INTRODUCTION

Overview

Securities and end-user derivatives (investment) activities can provide banks with earnings, liquidity, and capital appreciation. Carefully constructed positions can also reduce overall bank risk exposures. However, investment activities can also create considerable risk exposures, particularly:

- Market risk,
- Credit risk,
- Liquidity risk,
- Operating risk,
- Legal risk,
- Settlement risk, and
- Interconnection risk.

This section provides guidance, policy, and sound practices regarding:

- Policies, procedures and risk limits,
- Internal controls,
- Unsuitable investment activities,
- Risk Identification, measurement, and reporting,
- Board and senior management oversight,
- Compliance,
- Report of examination treatment, and
- Other guidance (trading, accounting, and information services).

Use this section to assess how effectively a bank’s board and management identifies, measures, monitors, and controls investment activity risks. Incorporate findings into relevant examination assessments, including sensitivity to market risk, liquidity, asset quality, and management.

Refer to the Capital Markets Examination Handbook for reference information on a wide range of activities and instruments, including fixed income instruments, mutual funds, derivatives, sensitivity to market risk, portfolio management, and specialized examination procedures. That handbook’s information focuses more closely on specific activities and instruments than this section’s general guidance.

Policy Statement

The Supervisory Policy Statement on Investment Securities and End-User Derivatives Activities (Policy Statement) was adopted by the FDIC, Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Office of Thrift Supervision, and National Credit Union Administration, effective May 26, 1998. The Policy Statement provides guidance and sound principles to bankers for managing investment securities and derivatives risks. It makes clear the importance of board oversight and management supervision, and focuses on risk management. The Policy Statement covers all securities used for investment purposes and all end-user derivative instruments used for non-trading purposes. It applies to all federally-insured commercial banks, savings banks, and savings associations. Notably, the Policy Statement:

- Underscores the importance of board oversight and management supervision,
- Emphasizes effective risk management,
- Contains no specific constraints on holding “high-risk” mortgage derivative products,
- Eliminates the requirement to obtain the former regulatory volatility test for mortgage derivative products, and
- Applies to all permissible investment securities and end-user derivatives.

The Policy Statement declares that banks should implement programs to manage the market, credit, liquidity, legal, operational, and other risks that result from investment activities. Adequate risk management programs identify, measure, monitor, and control these risks.

Failure to understand and adequately manage investment activity risks is an unsafe and unsound practice.

Risk Management Process Summary

This subsection provides guidance for evaluating a risk management program’s effectiveness at identifying, measuring, monitoring, and controlling investment activity risks. It also includes guidance for assessing those risks relative to overall risk exposure.

Management should establish a risk management program that identifies, measures, monitors, and controls investment activity risks. Its intricacy and detail should be commensurate with the bank’s size, complexity, and investment activities. Thus, the program should be tailored to the bank’s needs and circumstances. Regardless, an effective risk management program will include the following processes:

- The board should adopt policies that establish clear goals and risk limits.
- The board should review and act upon management’s reports.
• The board should establish an independent review function and review its reports.
• Management should develop investment strategies to achieve the board’s goals.
• Management should analyze and select investments consistent with its strategies.
• Management should maintain an effective internal control program.
• Management should regularly measure the portfolio’s risk levels and performance.
• Management should provide periodic reports to the board.
• The board and management should periodically evaluate and, when warranted, modify the program.

The following sections of the guidance cover each of the above steps in greater detail.

Management must determine, consistent with board policy, how investment activity risks will be managed. The Policy Statement provides considerable flexibility by permitting banks to manage risk on an individual instrument basis, on an aggregate portfolio basis, or on a whole bank basis.

Banks that engage in less complex activities may effectively manage investment activity risk on an individual instrument basis. That is, each instrument’s risk and return is evaluated independently. An instrument’s contribution to overall portfolio risk and return may only be considered in general terms. This approach requires rather specific individual instrument risk limits, but typically does not involve aggregate portfolio analysis.

Banks with complex or extensive investment activities should strongly consider the portfolio approach for managing investment activity risk. Under a portfolio approach, management evaluates an instrument’s contribution to overall portfolio risk and return. It requires portfolio risk limits and a system for aggregating and measuring overall portfolio risk and return. More complex aggregate portfolio risk and return measurements should be incorporated into overall interest rate risk or asset/liability management programs.

In recommending that all banks consider portfolio or whole bank risk management, the Policy Statement notes that such approaches generally provide certain advantages over the individual instrument approach, including:

• Integrated management of risk and return
• Understanding of each instrument’s contribution to overall risk and return
• Increased flexibility when selecting instruments

POLICIES, PROCEDURES, AND RISK LIMITS

Policies

The board is responsible for adopting comprehensive, written investment policies that clearly express the board’s investment goals and risk tolerance. Policies should be tailored to the bank’s needs and should address:

• The board’s investment goals,
• Authorized activities and instruments,
• Internal controls and independent review,
• Selecting broker/dealers,
• Risk limits,
• Risk and performance measurement,
• Reporting, and
• Accounting and taxation.

At most banks, the investment portfolio serves as a secondary source of both earnings and liquidity. At some banks, the investment portfolio is a primary earnings component. The policies should articulate the investment portfolio’s purpose, risk limits, and return goals. Return goals should express the board’s earnings objectives for the investment portfolio. The board may also establish portfolio performance targets.

Policies should describe all authorized investment activities and set guidelines for new products or activities. Further, policies should delegate investment authority, including naming specific personnel. The board’s approved policies should also provide management with general guidelines for selecting securities broker/dealers and limiting broker/dealer credit risk exposure.

The bank should have policies that ensure an understanding of the market risks associated with investment securities and derivative instruments before purchase. Accordingly, banks should have policies that define the characteristics of authorized instruments. The policy should sufficiently detail the characteristics of authorized instruments. For example, a policy that merely authorizes the purchase of agency securities would not be sufficiently detailed. The price sensitivities of agency pass-throughs, step-up structured notes, agency callable debt or leveraged inverse floaters are very different. Therefore, the policy should delineate the authorized types of agency securities that may be purchased. Management should analyze the risks in an instrument that has not been authorized and should seek the board’s permission to alter the list of authorized instruments before purchase.
Banks should have policies that specify the analysis of the risk of an investment that must be conducted prior to purchase. The pre-purchase analysis is meant to discover and quantify all relevant risks in the investment. Not all investments will require pre-purchase analysis. Relatively simple or standardized instruments, the risks of which are well known to the bank, would likely require no or significantly less analysis than would more complex or volatile instruments. Policies should delineate which of the authorized investments do not require pre-purchase analysis.

The list of authorized instruments may include instruments of varying characteristics. Policies should divide the spectrum of authorized investments into segments of instruments of similar risk characteristics. Policies should also require appropriate pre-purchase analysis for each segment.

**Risk Limits**

To effectively oversee investment activities, the board must approve the bank’s risk limits. Management should set these risk limits, consistent with the board’s goals, objectives, and risk appetite. The risk limits should be formally approved and incorporated within the board’s policies. Limits may be expressed in terms of bank-wide risk, investment portfolio risk, portfolio segment risk, or even individual instrument risk.

Risk limits should be consistent with the bank’s strategic plans and overall asset/liability management objectives. Limits should be placed on:

- Market risk,
- Credit risk,
- Liquidity risk,
- Asset types, and
- Maturities.

At a minimum, risk limits should be expressed relative to meaningful standards, such as capital or earnings. More complex investment activities may require more detailed risk limits.

**Market risk limits** should at least quantify maximum permissible portfolio or individual instrument price sensitivity as percentage of capital or earnings. Capital-based risk limits clearly illustrate the potential threat to the bank’s viability, while earnings-based limits reflect potential profitability effects. In addition, the board may choose to establish limits relative to earnings, total assets, total investment securities, or other standards.

**Credit risk limits** should generally restrict management to investment grade instruments. The board may permit management to acquire nonrated instruments; however, these instruments should be consistent with investment grade standards. For example, management may wish to purchase a nonrated bond issued by a local municipality. Regardless, the board should carefully monitor such activity.

**Liquidity risk limits** should restrict positions in less marketable instruments. These limits should apply to securities that management would have difficulty selling at or near fair value. Less marketable instruments may not meet the board’s investment goals, and holdings should generally be small. Obscure issues, complex instruments, defaulted securities, and instruments with thin markets may all have limited liquidity.

**Asset type limits** should limit concentrations in specific issuers, market sectors, and instrument types. These limits will require management to diversify the portfolio. When properly diversified, a portfolio can have lower risk for a given yield or can earn a higher yield for a given risk level. For example, the board may limit total investment in a particular instrument type to a specific percentage of capital.

**Maturity limits** should place restrictions on the maximum stated maturity, weighted average maturity, or duration of instruments that management may purchase. Longer-term securities have greater interest rate risk, price risk, and cash flow uncertainty than shorter-term instruments possess. Therefore, maturity limits should complement market risk limits, liquidity risk limits, and the board’s investment goals.

In addition, management should establish a standard risk measurement methodology. The measurement system must capture all material risks and accurately calculate risk exposures. Management should provide the board with consistent, accurate risk measurements in a format that directly illustrates compliance with the board’s risk limits. Refer to the Risk and Performance Measurement subsection for additional guidance.

**INTERNAL CONTROLS**

**Internal Control Program**

Effective internal controls are the first line of defense in supervising investment activity operating risks. Ineffective controls can lead to bank failures. Consequently, examiners will carefully evaluate the internal control
program. Examiners will emphasize separation of duties between the individuals who execute, settle, and account for transactions.

The internal control program should be commensurate with the volume and complexity of the investment activity conducted, and should be as independent as practical from related operations.

The board has responsibility for establishing general internal control guidelines, which management should translate into clear procedures that govern daily operations. Management’s internal control program should include procedures for the following:

- Portfolio valuation,
- Personnel,
- Settlement,
- Physical control and documentation,
- Conflict of interest,
- Accounting,
- Reporting, and
- Independent review.

Internal controls should promote efficiency, reliable internal and regulatory reporting, and compliance with regulations and bank policies.

**Portfolio valuation** procedures should require independent portfolio pricing. The availability of independent pricing provides an effective gauge of the market depth for thinly traded instruments, allowing management to assess the potential liquidity of specific issues. For these and other illiquid or complex instruments, completely independent pricing may be difficult to obtain. In such cases, estimated or modeled values may be used. However, management should understand and agree with the methods and assumptions used to estimate value.

**Personnel** guidelines should require sufficient staffing resources and expertise for the bank’s approved investment activities.

**Settlement** practices should be evaluated against the guidelines provided in the Settlement Practices, Confirmation and Delivery Requirements, and Delivery Documentation Addenda.

**Physical control and documentation** requirements should include:

- Possessing and controlling purchased instruments,
- Saving and safeguarding important documents, and
- Invoice review.

Invoice review requirements should address standards for all securities and derivatives sold or purchased. Invoices and confirmations display each instrument’s original purchase price, which provides a basis to establish book value and to identify reporting errors. Invoice reviews can also be used when determining if the bank is involved in any of the following inappropriate activities:

- Engaging one securities dealer or representative for virtually all transactions.
- Purchasing from or selling to the bank’s trading department.
- Unsuitable investment practices (refer to following page.).
- Inaccurate reporting.

**Conflict of interest** guidelines should govern all employees authorized to purchase and sell securities for the bank. These guidelines should ensure that all directors, officers, and employees act in the bank’s best interest. The board should adopt policies that address authorized employees’ personal relationships, including securities transactions, with the bank’s approved securities broker/dealers. The board may also adopt policies that address the circumstances under which directors, officers, and employees may accept gifts, gratuities, or travel expenses from securities broker/dealers and associated personnel.

**Accounting** practices should be evaluated against the standards, opinions, and interpretations listed in this section.

**Reporting** procedures should be evaluated against the guidelines discussed in the Risk Reporting subsection Risk Identification, Assessment and Reporting.

**Independent review** of the risk management program should be conducted at regular intervals to ensure the integrity, accuracy, and reasonableness of the program. Independent review may encompass external audits or an internal audit program. At many banks, however, evaluation by personnel independent of the portfolio management function will suffice. The independent review program’s scope and formality should correspond to the size and complexity of the bank’s investment activities. Independent review of investment activity should be at least commensurate with the independent review of other primary bank activities. It should assess:

- Adherence to the board’s policies and risk limits,
• The risk measurement system’s adequacy and accuracy,
• The reporting system’s timeliness, accuracy, and usefulness,
• Personnel resources and capabilities,
• Compliance with regulatory standards,
• The internal control environment,
• Accounting and documentation practices, and
• Conflicts of interest.

Banks with complex investment activities should consider augmenting the independent review with internal or external auditors, while banks with less complex investment activities may rely on less formal review. Sophisticated risk measurement systems, particularly those developed in-house, should be independently tested and validated.

Independent review findings should be reported directly to the board at least annually. The board should carefully review the independent review reports and ensure that material exceptions are corrected.

Examiners will evaluate the independent review’s scope and veracity, and will rely on sound independent review findings during examinations. However, when the independent review is unsatisfactory, examiners will perform review procedures to reach independent conclusions. When warranted, examiners will conduct a detailed review of all investment activities.

UNSUITABLE INVESTMENT ACTIVITIES

Trading activity within the held-to-maturity (HTM) or available-for-sale (AFS) portfolio is an unsuitable investment activity and may be considered unsafe and unsound. Each of the following activities are unsuitable within the HTM or AFS portfolio, and any resulting securities acquisitions should be reported as trading assets. The bank’s internal control program should be designed to prevent the following unsuitable investment activities:

• Gains trading,
• When-issued securities,
• Pair-offs,
• Extended settlement,
• Repositioning repurchase agreement, and
• Adjusted trading.

Gains trading is the purchase and subsequent sale of a security at a profit after a short holding period, while securities acquired for this purpose that cannot be sold at a profit are retained in the AFS or HTM portfolio. Gains trading may be intended to defer loss recognition, as unrealized losses on debt securities in such categories do not directly affect regulatory capital and generally are not reported in income until the security is sold.

Examiners should scrutinize institutions with a pattern of reporting significant amounts of realized gains on sales of non-trading securities (typically, AFS securities) after short holding periods while continuing to hold other non-trading securities with significant amounts of unrealized losses. If, in the examiner’s judgment, such a practice has occurred, the examiner should consult with the Regional Office for additional guidance on whether some or all of the securities reported outside of the trading category will be designated as trading assets.

When-issued securities trading is the buying and selling of securities in the period between the announcement of an offering and the issuance and payment date of the securities. A purchaser of a when-issued security acquires the risks and rewards of owning a security and may sell the when-issued security at a profit before having to take delivery and pay for it.

Pair-offs are security purchase transactions that are closed-out or sold at or before the settlement date. In a pair-off, an institution commits to purchase a security. Then, before the predetermined settlement date, the bank pairs-off the purchase with a sale of the same security. Pair-offs are settled net when one party to the transaction remits the difference between the purchase and sale price to the counterparty. Pair-offs may also involve the same sequence of events using swaps, options on swaps, forward commitments, options on forward commitments, or other off-balance sheet derivative contracts.

Extended Settlement is the use of a securities trade settlement period in excess of the regular-way settlement period. Regular-way settlement for U.S. Government and Federal agency securities (except mortgage-backed securities and derivative contracts) is one business day after the trade date. Regular-way settlement for corporate and municipal securities is three business days after the trade date, and for mortgage-backed securities it can be up to 60 days or more after the trade date. The use of a settlement period in excess of the regular-way settlement period to facilitate speculation is considered a trading activity.

A repositioning repurchase agreement is offered by a dealer to allow an institution that has entered into a when-issued trade or a pair-off (which may include an extended settlement) that cannot be closed out at a profit on the payment or settlement date to hold its speculative position until the security can be sold at a gain. The institution
purchasing the security pays the dealer a small margin that approximates the actual loss in the security. The dealer then agrees to fund the purchase of the security by buying it back from the purchaser under a resale agreement. Any securities acquired through a dealer financing technique such as a repositioning repurchase agreement that is used to fund the speculative purchase of securities should be reported as trading assets.

A short sale is the sale of a security that is not owned. The purpose of a short sale generally is to speculate on a fall in the price of the security. Short sales should be conducted in the trading portfolio. A short sale that involves the delivery of the security sold short by borrowing it from the depository institution’s AFS or HTM portfolio should not be reported as a short sale. Instead, it should be reported as a sale of the underlying security with gain or loss recognized in current earnings.

Adjusted trading involves the sale of a security to a broker or dealer at a price above the prevailing market value and the simultaneous purchase and booking of a different security, frequently a lower rated or quality issue or one with a longer maturity, at a price above its market value. Thus, the dealer is reimbursed for losses on the purchase from the institution and ensured a profit. Such transactions inappropriately defer the recognition of losses on the security sold and establish an excessive cost basis for the newly acquired security. Consequently, such transactions are prohibited and may be in violation of 18 U.S.C. Sections 1001-FALSE Statements or Entries and 1005-FALSE Entries.

RISK IDENTIFICATION, MEASUREMENT, AND REPORTING

Risk Identification

All investment activities create risk exposures, but the risk types and levels depend upon the activity conducted. The following guidance summarizes the major risk exposures. Refer to the Capital Markets Examination Handbook for additional guidance on specific instruments, markets, and strategies.

Market risk is the possibility that an instrument will lose value due to a change in the price of an underlying instrument, change in the value of an index of financial instruments, changes in various interest rates, or other factors. Frequently, an instrument will increase a bank’s market risk due to price volatility, embedded options, leverage factors, or other structural factors. The three principal types of market risk are price risk, interest rate risk and basis risk.

Price risk is the possibility that an instrument's price fluctuation will unfavorably affect income, capital, or risk reduction strategies. Price risk is usually influenced by other risks. For example, a bond’s price risk could be a function of rising interest rates, while a currency-linked note’s price risk could be a function of devaluation in the linked currency.

Interest rate risk is the possibility that an instrument’s value will fluctuate in response to current or expected market interest rate changes.

Yield curve risk is the possibility that an instrument’s value will fluctuate in response to a nonparallel yield curve shift. Yield curve risk is a form of interest rate risk.

Basis risk is the possibility that an instrument’s value will fluctuate at a rate that differs from the change in value of a related instrument. For example, three-month Eurodollar funding is not perfectly correlated with Treasury bill yields. This imperfect correlation between funding cost and asset yield creates basis risk.

Credit risk is the possibility of loss due to a counterparty’s or issuer’s default, or inability to meet contractual payment terms. The amount of credit risk equals the replacement cost (also referred to as current exposure) of an identical instrument. The replacement cost is established by assessing the instrument’s current market value rather than its value at inception.

In addition, default exposes a bank to market risk. After default, losses on a now unhedged position may occur before the defaulted hedge instrument can be replaced. Such losses would have been largely (or completely) offset if the counterparty had not defaulted.

Exchange-traded derivatives (futures, options, and options on futures) contain minimal credit risk. These instruments are marked-to-market at the end of each trading day, or on an intra-day basis, by the exchange clearinghouse. Position value changes are settled on a cash basis at least daily. To reduce credit risk, all exchange participants must post a performance bond or maintain margin with the exchange. Many over-the-counter (OTC) transactions use collateral agreements. OTC transaction collateral agreements can be one- or two-sided (only one party is required to post collateral on out-of-the-money positions, or both are required to post such collateral). Netting and collateral agreements and their specific terms can materially reduce credit risk exposure. For additional explanation of the
treatment of netting for capital calculations, refer to Part 325 of the FDIC Rules and Regulations.

In managing credit exposure, institutions should consider settlement and pre-settlement credit risk. The selection of dealers, investment bankers, and brokers is particularly important in effectively managing these risks. When selecting a dealer, investment banker, or broker, management should, at a minimum:

- Review each firm’s most current financial statements, such as annual reports and credit reports, and evaluate its ability to honor its commitments.
- Inquire into the general reputation of the firm by contacting previous or current customers.
- Review information from State or Federal securities regulators and industry self-regulatory organizations such as NASD Regulation, Inc., concerning any formal enforcement actions against the dealer, its affiliates, or associated personnel.

**Liquidity risk** is the possibility that an instrument cannot be obtained, closed out, or sold at (or very close to) its economic value. As individual markets evolve, their liquidity will gradually change, but market liquidity can also fluctuate rapidly during stress periods. In some markets, liquidity can vary materially during a single day. Some markets are liquid for particular maturities or volumes, but are illiquid for others. For example, the Eurodollar futures market is liquid for contracts with maturities up to four years, but liquidity decreases for greater maturities (although maturities of up to 10 years are listed).

Many instruments trade in established secondary markets with a large number of participating counterparties. This ensures liquidity under normal market conditions. However, uniquely tailored or more thinly traded products may not have sufficient supply, demand, or willing counterparties in periods of market stress.

**Operational risk** is the possibility that inadequate internal controls or procedures, human error, system failure or fraud can cause losses. Operating risk can result in unanticipated open positions or risk exposures that exceed established limits.

**Legal risk** is the possibility that legal action will preclude a counterparty’s contractual performance. Legal risk may occur when a contract or instrument violates laws or regulations. Legal risk may also occur when a law or regulation prohibits a counterparty from entering into a particular contract, or if an individual is not authorized to execute transactions on behalf of the counterparty. Banks should ensure that all agreements are enforceable and that counterparties can legally enter into specific transactions.

**Settlement risk** is the possibility of loss from a counterparty that does not perform after the investor has delivered funds or assets (before receiving the contractual proceeds). Settlement risk may result from time differences between foreign counterparties, delivery that is not synchronized with payment, or method of payment delays. Few transactions are settled on a real-time basis, and any delay in receiving funds or assets after delivering funds or assets will create settlement risk.

The most famous settlement risk example occurred in the foreign exchange markets. German regulators closed Bankhaus Herstatt after it had received deutschmarks on its foreign exchange trades, but before it had sent out its currency payments. Settlement risk is sometimes referred to as Herstatt risk.

**Interconnection risk** is the possibility of loss due to changes in interest rates, indices or other instrument values that may or may not be held by the investor. Cash flows associated with an instrument may be directly or indirectly tied to a number of other rates, indices or instrument values. These interconnections frequently involve cross-border and cross-market links and a wide range of individual financial instruments.

For example, a U.S. dollar denominated structured note may have a coupon formula linked to a currency exchange rate. Structured notes with coupon payments linked to the relationship between the Mexican peso and the U.S. dollar fell substantially in value when the peso fluctuated in the wake of the assassination of a Mexican presidential candidate.

**Risk Measurement**

Effective investment activity oversight requires accurate risk measurement. Without periodic assessments, management can not determine the success of its investment strategies. Further, the board can not determine if management has achieved the board’s goals or complied with its policies.

Risk measurement should be tailored to the cash flow characteristics of each particular instrument type. For example, a mortgage derivative product should be given far more sophisticated analysis than a U.S. Treasury bill. Management’s analysis should focus on risk, return, and compliance with risk limits.
Authorized investment instruments should be segregated into groups of like risk characteristics. There will likely be a group of relatively simple or standardized instruments, the risks of which are well known to the bank, which will require no pre-purchase analysis. All other authorized instruments will require pre-purchase analysis. It is important that these groups be well defined and that the pre-purchase analysis is tailored to capture the risks of the instruments. For example, it would not be appropriate to group dual-indexed structured notes with agency pass-throughs. The characteristics of these two types of instruments are different and each will require separate and distinct pre-purchase analysis. It would also not be appropriate to group simple agency pass-throughs with inverse floater collateralized mortgage obligations (CMOs). The inverse floaters are not only subject to similar characteristics. Management can perform this periodic analysis on an individual instrument basis or total portfolio (or bank) basis.

The market risk measurement system used to conduct pre-purchase analysis and periodic monitoring should be commensurate with the size and nature of the investment portfolio. For detailed comments regarding the types of risk measurement systems, refer to the Sensitivity to Market Risk section of this Manual. The risk measurement system should identify and measure the instrument’s or the portfolio’s risk characteristics. Management should translate its measurements into results that illustrate compliance with the board’s risk limits. For example, to measure market risk the system should:

- Identify and measure the price sensitivity of embedded options (modified and Macaulay duration measures do not capture option risk).\(^1\)
- Use interest rate shocks large enough to measure realistic potential market movements and risk (such as 100, 200, and 300 basis points).
- Include adjustments (for example, convexity) to accurately measure price changes when interest rate movements exceed 100 basis points.\(^2\)

- Subject instruments to nonparallel interest rate shocks when those instruments are exposed to risk from changes in the yield curve’s shape.

While management may measure risk and performance on an individual instrument basis, broader risk management should be considered. Management may aggregate individual instrument risk and return measurements to produce risk and return results for the entire investment portfolio. Portfolio results may then be aggregated into the bank’s overall interest rate risk measurement system. Aggregation does not necessarily require complex systems. Management may simply combine individual instrument results to calculate portfolio analysis, or use portfolio results to compile whole bank analysis. Examiners should coordinate risk aggregation review with the staff completing the Sensitivity to Market Risk review.

**Risk Reporting**

To properly exercise its oversight responsibilities, the board must review periodic investment activity reports. The board should require management to periodically provide a complete investment activity report. Report frequency and substance should be commensurate with the portfolio’s complexity and risk profile. Management’s reports to the board should:

- Summarize all investment activity,
- Clearly illustrate investment portfolio risk and return,
- Evaluate management’s compliance with the investment policy and all risk limits, and
- List exceptions to internal policy and regulatory requirements.

Management should receive reports that contain sufficient detail to comprehensively and frequently assess the portfolio.

Management should regularly ensure compliance with internal policies and regulatory requirements. In addition, management should periodically evaluate portfolio performance. The board should review and consider each policy exception. Management should present exceptions for approval before engaging in an unauthorized activity. Recurring exceptions should prompt close scrutiny from the board. When warranted, the board may consider changing its policies to permit an activity. The board should take strong action when management fails to seek prior approval for an unauthorized activity.

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1 Macaulay duration is the weighted average term to maturity of a security's cash flows. Modified duration is a measurement of the change in the value of an instrument in response to a change in interest rates. Refer to the Capital Markets Examination Handbook for additional information.

2 Convexity is a measure of the way duration and price change when interest rates change. Refer to the Capital Markets Examination Handbook for additional information.
BOARD AND SENIOR MANAGEMENT OVERSIGHT

Board Oversight

Throughout this guidance, “board” references either the board or directors or a designated board committee. Board oversight is vital to effective investment risk management, and the board has very specific investment activity responsibilities. The board should adopt policies that establish guidelines for management and periodically review management’s performance. The board should:

- Approve broad goals and risk limits,
- Adopt major investment and risk management policies,
- Understand the approved investment activities,
- Ensure competent investment management,
- Periodically review management’s investment activity,
- Require management to demonstrate compliance with the board’s goals and risk limits, and
- Mandate an independent review program and review its findings.

Senior Management Oversight

Management is responsible for daily oversight of all investment activity. Management should:

- Establish policies, procedures, and risk limits to achieve the board’s goals,
- Implement operational policies that establish a strong internal control environment,
- Understand all approved investment activities and the related risks,
- Identify, measure, monitor, and control investment activity risks,
- Report investment activity and risks to the board;,
- Ensure that its staff is competent and adequately trained, and
- Adhere to securities broker/dealer selection policies.

Investment activity risk is not effectively managed if the board and management do not fulfill their responsibilities. Ineffective risk management can be an unsafe and unsound practice. While the board or management may obtain professional advice to supplement their understanding of investment activities and risks, their responsibilities cannot be transferred to another party. The board and senior management should also periodically evaluate and, when warranted, modify the risk management process.

Investment Strategies

Management should employ reasonable investment strategies to achieve the board’s portfolio objectives. A strategy is a set of plans that management uses to direct daily portfolio operations. In order to develop sound strategies, management must understand the board’s goals, applicable risk limits, and related instruments and markets. Investment strategies should also be consistent with the following:

- Overall strategic goals,
- Capital position,
- Asset/liability structure,
- Earnings composition, and
- Competitive market position.

Strategies will vary widely between banks, ranging from simple to extremely complex. However, any strategy should be documented, reasonable, and supportable. Examiners will evaluate strategies to determine their effect on risk levels, earnings, capital, liquidity, asset quality, and overall safety and soundness. Additional guidance on investment strategies and market risk modification strategies is provided in this section under the headings Investment Strategies and the Market Risk Modification respectively.

Delegation of Investment Authority

Investment authority may be delegated to a third party, with specific board approval. Regardless of whether the board’s policies permit management to delegate investment authority to a third party, management must understand every investment’s risk, return, and cash flow characteristics. To conduct its independent analysis, management may rely on information and industry standard analysis tools provided by the broker/dealer, provided that:

- The analysis uses reasonable calculation methods and assumptions,
- Management understands the analysis and assumptions, and
- Management’s investment decisions remain independent.

If management does not understand an investment’s risk characteristics, then management should not engage in that activity until it possesses the necessary knowledge. Failure to adequately understand and manage investment activity risks constitutes an unsafe and unsound practice.
Before delegating investment authority to a third party, management should thoroughly evaluate the third party’s reputation, performance, creditworthiness, and regulatory background. Any third party arrangement should be governed by a formal written agreement that specifies:

- Compensation,
- Approved broker/dealers,
- Investment goals,
- Approved activities and investments,
- Risk limits,
- Risk and performance measurement,
- Reporting requirements,
- Settlement practices, and
- Independent review.

In addition, written agreements should require that all trade invoices, safekeeping receipts, and investment analyses are readily available to the bank.

Program Evaluation

Periodically, the board and management should evaluate the risk management program to ensure that its investment activities reasonably meet the board’s goals and the bank’s strategic needs. Without such an assessment, the board and management cannot prudently oversee investment activities. The scope and detail of the evaluation should correspond to the bank’s size, complexity, and investment activities. At most banks, annual evaluations should be sufficient. In larger or more complex banks, quarterly (or more frequent) evaluation may be necessary.

The board should review management’s reports, including an investment activity summary, portfolio risk and performance measures, and independent review findings to identify broad weaknesses and determine if:

- Stated goals accurately represent the board’s objectives,
- Risk limits properly reflect the board’s risk tolerance,
- Risk limits reasonably protect the bank’s safety and soundness,
- Management has appropriately pursued the board’s goals,
- Internal controls remain adequate,
- Any new activities are warranted, and
- Policies provide sufficient guidance for management.

The board should first consider the bank’s current and expected condition, competitive environment, and strategic plans. Then, the board should reassess its portfolio goals to ensure that they do not conflict with the overall strategic plan. When necessary, the board should adjust its portfolio goals.

After evaluating its goals, the board should then affirm that the existing risk limits accurately reflect the board’s risk tolerance. When warranted, the board should consider either relaxing or tightening the risk limits placed on management. Before altering its risk limits, the board should discuss the effects of accepting increased or reduced risk. The board should consider if increased or diminished risk would produce satisfactory returns.

In addition, the board should evaluate management’s performance. That review should encompass management’s success at achieving the board’s goals, adherence to policies and risk limits, and maintenance of an effective control environment. The board should determine the cause of any material deficiencies and obtain management’s commitment to rectify those deficiencies.

Finally, the board should determine if any changes to its policies are warranted. For example, management may request authority to engage in new investment activities. The board should carefully consider such requests and determine if the proposed activity comports with its investment goals and risk tolerance.

Management should review the portfolio management program in more detail to identify both broad and specific weaknesses. Management’s responsibilities include:

- Measuring portfolio risk and performance,
- Validating risk measurement systems’ adequacy and accuracy,
- Reporting portfolio activity and performance to the board,
- Adjusting investment strategies to better achieve the board’s goals, and
- Correcting policy and regulatory exceptions.

At many banks, the periodic evaluation will result in few program alterations. Less complex programs will naturally require fewer modifications than more complex programs. Successful programs will similarly need fewer changes than unsuccessful programs. Examiners will assess the periodic evaluations to determine if the board and management effectively oversee the portfolio management process.

COMPLIANCE

Permissible Activities

In limited circumstances, the FDIC may grant an exception to Part 362, on a case-by-case basis, if the FDIC determines that:

- The activity presents no significant risk to the deposit insurance fund, and
- The bank complies with the FDIC’s capital regulations.

While Part 362 contains investment type restrictions, it does not include the investment amount restrictions that apply to national banks.

**REPORT OF EXAMINATION**

**TREATMENT**

**Adverse Classification**

Examiners may adversely classify subinvestment quality securities and off-balance sheet derivatives in the Report of Examination. Any classifications should be consistent with the Uniform Agreement on the Classification of Assets and Appraisal of Securities Held by Banks and Thrifts. This Agreement addresses the examination treatment for adversely classified assets and:

- Provides definitions of the Substandard, Doubtful, and Loss categories used for criticizing bank and thrift assets,
- Defines characteristics of investment quality and subinvestment quality securities,
- Establishes specific guidance for the classification of subinvestment quality debt securities and other-than-temporary impairment on investment quality debt securities, and
- Provides examiners discretion in classifying debt securities beyond a ratings-based approach in certain cases.

Substandard assets are 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 liquidation of the debt. They are characterized by the distinct possibility that the bank will sustain some loss if the deficiencies are not corrected.

Doubtful assets have all the weaknesses found in Substandard assets, 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.

Loss classifications are assigned to assets that are considered uncollectible and of such little value that their continuance as bankable 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 writing off this basically worthless asset even though partial recovery may be affected in the future. Amounts classified Loss should be promptly charged off.

Investment quality debt securities are marketable obligations in which the investment characteristics are not distinctly or predominantly speculative. This group generally includes investment securities in the four highest rating categories provided by nationally recognized statistical rating organizations (NRSROs) and unrated debt securities of equivalent quality. The Securities and Exchange Commission (SEC) lists the following as NRSROs:

- Dominion Bond Rating Service Ltd.,
- Fitch, Inc.,
- Moody's Investors Service, and
- Standard & Poor's Division of the McGraw Hill Companies Inc.

(Check the SEC’s website to find the most current list of NRSROs).

When two or more NRSROs list different credit ratings for the same instrument, examiners will generally base their assessments on the more recently issued ratings.

Since investment quality debt securities do not exhibit weaknesses that justify an adverse classification rating, examiners generally will not classify them. However, published credit ratings occasionally lag demonstrated changes in credit quality and examiners may, in limited
cases, classify a security notwithstanding an investment grade rating.

Some debt securities may have investment quality ratings by one (or more) rating agencies and sub-investment quality ratings by others. Examiners will generally classify such securities, particularly when the most recently assigned rating is not investment quality. However, an examiner has discretion to "pass" a debt security with both investment and sub-investment quality ratings. The examiner may use that discretion if, for example, the institution has demonstrated through its documented credit analysis that the security is the credit equivalent of investment grade.

Some individual debt securities have ratings for principal, but not interest. The absence of a rating for interest typically reflects uncertainty regarding the source and amount of interest the investor will receive. Because of the speculative nature of the interest component, examiners will generally classify such securities, regardless of the rating for the principal.

Non-rated debt securities have no ratings from a NRSRO and the FDIC expects institutions holding individually large non-rated debt security exposures, or having significant aggregate exposures from small individual holdings, to demonstrate that they have made prudent pre-acquisition credit decisions and have effective, risk-based standards for the ongoing assessment of credit risk. Examiners will review the institution's program for monitoring and measuring the credit risk of such holdings and, if the assessment process is considered acceptable, generally will rely upon those assessments during the examination process. If an institution has not established independent risk-based standards and a satisfactory process to assess the quality of such exposures, examiners may classify such securities, including those of a credit quality deemed to be the credit equivalent of investment grade.

Foreign debt securities are often assigned transfer risk ratings for cross border exposures from the Interagency Country Exposure Review Committee (ICERC). However, examiners should use the guidelines in the Uniform Agreement rather than ICERC transfer risk ratings in assigning security classifications, except when the ICERC ratings result in a more severe classification.

Subinvestment quality debt securities are those in which the investment characteristics are distinctly or predominantly speculative. This group generally includes debt securities, including hybrid equity instruments (i.e. trust preferred securities), in grades below the four highest rating categories, unrated debt securities of equivalent quality, and defaulted debt securities.

Other Types of Securities such as certain equity holdings or securities with equity-like risk and return profiles, have highly speculative performance characteristics. Examiners should generally classify such holdings based upon an assessment of the applicable facts and circumstances.

### Treatment of Declines in Fair Value

Under generally accepted accounting principles (GAAP), an institution must assess whether a decline in fair value below the amortized cost of a security – that is, the depreciation on the security – is a "temporary" or "other-than-temporary" impairment. When the decline in fair value on an individual security represents other-than-temporary impairment, the cost basis of the security must be written down to fair value, thereby establishing a new cost basis for the security, and the amount of the write-down must be reflected in current period earnings. This new cost basis should not be adjusted through earnings for subsequent recoveries in fair value. If an institution's process for assessing impairment is considered acceptable, examiners may use those assessments in determining the appropriate classification of declines in fair value below amortized cost on individual debt securities.

Any decline in fair value below amortized cost on defaulted debt securities will be classified as indicated in the General Debt Security Classification Guidelines Table following. Apart from classification, for impairment write-downs or charge-offs on adversely classified debt securities, the existence of a payment default will generally be considered a presumptive indicator of other-than-temporary impairment.

The following table outlines the uniform classification approach the agencies will generally use when assessing credit quality in debt securities portfolios:
The General Debt Security Classification Guidelines do not apply to private debt and equity holdings in a small business investment company or Edge Act Corporation. The Uniform Agreement does not apply to securities held in trading accounts, provided the institution demonstrates through its trading activity a short term holding period or holds the security as a hedge for a valid customer derivative contract.

Examiner Discretion in Classifying Securities

Examiners may assign a more or less severe classification for an individual debt security than would otherwise apply based on the security's rating depending upon a review of applicable facts and circumstances. However, examiners may not assign a Loss classification to the depreciation on an individual debt security when this impairment is determined to be temporary. Examiners have discretion to “pass” a debt security with both investment and sub-investment quality ratings. For an investment quality debt, examiners have the discretion to assign a more severe classification when justified by credit information the examiner believes is not reflected in the rating, to properly reflect the security’s credit risk. As mentioned above, published credit ratings occasionally lag demonstrated changes in credit quality and examiners may, in limited cases, classify a security notwithstanding an investment grade rating.

Furthermore, examiners may in limited cases “pass” a debt security that is rated below investment quality. For example, when the institution has an accurate and robust credit risk management framework and has demonstrated, based on recent, materially positive, credit information, and properly documented credit analysis, that the security is the credit equivalent of investment grade, examiners have the discretion to “pass” the security, irrespective of the rating.

When an institution has developed an accurate, robust, and documented credit risk management framework to analyze its securities holdings, examiners can depart from the General Guidelines in favor of individual asset review in determining whether to classify those holdings. A robust credit risk management framework entails appropriate pre-acquisition credit due diligence by qualified staff that grades a security’s credit risk based upon an analysis of the repayment capacity of the issuer and the structure and features of the security. It also involves the continual monitoring of holdings to ensure that risk ratings are reviewed regularly and updated in a timely fashion when significant new information is received.

The credit analysis of securities should vary based on the structural complexity of the security, the type of collateral and external ratings. The credit risk management framework should reflect the size, complexity, quality, and risk characteristics of the securities portfolio, the risk appetite and policies of the institution, and the quality of its credit risk management staff, and should reflect changes to these factors over time. Policies and procedures should identify the extent of credit analysis and documentation required to satisfy sound credit risk management standards.

Subinvestment Quality Available-for-Sale (AFS) Debt Securities

Consistent with Statement of Financial Accounting Standards (FAS) 115, AFS debt securities are “marked-to-market” and carried at their fair value on the balance sheet for regulatory reporting purposes. The unrealized holding gains (losses) on these securities, net of tax effects, are excluded from earnings and reported in a separate component of equity capital on the balance sheet. However, for purposes of determining a bank’s regulatory capital under Part 325 of the FDIC’s regulations, any unrealized holding gains (losses) on these AFS debt securities that are included in the separate equity capital component generally are ignored. As a result, any amortized cost amount in excess of fair value on an AFS debt security – that is, the amount of impairment or depreciation – normally is not deducted in determining regulatory capital.

However, in order to appropriately reflect in regulatory capital calculations the effect of any depreciation on a subinvestment quality AFS debt security, when the depreciation on such a security is deemed to be other than...
temporary and is therefore classified Loss, the depreciation should be deducted in determining Tier 1 capital. In addition, consistent with FAS 115 and Emerging Issues Task Force (EITF) Issue No. 03-1, when the depreciation represents an impairment that is other than temporary, the bank should recognize an impairment loss in current period earnings equal to the difference between the security's amortized cost and its fair value. This fair value then becomes the new cost basis for the AFS debt security and the new cost basis should not be adjusted through earnings for subsequent recoveries in value. Nevertheless, this AFS debt security must continue to be "marked-to-market" with the unrealized holding gains (losses) reported directly in equity capital.

For subinvestment quality AFS debt securities with temporary impairment, amortized cost rather than the lower amount at which these securities are carried on the balance sheet, i.e., fair value, is classified Substandard. This classification is consistent with the regulatory capital treatment of AFS debt securities. As mentioned above, under GAAP, unrealized holding gains (losses) on AFS debt securities are excluded from earnings and reported in a separate component of equity capital. In contrast, these unrealized holding gains (losses) are excluded from regulatory capital. Accordingly, the amount classified Substandard on these subinvestment quality AFS debt securities, i.e., amortized cost, also excludes the balance sheet adjustment for unrealized losses.

Subinvestment Quality AFS Equity Securities Equity securities may also be adversely classified if identified weaknesses warrant such treatment. Some investment advisory services issue rankings for equity instruments, which generally indicate projected investment performance rather than credit quality. Examiners should not rely on equity rankings to adversely classify equity investments. However, any AFS equity security whose cost is in excess of its fair value – that is, an equity security that has impairment or depreciation – must be evaluated to determine whether the impairment is temporary or other than temporary. When the impairment is determined to be other than temporary, the amount of the impairment should be classified Loss. In this situation, the equity security itself may be considered subinvestment quality, in which case examiners should also adversely classify the fair value of the equity security Substandard. Consistent with the treatment of AFS debt securities, when the impairment on an AFS equity security is determined to be other than temporary, the bank should recognize an impairment loss in current period earnings equal to the difference between the security's cost and its fair value. This fair value then becomes the new cost basis for the AFS equity security and the new cost basis should not be adjusted through earnings for subsequent recoveries in value. Nevertheless, this AFS equity security must continue to be "marked-to-market" with the unrealized holding gains (losses) reported directly in equity capital.

Securities with Substantial Prepayment Risks FAS 115, as amended by FAS 140, does not permit a debt security to be designated as held-to-maturity (HTM) if it can be prepaid or otherwise settled in such a way that the security holder would not recover substantially all of its recorded investment. Thus, these debt securities with a risk of substantial investment loss in the event of early prepayment, such as interest-only stripped mortgage backed securities and principal-linked structured notes, cannot be treated as HTM securities and carried at amortized cost. Rather, these securities should be categorized as either trading or AFS securities and reported at their fair value on the balance sheet for regulatory reporting purposes. The General Debt Security Classification Guidelines shown above should be applied to these securities when they have been categorized as AFS securities.

Determining Fair Value

As currently defined under GAAP, the fair value of an asset is the amount at which that asset could be bought or sold in a current transaction between willing parties, that is, other than in a forced or liquidation sale. Quoted market prices are the best evidence of fair value and must be used as the basis for measuring fair value, if available. If quoted market prices are not available, the estimate of fair value must be based on the best information available in the circumstances. The estimate of fair value must consider prices for similar assets and the results of valuation techniques to the extent available in the circumstances.

In order to properly classify a security or determine any necessary regulatory capital adjustment, examiners must determine its fair value. Examiners will review management's fair values for all adversely classified securities. When management's valuation for an adversely classified security appears reasonable, examiners will use that value to determine classification amounts. If management's valuation does not appear reasonable, examiners will discuss concerns with management and request that management provide a more reasonable valuation during the examination. When management cannot provide a reasonable valuation during the examination, examiners should use the information services provided by the Capital Markets Branch of the Division of Supervision and Consumer Protection in Washington, D.C.

Qualitative Capital Adequacy Considerations for Securities
Although unrealized holding gains (losses) on HTM and AFS debt securities normally are not recognized in calculating a bank's regulatory capital ratios, examiners should evaluate the extent of any unrealized appreciation or depreciation on these debt securities in making an overall qualitative assessment of the bank's capital adequacy and in evaluating whether the bank has an effective risk management system for securities. Such a risk management system should include:

- Policies, procedures, and limits,
- Risk identification, measurement, and reporting, and
- Internal controls.

Examiners should discuss any concerns that result from this assessment with management.

OTHER GUIDANCE

Trading

Trading activities involve strategies or transactions designed to profit from short term price changes. Trading activities almost always employ active strategies, which assume that the bank can consistently outperform the market. Trading programs can generate significant earnings, but also create unique risk exposures. The board and management have the responsibility to identify, measure, monitor, and control trading activity risks.

Failure to adequately understand and manage trading activity risks is an unsafe and unsound practice.

This section’s investment activity guidance also applies to all trading activity. In addition, trading programs should include:

- Specific board approval and periodic review,
- Separate policies and procedures,
- Management that possesses sufficient expertise,
- Segregated accounting and reporting,
- A risk measurement system that quantifies potential trading loss,
- Performance measurement relative to established benchmarks,
- Strong conflict of interest guidelines, and
- Appropriately rigorous internal controls.

The trading program’s risk measurement system should identify and measure all material risks, including potential trading loss for defined periods. For example, the system could measure potential one day trading loss for a given set of statistical assumptions. Management’s assumptions should be reasonable, supported, and consistent. Results should be translated into terms that clearly illustrate compliance with the board’s trading risk limits.

To measure the performance of the bank’s trading activity, trading desks, or individual traders, management will generally seek to compare their results to established performance standards or to benchmarks. For example, a benchmark’s return represents the return for simply adopting a passive investment strategy in a similar class of investments. Performance evaluation benchmarks commonly used are market indexes. Indexes frequently used as equity portfolio benchmarks include the Standard and Poor’s 500 Index and the Russell 2000 Index. An index frequently used as a bond portfolio benchmark is the Lehman Brothers Aggregate Bond Index. Management should select benchmarks that provide realistic comparative value. When the trading portfolio consistently fails to achieve returns at least equivalent to reasonable benchmarks, management should assess whether the program achieves the board’s objectives.

Whenever a bank reports or demonstrates trading activity, examiners should refer to Part 325 of the FDIC’s Rules and Regulations and determine if the bank adheres to all trading-related requirements.

Accounting

Accurate accounting is essential to the evaluation of a bank’s risk profile and the assessment of its financial condition and capital adequacy. Reporting treatment for securities and derivative holdings should be consistent with the bank’s business objectives, generally accepted accounting principles (GAAP), and regulatory reporting standards. When necessary, examiners should consult regional accounting specialists for additional guidance. A listing of pertinent accounting guidance is included in the Accounting Guidance portion of this section.

FAS 115, Accounting for Certain Investments in Debt and Equity Securities, must be adopted for Call Report purposes by all banks. It requires banks to divide their securities holdings among three categories: held-to- maturity (HTM), available-for-sale (AFS), and trading. Different accounting treatment applies to each category. Only debt securities which management has the positive intent and ability to hold to maturity may be designated as HTM and carried at amortized cost. AFS securities are those that management has not designated for trading or as HTM. AFS securities are reported at fair value, with unrealized gains and losses excluded from earnings and reported in a separate capital component. Securities held
for trading must be reported at fair value, with unrealized gains and losses recognized in current earnings and regulatory capital. Proper categorization ensures that trading gains and losses are promptly recognized in earnings and regulatory capital. Refer to the Call Report Instructions for additional information.

Reporting trading assets as HTM or AFS is an unsafe and unsound practice. The substance of management’s securities activities determines whether securities reported as HTM or AFS are, in fact, held for trading. While there are no standard benchmarks for identifying trading activity, trading generally reflects active and frequent buying and selling of securities for the purpose of generating profits on short-term fluctuations in price.

Examiners should also evaluate the extent of any unrealized gains and losses on both AFS and HTM securities when evaluating capital adequacy.

FAS 144, Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities, and its predecessor amended FAS 115 and clarified that a debt security may not be classified HTM if it can contractually be prepaid or otherwise settled in such a way that the bank would not recover substantially all of its recorded investment. This provision is effective for financial assets held on or acquired after January 1, 1997 (no grandfather provision).

Premiums and discounts should be accounted for according to the Call Report Instructions. Inadequately amortized premium amounts should be adversely classified as Loss.

Trade date accounting is preferred (to settlement date accounting) for Call Report purposes to report HTM, AFS, and trading assets (other than derivatives). However, if the reported amounts under settlement date accounting would not be materially different from those under trade date accounting, settlement date accounting is acceptable.

Derivatives regulatory reporting instructions require that derivatives be reported in accordance with GAAP, and in particular FAS 133, Accounting for Derivative Instruments and Hedging Activities; FAS 138, Accounting for Certain Derivative Instruments and Certain Hedging Activities—an amendment of FAS 133, and FAS 149, Amendment of Statement 133 on Derivative Instruments and Hedging Activities. In addition, the reporting should conform to the interpretive reporting guidance provided in the regulatory reporting instructions. These instructions state that derivatives generally should be marked to market, with resulting market value gains and losses recognized in current earnings. However, if certain criteria are met, banks may defer the recognition in income of gains and losses on derivative instruments used for hedging until they recognize in income the effects of related changes on the items hedged.

Market risk modification (including hedging) transactions accounting should be consistent with the board’s risk management and accounting policies. Consistent with GAAP, derivatives and the hedged assets and liabilities must be designated when the hedging transaction is initiated. Management should retain adequate documentation to support deferrals of gains and losses, including the market risk modifications strategy and performance criteria.

Examiners having questions regarding the accounting for derivatives should consult with their regional accounting specialist.

Information Services

The Capital Markets Branch can help examiners identify a security's characteristics and risks. Capital Markets can provide a variety of security and derivative data to examiners, including prices, credit ratings, historical interest rates, mortgage prepayment forecasts, derivatives market summaries, and other information.

Prices and ratings should be requested through the Capital Markets Branch’s Security Information Request System (SIRS). To use SIRS, examiners complete a computer data entry form and transmit it via electronic mail to a dedicated address. The Capital Markets Branch will enter all available data in the form and transmit it to the examiner within five business days of receipt. The data entry form is an automated Excel file that may be downloaded from the Capital Markets Branch’s FDIC website.

Examiners should first submit a sample of a bank’s securities and derivatives. When sampling results in material, unresolvable discrepancies, examiners may expand the sample and seek management’s commitment to address any deficiencies. Prices provided by the Capital Markets Branch should not be substituted for management’s prices, unless significant deficiencies are not resolved. Examiners should only submit requests to price an entire portfolio when a material safety and soundness concern exists.

The Capital Markets Branch obtains price and rating information from several sources. Prices are indications of value, but do not necessarily represent potential purchase or sale values. Whenever available, prices are drawn from market observations. However, many instruments do not
trade on organized exchanges. In such circumstances, the Capital Markets Branch’s sources provide estimated prices that have been derived from valuation models. These estimated prices are indications of value, not precise purchase or sale prices. Credit ratings are obtained from several of the NRSROs.

Historical interest rates are provided in the Market Index and Rate Application (MIRA). MIRA contains a ten-year database of rates, current forward rates, summary reports, yield curves, and an index comparison analysis feature. MIRA is an automated Excel template which examiners may download from the Capital Markets Branch’s FDICnet site.

Mortgage prepayment forecasts and derivative market summaries are provided in a simple spreadsheet format and may be downloaded from the Capital Markets Branch’s FDICnet site.

Other information, including detailed analytics and financial information for debt and equity issuers, may be requested on an individual basis. In addition, examiners may contact the Capital Markets Branch for guidance on examination procedures, supervisory policy, and Report of Examination treatment. Examiners should coordinate those requests with a Senior Capital Markets and Securities Specialist in their assigned regional office before contacting the Capital Markets Branch.

**Settlement Practices, Confirmation and Delivery Requirements, and Delivery Documentation**

**Settlement Practices**

Inadequate understanding of standard settlement practices coupled with poor internal controls can result in unnecessary costs or losses.

**U.S. Treasury and Agency securities** normally settle the next full business day after the trade date. Transactions involving U. S. Treasury and Agency obligations are typically in book-entry form, rather than in physical certificate form. Book-entry is an electronic registration, transfer, and settlement system that enables the rapid and accurate registration and transfer of securities with concurrent cash settlement. Book-entry reduces handling costs and quickens transaction completion. U. S. Treasury and Agency book-entry securities are delivered and cleared over the Federal Reserve Wire System (Fedwire) on a delivery versus payment basis. Acceptance of the security automatically debits the payment amount from the buyer's account and credits it to the seller's account. The payment and securities involved are transferred over the Fedwire system. The Federal Reserve Bank of New York maintains the book-entry custody system. All depository banks are eligible to maintain book-entry accounts at their local Reserve bank, provided that they also maintain a funds account with their Reserve bank.

**Corporate and municipal bonds** normally settle three full business days after the date of the transaction. The Municipal Securities Rulemaking Board Rule G-15 established guidelines for the settlement of municipal securities transactions. Corporate and municipal debt securities are available in book-entry and registered, definitive form. Book-entry corporate and municipal bonds settle through the Depository Trust Company (DTC). Members effect securities deliveries through DTC via computerized bookkeeping entries.

**Mortgage securities** settlement procedures are more complex than those for government, corporate, and municipal bonds. The Bond Market Association developed the "Uniform Practices for the Clearance and Settlement of Mortgage-Backed Securities and Other Related Securities" (Uniform Practices) to establish industry standards for mortgage securities settlements. Since the Uniform Practices are updated frequently, banks engaged in mortgage and asset-backed securities transactions should keep abreast of current settlement standards. The current Uniform Practices are summarized in the following paragraphs.

Government National Mortgage Association (GNMA) guaranteed mortgage pass-through securities are available in book-entry and definitive form. While most GNMA securities have been converted to book-entry, some physical certificates still exist. Book-entry GNMA securities settle through the Participants Trust Company (PTC) MBS Depository.

The Federal National Mortgage Association (FNMA) and Federal Home Loan Mortgage Corporation (FHLMC) both issue Real Estate Mortgage Investment Conduits (REMICs) and mortgage pass-through securities. Since 1985, these securities have been issued in book-entry form only. Nearly all of the agency’s securities that were issued in definitive, registered form before 1985 have been converted to book-entry. Book-entries are transferred, delivered, and settled through the Fedwire system.

Private label CMOs/REMICs (those issued by an entity other than FNMA and FHLMC) and asset backed securities (ABSs) are available in book-entry and registered, definitive form. Book-entry private label CMOs/REMICs and ABSs settle through the DTC. Private
Confirmation and Delivery Requirements

Within one business day following the trade date, each party in a CMO/REMIC, stripped mortgage-backed security (SMBS), or ABS transaction should send a written confirmation of the transaction to the other party. Banks should have procedures established to issue, receive, and verify confirmations in a timely fashion. A bank is bound to a particular trade if it does not object to the written confirmation within 10 days of its receipt. Failure to exercise appropriate controls over confirmation procedures may result in the receipt or delivery of incorrect securities and improper payment amounts. The confirmation must contain the following information:

- Price,
- Trade date,
- Coupon rate,
- Maturity date,
- Settlement date,
- CUSIP number,
- Settlement amount,
- Original face amount,
- Security description,
- Confirming party's name and address, and
- Designation of "purchase from" and "sale to."

Confirmation procedures for mortgage pass-through securities differ from those for CMOs/REMICs, SMBSs, and ABSs, due to the manner in which mortgage pass-through securities typically trade. Most trades of mortgage pools occur on a To Be Announced (TBA) basis. In TBA transactions, information on the mortgage pools, such as pool numbers, is not known at trade time. Instead, the seller notifies the buyer of the pool numbers and original face values of the underlying securities at least 48 hours before delivery. No later than the second business day before the settlement date of each TBA transaction, the seller must transmit the following information to the buyer:

- Price
- Coupon rate and product
- Trade date and settlement date
- Pool, group, or other identification number
- Issue date and maturity date for new pools
- Identification of firm sending the information
- Original face amount for each pool or group number within the transaction

This information may be transmitted to the buyer verbally or by fax. If agreed to by both parties, the information may also be sent electronically. If the seller does not transmit the required information before the 48-hour deadline, the seller can not make delivery earlier than two business days after such information is transmitted. The seller must then promptly confirm in writing the following information:

- Price,
- Settlement date,
- Current face amount,
- Proceeds to be paid,
- Amount of accrued interest,
- Identification of the "contra party;"
- Designation of "purchase from" or "sale to;"
- Pool, group, or other identification number,
- Original face value for each pool or group number,
- Confirming party's name, address, and telephone number,
- Securities' description, settlement month, coupon rate, and product type, and
- Additional information as agreed to by the parties of the transaction.

The delivery variance permitted on TBA trades is plus or minus 2.50 percent of the dollar amount of the transaction agreed to by the parties. There is no variance permitted on transactions in which the seller provides the buyer with a specific pool number and a specific original face amount at the time of the trade. The 2.50 percent variance is applicable to each $1,000,000 within a TBA trade larger than $1,000,000. There are a maximum number of pools that may be delivered to satisfy a TBA trade. For securities with coupon rates below 12 percent, no more than three pools per $1,000,000 may be delivered. Up to four pools per $1,000,000 may be delivered for securities with coupons of 12 percent and above. TBA transactions that do not conform to these guidelines may result in "failed" trades.

The settlement amount (sum of the principal amount and accrued interest) is the amount payable by the buyer to the seller on the settlement date. Refer to the Capital Markets Examination Handbook for settlement amount formulas.

Delivery Documentation

Banks that purchase and sell mortgage-backed and other related securities in physical form must be aware of the documentation requirements contained in the Uniform Practices. Physical securities must have assignments for their registration in the name of the buyer on the books of the issuer or transfer agent. Each certificate must be accompanied by an assignment on the certificate or separate assignment for each certificate containing a signature that corresponds to the name written on the...
The operations department should also be aware of the Uniform Practices for reclamations. A reclamation is a claim for the right to return or the right to demand the return of a security that has been previously accepted as a result of bad delivery or other irregularities in the settlement process. Either party may make a reclamation if information is discovered after delivery, which if known at the time of delivery, would have caused the delivery not to constitute good delivery. Reclamation must be made within the stated time limits established by the Bond Market Association.

INVESTMENT STRATEGIES

Passive strategies generally do not require forecasting or complex analysis. Rather, management seeks to mirror a particular market segment’s performance or to retire predetermined liabilities. Adopting a passive investment strategy is a management decision to not attempt to outperform the market. Passive strategies typically incur lower expenses than do active strategies.

Indexing involves assembling a portfolio that closely resembles the risk and return characteristics of a preferred market index. For fixed-income portfolios, the portfolio may possess the same maturity, duration, credit quality characteristics, coupon, industrial classification, call or sinking fund features as the index. Advantages of passive bond portfolio management using indexing include low management and advisory fees, performance that mirrors the market, and low costs due to minimal turnover and no research. Disadvantages include performance that is no better than average, no immunization against interest rate risk, no guarantee that a specific liability stream can be funded from the portfolio, and the exclusion of many different types of bonds in the market. For example, zero-coupon U. S. Treasuries and most asset-backed securities are generally excluded from most conventional broad bond market indexes.

Immunization is a strategy that is employed to provide protection against the interest rate risk of a liability stream. The strategy requires that a bond portfolio be structured so that its interest rate risk characteristics (Macaulay duration) match those of the liability stream. The strategy, which is often referred to as "duration matching," requires advanced calculations and frequent re-balancing.

Active strategies involve detailed analysis, such as forecasting future events or interest rates, and selecting investments that will perform best under those conditions. Active strategies typically incur greater expenses than...
passive strategies, due to their higher transaction volume and complex analysis.

An interest-rate expectations strategy is an attempt to maximize return based on a forecast of future interest rate movements. An example of this strategy consists of adjusting the duration of a bond portfolio to take advantage of expected changes in interest rates. The success of this strategy depends on the accurate forecasting of future interest rates.

An individual security selection strategy is an attempt to identify individual instruments that will outperform other similarly rated instruments. The most common of this type of strategy identifies an issue as undervalued because its yield is higher than that of comparably rated issues or its yield is expected to decline because credit analysis indicates the issue’s rating will change. The success of this strategy depends on superior skill in performing credit analysis. An active strategy assumes that the investor will attempt to outperform the market.

Many other investment strategies may be employed without measuring risk on a portfolio basis. Two commonly used active strategies include yield curve strategies and yield spread strategies.

Yield curve strategies involve the positioning of fixed-income portfolios to capitalize on or protect against expected changes in the shape of the Treasury yield curve. These strategies may be referred to as “riding the yield curve.” Three common yield curve strategies are bullet strategies, ladder strategies, and barbell strategies.

A bullet portfolio is constructed so that the maturity of the securities is highly concentrated at one point on the yield curve. A laddered portfolio spreads instruments (and reinvestment risk) across the maturity spectrum and provides regular cash flows. A typical laddered portfolio is constructed with approximately equal percentages of the portfolio maturing at different segments of the yield curve. A barbell portfolio concentrates instruments at the short term and long term extremes of the maturity spectrum. Barbell strategies can be used to take advantage of, or compensate for, non-parallel shifts in the yield curve. These strategies are based on the theory that the value of long-term bonds will appreciate more when long-term market interest rates fall, than shorter-term bonds depreciate even if short-term market interest rates simultaneously rise (a non-parallel yield curve shift). The ability to reinvest the proceeds from maturing short-term bonds at higher short-term rates provides this value. The actual performance of a barbell strategy will depend upon both the type of non-parallel shift (e.g. steepening or flattening) and the magnitude of the shift. For example, barbell strategies will be disadvantageous if long-term market interest rates rise while short-term rates remain unchanged.

Yield spread strategies involve the positioning of fixed-income portfolios to profit on expected changes in yield spreads between sectors of the bond market. These sectors can vary by type of issuer (such as Treasury, agencies, corporates, and mortgage-backed securities), quality or credit (such as Treasuries, triple A, double A), coupon (such as high-coupon/premium bonds, low coupon/discount bonds), and maturity (such as short, intermediate, or long term). Spreads can change for a variety of reasons. For example, the spread between top quality and lower quality bonds tends to narrow as business conditions improve, and widen when business conditions deteriorate. Making changes in the portfolio to take advantage of changes in spreads will often result in accepting additional credit risk or extension risk.

Cash flow matching strategies attempt to match the cash flow requirements of a bank’s liabilities with the cash flows provided by specific investments. This approach is also known as dedicating a portfolio. Bonds are selected with maturities, principal amounts and coupon payments that match the bank’s liability payment stream. Theoretically, this cash flow matching process can be continued until all liabilities have been matched by the cash flows from securities in the portfolio. Interest rate risk reduction is the primary advantage of this strategy, since a known amount of cash sufficient to fund the required payment schedule will be generated with certainty. The inability to reposition the securities being used to match liabilities, the possibility of bonds being called, and the possibility of bonds going into default are the primary disadvantages of this strategy. Cash flow matching strategies are becoming more popular in banks that use FHLB borrowings.

Using total return measurement in determining an investment strategy better incorporates the investor’s interest rate expectations over time than either a simple yield to maturity or yield to call investment selection. The total return for an individual bond consists of the change in the market value over the measurement period; the coupon received; and the reinvestment interest on the cash flows received during the measurement period. For bond portfolios, the total return is the weighted average of the

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3 Yield spread is the yield premium of one bond over another. Traditional analysis of the yield premium for a non-U.S. Treasury bond involves calculating the difference between the yield-to-maturity of the bond in question and the yield-to-maturity of a U.S. Treasury security with a comparable maturity.
returns of the bonds in the portfolio. Selecting investments based solely on their yield to maturity assumes holding those bonds to maturity and ignores the reinvestment return on interim coupon payments.

Modern portfolio theory (MPT) refers to a variety of portfolio construction, asset valuation, and risk measurement concepts and models that rely on the application of statistical and quantitative techniques. MPT is an approach used for managing investment risk. The theory states that by creating an efficient portfolio, an investor can increase portfolio return without a commensurate risk increase, or reduce portfolio risk without a commensurate return reduction.

First, an investor should determine the required portfolio risk and return levels. By diversifying risk through prudent investment choices, an investor can reduce portfolio risk. Risk averse investors (such as most banks) require a greater expected return in exchange for assuming increased risk. Diversifying the portfolio among different asset classes, maturities, and other characteristics can provide a greater expected return without a commensurate risk increase.

The investor adds or removes assets from the portfolio in order to maintain or alter overall portfolio risk and return characteristics. The investor focuses on the entire portfolio’s cash flow characteristics, risk, and return. An individual instrument may be extremely risky if evaluated independently. However, its cash flow characteristics may improve the overall portfolio’s risk and return performance.

For example, an interest-only strip may be very price sensitive (market risk) under declining rate scenarios. However, that instrument may offset some or all of a portfolio’s price sensitivity under rising interest rate scenarios. Each instrument’s individual cash flow characteristics are analyzed to determine the instrument’s incremental effect on the overall portfolio’s cash flow characteristics.

This approach also demands periodic performance measurement. The investor must accurately measure both risk and return for the overall portfolio and for major portfolio segments. That is, the investor must determine if the portfolio earned a return that adequately compensated the investor for the risk level assumed. Such measurements require accurate pricing information, detailed accounting systems, and a sophisticated risk measurement system.

No particular investment strategy is superior to any other. Management must determine reasonable strategies that effectively achieve the board’s goals. Refer to the Capital Markets Handbook for additional information.

MARKET RISK MODIFICATION STRATEGIES

Market risk modification strategies involve using financial instruments whose cash flow fluctuations partially or completely offset the cash flow variability of an asset, liability, or balance sheet segment. Any financial instrument with the desired cash flow characteristics may be used to modify market risk, including off-balance sheet derivatives, mortgage-backed securities, and structured notes. For many banks, market risk modification is an integral part of asset/liability management. This section provides summary guidance for market risk modification strategies. Refer to the Capital Markets Examination Handbook for more detailed information.

Bank earnings result primarily from the spread between earning asset yields and funding costs. Market interest rate changes can narrow the net interest margin and can reduce the economic value of equity. In response, management may attempt to modify the bank’s market risk profile to reduce risk or improve performance.

Risk Management Process

Management must evaluate many factors before implementing a market risk modification strategy, including:

- Market risk exposure,
- The board’s risk tolerance,
- Current and expected interest rate volatility,
- Cash flow forecasts,
- Strategy time horizon,
- Specific instruments and cost, and
- Potential effectiveness.

To devise a successful strategy (or simply determine if a strategy is needed), management must first quantify the bank’s market risk and identify the positions whose market risk should be modified. Then, management must devise a strategy to modify those positions’ market risk.

This process requires thorough understanding of the bank’s market risk and cash flow characteristics for all on and off-balance sheet positions. For most banks, market risk results primarily from repricing imbalances between earning assets and funding. When developing strategy, therefore, management should typically evaluate the repricing and cash flow characteristics for all on and off-
balance sheet positions. If management uses a market risk modification strategy without assessing its effects on overall bank market risk, then management may actually worsen the bank’s market risk profile. Failure to understand and adequately manage those risks is an unsafe and unsound practice.

Next, management must determine the strategy’s intended time horizon (the length of time the strategy must remain in place) and number of periods needed. Horizon length is an important factor, since many long-term derivatives and some securities have limited liquidity. The number of periods can be an equally important factor. For example, a strategy that involves the value of a single cash position to be liquidated or acquired on a single future date may be described as a single-period strategy. However, a multi-period strategy involves liquidation or acquisition of a cash position over successive periods. Offsetting such positions can involve a sequence of instruments that mature in corresponding periods.

Prior to implementing any market risk modification strategy, management should evaluate all related costs, including transaction costs, analysis and monitoring expense, and foregone interest income on funds paid to mark positions to market (for example, margin maintenance).

Once a strategy has been implemented, management must regularly monitor the strategy’s effectiveness. However, careful development and monitoring can not guarantee a strategy will achieve the intended market risk objectives. Management should periodically evaluate instrument performance to determine if the strategy remains appropriate and effective. When warranted, management should adjust the strategy.

The examination of this area should focus on evaluating management’s understanding and reporting of the instruments used in any risk modification strategies. This understanding will be reflected in a program for reviewing and documenting financial contracts and counterparty information. Determining the effectiveness of risk modification strategies should be conducted as part of the rate sensitivity module. The interest rate risk review should be able to rely on the individual investment findings of the securities and derivatives review.

**Board and Management Oversight**

The board and management must understand and regularly evaluate the risks and benefits from all market risk modification strategies used. Market risk modification strategies can involve complex transactions and instruments, which may include significant risk. In addition, market risk modification strategies may require enhanced management expertise and internal controls.

The board maintains oversight responsibility for all market risk modification strategies. In that role, the board should adopt policies that establish management’s responsibility for developing, implementing, and monitoring the process. Those policies should specify:

- Risk limits,
- Specific exposures needing modification,
- Accounting treatment,
- Reporting,
- Monitoring,
- Permissible strategies and instruments,
- Counterparty credit risk guidelines,
- Activity limits, and
- Analysis and documentation standards.
ACCOUNTING GUIDANCE

AICPA Audit and Accounting Guide: Banks and Savings Institutions
Chapter 5 – Investments in Debt and Equity Securities
Chapter 8 – Mortgage Banking Activities and Loan Sales
Chapter 15 – Futures, Forwards, Options, Swaps, and Similar Financial Instruments

APB - Accounting Principles Board Opinions
EITF - Consensus Positions of the Emerging Issues Task Force
FAS - FASB Statements
FIN - FASB Interpretations
FTB - FASB Technical Bulletins
PB - AICPA Practices Bulletins
SOP - AICPA Statements of Position

APB 18
The Equity Method of Accounting for Investments in Common Stock

EITF 00-9
Classification of a Gain or Loss from a Hedge of Debt That is Extinguished

EITF 98-15
Structured Notes Acquired for a Specified Investment Strategy

EITF 96-12
Recognition of Interest Income and Balance Sheet Classification of Structured Notes

EITF 96-11
Accounting for Forward Contracts and Purchased Options to Acquire Securities Covered by FAS No. 115

EITF 95-11
Accounting for Derivative Instruments Containing Both a Written Option-Based Component and a Forward-Based Component

EITF 93-18
Recognition of Impairment for an Investment in a Collateralized Mortgage Obligation Instrument or in a Mortgage-Backed Interest-Only Certificate

EITF 90-19
Convertible Bonds with Issuer Option to Settle for Cash Upon Conversion

EITF 90-17
Hedging Foreign Currency Risks with Purchased Options

EITF 89-4
Accounting for Purchased Investment in a Collateralized Mortgage Obligation Instrument or in a Mortgage-Backed Interest-Only Certificate

EITF 89-18
Divestitures of Certain Investment Securities to an Unregulated Common Controlled Entity Under FIRREA

EITF 88-9
Put Warrants

EITF 88-8
Mortgage Swaps

EITF 87-20
Offsetting Certificates of Deposit Against High-Coupon Debt

EITF 87-1
Deferral Accounting for Cash Securities That Are Used to Hedge Rate or Price Risk

EITF 86-40
Investments in Open-End Mutual Funds That Invest in U.S. Government Securities

EITF 86-28
Accounting Implications of Indexed Debt Instruments

EITF 86-25
Offsetting Foreign Currency Swaps

EITF 86-15
Increasing-Rate Debt

EITF 85-29
Convertible Bonds with a “Premium Put”

EITF 85-20
Recognition of Fees for Guaranteeing a Loan

EITF 85-17
Accrued Interest Upon Conversion of Convertible Debt

EITF 84-7
Termination of Interest Rate Swaps

FAS 149
Amendment of Statement 133 on Derivative Instruments and Hedging Activities
SECURITIES AND DERIVATIVES

FAS 140
Accounting for Transfers and Servicing of Financial Assets and Extinguishment of Liabilities (Effective for transfers and servicing of financial assets and extinguishments of liabilities occurring after March 31, 2001)

FAS 138
Accounting for Certain Derivative Instruments and Certain Hedging Activities—an amendment of FASB Statement No. 133

FAS 134
Accounting for Mortgage-Backed Securities Retained after the Securitization of Mortgage Loans Held for Sale by a Mortgage Banking Enterprise

FAS 115
Accounting for Certain Investments in Debt and Equity Securities

FAS 107
Disclosures About Fair Value of Financial Instruments

FAS 65
Accounting for Certain Mortgage Banking Activities

FAS 91
Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases

FAS 52
Foreign Currency Translation

FIN-41
Offsetting of Amounts Related to Certain Repurchase and Reverse Repurchase Agreements

FIN-39
Offsetting of Amounts Related to Certain Contracts

FTB 94-1
Application of Statement 115 to Debt Securities Restructured in a Troubled Debt Restructuring

FTB 87-3
Accounting for Mortgage Servicing Fees and Rights

FTB 79-19
Investor’s Accounting for Unrealized Losses on Marketable Securities Owned by an Equity Method Investee

PB 4
Accounting for Foreign Debt/Equity Swaps

SOP 90-3
Definition of the Term “Substantially the Same” for Holders of Debt Instruments, as Used in Certain Audit Guides and a Statement of Position