company's ability to do so. When debt retirement is the route chosen by management, the examiner's evaluation and judgment should focus on the company's ability to generate the necessary funds, either through asset liquidation or the issuance of equity instruments.

The unamortizing portion of debt issues is to be slotted in the appropriate maturity column of long-term debt. If the maturity of such issues falls due within the 0- to 90-day time frame, the examiner should comment on the organization's ability to replace the maturing issues or retire them by the deployment of funds from other sources in a footnote on the schedule. If the maturity of such debt is longer, the replacement or retirement should be addressed in the corporation's funding plan.

3. Underlying liquidity estimates should follow the approach previously stated for deposits.

### 4010.2.7 ANALYZING FUNDING MISMATCHES

After adjustments for the underlying liquidity of the parent's interest-bearing deposits and advances to subsidiaries and the underlying maturity of its liabilities, the resulting schedule should provide the examiner with the framework for looking at funding mismatches as a tool for assessing the parent's overall liquidity position. The position may be evaluated by the analysis of the underlying liquidity gaps (appearing on the bottom of the schedule). In the 0- to 30-day time frame, a net positive gap is expected and reflects the parent's ability to ride out a temporary market disarray. Although a negative gap in the 8- to 30-day period may be evident in larger organizations, the overall 30-day interval is expected to be positive. Similarly, for most organizations, the 0- to 90-day period is expected to reflect a positive position, regardless of a shortfall in the 31- to 90-day period. Failure to meet these conditions requires appropriate examiner comments on the "Examiner's Comments" page of the report.

The 91-day to one-year time frame (as well as the 31- to 90-day period for certain larger organizations) is less critical, and negative cumulative funding positions of modest size may be tolerated if the organization has demonstrated an ability to tap the funding markets, has readily available backup lines of credit, has a reasonable earnings-retention policy, has adequate funds-flow coverage, and has other fund-generating programs (such as a dividend reinvestment plan). Judgments on the reasonableness of any imbalances in these longer-term categories should be weighed against the examiners' estimates of the adequacy of these sources. In addition, the examiner should view these longer periods as a reasonable planning horizon over which the organization should be able to readjust its funding policies. These longer periods also provide an early indication of how management may address funding imbalances that may develop.

A significant shortfall in the 91-day to one-year period is expected to be covered by a contingency funding plan. While no single formula for such plans is recommended or possible, each organization needs to address its particular situation and the options it faces. At a minimum, the organization needs to address possible market shocks, whether they are caused by its own actions or by external events. Funding markets should be addressed individually and as a group, both as to their likely resiliency and the particular organization's position within

each market. The viability of contingency sources should be tested periodically. The examiner should review the reasonableness of assumptions and the adequacy of alternative courses as part of the company's liquidity analysis. If no plan exists, a plan acceptable to the corporation's directors should be required. Even if there are no specific concerns, the existence or lack of a plan should be taken into account when assessing management.

In analyzing liquidity, the examiner will encounter the least difficulty when liquid assets equal or exceed short-term liabilities. In those instances, the liquidity position is considered adequate. If the examiner notes a declining trend in the liquidity position, an appropriate comment may be warranted, even though sufficient liquidity exists at that time.

Conversely, the examiner will encounter the most difficulty in analyzing liquidity when liquid assets are not sufficient to cover short-term obligations. When this situation exists, it is not necessarily indicative of an inadequate liquidity position. At that point, the examiner must consider other readily available sources of cash that are not shown on the balance sheet (for example, unused bank lines, dividends from subsidiaries).

Footnotes to financial statements may also play an important role in liquidity analysis. One such footnote may describe indenture restrictions on long-term debt. While a company may temporarily alleviate a liquidity bind by paying off its commercial paper with short-term bank loans, it may be faced with the problem of paying off the bank debt if it is precluded from issuing additional long-term debt.

### 4010.2.8 REPORTING THE RESULTS OF THE ANALYSIS

In the normal course of the inspection, the examiner should present his conclusions concerning liquidity to management. When there is an indication of some vulnerability, the examiner should solicit management's opinion and any corrective action plans being considered. If it appears that management has not addressed itself to the vulnerable or inadequate situation, an appropriate comment should be made. The results of this analysis should be discussed in the parent company section on the "Analysis of Financial Factors" page in the inspection report. In addition, the examiner has the option of incorporating the liquidity schedule in the report

in order to substantiate or clarify particular judgments. Criticism with respect to a liquidity shortfall anywhere within the 0- to 90-day time frame or, in most cases, the absence of a contingency plan to cover shortfalls in the under-one-year time frame, should be carried forward to the “Examiner’s Comments” page and the transmittal letter. These concerns should also be discussed with management.

- a. internal parent liquidity management policies that address and limit the use of short-term funding sources to support subsidiaries, and
  - b. an internal contingency plan for maintaining parent liquidity in the face of adversity.
6. To draw conclusions from the estimated remaining effective maturities that appear in the report.

#### 4010.2.9 INSPECTION OBJECTIVES

1. To analyze the contractual maturity structure of assets and liabilities, and then extend the analysis to the underlying liquidity of inter-company advances and deposits—considering whether the underlying liquidity is short term or long term.
2. To estimate the underlying liquidity of parent liabilities and assets, paying particular attention to interest-bearing deposits in and advances to subsidiaries. Give particular attention to—
  - a. asset quality, and
  - b. the liquidity profile of the bank and key nonbank subsidiaries.
3. To restate, on the “Parent Company Liquidity Position” report page (see section 5030.0, pages 33–34), the estimates, using the suggested five broad contractual and underlying maturity categories.
4. To judge the adequacy of parent company liquidity, keying it to a finding as to whether the parent has adequate liquid assets, on an underlying-liquidity basis, to meet its short-term debt obligations.
5. For BHCs that have significant funding activities at the parent level, to determine if the parent company has in place—

#### 4010.2.10 INSPECTION PROCEDURES

1. Assess the contractual maturities of the parent company’s balance sheet.
2. Slot the contractual maturities of assets and the normal runoff of liabilities into the five categories on the “Parent Company Liquidity Position” report page.
3. On the schedule, make adjustments as to the underlying maturity of the parent company’s assets and liabilities.
4. Review funding mismatches.
5. Review the reasonableness of the contingency plan’s assumptions and the adequacy of alternative sources.
  - a. If no plan exists, a plan acceptable to the corporation’s directors should be required.
  - b. Even if there are no specific concerns, the existence or lack of a plan should be taken into account when assessing management.
6. Discuss the results in the parent company section of the “Analysis of Financial Factors” page in the inspection report.
7. Include in the “Examiner’s Comments,” page 1, criticism of liquidity shortfalls within the 0- to 90-day period or the absence of a contingency plan to cover shortfalls in the under-one-year time frame that were discussed with management.

In making the determination as to the condition of the holding company under inspection, an examiner must, as part of his examining procedure, focus his efforts on analyzing the financial condition of the bank(s) owned by the holding company. Such an appraisal is obviously of paramount importance when one considers that the bulk of the consolidated assets and earnings of a holding company are represented by the bank(s). The examiner must incorporate in the analysis, results of the most recent commercial examination of the subsidiary bank(s).

Therefore, for meaningful results, the analysis of the subsidiary bank(s) should commence after the results of the latest examination of the bank(s) have been obtained. The examiner in his analysis of the bank must consider and determine whether certain key facets of a bank's operations meet minimum standards and conform, where required, to bank regulatory restric-

tions. Areas of principal concern are: capital adequacy, asset quality, earnings, liquidity, and quality of management. The examiner should be especially alert to any exceptions or violations of applicable statutes or regulations that could have a materially adverse effect upon the financial condition of the organization. In addition, the examiner should also consider the conclusions drawn as to the extent of compliance and the adequacy of internal bank policies that contribute to the overall analysis of the bank's condition.

Inspection personnel should use the examination ratings of the other federal agencies (where appropriate) when completing the inspection report. However, if substantive differences of opinion exist as to the bank's composite rating, adjustments to the rating may be made and footnoted to indicate the change.

One area of vital importance in the evaluation of a bank's condition is capital adequacy. Consideration should be given by the examiner whether the bank has sufficient capital to provide an adequate base for growth and a cushion to absorb possible losses, thereby providing protection to depositors. In that regard, the Board,

has adopted capital adequacy guidelines, that include risk-based and leverage measures which apply to state member banks. The examiner should refer to section 303.1 of the *Commercial Bank Examination Manual* for guidance on evaluating the capital adequacy of state member banks.



The quality of a bank's assets is another area of major supervisory concern. Indeed, supervisors consider the appraisal and evaluation of a bank's assets to be one of the most important examination procedures. It will be established by the bank examiner during the examination of a subsidiary bank to what degree its funds have been invested in assets of good quality that afford reasonable assurance of ultimate collectibility and regularity of income. The examiner should have further determined that a subsidiary bank's asset composition is compatible with the nature of the business conducted by the bank, the type of customer served, and the locality. The holding company examiner is expected to comment upon the total classifications determined by the bank examiner in relation to the bank's capital. Consideration should also be given to the severity of the classifications. If the classified assets are considered not to possess a significant loss potential, favorable consideration should be accorded this factor.

Past due ratios should also be evaluated. In this respect, it is essential that trends be observed. Although a particular lending department's delinquent outstandings or an institution's overall past due percentage is presently considered reasonable, a noticeable upward trend may be worthy of comment to management. Excessive arrearages in any area warrant an examiner's comment in the inspection report. It behooves management to take appropriate action to improve any undesirable past due levels.

In determining an organization's asset quality, one effective yardstick employed by exam-

iners is the "weighted average" of classifications, which takes into consideration the severity of a bank's classified assets. In rating asset quality, the "weighted average" of classifications system is designed to distinguish the degree of risk inherent in classified assets by ascribing weights to each category of classification thereby providing a more reliable measure of the impact of risk on bank capital.

The following weights are to be used:

<i>Classification</i>	<i>Weights</i>
Substandard	20%
Doubtful	50%
Loss	100%

The ratio of weighted classifications to Tier 1 capital is the primary criterion to be used in determining the quality of assets. However, examiners should also evaluate the adequacy of loan loss valuation reserves as compared to weighted classifications. Loss potential inherent in weighted classified assets must be offset by valuation reserves and equity capital or appropriate comments should be made.

Another tool that should be considered in evaluating asset quality is the bank's internal classification list, if the bank's lending procedures and management are adequate. Additional information on rating a bank's asset quality is available in the Uniform Interagency Bank Rating System.

Comparison of earnings trends with other banks of similar size, along with an analysis of the quality of those earnings, is probably the best initial approach in determining whether or not a bank's earnings are satisfactory. Comprehensive surveys of bank earnings by peer group size are tabulated by the Board and many of the Reserve Banks. The results are sufficiently detailed to permit various methods of comparison of the earnings of a specific bank with those in its peer group.

One ratio used as a means of measuring the quality of a bank's earnings is its return on average assets (net income after taxes divided by average total assets). If the ratio is low or declining rapidly, it could signal, among other things, that the bank's net interest income or margin is declining or that the bank is experiencing increased loan losses.

A bank's current earnings should be sufficient to allow for ample provisions to offset anticipated normal losses. Various factors to be considered in the determination of such losses include a bank's historic loss experience, the adequacy of the valuation reserve, the quality and strength of its existing loans and investments and the soundness of the loan and administrative policies of management.

In assessing a bank's earnings performance capabilities and the quality of those earnings, an examiner should give consideration to any special factors that may affect a particular bank's earnings. For example, a bank located in an urban area of a large city may find it difficult to earn as much as a bank of similar size located in a rural community or a small city. The urban bank is usually subjected to a higher level of operating expenses, particularly in salaries and local taxes. Moreover, its proximity to the large city and the competition afforded by bigger banks may necessitate lower rates of interest on loans as well as higher rates of interest on time deposits. Consideration should also be given to the adequacy of the loan loss provisions as referred to above, the inclusion of any capital-

ized accrued interest into interest income, or the nature of any large nonoperating gains when analyzing earnings. Further consideration should be given to the general nature of a bank's business or management's mode of operation. A bank's deposit structure and its resulting average interest paid per dollar of deposits may differ widely from that of other banks of a similar size and consequently, its earnings may be substantially below average as a direct result of the difference. For example, the maintenance of a high volume of interest bearing time accounts in relation to total deposits is a major expense and is quite often the cause for certain banks falling below the average earnings of comparably sized banks.

A bank's earnings should also be adequate in relation to its current dividend rate. The percentage that should be retained in the capital accounts is not clearly established. One thing is certain, the need for retained earnings to augment capital will depend on the adequacy of the existing capital structure as well as the bank's asset growth rate. Dividend payout rates may be regarded as exceeding prudent banking practices if capital growth does not keep pace with asset growth. Prudent management dictates that a curtailment of the dividend rate be considered if capital inadequacy is obvious and greater earnings retention is required. Apparently excessive dividend payouts or a record of recent operating losses should lead the bank or BHC examiner to refer to sections 5199(b) and 5204 of the United States Revised Statutes and section 208.19 of Regulation H which restrict state member bank dividends.

Analysis of net interest margins is of growing importance. A comparison should be made of a bank's ability to generate interest income on earning assets relative to the interest expenses associated with the funds used to finance the earning assets.

Additional information on rating bank earnings is available in the Uniform Interagency Bank Rating System.

### WHAT'S NEW IN THIS REVISED SECTION

*This section has been revised to incorporate a reference to the “Liquidity Risk” sections (3005.1 to 3005.5) of the Federal Reserve System’s Trading and Capital-Markets Activities Manual. These sections provide additional guidance on evaluating a banking organization’s liquidity management.*

Liquidity is generally defined as the ability to meet short-term obligations, to convert assets into cash or obtain cash, or to roll over or issue new short-term debt. Various techniques are employed to measure a bank’s (depository institution) liquidity position. The bank examiner considers the bank’s location and the nature of its operations. For example, a small rural bank has far different needs than a multibillion dollar money market institution.

In addition to cash assets, a bank will hold for liquidity purposes a portion of its investment portfolio of securities that are readily convertible into cash. Loan and investment maturities are generally matched to certain deposit or other liability maturities. However, the individual responsible for a bank’s money management must be extremely flexible and have alternate means to meet unanticipated changes in liquidity needs. To offset these needs, other means of increasing liquidity may be needed, which might include increasing temporary short-term borrowings, selling longer-term assets, or a combination of both. Factors that the “money management” officer will consider include the availability of funds, the market value of the saleable assets, prevailing interest rates and the susceptibility to interest-rate risk, and the bank’s earnings position and related tax considerations. Although most small banks do not have a “money manager,” they too must monitor their liquidity carefully.

One of the most common methods used by large banks to increase liquidity is to use additional borrowings. Some of the other basic means of improving liquidity include the use of direct short-term credit available through the discount window from Reserve Banks, the use of Federal funds purchases, and the use of loans from correspondent banks.

### 4020.4.1 SOUND LIQUIDITY-RISK MANAGEMENT

All banks are affected by changes in the economic climate, and the monitoring of economic and money market trends is crucial to liquidity planning. Sound financial management can minimize the negative effects of these trends while accentuating the positive ones. Sound liquidity-risk management requires the following four elements:<sup>1</sup>

1. Well-established strategies, policies, and procedures for managing both the sources and uses of an institution’s funds across various tenors or time frames. This includes assessing and planning for short-term, intermediate-term, and long-term liquidity needs.
2. Liquidity-risk measurement systems that are appropriate for the size and complexity of the institution. Depending on the institution, such measurement systems can range from simple gap-derived cash-flow measures to very sophisticated cash-flow simulation models.
3. Adequate internal controls and internal audit processes designed to ensure compliance with internal liquidity-management policies and procedures.
4. Comprehensive liquidity contingency plans that are well designed, span a broad range of potential liquidity events, and are tailored to an institution’s specific business lines and liquidity-risk profile.

Information that a bank’s management should consider in liquidity planning includes—

1. internal costs of funds,
2. maturity and repricing mismatches in the balance sheet,
3. anticipated funding needs, and
4. economic and market forecasts.

In addition, bank management must have an effective contingency plan that identifies minimum and maximum liquidity needs and weighs

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1. See the July 23, 2003, Interagency Advisory on the Use of the Federal Reserve’s Primary Credit Program in Effective Liquidity Management, issued by the federal financial institution regulatory agencies. The interagency advisory supplements, not replaces, existing agency guidance or policy.

alternative courses of action designed to meet those needs. Some factors that may affect a bank's liquidity include—

1. a decline in earnings,
2. an increase in nonperforming assets,
3. deposit concentrations,
4. a downgrading by a rating agency,
5. expanded business opportunities,
6. acquisitions,
7. new tax initiatives, and
8. the need to maintain a plan that ensures adequate access to a diversified array of readily accessible confirmed funding sources, including liquid assets such as high-grade investment securities and a diversified mix of wholesale and retail borrowings.

Adequate liquidity contingency planning is critical to the ongoing maintenance of the safety and soundness of any depository institution. Contingency planning starts with an assessment of the possible liquidity events that an institution might encounter. The types of potential liquidity events considered should range from high-probability/low-impact events that can occur in day-to-day operations to low-probability/high-impact events that can arise through institution-specific or systemic market or operational circumstances. Responses to these events should be assessed in the context of their implications for an institution's short-term, intermediate-term, and long-term liquidity profile. A fundamental principle in designing contingency plans for each of these liquidity tenors is to ensure adequate diversification in the potential sources of funds that could be used to provide liquidity under a variety of circumstances. Such diversification should focus not only on the number of potential funds providers but also on the underlying stability, availability, and flexibility of funds sources in the context of the type of liquidity event these sources are expected to address.

See also the "Liquidity Risk" sections (3005.1 to 3005.5) of the Federal Reserve System's *Trading and Capital-Markets Activities Manual*. These sections provide additional guidance on evaluating a banking organization's liquidity management.

#### 4020.4.2 LIQUIDITY-RISK MANAGEMENT USING THE FEDERAL RESERVE'S PRIMARY CREDIT PROGRAM

The Federal Reserve's primary credit program (a type of discount window lending) offers generally sound depository institutions an additional source of available funds, although such funds are lent for managing short-term liquidity risks (at a rate above the target federal funds rate).<sup>2</sup> Management should fully assess the potential role that the Federal Reserve's primary credit program might play in managing the institution's liquidity. The primary credit program can be a viable source of very short-term backup funds. Management may find it appropriate to incorporate the availability of the primary credit program into their institution's diversified liquidity-management policies, procedures, and contingency plans. The primary credit program has the following attributes that make it a viable source of backup or contingency funding for short-term purposes:

1. Primary credit is extended, with minimal administrative burden, to eligible discount window participants.
2. Primary credit is available only to financially sound depository institutions, as determined by the lending Federal Reserve Bank.
3. Primary credit can enhance diversification in short-term funding contingency plans.
4. Borrowings can be secured with an array of collateral that is acceptable to the lending Federal Reserve Bank, including consumer and commercial loans.
5. Requests for primary credit advances can be made anytime during the day.<sup>3</sup>
6. There are generally no restrictions on the use of short-term primary credit.

If an institution incorporates primary credit into its contingency plans, the institution should ensure that it has in place with the appropriate Reserve Bank the necessary borrowing documentation and collateral arrangements. This is particularly important when the intended collateral consists of loans or other assets that may

2. The Federal Reserve's secondary credit program provides loans to qualifying depository institutions (for example, those depository institutions that are not eligible for the primary credit program) at an interest rate that is above the primary credit program's interest rate. See section 3010.1 of the *Commercial Bank Examination Manual* for a further discussion of the Federal Reserve's credit programs.

3. Advances generally are booked at the end of the business day.

involve significant processing or lead time for pledging to the Reserve Bank.

It is a long-established sound practice for institutions to periodically test all sources of contingency funding. Accordingly, if an institution includes the Federal Reserve's primary and other credit programs, along with borrowing from other lenders, in its contingency plans, management should occasionally test the institution's ability to borrow from all the funding sources covered by the plan. The goal of such testing is to ensure that there are no unexpected impediments or complications in the case that such contingency lines need to be used.

Institutions should ensure that any planned use of primary credit is consistent with the stated purposes and objectives of the program. Under the primary credit program, the Federal Reserve generally expects to extend funds on a very short-term basis, usually overnight. Therefore, as with any other type of short-term contingency funding, institutions should ensure that any use of primary credit facilities for short-term liquidity contingencies is accompanied by viable take-out or exit strategies to replace this funding expeditiously with other sources of funding. Institutions should factor into their contingency plans an analysis of their eligibility for primary credit under various scenarios, recognizing that if their financial condition were to deteriorate, primary credit may not be available. Under those scenarios, secondary credit may be available.

Secondary credit is available at a rate above that of primary credit. Secondary credit is available to meet short-term needs (when the borrowing is constant and there is a prompt return to market funding sources) or to resolve financial difficulties. The preparations made by a bank to access primary credit (the documentation and collateral requirements) will also support the borrowing of secondary credit.

Another critical element of liquidity management is an appropriate assessment of the costs and benefits of various sources of potential liquidity. This assessment is particularly important in managing short-term and day-to-day sources and uses of funds. Given the above-market rates charged on primary credit, institutions should ensure that they adequately assess the higher costs of this form of credit relative to other available sources. Extended use of any type of relatively expensive source of funds can give rise to significant earnings implications that, in turn, may lead to supervisory concerns.

It is also important to note that the Federal Reserve's primary credit facility is only one of many tools institutions may use in managing

their liquidity-risk profiles. An institution's management should ensure that the institution maintains adequate access to a diversified array of readily available and confirmed funding sources, including liquid assets such as high-grade investment securities and a diversified mix of wholesale and retail borrowings. (See SR-03-15.)

#### 4020.4.2.1 Supervisory and Examiner Considerations

Because primary credit can serve as a viable source of backup, short-term funds, supervisors and examiners should view the occasional use of primary credit as appropriate and unexceptional. At the same time, however, supervisors and examiners should be cognizant of the implications that too-frequent use of this source of relatively expensive funds may have for the earnings, financial condition, and overall safety and soundness of the institution. Overreliance on primary credit borrowings, or any other single source of short-term contingency funds, regardless of the relative costs, may be symptomatic of deeper operational or financial difficulties. Importantly, the use of primary credit, as with the use of any potential sources of contingency funding, is a management decision that must be made in the context of safe and sound banking practices.

#### 4020.4.3 ANALYSIS OF LIQUIDITY

A bank's liquidity must be evaluated on the basis of the bank's capacity to satisfy promptly its financial obligations and its ability to fulfill the reasonable borrowing needs of the communities it serves. An examiner's assessment of a bank's liquidity management should not be restricted to its liquidity position on any particular date. Indeed, the examiner should also focus his efforts toward determining the bank's average liquidity over a specific time period. The examiner's evaluation should also encompass the overall effectiveness of the institution's asset-liability management and liquidity risk-management strategies. Factors such as the nature, volume, and anticipated takedown of a bank's credit commitments should also be considered in arriving at an overall rating for liquidity.

If the bank examiner has commented on a liquidity deficiency at a subsidiary bank, the holding company examiner should consider these

findings in the overall analysis of financial factors. Additional information on rating a bank's liquidity is available in the Uniform Interagency Bank Rating System.

The condition of a bank provides important insight regarding the quality of bank management. An appraisal of management's performance should be measured in terms of long-term profitability, risk exposure, liquidity, and solvency; all geared toward assuring the bank's continued profitability and overall sound financial condition. Management must meet the bank's challenges and position in the market place among its competitors. It must make plans which will achieve the objectives established by the bank's directors. Management must be constantly alert to the need for continued upgrading and expanding of services and facilities to advance, support, and encourage the bank's growth.

Just as sound management decision making will generally produce banks that are free from serious problems, ineffective management has invariably been a prominent factor in almost every serious problem bank situation. An examiner must consider the degree and severity of problems that exist in the bank under examination and attempt to establish the responsibility for such. The examiner should seek to determine to what degree the bank's problems are attributable to questionable management judgment as opposed to outside factors, such as unfavorable economic conditions.

As indicated at the beginning of Part IV, the

major portion of the holding company's consolidated assets are held in the bank subsidiaries. Furthermore, at the parent level, the major asset is generally the investment in subsidiaries, the principal portion of which is the investment in the bank(s). Therefore, with few exceptions, it is the overall condition of the bank subsidiaries that reflects the condition of the parent company. As the holding company examiner reviews the examination report(s) for each bank subsidiary, a decision must be made with respect to the general condition of each bank. When all the bank subsidiaries have been reviewed, the examiner must put these findings within their proper perspective. For example, if four of five bank subsidiaries comprise less than 10 percent of the combined banking assets, it is the condition of the fifth bank subsidiary that will weigh heavily in the analysis. In other words, if the fifth bank comprises 90 percent of the combined banking assets, the parent's investment in that bank also comprises most of the holding company's assets. Thus, the quality of the parent's assets would be reflected in the general condition of that bank and appropriate comments are warranted. It should be noted, however, that regardless of relative size, a bank experiencing problems should be commented upon in the summary analysis.

4020.9.1 DEFINITION AND SCOPE OF  
THE DE NOVO BANK SUPERVISION  
POLICY

The term “de novo bank” refers to a state member bank that has been in operation for five years or less. The application and supervision standards for de novo state member banks are found in SR-91-17. De novo state member bank subsidiaries of bank holding companies are subject to those policies. The standards discussed in this section are limited to a de novo subsidiary bank’s financial performance.

The de novo policy also extends to commercial banks that have been in existence for less than five years and subsequently convert to membership. Because thrifts, Edge Act companies, and industrial banks that are converting to membership (“converted banks”) have not demonstrated operating stability as commercial banks, they also are subject to the de novo policy, regardless of how long they existed before the conversion.

The policy applies to de novo banks through the fifth year of operations. Experience has shown that pronounced problems often surface during a new bank’s fourth and fifth years of operation, frequently as a result of inexperienced management, management and director changes, dissension among directors, directors’ lack of involvement, and poor lending practices during the early years.

4020.9.2 CAPITAL STANDARDS FOR  
SUBSIDIARY BANKS OF BHCs

De novo subsidiary banks of bank holding companies are expected to maintain capital in conformance with the de novo policy guidelines of SR-91-17. Initial capital in a de novo state member bank should be reasonable in relation to state law, the bank’s location and business plan, and the competitive environment. At a mini-

um, a de novo bank must maintain a tangible Tier 1 leverage ratio of 9 percent for the first three years of operation.<sup>1</sup> The applicant’s (that is, the proposed state member bank’s or the bank holding company’s) initial projections of asset growth and earnings performances should be reasonably in line with the bank’s ability to maintain this ratio without relying on additional capital injections. The de novo policy also applies to newly converted commercial banks through the third year of existence and to other types of institutions that become Federal Reserve members for a three-year period beginning from the date following consummation. Any exceptions to this policy that are being considered for converted banks should be discussed with Board staff. Although a 9 percent tangible leverage ratio is not required after year three, de novo banks are expected to maintain capital ratios commensurate with safety-and-soundness concerns and, generally, well in excess of regulatory minimums.

4020.9.3 CASH FLOWS TO A BHC  
PARENT

Under the current policy on small one-bank holding companies (see section 2090.2.3), de novo banks may not provide funds for servicing the parent’s debt until the bank receives two consecutive CAMELS ratings of 1 or 2 based on full-scope examinations and, in the judgment of the Reserve Bank, can be expected to continue operating soundly. An exception to this prohibition is the tax payments that are made in accordance with the Board’s policy under Regulation Y (see section 2070.0 and *FRRS* 4–870).

1. Although this policy applies to a bank holding company’s acquisition of a de novo state member bank, the Federal Reserve also encourages bank holding companies’ nonmember bank subsidiaries to adhere to the same standards.



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### 4030.0.1 INTRODUCTION

Generally, a subsidiary of a bank holding company is not liable for debts of any other subsidiary of the holding company unless it is contractually obligated through guarantees, endorsements, or other similar instruments. This apparent legal separation may induce false confidence that banks are insulated from problems that may befall other subsidiaries of the holding company. If a nonbank subsidiary of a bank holding company finds itself in serious financial trouble, several results are possible. The holding company may work as it was intended, in that debts of the failing subsidiary are isolated and not transferred to other subsidiaries so that at worst, the subsidiary and the parent (the holding company) fail. In this instance, other subsidiaries, including bank subsidiaries, are unharmed, and after a change in management or ownership, they continue in operation. There is no loss of confidence in the bank by its depositors. However, this is not necessarily the result.

Failure of a nonbank subsidiary may lead to a lack of confidence in the affiliated bank's ability to continue in business, which might precipitate a run on the bank's deposits. The failure of a major nonbank subsidiary then may place its affiliated bank in serious financial trouble. The examiner should assess the impact that the failure or the potential failure of a nonbank subsidiary may have on an affiliated bank with a similar name.

Usually, a financially distressed nonbank subsidiary is aided by the holding company, which will do everything in its power to rescue it from failure. At a minimum, refusal to do so would undermine confidence in the strength of the holding company. Refusal to aid its nonbank subsidiary might even result in a rise in the interest cost of the holding company's future debt in the capital markets and, more than likely, preclude issuance of commercial paper.

A holding company has considerable discretion in choosing how to assist one of its troubled subsidiaries. Because the bank is usually the largest subsidiary, the holding company may attempt to draw upon the resources of the bank to aid the nonbank subsidiary. The bank can transfer a substantial portion of its capital through dividends to the parent company, which may pass these funds on to the troubled nonbank subsidiary. Also, the nonbank may attempt to sell part of its portfolio to the bank subsidiary to improve liquidity. The Board's Interpretation 12 C.F.R. 250.250 (at FRRS 3-1133) limits the sale

of nonbank subsidiary loans to the bank affiliate unless the bank had an opportunity to appraise the credit at the inception of the loan. Therefore, the examiner should closely analyze the off-balance-sheet activity of the nonbank subsidiary, particularly activity relating to the sale of loans shortly after they are made. Reference should also be made to section 2020.7, regarding the transfer of low-quality loans or other assets to avoid classification.

### 4030.0.2 ANALYSIS OF FINANCIAL CONDITION AND RISK ASSESSMENT

Because of the potentially damaging effect on the parent company or its bank subsidiary, the examiner should conduct a detailed analysis of the financial condition and perform a risk assessment of the nonbank subsidiaries. The loss to the holding company may not be confined to the equity in and advances to the subsidiary. The contingent liabilities arising from the nonbank subsidiary's external borrowings are quite often a large multiple of the parent's investment. Particular attention should be directed to holding companies that have made massive capital injections in order to rescue a failing subsidiary or to satisfy the external debt obligations of the subsidiary.

For each bank holding company with nonbank activities, examiners should prepare a written risk assessment of each active nonbank subsidiary, addressing the financial and managerial concerns outlined below.<sup>1</sup> This assessment should be performed with the same frequency required for full-scope inspections. The purpose of this assessment is to identify subsidiaries with a risk profile that warrants an on-site presence, even if the subsidiary does not meet the minimum criteria set forth in section 5000.0.4.4.1, "On-site Reviews of Nonbank Subsidiaries." In formulating this assessment, the examiner should consider all available sources of information including, but not limited to—

- findings, scope, and recency of previous inspections;

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1. The assessment of nonbank activities in large, complex organizations may be focused on an intermediate-tier company with oversight responsibility for multiple nonbank subsidiaries.

- ongoing monitoring efforts of surveillance and financial analysis units;
- information received through first-day letters or other pre-inspection communications;
- regulatory reports and published financial information; and,
- reports of internal and external auditors.

The risk assessment should address each non-bank subsidiary's funding risk, earnings exposure, operational risks, asset quality, capital adequacy, contingent liabilities and other off-balance-sheet exposures, management information systems and controls, transactions with

affiliates, growth in assets, and the quality of oversight provided by the management of the bank holding company and nonbank subsidiary. The examiner should give particular attention to appraising the quality of a nonbank subsidiary's assets because asset problems therein may lead to other financial problems in the nonbank subsidiary and the parent company or bank affiliates. Examiners are expected to document in the inspection workpapers their assessment of the overall risk posed by each nonbank subsidiary and to summarize their assessment of nonbank activities in the bank holding company inspection report.

The examiner has four alternatives with respect to asset classifications. An appraisal of the degree of risk involved in a given asset leads to a selection. The examiner can either “pass” the asset or adversely classify the asset “substandard,” “doubtful” or “loss,” depending on the severity of deterioration noted.

Since the preponderance of all loans are subject to some degree of risk, the following question arises: To what point, or degree, must a given credit deteriorate to warrant a scheduled criticism in the report of inspection? Generally, a passed credit has those characteristics which are recognized as being part of a normal risk asset; the degree of risk is not unreasonable, the loan is being properly serviced, and is either adequately secured or repayment is reasonably assured from a specific source.

Classification units are designated as “substandard,” “doubtful,” and “loss.” A substandard asset is inadequately protected by the current sound worth and paying capacity of the obligor or of the collateral pledged, if any. Assets so classified must have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt. They are characterized by the distinct possibility that the nonbank subsidiary will sustain some loss if the deficiencies are

not corrected. An asset classified doubtful has all the weaknesses inherent in one classified substandard with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions, and values, highly questionable and improbable. Assets classified loss are considered uncollectible and of such little value that their continuance as recordable assets is not warranted. This classification does not mean that the asset has absolutely no recovery or salvage value, but rather it is not practical or desirable to defer reserving against this basically worthless asset even though partial recovery may be effected in the future.

Although the System does not apply bank standards when classifying nonbank assets, the classification categories are the same. Examiners of BHC nonbank subsidiaries must appraise the assets in light of industry standards and conditions inherent in the market.

For information on classifying a parent’s investment in and advances to a noncredit-extending subsidiary, see Manual section 4070.0, BHC Rating System.

For information on the sufficiency of nonbank valuation reserves, see Manual section 4030.4.

When analyzing the earnings of a nonbank subsidiary, the examiner should address two primary questions: (1) Is the return on assets commensurate with the risk associated with the assets? (2) What is the impact of earnings and trends on the parent company and affiliate banks? While a nonbank subsidiary operating at a loss may be in less than satisfactory condition, the loss may not necessarily result in a major adverse impact on the consolidated earnings. The nonbank subsidiary's total assets may be insignificant in relation to the consolidated assets of the BHC, but operating losses may result in a significant reduction in its consolidated earnings position.

In some cases, industry statistics will be available for comparative purposes. However, a favorable comparison should not necessarily be taken as depicting a satisfactory earnings condition. Actions by the parent company could influence the earnings of its subsidiaries. For example, management and/or service fees can be adjusted in order to alter the subsidiary's earnings to desired levels. Also, if the parent company is funding the subsidiary, the cost of funds to the subsidiary can be adjusted above or below the parent's cost of funds thus affecting net income. In addition, an undercapitalized subsidiary with only a marginal return on assets could show a better return on equity than the adequately capitalized independent counterpart experiencing a good return on its assets. As important as return on equity is as a measure of performance, for nonbank subsidiaries, particularly those that are thinly capitalized, absolute level of earnings or return on assets provide a more meaningful measure of earnings performance.

The cash return to the parent from its investment in and advances to a subsidiary less its costs to carry the assets and related expenses should exceed the cash return available from an investment of a similar amount in securities in order to justify retaining the subsidiary. If it seems that an alternative employment of funds would be more rational, the examiner should inquire as to management's plans to improve subsidiary earnings.

Questions to be answered in analyzing the earnings of credit-extending nonbank subsidiaries include:

1. What is the impact on the parent company and affiliate banks of a nonbank subsidiary operating at a loss?
2. Is the return on assets commensurate with the risk inherent in the asset portfolios for those nonbank subsidiaries operating profitably?
3. Are intercompany management/service fees appropriate? From a supervisory perspective, management and service fees should have a direct relationship to and be based solely upon the fair value of goods and services received.
4. Is the subsidiary required to reimburse the parent for the parent's interest expense on borrowed funds, the proceeds of which have been treated as "advances to subsidiaries?"
5. Is the quality of the subsidiary's earnings sound? For example, is the company understating the provision for loan losses, relying upon nonoperating gains or capitalization of accrued interest?

Special attention should be directed by the examiner to the computation of the company's net interest margin (interest income—interest expense, divided by average earning assets). A study of company yields on investments should provide a measure of the company's ability to invest its funds in earning assets that provide a rate of return above the company's cost of funds. As net interest margins narrow, the company may find it more difficult to generate sufficient income to meet operating expenses.

When discussing growth in earnings, the examiner should clearly differentiate between increases due to increased net interest income on a constant base of earning assets as compared to an increase in the earning asset base with a concurrent proportional increase in net interest income. Any improvement in net interest income as a percentage of earning assets may reflect favorably on management's ability to invest its funds at favorable yields or its ability to find less expensive sources of funds.

As a general rule, credit-extending nonbank subsidiaries are funded by the proceeds of parent company borrowings through instruments such as commercial paper or medium to long-term debt or a combination thereof. Equity generally represents only a small portion of funding resources. There are instances, however, where the nonbank subsidiary will arrange direct funding from external sources. This is especially true in certain States where there are tax advantages associated with direct external funding.

Heavy reliance on borrowed funds by a nonbank subsidiary together with its limited capital position often results in a highly leveraged financial condition that is quite sensitive to changes in money market cost of funds. An examiner should consider what a change in the company's cost of funds might do to its net interest margin and earnings.

Many BHCs operate on the premise that a nonbank subsidiary needs little capital of its own as long as the parent company is adequately capitalized. Implicit in this operating practice is management's belief that the parent could act as a source of financial strength to its subsidiary in the event of difficulty at the subsidiary level. However, experience has indicated that in many cases, once trouble has developed in the subsidiary, the parent is hesitant to direct additional funds to the subsidiary, arguing that it is best to limit losses and exposure and it is imprudent for the parent to inject additional capital at this time. Given this experience, it is often considered appropriate for an examiner to comment on a subsidiary's extended leveraged position, indicating to management that the

company has little, if any, capital "cushion" with which to absorb any asset "shrinkage" or loss. The examiner may then conclude and possibly recommend that additional capital be provided for the credit-extending nonbank subsidiary so that its leverage may be reduced and its capital structure altered to reflect more closely an independent organization in the same or similar industry.

Funding should be reviewed to determine that the subsidiary (or the parent) is not mismatching maturities by borrowing short-term funds and applying them to long-term assets that are not readily convertible into cash. A mismatch of maturities can lead to serious liquidity problems.

A primary concern of the holding company examiner is to determine whether the nonbank subsidiary has the capacity to service its debt in an orderly manner. Does the credit-extending nonbank subsidiary have sufficient liquidity and how much will it have to rely on the parent company for funds to retire debt to unaffiliated parties? Factors to be considered include:

1. The subsidiary's asset quality and its ability to convert assets into cash at or near current carrying value. Consider the maturities of borrowings and whether they align with the scheduled assets that will be converted to cash.
2. The subsidiary's and the parent's back-up bank lines of credit available in the event commercial paper cannot be refinanced.
3. The parent company's ability to require its bank or other nonbank subsidiaries to upstream extra dividends to support the illiquid position of one or more of its nonbank subsidiaries.

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The purpose of a credit-extending nonbank subsidiary's reserve for bad debts is to provide for known and potential losses in its assets. Although there is no specific formula for measuring the adequacy of a reserve for bad debts, prudence dictates that the reserve account should be maintained at a "reasonable" level. What is reasonable depends on the quality of the subsidiary's assets, its collection history and other facts. However, from a supervisory perspective, the reserve for bad debts should at least provide total coverage for all assets classified "loss" and still be sufficient to absorb future, unidentified, "normal" losses, that are estimated based on the "doubtful" and "substandard" classifications and the company's historic experience. Valuation reserves for a going concern are not considered adequate unless they can absorb 100 percent of identified losses and still have a balance sufficient to absorb future losses from continued operations.

Examiners should recommend the maintenance of valuation reserves sufficient to offset classified losses and may recommend (as opposed to require) that management charge-off the losses to the reserve account. The charge-off of classified losses is considered appropriate in order to assure that financial statements accurately reflect the company's financial condition. The Federal Reserve System has the responsibility to monitor the bank holding company's nonbank subsidiary statements for accuracy and completeness. Failure by management to reflect accurately the financial condition of the subsidiary and/or parent company could result in a formal corrective action to require charge-offs or other adjustments to financial statements.

For additional information, see Manual section 4030.1, "Classifications."

The noncredit-extending nonbank subsidiaries provide services or financial products other than extensions of credit. Some of these companies are insurance agencies, credit life and credit accident and health insurance underwriting companies, electronic data processing centers, management consulting firms and advisory companies.

The operations of some insurance agencies are conducted on the premises of the bank subsidiary(ies) by personnel who often serve as officers or employees of the bank. These companies usually incur little or no liabilities and require only nominal capitalization because risk is limited. However, their commission income is often substantial and a steady source of funds for the parent company. Nevertheless, insurance “underwriters” typically have strong capital bases, good liquidity and profitable operations. Furthermore, their operating risks are generally stable and predictable.

Electronic data processing centers are often established under section 4(c)(8) of the Act, which permits them to sell their services to affiliated and unaffiliated customers. Section 4050.0 of this Manual cites examples of how an EDP servicer can have an unfavorable impact on the parent company or its affiliates. Management consulting firms and advisory companies usually require little capitalization and no funding and generate favorable earnings. Of the noncredit-extending subsidiaries, insurance underwriters and EDP servicers are generally the only companies requiring capital and funding in significant amounts.

However, all subsidiaries are subject to some level of risk, which could impact on the BHC. In the case of insurance underwriters, insurance benefits paid could exceed actuarial estimates. Such a situation, however rare, could necessitate financial support from the parent company. EDP servicers could, as a result of excessive computer down-time or equipment obsolescence, impact on consolidated earnings or require additional capital contributions. In addition, contingent liabilities, resulting from legal actions or failure to perform, could be a large multiple of a subsidiary’s capital and may affect the parent.

#### 4040.0.1 EARNINGS

In analyzing these subsidiaries, the examiner should consider the following:

1. Are any noncredit-extending subsidiaries operating at a loss or incurring low levels of earnings? If so, what is the cause and does it have a material impact on consolidated earnings?

2. Does the loss result in the subsidiary’s reliance on the parent company or bank subsidiary(ies) for financial support? If so, in what form is the support provided?

3. If a loss has been incurred, has management initiated corrective measures? If not, why not?

4. Are the fees charged by the parent for services rendered limited to their *fair market value*? The answer to this question will almost always depend on information supplied by management. Management should be aware of the fair market rates charged by their competitors for similar services rendered.

5. Are the rates charged affiliates commensurate with the services provided and similar to rates charged nonaffiliated customers?

#### 4040.0.2 RISK EXPOSURE

In noncredit-extending subsidiaries, risk exposure, of any meaningful magnitude, is often related to possible losses arising from legal actions for failure to perform services as contracted. The examiner should determine that the subsidiaries are being operated effectively by experienced and competent personnel under the direction of satisfactory management. The examiner should further determine that parent company management exercises appropriate controls over the activities of the subsidiary. Because of potential liability, the examiner should ascertain whether the subsidiaries have adequate insurance coverage (i.e., errors and omissions, public liability, etc.). The examiner should be alert to any contingent liabilities that would have a significant impact of the parent company. For example, the parent company might guarantee the payment of debt or leases for the subsidiary.



The internal services subsidiaries generally derive their business only from the parent company and its affiliates. Examples of such companies include forms printing firms, owners and operators of banking premises, and EDP servicing companies. Banking premises subsidiaries are established to hold or operate properties used wholly or substantially by the parent's subsidiary for its banking business. Generally, their operations do not impact unfavorably on the parent company. However, in instances where the banking premises are not wholly occupied by a banking subsidiary, the examiner should ascertain that the excess space is fully leased/rented. A high vacancy level could result in unprofitable operations or result in an abnormal rental charge to the banking subsidiary in order to operate the subsidiary on a profitable, or break even, basis.

EDP service centers provide bookkeeping or data processing services for the internal operations of the holding company and its subsidiaries, and store and process other banking, financial or related economic data. Generally, these

service centers do not have a material effect on consolidated earnings performance as they provide essential services at costs comparable or below their independent counterparts. They usually operate on a break-even basis or at a nominal profit. However, there are some subsidiaries, including EDP servicers, which also provide services indirectly to unaffiliated concerns. EDP servicers operating under section 4(c)(1)(C) of the Act, may provide services to customers of its bank affiliates, provided that the service contract is between the bank and the customer. EDP servicers that operate as independent subsidiaries under section 4(c)(8) of the Act are not similarly restricted and are not considered "not for profit" organizations.

A financial analysis of a "not for profit" service subsidiary should concentrate on the organization's ability to control its expenses and its ability to provide its services to its affiliates at fair market value. Failure to control expenses may result in excessive charges to affiliates to the detriment of the affiliate.

For purposes of an analysis of earnings, analysts of bank holding companies have placed considerable weight on consolidated BHC financial data. Consolidated data, however, can be very misleading since bank assets and revenues are large in relation to their profit margins. On the other hand, the volume of nonbank assets is generally not nearly as large, but profit margins (or losses) tend to be much more substantial. The organizational structure of a holding company is of prime importance and must first be taken into consideration before attempting to analyze consolidated earnings. As an example, in the case of nonoperating shell bank holding companies with no nonbank subsidiaries, the earnings of the bank subsidiary should be nearly identical with consolidated earnings for the organization. Therefore, in these instances, the views and ratings of the applicable bank regulatory agency would normally be accepted and would apply to consolidated earnings of the BHC. This treatment would not apply to one-bank and multi-bank holding companies with substantial credit-extending nonbank subsidiaries. These holding companies require an in-depth analysis of earnings because of the adverse impact that a poorly operated subsidiary can have upon the consolidated earnings of the BHC.

In order to properly analyze consolidated earnings, it is best to review and study a consolidated statement of income and expense for the purpose of determining each entity's contribution to earnings. It is important to recognize that there need be no direct correlation between the asset size of a subsidiary and its relative contribution to total consolidated earnings. For example, a subsidiary accounting for a minute portion of consolidated assets could substantially negate satisfactory earnings of its larger asset base affiliates because of poor operations and sizeable losses.

When evaluating consolidated earnings, it is important to review the component parts of earnings for prior interim or fiscal periods for comparative purposes in order to determine trends. Considerable attention is to be focused on the various income and expense categories. The net interest income (difference between interest income and interest expense) of a company is highly revealing as it will give an indication of management's ability to borrow at attractive rates and employ those funds with maximum profitable results.

Items having a significant impact on earnings include the noncash charge, "provisions for loan

losses" and the volume of nonaccrual and renegotiated or restructured credits. A large provision for loan losses is made necessary by poor quality assets which result in large charge-offs to valuation reserves. In order to replenish the reserve for loan losses to adequate levels to provide ample coverage against known and potential losses, large amounts of revenues must be "set aside." Nonperforming and renegotiated credits either provide no income or provide a reduced rate of income to the extent that the assets are no longer profitable relative to the cost of funds and the cost of doing business. In situations where earnings are below average or unsatisfactory, a comment concerning the amount of provision for loan losses and volume of nonperforming loans is warranted in the financial analysis.

Other items of significance include taxes, particularly where tax credits are indicative of loss operations, and extraordinary or nonrecurring items. Extraordinary gains or losses are not the result of the normal operations of a company and should be analyzed independently from operating earnings. Generally, extraordinary items result from the sale of current or fixed assets. When significant amounts are involved, examiners should determine the underlying reasons behind such transactions.

After an analysis has been made of the pertinent components of earnings, analyze the "bottom line" or net income of the consolidated company. Generally, analysts relate net income to several benchmarks in order to evaluate performance. The ratios of earnings as a percentage of average equity capital or average assets are most widely used. Conclude the analysis with a comparison of a company's ratios in relation to its peer group.

Comparatively low earnings relative to its peer group may be a reflection of problems and weaknesses such as lax or speculative credit practices (resulting in nonearning assets or loan losses), high interest costs resulting from excessive debt, or rapid expansion into competitive industries subject to wide variations in income potential.

Earnings on a consolidated basis are the best measure of performance. Moreover, while the earnings of individual subsidiaries must not be ignored, the ability of holding company management to control the level of reported earnings in any one subsidiary reaffirms the practi-

cality of using the consolidated approach to analyze holding company profitability.

Essentially, the following points summarize areas which should be considered when analyzing consolidated earnings:

1. The return on consolidated assets and equity capital, as well as historical trends and peer group comparisons.
2. The ability of earnings to provide for capital growth, especially when taking into consideration recent and planned asset and deposit growth.
3. The "quality" of earnings is affected by

the sufficiency of the provision to loan loss reserves and the asset quality of the organization. A high level of earnings that did not include sufficient provisions to the loan loss reserve during a period of high charge-offs may result in reductions in the reserve balance and thereby call to question the merits of high earnings in the face of declining reserve balances.

4. The ability of management to prepare realistic earnings projections in light of the risk structure and quality of assets.

The evaluation of asset quality based on classifications of “substandard, doubtful and loss,” is one of the most important elements to be taken into consideration when performing a financial analysis of a holding company because of the severe impact that poor quality assets can have on the overall condition of the organization. Procedures to measure asset quality of banks involve the use of the relationship of weighted classified assets to Tier 1 capital funds and total classifications to total capital funds. Accordingly, consolidated asset quality could be based on the relationship of aggregate weighted classified assets of the parent company, bank subsidiary(ies) and nonbank subsidiary(ies), to Tier 1 capital.

However, a problem encountered when viewing asset quality on a consolidated basis is the fact that in multi-bank holding companies there is usually a large timing difference between the dates of examinations of the banking subsidiaries. Therefore, the aggregating of classified bank assets from reports prepared at different times, reduces the currentness and validity of conclusions drawn. This problem can only be eliminated by using common examination and inspection dates which are not generally available.

Despite the shortcoming of using classification information from different dates, an examiner may determine that there is a sufficient measure of validity in using the data and may present an analysis based on consolidated weighted classifications. For example, if there are a small number of bank subsidiaries and if the examination dates are near a common point in time, timing differences may be inconsequential. Or, if a review of several years of a bank's

examinations reveals a relatively constant or stable level of classifications, then the timing of the most recent examination would not invalidate use of the analytical tool. As such, the technique may be employed when circumstances permit.

Other factors to be considered in determining asset quality include the levels of nonaccrual and renegotiated loans, other real estate owned and past due loans. While these assets may not be subject to classification, they usually represent former or emerging problem loans. Moreover, in the aggregate, they may represent a significant proportion of the asset portfolio. If such is the case, they should be taken into consideration when the examiner determines his overall rating of asset quality.

It is difficult to rely on the adequacy of consolidated reserves because they are “fractured” and protect portfolios in different organizations and may not be interchangeable or transferable. The reserve of each entity in the corporate structure must be reviewed or analyzed individually. For example, if consolidated reserves appear inadequate, there is no consolidated reserve account per se that could be increased to adequate proportions. Consequently, the inadequacy would have to be identified at the parent or subsidiary level. Conversely, if consolidated reserves appear to adequately cover the aggregate of all “loss” and a certain portion of “doubtful,” it does not insure that all subsidiaries have adequate reserves. Nevertheless, despite the shortcomings of using consolidated reserves, the analyst should not hesitate to calculate and present a measure of the relationship of consolidated reserves to consolidated loans.

# Consolidated Capital (Examiners' Guidelines for Assessing the Capital Adequacy of BHCs) Section 4060.3

## WHAT'S NEW IN THIS REVISED SECTION

*Effective January 2008, this section has been revised to incorporate an exception to the Board's risk-based capital guidelines for capital held against Regulation T margin loans. The first exception was approved by the Board on June 15, 2007. The Board initially approved the exception under the reservation-of-authority provision contained in the guidelines (12 C.F.R. 225, appendix A, III.A). The exception permits a BHC, upon receiving specific Board approval, to apply a 10 percent risk weight to its Regulation T margin loans. To qualify for the capital treatment on an exception basis, Regulation T margin loans must comply with certain specified conditions. Several BHCs have subsequently received approval for this exception.*

### 4060.3.1 INTRODUCTION TO EXAMINER GUIDELINES FOR RISK-BASED CAPITAL

To assist in assessing the capital adequacy of bank holding companies, the Board has established two measures of capital adequacy: the risk-based capital measure and the tier 1 leverage measure. Throughout this section, references to a "section" that are followed by outline numbers and letters (for example, section II.B.) mean the risk-based capital guidelines for bank holding companies (12 C.F.R. 225, appendix A). The tier 1 leverage measure is discussed in section 4060.4.

### 4060.3.2 OVERVIEW OF RISK-BASED CAPITAL GUIDELINES

The Board's risk-based capital guidelines (the guidelines) focus principally on the credit risks associated with the nature of banking organizations' on- and off-balance-sheet assets and on the type and quality of their capital. The information provided in this section should be used in conjunction with the risk-based capital guidelines in verifying the bank holding company's risk-based capital. Examiners must refer to Regulation Y (12 C.F.R. 225, appendix A) for a complete description of the risk-based capital adequacy guidelines for bank holding companies.

The guidelines do not incorporate other factors that may also affect the financial condition

of banking organizations. These factors include overall interest-rate exposure; liquidity, funding, and market risks; the quality and level of earnings; the effectiveness of loan and investment policies on operational results and the quality of assets; and management's ability to monitor and control financial and operating risks.

The major objectives of the 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 for banking organizations. Therefore, banking organizations are expected to operate with capital levels above the minimum ratios. This requirement is particularly true for banking organizations that are undertaking significant expansion or that are exposed to high or unusual levels of risk.

The risk-based guidelines apply on a consolidated basis to any bank holding company with consolidated assets of \$500 million or more. The risk-based guidelines also apply on a consolidated basis to any bank holding company with consolidated assets of less than \$500 million if the holding company (1) is engaged in significant nonbanking activities either directly or through a nonbank subsidiary; (2) conducts significant off-balance-sheet activities (including securitization and asset management or administration) either directly or through a nonbank subsidiary; or (3) has a material amount of debt or equity securities outstanding (other than trust preferred securities) that are SEC-registered. BHCs with consolidated assets of less than \$500 million would generally be exempt from the calculation and analysis of risk-based capital ratios on a consolidated holding company basis, subject to certain terms and restrictions. The Federal Reserve may apply the risk-based guidelines at its discretion to any bank holding company, regardless of asset size, if such action is warranted for supervisory purposes.

By year-end 1992 and thereafter, the risk-based capital guidelines require all bank holding companies to meet a standard—a minimum ratio of total capital to risk-weighted assets of 8 per-

cent and a minimum ratio of tier 1 capital to risk-weighted assets of 4 percent.

The risk-based capital guidelines are intended to better reflect the differences in credit-risk profiles among banking organizations and explicitly factor off-balance-sheet exposures into the assessment of capital adequacy by weighting on- and off-balance-sheet items by perceived degrees of credit risk. The basic elements of the framework include definitions of capital that include core elements and supplementary elements, the assignment of on- and off-balance-sheet items to broad categories of credit risk, and the methodology for computing risk-based capital ratios for banking organizations on an interim and final basis.

In addition, examiners should be aware that when certain organizations that engage in trading activities calculate their risk-based capital ratio under appendix A, they must also refer to appendix E of Regulation Y, which incorporates capital charges for certain market risks into the risk-based capital ratio. Examiners should also refer to the *Trading and Capital-Markets Activities Manual* for more-detailed supervisory guidance. When calculating their risk-based capital ratio under appendix A, such organizations are required to refer to appendix E for supplemental rules to determine qualifying and excess capital, calculate risk-weighted assets, calculate market-risk-equivalent assets, and calculate risk-based capital ratios adjusted for market risk. On February 6, 2006 (effective February 22, 2006), the Board approved a revision to its market-risk rule of the capital adequacy guidelines (as found in Regulation Y (12 C.F.R. 225, appendix E)). The amendment lessened and aligned the capital requirement of BHCs (that have adopted the market-risk rule) to the risk involved with certain cash collateral that is posted in connection with securities-borrowing transactions. It also broadened the scope of counterparties for which the favorable capital treatment would be applied. (See 71 *Fed. Reg.* 8932, February 22, 2006.)

#### 4060.3.2.1 Definition of Capital

For the purposes of the risk-based capital guidelines, a banking organization's qualifying total capital consists of two types of capital components: "core capital elements" (tier 1 capital elements) and "supplementary capital elements" (tier 2 capital elements). To qualify as an element of tier 1 or tier 2 capital, an instru-

ment must be fully paid up and effectively unsecured. Accordingly, if a banking organization has purchased, or has directly or indirectly funded the purchase of, its own capital instrument, that instrument generally is disqualified from inclusion in regulatory capital. A qualifying tier 1 or tier 2 capital instrument must be subordinated to all senior indebtedness of the organization. If issued by a bank, it also must be subordinated to claims of depositors. In addition, the instrument must not contain or be covered by any covenants, terms, or restrictions that are inconsistent with safe and sound banking practices.

##### 4060.3.2.1.1 Tier 1 Capital

Tier 1 capital generally is defined as the sum of core capital elements less any amounts of goodwill, other intangible assets, interest-only strips receivables, deferred tax assets, nonfinancial equity investments, and other items that are required to be deducted by section II.B. Tier 1 capital must represent at least 50 percent of qualifying total capital. The core capital elements (tier 1 capital elements) qualifying for inclusion in the tier 1 component of a banking organization's qualifying total capital are—

1. qualifying common stockholders' equity;
2. qualifying noncumulative perpetual preferred stock (including related surplus);
3. minority interest related to qualifying common or noncumulative perpetual preferred stock directly issued by a consolidated U.S. depository institution or foreign bank subsidiary (class A minority interest); and
4. restricted core capital elements. Restricted core capital elements are defined to include—
  - a. qualifying cumulative perpetual preferred stock (including related surplus);
  - b. minority interest related to qualifying cumulative perpetual preferred stock directly issued by a consolidated U.S. depository institution or foreign bank subsidiary (class B minority interest);
  - c. minority interest related to qualifying common stockholders' equity or perpetual preferred stock issued by a consolidated subsidiary that is neither a U.S. depository institution nor a foreign bank (class C minority interest); and
  - d. qualifying trust preferred securities.

##### 4060.3.2.1.1.1 Limits in Effect Until March 31, 2009

Until March 31, 2009, the aggregate amount of

qualifying cumulative perpetual preferred stock (including related surplus) and qualifying trust preferred securities that a banking organization may include in tier 1 capital is limited to 25 percent of the sum (including cumulative perpetual preferred stock and trust preferred securities) of the following core capital elements: qualifying common stockholders' equity, qualifying non-cumulative and cumulative perpetual preferred stock (including related surplus), qualifying minority interest in the equity accounts of consolidated subsidiaries, and qualifying trust preferred securities. Amounts of qualifying cumulative perpetual preferred stock (including related surplus) and qualifying trust preferred securities in excess of this limit may be included in tier 2 capital.

Until March 31, 2009, internationally active banking organizations are generally expected to limit the amount of qualifying cumulative perpetual preferred stock (including related surplus) and qualifying trust preferred securities included in tier 1 capital to 15 percent of the sum of core capital elements set forth in the preceding paragraph (section II.A.1.b.ii.2.).

#### 4060.3.2.1.1.2 Limits That Become Effective March 31, 2009

Effective March 31, 2009, the aggregate amount of restricted core capital elements that may be included in the tier 1 capital of a banking organization must not exceed 25 percent of the sum of all core capital elements, including restricted core capital elements, net of goodwill less any associated deferred tax liability. Stated differently, the aggregate amount of restricted core capital elements is limited to one-third of the sum of core capital elements, excluding restricted core capital elements, net of goodwill less any associated deferred tax liability.

In addition, the aggregate amount of restricted core capital elements (other than qualifying mandatory convertible preferred securities<sup>1</sup>) that

1. Qualifying mandatory convertible preferred securities generally consist of the joint issuance by a bank holding company to investors of trust preferred securities and a forward purchase contract, which the investors fully collateralize with the securities, that obligates the investors to purchase a fixed amount of the bank holding company's common stock, generally in three years. Typically, prior to exercise of the purchase contract in three years, the trust preferred securities are remarketed by the initial investors to new investors, and the cash proceeds are used to satisfy the investors' obligation to buy the BHC's common stock. The common stock replaces the initial trust preferred securities as a component of the BHC's tier 1 capital, and the remarketed trust preferred securities are excluded from the BHC's regulatory capital. A bank

may be included in the tier 1 capital of an internationally active banking organization<sup>2</sup> must not exceed 15 percent of the sum of all core capital elements, including restricted core capital elements, net of goodwill less any associated deferred tax liability.

Amounts of restricted core capital elements in excess of this limit generally may be included in tier 2 capital. The excess amounts of restricted core capital elements that are in the form of class C minority interest and qualifying trust preferred securities are subject to further limitation within tier 2 capital in accordance with section II.A.2.d.iv. Specifically, the aggregate amount of term subordinated debt (excluding mandatory convertible debt) and limited-life preferred stock as well as, beginning March 31, 2009, qualifying trust preferred securities and class C minority interest in excess of the 15 and 25 percent tier 1 capital limits that may be included in tier 2 capital is limited to 50 percent of tier 1 capital, net of goodwill and other intangible assets required to be deducted. A banking organization may attribute excess amounts of restricted core capital elements first to any qualifying cumulative perpetual preferred stock or to class B minority interest, and second to qualifying trust preferred securities or to class C minority interest, which are subject to the tier 2 sublimit. Amounts in excess of the tier 2 sublimit are taken into account in the overall assessment of a BHC's funding and financial condition.

Prior to March 31, 2009, a banking organization with restricted core capital elements in amounts that cause it to exceed the 25 and 15 percent tier 1 capital limits must consult with the Federal Reserve on a plan for ensuring that the banking organization is not unduly relying on these elements in its capital base and, where

holding company wishing to issue mandatory convertible preferred securities and include them in tier 1 capital must consult with the Federal Reserve prior to issuance to ensure that the securities' terms are consistent with tier 1 capital treatment. See section 4060.3.9.1 for the Board's January 23, 2006, legal interpretation regarding the appropriate risk-based capital treatment for a BHC's issuance of trust preferred securities that are mandatorily convertible into noncumulative perpetual preferred securities.

2. For this purpose, an internationally active banking organization is a banking organization that (1) as of its most recent year-end FR Y-9C reports total consolidated assets equal to \$250 billion or more or (2) on a consolidated basis, reports total on-balance-sheet foreign exposure of \$10 billion or more on its filings of the most recent year-end FFIEC 009 Country Exposure Report.

appropriate, for reducing such reliance to ensure that the organization complies with these limits as of March 31, 2009.

#### 4060.3.2.1.1.3 Qualifying Common Stockholders' Equity

Qualifying 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 qualifying common stockholders' equity.

There are restrictions on the terms and features of qualifying stockholders' equity. A capital instrument that has a stated maturity date or that has a preference with regard to liquidation or the payment of dividends is not deemed to be a component of qualifying common stockholders' equity, regardless of whether or not it is called common equity. Terms or features that grant other preferences also may call into question whether the capital instrument would be deemed to be qualifying common stockholders' equity. Features that require, or provide significant incentives for, the issuer to redeem the instrument for cash or cash equivalents will render the instrument ineligible as a component of qualifying common stockholders' equity.

Although section II.A.1. allows for the inclusion of elements other than common stockholders' equity within tier 1 capital, voting common stockholders' equity, which is the most desirable capital element from a supervisory standpoint, generally should be the dominant element within tier 1 capital. Thus, banking organizations should avoid overreliance on preferred stock and nonvoting elements within tier 1 capital. Such nonvoting elements can include portions of common stockholders' equity where, for example, a banking organization has a class of nonvoting common equity, or a class of voting common equity that has substantially fewer voting rights per share than another class of voting common equity. Where a banking organization relies excessively on nonvoting elements within tier 1 capital, the Federal Reserve generally will require the banking organization to

allocate a portion of the nonvoting elements to tier 2 capital.

#### 4060.3.2.1.1.4 Qualifying Perpetual Preferred Stock

Perpetual preferred stock qualifying for inclusion in tier 1 capital has no maturity date and cannot be redeemed at the option of the holder. Perpetual preferred stock will qualify for inclusion in tier 1 capital only if it can absorb losses while the issuer operates as a going concern.

There are restrictions on the terms and features of perpetual preferred stock. Perpetual preferred stock included in tier 1 capital may not have any provisions restricting the banking organization's ability or legal right to defer or waive dividends, other than provisions requiring prior or concurrent deferral or waiver of payments on more-junior instruments. The Federal Reserve generally expects instruments to contain such a provision, which is consistent with the notion that the most junior capital elements should absorb losses first. Dividend deferrals or waivers for preferred stock, which the Federal Reserve expects will occur either voluntarily or at its direction when an organization is in a weakened condition, must not be subject to arrangements that would diminish the ability of the deferral to shore up the banking organization's resources. Any perpetual preferred stock with a feature permitting redemption at the option of the issuer may qualify as tier 1 capital only if the redemption is subject to prior approval of the Federal Reserve. Features that require, or create significant incentives for, the issuer to redeem the instrument for cash or cash equivalents will render the instrument ineligible for inclusion in tier 1 capital. For example, perpetual preferred stock that has a credit-sensitive dividend feature—that is, a dividend rate that is reset periodically based, in whole or in part, on the banking organization's current credit standing—generally does not qualify for inclusion in tier 1 capital.<sup>3</sup> Similarly, perpetual preferred stock that has a dividend-rate step-up or a market-value conversion feature—that is, a feature whereby the holder must or can convert the preferred stock into common stock at the market price prevailing at the time of conversion—generally does not

3. Traditional floating-rate or adjustable-rate perpetual preferred stock (that is, perpetual preferred stock in which the dividend rate is not affected by the issuer's credit standing or financial condition but is adjusted periodically in relation to an independent index based solely on general market interest rates), however, generally qualifies for inclusion in tier 1 capital provided all other requirements are met.



qualify for inclusion in tier 1 capital.<sup>4</sup> Perpetual preferred stock that does not qualify for inclusion in tier 1 capital generally will qualify for inclusion in tier 2 capital.

Perpetual preferred stock included in tier 1 capital may provide for dividend waivers on either a cumulative or noncumulative basis. Perpetual preferred stock that is noncumulative generally may not permit the accumulation or payment of unpaid dividends in any form, including in the form of common stock. Perpetual preferred stock that provides for the accumulation or future payment of unpaid dividends is deemed to be cumulative, regardless of whether or not it is called noncumulative.

The Board has noted that it generally is permissible (1) for perpetual preferred stock to provide voting rights to investors upon the nonpayment of dividends or (2) for junior subordinated debt and trust preferred securities to provide voting rights to investors upon the deferral of interest and dividends, respectively. However, these clauses conferring voting rights may contain only customary provisions, such as the ability to elect one or two directors to the board of the BHC issuer, and may not be so adverse as to create a substantial disincentive for the banking organization to defer interest and dividends when necessary or prudent.

#### 4060.3.2.1.1.5 Qualifying Minority Interest in the Equity Accounts of Consolidated Subsidiaries

Minority interest in the common and preferred stockholders' equity accounts of a consolidated subsidiary (minority interest) represents stockholders' equity associated with common or preferred equity instruments issued by a banking organization's consolidated subsidiary that are held by investors other than the banking organization. Minority interest is included in tier 1 capital because, as a general rule, it represents equity that is freely available to absorb losses in the issuing subsidiary. Nonetheless, minority interest typically is not available to absorb losses in the banking organization as a whole, a feature that is a particular concern when the minority interest is issued by a subsidiary that is neither a U.S. depository institution nor a foreign bank. For this reason, the capital guidelines distinguish among three types of qualifying minority

interest. Class A minority interest is minority interest related to qualifying common and noncumulative perpetual preferred stock issued directly (that is, not through a subsidiary) by a consolidated U.S. depository institution<sup>5</sup> or foreign bank<sup>6</sup> subsidiary of a banking organization. Class A minority interest is not subject to a formal limitation within tier 1 capital. Class B minority interest is minority interest related to qualifying cumulative perpetual preferred stock issued directly by a consolidated U.S. depository institution or foreign bank subsidiary of a banking organization. Class B minority interest is a restricted core capital element subject to the limitations set forth in section II.A.1.b.i. of the capital guidelines (12 CFR 225, appendix A), but it is not subject to a tier 2 sublimit. Class C minority interest is minority interest related to qualifying common or perpetual preferred stock issued by a banking organization's consolidated subsidiary that is neither a U.S. depository institution nor a foreign bank. Class C minority interest is eligible for inclusion in tier 1 capital as a restricted core capital element and is subject to the limitations set forth in sections II.A.1.b.i. and II.A.2.d.iv.

#### 4060.3.2.1.1.6 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 the banking organization's tier 1 or total capital base if the banking organization's interest in the company or fund is held under one of the legal authorities listed in section II.B.5.b.

5. U.S. depository institutions are defined to include branches (foreign and domestic) of federally insured banks and depository institutions chartered and headquartered in the 50 states of the United States, the District of Columbia, Puerto Rico, and U.S. territories and possessions. The definition encompasses banks, mutual or stock savings banks, savings or building and loan associations, cooperative banks, credit unions, and international banking facilities of domestic banks.

6. For this purpose, a foreign bank is defined as an institution that engages in the business of banking; is recognized as a bank by the bank supervisory or monetary authorities of the country of its organization or principal banking operations; receives deposits to a substantial extent in the regular course of business; and has the power to accept demand deposits.

4. Traditional convertible perpetual preferred stock, which the holder must or can convert into a fixed number of common shares at a preset price, generally qualifies for inclusion in tier 1 capital provided all other requirements are met.

#### 4060.3.2.1.1.7 Minority Interests in Consolidated Asset-Backed Commercial Paper Programs

Minority interests in consolidated asset-backed commercial paper (ABCP) programs that are sponsored by a banking organization are not included in the organization's tier 1 or total capital if the organization excludes the consolidated assets of such programs from risk-weighted assets pursuant to section III.B.6.

#### 4060.3.2.1.1.8 Qualifying Trust Preferred Securities

Trust preferred securities are undated cumulative preferred securities issued out of a special-purpose entity (SPE), usually in the form of a trust, in which a BHC owns all of the common securities. A key advantage of trust preferred securities to BHCs is that for tax purposes the dividends paid on trust preferred securities, unlike those paid on directly issued preferred stock, are a tax-deductible interest expense. The Internal Revenue Service ignores the trust and focuses on the interest payments on the underlying subordinated note.

In 2000, the first pooled issuance of trust preferred securities came to market. Pooled issuances generally constitute the issuance of trust preferred securities by a number of BHCs to a pooling entity that issues to the market asset-backed securities representing interests in the BHCs' pooled trust preferred securities. Such pooling arrangements, which have become increasingly popular and typically involve 30 or more separate BHC issuers, have made the issuance of trust preferred securities possible for even very small BHCs, most of which had not previously enjoyed capital-market access for raising tier 1 capital.

BHCs in deteriorating financial condition have deferred dividends on trust preferred securities to preserve cash flow. In addition, trust preferred securities have proven to be a useful source of capital funding for BHCs, which often downstream the proceeds in the form of common stock to subsidiary banks, thereby strengthening the banks' capital bases. Trust preferred securities are available to absorb losses throughout the BHC and do not affect the BHC's liquidity position. In addition, trust preferred securities are relatively simple, standardized, and well-understood instruments that are widely

issued by both corporate and banking organizations. Moreover, issuances of trust preferred securities tend to be broadly distributed and transparent and, thus, easy for the market to track. A banking organization that wishes to issue trust preferred securities and include them in tier 1 capital must first consult with the Federal Reserve.

A key consideration of the Board has been the ability of trust preferred securities to provide financial support to a consolidated BHC because of their deep subordination and the ability of the BHC to defer dividends for up to 20 consecutive quarters. Trust preferred securities, like other forms of minority interest, are not included in GAAP equity and cannot forestall a BHC's insolvency. Nevertheless, trust preferred securities are available to absorb losses more broadly than most other minority interest in the consolidated banking organization is able to because the issuing trust's sole asset is a deeply subordinated note of its parent BHC. Thus, if a BHC defers payments on its junior subordinated notes underlying the trust preferred securities, the BHC can use the cash flow anywhere within the consolidated organization.

Qualifying trust preferred securities must allow for dividends to be deferred for at least 20 consecutive quarters without an event of default, except that the note may provide for an event of default and the acceleration of principal and unpaid interest, giving investors the right to take hold of the subordinated note issued by the BHC, upon (1) nonpayment for 20 or more consecutive quarters or (2) termination of the trust without redemption of the trust preferred securities, distribution of the notes to investors, or assumption of the obligation by a successor to the BHC. The required notification period for such deferral must be reasonably short, no more than 15 business days prior to the payment date.

The sole asset of the trust must be a junior subordinated note issued by the sponsoring banking organization that has a minimum maturity of 30 years and is subordinated with regard to both liquidation and priority of periodic payments to all senior and subordinated debt of the sponsoring banking organization (other than other junior subordinated notes underlying trust preferred securities). Otherwise the terms of a junior subordinated note must mirror those of the preferred securities issued by the trust.<sup>6a</sup> The note

6a. 1 Under generally accepted accounting principles (GAAP), the trust issuing the preferred securities generally is not consolidated on the banking organization's balance sheet; rather the underlying subordinated note is recorded as a liability on the organization's balance sheet. Only the amount of the trust preferred securities issued, which generally is

must comply with section II.A.2.d. of the capital guidelines and the Federal Reserve's subordinated debt policy statement set forth in 12 C.F.R. 250.166<sup>6b</sup> except that the note may provide for an event of default and the acceleration of principal and accrued interest upon (1) non-payment of interest for 20 or more consecutive quarters or (2) termination of the trust without redemption of the trust preferred securities, distribution of the notes to investors, or assumption of the obligation by a successor to the banking organization.

In the last five years before the maturity of the note, the outstanding amount of the associated trust preferred securities is excluded from tier 1 capital and included in tier 2 capital, where the trust preferred securities are subject to the amortization provisions and quantitative restrictions set forth in sections II.A.2.d.iii. and iv. as if the trust preferred securities were limited-life preferred stock.

When a banking organization hedges trust preferred stock through an interest-rate swap with a deferral feature, the deferral terms on the swap must be symmetrical for both the organization and its counterparty and must not have the effect of draining the organization's resources in a time of stress. The swap contract, for example, must not provide that the counterparty may defer, on a cumulative basis, its swap payments due to the banking organization during a trust

preferred deferral period when the banking organization must continue to make payments to the counterparty. A plain-vanilla swap, when neither the banking organization nor its counterparty may defer payments, generally is an acceptable instrument for hedging the interest-rate risk on trust preferred stock included in tier 1 capital. Trust preferred stock issues may not be included in tier 1 capital if they are covered by an interest-rate derivative contract with asymmetrical deferral terms. (See SR-02-10.)

#### 4060.3.2.1.1.9 GAAP Accounting for Trust Preferred Securities

The Financial Accounting Standards Board (FASB) revised the accounting treatment of trust preferred securities in January 2003 through the issuance of its FASB Interpretation No. 46, "Consolidation of Variable Interest Entities (FIN 46)." Since then the accounting industry and BHCs have dealt with the application of FIN 46 to the consolidation by BHC sponsors of trusts issuing trust preferred securities. In late December 2003, when FASB issued a revised version of FIN 46 (FIN 46R), the accounting authorities generally concluded that such trusts must be deconsolidated from their BHC sponsors' financial statements under generally accepted accounting principles (GAAP). Therefore, for GAAP accounting purposes, trust preferred securities generally will continue to be accounted for as equity at the level of the trust that issues them, but the instruments may no longer be treated as minority interest in the equity accounts of a consolidated subsidiary on a BHC's consolidated balance sheet. Instead, under FIN 46 and FIN 46R, a BHC must reflect on its consolidated balance sheet the deeply subordinated note the BHC issued to the deconsolidated SPE.

A change in the GAAP accounting for a capital instrument does not necessarily change the regulatory capital treatment of that instrument. Although GAAP informs the definition of regulatory capital, the Board may decide not to use GAAP accounting concepts in its definition of tier 1 or tier 2 capital. Regulatory capital requirements are regulatory constructs designed to ensure the safety and soundness of banking organizations, not accounting designations established to ensure the transparency of financial statements. These differences are only between the definition of equity for purposes of GAAP and the definition of tier 1 capital for purposes

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equal to the amount of the underlying subordinated note less the amount of the sponsoring banking organization's common equity investment in the trust (which is recorded as an asset on the banking organization's consolidated balance sheet), may be included in tier 1 capital. Because this calculation method effectively deducts the banking organization's common stock investment in the trust in computing the numerator of the capital ratio, the common equity investment in the trust should be excluded from the calculation of risk-weighted assets in accordance with footnote 17 of the capital guidelines. Where a banking organization has issued trust preferred securities as part of a pooled issuance, the organization generally must not buy back a security issued from the pool. Where a banking organization does hold such a security (for example, as a result of an acquisition of another banking organization), the amount of the trust preferred securities includable in regulatory capital must, consistent with section II.(i) of the capital guidelines, be reduced by the notional amount of the banking organization's investment in the security issued by the pooling entity.

6b. 2 Trust preferred securities issued before April 15, 2005, generally would be includable in tier 1 capital despite noncompliance with sections II.A.1.c.iv. or II.A.2.d. of the capital guidelines or 12 C.F.R. 250.166 provided the non-complying terms of the instrument (1) have been commonly used by banking organizations, (2) do not provide an unreasonably high degree of protection to the holder in circumstances other than bankruptcy of the banking organization, and (3) do not effectively allow a holder in due course of the note to stand ahead of senior or subordinated debt holders in the event of bankruptcy of the banking organization.

of the Board's regulatory capital requirements for banking organizations.

Nevertheless, consistent with long-standing Board direction, BHCs are required to follow GAAP for regulatory reporting purposes. Thus, BHCs should, for both accounting and regulatory reporting purposes, determine the appropriate application of GAAP (including FIN 46 and FIN 46R) to their trusts issuing trust preferred securities. Accordingly, there should be no substantive difference in the treatment of trust preferred securities issued by such trusts, or the underlying junior subordinated debt, for purposes of regulatory reporting and GAAP accounting.

#### 4060.3.2.1.1.10 Asset-Driven Preferred Securities

In addition to issuing trust preferred securities, banking organizations have also issued asset-driven securities, particularly real estate investment trust (REIT) preferred securities. REIT preferred securities generally are issued by SPE subsidiaries of a bank that qualify as REITs for tax purposes. In most cases, the REIT issues noncumulative perpetual preferred securities, generally noncumulative, to the market and uses the proceeds to buy mortgage-related assets from its sole common shareholder, its parent bank. By qualifying as a REIT under the tax code, the SPE's income is not subject to tax at the entity level but is taxable only as income to the REIT's investors upon distribution. Two key qualifying criteria for REITs are that REITs must hold predominantly real estate assets and must pay out annually a substantial portion of their income to investors. To avoid a situation in which preferred stock investors in a REIT subsidiary of a failing bank are effectively overcollateralized by high-quality mortgage assets of the parent bank, the federal banking agencies have required REIT preferred securities to have an exchange provision to qualify for inclusion in tier 1 capital. The exchange provision provides that upon the occurrence of certain events, such as the parent bank's becoming undercapitalized or being placed into receivership, the REIT preferred securities will be exchanged upon the directive of the parent bank's primary federal supervisor for directly issued perpetual preferred securities of the parent bank with generally identical terms. In the absence of the exchange provision, the REIT preferred securi-

ties would provide little support to a deteriorating or failing parent bank or to the FDIC, despite possibly comprising a substantial amount of the parent bank's tier 1 capital (in the form of minority interest).

While some banking organizations have issued a limited amount of REIT preferred and other asset-driven securities, most BHCs prefer to issue trust preferred securities because they are relatively simple and standard instruments, do not tie up liquid assets, are easier and more cost-efficient to issue and manage, and are more transparent and better understood by the market. Also, BHCs generally prefer to issue trust preferred securities at the holding company level rather than issue REIT preferred securities at the bank level because doing so gives them greater flexibility in using the proceeds of such issuances.

#### 4060.3.2.1.1.11 Inclusion of an Operating Subsidiary's Perpetual Preferred Stock in Minority Interest

Whenever a banking organization 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. 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 banking organization, as a common shareholder, has on those assets. Therefore, as a general rule, 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 lends significant amounts of funds to the parent banking organization, 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 the subsidiary's operations, or has issued preferred stock at a significantly lower rate than the parent could obtain for a direct issue.

Some bank holding companies may use a nonoperating subsidiary or SPE to issue perpetual preferred stock to outside investors. Such a subsidiary may be set up offshore so that it 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. Preferred stock issued by a subsidiary and collateralized by the subsidiary's assets is not included in tier 1 or tier 2 capital unless approved by the Federal Reserve because of the need to verify the incorporation of prudential features warranting capital inclusion.

Banking organizations may also use operating or nonoperating subsidiaries to issue subordinated debt. As with perpetual preferred stock issued through such subsidiaries, it is possible that such debt is in effect secured and therefore not includable in capital.

#### 4060.3.2.1.1.12 Forward Equity Transactions

Banking organizations have engaged in various types of forward transactions relating to 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 are also a means of managing regulatory capital ratios.

Banking organizations have generally continued to treat shares under forward equity arrangements as tier 1 capital. However, these transactions can impair the permanence of the shares and typically have certain features that are undesirable from a supervisory point of view. For these reasons, shares covered by these arrangements have qualities that are inconsistent with tier 1 capital status.<sup>6c</sup> Accordingly, any common stock covered by forward equity transactions entered into after the issuance of SR-01-27 (November 9, 2001) will be excluded from the tier 1 capital of a bank holding company (or a state member bank), other than those transactions specified for deferred compensation or other employee benefit plans. This exclusion applies even if the transactions were 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.

#### 4060.3.2.1.2 Tier 2 Capital

Tier 2 capital consists of (1) a limited amount of the allowance for loan and lease losses;<sup>6d</sup> (2) perpetual preferred stock (original term of 20 years or more) including related surplus (also includes cumulative perpetual preferred stock exceeding its tier 1 limitation, including auction-rate preferred stock, or any other perpetual preferred stock in which the dividend rate is reset periodically, in whole or in part, based on the holding company's financial condition); (3) hybrid capital instruments, perpetual debt, and mandatory convertible debt securities; (4) limited amounts (50 percent of tier 1 capital net of goodwill and other intangibles) of term subordinated debt and intermediate-term preferred stock, including related surplus; and (5) limited unrealized holding gains on equity securities. Tier 2 capital may not exceed tier 1 capital (net of goodwill, other intangible assets, and interest-only strips receivables and nonfinancial equity investments that are required to be deducted in accordance with section II.B).

The amount of mandatory convertible securities that have the proceeds of common or perpetual preferred stock dedicated to retire or redeem them and that have a maximum maturity of 12 years should be treated as term subordinated debt. Mandatory convertible securities, net of the stock dedicated to redeem or retire the issues, are included within tier 2 on an unlimited basis.

There is a limit on the amount of unrealized holding gains on equity securities and the unrealized gains (losses) on other assets. Up to 45 percent of pretax net unrealized holding gains (that is, the excess, if any, of the fair value over historical cost) on available-for-sale equity securities, with readily determinable fair values, may be included in supplementary capital. However, the Federal Reserve may exclude all or a portion of these unrealized gains from tier 2

<sup>6d</sup>. This allowance is limited to 1.25 percent of risk-weighted assets.

<sup>6c</sup>. Section 4060.3.2.1.1.1 states that "a capital instrument that is not permanent...is not deemed to be common stock, regardless of whether it is called common stock." See also section 3020.1 of the *Commercial Bank Examination Manual*.

capital if it determines that the equity securities are not prudently valued. Unrealized gains (losses) on other types of assets, such as bank premises and available-for-sale debt securities, are not included in supplementary capital. The Federal Reserve may take these unrealized gains (losses) into account as additional factors when assessing an institution's overall capital adequacy.

#### 4060.3.2.1.2.1 Subordinated Debt and Intermediate-Term Preferred Stock

Subordinated debt and intermediate-term preferred stock must have an original weighted average maturity of at least five years to qualify as tier 2 capital. If the holder has the option to require the issuer to redeem, repay, or repurchase the instrument prior to the original stated maturity, maturity would be defined, for risk-based capital purposes, as the earliest possible date on which the holder can put the instrument back to the issuing banking organization. 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.

A state member bank may not repay, redeem, or repurchase a subordinated debt issue without the Federal Reserve's prior written approval. Prior written approval is not required for BHCs. They should consult with the Federal Reserve before redeeming subordinated debt. (See 12 C.F.R. 250.166(f)(2).)

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 bankruptcy or the receivership of a major banking subsidiary (in the case of a bank holding company) or receivership (in the case of a bank.)<sup>6e</sup> (See SR-92-37.) Terms that permit the holder to accelerate payment of principal upon the occurrence of other events jeopardize the subordination of the debt because 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 if 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 and that, accordingly, the debt issue should not be included in capital. Concern is heightened when an event of default gives the holder the right to accelerate payment of principal or when other borrowings contain cross-default clauses. Some events of default, such as making additional borrowings in excess of a certain amount, may unduly restrict the day-to-day operations. Other events of default, such as change of control or disposal of a banking organization subsidiary, may limit the flexibility of management or supervisors to work out the problems of a troubled organization. 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 chargeoffs to a certain level, may be intended to allow the debtholder to be made whole before a deteriorating banking organization 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, bank holding companies should not include in capital debt issues that otherwise contain terms or covenants that could adversely affect the issuer's liquidity; unduly restrict management's flexibility to run the organization, particularly in times of financial difficulty; or limit the regulator's ability to resolve problem situations.

Certain terms found in subordinated debt, however, may provide protection to investors without adversely affecting the overall benefits of the instrument to the organization, and thus would be acceptable for subordinated debt to be included in capital. Among such acceptable terms would be a provision that prohibits a bank holding company from merging, consolidating, or selling substantially all of its assets unless the new entity assumes the subordinated debt. Another acceptable provision would be the inclusion as an event of default of the failure to pay

<sup>6e</sup>. A provision in bank holding company subordinated debt that permits acceleration in the event a major bank subsidiary enters into receivership would not jeopardize the issue's tier 2 capital status. A provision permitting acceleration in the event that any other type of affiliate of the issuer entered into bankruptcy or receivership would not be acceptable in a subordinated debt issue included in capital.

principal and interest on a timely basis or to make mandatory sinking-fund deposits, so long as such event of default does not allow the debtholders to accelerate the repayment of principal. (See SR-92-37.)

Debt issues, including mandatory convertible securities, that tie interest payments to the financial condition of the borrower generally should not be included in capital. Such payments may be linked to the financial condition of an institution through various ways, such as (1) an auction-rate mechanism, which is a preset schedule-mandating interest-rate increase either over the passage of time or as the credit rating of the bank holding company declines,<sup>6f</sup> or (2) a term that raises the interest rate if payment is not made in a timely fashion. As the financial condition of a bank holding company declines, it is faced with higher and higher 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 organization's resources and increase the likelihood of default 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 banking organization in a deteriorating financial condition may not have the option available in equity issues of eliminating the higher payments without going into default. If a bank holding company has included in its capital subordinated debt issued by an operating or nonoperating subsidiary, it is possible that the debt is in effect secured and, thus, not includable in capital.

Subordinated debt included in tier 2 capital must comply with the Federal Reserve's subordinated debt policy statement set forth in 12 C.F.R. 250.166.<sup>6g</sup> Accordingly, such sub-

ordinated debt must meet the following requirements:

1. The subordinated debt must be unsecured.
2. The subordinated debt must clearly state on its face that it is not a deposit and is not insured by a federal agency.
3. The subordinated debt must not have credit-sensitive features or other provisions that are inconsistent with safe and sound banking practice.
4. Subordinated debt issued by a subsidiary U.S. depository institution or foreign bank of a bank holding company must be subordinated in right of payment to the claims of all the institution's general creditors and depositors, and generally must not contain provisions permitting debt holders to accelerate payment of principal or interest upon the occurrence of any event other than receivership of the institution. Subordinated debt issued by a bank holding company or its subsidiaries that are neither U.S. depository institutions nor foreign banks must be subordinated to all senior indebtedness of the issuer; that is, the debt must be subordinated to all borrowed money, similar obligations arising from off-balance-sheet guarantees and direct-credit substitutes, and obligations associated with derivative products such as interest-rate and foreign-exchange contracts, commodity contracts, and similar arrangements. Subordinated debt issued by a bank holding company or any of its subsidiaries that is not a U.S. depository institution or foreign bank must not contain provisions permitting debt holders to accelerate the payment of principal or interest upon the occurrence of any event other than the bankruptcy of the bank holding company or the receivership of a major subsidiary depository institution. Thus, a provision permitting acceleration in the event that any other affiliate of the bank holding company issuer enters into bankruptcy or receivership makes the instrument ineligible for inclusion in tier 2 capital.

6f. 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 banking organization, such debt (sometimes referred to as expanding- or exploding-rate debt) has a strong potential to be credit-sensitive in substance. Banking organizations 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 those banking organizations whose condition has deteriorated are less likely to be able 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 therefore would accelerate depletion of their resources.

6g. The subordinated debt policy statement set forth in 12 C.F.R. 250.166 notes that certain terms found in subordinated debt may provide protection to investors without adversely

affecting the overall benefits of the instrument to the issuing banking organization and, thus, would be acceptable for subordinated debt included in capital. For example, a provision that prohibits a bank holding company from merging, consolidating, or selling substantially all of its assets unless the new entity redeems or assumes the subordinated debt or that designates the failure to pay principal and interest on a timely basis as an event of default would be acceptable, so long as the occurrence of such events does not allow the debt holders to accelerate the payment of principal or interest on the debt.

As a limited-life capital instrument approaches maturity, it begins to take on characteristics of a short-term obligation. For this reason, the outstanding amount of term subordinated debt and limited-life preferred stock eligible for inclusion in tier 2 capital is reduced, or discounted, as these instruments approach maturity: One-fifth of the outstanding amount is excluded each year during the instrument's last five years before maturity. When remaining maturity is less than one year, the instrument is excluded from tier 2 capital.

The aggregate amount of term subordinated debt (excluding mandatory convertible debt) and limited-life preferred stock as well as, beginning March 31, 2009, qualifying trust preferred securities and class C minority interest in excess of the limits set forth in section II.A.1.b.i. that may be included in tier 2 capital is limited to 50 percent of tier 1 capital (net of goodwill and other intangible assets required to be deducted in accordance with section II.B.1.b.). Amounts of these instruments in excess of this limit, although not included in tier 2 capital, will be taken into account by the Federal Reserve in its overall assessment of a banking organization's funding and financial condition.

#### *4060.3.2.1.3 Deductions from Tier 1 and Tier 2 Capital*

The risk-based capital guidelines require that 50 percent of the aggregate amount of capital investments in unconsolidated banking and finance subsidiaries should be deducted from the bank holding company's tier 1 capital and 50 percent from its tier 2 capital. If the amount of tier 2 capital is insufficient for the required deduction, the additional amount needed would be deducted from tier 1 capital. Reciprocal holdings of other banking organizations' capital instruments are to be deducted from the sum of tier 1 and tier 2 capital.

#### **4060.3.2.2 Procedures for Risk Weighting of On- and Off-Balance-Sheet Items**

The risk-based capital guidelines establish four general categories of credit risk. These categories of credit risk reflect the nature and quality of collateral, guarantees, and organizations issuing or backing obligations. Assets and credit-

equivalent amounts of off-balance-sheet items are allocated to the various categories, which are assigned weights of 0 percent, 20 percent, 50 percent, and 100 percent, depending on the perceived level of credit risk to the banking organization. (See 12 C.F.R. 225, appendix A, section III, for a more detailed listing of the assets assigned to each risk-weight category.)

The majority of the items will fall in 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.

#### *4060.3.2.2.1 Risk Categories*

##### **4060.3.2.2.1.1 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 Organization for Economic Cooperation 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 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.



## 4060.3.2.2.1.2 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<sup>6h</sup> on, and claims guaranteed by, a qualifying securities firm<sup>6i</sup> incorporated in the United States or

6h. Claims on a qualifying securities firm that the firm, or its parent company, uses to satisfy its applicable capital requirements are not eligible for this risk weight.

6i. 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

another member of the OECD-based group of countries 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,<sup>6j</sup> and (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 certain collateralized claims on, or guaranteed by, 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

Exchange Commission (SEC) and that are in compliance with the SEC's net capital rule, 17 C.F.R. 240.15c3-1. With regard to securities firms incorporated in other countries in the OECD-based group of countries, qualifying securities firms are those securities firms that a banking organization 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.

6j. A nationally recognized statistical rating organization (NRSRO) is an entity 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 (17 C.F.R. 240.15c3-1).

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.<sup>7</sup>

#### 4060.3.2.2.1.3 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. 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 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 capital guidelines (12 C.F.R. 225, appendix A); (2) if the security is backed by a pool of conven-

tional 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.

#### 4060.3.2.2.1.4 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

7. 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 U.S.C. 555 or 559); a qualified financial contract under section 11(e)(8) of the Federal Deposit Insurance Act (12 U.S.C. 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 U.S.C. 4401–4407) or the Board's Regulation EE (12 C.F.R. 231).

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 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.

#### 4060.3.2.2.2 *Application of the Risk Weights*

The appropriate aggregate dollar value of the amount in each category is multiplied by the risk weight associated with that category. The resulting weighted values for each of the risk categories are added together.

Off-balance-sheet items are incorporated into the risk-based capital ratio through a two-step process. First, a credit-equivalent amount<sup>8</sup> for the item, except for direct-credit substitutes and recourse obligations, is calculated by multiplying the item by a credit-conversion factor. Second, the credit-equivalent amount of the off-balance-sheet item is then categorized in the same manner as on-balance-sheet items, that is, by credit risk, according to the obligor or, if relevant, the guarantor or nature of the collateral. The credit-conversion factors, that is, fac-

tors ranging from 0 to 100 percent,<sup>9</sup> are intended to reflect the risk characteristics of the activity in terms of an on-balance-sheet equivalent. The resulting sum of the risk-adjusted on- and off-balance-sheet items is the bank holding company's total risk-weighted assets, which comprises the denominator of the risk-based capital ratio. Generally, if an item may be assigned to more than one risk category, that item should be assigned to the category that has the lowest risk weight.

*Collateral guarantees and other considerations.* Under the guidelines, the primary determinant of the risk category of a particular on- or off-balance-sheet item is the obligor or, if relevant, the guarantor or nature of the collateral. To a limited extent, collateral or guarantees securing some obligations may be used to place an item or items in lower risk weights than would be available to the obligor. The forms of collateral that are formally recognized and available for this purpose are cash on deposit in subsidiary lending institutions;<sup>10</sup> securities issued or guaranteed by the central governments of the OECD-based group of countries, U.S. government agencies, or U.S. government-sponsored agencies; and securities issued by multilateral lending institutions or regional development banks. Obligations that are fully secured by such collateral are assigned to the 20 percent risk category.

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 market value of eligible securities used as collateral should be used to determine whether an obligation is partially or fully secured. 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.

8. For interest-rate and foreign-exchange contracts, the credit-equivalent amount is determined by multiplying the notional amount by a conversion factor (which is different for contracts maturing in one year or less and those maturing in over a year) and adding the resulting amount to the positive mark-to-market values of the contracts. The maximum risk weight applied to interest-rate and exchange-rate contracts is 50 percent.

9. Interest-rate and exchange-rate contracts use conversion factors significantly below those used for other off-balance-sheet activities. These factors are assigned by remaining maturity, one year or less or more than one year, and range from 0 to 5 percent.

10. With regard to syndicated credits secured by cash on deposit in the lead institution, there is a limited exception to the rule that cash must be on deposit in the lending institution to be recognized as collateral. A lending institution participating in the syndication may treat its pro rata share of the credit as collateralized if it has a perfected interest in its pro rata share of the collateral.

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.

Certain guarantees are recognized for risk-based capital purposes as follows: guarantees of the OECD and non-OECD central governments; U.S. government agencies and U.S. government-sponsored agencies; state and local governments of the OECD-based group of countries; multilateral lending institutions and regional development banks; and 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 for the obligor or collateral, if any. An obligation that is covered by two types of guarantees having different risk weights is apportioned between the two risk categories appropriate for the guarantors. Direct-credit substitutes, assets transferred with recourse, and securities issued in connection with asset securitizations and structured financings are treated as described in section 4060.3.5.3.

### 4060.3.3 IMPLEMENTATION

The guidelines apply to those bank holding companies having \$500 million or more in assets on a consolidated basis. For bank holding companies having *less than* \$500 million in assets on a consolidated basis, the guidelines will apply only to their subsidiary banks unless (1) the parent bank holding company is engaged in a nonbank activity involving significant leverage (including off-balance-sheet activity) or (2) the parent holding company has a significant amount of outstanding debt that is held by the general public.

By year-end 1992 and thereafter, banking organizations are expected to meet the minimum risk-based capital ratio. The minimum ratio of capital to risk-weighted assets should be 8 percent or more with at least 4 percent taking the form of tier 1 capital. An assessment of the banking organization's capital adequacy should reflect the level and severity of the classified assets summarized in the examination and inspection.

Banking organizations 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 that will satisfy the provisions of the

guidelines or that will satisfy agreed-upon arrangements established with the Federal Reserve for designated banking organizations. In addition, such banking organizations 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 banking organizations' capital plans and their progress in meeting minimum risk-based capital requirements.

It would be appropriate to include comments on risk-based capital in the open section of the examination or inspection report when assessing the organization's capital adequacy. Banking organizations should be encouraged to establish as soon as possible capital levels and ratios that are consistent with their overall financial profiles. Examiner comments should address the adequacy of the banking organization's plans and progress toward meeting and maintaining the minimum capital ratios, according to the guidelines.

### 4060.3.4 DOCUMENTATION

Banking organizations 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 for regulatory reporting and other supervisory purposes. Generally, supporting documentation will be expected to establish how banking organizations track and report their capital components and on- and off-balance-sheet items that are given preferential treatment. It may be necessary for examiners to reassign on- or off-balance-sheet items that are given a preferential risk weight to a weight of 100 percent, when supporting documentation is inadequate. Examiners are expected to verify that bank holding companies are correctly reporting the information requested on the holding companies' consolidated financial statements (FR Y-9C), which are used to compute the organization's risk-based capital ratios.

### 4060.3.5 SUPERVISORY CONSIDERATIONS FOR CALCULATING AND EVALUATING RISK-BASED CAPITAL

Examiners must consider certain requirements

and factors when assessing the risk-based capital ratios and the overall capital adequacy of banking organizations. Analysis of these requirements and factors may have a material impact on the amount of capital banking organizations must hold to appropriately support certain activities for on- and off-balance-sheet items. The treatment of the following such activities must be used when assessing compliance with the guidelines and overall capital adequacy of banking organizations.

- *Certain capital-adjustment considerations:*
  - investments and advances to unconsolidated banking and finance subsidiaries
  - review and monitoring of goodwill and certain other intangible assets
  - certain credit-enhancing interest-only strips (I/Os)
  - reciprocal holdings of banking organizations' capital instruments
  - deferred tax assets
  - nonfinancial equity investments
- *Certain balance-sheet activity considerations:*
  - investment in shares of a mutual fund
  - mortgage-backed securities
  - loans secured by first liens on one- to four-family residential properties
- *Certain off-balance-sheet activity considerations:*
  - small-business loans and leases on personal property
  - assets sold with recourse (FAS 140 sales)
  - securities lent
  - unused commitments
  - financial and performance standby letters of credit
  - avoidance of double-counting of interest-rate and exchange-rate contracts
  - treatment of commodity and equity swaps
  - netting of swaps and similar contracts
  - assets sold with recourse
- *Considerations in the overall assessment of capital adequacy:*
  - unrealized asset values
  - terms of subordinated debt and intermediate-term preferred stock
  - ineligible collateral and guarantees
  - overall asset quality
  - interest-only and principal-only strips
  - interest-rate risk
  - claims on, and claims guaranteed by, OECD central governments

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 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 holding company operates as a going concern, the maturity and redemption features of the instrument, and other relevant terms and factors.

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 holding company 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 organization's capital base.<sup>11</sup>

#### 4060.3.5.1 Investments in and Advances to 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<sup>12</sup> are to be deducted from the consolidated capital of the banking organizations, regardless of whether the investment is made by a parent bank holding company or its direct or indirect subsidiaries.<sup>13</sup> Fifty percent of the investment is to be deducted from tier 1 capital and 50 percent from tier 2 capital. In cases where tier 2 capital is not sufficient to absorb the portion

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

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

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

(50 percent) of the investment allocated to it, the remainder (up to 100 percent) is to be deducted from tier 1 capital. In addition, capital investments in certain other subsidiaries that, while consolidated for accounting purposes, are not consolidated for certain supervisory or regulatory purposes, such as to facilitate functional regulation, are to be deducted from tier 1 and tier 2 capital of the banking organization in the same proportion as for unconsolidated banking and finance subsidiaries.

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 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 banking organization's consolidated capital if the Federal Reserve finds 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 banking organizations to allow the advances, regardless of form, to serve as capital to subsidiaries.

The Board does not automatically deduct investments in other unconsolidated subsidiaries or investments in joint ventures and associated companies. Nonetheless, resources invested in these entities support assets that are not consolidated with the rest of the bank holding company and, therefore, may not be generally available to support additional leverage or absorb losses of affiliated institutions. Moreover, experience has shown that banking organizations often stand behind the losses of affiliated institutions in order 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 these entities.

Accordingly, the level and nature of such investments should be closely monitored. For risk-based capital purposes, on a case-by-case basis, a bank holding company may be required to deduct such investments from total capital, to apply an appropriate risk-weighted capital charge against its pro rata share of the assets of the affiliated entity, to perform a required line-by-line consolidation of the entity, or to operate with a risk-based capital ratio above the minimum. In determining the appropriate capital treatment for such actions, the Board will generally take into account whether (1) the banking

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

#### *4060.3.5.1.1 Review and Monitoring of Intangible Assets*

For bank holding companies, tier 1 capital is generally defined as the sum of core capital elements less goodwill and other intangible assets required to be deducted in accordance with section II.B.1.b. of the risk-based measure of the capital adequacy guidelines for BHCs. Certain intangible assets *are not required to be deducted* from capital.

##### **4060.3.5.1.1.1 Certain Assets That May Be Included in Capital**

All servicing assets, including servicing assets on assets other than mortgages (that is, nonmortgage-servicing assets), are deemed identifiable intangible assets. The only types of identifiable intangible assets that may be included in, that is, not deducted from, an organization's capital are readily marketable mortgage-servicing assets, nonmortgage-servicing assets, purchased credit-card relationships (PCCRs), and credit-enhancing I/Os. The total amount of these assets that are included in capital, in the aggregate, cannot exceed 100 percent of tier 1 capital. Nonmortgage-servicing assets and purchased credit-card relationships are subject to a separate sublimit of 25 percent of tier 1 capital. The total amount of credit-enhancing I/Os (both purchased and retained) that may be included in capital cannot exceed 25 percent of tier 1 capital.<sup>14</sup> The total amount of credit-enhancing I/Os (both purchased and retained) that may be

14. Amounts of mortgage-servicing rights and purchased credit-card relationships 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 an organization's core capital elements in determining tier 1 capital. Identifiable intangible assets, however, exclusive of mortgage-servicing assets and purchased credit-card relationships, acquired on or before February 19, 1992, generally *will not* be deducted from capital for supervisory purposes. They will, however, continue to be deducted for applications purposes.

included in capital cannot exceed 25 percent of tier 1 capital.

Purchased mortgage-servicing assets are identifiable intangible assets associated with the right to service mortgage loans. They usually arise when the rights are purchased from the entity that originated the mortgage loans. An organization that acquires purchased mortgage-servicing assets (PMSAs) has the obligation to collect principal and interest payments and escrow accounts from the mortgagor and to ensure that all amounts collected from the mortgagor are passed on to the appropriate parties. For performing these services, the servicer receives a fee, which is generally based on the remaining principal amount due on the mortgages being serviced.

Originated mortgage-servicing assets (OMSAs) generally represent the servicing rights acquired when an organization originates mortgage loans and subsequently sells the loans but retains the servicing rights. OMSAs are capitalized as balance-sheet assets in the same manner as PMSAs as a result of a Financial Accounting Standards Board decision, FAS 140, "Accounting for the Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." FAS 140 requires the right to service mortgage loans for others to be separately recognized as a servicing asset or liability, however the rights were acquired. Servicing becomes a distinct asset or liability only when it is contractually separated from the underlying assets by sale or securitization of the assets with servicing retained or by separate purchase or assumption of the servicing. See section 3070.0.6 for information on, and accounting for, mortgage-servicing assets.

Purchased credit-card relationships are identifiable intangible assets associated with the right to provide future advances and other services to credit card holders and to provide correspondent-merchant processing under credit card arrangements that have been originated by, and purchased from, another entity. PCCRs usually arise when a credit card portfolio is bought, and the purchaser acquires the current advances outstanding under the credit card arrangements, which are tangible assets, as well as the right to provide future services to the cardholders, which is an intangible asset. The value of PCCRs is derived from the anticipated profit the purchaser will earn from interest on future advances and from fees charged for other future credit card-related services, after covering expenses and other operating costs such as credit losses.

When calculating the limitations on mortgage-servicing assets, nonmortgage-servicing assets, purchased credit-card relationships, and credit-enhancing I/Os, the definition of tier 1 capital will be the sum of core capital elements, net of goodwill and net of all identifiable intangible assets and similar assets other than mortgage-servicing assets, nonmortgage-servicing assets, and purchased credit-card relationships, regardless of when they were acquired. (This calculation of tier 1 is before the deduction of any disallowed mortgage-servicing assets, any disallowed nonmortgage-servicing assets, any disallowed purchased credit-card relationships, any disallowed credit-enhancing I/Os (purchased or retained), and any disallowed deferred tax assets.)

#### 4060.3.5.1.1.2 Valuation Review

Bank holding companies must review the book value of all intangible assets at least quarterly and make adjustments to these values as necessary. The fair market values of all intangible assets, nonmortgage-servicing assets, purchased credit-card relationships, and credit-enhancing I/Os also must be determined at least quarterly. This determination is to include adjustments for any significant changes made to the original valuation assumptions, including changes in prepayment estimates or account-attribution rates.

Examiners will review both the book value and the fair market value assigned to these assets, together with supporting documentation, during the inspection process. In addition, the Federal Reserve may require, on a case-by-case basis, an independent valuation of a BHC's intangible assets and credit-enhancing I/Os.

#### 4060.3.5.1.1.3 Fair-Value and Book-Value Limits

The amount of mortgage-servicing rights, nonmortgage-servicing assets, and purchased credit-card relationships that a bank holding company may include in capital is limited to the lesser of 90 percent of their fair value (as determined according to the guidance herein), or 100 percent of their book value, as adjusted for capital purposes in accordance with the instructions to the Consolidated Financial Statements for Bank Holding Companies (FR Y-9C Report). If both the application of the limits on mortgage-servicing assets, nonmortgage-servicing assets, and purchased credit-card relationships and the adjustment of the balance-sheet amount for these assets would result in an amount being deducted from capital, the BHC would deduct only the

greater of the two amounts from its core capital elements in determining tier 1 capital.

The amount of credit-enhancing interest-only strips (I/Os) that a bank holding company may include in capital is their fair value. Such 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 holding company to credit risk directly or indirectly associated with transferred assets that exceeds a pro rata share of the bank holding company'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 holding company's capital subject to the fair value and tier 1 limitations. 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 holding company 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.

Bank holding companies may elect to deduct disallowed mortgage-servicing assets, any disallowed nonmortgage-servicing assets, and any disallowed credit-enhancing I/Os (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 upon future taxable income.

#### 4060.3.5.1.1.4 Growing Organizations

Banking organizations 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.

#### 4060.3.5.1.1.5 Examiners' Review of Intangibles

During on-site examinations and inspections, examiners are to review the evidence of title to and the accounting for intangible assets, including their respective amortization schedules and supporting documentation. Carrying values of intangible assets and fair market values assigned

to these assets that are overstated or not adequately supported with documentation on how the carrying values were originated, amortized, or adjusted should be excluded from banking organizations' risk-based capital calculations. Intangible assets in excess of 25 percent of tier 1 capital should be closely scrutinized along with any unusual items and, if supervisory concerns warrant, deducted from tier 1 capital. An arrangement whereby a bank holding company 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 holding company's capital calculation in an appropriate manner. In making their evaluation of intangible assets, examiners are to consider a number of factors, including—

1. the reliability and predictability of any cash flows associated with the asset and the degree of certainty that can be achieved in periodically determining the asset's useful life and value,
2. the existence of an active and liquid market for the asset, and
3. the feasibility of selling the asset apart from the banking organization or from the bulk of its assets.

Intangible rights that have been allowed to lapse or that are no longer used should be recommended for authorized write-off. Examiners should review intangible assets, such as mortgage-servicing rights, nonmortgage-servicing rights (for example, core deposit intangibles and leaseholds), and purchased credit-card relationships, and determine that the organization properly monitors their level and quality.

#### 4060.3.5.1.2 Reciprocal Holdings of Banking Organizations' Capital Instruments

Reciprocal holdings (intentional cross-holdings) of 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. Reciprocal holdings are cross-holdings resulting from formal or informal arrangements between banking organizations to swap or exchange each other's capital instruments. Deductions of holdings of capital



securities also would not be made in the case of interstate “stake-out” investments that comply with the Board’s policy statement on nonvoting equity investments (12 C.F.R. 225.143). In addition, holdings of capital instruments issued by other banking organizations but taken in satisfaction of debts previously contracted would be exempt from any deduction from capital.

#### 4060.3.5.1.3 *Limit on Deferred Tax Assets*

The amount of deferred tax assets that are dependent on future taxable income, net of the valuation allowance for deferred tax assets, that may be included in, that is, not deducted from, a bank holding company’s capital may not exceed the lesser of—

1. the amount of these deferred tax assets that the bank holding company is expected to realize within one year of the calendar quarter-end, based on the projections of future taxable income for that year,<sup>15</sup> or
2. 10 percent of tier 1 capital.

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 banking organization’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 the core capital elements, net of goodwill and net of all identifiable intangible assets other than mortgage-servicing assets, nonmortgage-servicing assets, and purchased credit-card relationships, before the deduction of any disallowed mortgage-servicing assets, any disallowed nonmortgage-servicing assets,

15. To determine the amount of expected deferred tax assets realizable in the next 12 months, a banking organization 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 holding company 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, banking organizations may use the future-taxable-income projections for their current fiscal year, adjusted for any significant changes that have occurred or are expected to occur.

any disallowed purchased credit-card relationships, any disallowed credit-enhancing I/Os, any disallowed deferred tax assets, and any nonfinancial equity investments. There generally is no limit in tier 1 capital on the amount of deferred tax assets that can be realized from taxes paid in prior carry-back years and from future reversals of existing taxable temporary differences.

#### 4060.3.5.1.4 *Nonfinancial Equity Investments*

A bank holding company 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 the parent bank holding company or by its direct or indirect subsidiaries. Investments held by a bank holding company include all investments held directly or indirectly by the bank holding company or any of its subsidiaries. The adjusted carrying value of investments is the aggregate value at which the investments are carried on the balance sheet of the consolidated bank holding company reduced by any unrealized gains on those investments that are reflected in such carrying value but excluded from the bank holding company’s tier 1 capital and 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 holding company) *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.<sup>16</sup>

A nonfinancial equity investment, subject to the risk-based capital rule (the rule), is any equity investment held by the bank holding company (1) under the merchant banking authority of section 4(k)(4)(H) of the Bank Holding Company Act (the BHC Act) and subpart J of the Board’s Regulation Y (12 C.F.R. 225.175 et seq.); (2) under section 4(c)(6) or 4(c)(7) of the BHC Act in a nonfinancial company or in a company that makes investments in nonfinancial companies; (3) in a nonfinancial company through a small business investment company (SBIC) under section 302(b) of the Small Busi-

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

ness Investment Act of 1958;<sup>17</sup> (4) in a nonfinancial company under the portfolio investment provisions of the Board's Regulation K (12 C.F.R. 211.8(c)(3)); or (5) in a nonfinancial company under section 24 of the Federal Deposit Insurance Act (other than section 24(f)).<sup>18</sup>

17. An equity investment made under section 302(b) of the Small Business Investment Act of 1958 in an SBIC that is not consolidated with the parent banking organization is treated as a nonfinancial equity investment.

18. See 12 U.S.C. 1843(c)(6), (c)(7), and (k)(4)(H); 15 U.S.C. 682(b); 12 C.F.R. 211.5(b)(1)(iii); and 12 U.S.C. 1831a. In a case in which the board of directors of the FDIC, acting directly in exceptional cases and after a review of the proposed activity, has permitted a lesser capital deduction for an investment approved by the board of directors under section 24 of the Federal Deposit Insurance Act, such deduction shall also apply to the consolidated bank holding company capital calculation so long as the bank's investments under

A nonfinancial company is an entity that engages in any activity that has not been determined to be financial in nature or incidental to financial activities under section 4(k) of the Bank Holding Company Act (12 U.S.C. 1843(k)).

The bank holding company 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 holding company. The amount of the percentage deduction increases as the aggregate amount of nonfinancial equity investments held by the bank holding company increases as a percentage of the bank holding company's tier 1 capital.

section 24 and SBIC investments represent, in the aggregate, less than 15 percent of the tier 1 capital of the bank.

Table 1—Deduction for Nonfinancial Equity Investments

<i>Aggregate adjusted carrying value of all nonfinancial equity investments held directly or indirectly by the bank holding company (as a percentage of the tier 1 capital of the parent banking organization)<sup>1</sup></i>	<i>Deduction from core capital elements (as a percentage of the adjusted carrying value of the investment)</i>
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.

These 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 holding company's tier 1 capital. For example, if the adjusted carrying value of all nonfinancial equity investments held by a bank holding company equals 20 percent of the tier 1 capital of the bank holding company, then the amount of the deduction would be 8 percent of the adjusted carrying value of all investments up to 15 percent of the company's tier 1 capital, and 12 percent of the adjusted carrying value of all investments in excess of 15 percent of the company's tier 1 capital. The total adjusted carrying value of any nonfinancial equity investment that is subject to deduction is excluded from the bank holding company's risk-weighted assets for pur-

poses of computing the denominator of the company's risk-based capital ratio.<sup>19</sup>

The rule establishes minimum risk-based capital ratios, and banking organizations 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 banking organization from nonfinancial equity investments increases with its concentration in such investments, and strong capital levels above the minimum requirements are particularly important when a banking organization has a high degree of concentration in nonfinancial equity

19. 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 in calculating the denominator for the risk-based capital ratio.

investments (for example, in excess of 50 percent of tier 1 capital).

The Federal Reserve intends to monitor banking organizations and apply heightened supervision to equity investment activities as appropriate, including where the banking organization has a high degree of concentration in nonfinancial equity investments, to ensure that each organization maintains capital levels that are appropriate in light of its equity investment activities. The Federal Reserve also reserves authority to impose a higher capital charge in any case where the circumstances, such as the level of risk of the particular investment or portfolio of investments, the risk-management systems of the banking organization, or other information, indicate that a higher minimum capital requirement is appropriate.

#### 4060.3.5.1.4.1 SBIC Investments

No deduction is required for nonfinancial equity investments that are held by a bank holding company through one or more SBICs that are consolidated with the bank holding company or in one or more SBICs that are not consolidated with the bank holding company to the extent that all such investments, in the aggregate, do not exceed 15 percent of the aggregate of the bank holding company's pro rata interests in the tier 1 capital of its subsidiary banks. Any nonfinancial equity investment that is held through or in an SBIC and not required to be deducted from tier 1 capital will be assigned a 100 percent risk weight and included in the parent holding company's consolidated risk-weighted assets.<sup>20</sup>

20. If a bank holding company has an investment in an SBIC that is consolidated for accounting purposes but that is not wholly owned by the bank holding company, the adjusted carrying value of the bank holding company's nonfinancial equity investments through the SBIC is equal to the holding company'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 holding company. If a bank holding company has an investment in an SBIC that is not consolidated for accounting purposes and has current information that identifies the percentage of the SBIC's assets that are equity investments in nonfinancial companies, the bank holding company 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 holding company reduces the adjusted carrying value of its investment in a nonconsolidated SBIC to reflect

To the extent the adjusted carrying value of all nonfinancial equity investments that a bank holding company holds through one or more SBICs that are consolidated with the bank holding company or in one or more SBICs that are not consolidated with the bank holding company exceeds, in the aggregate, 15 percent of the aggregate tier 1 capital of the company's subsidiary banks, the appropriate percentage of such amounts (as set forth in table 1) must be deducted from the bank holding company'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 holding company in relation to its tier 1 capital.

No deduction is required to be made with respect to the adjusted carrying value of any nonfinancial equity investment (or portion of such an investment) that was made by the bank holding company before March 13, 2000, or that was made after such date pursuant to a binding written commitment<sup>21</sup> entered into by the bank holding company before March 13, 2000, provided that in either case the bank holding company has continuously held the investment since the relevant investment date.<sup>22</sup> A nonfinancial equity investment made before March 13, 2000, includes any shares or other interests received by the bank holding company

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.

21. A "binding written commitment" means a legally binding written agreement that requires the banking organization 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 banking organization the right to acquire equity or make an investment, but do not require the banking organization to take such actions, are not considered a binding written commitment.

22. For example, if a bank holding company made an equity investment in 100 shares of a nonfinancial company before March 13, 2000, that investment would not be subject to a deduction. However, if the bank holding company 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 holding company sold and repurchased shares of the company after March 13, 2000, the adjusted carrying value of the reacquired shares would be subject to a deduction.

through a stock split or stock dividend on an investment made before March 13, 2000, provided the bank holding company provides no consideration for the shares or interests received and the transaction does not materially increase the bank holding company'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 holding company 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 holding company in relation to its tier 1 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 holding company's consolidated risk-weighted assets.

As discussed above for 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 generally accepted accounting principles, the parent banking organization'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 consolidated bank holding company's core capital). 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 banking organization's risk-weighted assets for regulatory capital purposes.

#### 4060.3.5.1.4.2 Equity Investments

The term "equity investment" means 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. An investment in any other instrument (including subordinated debt) may be treated as an equity investment if, in the judgment of the Federal Reserve, the

instrument is the functional equivalent of equity or exposes the banking organization to essentially the same risks as an equity instrument.

#### 4060.3.5.1.5 Revaluation Reserves

Revaluation reserves reflect the formal balance-sheet restatement or revaluation for capital purposes of asset carrying values to reflect the current market values. The Federal Reserve generally has not included unrealized asset appreciation in capital-ratio calculations, although it has long taken such values into account as a separate factor in assessing the overall financial strength of a banking organization.

Consistent with long-standing supervisory practice, the excess of market values over book values for assets held by bank holding companies will generally not be recognized in supplementary capital or in the calculation of the risk-based capital ratio. However, all bank holding companies are encouraged to disclose their equivalent of premises (building) and security-revaluation reserves. The Federal Reserve will consider any appreciation, as well as any depreciation, in specific asset values as additional considerations in assessing overall capital strength and financial condition.

#### 4060.3.5.2 Certain Balance-Sheet-Activity Considerations

##### 4060.3.5.2.1 Investment in Shares of a Mutual Fund

An exception to the general rule exists for an investment in shares of a fund that invests in various securities or money market instruments that are eligible to be assigned to different risk categories. In this case, the total investment would generally be assigned to the risk category appropriate to the highest risk-weighted asset the fund may hold, in accordance with the stated limits set forth in the prospectus. Bank holding companies have the option of assigning the investment on a pro rata basis to different risk categories according to the investment limits in the fund's prospectus. Regardless of the risk-weighting method used, the total risk weight of a mutual fund must not be less than 20 percent. If the bank holding company chooses to assign a fund investment on a pro rata basis, and the sum of the investment limits for all asset categories,

as described in the fund's prospectus, exceeds 100 percent, it must assign risk weights in descending order based on the assumption that the fund invests the largest possible percentage of its assets in the highest risk-weighted categories.<sup>23</sup> If, in order to maintain a necessary degree of short-term liquidity, a fund is permitted to hold an insignificant amount of its assets in short-term, highly liquid securities of superior credit quality that do not qualify for a preferential risk weight, then those securities may be disregarded in determining the fund's risk weight.

The prudent use of hedging instruments by a fund to reduce the risk of its assets will not increase the risk weighting of the fund investment. For example, the use of hedging instruments by a fund to reduce the interest-rate risk of its government bond portfolio will not increase the risk weight of that fund above the 20 percent category. Nonetheless, if a fund engages in any activities that appear speculative in nature or the fund has any other characteristics that are inconsistent with the preferential risk weighting assigned to the fund's assets, holdings in the fund will be assigned to the 100 percent risk-weight category.

#### 4060.3.5.2.2 Loans Secured by First Liens on One- to Four-Family Residential Properties or Multifamily Residential Properties

Qualifying one- to four-family residential properties, either owner-occupied or rented, or multifamily residential properties (as listed in the instructions to the bank holding company FR Y-9C Report), are accorded preferential risk-weighting treatment under the guidelines. These loans include loans to builders with substantial project equity for the construction of one- to four-family residential properties 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.<sup>24</sup> Effective with an April 1, 1999, amendment, such loans to builders will be considered prudently underwritten only if the bank holding company has obtained sufficient documentation that the buyer of the home intends to purchase the home (that is, has a legally binding written sales contract). The buyer must have the ability to obtain a mortgage sufficient to purchase the home (that is, has a firm written commitment for permanent financing of the home upon completion).

To ensure that only qualifying residential mortgage loans are assigned to the 50 percent risk-weight category, examiners are to review the real estate loans that are included in that category. Such loans are not eligible for preferential treatment unless the loans are made subject to prudent credit-underwriting standards; the loan-to-value ratios are conservative;<sup>25</sup> the loan-to-value ratios<sup>26</sup> are based on the most current appraisal or evaluation<sup>27</sup> of the properties, with such appraisal or evaluation conforming to both the Board's real estate appraisal regulations and guidelines and the banking organization's internal appraisal guidelines; and the loans are performing in accordance with their original terms and are not 90 days or more past due or carried in nonaccrual status. Where examiners find that some residential mortgage loans do not meet all the specified criteria or are made for the purpose of speculative real estate development, such loans should be assigned to

24. An amendment, effective December 29, 1992, lowered from 100 percent to 50 percent the risk weight on loans to finance the construction of one- to four-family residences that have been presold.

25. Prudent underwriting standards dictate that a loan-to-value ratio used in the case of originating a loan to acquire a property would not be deemed conservative unless the value is based on the lower of the acquisition cost of the property or the appraised (or, if appropriate, evaluated) value. Otherwise, the loan-to-value ratio generally would be based on the value of the property as determined by the most current appraisal or, if appropriate, the most current evaluation. All appraisals and evaluations must be made in a manner consistent with the federal banking agencies' real estate appraisal regulations and guidelines and with the banking organization's own appraisal guidelines.

26. If a banking organization holds the first and junior lien(s) on a residential property and no other party holds an intervening lien, the transaction is treated as a single loan secured by a first lien for the purposes of determining the loan-to-value ratio and assigning a risk weight.

27. Appraisals made at the inception of one- to four-family residential property loans are to be used in calculating loan-to-value ratios. Subsequent appraisals showing increased property values may be used to support higher loan-to-value ratios. However, to avoid penalizing banking organizations doing business in markets with declining real estate values, appraisals of residential properties as conducted at inception are to be used in calculating loan-to-value ratios, even though more current appraisals showing decreases in values are available.

23. For example, assume that a fund's prospectus permits up to 30 percent of the fund's assets to be invested in 100 percent risk-weighted assets, up to 40 percent of the fund's assets to be invested in 50 percent risk-weighted assets, and up to 60 percent of the fund's assets to be invested in 20 percent risk-weighted assets. In such a case, the bank holding company must assign 30 percent of the total investment to the 100 percent risk category, 40 percent to the 50 percent risk category, and 30 percent to the 20 percent risk category. It may not minimize its capital requirement by assigning 60 percent of the total investment to the 20 percent risk category and 40 percent to the 50 percent risk category.

the 100 percent risk-weight category in accordance with the guidelines.

Examiners should keep in mind that loans secured by multifamily residential property must meet additional criteria to be included in the 50 percent risk-weight category. These include the requirement that all principal and interest payments on the loan must have been made on time for at least the year preceding the placement of the loan in this risk-weight category. If the existing property owner 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 risk-weight category. In addition, 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. Also, 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.

If examiners find material evidence of residential mortgage loans having questionable eligibility for preferential risk weighting but cannot readily identify the amounts that were inappropriately weighted, the overall evaluation of the banking organization's capital adequacy should reflect a higher capital requirement than otherwise would be the case.

#### 4060.3.5.3 Certain Off-Balance-Sheet-Activity Considerations

Off-balance-sheet transactions include recourse obligations and direct-credit substitutes. The treatment for direct-credit substitutes, assets transferred with recourse, and securities issued in connection with asset securitizations and structured financings is described below. The terms "asset securitizations" or "securitizations," as used in this subsection, include structured financings as well as asset-securitization transactions. 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 under-

lying pool of credit exposures, including loans and commitments.

##### 4060.3.5.3.1 Assets Sold with Recourse

For risk-based capital adequacy purposes, "recourse" means a bank holding company's retention, 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 holding company's claim on the asset. If a bank holding company 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 holding company 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.

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

1. credit-enhancing representations and warranties made on the transferred assets
2. loan-servicing assets retained pursuant to an agreement under which the bank holding company 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 C.F.R. 225, appendix A) are not recourse arrangements.)
3. retained subordinated interests that absorb more than their pro rata share of losses from the underlying assets
4. assets sold under an agreement to repurchase, if the assets are not already included on the balance sheet
5. 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
6. credit derivatives issued that absorb more than the bank holding company's pro rata share of losses from the transferred assets
7. clean-up calls at inception that are greater than 10 percent of the balance of the original pool of transferred loans or of the outstanding principal amount of securities (Clean-up

calls that are 10 percent or less of the original pool balance that are exercisable at the option of the bank holding company are not recourse arrangements.)

8. liquidity facilities that provide liquidity support to ABCP (other than eligible ABCP liquidity facilities).

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." If a transfer of assets does not meet these criteria, the assets must remain on the bank holding company's balance sheet and thus they are subject to the appropriate risk-based capital charge.

If a transfer of assets qualifies as a sale under GAAP but the bank holding company 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 "Summary Description of the Risk-Based Capital Treatment of Recourse Arrangements" in the glossary to the Consolidated Financial Statements for Bank Holding Companies, the FR Y-9C Report instructions. Although the assets are removed from a bank holding company'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 the nature of the 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 holding company 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 require-

ments. 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 as a \$900,000 sale not subject to risk-based capital requirements.

There are exceptions to the general reporting rule for recourse transactions. The first exception applies to recourse transactions for which the amount of recourse the bank holding company is contractually liable for is less than the capital requirement for the assets transferred under the recourse agreement. For such transactions, a bank holding company must hold capital equal to its maximum contractual recourse obligation. For example, assume that a bank holding company transfers a \$100 pool of commercial loans and retains a recourse obligation of 2 percent. Ordinarily, it would be subject to an 8 percent capital charge, or \$8. Because the recourse obligation is only 2 percent, however, the bank holding company 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 holding company 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 holding company must establish a non-capital reserve that is sufficient to cover its estimated liability under the recourse arrangement. The total outstanding amount of recourse retained under such transactions may not exceed 15 percent of a BHC's total risk-based capital without Board approval.

#### 4060.3.5.3.2 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 other primary definitions follows.

#### 4060.3.5.3.2.1 Direct-Credit Substitutes

The term “direct-credit substitute” refers to an arrangement in which a bank holding company 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 holding company (third-party asset), and the risk assumed by the bank holding company exceeds the pro rata share of its interest in the third-party asset. If the bank holding company has no claim on the third-party asset, then the bank holding company’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—

1. financial standby letters of credit that support financial claims on a third party that exceed a bank holding company’s pro rata share of losses in the financial claim;
2. guarantees, surety arrangements, credit derivatives, and similar instruments backing financial claims that exceed a bank holding company’s pro rata share in the financial claim;
3. purchased subordinated interests or securities that absorb more than their pro rata share of losses from the underlying assets;
4. credit-derivative contracts under which the bank holding company assumes more than its pro rata share of credit risk on a third-party exposure;
5. loans or lines of credit that provide credit enhancement for the financial obligations of an account party;
6. 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.viii. of the guidelines (12 C.F.R. 225, appendix A) are not direct-credit substitutes);
7. 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 holding company are not direct-credit substitutes); and
8. liquidity facilities that provide liquidity support to ABCP (other than eligible ABCP liquidity facilities).

#### 4060.3.5.3.2.2 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 a financial asset,<sup>28</sup> whether through a securitization or otherwise, and (2) that exposes the bank holding company to credit risk directly or indirectly associated with the transferred assets that exceeds a pro rata share of the bank holding company’s claim on the assets, whether through subordination provisions or other credit-enhancement techniques. Examples of residual interests (assets) include credit-enhancing I/O strips; spread accounts; cash-collateral accounts; retained subordinated interests; other forms of overcollateralization; and similar on-balance-sheet assets that function as a credit enhancement. Residual interests also include those exposures that, in substance, cause the bank holding company to retain the credit risk of an asset or exposure that had qualified as a residual interest before it was sold.

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 holding company refers to the asset in financial or regulatory reports. Residual interests generally do not include interests purchased from a third party, except for credit-enhancing I/Os.

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

28. “Financial asset” means cash or other monetary instrument, an evidence of debt, an 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.



case of GAAP financings, the transferred assets remain on the transferring bank holding company'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, bank holding companies 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 holding company 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 holding company 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 holding company has transferred the risk associated with the residual-interest exposure. Bank holding companies 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 its books. For example, if a bank holding company 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 holding company must continue to risk-weight, and hold capital against, that asset as a residual interest as if the asset had not been sold.

#### 4060.3.5.3.2.3 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 it is not a credit-enhancing interest-only strip subject to the concentration limit. For example, assume that a bank holding company books a single spread-account asset that is derived from two separate cash-flow streams:

1. *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 holding company 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 holding company, the present value of this asset is currently estimated to be \$3.
2. *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 holding company 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 holding company, the present value of this asset is currently estimated to be \$2.

Both components of the 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 banking holding company'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<sup>29</sup> of all of the banking hold-

ing company'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 holding company's risk-based and leverage capital ratios. The remaining face amount of the bank holding company'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.

#### 4060.3.5.3.2.4 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 holding company 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, and reimbursements to investors for losses attributable to the beneficial interests they hold, as well as reinvestment income and ancillary revenues<sup>30</sup> 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 holding company'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.

#### 4060.3.5.3.2.5 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."

#### 4060.3.5.3.2.6 Credit-Enhancing Representations and Warranties

When a bank holding company transfers assets, including servicing rights, it customarily makes representations and warranties concerning those assets. When a bank holding company 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 holding company'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.

Banks and bank holding companies 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 guar-

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.

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

anty, 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 holding company. 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 holding company's loan-underwriting, -sale, and -servicing practices. Also, a bank holding company 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. Bank holding companies 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. Bank holding companies 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, bank holding companies might create warranties with exposure caps that would permit them to take advantage of the low-level-recourse rule.

The definition of credit-enhancing representa-

tions and warranties excludes warranties, such as early-default clauses and similar warranties. 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. Early-default clauses can allow for a reasonable, but limited, period of time to review file documentation. 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.

Early-default clauses and warranties are excluded from the definition of representations and warranties if the clauses or warranties permit the return of or, in the case of premium-refund clauses, cover 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 must cover only 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.

#### 4060.3.5.3.2.7 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 holding company 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 bank holding companies are not able to provide credit to the trust investors by repaying their 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 holding company (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 therefore exists for these options.

When an agreement permits a bank holding company 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 direct-credit substitute. The exemption from 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 holding company 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 holding company should repurchase the loans at the lower of their estimated fair value or their par value plus accrued interest.

Bank holding companies that repurchase assets pursuant to a clean-up call may do so based on an aggregate fair value for all repurchased assets. Bank holding companies 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 holding company 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. Bank holding companies should be able to support their fair-value estimates. If the Federal Reserve concludes that a bank holding company 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 holding company repurchases deteriorating assets for an amount greater than a reasonable estimate of their fair value.

#### 4060.3.5.3.2.8 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—

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

#### 4060.3.5.3.2.9 Loan-Servicing Arrangements

The definitions of recourse and direct-credit substitute cover loan-servicing arrangements if the bank holding company, 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 holding company, 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. Bank holding companies 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 holding company, acting as servicer, to excessive levels of credit risk.

#### 4060.3.5.3.2.10 Liquidity Facility

A liquidity facility refers to a 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.

#### 4060.3.5.3.2.11 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—

1. 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
2. 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.

#### 4060.3.5.3.3 *Recourse Obligations, Direct-Credit Substitutes, Residual Interests, and Asset- and Mortgage-Backed Securities*

The risk-based capital treatment for recourse obligations, direct-credit substitutes, residual interests, 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 holding company's own positions.<sup>31</sup> For bank holding companies 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 bank holding companies remain subject to the 25 percent concentration limit for credit-enhancing I/O strips.

#### 4060.3.5.3.3.1 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 holding company 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 (an instrument or obligation that has received a credit rating from a nationally recognized statistical rating organization), senior positions not externally rated, residual interests, certain internally rated positions, and certain small-business loans and leases on personal property transferred with recourse.

<sup>31</sup> The treatment also applies to BHCs that hold positions in their trading book, but that are not otherwise subject to the market-risk rules.

#### 4060.3.5.3.3.2 Risk-Weight Factor for Off-Balance-Sheet Recourse Obligations and Direct-Credit Substitutes

To determine the bank holding company'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 holding company 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<sup>32</sup> 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 C.F.R. 225, appendix A) for more capital treatment details.)

#### 4060.3.5.3.4 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.<sup>33</sup> Table 2 maps

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 holding company.

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.

A structured-finance program is defined as a program in which 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. Structured finance programs allocate credit risks, generally, between the participants and the credit enhancement provided to the program. 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.

#### 4060.3.5.3.4.1 Traded Positions

A traded position is a position that is externally rated and that is retained, assumed, or issued in

32. A risk participation is a participation in which the originating party remains liable to the beneficiary for the full amount of an obligation (e.g., a direct-credit substitute) notwithstanding that another party has acquired a participation in that obligation.

33. 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.

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 by an unaffiliated third party to enter into a transaction involving the position, such as a purchase, loan, or repurchase agreement. A traded position is only required to be rated by one rating agency.

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 holding company 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 holding company must use the new rating.

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

<i>Long-term rating category</i>	<i>Rating-designation examples</i>	<i>Risk weight</i>
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

<i>Short-term rating category</i>	<i>Rating-designation examples</i>	<i>Risk weight</i>
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

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.<sup>34</sup> For example, a P-1 rating could map to a long-term rating that is as high as Aaa or as low as A3.

#### 4060.3.5.3.4.2 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 credit-enhancing I/O strips.

*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

<sup>34</sup> See, for example, *Moody's Global Ratings Guide*, June 2001, p. 3.

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.)

#### 4060.3.5.3.4.3 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 holding company 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 company holding the position must hold capital against the amount of the position, plus all more senior positions, subject to the low-level-exposure requirement.<sup>35</sup> 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 assets if they were on the banking organization's balance sheet.<sup>36</sup>

#### 4060.3.5.3.5 Residual Interests

##### 4060.3.5.3.5.1 Credit-Enhancing I/O Strips

After applying the concentration limit to credit-enhancing I/O strips (both purchased and retained), a bank holding company 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 holding company and not transferred.

##### 4060.3.5.3.5.2 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.<sup>37</sup> Transac-

35. 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 BHC 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 BHC 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 BHC is contractually liable.

36. 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.

37. 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



tions 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 holding company 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 holding company 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.* The accrued interest receivable (AIR) asset constitutes a subordinated residual (retained) interest in the transferred securitized assets, and 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.<sup>38</sup> 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.<sup>39</sup> The institution is expected to hold risk-based capital in an amount consistent with the subordinated nature of the AIR asset.

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 trans-

poses (but not for leverage capital purposes), once this concentration limit is applied, a bank holding company must then hold dollar-for-dollar capital against the face amount of credit-enhancing I/O strips remaining.

38. 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.

39. 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).

action 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 AIR asset.<sup>40,41</sup> 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.

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.)

#### 4060.3.5.3.6 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 holding company's internal determination of the credit rating of the position, as specified in table 4 below, multiplied by the face amount of the position. The bank holding company 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 holding company must satisfy the Federal Reserve that the use of the approach is appropriate for the particular bank holding company and for the exposure

40. 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 AIR asset may include both finance charges billed but not yet collected and finance charges accrued but not yet billed on the securitized receivables.

41. 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.

Table 4—Risk-Weight Assignments for Unrated Positions Using the Alternative Approaches<sup>1</sup>

<i>Rating category</i>	<i>Rating-designation examples</i>	<i>Risk weight</i>
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

being evaluated. The risk weight that may be applied to an exposure under these alternative approaches is limited to a minimum of 100 percent.

#### 4060.3.5.3.6.1 Internal Risk-Rating Systems for Asset-Backed Commercial Paper Programs

A bank holding company 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 used to evaluate credit risk during bank holding company inspections (pass, substandard, doubtful, or loss). An individual bank holding company'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.

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 bank holding companies an incentive to rate their risk exposures in a way that minimizes the effective capital requirement. A bank holding company 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 holding company's internal credit-risk rating system is adequate. Adequate internal risk-rating systems usually have the following characteristics:

1. The internal risk ratings are an integral part of a bank holding company's effective risk-management system that explicitly incorporates the full range of risks arising from the bank holding company's participation in securitization activities. The system must also fully take into account the effect of such activities on the bank holding company's risk profile and capital adequacy.

2. The internal credit ratings must 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.
3. The ratings separately consider the risk associated with the underlying loans or borrowers, as well as the risk associated with the specific positions in a securitization transaction.
4. The ratings identify gradations of risk among "pass" assets and other risk positions, 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 holding company 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 holding company 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.
5. The ratings classify assets into each risk grade using clear, explicit criteria, including subjective factors.
6. 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.
7. An internal audit procedure periodically verifies that internal risk ratings are assigned in accordance with the bank holding company's established criteria.<sup>42</sup>
8. The performance of internal ratings is tracked over time to evaluate how well risk grades are being assigned; adjustments are being made to the rating system when the perfor-

mance of the rated positions diverges from assigned ratings; and the individual ratings are adjusted accordingly.

9. 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 holding company's rating system is not adequate, the Federal Reserve may preclude the bank holding company 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 holding company had applied to previous transactions for purposes of determining its regulatory capital requirements.

#### 4060.3.5.3.6.2 Ratings of Specific Unrated Positions in Structured Financing Programs

A bank holding company 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 holding company may apply the rating category that corresponds to the bank holding company's position. To rely on a program rating, the bank holding company 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 holding company 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 holding company participates in a securitization sponsored by another party, the Federal Reserve may authorize the bank holding company to use this approach based on a programmatic rating obtained by the sponsor of the program.

42. 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.)

Bank holding companies with limited involvement in securitization activities may find the above alternative to be useful. In addition, some bank holding companies 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 bank holding companies 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 bank holding companies. 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.

#### 4060.3.5.3.6.3 Credit-Assessment Computer Programs

A bank holding company (particularly a bank holding company 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 holding company for risk-based capital purposes, a computer program must have been developed by a rating agency. Further, the bank holding company 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 holding company 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 bank holding companies with extensive securitization activities should only use this approach if the computer program is an integral part of their risk-management systems and if the bank holding company's sys-

tems 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.

#### 4060.3.5.3.7 Limitations on Risk-Based Capital Requirements

##### 4060.3.5.3.7.1 Low-Level Exposure

If a bank holding company'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 holding company provides credit enhancement beyond any contractual obligation to support assets it has sold.

##### 4060.3.5.3.7.2 Mortgage-Related Securities or Participation Certificates Retained in a Mortgage Loan Swap

If a bank holding company 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 holding company continued to hold the loans as on-balance-sheet assets.

##### 4060.3.5.3.7.3 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

holding company'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.

#### 4060.3.5.3.8 Risk-Based Capital Treatment of Certain Other Types of Off-Balance-Sheet Items and Transactions

##### 4060.3.5.3.8.1 Distinction Between Financial and Performance Standby Letters of Credit

For risk-based capital purposes, the vast majority of standby letters of credit a bank holding company issues are considered financial in nature. On the one hand, in issuing a financial standby letter of credit, a bank holding company 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 holding company 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.

##### 4060.3.5.3.8.2 Sale and Repurchase Agreements and Forward Agreements

Forward agreements are legally binding contractual obligations to purchase assets with certain

drawdown at a specified future date. Such obligations include forward purchases, forward forward deposits placed,<sup>43</sup> and partly paid shares and securities; they do not include commitments to make residential mortgage loans or forward foreign-exchange contracts.

##### 4060.3.5.3.8.3 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 holding company is responsible only for its pro rata share of loss and there is no recourse to the originating bank holding company, each bank holding company 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 holding company 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 holding company 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 holding company 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 holding company is assigned to the 20 percent risk category. Risk participations with a

43. Forward forward deposits accepted are treated as interest-rate contracts.

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.

#### *4060.3.5.3.9 Small-Business Loans and Leases on Personal Property Transferred with Recourse (FAS 140 Sales)*

A qualifying banking organization (that is, a bank holding company) that has transferred small-business loans and leases on personal property (small-business obligations) with recourse can include in weighted-risk assets only the amount of retained recourse, provided two conditions are met. First, the transaction must be treated as a FAS 140 sale under GAAP and, second, the banking organization must establish pursuant to GAAP a noncapital reserve sufficient to meet the organization's reasonably estimated liability under the recourse arrangement. Only loans and leases to businesses that meet the criteria for a small-business concern established by the Small Business Administration under section 3(a) of the Small Business Act are eligible for this capital treatment.

A banking organization qualifies if it meets the criteria for well capitalized or, by order of the Board, adequately capitalized, as those criteria are set forth in the Board's prompt-corrective-action regulation for state member banks (12 C.F.R. 208.40). For purposes of determining whether an organization meets these criteria, its capital ratios must be calculated without regard to the capital treatment for transfers of small-business obligations with recourse. The total outstanding amount of recourse retained by a qualifying banking organization on transfers of small-business obligations receiving the preferential capital treatment cannot exceed 15 percent of the organization's total risk-based capital. By order, the Board may approve a higher limit.

If a bank holding company ceases to be qualifying or exceeds the 15 percent capital limitation, the preferential capital treatment will continue to apply to any transfers of small-business obligations with recourse that were consummated during the time that the organization was qualifying and did not exceed the capital limit.

#### *4060.3.5.3.10 Securities Lent*

Examiners are to review securities-lent transactions of banking organizations and verify that, when banking organizations have risk of loss as either principal or agent, the transaction is converted at 100 percent and assigned to the appropriate risk-weight category. The guidelines treat securities lent in two ways, depending on the nature of the transactions and the risk of loss. If, however, banking organizations are acting as their customers' agent and do not indemnify their customers against loss, the amount of securities lent is excluded from risk-based capital calculations. If banking organizations lend their own securities or, acting as an agent for a customer, lend the customers' securities and indemnify their customers against loss, the amount of securities lent is converted at 100 percent and assigned the risk weight appropriate to the obligor or, if applicable, to any collateral delivered to the lending organization or the independent custodian acting on the lending organization's behalf. Where a banking organization 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 banking organization, the transaction is deemed to be collateralized by cash on deposit in a subsidiary depository institution 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.

If securities lent are secured by cash on deposit in subsidiary depository institutions, the appropriate risk weight is either zero or 20 percent, depending on qualification criteria. Claims collateralized by cash on deposit in subsidiary depository institutions for which a 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—are assigned the zero risk weight. When securities lent are collateralized by cash on deposit in subsidiary lending institutions for which a daily margin is *not* maintained, the cash collateral is assigned a 20 percent risk weight.

#### 4060.3.5.3.11 Commitments

Commitments are defined as any legally binding arrangements that obligate a bank holding company 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 holding company is obligated solely for its pro rata share, only the bank holding company's proportional share of the syndicated commitment is taken into account in calculating the risk-based capital ratio.

##### 4060.3.5.3.11.1 Commitments to Make Off-Balance-Sheet Transactions

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 be accorded 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 as either a commitment or 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 being treated as a commitment to make a loan or commercial letter of credit, which would have a lower conversion factor.

##### 4060.3.5.3.11.2 Unused Commitments

Except for eligible ABCP liquidity facilities,<sup>44</sup> 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 with 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 banking organization can, at its option, unconditionally cancel<sup>45</sup> the commitment *and* (2) the banking organization is scheduled to (and as a normal practice actually does) review the facility to determine whether or not the unused commitment should be extended. (See SR-90-23 regarding loan commitments and put options.)

Banking organizations must continue to review unused commitments at least annually to determine that they qualify for short-term commitment treatment. Examiners are to review unused commitments to determine that they meet the conditions for being treated as short-term or long-term and are appropriately weighted for risk-based capital calculations.

A commitment may be issued that expires within one year with the understanding that the commitment will be renewed upon expiration subject to a thorough credit review of the obli-

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

45. This does not refer to material adverse change clauses.

gor. 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 holding company the flexibility to alter the terms and conditions of the new commitment; (2) the bank holding company 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, thus, 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 less time. The renegotiation period should immediately precede the expiration date of the commitment. The reasons for provisions in a commitment arrangement that would appear to provide for a protracted renegotiation period should be thoroughly documented by the bank holding company and reviewed by the examiner.

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.

#### *4060.3.5.3.12 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 holding company 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.<sup>46</sup> The asset pools in an

ABCP program might include, for example, trade receivables, consumer loans, or asset-backed securities. The ABCP program raises cash to provide funding to the banking organization's customers, 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 holding company 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.<sup>47</sup>

Under the Board's risk-based capital rule, a bank holding company that qualifies as a primary beneficiary and must consolidate an ABCP program that is defined as a variable interest entity under GAAP may exclude the consolidated ABCP program assets from risk-weighted assets provided that the bank holding company is the sponsor of the ABCP program. If a bank holding company excludes such consolidated ABCP program assets, the bank holding company must assess the appropriate risk-based capital charge against any exposures of the bank holding company 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 C.F.R. 225, appendix A). When calculating the bank holding company's tier 1 and total capital, any associated minority interests must also be excluded from tier 1 capital. As a result of FIN 46-R, bank holding companies are to include all assets of consolidated ABCP programs as part of their on-balance-sheet assets for purposes of calculating the tier 1 leverage capital ratio.

A bank holding company is able to exclude ABCP program assets from its risk-weighted asset base only with respect to those programs for which it is the sponsor and that meet the rule's definition of an ABCP program. Thus, a bank holding company sponsoring a program issuing ABCP that does not meet the rule's

the proceeds to purchase highly rated debt securities) and securities arbitrage programs.

47. 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.

46. 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



definition of an ABCP program must continue to include the program's assets in the institution's risk-weighted asset base.

#### 4060.3.5.3.12.1 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 holding company 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 holding company to credit risk.

Short-term commitments with an original maturity of one year or less expose bank holding companies 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 holding company (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 holding company 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.<sup>48</sup>

#### 4060.3.5.3.12.2 Overlapping Exposures to an ABCP Program

A bank holding company 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 holding company 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 holding company 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 holding company 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 holding company 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 holding company 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 bank holding companies have overlapping exposures to an ABCP program, however, each organization must hold capital against the entire maximum amount of its expo-

<sup>48</sup> See section III.B.3.c. of the guidelines (12 C.F.R. 225, appendix A).

sure. As a result, while duplication of capital charges will not occur for individual bank holding companies, some systemic duplication may occur where multiple banking organizations have overlapping exposures to the same ABCP program.

#### 4060.3.5.3.12.3 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."<sup>49</sup> 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.<sup>50</sup> Further, they generally must also be classified Substandard under that policy.

The rule's asset-quality test specifically allows a bank holding company to reflect certain guarantees providing credit protection to the bank holding company 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.

49. 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 that 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.

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

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 holding company 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.

#### 4060.3.5.3.13 Derivative Contracts (Interest-Rate, Exchange-Rate, and Commodity- (Including Precious Metals) and Equity-Linked Contracts)

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

1. interest-rate contracts
  - a. single-currency interest-rate swaps
  - b. basis swaps
  - c. forward rate agreements
  - d. interest-rate options purchased (including caps, collars, and floors purchased)
  - e. any other instrument linked to interest rates that gives rise to similar credit risks (including when-issued securities and forward forward deposits accepted)
2. exchange-rate contracts
  - a. cross-currency interest-rate swaps
  - b. forward foreign-exchange-rate contracts
  - c. currency options purchased
  - d. any other instrument linked to exchange rates that gives rise to similar credit risks
3. equity derivative contracts
  - a. equity-linked swaps
  - b. equity-linked options purchased
  - c. forward equity-linked contracts
  - d. any other instrument linked to equities that gives rise to similar credit risks
4. commodity (including precious metal) derivative contracts

- a. commodity-linked swaps
- b. commodity-linked options purchased
- c. forward commodity-linked contracts
- d. any other instrument linked to commodities that gives rise to similar credit risks

*Derivative-contract 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.

#### 4060.3.5.3.13.1 Calculation of Credit-Equivalent Amounts and the Application of Risk Weights

The credit-equivalent amount of a derivative contract that is not subject to a qualifying bilateral netting contract in accordance with subsection 4060.3.5.3.15 is equal to the sum of—

1. the current exposure (sometimes referred to as the replacement cost) of the contract and
2. 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 relevant rates, prices, and indices, 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. Banking organizations 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 listed on the next page.

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. For an interest-rate contract with a remaining maturity of more than one year that meets these criteria, the minimum conversion factor is 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 as set forth in subsection 4060.3.5.3.15 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 indices, 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.

The Board has noted that the following 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.

#### 100 Percent Credit-Conversion Factor for Off-Balance-Sheet Items for BHCs

1. direct-credit substitutes (These include general guarantees of indebtedness and all guarantee-type instruments, including standby letters of credit backing the financial obligations of other parties.)
2. in the case of direct-credit substitutes, risk participations that have been conveyed or acquired, or risk participations in banker's acceptances conveyed to other institutions, and risk participations with a remaining maturity of over one year that are conveyed to non-OECD banks (unless a lower risk category is appropriate to be assigned to the obligor, guarantor, or collateral)
3. sale and repurchase agreements, assets sold with recourse that are not included on the balance sheet, and ineligible ABCP liquidity facilities
4. forward agreements to purchase assets, including financing facilities, on which drawdown is certain
5. securities lent for which the banking organization is at risk

**CONVERSION FACTORS**

[in percent]

<i>Remaining maturity</i>	<i>Interest-rate</i>	<i>Exchange-rate and gold</i>	<i>Equity</i>	<i>Commodity, excluding precious metals</i>	<i>Precious metals, except gold</i>
One year or less	0.0	1.0	6.0	10.0	7.0
Over one to five years	0.5	5.0	8.0	12.0	7.0
Over five years	1.5	7.5	10.0	15.0	8.0

**50 Percent Credit-Conversion Factor**

1. transaction-related contingencies (These include bid bonds, performance bonds, warranties, and 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. Performance standby letters of credit represent obligations backing the performance of nonfinancial or commercial contracts or undertakings.)
2. unused portions of commitments, including eligible ABCP liquidity facilities, with an original maturity exceeding one year, including underwriting commitments and commercial and consumer credit commitments
3. revolving-underwriting facilities (RUFs), note-issuance facilities (NIFs), and other similar arrangements

**20 Percent Credit-Conversion Factor**

Short-term, self-liquidating, trade-related contingencies that arise from the movement of goods, including commercial letters of credit and other documentary letters of credit collateralized by the underlying shipments.

**10 Percent Credit-Conversion Factor**

1. Unused portions of ABCP liquidity facilities with an original maturity of one year or less.
2. Bank holding companies that are subject to the market-risk capital rules are precluded from applying those market-risk rules to positions held in the bank holding company's trading book that act, in form or in substance, as liquidity facilities supporting asset-backed

commercial paper (ABCP). Bank holding companies are required to convert the notional amount of all eligible ABCP liquidity facilities, in form or in substance, with an original maturity of one year or less that are carried in the trading account at 10 percent to determine the appropriate credit-equivalent amount even though those facilities are structured or characterized as derivatives or other trading-book assets. Liquidity facilities that support ABCP that are not eligible ABCP liquidity facilities are to be considered recourse obligations or direct-credit substitutes and assessed the appropriate risk-based capital requirement in accordance with section III.B.3. of appendix A.

**Zero Percent Credit-Conversion Factor**

Unused portions of commitments (with the exception of eligible 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.

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

**4060.3.5.3.13.2 Applying Risk Weights**

Once the credit-equivalent amount for a derivative contract, or a group of derivative contracts subject to a qualifying bilateral netting contract, has been determined, that amount is assigned to the risk-weight category appropriate to the counter-

party, or, if relevant, the guarantor or the nature of any collateral.<sup>51</sup> However, the maximum weight that will be applied to the credit-equivalent amount of such contracts is 50 percent.

#### 4060.3.5.3.13.3 Avoidance of Double-Counting of Derivative Contracts

In certain cases, credit exposures arising from derivative contracts may be reflected, in part, on the balance sheet. To avoid double-counting such exposures in the assessment of capital adequacy and, perhaps, assigning inappropriate risk weights, counterparty credit exposures arising from the derivative instruments covered by the guidelines may need to be excluded by examiners from balance-sheet assets in calculating a banking organization'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—

1. each contract's positive on-balance-sheet amount or
2. 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. Where 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.

#### 4060.3.5.3.14 Treatment of Commodity and Equity Contracts

Credit-equivalent amounts of swap agreements and futures, forwards, and option contracts on commodities, equities, and equity indexes are calculated in the same way as credit-equivalent amounts of foreign-exchange-rate contracts. Contracts on commodities, equities, and equity indexes traded on exchanges that require daily payment of variation margin are excluded from the risk-based capital calculation. Such a margining arrangement requires the marking to market of contracts and the settling of the resulting gains and losses in cash on a daily basis.

#### 4060.3.5.3.15 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—

1. 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 in the event that a counterparty, or a counterparty to whom the contract has been validly assigned, fails to perform due to default, insolvency, liquidation, or similar circumstances;
2. the banking organization obtains written and reasoned legal opinions that in the event of a legal challenge—including one resulting from default, insolvency, liquidation, or similar

<sup>51</sup> For derivative contracts, sufficiency of collateral or guarantees is determined by the market value of the collateral or the amount of the guarantee in relation to the credit-equivalent amount. Collateral and guarantees are subject to the same provisions noted under section III.B. of appendix A of Regulation Y.

circumstances—the relevant court and administrative authorities would find the banking organization's exposure to be such a net amount under—

- a. 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;
  - b. the law that governs the individual contracts covered by the netting contract; and
  - c. the law that governs the netting contract;
3. the banking organization 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
  4. the banking organization maintains in its files documentation 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.<sup>52</sup>

By netting individual contracts for the purpose of calculating credit-equivalent amounts of derivative contracts, a banking organization represents that it has met the requirements of the risk-based measure of the capital adequacy guidelines for BHCs 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 banking organization'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—

1. the current exposure of the netting contract (net current exposure) and
2. the sum of the estimates of the potential future credit exposures on all individual con-

52. A walkaway clause is a provision in a netting contract that permits a nondefaulting counterparty to make lower payments than it would make otherwise under the contract, or no payment at all, to a defaulter or to the estate of a defaulter, even if the defaulter or the estate of the defaulter is a net creditor under the contract.

tracts subject to the netting contract (gross potential future exposure) adjusted to reflect the effects of the netting contract.<sup>53</sup>

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 such instances, the nonqualifying contracts should be treated as individual contracts that are not subject to the netting contract.

Gross potential future exposure or  $A_{\text{gross}}$  is calculated by summing the estimates of potential future exposure (determined in accordance with section 4060.3.5.3.13.1) 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 ( $A_{\text{net}}$ ). The formula, which employs the ratio of net current exposure to gross current exposure (NGR), is expressed as:

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

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 calculated in accordance with section 4060.3.5.3.13.1. Net negative mark-

53. For purposes of calculating potential future credit exposure to a netting counterparty for foreign-exchange contracts and other similar contracts in which notional principal is equivalent to cash flows, total notional principal is defined as the net receipts falling due on each value date in each currency.

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 section 4060.3.5.3.13.1 (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 banking organization 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 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 are to review the netting of off-balance-sheet derivative contractual arrangements used by banking organizations 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.

#### *4060.3.5.3.16 Financial Standby Letters of Credit and Performance Standby Letters of Credit*

The determining characteristic of whether a standby letter of credit is financial or performance is the contractual obligation that triggers payment. If the event that triggers payment is financial, such as a failure to pay money, the standby letter of credit should be classified as

financial. If the event that triggers payment is performance-related, such as a failure to ship a product or provide a service, the standby letter of credit should be classified as performance. The vast majority of standby letters of credit a bank issues are considered, for risk-based capital purposes, to be financial standby letters of credit. (See SR-95-20 (SUP).)

##### *4060.3.5.3.16.1 Financial Standby Letters of Credit*

The risk-based capital guidelines describe a financial standby letter of credit as an irrevocable undertaking by a banking organization to guarantee repayment of a financial obligation. Such a guarantee is considered a direct-credit substitute and is converted to an on-balance-sheet credit-equivalent amount at 100 percent. The resulting credit-equivalent amount is then risk-weighted according to the type of counterparty or, if relevant, to any guarantee or collateral.

Financial standby letters of credit have a higher conversion factor than performance standby letters of credit. This is primarily because, unlike performance standby letters of credit, financial standby letters of credit tend to be drawn down only when the account party's financial condition has deteriorated.

A standby letter of credit guaranteeing the performance of a contractual obligation to pay money is viewed as a financial letter of credit. For example, a standby letter of credit backing a purchaser's contractual obligation to pay for delivered goods is a financial guarantee backing the purchaser's credit standing for the sale. It would not be viewed as a performance letter of credit guaranteeing the purchaser's performance to make payment under the contract.

A failure to perform a contractual obligation involving the payment of money can arise in a variety of situations, for example, failure to pay insurance premiums or deductibles, failure to pay insurance claims, failure to pay workers' compensation obligations, or failure to pay for (or arrange) cleanup in the event the account party's operations cause environmental damage. In each instance, the triggering event is the failure to pay money under a contractual obligation. A standby letter of credit guaranteeing payment in the event the account party fails to perform any of these contractual financial obligations or other circumstances should be treated as a financial standby letter of credit and converted to an on-balance-sheet credit-equivalent amount at 100 percent.

#### 4060.3.5.3.16.2 Performance Standby Letters of Credit

A performance standby letter of credit is an irrevocable undertaking by the organization to make payment in the event the customer fails to perform a nonfinancial contractual obligation. This type of letter of credit is considered a transaction-related contingency and is converted to an on-balance-sheet credit-equivalent amount at 50 percent. The resulting credit-equivalent amount is then risk-weighted according to the type of counterparty or, if relevant, to any guarantee or collateral.

#### 4060.3.5.3.17 Credit Derivatives

For purposes of risk-based capital, credit derivatives generally are to be treated as off-balance-sheet direct-credit substitutes. They are arrangements that allow one party (the "protection purchaser") to transfer the credit risk of an asset, which it often actually owns, to another party (the "protection provider").<sup>54</sup> The value of a credit derivative is dependent, at least in part, on the credit performance of the "reference asset."

The notional amount of the contract should be converted at 100 percent to determine the credit-equivalent amount to be included in risk-weighted assets of the guarantor.<sup>55</sup> A banking organization providing 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 banking organization 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, to the 20 percent risk category if the guarantor is a bank or, if a bank holding company, to the 100 percent risk-weight category).

Whether the credit derivative is considered an eligible guarantee for purposes of risk-based

capital depends on the *degree of credit protection* actually provided, which may be limited depending on the terms of the arrangement. 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. On the other hand, even if the transfer of credit risk is limited, a banking organization providing limited credit protection through a credit derivative should hold appropriate capital against the underlying exposure while the organization is exposed to the credit risk of the reference asset.

Banking organizations 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. Organizations that have entered into such a position may treat the first credit derivative as 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, to 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 a publicly traded corporate bond of the customer as the reference asset, whose credit quality serves as a proxy for the on-balance-sheet loan. In such a case, the underlying asset will 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, banking organizations offsetting credit exposure in this manner would be obligated to demonstrate to examiners that there is a high degree of correlation between the two instruments; the reference

54. Credit derivatives that are held in a banking organization's (a bank's or bank holding company's) trading account are subject to the market-risk rules.

55. Guarantor banks or bank holding companies that have made cash payments representing depreciation on reference assets may deduct such payments from the notional amount when computing credit-equivalent amounts for capital purposes. For example, if a guarantor bank or bank holding company makes a depreciation payment of \$10 on a \$100 notional total-rate-of-return swap, the credit-equivalent amount would be \$90.



instrument is a reasonable and sufficiently liquid proxy for the underlying asset so that the instruments can be reasonably expected to behave similarly in the event of default; and, at a minimum, the reference asset and underlying asset are subject to mutual cross-default provisions. A banking organization that uses a credit derivative, which 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. Banking organizations providing credit protection through such arrangements must hold capital against the risk exposures that are assumed.

#### *4060.3.5.3.18 Credit Derivatives Used 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. 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 also determine whether the BO's regulatory risk-based and leverage capital is adequate given the retained credit exposures.<sup>56</sup>

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 that enables the SBO 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).<sup>57</sup> 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.<sup>58</sup>

Traditional CLO structures usually transfer assets into the SPV. In synthetic securitizations, the underlying exposures that make up the reference portfolio remain in the BO's banking book.<sup>59</sup> The credit risk is transferred into the SPV through credit-default swaps or CLNs. The BO 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 for risk-based capital calculation purposes. In the case of high-quality, investment-grade corporate exposures, the associated 8 percent capital requirement may exceed the economic capital that the SBO sets aside to cover the credit risk of the transaction. Therefore, one of the apparent motivations behind CLOs and other securitizations is to more closely align the SBO'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 transactions follow. They are discussed from the perspective of the investors and the SBOs.

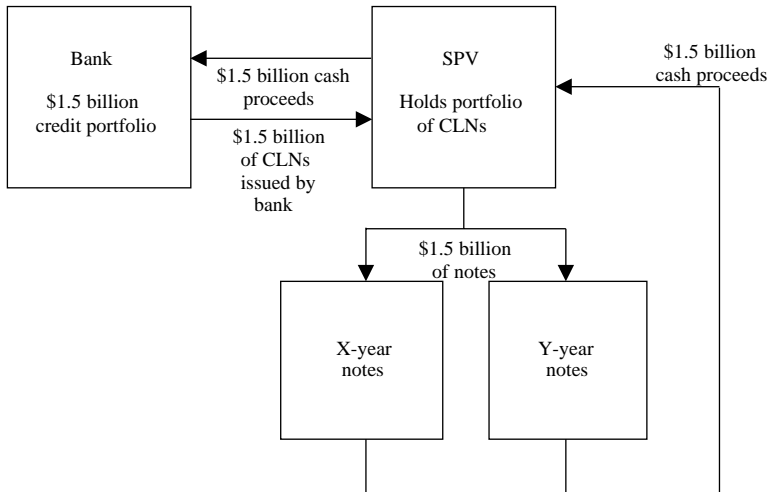
57. CLNs are obligations whose principal repayment is conditioned upon the performance of a referenced asset or portfolio. The assets' performance may be based on a variety of measures, such as movements in price or credit spread, or the occurrence of default.

58. A credit-default swap is similar to a financial standby letter of credit in that the BO 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.

59. "Banking book" refers to nontrading accounts. See the "trading account" definition in the Glossary for the instructions to the Consolidated Financial Statements for Bank Holding Companies, FR Y-9C.

56. See SR-99-32 and its attached November 15, 1999, FRB-OCC capital interpretation on synthetic collateralized loan obligations.

Figure 1—Transaction 1



#### 4060.3.5.3.18.1 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 BO'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 SBO 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.

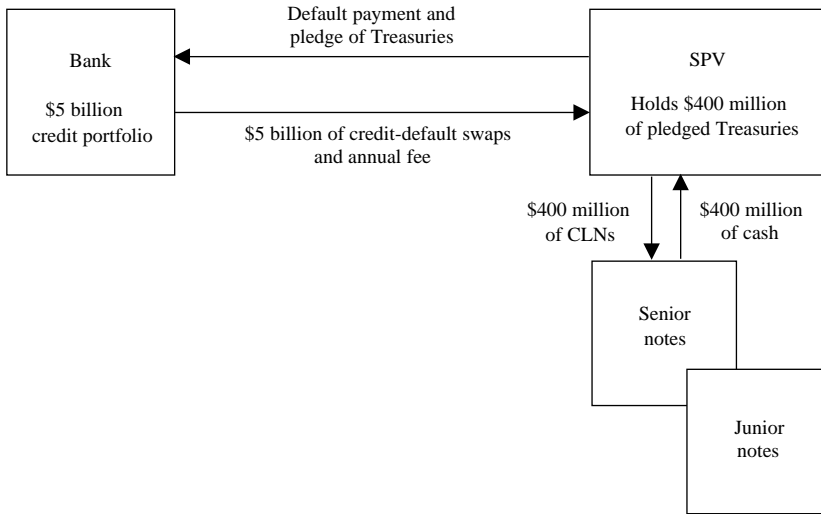
If the obligor linked to a CLN in the SPV defaults, the SBO will call the individual CLN and redeem it based on the repayment terms specified in the note agreement. The term of each CLN is set so that the credit exposure (to which it is linked) matures before the maturity of the CLN, which ensures that 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 SBO will not repay principal at the maturity of the notes. Because of the linkage between the credit quality of the SBO 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.<sup>60</sup> This treatment would permit the reference assets, if carried on the SBO'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 BO and is not deposited in a segregated account. The

60. 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 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.

Figure 2—Transaction 2



synthetic CLO would not confer any benefits to the SBO for purposes of calculating its tier 1 leverage ratio, however, because the reference assets remain on the organization's balance sheet.

#### 4060.3.5.3.18.2 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. For some noted synthetic CLOs, the SBO used a combination of credit-default swaps and CLNs to transfer to the capital markets the credit risk of a designated portfolio of the organization's credit exposures. Such a transaction allows the SBO 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 SBO 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.<sup>61</sup> 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.

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-

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

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 generally accepted accounting principles, 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, the BOs investing in the notes must assign them to the risk weight appropriate to the underlying reference assets.<sup>62</sup> The SBO 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 outlined in the subsection "Minimum Conditions," the remainder of the portfolio should be risk-weighted according to the obligor of the exposures.

When the SBO has virtually eliminated its credit-risk exposure to the reference portfolio through the issuance of CLNs, and when the other minimum requirements are met, the SBO 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, the SBO 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 an SBO 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.

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

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 SBO 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 SBO 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 SBO involved in synthetic securitizations must adequately disclose to the marketplace the effect of its transactions 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 an unsafe and unsound banking practice. In addition, such a failure generally would constitute "implicit recourse" or support to the transaction, which 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 under the risk-based capital guidelines, the risk weight on the senior position may be reduced from 100 percent to 20 percent. SBOs may not enter into nonsubstantive transactions that transfer banking-book items into the trading account to obtain lower regulatory capital requirements.<sup>63</sup>

63. For instance, a lower risk weight would not be applied to a nonsubstantive transaction in which the SBO (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.

## 4060.3.5.3.18.3 Minimum Conditions

The following stringent minimum conditions are those that the SBOs 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 an SBO has sufficiently isolated itself from the credit-risk exposure of the hedged reference portfolio.

*Condition 1—Demonstration of transfer of virtually all 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, SBOs must—

1. produce credible analyses indicating a transfer of virtually all the credit risk to substantive third parties;
2. ensure the absence of any early-amortization or other credit performance–contingent clauses;<sup>64</sup>
3. subject the transaction to market discipline through the issuance of a substantive amount of notes or securities to the capital markets;
4. have notes or securities rated by a nationally recognized credit rating agency;
5. structure a senior class of notes that receives the highest possible investment-grade rating, for example, AAA, from a nationally recognized credit rating agency;
6. ensure that any first-loss position retained by the SBO in the form of fees, reserves, or other credit enhancement—which effectively must be deducted from capital—is no greater than a reasonable estimate of expected losses on the reference portfolio; and
7. ensure that the SBO 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 SBO has adequate capital for the credit risk

64. 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.

of its unhedged exposures, it is expected to have adequate systems that fully account for the effect of these transactions on its risk profiles and capital adequacy. In particular, the SBO's systems should be capable of fully differentiating the nature and quality of the risk exposures it transfers from the nature and quality of the risk exposures it retains. Specifically, to gain capital relief SBOs are expected to—

1. have a credible internal process for grading credit-risk exposures, including the following:
  - a. adequate differentiation of risk among risk grades
  - b. adequate controls to ensure the objectivity and consistency of the rating process
  - c. analysis or evidence supporting the accuracy or appropriateness of the risk-grading system;
2. have a credible internal economic capital-assessment process that defines the SBO 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;
3. 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 by business or economic sector. The analysis should also identify any concentrations of credit risk and maturity mismatches. Additionally, the SBO 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
4. perform rigorous and robust forward-looking stress testing on nontransferred exposures (remaining banking-book loans and commit-

ments), 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 SBO 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, SBOs must adequately disclose to the marketplace the accounting, economic, and regulatory consequences of synthetic CLO transactions. In particular, SBOs are expected to disclose—

1. the notional amount of loans and commitments involved in the transaction;
2. the amount of economic capital shed through the transaction;
3. 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
4. the effect of the transaction on the distribution and concentration of risk in the retained portfolio by risk grade and sector.

#### 4060.3.5.3.18.4 Transaction 3—First-Loss Position Is Retained

In the third type of synthetic transaction, the SBO may retain a subordinated position that absorbs the credit risk associated with a first loss in a reference portfolio. Furthermore, through the use of credit-default swaps, the SBO may pass 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-default swaps with an SPV, thus transferring its credit risk associated with the second-loss position to the SPV.<sup>65</sup> 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.

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 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 SBO would not be assessed a capital charge against the second- and senior-risk positions.<sup>66</sup>

The second approach employs a literal reading of the capital guidelines to determine the SBO's risk-based capital charge. In this instance, the 1 percent first-loss position retained by the SBO 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 1 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.<sup>67</sup>

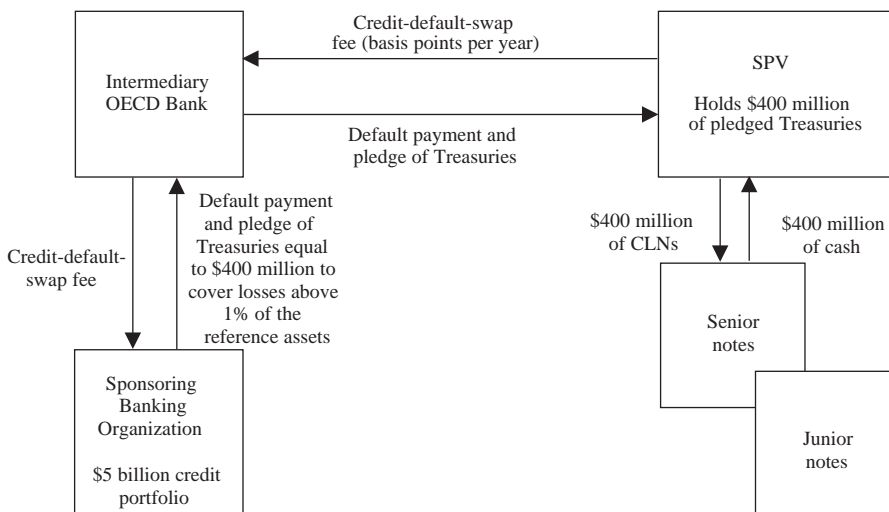
The second approach may result in a higher risk-based capital requirement than the dollar-for-dollar capital charge imposed by the first approach, depending on whether the reference portfolio consists primarily of loans to private obligors or undrawn long-term commitments. The latter generally have an effective risk-based capital requirement one-half of the requirement for loans because these 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

66. The SBO would not realize any benefits in the determination of its leverage ratio since the reference assets remain on the SBO's balance sheet.

67. 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.

65. 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.

Figure 3—Transaction 3



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.

SBOs 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 SBO has adequate capital to protect against unexpected losses. Examiners should determine whether the SBO 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.<sup>68</sup>

#### 4060.3.5.3.19 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 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 bank holding companies, 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.

#### 4060.3.5.3.20 Board Exceptions (Reservation of Authority) for Securities Lending

Securities lent by a bank are treated in one of  
 for example, the SBO, then the investing BOs should assign the notes to the higher of the risk categories appropriate to the underlying reference assets or the SBO.

68. Under this type of transaction, if a structure exposes investing BOs to the creditworthiness of a substantive issuer,

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 (2) the cash collateral received and any reinvestment risk associated with that cash collateral is borne by the customer. See 4060.3.2.2 for the procedures for risk-weighting on- and off-balance-sheet items and the discussion on securities lending in 2140.0.

*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 and 225, 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 and 225, 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 and 225, 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 and (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 bank 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:

1. The transactions are fully collateralized.
2. Any securities lent or taken as collateral are eligible for inclusion in the trading book and are liquid and readily marketable.
3. Any securities lent or taken as collateral are marked-to-market daily.
4. 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 in the event of 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, which are 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 issued on August 15, 2006, 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).<sup>69</sup> 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). Again, the Board 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 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-of-authority provision contained in its capital guidelines.

#### *4060.3.5.3.21 (Reservation of Authority) Regulation T Margin Debits—Regulation T Margin Loans*

A BHC requested that the Board grant it an exception to its risk-based capital guidelines (12 C.F.R. 225, appendix A) so that it could assign a lower risk weight to the Regulation T margin debits (Reg. T margin loans) held by a registered U.S. broker-dealer subsidiary. The guidelines require that a 100 percent risk weight be assigned to Reg. T margin loans, which results in a risk-based capital requirement of 8 percent.

The BHC contended that a lower risk weight for Reg. T margin loans would more closely align the regulatory capital requirement for such loans to their credit risk, given their high level of collateralization and the company's long history of low loss rates on such loans. It noted that its internal economic capital charge for credit risk on Reg. T margin loans is de minimis. It stated also that a lower risk weight for Reg. T margin loans would be appropriate to, among other things, reduce competitive disadvantages that the BHC (through its U.S. broker-dealer subsidiary) has relative to U.S. broker-dealers

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

that are not consolidated subsidiaries of BHCs and to non-U.S. banks and broker-dealers.

A margin account at a broker-dealer registered with the Securities and Exchange Commission (SEC) is a leveraged account, through which securities can be purchased, sold short, carried, or traded using a loan from the broker-dealer and a deposit of cash or securities by the customer. The amount of leverage available to a customer is limited by (1) the Board's Regulation T (12 C.F.R. 220), (2) the margin-maintenance rules of the Financial Industry Regulatory Authority (FINRA) (NYSE Rule 431 and NASD Rule 2520), and (3) the lender's internal margin-maintenance requirements.<sup>69a</sup>

The requesting BHC noted that it applies in most instances (and in all instances when the collateral is equities or non-investment-grade bonds) internal margin-maintenance requirements that exceed those in NYSE Rule 431.<sup>69b</sup> It represented that its Reg. T margin loans are typically collateralized by liquid and readily marketable securities, which generally can be terminated on demand at any time. The BHC represented also that it marks to market the Reg. T margin loans and associated securities collateral on a daily basis and that it makes daily margin-maintenance calls for any collateral deficiencies. It also concluded that the collateral for a Reg. T margin loan should generally be available for prompt liquidation even in the event of the borrower's bankruptcy.

The BHC's request contended that other domestic and foreign firms—including foreign banking organizations that own U.S. broker-dealers, as well as U.S. broker-dealers and consolidated supervised entities ("CSEs") regulated by the SEC—are currently required to hold either no or de minimis regulatory capital

against Reg. T margin loans. It maintained that the much higher regulatory capital requirement that U.S. BHCs incur for Reg. T margin loans places U.S. broker-dealers owned by U.S. BHCs at a disadvantage in competing for this low-risk business.

After carefully considering the request, and subject to the listed conditions below, the Board approved, under certain circumstances, an exception to the guidelines that permits the requesting BHC to apply a 10 percent risk weight to its Reg. T margin loans. The Board approved this exception to the guidelines under the reservation-of-authority provision contained in the guidelines (12 C.F.R. 225, appendix A, III.A). 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 BHC that are incommensurate with the risk weight otherwise specified in the guidelines.

To qualify for the capital treatment on an exception basis, Reg. T margin loans must meet the following conditions:

1. The securities collateral for the Reg. T margin loans is liquid and readily marketable;
2. The Reg. T margin loans and associated collateral are marked to market each business day;
3. The Reg. T margin loans are subject to initial margin requirements under Regulation T and daily margin-maintenance requirements under FINRA regulations (NYSE Rule 431) or NASD Rule 2520; and
4. The BHC has a reasonable basis for concluding that it would be able to liquidate the collateral for the Reg. T margin loans without undue delay, even in the case of bankruptcy or insolvency of the borrower.

The Board concluded that this capital treatment for Reg. T margin loans provides a more risk-sensitive treatment for these transactions than their treatment under the guidelines. The (1) combination of initial margin requirements under Regulation T, (2) ongoing margin-maintenance requirements under FINRA regulations, (3) generally higher ongoing margin-maintenance requirements under the BHC's internal policies, (4) the BHC's daily mark-to-market and margin-call policies, (5) the high liquidity of the collateral, (6) the BHC's typical right to terminate the loan at any time, and (7) the BHC's general protection from the automatic stay in bankruptcy makes these loans a low-credit-risk product that warrants a 10 percent risk weight.

69a. For example, a customer who purchases \$100 of equity securities in a margin account may borrow only \$50 against those securities from the broker-dealer under Regulation T. If this transaction is the only one in the margin account, the loan will be 200 percent collateralized at the time of purchase because the market value of the securities is twice that of the margin loan. If, on a daily basis, the equity in the account falls below the required NYSE margin maintenance of 25 percent—that is, if the value of the collateral falls below 133 percent of the loan—the customer is required to post additional collateral (either cash or securities) to eliminate the margin deficiency. If the customer does not meet the margin call within the required time, the broker-dealer must sell sufficient securities in the account to increase the account equity to the required maintenance level.

69b. Regulation T initial margin requirements and NYSE margin-maintenance requirements for debt securities and options differ from those applicable to equity securities.

The Board noted that this 10 percent risk-weight exception treatment for Reg. T margin loans would be made available to similarly situated institutions that request and receive Board approval for such treatment. BHCs should be aware that the Board may in the future impose a regulatory capital treatment for Reg. T margin loans that differs from the exception. As for this BHC's request, any Board determination will be conditioned on the requesting BHC's compliance with the commitments and representations made to the Board in connection with its request and, as such, may be enforced in proceedings under applicable law. Further, this exception will also consider specific facts and circumstances described in the request and in discussions with Federal Reserve staff. See the Board's legal interpretation issued June 15, 2007, and other similar legal interpretations issued on August 29, September 17, November 5, December 17, and December 18, 2007.

#### 4060.3.5.4 Considerations in the Overall Assessment of Capital Adequacy

Examiners are to take into account the following factors when assessing the overall capital adequacy of banking organizations.

##### 4060.3.5.4.1 *Unrealized Asset Values*

Banking organizations often have assets on their books that are carried at significant discounts below current market values. This difference between book value (historical cost or acquisition value) and market value of any asset, particularly for banking premises, may represent potential capital to the banking organization. These "unrealized asset values" are *not* included in the risk-based capital calculation. Examiners should take into consideration such unrecognized capital 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.

##### 4060.3.5.4.2 *Ineligible Collateral and Guarantees*

The risk-based capital guidelines recognize collateral and guarantees in only a limited number of cases. Other types of collateral and guarantees support the asset mix of banking organizations, particularly within their loan portfolios. Such collateral or guarantees may serve to

substantially improve the overall quality of loan portfolios and of other credit exposures and should be considered by examiners when they are arriving at their overall assessment of capital adequacy.

##### 4060.3.5.4.3 *Overall Asset Quality*

The conclusions drawn by banking organizations from calculating their risk-based capital ratios may be significantly different from conclusions drawn by examiners. The main reason for these differences is the assessment of asset quality. Examiners must assess the capital adequacy of banking organizations, taking into account examination or inspection findings, particularly those findings regarding the severity of problem and classified assets and investment or loan-portfolio concentrations, as well as the adequacy of the banking organization's allowance for loan and lease losses.

##### 4060.3.5.4.4 *Interest-Only Strips and Principal-Only Strips*

Interest-only strips (IOs) and principal-only strips (POs) have highly volatile price characteristics as interest rates change, and they are generally not considered appropriate investments for most banking organizations. However, some sophisticated banking organizations may use IOs and POs as hedging vehicles. The Board does not want to discourage the legitimate use of IOs and POs as hedging vehicles. Examiners' assessments of capital adequacy should reflect banking organizations' appropriate use of hedging instruments, including IOs and POs. Banking organizations that have appropriately hedged their interest-rate exposure may be permitted to operate with lower levels of capital than those banking organizations that are vulnerable to interest-rate changes.

##### 4060.3.5.4.5 *Interest-Rate Risk*

Examiners are to continue to scrutinize banking organizations' interest-rate risk exposure carefully and to require that organizations with undue levels of interest-rate risk strengthen their capital positions even though they may meet the minimum risk-based capital standards.

#### *4060.3.5.4.6 Claims on, and Claims 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 banking organizations have on the U.S. government and its agencies are in the form of Treasury securities. Zero-coupon securities—that is, single-payment Treasury securities trading under the U.S. Treasury's Separate Trading of Registered Interest and Principal of Securities (STRIPS) 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, accordingly, is 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. Such claims that are not unconditionally guaranteed are assigned to the 20 percent risk category. 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 are considered to be unconditionally guaranteed. These include Government National Mortgage Association (GNMA) and Small Business Administration (SBA) securities.

Banking organizations are permitted to assign to the zero percent risk category claims collateralized by cash on deposit in the banking organization or by OECD central governments or U.S. government agency securities for which a positive collateral margin is maintained on a daily basis, fully taking into account any change in the banking organization'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. The Board is not requiring that a

specific minimum margin of collateral be maintained on collateralized transactions assigned to the zero percent risk category. The Board expects that banking organizations will establish, as a part of prudent operating procedures, a minimum level of margin for these transactions, based on such factors as the volatility of the securities involved, so as to avoid unduly frequent margin calls.

A limited number of U.S. government agency-guaranteed loans are deemed to be unconditionally guaranteed and, hence, can be assigned to the zero percent risk category. These include most loans guaranteed by the Export-Import Bank (Exim Bank),<sup>70</sup> loans guaranteed by the U.S. Agency for International Development (AID) under its Housing Guarantee Loan Program, SBA loans subject to a secondary participation guarantee (in accordance with SBA Form 1086), and Farmers Home Administration (FmHA) loans subject to an assignment guarantee 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 conditionally guaranteed. The guaranteed portion of the loans is assigned to the 20 percent category. These loans include, but are not limited to, loans guaranteed by the Commodity Credit Corporation (CCC), the Federal Housing Administration (FHA), the Foreign Credit Insurance Association (FCIA), the Overseas Private Investment Corporation (OPIC), and the Veterans Administration (VA), and, except as indicated above, portions of loans guaranteed by the FmHA and the SBA. Loan guarantees offered by FCIA and OPIC often guarantee against political risk. However, only that portion of a loan guaranteed by FCIA or 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.

#### *4060.3.5.4.7 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<sup>71</sup>), 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, banks (and bank holding companies) should exclude from regulatory capital any amounts recorded in AOCI resulting from the adoption and application of FAS 158. The intent of the reversal is to neutralize the effect of the application of FAS 158 on regulatory capital, including the reporting of the leverage ratio and the risk-based capital measures.

#### 4060.3.6 DIFFERENCE IN APPLICATION OF THE RISK-BASED CAPITAL GUIDELINES TO BANKING ORGANIZATIONS

The capital guidelines are generally the same for state member banks and bank holding companies. Since year-end 1992, however, there has been one significant difference: the manner in which capital is defined for use in computing

71. The Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision.

70. Loans guaranteed under Exim Bank's Working Capital Guarantee Program, however, receive a 20 percent risk weight.

the risk-based capital ratio. Specifically, perpetual preferred stock is handled differently for state member banks than it is for bank holding companies.

#### 4060.3.6.1 Difference in Treatment of Perpetual Preferred Stock

Bank holding companies may include unlimited amounts of *noncumulative* perpetual preferred stock in tier 1 capital and limited amounts of cumulative perpetual preferred stock. The aggregate amount of qualifying cumulative preferred stock and qualifying trust preferred securities that a BHC may include in tier 1 capital is limited to 25 percent of the sum of qualifying common stockholders' equity, qualifying noncumulative and cumulative perpetual preferred stock, qualifying minority interest in the equity accounts of consolidated subsidiaries, and qualifying trust preferred securities. Any amount of *cumulative* perpetual preferred stock and qualifying trust preferred securities in excess of this limit may be included as tier 2 capital. In contrast, state member banks may include only noncumulative perpetual preferred stock in tier 1 capital.

#### 4060.3.6.2 Perpetual Preferred Stock (Terms Relating to Tier 1 Treatment)

Given the importance of core capital, the Federal Reserve's guidelines exclude from tier 1 capital preferred stock (including auction-rate preferred) in which the dividend rate is reset periodically, based in whole or in part upon the banking organization's financial condition or credit standing. Under such instruments, the obligation to pay out higher dividends in response to a deterioration in an organization's financial condition is inconsistent with the essential precept that capital should provide both strength and loss-absorption capacity to an organization during periods of adversity. Rather than paying out higher dividends, banking organizations are expected to conserve capital during such periods.

Ordinarily, fixed-rate preferred stock and traditional floating- or adjustable-rate preferred stock—in which the dividend rate is based on an independent market index that is in no way tied to the issuer's financial condition—do not raise significant supervisory concerns, espe-

cially if the adjustable-rate instrument is accompanied by reasonable spreads and cap rates. However, certain other features that have been incorporated in, or mentioned for possible inclusion in, some preferred stock issues do raise serious questions about whether these issues will truly serve as a permanent, or even long-term, source of capital. Such features include step-up or similar mechanisms, whereby, after a specified period, the dividend rate automatically increases to a higher level or to a level that could create substantial incentives for the issuer to redeem the instrument. Perpetual preferred stock with this type of feature could cause the banking organization to be faced with higher dividend requirements at a future date when it is experiencing financial difficulties. Such preferred stock is not generally includable in tier 1 capital.

#### 4060.3.7 CASH REDEMPTION OF PERPETUAL PREFERRED STOCK

Under the Federal Reserve's risk-based capital guidelines, two essential characteristics of core (tier 1) capital—as shown by the terms of common stock and perpetual preferred stock—are loss-absorption capacity and stability. In addition to existing laws and regulations that pertain to the redemption or repurchase of capital securities, the Federal Reserve's risk-based capital guidelines generally provide that any bank holding company contemplating the redemption of material amounts of permanent equity instruments, including perpetual preferred stock, should receive Federal Reserve approval before taking such action.<sup>72</sup> Any perpetual preferred stock or trust preferred securities 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.

The guidelines indicate that consultation with the Federal Reserve could be unnecessary if the instrument is redeemed with the proceeds of another similar or higher-quality tier 1 instrument and the organization's capital is considered fully adequate. However, because of the need to make supervisory judgments on these conditions, as well as the objective of fostering sound capital positions, banking organizations contemplating material redemptions of core capital are generally expected to discuss these plans with their appropriate supervisory authorities, regardless of the circumstances. This has long

<sup>72</sup> This general principle also applies to the redemption of limited-life capital instruments before their stated maturities.

been the expectation and practice of the Federal Reserve. Prior consultation puts the supervisory authority in a position to take appropriate action if any planned capital redemption could have an adverse impact on an organization's financial condition.

The Federal Reserve's interest in the level and composition of capital derives both from the System's general supervisory responsibilities to monitor and address any actions that could erode an organization's capital base and from the need to implement the letter and spirit of supervisory guidelines on capital adequacy. Under the Federal Reserve's guidelines, to qualify as capital an instrument may not contain or be covered by covenants, terms, or restrictions that are inconsistent with safe and sound banking practice. Moreover, perpetual preferred stock cannot contain provisions that would require future redemption of the issue, and the issuer must have the ability and legal right to defer or eliminate preferred dividends.

#### 4060.3.7.1 Federal Reserve's Supervisory Position on Cash Redemption of Tier 1 Preferred Stock

To qualify for tier 1 treatment, redemption for cash or other nonstock assets, regardless of source, is permissible only at the issuer's option. Moreover, in view of the importance of ensuring the stability of tier 1 capital, tier 1 preferred stock instruments should also provide that cash redemption would be permitted only with the prior consent of the Federal Reserve. The Federal Reserve expects that it would usually grant such approval, when consistent with the organization's overall financial condition, if the preferred shares are redeemed with the proceeds of an acceptable tier 1 capital instrument that would maintain or strengthen the issuer's capital base. Approval could also be granted if the Federal Reserve determines that the issuer's capital position after the redemption would clearly be adequate and that the issuer's condition and circumstances warrant the reduction of a source of permanent capital.

#### 4060.3.8 COMMON STOCK REPURCHASES AND DIVIDEND INCREASES ON COMMON STOCK

The Federal Reserve has long emphasized the importance of prudent levels of capital to the overall safety and soundness of banking organizations. In pursuit of its supervisory objective to

achieve an adequate level of capitalization in banking organizations, the Federal Reserve has over time promulgated various rules, guidelines, and standards concerning capital levels and the acceptable characteristics of various capital instruments and transactions. With respect to redemptions of common stock for cash or other valuable consideration, section 225.4(b)(1) of Regulation Y requires bank holding companies to give the Federal Reserve prior notice of any repurchase of common stock that would reduce total equity capital by 10 percent or more aggregated over any 12-month period. The risk-based capital guidelines further request that bank holding companies consult with the Federal Reserve before any material redemption of permanent equity instruments.

Because of the need for banking organizations to strengthen their capital positions generally, the Board strongly recommends that bank holding companies deemed to be experiencing financial weaknesses (or those at significant risk of developing financial weaknesses) consult with the appropriate Federal Reserve Bank before any cash redemption of common stock for cash or other valuable consideration. Similarly, any bank holding company considering expansion, either through acquisitions or through new activities, is also requested to consult with the appropriate Federal Reserve Bank before any cash redemption of common stock for cash or other valuable consideration. Although there may be legitimate uses of repurchased shares (for example, in ESOP transactions), this request is intended to prevent an imprudent or untimely repurchase that would have an immediate or potentially adverse impact on the financial condition of the banking organization. In general, Reserve Banks should discourage bank holding companies from repurchasing their shares if there would be an adverse effect on the capital of the organization. A similar procedure was adopted for redemptions of perpetual preferred stock. (See section 4060.3.7 or SR-89-20.)

Further, because the banking organizations' ability to gain access to capital markets can be further diminished by rating-agency downgrades, the Federal Reserve considers internal capital generation an important element in a banking organization's capital planning. Therefore, bank holding companies in general, but particularly those experiencing any degree of financial weakness, are requested to consult with the appropriate Federal Reserve Bank before increasing the rate of cash dividends



paid on common stock, an action that reduces capital-generation rates for companies experiencing financial weakness. It is the intention of the Federal Reserve to ensure that the financial condition, future earnings prospects, and capital level of the banking organization are consistent with any proposed increase in dividends. (See Regulation Y, section 225.4(b)(1) and appendix A, section II.)

### 4060.3.9 QUALIFYING MANDATORY CONVERTIBLE DEBT SECURITIES AND PERPETUAL DEBT

Mandatory convertible debt securities are essentially subordinated debt instruments that may be converted into common or perpetual preferred stock within a specified period of time, not to exceed 12 years. Qualifying mandatory convertible preferred securities generally consist of the joint issuance by a BHC to investors of trust preferred securities and a forward purchase contract, which the investors fully collateralize with the securities, that obligates the investors to purchase a fixed amount of the BHC's common stock, generally in three years. Typically, prior to exercise of the purchase contract generally in three years, the trust preferred securities are remarketed by the initial investors to new investors, and the cash proceeds are used to satisfy the initial investors' obligation to buy the BHC's common stock. The common stock replaces the initial trust preferred securities as a component of the BHC's tier 1 capital, and the remarketed trust preferred securities are excluded from the BHC's regulatory capital. A BHC wishing to issue mandatory convertible preferred securities and include them in tier 1 capital must consult with the Federal Reserve prior to their issuance to ensure that the securities' terms are consistent with tier 1 capital treatment.

#### 4060.3.9.1 Trust Preferred Securities Mandatorily Convertible into Noncumulative Perpetual Preferred Securities

A bank holding company requested approval to include in its tier 1 capital trust preferred securities that are mandatorily convertible into noncumulative perpetual preferred securities on the same terms and subject to the same quantitative limit as trust preferred securities that mandatorily

convert into common stock. The BHC also asked the Board to clarify whether trust preferred securities that mandatorily convert to noncumulative perpetual preferred stock are eligible for the exception to the 15 percent limit afforded to qualifying mandatory convertible preferred securities under the capital guidelines. (See sections 4060.3.2.1.1.1 and 4060.3.2.1.1.2 for a more detailed discussion of the limitations on including certain restricted core capital elements in a BHC's tier 1 capital.)

The Board noted that although the regulatory definition of qualifying mandatory convertible preferred securities specifically describes an instrument convertible into common stock, the regulatory definition describes the typical, and not the exclusive, form of qualifying mandatory convertible preferred securities. For several reasons, the Board determined that qualifying mandatory convertible preferred securities also include instruments convertible into noncumulative perpetual preferred securities.

The Board based its favorable treatment of mandatory convertible preferred securities principally on the certainty that the issuer will, within a relatively short time period, replace the securities with a tier 1 capital component that is not a restricted core capital element. The interpretation notes that although common stock remains the highest form of tier 1 capital, noncumulative perpetual preferred stock is also a high form of tier 1 capital and is not a restricted core capital element. Like common stock, noncumulative perpetual preferred securities are perpetually available to absorb losses incurred by the issuer, constitute equity under generally accepted accounting principles, and allow the issuer to waive dividends on a noncumulative basis. By allowing the noncumulative waiver of dividends, noncumulative perpetual preferred securities avoid the accumulation of deferred dividends, which could possibly impede an issuer's ability to raise additional equity during times of stress.

The interpretation conveys the Board's determination that qualifying mandatory convertible preferred securities that convert to noncumulative perpetual preferred securities qualify for inclusion in the tier 1 capital of internationally active BHCs (and other BHCs) in excess of the 15 percent limit applicable to the restricted core capital elements of internationally active BHCs, if all other terms and conditions of the securities meet the Board's requirements. (See the January 23, 2006, Board staff legal interpretation.)

### 4060.3.10 INSPECTION OBJECTIVES

1. To determine the adequacy of capital in relation to the risks inherent in the transactions and activities of the banking organization.
2. To determine compliance with the risk-based and tier 1 leverage measures of the capital adequacy guidelines as they apply to bank holding companies. (See section 4060.4.)
3. To determine if management and operating policies, practices, and procedures for capital are adequate, and whether they reflect the requirements of the capital adequacy guidelines, if applicable.
4. To evaluate the performance of the bank holding company's officers and employees in administering and controlling the capital position of the organization, including its banking and nonbanking subsidiaries.
5. To evaluate the propriety and consistency of the banking organization's present and planned level of capitalization in light of the risk-based and leverage capital measures, as required, as well as existing conditions and future plans.
6. To initiate corrective action, in conjunction with the inspection process, when policies, procedures, or capital is deficient.

### 4060.3.11 INSPECTION PROCEDURES

Section 4060.3.5 lists items that examiners should consider during their analysis of capital adequacy with regard to the risk-based measure. The instructions in that section are to be followed in addition to the inspection procedures listed below.

#### 4060.3.11.1 Verification of the Risk-Based Capital Ratio

Examiners should verify that the bank holding company has adequate systems in place to compute and document its risk-based capital ratios.

1. Determine if the bank holding company is correctly reporting the risk-based capital information requested on the Federal Reserve's FR Y-9C Reports of Condition and Income and supplementary schedules.
2. If the bank holding company has consolidated assets of less than \$500 million, determine whether the bank holding company risk-based capital guidelines still apply because—

- a. the bank holding company is engaged in nonbank activity involving significant leverage (includes off-balance-sheet activities) or
- b. the parent company has a significant amount of outstanding debt that is held by the general public.

*For the qualifying components of capital (the numerator of the ratio):*

3. Determine if management is adhering to the underlying terms of any currently outstanding stock issues.
4. Review common stock to ensure that the bank holding company is in compliance with the terms of any underlying agreements and to determine if more than one class exists. If more than one class exists, review the terms for any preference or non-voting features. If the terms include such features, determine whether the class of common stock qualifies for inclusion in tier 1 capital.
5. 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
      - not redeemable at the option of the holder
      - unsecured
      - ability to absorb losses
      - ability and legal right for the issuer to defer or eliminate dividends or to issue waivers for preferred stock
      - any issuer-redemption feature subject to prior Federal Reserve approval
      - fixed-rate or traditional floating- or adjustable-rate
      - no features that would require or create significant incentives for the issuer to (1) redeem the instrument for cash, cash equivalents, or other consideration of value (for ex-

- ample, a credit-sensitive dividend feature) or (2) repurchase the instrument, such as an “exploding rate,” an auction-rate pricing mechanism, or a feature (for example, a dividend-rate step-up or a market-conversion 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 in 5.b. above for tier 1 perpetual preferred stock. But perpetual preferred stock qualified for inclusion in tier 2 capital may not 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.
6. Verify that minority interest in equity accounts of consolidated subsidiaries included in tier 1 capital consists only of tier 1 qualifying capital elements. Determine whether any perpetual preferred stock of a subsidiary that is included in minority interest, without explicit Federal Reserve approval, is secured by the subsidiary's assets. If so, that stock may not be included in capital.
  7. For the BHC's trust preferred securities that are included in tier 1 capital, determine if the following requirements have been met:
    - a. The supervising Federal Reserve Bank was consulted *before* the securities were issued and included in tier 1 capital.
    - b. The BHC, for accounting and reporting purposes, has determined the appropriate application of GAAP (including FIN 46R) to its trust issuing trust preferred securities. Ascertain that there is no substantive difference in the treatment of trust preferred securities issued by such trusts, or in the treatment of the underlying junior subordinated debt, for purposes of regulatory reporting and GAAP accounting.
    - c. The securities allow for dividends to be deferred for at least 20 consecutive quarters without an event of default, unless an event of default leading to acceleration permitted under section II.A.1.c.iv.(2) has occurred.
    - d. The required notification period for deferral of dividends is no more than 15 business days before the payment date.
  - e. The securities have the same restrictions, terms, and features as qualifying perpetual preferred stock.
  - f. the sole asset of the trust is a junior subordinated note issued by the sponsoring banking organization. The note must have a minimum maturity of 30 years and be subordinated with regard to both liquidation and priority of periodic payments to all senior and subordinated debt of the sponsoring banking organization (other than other junior subordinated notes underlying trust preferred securities).
  - g. The note complies with section II.A.2.d. and the Federal Reserve's subordinated debt policy statement. (See 12 C.F.R. 250.166.) The note may, however, provide for an event of default and the acceleration of principal and accrued interest upon (1) nonpayment of interest for 20 or more consecutive quarters or (2) termination of the trust without redemption of the trust preferred securities, distribution of the notes to investors, or assumption of the obligation by a successor to the banking organization.
  - h. In the last five years before the maturity of the note, the outstanding amount of the associated trust preferred securities is excluded from tier 1 capital and included in tier 2 capital, and the trust preferred securities are subject to the amortization provisions and quantitative restrictions set forth in sections II.A.2.d.iii. and iv. as if the trust preferred securities were limited-life preferred stock.
8. Review the intermediate-term preferred stock and subordinated debt instruments included in capital for the following:
    - a. compliance with the terms of the underlying agreements, noting that subordinated debt containing one or both of the following terms may not be included in capital:
      - interest payments tied to the banking organization'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, together with trust preferred securities and other restricted core capital elements (other than cumulative perpetual preferred

- stock), does not exceed 50 percent of tier 1 capital (net of all 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 is not a deposit, is not insured by a federal agency, does not have credit-sensitive features or other provisions that are inconsistent with safe and sound banking practice, does not contain provisions permitting debt holders to accelerate the payment of principal or interest upon the occurrence of any event, cannot be redeemed without prior approval from the Federal Reserve, and is subordinated to depositors and general creditors
- c. appropriate amortization, if the instruments have a remaining maturity of less than five years
9. By reviewing minutes of board of directors meetings, determine 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.
10. Verify that the transactions within the allowance for loan and lease losses have been properly accounted for during the inspection period, and verify that the amount included in tier 2 capital has been limited to 1.25 percent of weighted-risk assets.
- the bank holding company's risk-weighted asset base and (2) if they were excluded from tier 1 capital—the ratio's numerator. See section III.B.6.
- b. Determine whether any of the bank holding company'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.iv.
- c. From the bank holding company's supporting documentation of its risk-based capital ratios, determine whether the bank holding company held risk-based capital against its eligible ABCP liquidity facilities.
- d. Determine whether the bank holding company has 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.
- 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.

*For the calculation of risk-weighted assets (the denominator of the ratio):*

11. Determine whether the bank holding company 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 holding company's ABCP program meets the definition of a "sponsored ABCP program" under the Federal Reserve's risk-based capital guidelines. If the bank holding company does consolidate the assets of an ABCP program, review the documentation of its risk-based capital ratio calculations and determine (1) whether the associated ABCP program's assets and minority interests were excluded from
12. 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 holding company's documentation supports the assignment of preferential risk weights. If necessary, recalculate the value of risk-weighted assets.
13. Verify that all off-balance-sheet items have been properly converted 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.

#### 4060.3.11.2 Verification of the Tier 1 Leverage Ratio

1. Verify that the bank holding company 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 holding company has properly calculated average total consolidated assets.

#### 4060.3.11.3 Overall Assessment of Capital Adequacy

1. For bank holding companies that do not meet the minimum risk-based tier 1 leverage capital standard, as required, or that are otherwise considered to lack sufficient capital to support their activities, examine the capitalization plans for achieving adequate levels of capital. Determine whether the plans are acceptable to the appropriate Federal Reserve Bank's management. Review and comment on these plans and on any progress achieved in meeting the requirements.
2. The analysis of capital adequacy requires an evaluation of the propriety and consistency of the bank holding company'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 Bank Holding Company Performance Report (BHCPR), analyze applicable ratios involving capital funds, comparing these ratios with those of its peer group and investigating trends or significant variations from peer-group averages.
  - b. With regard to the bank holding company's financial condition, determine that capital is sufficient to compensate for any instabilities or deficiencies in the asset and liability mix and its quality.
    - c. Determine if the bank holding company's consolidated 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 levels of debt versus equity funding, including double leverage, to determine the level of borrowing to fund equity, if any.
    - 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 holding company's capital structure.
    - 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 represents 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 holding company.
    - j. Consider the cushion for absorbing losses that may be provided by any subordinated debt, trust preferred securities, other restricted core capital elements, or intermediate-term preferred stock not included in tier 2 capital because of the 50 percent of tier 2 capital limitation, or 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. This analysis should include guarantees provided through credit-derivative transactions (see section 4060.3.5.3.17) in which the credit exposure is assigned to the risk category of the obligor of the reference asset or any collateral. For the latter, determine whether adequate capital and reserves are held against the exposures to reference assets.
    - l. Evaluate the consolidated asset quality of the bank holding company, and deter-

- mine whether it 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 holding company's management of interest-rate risk and use of hedging instruments. Determine if the bank holding company should strengthen its capital position, based on undue levels of risk at any structural level within the organization. Review hedging instruments for the use of interest-only strips (IOs) and principal-only strips (POs) that may raise concerns, and review management's expertise in using hedging instruments.
3. Review capital adjustments for goodwill and other intangible assets (such as core deposit intangibles, favorable leasehold rights, organization costs, purchased trust-servicing rights, purchased investment-management relationships, purchased home-equity rights, and merchant-servicing rights), that are required to be deducted from capital. An analysis of intangible assets that may be included in capital must also be performed using the following procedures:
- a. Verify the existence of, the evidence of title to, and the accounting for intangible assets. Review and assess both the book values and the fair values assigned to intangible assets. Also verify the adequacy of the documentation evidencing the values, the amortization methods, and assigned amortization periods. When assessing the quality of a banking organization's intangible assets for purposes of evaluating its overall capital position, consider—
    - the reliability and predictability of any cash flows associated with the assets and the degree of certainty that can be achieved in periodically determining the asset's useful life and fair value,
    - the existence of an active and liquid market for the assets, and
    - the feasibility of selling the asset apart from the banking organization or from the bulk of its assets.
  - b. Verify that intangibles are being reduced in accordance with the amortization method and that, if the carrying amount exceeds its fair value, the book value of the intangible asset is reduced accordingly or is written off.
  - c. Determine if a quarterly review of the book and fair values and of the level and quality of all intangibles is performed.
  - d. Verify that goodwill and other nonqualifying identifiable intangibles are deducted from tier 1 capital.
  - e. Determine if the amount of mortgage-servicing rights or purchased credit-card relationships was within the established limitations on the amount that may be included in tier 1 capital.
  - f. Ascertain whether the asset values of the intangible assets were reassessed during the annual audit.
4. In light of the overall capital adequacy analysis, and in accordance with the Federal Reserve's capital adequacy guidelines, determine if any appropriate supervisory action is warranted because of deficient levels of capital in relation to inherent risks of the bank holding company organization.
5. Review the following in preparation for discussion with appropriate management:
- a. all noted deficiencies regarding the capital accounts
  - b. the adequacy of present and projected capital
6. Ascertain through minutes, reports, etc., or through discussions with management, how the bank holding company's future business and operational plans will affect its asset quality, capital position, and other areas of its balance sheet.
7. Prepare comments for the inspection report based on the bank holding company's capital position, including any comments on deficiencies that were observed.
8. Update the appropriate workpapers with any information that will facilitate future inspections.

4060.3.12 LAWS, REGULATIONS, INTERPRETATIONS, AND ORDERS

<i>Subject</i>	<i>Laws<sup>1</sup></i>	<i>Regulations<sup>2</sup></i>	<i>Interpretations<sup>3</sup></i>	<i>Orders</i>
Capital adequacy guidelines—BHCs:				
Measures:				
Risk-based		225, appendix A	3–1920	
Leverage Measure		225, appendix B	3–1940	
Small Bank Holding Company Policy Statement—Policy Statement on Assessment of Financial and Managerial Factors		225, appendix C	4–868	
Tier 1 leverage		225, appendix D	3–1955	
Market-risk measure		225, appendix E	3–1960	
Bank holding company should be a source of financial and managerial strength to its subsidiaries		225.4(a)		1981 FRB 344
Policy statement on the responsibility of BHCs to act as a source of strength to their subsidiary banks			4–878	1987 FRB 441
Board Legal Division Staff Interpretation—Trust preferred securities that are mandatorily convertible into noncumulative perpetual preferred securities (January 23, 2006)				

4060.3.12 LAWS, REGULATIONS, INTERPRETATIONS, AND ORDERS

<i>Subject</i>	<i>Laws<sup>1</sup></i>	<i>Regulations<sup>2</sup></i>	<i>Interpretations<sup>3</sup></i>	<i>Orders</i>
Risk-based capital treatment for certain indemnified securities-lending arrangements applying a loan-equivalent methodology using a bank's internal VaR model			August 15, 2006, May 14, 2003	

1. 12 U.S.C., unless specifically stated otherwise.  
 2. 12 C.F.R., unless specifically stated otherwise.

3. *Federal Reserve Regulatory Service* reference.



### WHAT'S NEW IN THIS SECTION

*Effective July 2006, this section has been revised to incorporate the Board's February 16, 2006, approval (effective March 30, 2006) of changes to the tier 1 leverage capital adequacy guidelines for bank holding companies: tier 1 leverage measure. See Regulation Y (12 C.F.R. 225, appendix D). The changes resulted from the Board's revisions to Regulation Y, appendix C, the Small Bank Holding Company Policy Statement (12 C.F.R. 225, appendix C). The tier 1 leverage measure now applies to bank holding companies having consolidated assets of less than \$500 million (previously, the threshold level was less than \$150 million) if the holding company (1) is engaged in significant nonbanking activities either directly or indirectly through a nonbank subsidiary (a new provision), (2) conducts significant off-balance-sheet activities, or (3) has a material amount of debt or equity securities outstanding that are registered with the Securities and Exchange Commission (SEC). (Previously, the rule referred only to debt outstanding held by the general public; SEC-registered equity securities were not included.)*

#### 4060.4.1 CAPITAL ADEQUACY GUIDELINES FOR BANK HOLDING COMPANIES: TIER 1 LEVERAGE MEASURE

The tier 1 leverage measure is found in appendix D of Regulation Y (12 C.F.R. 225). On August 2, 1990, the Board issued capital leverage guidelines, effective September 10, 1990. The Board established the capital leverage ratio to be applied in conjunction with the risk-based capital guidelines. The leverage ratio is designed to complement the risk-based capital ratios when the overall capital adequacy of banking organizations is being determined. This section includes the subsequent revisions to the capital leverage guidelines.

##### 4060.4.1.1 Overview of the Tier 1 Leverage Measure for Bank Holding Companies

The Board of Governors of the Federal Reserve System has adopted a minimum ratio of tier 1 capital to total assets to assist in the assessment of the capital adequacy of bank holding compa-

nies (banking organizations).<sup>1</sup> The principal objective of this measure is to place a constraint on the maximum degree to which a banking organization can leverage its equity capital base. It is intended to be used as a supplement to the risk-based capital measure.

As approved by the Board on February 16, 2006 (effective March 30, 2006), the tier 1 leverage guidelines apply on a consolidated basis to any bank holding company with consolidated assets of \$500 million or more. The tier 1 leverage guidelines also apply on a consolidated basis to any bank holding company with consolidated assets of less than \$500 million if the holding company (1) is engaged in significant nonbanking activities either directly or through a nonbank subsidiary, (2) conducts significant off-balance-sheet activities (including securitization and asset management or administration) either directly or through a nonbank subsidiary, or (3) has a material amount of SEC-registered debt or equity securities outstanding (other than trust preferred securities). The Federal Reserve may apply the tier 1 leverage guidelines at its discretion to any bank holding company, regardless of asset size, if such action is warranted for supervisory purposes.

The tier 1 leverage guidelines are to be used in the inspection and supervisory process as well as in the analysis of applications acted upon by the Federal Reserve. The Board will review the guidelines from time to time and will consider the need for possible adjustments in light of any significant changes in the economy, financial markets, and banking practices.

##### 4060.4.1.2 Tier 1 Leverage Ratio for Bank Holding Companies

The Board has established a minimum level of tier 1 capital to total assets of 4.0 percent for bank holding companies. However, for strong bank holding companies (rated composite 1 under the RFI/C(D) rating system of bank holding companies) and for bank holding companies that have implemented the Board's risk-based capital measure for market risk as set forth in appendixes A and E of part 225 of Regulation Y,

1. Supervisory ratios that related capital to total assets for state member banks are outlined in appendix B of Regulation Y.

the minimum ratio of tier 1 capital to total assets is 3.0 percent. Banking organizations with supervisory, financial, operational, or managerial weaknesses, as well as organizations that are anticipating or experiencing significant growth, are expected to maintain capital ratios well above the minimum levels. Moreover, higher capital ratios may be required for any bank holding company, if warranted by its particular circumstances or risk profile. In all cases, bank holding companies 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 banking organization'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). The ratio will also 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 Regulation Y, will be used. As a general matter, 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 banking organization's Consolidated Financial Statements (FR Y-9C Report), 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 upon future taxable income, net of their valuation allowance, in excess of the limitation set forth in section II.B.4 of appendix A of Regulation Y;<sup>2</sup> and the amount of the total adjusted carrying value of nonfinancial equity investments that is subject to a deduction from tier 1 capital.

Whenever appropriate, including when an organization is undertaking expansion, seeking to engage in new activities, or otherwise facing unusual or abnormal risks, the Board will continue to consider the level of an individual organization's tangible tier 1 leverage ratio (after deducting all intangibles) in making an overall assessment of capital adequacy. This is consistent with the Federal Reserve's risk-based capital guidelines and long-standing Federal Reserve policy and practice with regard to leverage guidelines. Organizations experiencing growth, whether internally or by acquisition, are expected to maintain strong capital positions substantially above minimum supervisory levels, without significant reliance on intangible assets.

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2. Deductions from tier 1 capital and other adjustments are discussed more fully in section II.B. of appendix A of Regulation Y.

Banking organizations and supervisors<sup>1</sup> must consider a broader range of exposures and deal with an increasingly complex array of financial instruments and activities that reflect important, but often subtle, differences in the levels of risk. Many banking organizations, especially large banking organizations and others with complex risk profiles, or those that are engaged in complex transfers of risk,<sup>2</sup> require formal analytical processes to identify and measure their risks and to maintain an adequate overall level of capital that is appropriate to those risks.

#### 4060.7.1 FACTORS USED IN EVALUATING OVERALL CAPITAL ADEQUACY

Most banking organizations are currently considering several factors in evaluating their overall capital adequacy:

1. a comparison of their own capital ratios with regulatory standards and with those of industry peers
2. consideration of their—
  - a. identified risk concentrations in credit and other activities;
  - b. current and desired credit-agency ratings, if applicable; and
  - c. the organization's historical experiences, including severe adverse events in its past.

#### 4060.7.2 SOPHISTICATED TECHNIQUES USED IN ASSESSING CAPITAL ADEQUACY

Some more sophisticated banking organizations use risk-modeling techniques and scenario analyses to evaluate risk, but they generally have not formally incorporated these analyses into their overall assessment of capital adequacy. Those banking organizations that are using risk modeling and scenario analysis as tools to illuminate

potential economic losses arising from certain types of risk are working to integrate these tools, as they apply to different risk types, into their capital adequacy assessments. The approaches and methods used vary among banking organizations, as does the degree of precision and integration. Sound practices are clearly moving toward a more quantitative, systematic, and comprehensive process for risk evaluation. Sophisticated banking organizations are also increasingly using analytical techniques developed either for pricing and performance measurement across business and product lines or for making portfolio risk-management decisions. Such techniques incorporate one or more volatility-based measures that allow for analysis of unexpected losses as well as more subjective considerations.

Regardless of the techniques used, nearly all U.S. banking organizations have found it advantageous to operate with capital levels above regulatory minimums—and above levels defined as “well capitalized” by regulation. High capital ratios are often not indicative of overall capital adequacy, especially for securitizations of high-quality assets and other capital arbitrage techniques. Supervisors often cannot rely solely on risk-based capital ratios as indicators of capital strength at banking organizations engaging in these types of activities.

#### 4060.7.3 STRENGTHENING CAPITAL ADEQUACY

Banking organizations and their supervisors are increasingly emphasizing internal processes for assessing risks and for ensuring that capital, liquidity, and other financial resources are adequate in relation to an organization's overall risk profile. This increased emphasis stems from the greater scope and complexity of the banking business, particularly those activities related to ongoing financial innovation. Banking organizations therefore need to ensure that their capital is not only adequate to meet formal regulatory standards, but is also fully sufficient to support their underlying risk positions. Internal capital-management processes at large, complex banking organizations need to be significantly improved for better integration with internal risk measurement and analysis. See SR-99-18.

1. The term “supervisors” refers to, as an example, federal banking organization supervisors.

2. Such complex transfers of risk would include collateralized loan obligations (CLOs), credit derivatives, and credit-linked notes. For information on CLOs, see section 4353.1 in the *Trading and Capital-Markets Activities Manual*. For information on credit derivatives, see SR-96-17 or section 2129.0, and for secondary-market credit activities, SR-97-21 or section 2129.05.

#### 4060.7.4 SUPERVISORY APPROACH TO EVALUATING CAPITAL ADEQUACY MANAGEMENT

Supervisors and examiners need to determine whether internal capital-management processes meaningfully tie the identification, monitoring, and evaluation of the risks that arise from the banking organization's business activities to the determination of its capital needs. The larger and more complex banking organizations are working to broaden their consideration of risks in assessing capital adequacy, and examiners should not immediately expect these organizations to have in place a comprehensive internal process for assessing capital adequacy. Examiners should expect, however, that such banking organizations will initiate improved capital-management efforts to do so promptly, and thereafter will make steady and meaningful progress toward that end. As these processes develop and become fully implemented, supervisors and examiners should also place increasing reliance on internal assessments of capital adequacy as an integral part of a banking organization's *capital adequacy* rating. Examiners should evaluate an organization's progress in developing these internal processes for capital adequacy assessment since the previous inspection, considering the organization's former practices and current status relative to its peers. The results of the examiner's evaluation should be recorded in the inspection report.

#### 4060.7.5 FUNDAMENTAL ELEMENTS OF AN INTERNAL ANALYSIS OF CAPITAL ADEQUACY

A sound and effective internal analysis of capital adequacy should include the following elements:

1. *Identifying and measuring all material risks.* A disciplined risk-measurement program promotes consistency and thoroughness in assessing current and prospective risk profiles, recognizing that risks often cannot be precisely measured. The detail and sophistication of risk measurement should be appropriate for the nature of the risks posed by each of the banking organization's activities and its asset size. At a minimum, risk-measurement systems should be sufficiently comprehensive and rigorous to capture the

nature and magnitude of the risks faced by the organization, while differentiating risk exposures consistently among risk categories and levels of riskiness. Controls should be in place to ensure objectivity and consistency and that all material risks—both on- and off-balance-sheet—are adequately addressed.

Banking organizations should conduct detailed analyses to support the accuracy or appropriateness of the risk-measurement techniques used. Similarly, inputs used in risk measurement should be of good quality. Those risks not easily quantified should be evaluated through more subjective, qualitative techniques or through stress testing. Risk-profile changes should be promptly incorporated into risk measures, whether the changes are due to new products, increased volumes or changes in concentrations, the quality of the portfolio, or the overall economic environment. Such measurement *should not* be oriented to the current treatment of these transactions under risk-based capital regulations.

When measuring such risks, banking organizations should perform comprehensive and rigorous stress tests to identify possible events or changes in markets that could have serious adverse effects in the future. Adequate consideration should be given to contingent exposures arising from loan commitments, securitization programs, and other transactions or activities that may create such exposure.

2. *Relating capital to the level of risk.* The amount of capital held should reflect not only the measured amount of risk but also an additional amount to account for potential uncertainties in risk measurement. A banking organization's capital should reflect the perceived level of precision in the risk measures used, the potential volatility of exposures, and the relative importance of the activities producing the risk. Capital levels should also reflect the fact that historical correlation among exposures can change rapidly.

Banking organizations should be able to demonstrate that their approach to relating capital to risk is conceptually sound and that outputs and results are reasonable.<sup>3</sup> Sensi-

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3. One credible method for assessing capital adequacy would be for a banking organization to consider itself adequately capitalized if it meets a reasonable and objectively determined standard of financial health, tempered by sound judgment—such as a target public-agency debt rating or even a statistically measured maximum probability of becoming insolvent over a given time horizon. In effect, this latter method is the foundation of the Basle Accord's treatment of capital requirements for market and foreign-exchange risk.

tivity analysis of key inputs and peer analysis can be used in assessing an organization's approach to relating its capital to risk.

3. *Stating explicit capital adequacy goals with respect to risk.* Explicit goals need to be established for capitalization as a standard for evaluating the banking organization's capital adequacy with respect to risk. Its target capital levels might reflect the desired level of risk coverage or, alternatively, a desired credit rating that reflects a desired degree of creditworthiness and thus access to funding sources. These goals should be reviewed and approved by the board of directors. Because risk profiles and goals may differ across banking organizations, the chosen target levels of capital may differ significantly from one organization to another. Moreover, banking organizations should evaluate whether long-run capital targets might differ from short-run goals, based on current and planned changes in risk profiles and the recognition that accommodating new capital needs can require significant lead time.

In addition, capital goals and the monitoring of performance against those goals should be integrated with the methodology used to identify the adequacy of the allowance for credit losses (the allowance). Both the allowance and capital represent the ability to absorb losses; however, an insufficiently clear distinction between their respective roles can distort the analysis of their adequacy. For example, a banking organization's internal standard of *capital* adequacy for credit risk could reflect the desire that capital absorb "unexpected losses"—that is, some level of potential losses above that level already estimated as being inherent in the current portfolio and reflected in the allowance.<sup>4</sup> If the allowance is not maintained at the high end of the range of estimated credit losses, the banking organization would require more capital than would otherwise be necessary to maintain its overall desired capacity to absorb potential losses. Failure to recognize this relationship could lead to overestimating the strength of its capital position.

4. *Assessing conformity to the banking organization's stated objectives.* A banking organi-

4. In March 1999, the banking agencies and the Securities and Exchange Commission issued a joint interagency letter to financial institutions stressing that depository institutions should have prudent and conservative allowances that fall within an acceptable range of estimated losses. The Federal Reserve has issued additional guidance on credit-loss allowances to supervisors and bankers. See SR-99-13 and SR-99-22.

zation's target level and composition of capital, along with the process for setting and monitoring such targets, should be periodically reviewed and approved by its board of directors.

#### 4060.7.6 RISKS ADDRESSED IN A SOUND INTERNAL ANALYSIS OF CAPITAL ADEQUACY

Sound internal risk-measurement and capital-assessment processes should address the full range of risks faced by the banking organization. The capital regulations of the Federal Reserve (and the other U.S. banking agencies) refer to many specific factors and other risks that banking organizations should consider in assessing capital adequacy.<sup>5</sup>

*Credit risk.* Internal credit-risk-rating systems are vital to measuring and managing credit risk at large banking organizations. A large banking organization's internal ratings system should be adequate to support the identification and measurement of risk for its lending activities and be adequately integrated into its overall analysis of capital adequacy (see SR-98-25). Well-structured credit-risk-rating systems should reflect implicit, if not explicit, judgments of loss probabilities or expected loss, and should be supported where possible by quantitative analysis. Definitions of risk ratings should be sufficiently detailed and descriptive, consistently applied, and reviewed throughout the organization.<sup>6</sup>

Banking organizations should also take full account of credit risk arising from securitization and other secondary-market credit activities, including credit derivatives (see SR-97-21).<sup>7</sup> Maintaining detailed and comprehensive credit-risk measures is most necessary at banking orga-

5. See 12 CFR 208, appendix A (overview), for state member institutions and 12 CFR 225, appendix A (overview), for bank holding companies.

6. SR-98-25 and section 2122.0 discuss the need for banking organizations to have sufficiently detailed, consistent, and accurate risk ratings for all loans, not only for criticized or problem credits. This guidance also describes an emerging sound practice of incorporating such ratings information into internal capital-allocation frameworks, recognizing that riskier assets require higher capital levels.

7. Secondary-market credit activities generally include loan syndications, loan sales and participations, credit derivatives, and asset securitizations, as well as the provision of credit enhancements and liquidity facilities to support such transactions. See SR-97-21 and section 2129.05.

nizations that conduct asset securitization programs, as these activities have the potential to greatly change—and reduce the transparency of—the risk profile of credit portfolios.<sup>8</sup> Because the current capital standard treats most loans alike, banking organizations have incentives to reduce their regulatory capital requirements by securitizing or otherwise selling lower-risk assets, while increasing the average level of remaining credit risk through devices like first-loss positions and contingent exposure. Thus, it is important that banking organizations are able to assess their remaining risks and hold appropriate levels of capital and allowances. Banking organizations are at the frontier of financial innovation, and they should also be at the frontier of risk measurement and internal capital allocation.

*Market risk.* The regulatory capital standard for market risk is based largely on a banking organization's own measure of value-at-risk (VaR). The market-risk standard emphasizes the importance of stress testing as a critical complement to a VaR-based calculation in evaluating the adequacy of capital to support the trading function.

*Interest-rate risk.* The interest-rate risk inherent in a banking organization's activities should also be closely monitored. The banking agencies have emphasized that banking organizations should carefully assess the risk to the economic value of their capital from adverse changes in interest rates. The Joint Agency Policy Statement on Interest-Rate Risk (see SR-96-13) stresses the importance of (1) assessing interest-rate risk in relation to the economic value of a banking organization's capital and (2) sound practices in selecting appropriate interest-rate scenarios to be applied for capital adequacy purposes.

*Operational and other risks.* Many banking organizations view operational risk—often viewed as any risk not categorized as credit or market risk—as being second in significance only to credit risk. Although operational risk does not easily lend itself to quantitative measurement, it can result in substantial costs through error,

fraud, or other performance problems. The growing dependence of banking organizations on information technology emphasizes one aspect of the need to identify and control this risk.

#### 4060.7.7 CAPITAL COMPOSITION

The analysis of capital adequacy should couple (1) a rigorous assessment of the particular measured and unmeasured risks the banking organization faces with (2) consideration of the capacity of its paid-in equity and other capital instruments to absorb economic losses. The Board's long-standing view is that common equity (that is, common stock and surplus and retained earnings) should be the dominant component of a banking organization's capital structure and that organizations should avoid undue reliance on capital elements that do not form common equity.<sup>9</sup> Common equity allows an organization to absorb losses on an ongoing basis and is permanently available for this purpose. Further, this element of capital best allows organizations to conserve resources when they are under stress because it provides full discretion as to the amount and timing of dividends and other distributions. Consequently, common equity is the basis on which most market judgments of capital adequacy are made.

Consideration of the capacity of a banking organization's capital structure to absorb losses should also take into account how that structure could be affected by changes in performance. For example, a banking organization experiencing a net operating loss—perhaps due to realization of unexpected losses—will not only face a reduction in its retained earnings, but also possible constraints on its access to capital markets. These constraints could be exacerbated if detrimental conversion options are exercised. A decrease in common equity, the key element of tier 1 capital, may have further unfavorable implications for a banking organization's regulatory capital position. The eligible amounts of most types of tier 1 preferred stock and tier 2 or tier 3<sup>10</sup> capital elements may be reduced because

8. SR-97-21 and section 2129.05 state that such changes have the effect of distorting portfolios that were previously "balanced" in terms of credit risk. The term "balanced" refers to the overall weighted mix of risks assumed in a loan portfolio by the current regulatory risk-based capital standard. This standard, for example, effectively treats the commercial loan portfolios of all banks as having "typical" levels of risk.

9. The Basle Committee on Banking Supervision affirmed this view in an October 1998 release, which stated that common shareholders' funds are the key element of capital. It also suggested that, to protect the integrity of an organization's tier 1 capital and its common equity base, innovative instruments included in tier 1 capital generally should be limited to 15 percent of total tier 1.

10. For the definition of tier 3 capital, see market-risk measure, Regulation Y (12 C.F.R. 225), appendix E, section 2(d).

current capital requirements limit the amount of these elements to a maximum percentage of tier 1 capital. Such adverse magnification effects could be further accentuated if adverse events take place at critical junctures for raising or maintaining capital (for example, as limited-life capital instruments are approaching maturity or new capital instruments are being issued).

#### 4060.7.8 EXAMINER REVIEW OF INTERNAL ANALYSIS OF CAPITAL ADEQUACY

During inspections and supervisory contacts at large, complex banking organizations (LCBOs), examiners should review internal capital-assessment processes, as well as the adequacy of the organizations' capital and their compliance with regulatory capital standards. Such reviews should assess the degree to which an organization has in place, or is making progress toward implementing, a sound internal process to assess capital adequacy. Examiners should briefly describe in the inspection report the approach and internal processes that are used by the banking organization to assess capital adequacy with respect to its risks. Examiners should then document their evaluation of the adequacy and appropriateness of these processes for the size and complexity of the organization and its risk profile. Examiners should also report their assessment of the quality and timing of the organization's plans to develop and enhance its processes for evaluating capital adequacy with respect to risk. Significant deficiencies and inadequate progress in developing and maintaining capital-assessment procedures should also be noted. Examiners should discuss plans for correcting any deficiency with the organization's directors and management and, as appropriate, initiate supervisory action.

In all cases, the examiner's evaluation of the internal processes for an organization's capital adequacy review should be considered in determining its supervisory rating for management. Examiners should expect those organizations that are already active in complex activities involving the transfer of risk, such as securitization and related activities, to have sound internal processes for assessing capital adequacy in place immediately as a fundamental element of safe and sound operation.

Beyond its consideration in evaluating management, the examiner's review should also become, over time, an integral element of assessing and assigning a supervisory rating for capital adequacy. The banking organization

should be developing appropriate processes for establishing capital targets and analyzing its capital adequacy. If these internal assessments suggest that capital levels appear to be insufficient to support the risks taken by the banking organization, examiners should note this finding in the inspection report; discuss plans for correcting this insufficiency with the banking organization's directors and management; and, as appropriate, initiate follow-up supervisory actions.

##### 4060.7.8.1 Adequacy of Risk Measurement and Risk Coverage

Examiners should assess the degree to which internal targets and processes incorporate the full range of material risks faced by the banking organization. They should also assess the adequacy of risk measures used in assessing internal capital adequacy, and the extent to which these risk measures are also used operationally in setting limits, evaluating business-line performance, and evaluating and controlling risk. Measurement systems that are in place but are not integral to the banking organization's risk management should be viewed with some skepticism. Examiners should review whether an organization's approach treats similar risks across products and/or business lines consistently, and whether changes in its risk profile are timely. Finally, examiners should consider the results of sensitivity analyses and stress tests conducted by the banking organization and how these results relate to its capital plans.

##### 4060.7.8.2 Relating Capital to the Level of Risk

In addition to complying with regulatory capital ratios, banking organizations should be able to demonstrate through internal analysis that their capital levels and composition are adequate to support the risks they face, and that these levels are properly monitored and reviewed by directors. Examiners should review this analysis, including the target levels of capital chosen, to determine whether it is sufficiently comprehensive and relevant to the current operating environment. Examiners should also consider the extent to which the banking organization has provided for unexpected events in setting its capital levels. The analysis should cover a suffi-

ciently wide range of external conditions and scenarios, and the sophistication of techniques and stress tests used should be commensurate with the banking organization's activities. Consideration of such conditions and scenarios should take appropriate account of the possibility that adverse events may have disproportionate effects on overall capital levels, such as the effect of tier 1 limitations, adverse capital-market responses, and other magnification effects. Finally, supervisors should consider the quality of the banking organization's management information reporting and systems, the manner in which business risks and activities are aggregated, and management's record in responding to emerging or changing risks.

Finally, when performing their review, supervisors and examiners should be careful to distinguish between a comprehensive process that seeks to identify a banking organization's capital requirements on the basis of measured economic risk, and one that focuses only narrowly on the calculation and use of allocated capital or "economic value added" (EVA) for individual products or business lines for internal profitability analysis. This latter approach, which measures the amount by which operations or projects return more or less than their cost of capital, can be important to an organization in targeting activities for future growth or cutbacks. It requires, however, that the organization first determine—by some method—the amount of capital necessary for each activity or business line. The process for determining the necessary capital should not be confused with management's related efforts to measure relative returns of the firm or of individual business lines, given an amount of capital already invested or allocated. Such EVA approaches often do not meaningfully aggregate the allocated capital across business lines and risk types as a tool for evaluating the banking organization's overall capital adequacy.

#### 4060.7.9 INSPECTION OBJECTIVES

1. To integrate an assessment of capital adequacy with a comprehensive analysis of existing risk.
2. To determine whether internal capital-management processes meaningfully tie the identification, monitoring, and evaluation of the banking organization's risks, arising from its business activities, to the determination of its capital needs.

3. To evaluate a banking organization's progress in developing a comprehensive internal process for assessing capital adequacy, and to document that progress in the inspection report.
4. To place greater reliance on internal assessments of the banking organization's processes that are used to evaluate capital adequacy, and to incorporate those assessments into a supervisory rating for management and capital adequacy.
5. For banking organizations involved in complex activities such as securitization, other secondary-market activities (including credit derivatives), or other complex transfers of risk, to determine and report whether a sound, fundamental internal process for the analysis of capital adequacy currently exists.
6. To discuss with the board of directors and management any insufficiency in capital adequacy management, recognizing the risks taken, and to reach agreements for corrective action.

#### 4060.7.10 INSPECTION PROCEDURES

##### *Internal Capital Assessment*

1. Review the banking organization's internal capital-assessment processes as well as its capital adequacy and compliance with regulatory capital standards.
2. Briefly describe in the inspection report the approach and internal processes that are used to assess capital adequacy with respect to the banking organization's risks.
  - a. Evaluate and document an assessment of the adequacy and appropriateness of these internal processes (including the extent of their contribution to the assignment of a management supervisory rating). Consider the size and complexity of the banking organization with respect to the quality and timing of its plans to develop and enhance its processes for evaluating capital adequacy with respect to risk.
  - b. If the banking organization is already involved in complex activities involving the transfer of risk, such as securitization and related activities, ascertain whether sound internal processes currently exist for evaluating capital adequacy.
  - c. If the internal assessments described above suggest that capital levels appear to be insufficient to support the risks taken, dis-



cuss plans for correcting this insufficiency with the directors and management, and note these finding(s) in the inspection report and initiate follow-up supervisory action(s).

### *Measurement and Risk Coverage*

1. Determine the degree to which internal targets and processes incorporate the full range of material risks faced by the banking organization.
  - a. Evaluate the adequacy of risk measures used in assessing internal capital adequacy.
  - b. Assess the extent to which these risk measures are used operationally in setting limits, evaluating business-line performance, and evaluating and controlling risk.
2. Ascertain whether the banking organization's approach treats similar risks across products and/or business lines consistently, and whether changes in the risk profile are fully reflected in a timely manner.
3. Evaluate the results of sensitivity analyses and stress tests conducted by the banking organization, and determine how these results relate to its capital plans.

### *Relating Capital to the Level of Risk*

1. Determine whether the banking organization can demonstrate through internal analysis that its target capital levels and composition

are adequate to support present risks, and whether these levels are properly monitored and reviewed by the directors. Decide if the internal analysis is sufficiently comprehensive and relevant to the current operating environment.

2. Ascertain if the banking organization has provided for unexpected events in setting its capital levels.
  - a. Evaluate whether the analysis covers a sufficiently wide range of external conditions and scenarios.
  - b. Determine if the sophistication of techniques and stress tests used are commensurate with the banking organization's activities.
3. Evaluate the quality of the banking organization's management information reporting and systems, the manner in which business risks and activities are aggregated, and management's record in responding to emerging or changing risks.
4. Establish whether the internal capital-analysis plan is—
  - a. a comprehensive process that seeks to identify the banking organization's capital requirements on the basis of measured economic risk; or
  - b. a narrow process that focuses only on the calculation and use of allocated capital or "economic value added" (EVA) for individual products or business lines for internal profitability analysis.

# Consolidated Risk-Based Capital—Direct-Credit Substitutes Extended to ABCP Programs

## Section 4060.8

The Federal Reserve Board and the other federal banking agencies (the Agencies)<sup>1</sup> 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).<sup>2</sup> 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 bank holding company inspection purposes, the interagency guidance has been reformatted for examiner use as inspection objectives, inspection procedures, and an internal control questionnaire.

The guidance sets forth an analytical framework for assessing the broad risk characteristics of direct-credit substitutes<sup>3</sup> 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 2080.1 on short-term funding with commercial-paper issuance and 2128.03 pertaining to credit-supported and asset-backed commercial paper.)

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<sup>4</sup> 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 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 below.<sup>5</sup> (See this section’s appendix A for a more detailed description of ABCP programs.)

As the table on the following page indicates, the minimum risk weight available under the internal risk-ratings approach is 100 percent, regardless of the internal rating.<sup>6</sup> 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.<sup>7</sup> 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 ABCP program.<sup>8</sup>

The use of internal risk ratings under the Securitization Capital Rule is limited to determining the risk-based capital charge for unrated direct-credit substitutes that banking organiza-

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. 59,614 (November 29, 2001). See also 12 C.F.R. 225, 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.

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. 225, appendix A, section III.B.3.g.i.)

<i>Internal Risk-Rating Equivalent</i>	<i>Ratings Category</i>	<i>Rick Weighting</i>
BBB- or better	Investment grade	100%
BB+ to BB-	High non-investment grade	200%
Below BB-	Low non-investment grade	Gross-up treatment

tions provide to ABCP programs. Thus, banking organization 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 inspection procedures in section 4060.8.4.11.) 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 inspection procedures to generate the appropriate amount of risk-based capital to be assessed against an unrated position.

#### 4060.8.1 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<sup>9</sup>

#### 4060.8.2 Inspection Objectives

Unless otherwise specified, examiners should weigh the importance and significance of the objectives being assessed when he or she determines a final conclusion.

##### 4060.8.2.1 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.

##### 4060.8.2.2 Internal Risk-Rating System for ABCP Securitization Exposures

1. To determine the extent to which the bank integrates its ABCP internal risk-rating process with its credit-risk management framework.
2. To qualitatively assess the suitability of the bank's risk-rating process relative to the transactions and type of assets securitized.
3. To assess the adequacy of the credit-approval process.

##### 4060.8.2.3 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.

##### 4060.8.2.4 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 NRSROs.
2. To verify that NRSROs are monitoring the ABCP programs to ensure maintenance of minimum standards for the respective ABCP program's rating.

##### 4060.8.2.5 Underwriting Standards and Management Oversight

1. To assess the quality and robustness of the underwriting process.

##### 4060.8.2.6 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.

##### 4060.8.2.7 First-Loss Position for Program-Wide Credit Enhancement

1. To determine the rank order, if possible, of the risk assumed by the various direct-credit substitutes and liquidity facilities in the ABCP program by 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 charge for taking program-wide credit-enhancement risk generally is within the market's investment-grade pricing range.

9. 12 C.F.R. 208 and 225, appendix A, IILB.3.f.i.

### 4060.8.2.8 Concentrations of Non-Investment Grade Seller/Service

1. To determine if the sponsoring banking organization is exposed to an inordinate amount of seller/service risk.

### 4060.8.2.9 Underlying Assets of the ABCP Program Structured to Investment-Grade Risk

1. To obtain the internal rating for the program-wide credit enhancement 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 based on internal risk ratings 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.

## 4060.8.3 DECISION TREE

This decision tree is intended to assist examiners in determining the adequacy of the internal rating systems used for rating direct-credit substitutes extended to 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.

## 4060.8.4 INSPECTION PROCEDURES

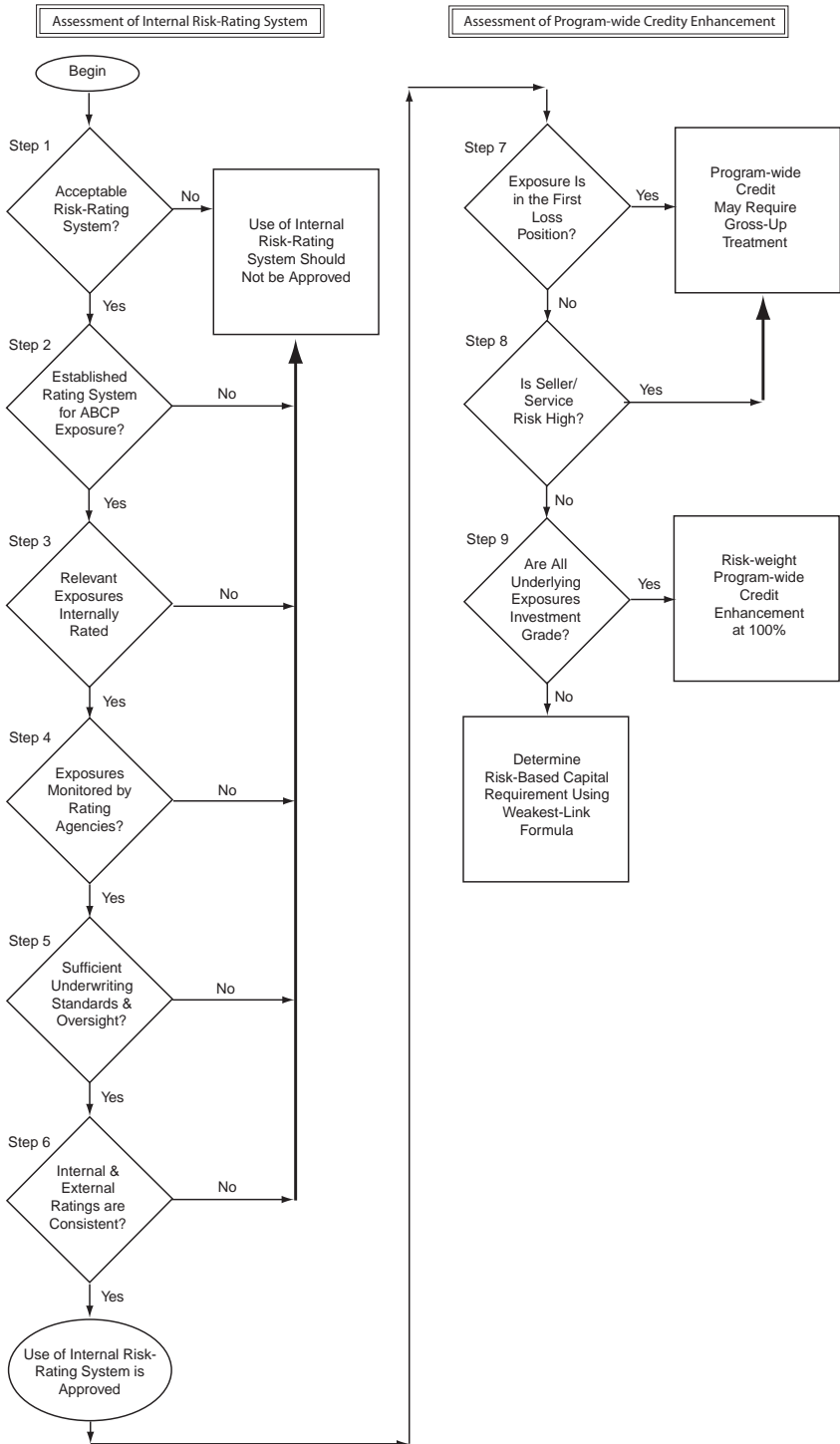
Examiners should be mindful that evaluating the adequacy of internal risk-rating systems generally depends on both subjective judgments and objective information generated in each step of the process. When performing the inspection procedures, the examiner may determine that certain observed weaknesses 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.

### 4060.8.4.1 Organizing the Inspection Process

When organizing the inspection, 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 inspection 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 bank 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 inspected and determined to meet the requirements outlined in this guidance.
 

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 inspection’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 inspection. 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 inspection procedures are performed. *If a combination of the risk factors identified below are observed during the inspection 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.*
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 necessary to enhance transaction-level credit enhancement to maintain an internal risk rating.
6. The transactional due diligence, approval, or execution documentation are 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 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 inspection 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.

The following factors should be considered:

#### 4060.8.4.2 Step One—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 inspection'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 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.*

#### 4060.8.4.3 Step Two—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—
  - risk ratings that are a fundamental portfolio management tool and
  - 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<sup>10</sup> as part of its credit-approval process. The transaction summary should include a description of the following: transaction structure, seller/servicer's risk profile,<sup>11</sup> relevant underwriting criteria, asset eligibility criteria, collection process, asset characteristics, dilution and historical loss rates, and trigger and termination events. (See appendix B 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.

#### 4060.8.4.4 Step Three—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

<sup>10</sup>. The transaction summary may not be specifically identified, but its elements would be part of the credit-approval process.

<sup>11</sup>. The seller/servicer 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.

internal ratings to the full scale of external ratings provided by the NRSROs.

#### 4060.8.4.5 Step Four—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.
  - Prescreened Programs: Confirm that NRSROs are prescreening each new transaction placed in the ABCP program.
  - 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).

#### 4060.8.4.6 Step Five—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:

##### *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

### *Legal Structure of the Transaction*

- A general structuring of transactions as “bankruptcy remote” via a legal “true sale” of assets rather than as 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.

### *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.

3. 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.
4. 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.
5. Review and consider the relevant rating agency methodology when evaluating reserves for any particular transaction.

### *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.*

6. 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.

### *Concentrations*

7. Analyze obligor, industry, and geographic concentrations.

8. Ascertain if the appropriate concentration limits have been established within transaction documents, often within the eligibility criteria.

### *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.

### *Due-Diligence Reviews*

9. 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.
10. Determine if ABCP transactions are reviewed at least annually.
- a. Confirm that the banking organization verifies the accuracy of the monthly servicer's transaction reports, including compliance with sale and servicing requirements.
  - b. 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.

### *Cash Management*

11. 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.

- a. Determine if, preferably, the banking organization requires that all payment collections flow into a single, segregated lockbox account to minimize cash-commingling risk.
  - b. For trade receivables, find out if the banking organization requires that the cash collections be reinvested in new receivables to eliminate cash-commingling risk.
12. For higher-risk sellers, determine if the banking organization—
- a. 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
  - b. requires that settlement be done weekly, or daily, ensuring that there are always sufficient receivables to cover investments and reserves.

### *Reporting*

When underwriting a portfolio, it is important to decide what information should be required in the monthly report.

13. 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
14. Ascertain if the banking organization has established other special reporting requirements based on the particular pool of receivables being securitized.

### *Receivable Systems*

15. Because of the significant reporting requirements in a securitization transaction, verify

- that the banking organization assesses—
- a. the seller's receivable systems to determine if they will be sufficient to provide the required information and
  - b. the seller's data backup and disaster recovery systems.

### *Quality of Seller/Service*

16. Verify that the banking organization performs an assessment of the creditworthiness of the seller that is conducted from the relationship side.
17. Determine if the banking organization conducts a more focused assessment on the seller/service's management team that is involved in the day-to-day receivables operation (that is, credit, accounting, sales, servicing, etc.).

### *Performance Monitoring*

18. Find out whether the banking organization has developed and uses a performance-monitoring plan that periodically monitors the portfolio.
- a. 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.
  - b. 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.

### *Post-Closing Monitoring*

19. Determine if the banking organization's underwriting team assists the portfolio man-

agement 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.

### *Underwriting Exceptions*

20. 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.*

21. 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.
22. 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.

#### 4060.8.4.7 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 are 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 exter-

nally 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.*

#### 4060.8.4.8 Determine Adequacy of Internal Ratings Systems

If, through the inspection 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.

#### 4060.8.4.9 Step 7—Determination of Whether the 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.
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 concentrations 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.

#### 4060.8.4.10 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 in place to mitigate servicer risk.

<i>Weighted Average Rating Equivalent of Transactions</i>	<i>Servicer Percentage Below Investment Grade</i>
AA	90%
AA–	80%
A+	70%
A	60%
A–	50%
BBB+	40%
BBB	30%
BBB–	20%
BB+	10

#### 4060.8.4.11 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 it 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 method-

ologies 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  $[(0.16 * NI1) + NI2^{**}] \geq (0.08 * PROG)$ , THEN  $RBC = (0.08 * PROG)$   
 Else

Capital =  $[0.08 * (PWC - (NI1 + NI2))] + [NI1] + [NI2^{**}]$

\*\*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

Total Amount of High Non-Investment Grade (NI1) = \$50 MM

Total Amount of Low Non-Investment Grade (NI2) = \$10 MM

*Weakest Link*

RBC = IF  $[(0.16 * 50) + 10] \geq (0.08 * 1,000)$ ,  
 then  $RBC = (0.08 * 1,000) = (8 + 10) =$   
 $\$18 \text{ MM} < \$80 \text{ MM}$

Else

$RBC = [(0.08 * (150 - (50+10))] + (0.16 * 50) +$   
 $(10) = (7.20) + (8.00) + (10) = \$25.2 \text{ MM}$

*Weakest Link*

RBC = IF  $[(0.16 * 4) + 1] \geq (0.08 * 1,000)$ , then  
 $RBC = (0.08 * 1,000) = (0.64 + 1) =$   
 $\$1.64 \text{ MM} < \$80 \text{ MM}$

Else

$RBC = [(0.08 * (100 - (4 + 1))] + (0.16 * 4) +$   
 $(1) = (7.60) + (0.64) + (1) = \$ 9.24 \text{ MM}$

*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

*Example 2*

ABCP program size (PROG) = \$1,000 MM  
 Program-Wide Credit Enhancement (PWC) = \$150 MM

Total Amount of Investment Grade (IG) = \$940 MM



*Weakest Link*

$$\begin{aligned} \text{RBC} &= \text{IF} [(0.16 * 500) + 500] \geq (0.08 * 1,000), \\ \text{THEN RBC} &= (0.08 * 1,000) = (80 + 500) = \\ & \$580 \text{ MM} > \$80 \text{ MM} \end{aligned}$$

Therefore,

$$\text{RBC} = (0.08 * 1,000) = \$80 \text{ MM}$$

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:

$\$10 * 1,250 * 8\% =$	$\$10.00$
$\$90 * 200 * 8\% =$	$\$14.40$
<b>Total</b>	<u><u>\$24.40</u></u>

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.

#### 4060.8.5 INTERNAL CONTROL QUESTIONNAIRE

1. Does the banking organization have an acceptable risk-rating system?

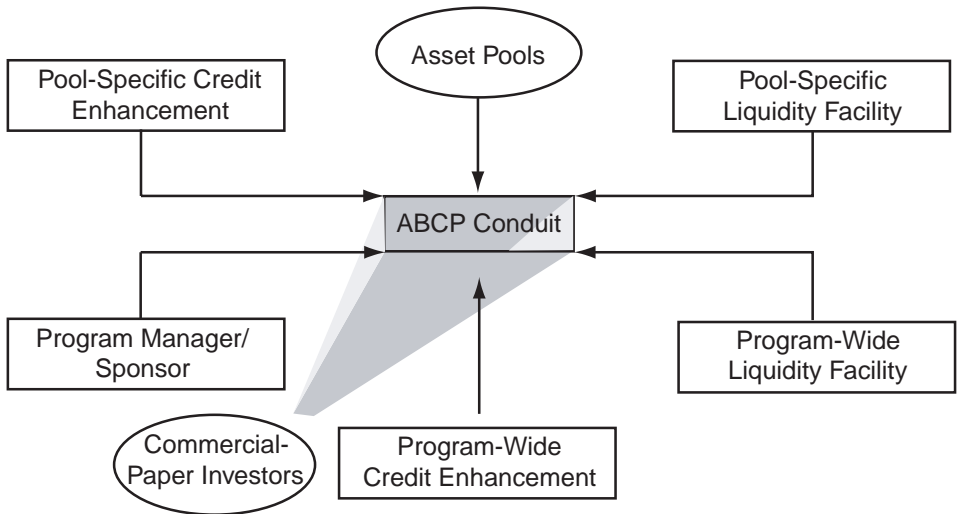
2. Does the banking organization use an established internal risk-rating system tailored to ABCP securitization exposures?
3. Are the relevant exposures internally rated?
4. Are the ABCP programs monitored by rating agencies?
5. Are there sufficient underwriting standards and management oversight?
6. 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?

#### 4060.8.6 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 bank 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 bank 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.

#### *Typical Structure*

ABCP programs are funding vehicles that banks 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 pro-



grams 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 banks. 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 bank. 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 bank. These loans are generally closely managed by the bank 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 bank typically provides pool-specific and program-wide liquidity facilities, and program-wide credit enhancements, all of which are usually unrated (pool-specific credit enhancement, such as over-collateralization, 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 bank, and, in some cases, unaffiliated third parties, provide pool-specific or program-wide liquidity facilities. These backup liquidity facilities assure 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 dete-

rioration 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.

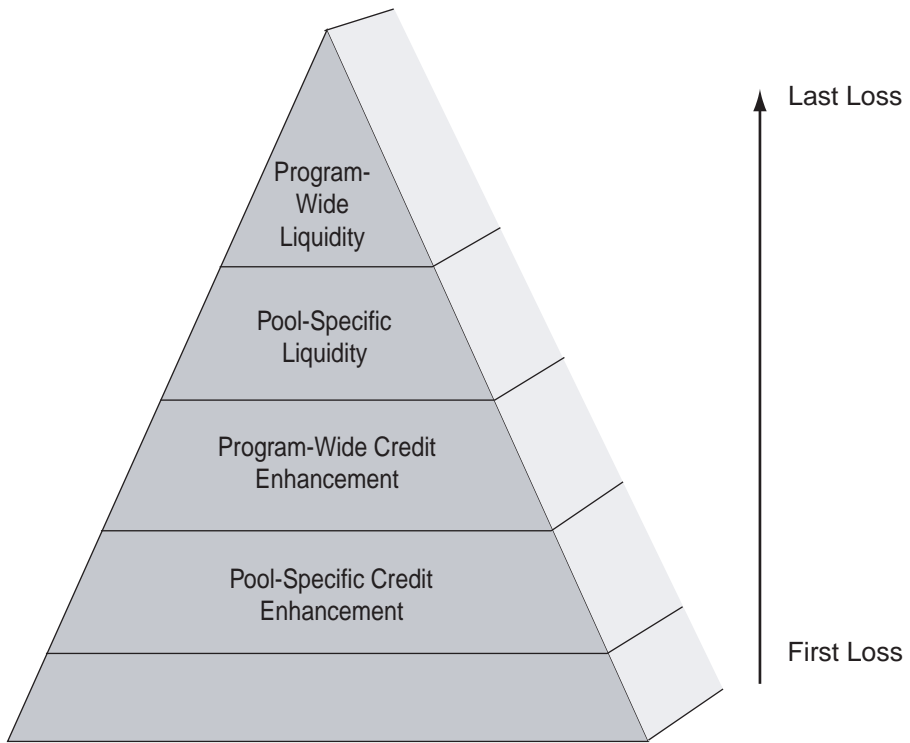
### *Commercial-Paper Investors*

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. Pool-specific and program-wide credit enhancements also protect commercial-paper investors from deterioration of the underlying asset pools.

The Loss Waterfall 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 Loss Waterfall



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 bank 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 bank 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.<sup>12</sup> 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

12. 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.

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.<sup>13</sup> 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.<sup>14</sup> 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. In some cases, a liquidity bank 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.

#### 4060.8.7 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 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

13. 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.

14. 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.

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.<sup>15</sup> 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 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

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15. 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.

paper or (2) when draws reduce the program-wide credit enhancement below a stated threshold.