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## **Introduction**

Credit risk is the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. Credit risk includes the decline in measured quality of a credit exposure that might result in increased capital costs, provisioning expenses, and a reduction in economic return. This examination module applies to the Federal Home Loan Banks (FHLBanks), Fannie Mae and Freddie Mac (the Enterprises) (the FHLBanks and the Enterprises are referred to collectively as the regulated entities).

These institutions need to monitor, measure, and manage the aggregate credit risk inherent in all credit exposures, as well as the risk in individual credits or transactions. The institutions should also consider the relationships between credit risk and other risks. Sound credit risk management has important implications for determinations as to whether the regulated entities hold adequate capital for credit risk and determinations about how adequately they are compensated for risks incurred.

The largest sources of credit risk to the Enterprises are securitized loans, loans held in portfolio, other real estate owned (REO), and investment securities. The largest sources of credit risk to the FHLBanks are advances, Acquired Member Assets (AMA) programs, and investment securities. (See the examination modules on Advances and Collateral and AMA for background information and the workprograms applicable to those topics).

Credit risk management practices may differ among the regulated entities, due to the nature of their respective credit activities. A comprehensive credit risk management program will address at least four areas: (i) establishing an appropriate credit risk environment; (ii) operating under a sound credit-granting process; (iii) maintaining an appropriate credit administration, measurement, and monitoring process; and (iv) ensuring adequate controls over credit risk have been established.

## *Credit Risk Management*

### Board of Directors

The board of directors should take an active role in credit risk management. The board of directors determines the credit risk strategy, and oversees management's implementation of it, usually through board committees. The board of directors' scope of responsibility includes loan products, guaranty business, investments, hedging activities, counterparty relationships, and servicers.

To enhance the effectiveness of the board of directors' credit oversight role, the board should receive formal and informal communication from the institution's risk management function, and should, where appropriate, have access to external expert advice, particularly in relation to significant proposed credit transactions or initiatives. The board of directors should routinely receive reports addressing the level and trend of

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policy exceptions, asset quality, concentrations, delinquencies, and progress toward attaining strategic milestones. If warranted, the board of directors' committee structure should include a credit committee.

The board of directors is responsible for overseeing management's significant judgments and estimates pertaining to the determination of an appropriate Allowance for Loan Losses (ALL). This oversight should include but is not limited to:

- 1) Reviewing and approving written ALL policies and procedures at least annually.
- 2) Reviewing management's assessment and justification that the loan review system is sound and appropriate for the size and complexity of the institution.
- 3) Reviewing management's assessment and justification for the amounts estimated and reported each period for the ALL provision and the ALL balance.
- 4) Requiring management to periodically validate and, when appropriate, revise the ALL methodology.

### Credit Policies and Procedures

The board of directors defines the institution's credit risk culture. The credit risk culture is expressed by board policies and includes risk tolerances and risk limits. To establish the appropriate credit risk culture, the board of directors, or the responsible committee, should at least annually review and approve the credit risk strategy and significant credit risk policies of the institution. The policies should define the institution's tolerance for risk, set risk limits, and establish the level of profitability the institution is expected to achieve for incurring various credit risks. Risk limits that use capital at risk and/or earnings at risk measures as a gauge for potential credit risk exposure should complement policies related to balance sheet or portfolio exposure. Risk limits should contemplate factors such as aggregate level of adversely-rated credit exposures, delinquent credits, aggregate exposure limits per asset class and portfolio, and individual exposures.

Credit policies should address such topics as target markets, price and non-price terms, credit structures, credit enhancements, approval authorities, analysis standards, repayment capacity standards, collateral requirements, information required from the borrower/counterparty, and exception reporting. Such policies should clearly articulate standards consistent with prudent credit practices and relevant supervisory requirements.

Policies and procedures should help ensure that the credit portfolio is adequately diversified within the confines of the institution's mission. Concentrations occur when, among other things, an institution's portfolio contains a high level of direct or indirect credit to a single counterparty, a group of connected counterparties, a particular industry or economic sector, a geographic region, an individual sovereign, or a group of countries whose economies are strongly interrelated, a type of credit facility, or a type of collateral. The very nature of the regulated entities' business models and limited number of credit

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products exposes them to heightened concentration risk that should be mitigated through compensating controls.

Credit policies and related procedures should define the credit approval process. The credit approval process should include a clear indication of how the credit matches the entity's target market, and how a thorough understanding of the borrower or counterparty is to be obtained. Credit analysis and approval standards should be clearly defined. There should be a clear audit trail documenting the approval process.

Credit policies should address the Allowance for Loan Loss (ALL) (refer to the examination module on Financial Reporting as appropriate). At a minimum, the ALL policy (See the examination module on financial reporting for additional detail), or the ALL section of the credit policy, should ensure that:

- 1) The institution's process for determining an appropriate level for the ALL is based on a comprehensive, well-documented, and consistently applied analysis of its loan exposures. The analysis should consider all significant factors that affect the collectability of the exposures and should support the credit losses estimated by this process.
- 2) The institution has an effective credit review system and controls (including an effective credit classification or grading system) that identify, monitor, and address asset quality problems in an accurate and timely manner. To be effective, the credit review system and controls must be responsive to changes in internal and external factors affecting the level of credit risk in the portfolio.
- 3) The institution has adequate data capture and reporting systems to supply the information necessary to support and document the estimate of an appropriate ALL.
- 4) The institution evaluates any loss estimation models before they are employed and modifies the models' assumptions, as needed, to ensure that the resulting loss estimates are consistent with U.S. generally accepted accounting principles (GAAP).
- 5) The institution promptly charges off credits, or portions of credits, that available information confirms to be uncollectible.
- 6) The regulated entity periodically validates the ALL methodology.

Credit policies should address REO as it is acquired through the credit process (e.g., foreclosure), because this asset class contains significant credit risk. Among the specific REO topics that should be contained in the policy are valuation requirements, accounting treatment of revenues and expenses, and holding periods.

### Independent Review

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Comprehensive procedures must be in place to assess and monitor the condition of individual credits and counterparties across the institution, and the condition of credit portfolios in aggregate. These procedures define the criteria for identifying and reporting potential problem credits and other transactions to ensure that they are subject to more frequent monitoring as well as possible corrective action, classification, and/or provisioning.

An effective credit monitoring system will include measures to:

- 1) Ensure that the institution is fully aware of the repayment capacity/ability of the borrower, counterparty, and value of REO property.
- 2) Track credit exposure, which should include a rating system based on clearly defined and supported parameters.
- 3) Monitor compliance with credit agreements.
- 4) Assess, where applicable, collateral coverage.
- 5) Identify contractual payment delinquencies and classify potential problem credit exposures on a timely basis.

Risk managers, or someone in a similar role, should be responsible for monitoring credit quality. Ongoing monitoring efforts should reflect the risk inherent in the credit exposure at all times. The analysis should be fully documented, and the analysis technique employed should be outlined in the credit policy. The results of the analysis should be presented to senior management and the board of directors. Establishing a uniform assessment standard of credit risk assists the institution in making necessary changes to contractual arrangements as well as maintaining adequate capital and reserves for credit losses.

In addition to ensuring that individual credit exposures are accurately evaluated and controlled, the regulated entities need a system for monitoring the aggregate composition and quality of its credit exposures.

The quality of REO must be reviewed in order to assess aggregate risk (refer to supplemental examination guidance on Single-Family REO management and Multifamily REO Management as appropriate). An effective REO monitoring system will include measures to:

- 1) Ensure that the institution is fully aware of an asset's value and condition.
- 2) Develop a formalized, consistent means to track REO exposure, which should include a rating system based on clearly defined and supported parameters.
- 3) Monitor compliance with marketing plans designed to sell the property.

Specific individuals should be responsible for monitoring REO quality. Typically, responsibility for monitoring REO is located within a specialized business unit. Ongoing monitoring efforts should reflect the risk inherent in the REO property at all times. The

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analysis should be fully documented, and the analytical technique used should be outlined in the REO policy.

Internal audits of credit risk processes should be conducted on a periodic basis to determine that credit activities are in compliance with credit policies and procedures, verify that credits are authorized within the guidelines established by the board of directors, and that credit quality is accurately reported. External auditors should review the accuracy and controls around the financial reporting aspects of credit exposures.

### Internal Credit Rating System

The regulated entities should develop and use an internal risk rating system for managing credit risk. The rating system should be consistent with the nature, size, and complexity of the institution's activities. A well-structured internal risk rating system is a means of differentiating the degree of credit risk in the institution's credit exposures. The risk rating system must have applicability across all asset classes, portfolios, and business lines, and capture on- and off-balance sheet risk.

An internal risk rating system should categorize credit exposures into various classes designed to take into account gradations in risk. Simpler systems might be based on categories ranging from satisfactory to unsatisfactory; however, robust systems will have numerous gradations for credits considered satisfactory in order to meaningfully differentiate the relative credit risk they pose. In developing their systems, regulated entities must decide whether to rate the riskiness of the borrower or counterparty, the risks associated with a specific transaction, or both.

Internal risk ratings are an important tool in monitoring and controlling credit risk. In order to facilitate early identification of changes in risk profiles, the internal risk rating system should be responsive to indicators of potential or actual deterioration in credit risk. Credit exposures with deteriorating ratings should be subject to additional oversight and monitoring. The internal risk ratings can be used by management in different departments to track the characteristics of a portfolio and help determine necessary changes to credit strategy. It is critical that the board of directors and senior management receive periodic reports on the condition of the credit portfolios based on internal credit ratings.

### Credit Risk Modeling

Regulated entities should validate the models used to manage credit risk when first developed and on an ongoing basis consistent with professional practice and supervisory requirements. Model validation should include an evaluation of the conceptual soundness and developmental evidence supporting a given model; an ongoing monitoring process that includes verification of processes and benchmarking; and an outcomes-

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analysis process that includes back testing. Model validation should identify key assumptions and potential limitations, and assess the effect on risk metrics.

A review should be conducted by technically competent personnel independent from the developers of the model to ensure the adequacy and effectiveness of the validation. The scope of the review should include: validation procedures for all components, the role of relevant parties, and documentation of the model and validation processes.

The results of the review should be documented. Senior management should be notified of validation, review results, and should take appropriate and timely corrective actions to address deficiencies. The board should be apprised of summary results and planned action for remediation. In support of model validation activities, internal audit should review and test models and systems validations, and overall systems infrastructure as part of their regular audit cycle.

The regulated entities should have a process for the resolution of observed model deficiencies. This should include further investigation to determine the problem, and appropriate course of action, including changing a given credit risk model.

## Stress Testing

Stress testing is a risk management tool in which an institution alters assumptions about one or more financial, structural, or economic variables to determine the potential effect on the performance of a credit exposure, concentration, or portfolio segment. Fundamentally, stress tests present baseline, adverse, and severely adverse scenarios and incorporate the resulting answers into the risk management process. Key underwriting assumptions or a critical factor common to a particular portfolio are good candidates for stress testing.

Credits in significant concentrations should be subject to stress testing. Based on the results, management can develop contingency plans for vulnerable credits. These plans might include increasing monitoring, limiting further advances, restricting portfolio growth, devising exit strategies, or hedging portfolio segments.

## Credit Administration

The regulated entities must have a system for administration of all credit functions. The system must consider documentation, covenant monitoring, management reporting, and regulatory compliance and should ensure the following:

- 1) Efficient and effective credit administration operations, including monitoring documentation, contractual requirements, legal covenants, collateral, etc.
- 2) Accurate and timely information provided to management information systems.

- 3) Proper segregation of duties.
- 4) Adequate controls over all “back office” procedures.
- 5) Compliance with prescribed management policies and procedures as well as applicable laws, regulations, and supervisory guidance.

REO has significant administrative requirements different from those of an outstanding loan or other credit arrangement. The nature of REO requires thorough and accurate documentation of activities leading up to, and after, foreclosure or whatever means by which the regulated entity gains possession of the collateral. This includes keeping documentation up-to-date, obtaining current financial information, timely payment of expenses associated with the property, proper accounting treatment, appropriate controls related to servicers, assuring that valuations are current, and documenting sales efforts.

### Management Information Systems

The effectiveness of an institution’s credit risk process heavily depends on the quality of management information systems (MIS)—information processing designed to support the activities and operations of the institution.

MIS helps senior management and the board to fulfill their respective oversight roles with respect to credit risk. When assessing MIS credit reports, the examiner should determine whether the users are receiving the right kind of information at the right time. Reports to senior management and the board of directors must be more than a presentation of numbers; they must be analytical and allow the users to understand conclusions about credit portfolios and credit risk across the institution. For example, a report presenting the level of delinquent assets has value; however, if the report also includes historical information and shows the delinquent asset position relative to capital and to total assets, it becomes more useful. Data should be concise but not so brief that it does not provide the full picture.

Business unit credit managers have different requirements than senior management and the board of directors. In order to properly inform different user groups, an institution must have good systems architecture. An ideal system would enable a manager to query, track, and aggregate in all data fields; prepare a standard array of reports; and prepare *ad hoc* reports.

The usefulness of reports is undermined if the underlying data are inaccurate or untimely. The Chief Risk Officer, the operations function, and audit play a vital role in ensuring that data are accurate and timely. When MIS deficiencies or inaccuracies jeopardize or restrict credit risk management practices, examiners should identify the root cause and include it in their findings so that it can inform the entity’s corrective action. Alternatively, the report of examination could direct management to identify the root cause.

### *Allowance for Loan Losses (ALL)*

The Enterprises are required to reserve for loan losses in mortgage loans held in trust and for those mortgage loans in the pool of unsecuritized loans. The FHLBanks that participate in the AMA programs are required to reserve against the loans acquired under those programs.

The ALL can represent one of the most significant estimates in the financial statements. Because of this significance, each regulated entity is responsible for developing, maintaining, and documenting a comprehensive, systematic, and consistently applied process for determining the amount of the ALL and the provisions for loan losses (PLL). To fulfill this responsibility, each regulated entity should ensure controls are in place to consistently determine the ALL in accordance with GAAP, with the regulated entity's stated policies and procedures, based on management's best judgment.

Regulated entities may evaluate and estimate credit losses for off-balance sheet credit exposures at the same time that they estimate credit losses for loans. While a similar process should be followed to support loss estimates related to off-balance sheet exposures, these estimated credit losses are not recorded as part of the ALL.

### Appropriate ALL Level

Management is responsible for maintaining the ALL at an appropriate level. Management should evaluate the ALL reported on the balance sheet as of the end of each quarter or more frequently if warranted. Based on the documented analysis, any necessary provision expenses should be made to bring the ALL to an appropriate level as of each evaluation date. The level of the ALL should be based on management's current judgments about the credit quality of the loan portfolio, and should consider all known relevant internal and external factors that affect loan collectability as of the evaluation date. Management's evaluation should be approved by the board of directors; and is subject to review by examiners.

### Factors to Consider in the Estimation of Credit Losses

The principal sources of guidance on accounting for impairment in a loan portfolio under GAAP are Accounting Standards Codification (ASC) 450, *Accounting for Contingencies* and ASC 310, *Accounting for Receivables*. Estimates of credit losses should reflect consideration of all significant factors that affect the collectability of the portfolio as of the evaluation date.

ASC 450

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When measuring estimated credit losses on groups of loans with similar risk characteristics in accordance with ASC 450, a widely-used method is based on each group's historical net charge-off rate adjusted for the effects of the qualitative or environmental factors. Regulated entities should maintain supporting documentation for the techniques used to develop the historical loss rate for each group of loans.

Historical loss experience provides a reasonable starting point for the regulated entity's analysis. However, historical losses, or even recent trends in losses, do not by themselves form a sufficient basis to determine the appropriate level for the ALL. Management should also consider those qualitative or environmental factors that are likely to cause estimated credit losses associated with the regulated entity's existing portfolio to differ from historical loss experience, including but not limited to:

- 1) Changes in lending policies and procedures, including changes in underwriting standards and collection, charge-off, and recovery practices not considered elsewhere in estimating credit losses.
- 2) Changes in international, national, regional, and local economic and business conditions and developments that affect the collectability of the portfolio, including the condition of various market segments.
- 3) Changes in the nature and volume of the portfolio and in the terms of loans.
- 4) Changes in the experience, ability, and depth of lending management and other relevant staff.
- 5) Changes in the volume and severity of past due loans, the volume of nonaccrual loans, and the volume and severity of adversely classified or graded loans.
- 6) Changes in the quality of the regulated entity's loan review system.
- 7) Changes in the value of underlying collateral for collateral-dependent loans.
- 8) The existence and effect of any concentrations of credit, and changes in the level of such concentrations.
- 9) The effect of other external factors such as competition and legal and regulatory requirements on the level of estimated credit losses in the regulated entity's existing portfolio.

### ASC 310

Loans within the scope of ASC 310 are individually evaluated for impairment. Those loans that are determined to be impaired, should reflect consideration of one of the standard's three impairment measurement methods as of the evaluation date: (1) the present value of expected future cash flows discounted at the loan's effective interest rate, (2) the loan's observable market price, or (3) the fair value of the collateral if the loan is collateral dependent. All other loans, including individually evaluated loans determined not to be impaired under ASC 310, should be included in a group of loans that is evaluated for impairment under ASC 450.

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When determining the ASC 310 component of the LLR for an individually impaired loan, a regulated entity should consider estimated costs to sell the loan collateral, if any, on a discounted basis, in the measurement of impairment if those costs are expected to reduce the cash flows available to repay or otherwise satisfy the loan. If the regulated entity bases its measure of loan impairment on the present value of expected future cash flows discounted at the loan's effective interest rate, the estimates of these cash flows should be the regulated entity's best estimate based on reasonable and supportable assumptions and projections. All available evidence should be considered in developing the estimate of expected future cash flows.

### Analyzing the Overall Measurement of the ALL

Changes in the level of the ALL should be directionally consistent with changes in the factors, taken as a whole, that evidence credit losses.

Analysis can be useful in identifying divergent trends in the relationship of the ALL to other indicators of credit quality. Pertinent ratios to consider might include the ALL to adversely classified loans, past due and nonaccrual loans, total loans, and historical gross and net charge-offs.

### *Overview of Credit Risk*

The following summarizes sources of credit risk for the regulated entities. Further information can be found in the examination modules that address Acquired Member Assets, Advances and Collateral, Investment Portfolio Management, and Securitization.

#### The Enterprises

#### Single-Family Residential Loans (Securitized and Held in Portfolio)

Single-family residential mortgage credit risk is the largest source of credit risk for the Enterprises. Single-family residential mortgage loans are defined as mortgage loans secured by one-to-four family residential properties. The Enterprises' core business activity is the purchase of single-family mortgage loans either to be securitized or to be held in their mortgage portfolio (the latter are referred to as whole loans). The Enterprises assume the credit risk related to the loan, for which they receive a guarantee fee if they securitize the loans. If a borrower defaults, the Enterprises incur credit losses if the unpaid principal balance and accrued interest on the delinquent loan exceeds the liquidation value of the collateral plus expenses incurred to liquidate the collateral.

Factors that affect the level of single-family mortgage credit risk include the credit profile of the borrower, home prices, the features of the mortgage loan, and local and regional economic conditions, including unemployment rates.

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### Multi-family Residential Loans (Securitized and Held in Portfolio)

The Enterprises also purchase multifamily residential mortgage loans either for securitization or to be held in their mortgage portfolio (the latter are referred to as whole loans). Multifamily residential mortgage loans are defined as mortgage loans secured by residential properties with five or more units. The Enterprises assume the credit risk related to the loans, for which they receive a guarantee fee if they securitize the loans. Were a borrower to default, the Enterprises would typically incur credit losses if the unpaid principal balance and accrued interest on the delinquent loan exceeded the liquidation value of the collateral plus expenses incurred to liquidate the collateral.

For multifamily loans, the primary source of repayment is the cash flows from the collateral. Factors that affect the level of multifamily mortgage credit risk include vacancy rates, property values, and local and regional economic conditions, including unemployment rates.

When assessing the credit risk of multifamily loans, examiners should look for indications of weakness in the overall multifamily market as well as indications of actual or potential credit problems with respect to specific projects or transactions. A number of indicators can assist the examiner in evaluating the overall health of multifamily real estate markets. Declining rents and/or sales prices may signal a slowdown or other weakness in the market. In addition, permits, absorption rates, employment trends, and vacancy rates can also be useful indicators. If weaknesses are evident, multifamily markets could be experiencing difficulties that could lead to cash flow problems for individual properties, declining values, and ultimately, troubled real estate loans. A number of indicators can offer early warning signs with respect to individual multifamily projects. They include:

- 1) An excess multifamily housing inventory, incomplete projects, or projects that have not been leased/sold.
- 2) A pattern of increasing concessions or rent incentives to ensure lease-up.
- 3) Projects based on feasibility studies that fail to reasonably consider current and anticipated market conditions.
- 4) An inordinate number of changes to a multifamily project plan in response to market conditions.

### Investments

The regulated entities hold investments for liquidity purposes and as sources of income. The Enterprises and the FHLBanks primarily invest in both government-sponsored and private-label mortgage-backed securities (MBS) (both residential and commercial). Additional types of investments include Federal funds sold, certificates of deposit, bankers' acceptances, commercial paper, repurchase agreements, and U.S. Treasury (Treasury or Treasuries) and agency obligations.

Credit risk from these investments includes issuer credit risk, counterparty credit risk, and securities dealer credit risk. Although most investments purchased by the regulated entities are of high quality with little credit risk, there is the possibility of credit risk in some of the investments identified above or credit risk that manifests itself because of liberal investment policies. For example, the quality of MBS is highly dependent on the quality of the underlying mortgages. Some residential MBS issued in the mid-2000s were comprised of higher risk mortgage loan products such as subprime loans, Alt-A loans, and high LTV loans, as well as had geographic concentrations in certain states such as California and Florida. During the recession that ensued, many of these loans became delinquent and defaulted, resulting in significant credit losses for the regulated entities. This experience highlights the need for the investing entity to consider the risks inherent in the underlying mortgages and to maintain practices and controls that enable the entity to price these investments in accordance with their actual risk.

### Counterparty

Counterparty credit risk is the risk that the counterparty to a transaction could default or deteriorate in creditworthiness before the final settlement of a transaction's cash flows. Counterparty credit risk is found in various activities in which the regulated entities engage and include securitization, investments, servicer contracts, guarantee business, and liquidity management, for example, bank deposits.

The Enterprises' primary exposures to counterparty risk are with Seller/Servicers that are obligated to repurchase loans or reimburse losses in certain circumstances; third-party providers of credit enhancement on the mortgage assets that they hold in their mortgage portfolio or that back their MBS, including mortgage insurers; lenders with risk sharing arrangements and financial guarantors; issuers of securities held in the investments portfolio; and derivatives counterparties.

The FHLBanks' exposure to counterparty risk includes transactions with derivative counterparties; third-party providers of credit enhancements on private-label MBS investments, including mortgage insurers, bond insurers, and financial guarantors; issuers of MBS held in their investments portfolio; counterparties in Federal funds and repurchase agreement transactions; and participating financial institutions and mortgage insurers in the AMA programs.

The regulated entity should have a counterparty credit risk policy that contains appropriate limits and ensures the regulated entity conducts an independent analysis of the counterparty prior to committing to engage any transactions. The terms for all transactions should strictly be on an arm's length basis; conform to sound investment, liquidity, lending, and funding practices; and avoid potential conflicts of interest.

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Prudent management of counterparty credit risk includes establishing and maintaining written policies and procedures to prevent excessive exposure to any counterparty in relation to the counterparty's financial condition, including concentrations of counterparties. As part of its responsibility for overall risk management policies and practices, a regulated entity's board of directors should clearly convey information on its counterparty credit risk tolerance, including counterparty credit risk loss potential in adverse markets. The counterparty credit risk policy should address the following topics.

### *1) Establishing and measuring counterparty risk limits*

Regulated entities should establish prudent internal counterparty credit risk limits, as well as ranges or tolerances for each factor being monitored in each counterparty. Internal limits should be risk-based; financially weak counterparties should have lower limits.

Regulated entities should implement procedures for measuring counterparty credit risk exposures. For prudent risk management purposes, these procedures should encompass the totality of the counterparty's exposure, and be based on the financial condition of the counterparty.

The regulated entities should also define counterparty exposure in terms of current exposure and potential exposure for risk management purposes. Current exposure is the aggregate exposure at the current point in time. Potential exposure is measured on the basis of management's forecast of potential market and economic conditions, incorporating the impact they could have on counterparty exposures. Financially stressed counterparties often increase borrowing as their condition deteriorates.

### *2) Responsibility and Management*

The board of directors should clearly indicate which function within the regulated entity is responsible for managing the risk. Additionally, the policy should define the responsibilities of enterprise-wide risk management in the oversight of counterparty risk.

Regulated entities should develop plans for managing risk when internal limits, ranges, or tolerances are breached. Counterparties can breach limits due to increases in transaction volume with a regulated entity, or because a decline in creditworthiness requires a lower limit. Contingency plans should provide a variety of actions that can be considered relative to changes in the counterparty's financial condition. Prudent risk management of counterparty credit risk should include procedures that provide for orderly reductions of counterparty exposure that exceed internal parameters over a reasonable timeframe that is commensurate with the size, type, and volatility of the risk in the exposure. Such actions could include, but are not limited to: (1) Transferring excess funds to other counterparties after conducting appropriate

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reviews of their financial condition; (2) Establishing new limits, or prohibiting additional transactions with the counterparty; and (3) Specifying reasonable timeframes to meet targeted reduction goals for different types of exposures.

### *3) Due Diligence and On-going Monitoring*

For initial underwriting and risk management purposes, regulated entities should have procedures and approved analytical techniques for conducting initial and on-going analysis of its counterparties' condition.

The frequency for on-going monitoring of counterparty relationships may be more or less aggressive depending on the nature, size, and risk of the exposure. Institutions should increase the frequency of their internal reviews when appropriate, as even well-capitalized institutions can experience rapid deterioration in their financial condition, especially in economic downturns. In monitoring counterparty relationships for risk management purposes, in addition to assessing the factors considered at the original underwriting, regulated entities should define internal parameters relative to what information, ratios, or trends will be reviewed for each counterparty on an on-going basis. Moreover, regulated entities should monitor for a downgrade in a counterparty's credit rating, and being placed under a regulatory enforcement action.

A regulated entity's procedures should also establish documentation requirements for the on-going reviews it conducts. In addition, the procedures should specify when relationships that meet or exceed internal criteria are to be brought to the attention of the board of directors or the appropriate committee.

### *4) Internal Reporting*

Management is responsible for designing a flexible reporting framework to enable it to monitor the regulated entity's risk profile relative to its expressed counterparty credit risk tolerance.

Management and the board of directors should receive periodic information on counterparty credit risk. These reports should include items such as: listing of counterparty by risk rating (in current and projected exposure); counterparties downgraded since the prior reporting period; counterparties exceeding or approaching their limit (in current or projected exposure); counterparty litigation; and synopses of business plans for significant counterparty exposures.

### Off-Balance Sheet Commitments

The regulated entities may also incur credit risk related to off-balance commitments. The commitments most often arise from transactions not yet realized. For the Enterprises, the

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largest source of off-balance sheet credit risk is their guaranty of mortgage loan securitization and resecuritization transactions. Other off-balance sheet commitments include other guaranty transactions, liquidity support transactions, and partnership interests.

The FHLBanks issue standby letters of credit (SLOCs) for their members. An SLOC obligates the FHLBank to guarantee the payment of a financial obligation to a designated third party (the beneficiary) contingent upon the failure of the member to perform under the terms of the underlying contract with the beneficiary. A funded SLOC becomes an advance; therefore, it is critical that the FHLBank include all SLOCs issued to the member when assessing credit risk and calculating collateral availability and member borrowing capacity.

Some FHLBanks enter into Standby Bond Purchase Agreements (SBPAs). SBPAs are over-the-counter contracts that are designed to ensure a liquid market for variable-rate demand obligations (VRDOs), i.e., variable rate bonds that are issued by state housing finance agencies (SHFAs). Under the terms of an SBPA, an FHLBank, as the liquidity provider, agrees to purchase VRDOs when certain conditions as defined in the SBPA are met, typically including a condition requiring that the SHFA remain investment grade. Therefore, the FHLBank must ensure that it performs sufficient and ongoing credit analyses of the SHFAs to determine whether it might be obligated to purchase the bonds.

### **Regulatory Environment**

The primary authorities governing, or relevant to, credit risk management are set forth below. The examiner should ensure that the application of such authorities to a regulated entity has been considered by the regulated entity and its legal counsel. The examiner should also refer to other FHFA examination guidance pertaining to credit risk management practices, including, where appropriate, Single-Family Credit Risk Management; Single-Family Mortgage Underwriting and Acquisitions; Single-Family Credit Loss Management; Single-Family REO Management; Multifamily Credit Risk Management; Multifamily Credit Loss Management; and Multifamily REO Management.

#### ***1) Chartering Acts and Other Laws***

Federal National Mortgage Association Charter Act (12 USC 1716); the Federal Home Loan Corporation Act (12 USC 1451); Federal Housing Enterprises Financial Safety and Soundness Act (12 USC 4501); Federal Home Loan Bank Act (12 USC 1421). These laws, among other things, define and limit the activities of Fannie Mae, Freddie Mac, and the FHLBanks. The charter acts also authorize the Enterprises to hold real property.

#### ***2) Rules and Regulations of the Federal Housing Finance Agency (FHFA) and its predecessor, the Office of Federal Housing Oversight (OFHEO), which include the following parts and sections relevant to credit risk management.***

12 CFR 1720.2 of the OFHEO regulations establishes minimum safety and soundness requirements, including asset underwriting and credit quality. An Enterprise should establish and implement policies and procedures to adequately assess credit risks before they are assumed, and monitor such risks subsequently to ensure that they conform to the Enterprise's credit risk standards on an individual and an aggregate basis.

12 CFR Part 1710 of the OFHEO regulations establishes corporate governance requirements pertaining to boards of directors (12 CFR 1710.11-.16), compliance and risk management programs; and compliance with other laws (12 CFR 1710.19).

**3) *Rules and Regulations of the FHFA and its predecessor, the Federal Housing Finance Board (Finance Board), which include the following parts and sections relevant to credit risk management:***

12 CFR 932.9 of the Finance Board's regulations sets forth limitations on unsecured extensions of credit to a single counterparty or affiliated counterparties.

12 CFR Part 955 of the Finance Board's regulations sets forth requirements for FHLBank participation in AMA programs and activities.

12 CFR Part 1265 of the FHFA's regulations defines what activities are the core mission activities of the FHLBanks.

12 CFR Part 1266 of the FHFA's regulations sets forth requirements for FHLBank advances.

12 CFR Part 1267 of the FHFA's regulations sets forth requirements for authorized investments and limitations on investments.

12 CFR Part 1269 of the FHFA's regulations sets forth requirements for standby letters of credit.

12 CFR Part 1272 of the FHFA's regulations prohibits new business activity without prior FHFA approval.

**4) *Rules and Regulations of the Federal Housing Finance Agency.***

12 CFR Part 1236 establishes FHFA's Prudential Management and Operations Standards ("PMOS"). Standards 8 and Standard 9 highlight the need for the regulated entities to establish risk management practices that measure, monitor, and control credit risk and to have appropriate credit risk policies, procedures, controls, and systems.

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5) ***Advisory Bulletins of the FHFA and of predecessor Federal Housing Finance Board that provide supervisory guidance relating to the topic of credit risk management are the following:***

Advisory Bulletin 98-10, dated December 8, 1998, provides guidance to the FHLBanks in monitoring unsecured credit exposures and concentrations.

Advisory Bulletin 01-8, dated October 4, 2001, provides guidance to the FHLBanks in establishing procedures to address the periodic review, classification, and reporting of problem assets.

Advisory Bulletin 02-7, dated August 27, 2002, outlines changes in unsecured credit reporting requirements.

Advisory Bulletin 02-8, dated October 7, 2002, provides guidance on the meaning of the terminology “the next lower grade” referenced in Section 932.9(a)(4) of the Finance Board’s regulations.

Advisory Bulletin 05-05, dated May 18, 2005, provides guidance on the risk management responsibilities of the FHLBank’s board of directors, senior management, and risk management function.

Advisory Bulletin 2012-02, dated April 9, 2012, provides guidance for adversely classifying loans, other real estate owned, and other assets, and listing other assets for special mention.

6) ***Environmental Liability***

Under federal and state environmental liability statutes, a regulated entity may be liable for cleaning up hazardous substance contamination of REO. In some cases, the liability may arise before the regulated entity takes title to the real estate collateral.

### **Issues Specific to the Regulated Entities**

#### ***Adverse Classification of Assets***

##### Classification Definitions

The following definitions will apply when examiners evaluate and adversely classify assets at the regulated entities.

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***Substandard*** - Exposures classified ***Substandard*** are inadequately protected by the current sound worth and paying capacity of the obligor or by the collateral pledged, if any. Exposure so classified must have a well-defined weakness or weaknesses that jeopardize the liquidation of the exposure. These weaknesses are characterized by the distinct possibility that the regulated entity will sustain some loss if the deficiencies are not corrected.

***Doubtful*** - Exposures classified ***Doubtful*** have all the weaknesses inherent in those exposures classified ***Substandard*** with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently known facts, conditions and values, highly questionable and improbable.

***Loss*** - Exposures classified ***Loss*** are considered uncollectible and of such little value that the exposures continuance as a balance sheet asset is not warranted. This classification does not mean that the exposure has absolutely no recovery or salvage value; rather, it is not practical or desirable to defer writing off this asset, even though partial recovery may occur in the future.

Regulated entities should charge-off the portion of the asset adversely classified as Loss. A charge-off must result in the balance of the asset being reduced by the amount of the Loss. There may be instances in which the regulated entity receives full or partial payment, either through liquidation of the collateral or other means, for an asset previously classified Loss. In such a case, the regulated entity may report a recovery of the charged-off asset either through the loan loss reserve or as a reduction of Other Real Estate Owned (REO) expenses in the income statement depending upon the specific circumstances.

### *Listing Credit Exposures and Counterparties for Special Mention*

In some instances it may be appropriate to list an asset for Special Mention. The following definition should be used for listing an asset for Special Mention:

***Special Mention*** - A ***Special Mention*** exposure has potential weaknesses that deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the assets' repayment prospects or may cause deterioration in the regulated entity's credit position at some future date. ***Special Mention*** exposure is not adversely classified and does not expose a regulated entity to sufficient risk to warrant adverse classification.

### **Issues Specific to the Enterprises**

The Enterprises were chartered to provide liquidity to the housing finance market. The Enterprises' charters do not allow them to lend in the primary mortgage market, only to

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provide liquidity through activity in the secondary mortgage market. This does not mean that the Enterprises have minimal credit risk. Credit risk is a significant challenge for the Enterprises, and one that must be managed, monitored, and controlled. Credit risk is present in all of the Enterprises' business lines.

The Enterprises are involved in refinancing programs to help maintain housing values and maintain home ownership. Credit exposures from these refinancing plans should be subject to the same credit risk management policies, procedures, and controls as credit exposures from the Enterprises' traditional programs.

Until the Enterprise takes title to the property at sales under judgments, decrees, or mortgages when the property was security for debts previously contracted, credit exposures are managed by the Servicer. The Enterprises establish their default management requirements in the servicing guides and related contractual agreements with the Servicer. The servicing guide contains, among other things, instruction on managing problem credits. The Enterprise should know how the Seller/Servicer works with borrowers, and should understand and concur with the Seller/Servicer's workout strategies and loan modification practices.

The Seller/Servicer's administration practices and procedures should be fully documented in the Seller/Servicer's policies and procedures and the Enterprise should understand them. Among the topics that should be addressed are the Seller/Servicer's foreclosure procedures, the process by which title to the property is acquired and transferred, documentation control and review standards. The Enterprise should have sufficient counterparty risk management procedures to confirm that the Seller/Servicer adheres to the Enterprise's servicing requirements.

### **Issues Specific to the FHLBanks**

#### *Core Mission Activities*

The mission of the FHLBanks is to provide to their members and housing associates financial products and services that assist and enhance the financing of housing, including single-family and multifamily housing serving consumers at all income levels, and community lending. In order to fulfill their mission, the FHLBanks are limited to certain core mission activities as defined in 12 CFR Part 1265 of the FHFA's regulations. These include making advances, purchasing acquired member assets (AMA), issuing standby letters of credit, engaging in derivatives contracts, and purchasing debt or equity securities that promote housing, economic development, community services, permanent jobs, or area revitalization or stabilization. 12 CFR Part 1266 provides guidance on advances and 12 CFR Part 1267 provides guidance on authorized investments.

#### Advances

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The FHLBanks' core mission is to further housing finance and to foster community investment. This mission is largely accomplished by providing advances (loans) to members. FHFA regulations require advances to be fully collateralized. Refer to the examination module on Advances and Collateral module for more discussion of this topic. In most instances, an FHLBank does not have physical control of a majority of the collateral unless and until the FHLBank determines that such actions are necessary based upon an assessment of the member's credit risk.

### Acquired Member Assets (AMA)

The FHLBanks are authorized by FHFA to purchase mortgages under the AMA regulation. The FHFA has approved two distinct mortgage programs, the Mortgage Partnership Finance<sup>®</sup> (MPF) program and the Mortgage Purchase Program (MPP). Although each program offers different products and different structures, each product is designed so that the FHLBank and the member share credit risk. Typically, upon origination, the FHLBank allocates funds to cover expected losses (referred to as the first loss account or lenders risk account). Additional losses over and above this allocation may be applied to the member's credit enhancement obligation and/or claims to a supplemental mortgage insurer provider before being absorbed by the FHLBank via an ALL, depending on the product. Refer to the examination module on AMA for more information. Historically, REO has represented a minor portion of an FHLBank's assets due to the high quality of the underlying mortgages.

### *New Business Activities*

The FHLBanks may not engage in a new business activity prior to submission of a notice of new business activity to the FHFA. A new business activity is defined as any business activity undertaken, transacted, conducted, or engaged in by an FHLBank that has not been previously undertaken, transacted, conducted, or engaged in by that FHLBank, or was previously undertaken, transacted, conducted, or engaged in under materially different terms and conditions, such that it:

- 1) Involves the acceptance of collateral for advances;
- 2) Involves the acceptance of classes of collateral for advances for the first time;
- 3) Entails risks not previously and regularly managed by that FHLBank, its members, or both, as appropriate; or
- 4) Involves operations not previously undertaken by that FHLBank.

12 CFR Part 1272 of the FHFA's regulations include specific procedures for notices of new business activities, including the analysis of new risks. Examiners should consider whether a new business activity introduces additional credit risk to the FHLBank and what actions the FHLBank has taken to manage that risk.

### **Examination Guidance**

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The workprogram for the Credit Risk Management examination module is detailed below. If this module is included in the examination scope, the examiner must perform worksteps sufficient in coverage to document the basis for conclusions on the quantity of risk and quality of risk management pertaining to this area. Transaction testing is mandatory and the examiner must document sufficient worksteps from Section 4, *Testing*, to support the findings and conclusions from this examination module.

The examiner should take into account any applicable FHFA off-site monitoring or analysis reports, such as analyses of the quality and effectiveness of corporate governance practices, financial condition and performance, economic and housing industry conditions, internal controls, and audit coverage relating to the institution's credit risk management. In addition, where suggested worksteps overlap with other workprograms or analyses undertaken by FHFA economists, financial analysts, accountants, or examiners.

NOTE: Text in (*italics*) referenced in a workstep represents illustrative guidance that serves as suggestions for specific inquiry.

## 1. Scope of Examination Work Performed

- 1) Review past reports of examination for outstanding issues or previous problems related to credit risk management.
- 2) Review FHFA off-site monitoring or analysis reports, and workpapers produced as part of ongoing monitoring, related to credit risk management.
- 3) Assess the status of outstanding examination findings pertaining to credit risk management, including the status of remediation activities.
- 4) Review internal audit reports for outstanding issues relating to credit risk management.
- 5) Review minutes of meetings of the board of directors and relevant board and management committees for any issues regarding credit risk management.
- 6) Review internal monthly management reports that each business unit uses to report results to senior management.

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- 7) Review, as needed, any specific internal reports that a business unit uses to manage its performance against its departmental objectives.
  - 8) Review the strategic business plan to determine the areas of credit risk.
  - 9) Review and evaluate board and board committee minutes to determine if the board was fully engaged in the policymaking and strategic planning related to credit risk management.
  - 10) Review management committee minutes to determine credit risk trends and current credit risk levels. Evaluate whether all credit risk areas are appropriately covered during committee meetings.
  - 11) Review external audit reports and any external consultant reports relating to credit risk to determine trends and areas of concern.
  - 12) Evaluate any significant changes related to credit risk management that have been implemented since the last examination or are being considered that may affect the regulated entity's risk profile.

Summarize the work performed in the examination of the institution's credit risk management area. To the extent there were modifications to the originally planned scope based on concerns identified during the examination, document those changes and the reasons for such changes.

<b>2. Description of Risks</b>
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- 1) Review and evaluate the Risk Management Policy (RMP) (for FHLBanks), or similar policy, to determine and identify what, if any, risk limits are established and how they are monitored. *(Are the established limits reasonable and appropriate? Are controls established adequate? Are limits defined in terms of current and potential exposure?)*
- 2) Assess policies and risk management practices implemented as part of credit risk management. *(What is the credit culture? Are all credit risk functions covered by policies? Is there an independent review process? Is there a credit grading system?)*
- 3) Review departmental policies and procedures. *(Are policies and procedures current, relevant, sufficiently detailed, and consistent with the institution's policies, and corporate objectives? Do the policies provide adequate guidance in assessing, measuring, and controlling risk to the institution? Have risk limits been defined? Do policies and procedures clearly define responsibility for adhering to established*

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*parameters? Are ongoing reporting requirements established and reasonable to adequately monitor potential risk to the institution?)*

- 4) Assess policies and risk management practices to manage other areas of credit risk. *(Are accounting and valuation standards detailed? Are all REO functions covered by policies? Is there an independent review process? Have holding periods been defined? Are marketing plans required?)*

### 3. Risk Management

#### *Risk Identification Process*

- 1) Evaluate internally developed risk rating definitions and the process for rating credit risk in light of the volume and complexity of its credit risk exposures. *(Examiners should consider how well the system stratifies risk. Does the process cover all creditors and counterparties?)*
- 2) Evaluate the process for assigning and validating risk ratings. Consider:
- a) Independence.
  - b) Technical knowledge.
  - c) Resources.
  - d) Rating disagreement resolution process.
- 3) Evaluate the frequency of risk rating validations. *(Ratings should be re-validated based on risk and on pre-defined events that would warrant a risk rating review. Are information requirements from borrowers/counterparties detailed?)*
- 4) Evaluate risk rating analyses. Consider:
- a) Rating change triggers.
  - b) Focus of analysis. *(Are the appropriate credit risks and factors analyzed? Are credit enhancements factored into the rating analysis? Are rating changes made by nationally recognized statistical rating organizations, and regulatory enforcement actions identified as triggers?)*
- 5) Determine if the risk rating system can be used for all credit risk exposures (including counterparties in non-credit relationships, guaranty business, REO, investments, etc.) and if it can be used to assess the aggregate level of credit risk in the institution. Conclude on the adequacy of the risk rating system in summarizing potential risk and serving as a tool to monitor potential credit risk to the organization.

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- 6) Evaluate how modeling is used in the credit risk management process. In conjunction with examiners completing the risk modeling examination of the institution, conclude on the adequacy of the risk modeling function.
  - 7) Assess the institution's policies and procedures for detecting, addressing, and reporting breaches of risk limits.
  - 8) Determine the adequacy of any stress testing; consider or perform the following:
    - a) Assess the appropriateness of assumptions used in the stress test scenarios. (*For example, occupancy levels, raw material cost increases, and reduction in revenue growth.*)
    - b) Determine why management selected these measurements; reasons for metrics selection.
    - c) Determine what is within the scope of stress testing activities (e.g., individual relationships, portfolio segments, the entire portfolio).
    - d) Review the frequency of credit stress testing in light of the portfolio's complexity and quality.
    - e) Assess the process for selecting loans or segments for stress testing. (*It should be based on risk.*)
    - f) Determine if management has defined "acceptable" stress test results, and assess these definitions.
  - 9) Verify that stress testing incorporates all exposures (including off-balance sheet exposure).
  - 10) Review management's schedule of planned operational and financial reviews of ALL activities. Determine if the frequency is in accordance with the policy.
  - 11) Review the process for updating and documenting credit risk related model assumptions and forecasts.
  - 12) Review the methodology used in the model to ensure it is comprehensive, reflects current market conditions for continued reliability, and results in an appropriate ALL.
  - 13) Evaluate the adequacy of the risk assumptions to ensure the accuracy of risk exposure analytics, including all risk factors and market conditions.
  - 14) Review the process for escalating ALL issues and concerns.
  - 15) Review the documentation related to ALL and determine if these documents adequately reflect an analysis of all significant factors, and whether they indicate compliance with the regulated entity's ALL guidelines and that an appropriate ALL is maintained.

- 16) Review the credit standards for evaluating the credit-worthiness of multifamily or single-family, as appropriate, transactions. Verify the following, as appropriate:
- a) Ensure that exceptions are fully documented and compensating factors considered.
  - b) Ensure the basic underwriting credit standards are present, such as loan-to-value (LTV), debt service coverage ratio (DSCR), capitalization rates, net operating income (NOI), Cash Flows, reserves, and credit scores of borrowers for certain products.
  - c) The appraisal of the property must be present to ensure proper collateral value supporting the real estate.
  - d) Loans failing to comply with established credit standards should be fully documented with compensating factors.
  - e) Risk rating systems should be defined and examined for comparability and rationale that fully evaluates the risk associated with the loan purchases.
- 17) Evaluate loan level price adjustments in multi-family or single family loans, as appropriate, to ensure that the appropriate risk is mitigated.
- a) Review the regulated entity's pricing policies and practices.
  - b) Determine if the pricing models account for credit risk, expenses, and related compensation.
- 18) Review the quality control processes and the effectiveness of pursuing remedies for loans that do not meet contractual representations and warranties. Consider the following:
- a) Documentation errors or omissions.
  - b) Fraud.
  - c) Post-purchase review process during the warranty period.
  - d) Ensure appropriate measures were taken to obtain repurchases and whether there was enforcement of representation and warranties.
  - e) Determine the timing of repurchases.
  - f) Determine whether appropriate actions were taken with seller/servicers to address excessive repurchases.
  - g) Determine the sampling methodology for post-purchase reviews.
  - h) Determine the nature of the breach of representations and warranties.
  - i) When conducting an exam, there should be a review of repurchased loans by a lender, a determination of the extent of repurchases by any one lender, the reasons for repurchases, and the timing/status of repurchases.
- 19) Review loss mitigation activities including an assessment of periodic risk management reports and qualitative analysis of serious delinquencies. Consider:

- a) Foreclosure analysis and trends.
  - b) Foreclosure prevention activities undertaken and results.
  - c) New foreclosure initiatives and approvals.
  - d) Staffing and capacity.
  - e) REO portfolio; transfers and dispositions.
  - f) Third party management of REO.
  - g) Internal controls and reporting of REO dispositions.
  - h) Charge-offs and recoveries.
  - i) Losses.
  - j) Assessment of defaults for potential Trouble Debt Restructuring (TDR) and whether the economic analysis provides for positive results.
- 20) Identify the existence of asset concentrations and corresponding actions to mitigate associated concentration risk.
- 21) Based on worksteps performed under **Description of Risks**, assess and conclude on the adequacy of the organization's risk identification process.

*Organizational Structure*

- 1) Evaluate the board of director's role in overseeing credit risk management and the ALL process; determine if the board established a credit committee to meet this oversight responsibility. Consider:
- a) Comprehensive/robust nature of credit issue discussion at board meetings and/or the following:
    - i. Frequency of credit committee meetings.
    - ii. Composition of the credit committee.
    - iii. Credit committee information packages.
  - b) The fullness of the ALL discussion and the completeness of the ALL package provided to the directors.
- 2) Evaluate the independence, scope of responsibility, and objectivity of units and/or personnel with credit risk management responsibilities and their adequacy in light of identified risks. Specific worksteps include, but are not limited to, the following:
- a) Determine if there is a chief risk officer (CRO), or equivalent, and evaluate his/her role in credit risk management.
  - b) Review and evaluate the independence of staff responsible for assigning and validating risk ratings.

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- c) Evaluate and assess the adherence to remedies or corrective actions for noncompliance. (*Does the credit risk management function or other function have the authority to enforce their policies and procedures with all customers?*)
  - d) Evaluate the adequacy of the scope and testing of credit risk activities and determine the status of corrective actions for findings.
- 3) Evaluate the staffing adequacy, competency, and expertise of personnel responsible for credit risk management activities.
- 4) Assess the communications regarding credit risk management to the board of directors, or board committee, that address the following subjects:
- a) Significant risk limits and/or risk tolerance levels; the reasonableness of the limits; and the consistency of the application of those limits.
  - b) Potential effects on the financial statements of any significant risks and exposures.
  - c) Risk limit or risk tolerance violations (approved or unapproved).
  - d) Results of any testing or reviews conducted by a third party.
  - e) Results of stress testing.
- 5) Determine if there is an independent review of the models used in any credit process (including the ALL). The scope of the review should include the following:
- a) Validation procedures for all components.
  - b) The role of relevant parties.
  - c) Documentation of the model and validation processes.
- 6) Determine if there is a separate unit responsible for credit administration/credit operations processes. Evaluate this area in terms of the following:
- a) The efficiency and effectiveness of credit administration operations, including monitoring documentation, contractual requirements, legal covenants, collateral, etc.
  - b) The accuracy and timeliness of information provided to MIS.
  - c) Adequate segregation of duties.
  - d) The adequacy of controls over all administrative/operational procedures.
  - e) Compliance with prescribed management policies and procedures as well as applicable laws and regulations.
- 7) Evaluate the administration of REO assets, and corresponding controls. (*Are separate files maintained for each asset? Is the carrying value supported? Are expenses appropriately accounted for?*)

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- 8) Determine if there is a separate unit responsible for REO administration. Evaluate this area in terms of the following:
- a) The efficiency and effectiveness of administration operations, including monitoring documentation, making payments, receiving revenue, collateral valuations, securing title, etc.
  - b) The accuracy and timeliness of information provided to MIS.
  - c) Adequate segregation of duties.
  - d) The adequacy of controls over administrative/operational procedures.
  - e) Compliance with prescribed management policies and procedures as well as applicable laws and regulations. (*Are environmental liability issues addressed?*)
- 9) Evaluate the thoroughness of tracking and monitoring outstanding multifamily and single-family credit risk issues. Evaluate the following:
- a) Regulatory reports of examination.
  - b) Internal and external audit reports.
  - c) The Enterprise's overall risk assessment and profile.
  - d) Adequacy and timing of completed assessments and corrective actions.
  - e) Resolutions to root causes and timing of resolutions.
  - f) Completeness and timing of reports for management review.
- 10) Review performance reports and the limits and/or targets used that trigger risk mitigation measures.
- 11) Review conclusions, responses, and resolutions of credit risk assessments, audits, and self-assessments. Consider the following.
- a) The use of consistent methodology and a standard risk rating system.
  - b) The severity of the findings and the overall assessment of the risk exposure.
  - c) The timely response, resolution, and accountability of senior management to act on multifamily or single-family credit risk assessment reports, findings, scores, and opinions.

*Policy and Procedure Development*

- 1) Evaluate whether credit policy(ies) provide(s) adequate guidance to control credit risk. Consider the following:
- a) Approval process:
    - i. Approval authority.

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- ii. Credit committee structure.
  - iii. Credit evaluation analysis requirements.
  - iv. Exception definition and limits.
  - v. Exception reporting requirements.
- b) Underwriting:
- i. Credit standards.
  - ii. Credit structure.
  - iii. Maturity limits.
  - iv. Collateral.
  - v. Pricing.
  - vi. Financial information requirements.
  - vii. Documentation standards.
  - viii. Appraisal requirements.
  - ix. Environmental assessments.
  - x. Credit quality monitoring and evaluation.
  - xi. Risk rating definitions.
  - xii. Risk rating accountability and responsibility.
  - xiii. Risk analysis requirements.
  - xiv. Collection, recovery, and charge-off responsibility.
  - xv. Exception reporting.
  - xvi. Obligor financial reporting.
- c) Portfolio limits and strategic goals:
- i. Credit culture.
  - ii. Aggregate credit limits.
  - iii. Desirable credit types.
  - iv. Concentrations and concentration limits.
- d) Compliance:
- i. Conflicts of interest.
  - ii. Escalation procedures.
  - iii. Accounting requirements.
  - iv. Other credit related regulations.
- e) REO:
- i. Transfer to REO appraisal valuation standards.
  - ii. Update appraisals standards.
  - iii. Expensing and capitalization of costs.
  - iv. Acceptable holding period.

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- v. Determine if the policy addresses REO related conflicts of interest issues, and sales of REO to insiders.
- f) ALL:
- i. All significant factors that affect the collectability of the portfolio and should support the credit losses estimated by this process.
  - ii. Loss estimation models are evaluated before they are employed and modification of the model's assumptions are made, as needed, to ensure that the resulting loss estimates are consistent with GAAP.
  - iii. Require documentation of evaluations and conclusions regarding the appropriateness of estimating credit losses with the models and adjustments made to the models or other estimation tools.
  - iv. Promptly charge-off loans, or portions of loans, that are deemed uncollectible (FHFA advisory bulletin 2012-02 provides guidance on asset classification and FHFA's supervisory expectations).
  - v. Periodic validation of the ALL methodology. This validation process should be conducted by a party who is independent of the credit approval and ALL estimation processes and the ALL methodology and its application in order to confirm its effectiveness. A party who is independent of these processes could be the internal audit staff, a risk management unit, an external auditor (subject to applicable auditor independence standards), or another contracted third party from outside. One party need not perform the entire analysis as the validation can be divided among various independent parties.
- 2) Review Fannie Mae or Freddie Mac multifamily or single-family seller/servicer guide requirements, and MPF Origination and Servicing guides for clarity, thoroughness, and updated methodologies and strategies to adequately control risk and ensure the safety and soundness of operations.
- 3) Review Policies and Procedures to ensure they address all multifamily or single-family credit risk areas. Consider the following:
- a) Geographic markets and feasibility studies.
  - b) Physical needs assessment.
  - c) Loan portfolio diversification strategies.
  - d) Prudent underwriting standards (LTV requirements, DSCR standards, payment deferral provisions, credit score requirements, etc.) that are clear and measurable provided in multi-family or single family guides, including any automated systems and any delegated underwriting, along with guide changes.
  - e) Appropriate terms and conditions by type of real estate loan.
  - f) Loan origination and approval procedures.
  - g) Loan review or credit review and approval procedures for loan exceptions and continuous portfolio sampling reviews.

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- h) Loan administration procedures.
  - i) Asset management and reporting procedures.
  - j) Appraisal and evaluation program.
  - k) Limits and concentrations.
  - l) Loan modifications.
  - m) Credit risk policies for Low Income Housing Tax Credit (LIHTC) and other equity investments should follow the same credit standards as loans but with an emphasis on recapture risk, counterparty (fund manager and syndicators), and internal rates of returns.
  - n) Charge-off policies.
- 4) Evaluate in multifamily or single-family lending the extent to which compliance is achieved, monitored, and reported in, among others, the following areas.
- a) Defined permissible mortgage acquisition, underwriting, and servicing activities, as appropriate.
  - b) Responsibilities designated to individual officers and delegations of authority.
  - c) Segregation of duties.
- 5) Verify that the board of directors approves and reviews the credit policy(ies).
- 6) Evaluate how the policy establishes responsibility and accountability for various activities. Consider:
- a) Approval process.
  - b) Risk rating process.
  - c) Exception and over-limit process.
  - d) Credit administration/credit operations.
  - e) Nonaccrual and charge-off process.
- 7) Evaluate the policy's suitability to any planned changes in credit activities. (*For example, introducing a new product.*)
- 8) Determine if risk limits are well-defined and reasonable. Consider the way these limits are measured. (*Are capital and earnings at risk used to define the risk limit?*)
- 9) Assess the potential impact on the institution if the risk limits are breached. (*Each limit should be separately assessed.*)
- 10) Evaluate the policy exception process, including underwriting standards overrides. Consider the following:
- a) Review the number and extent of exceptions made to ensure they are made on a limited basis.

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- b) Review the reporting to the board of directors detailing the number, nature, justifications, and trends for exceptions.

### *Risk Metrics*

- 1) Evaluate the institution's assessment of its aggregate level of credit risk and determine what this means in regards to the condition of the institution. (*Consider the level and trend of charge-offs and delinquencies, risk rating profiles, in both on and off-balance sheet exposures*).
- 2) Determine if risk limits are effective and consistent with the risk appetite established by the board of directors.
- 3) Determine if adequate delivery system limits and edits are in place to control the risk of individual loans at the time of purchase.
- 4) Determine if adequate tracking of individual loans by risk attributes is in place.
- 5) Determine if risk limits are set against multiple factors such as, but not limited to, the following:
  - a) Aggregate level of adversely rated credit exposures.
  - b) Aggregate level of adversely rated credit exposures for each portfolio and/or asset class.
  - c) Level of delinquent credit exposures.
  - d) Size of individual credit exposures.
- 6) Assess the institution's concentration definition. (*Does this definition aid in managing credit risk?*)
- 7) Evaluate the institution's historical loss calculations for pools of assets. (*Does the process follow GAAP standards? Are adjustments for current conditions considered?*)

### *Reporting*

- 1) Evaluate the adequacy of management reporting practices pertaining to credit risk exposures. Evaluate the timeliness, accuracy, level of detail, clarity of report format, and distribution of credit risk reports. Consider:
  - a) Earnings and capital-at-risk measurements.
  - b) Past-due and accrual status.
  - c) Risk rating stratification.
  - d) Loan yield and profitability data (per asset and portfolio).

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- e) Trend analysis.
  - f) Commitments, including type, amount, and level of expected usage, and highest usage on record.
  - g) Maturity categories.
  - h) Liquidity information on loans and portfolios to include data on quality, maturity, and pledged collateral.
  - i) Exceptions to policy, risk limits, underwriting, and documentation standards.
  - j) Significant problem credits.
  - k) Trend information.
  - l) Vintage analysis.
  - m) Pricing objectives.
- 2) Determine if a periodic review and evaluation of credit MIS is conducted. (*Is this evaluation frequent enough considering the sophistication of the control systems and the level of risk?*)
- 3) Review credit MIS and determine whether it provides sufficient detail about individual transactions, portfolio segments, and the entire portfolio.
- 4) Evaluate the flexibility of the credit MIS system. Consider the following:
- a) The distribution of credit MIS.
  - b) The amount and suitability of information provided to each layer of management.
  - c) The timelines of credit MIS.
  - d) The ability to sort data and create ad hoc reports as needed.
- 5) Review REO MIS and determine whether it provides sufficient detail about individual REO assets and the entire REO portfolio.

*Internal/External Audit*

- 1) Assess the comprehensiveness of extent of internal audit's reviews of credit risk processes, including REO. Verify that internal audit reviews credit activities for the following:
- a) Compliance with policies and procedures.
  - b) Accuracy of credit quality reporting.
  - c) The accuracy of exception reporting.
  - d) Credit administration/credit operations capacity and performance.
  - e) Compliance with board of director guidelines.
  - f) ALL process and controls.

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- 2) Determine if any audits have been postponed or canceled, and find out the reason why. (*Verify that they were not delayed or canceled to avoid criticism.*)
  - 3) Review and evaluate the scope and testing of the external auditor's review of the LLR level and process.
  - 4) Evaluate the adequacy of the scope and testing completed by external audit and determine the status of corrective action and findings. (*Are all areas of potential risk considered? If not, why not? Are reasons for not including certain areas within the scope of the audit work reasonable and supported?*)
  - 5) Evaluate the effectiveness of the evaluations conducted pursuant to Sarbanes-Oxley and related regulatory requirements (for example, SEC requirements implementing Sarbanes-Oxley provisions) that identify the key risks and controls pertaining to credit risk management.
  - 6) Evaluate the adequacy of the objectives and scopes of reviews performed by outside consultants and determine the status of management's actions regarding recommendations.
  - 7) Assess the model review and validation process. Determine:
    - a) The independence of the validating unit from the developing unit.
    - b) If all components of the model are included in the validation process.
    - c) If the roles of all relevant parties was assessed.
    - d) That the review is thoroughly documented.
    - e) That corrective action was initiated and completed in a timely manner.
    - f) The extent that on-going monitoring, outcomes analysis, and benchmarking are used in the validation process.
  - 8) Assess the extent of internal audit's reviews of REO-related practices.

### *Information Technology*

- 1) Determine if information technology resources, both current and planned, are adequate to meet the requirements of credit administration needs. (*Examiners should assess current capacity, and volume of errors, along with projections for credit growth.*)

### *Compliance*

- 1) Determine if the board of directors and senior management have established procedures for ensuring compliance with the laws and regulations that apply to credit

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risk management, including FHFA Prudential Management and Operations Standards (“PMOS”) Standard 9 (Management of Credit and Counterparty Risk).

- 2) Analyze any insider purchases of REO assets.

<b>4. Testing</b>
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- 1) Verify the accuracy of the institution’s risk ratings, and the adequacy of risk rating analysis for a sample of credit exposures. Examiner analysis and commentary should be documented on line cards (see Appendix to this module). Examiners should consult with colleagues in the model risk area in identifying an appropriate sample for purposes of testing.
- 2) Apply the adverse ratings definitions to the sample of credit exposures to develop adverse classification statistics.
- 3) Assess actual underwriting standards (such as LTV, DSCR, information provided, etc.) applied to a sample of loans in comparison to the underwriting standards detailed in policy.
- 4) Test a sample of loans approved based on overrides of underwriting standards. (*Is the basis for the decision well documented? Are overrides made with the required approval?*)
- 5) If applicable, verify the accuracy of risk rating, and adherence to accounting policies for a sample of REO assets.
- 6) Determine if the seller/servicer agreements and guides address foreclosure, loan work out, and loan modification issues by reviewing a sample of agreements. (*Are document standards explicit? Are there documentation reviews?*)
- 7) Obtain a sample of individually impaired assets and evaluate the calculation of impairment.
- 8) Obtain and review the due diligence performed by the regulated entity on a sample of seller/servicers relating to their operational capacity to process the volume of foreclosures resulting in REO transfers.
- 9) Perform necessary testing to determine the accuracy of credit MIS by verifying the accuracy of risk rating reports for a sample of business units/portfolios. (*If internal lending controls are satisfactory, testing for accuracy may be unnecessary.*)

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- 10) Select a sample of credit risk management-related audit reports to assess their adequacy. Consider:
- a) Whether all pertinent issues are brought forward in the report.
  - b) Timeliness of report issuance.
  - c) Clear assignment and acknowledgment of issue “ownership.”
  - d) Reasonableness and completeness of management responses. (*Is the issue addressed?*)
  - e) Time frame standards for corrective action. (*Are the limits reasonable?*)
  - f) Monitoring and assessments of corrective actions.
  - g) Adequacy of report contents. (*Do they have enough information to inform senior management and the board about the condition of the portfolio and the effectiveness of internal controls?*)
- 11) Based on the results of the steps performed above, determine if the LLR is at an appropriate level, and if the regulated entity’s LLR process is adequate.

## **5. Conclusions**

- 1) Summarize conclusions for all examination work performed, including work performed by other FHFA staff as it relates to the regulated entity’s credit risk management function. Develop a memorandum describing the risks to the institution resulting from the credit risk and the regulated entity’s management of those risks. The memorandum should describe the basis of conclusions reached and summarize the analysis completed. Within the memorandum, discuss the types of risk the regulated entity is exposed to (e.g., market, credit, operational); the level of risk exposure; the direction of risk (stable, decreasing, increasing); and the quality of risk management practices (strong, adequate, weak). A memorandum must be prepared irrespective of whether the examiner’s assessment is positive or negative.
- 2) Conclude on the responsiveness to previous examination findings. Evaluate the adequacy of the regulated entity’s response to previous examination findings and concerns.
- 3) Develop findings and prepare findings memorandums, as appropriate. Based on examination work performed, develop findings communicating concerns identified during the examination. Findings should identify the most significant risks to the institution and the potential effect to the regulated entity resulting from the concerns identified. Findings should describe a remediation plan that specifies the appropriate corrective action to address examination concerns and establishes a reasonable

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deadline for the regulated entity to remediate the finding. Communicate preliminary findings to the EIC, other interested examiners, and senior FHFA staff, as appropriate. Discuss findings with regulated entity personnel to ensure the findings and analyses are free of factual errors.

- 4) Develop a list of follow-up items to evaluate during the next annual examination. In addition to findings developed in the steps above, include concerns noted during the examination that do not rise to the level of a finding. Potential concerns include issues the regulated entity is in the process of addressing, but require follow-up work to ensure actions are completed appropriately. In addition, potential concerns should include anticipated changes to the institution's practices or anticipated external changes that could affect the institution's future oversight of credit risk management practices.

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**Workprogram**

**1. Scope of Examination Work Performed**

Workpapers must document the examination activities undertaken to evaluate potential risks related to credit risk management.

**2. Description of Risks**

- Identify areas of concern related to credit risk management
- Assess current risks and trends in the risk to the organization emanating from the credit risk area
- Evaluate changes within the organization or industry affecting risk
- Evaluate the institution's own risk-identification practices and conclude on their adequacy

**3. Risk Management**

- Assess and conclude on the adequacy of the institution's risk identification process
- Assess and conclude on the overall adequacy of internal controls, including an evaluation of:
  - The institution's organizational structure
  - Policy and procedure development for this area
  - Appropriateness of risk metrics
  - Reporting by management and the board
- Assess and conclude on the internal and external audit of risks
- Assess and conclude on the adequacy of information technology and controls related to credit risk management
- Assess and conclude on the adequacy of the institution's efforts to ensure:
  - Compliance with laws, regulations and other supervisory guidance
  - Compliance with the institution's policies and procedures

**4. Testing**

- Complete testing, as appropriate, to assess adherence with examination standards

**5. Conclusions**

- Summarize conclusions for all examination work performed related to credit risk management
  - Conclude on the level of risk to the institution
  - Include an assessment of the adequacy of the institution's monitoring of risk and establishment of internal controls to mitigate risk
- Conclude on responsiveness to examination findings from previous examinations
- Develop examination findings, as appropriate
- Identify areas requiring follow-up examination activities or monitoring

APPENDIX – LINE CARD

The line card on the following pages should be used to document examiner analysis and conclusions on individual credit relationships.

## Credit Risk Management

Version 1.0  
July 2013

Borrower			Examiner			Loan #			Regulated Entity		
Seller/Servicer		Loan Amount		Purchase Date		Origination Date		Purpose			
Product Type				Special Features							
Product Name			Date		Original Loan Balance			Amortization (P&I)		Balloon Amt.	Maturity Date
Mortgage (DT) Date	Amount	Date Recorded	Title Opinion/Ins Date	Amount		Note Rate		Term		Type(fixed,ARM)	
Original Mortgagor		Assumption Terms		Date		Type of Review ( Random, Discretionary, Post Foreclosure)					
Lien Position											
Prior Lien Held by	Org Amount	Terms	Balance Date	Delinquencies		Collateral Real Estate		Location			
N/A											
Credit Info						Description (Occupancy)					
EFX											
Exp		MTG DTI		Overall DTI		QC Mtg DTI		QC Overall DTI		Last Sale Price dt Seller	
TU										N/A	
QC review Date	Balance		Int. Pd to	Appraisal			PMI	Loan Value	CLTV	Examiner	Comments
			Int. Due Date	Land Imp Total	Date	Appraiser					

## Credit Risk Management

Version 1.0  
July 2013

Borrower	Examiner	Loan #	Regulated Entity
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Document	Present Y/N		Comments
Application			
Note			
Mortgage			
Appraisal			
Title Ins.			
HUD-1			
Credit Report			
Verification of Employment			
Flood letter or Insurance			
		<b>Eligible Y/N</b>	<b>Comments – Note deviations from approved underwriting standards</b>
Loan Amount			
Appraisal			
LTV			
CLTV			
FICO			
Primary MI Required			
Property Type			
<b>Underwriter Comments/Concerns:</b>		<b>Proper Escalation Y/N</b>	
<b>Modification Program Participant Y/N</b>	<b>Program Name</b>	<b>Terms Changed</b>	<b>Comments</b>

*Credit Risk Management*

Version 1.0  
July 2013

Borrower	Examiner	Loan #	Regulated Entity
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QC Review Results & Examiner Comments