## **Introduction**

Examination of the financial condition and performance of an FHLBank is essential to: (a) assess its "risk-adjusted" return, that is, the intermediate- and near-term past performance of an FHLBank relative to its operational, market, and credit risks, (b) gauge the financial trends of an FHLBank and how they may affect future performance and risk, (c) assess the value proposition to a member holding FHLBank stock, and (d) understand the FHLBank's performance relative to both FHLBank System averages and peer FHLBanks that use similar funding, investing, and operating strategies. Key insights that can be reached with respect to examining the financial trends of an FHLBank include, among others things:

- 1) The relative performance given its operating strategy and its operational, market, and credit risk.
- 2) The relative performance of business lines such as advances, investments, and mortgages, if applicable and how they contribute to overall profitability.
- 3) The likelihood of an FHLBank attaining its future financial objectives.
- 4) Whether dividend rates paid are sustainable and whether retained earnings targets are attainable.
- 5) Quality of management.

# Methodology of Analysis

There are three primary steps to complete the analysis of an FHLBank's financial condition and performance.

1) Off-site data collection and analysis. Most analysis of an FHLBank's financial condition and performance including document review, data collection and analysis, and initial discussion with the examiner-in-charge and FHLBank staff should be completed off-site. This "groundwork" should comprise the bulk of the examiner's time and is essential to formulating initial conclusions regarding the financial condition of the FHLBank.

The examiner approaches the initial review of financial condition and performance with knowledge of the FHLBank gained through reading minutes of the board of directors and various reports and other materials issued over the previous 12 months. This analysis includes review of monthly financial reports, annual and quarterly reports, board of directors' packages, and publications of the respective FHLBank. The most recent FHLBank profile should be included as a key work paper as that document assesses the key financial and operational issues facing the FHLBank. This financial analysis will be completed before the on-site portion of the annual examination and generally before the preparation of the financial condition and performance scope memorandum. This initial assessment will be refined and modified by the financial analysis performed in conjunction with the annual examination. As detailed later, the examiner should use sufficient judgment to distill the primary issues driving the performance of the FHLBank.

- 2) Testing initial conclusions on-site. Once the off-site financial analysis has been completed and initial conclusions reached, the examiner/FHLBank analyst should use the limited time on-site at the FHLBank to ask questions, enter into more detailed discussions, and formalize conclusions regarding FHLBank performance. This may include discussing financial trends with senior management and requesting and reviewing more detailed, non-reported financial information.
- **3) Preparation of memorandum for report of examination**. Once the off-site and onsite analysis is complete, the examiner should prepare a formal memorandum outlining the financial condition and performance of the FHLBank for the report of examination. This memorandum should reflect the key issues that have driven the FHLBank's performance, provide context of the FHLBank's performance relative to its peers and FHLBank System averages, and provide some insight on the likely future performance of the FHLBank based on its historic financials.

#### Sources of Information for Data Collection and Analysis

This section summarizes 24 potential analyses that can be performed while assessing the financial performance and condition of an FHLBank. As detailed later, the examiner must use judgment when assessing the importance of the analyses.

There are three primary sources of information for data collection and analysis: (a) monthly and quarterly call reports, (b) published public and non-public information from the FHLBank including annual reports, strategic plans, and minutes, and (c) information produced by Finance Board staff including reports of examination, workpapers, and quarterly reviews. Although these are the primary sources of financial information for data collection and analysis, more specialized financial statistics can usually be generated by the FHLBank upon request.

The Finance Board's Call Report System (CRS) facilitates the analysis. Standard reports available in CRS present one FHLBank's financial data for either five quarters or five years together with the same data for the System. In addition, standard reports available in the Trend Book section of CRS provide useful information presented in a user-friendly format.

A listing of the key sources of information is included below:

Analyses	Source of Information
1. Document Analysis	<ul> <li>Report of examination and workpapers</li> <li>Quarterly reviews and correspondence</li> <li>Strategic plan</li> <li>Minutes of the board of directors</li> <li>Management discussion and notes to the financial statements in the 10-K, 10-Q, and 8-K reports</li> <li>FHLBank profile</li> </ul>
2. Risk Analysis	• Report of examination and workpapers
3. Peer Group Analysis	<ul><li>Monthly call report: Statement of Condition</li><li>Monthly call report: Statement of Income</li></ul>
4. Advances Trend	<ul><li>Monthly call report: Statement of Condition</li><li>Quarterly membership lists</li><li>Top 10 lists</li></ul>
5. Investments Trend	<ul><li>Monthly call report: Statement of Condition</li><li>Monthly call report: Investments</li></ul>
6. Mortgages Trend	<ul><li>Monthly call report: Statement of Condition</li><li>FHLBank-specific information</li></ul>
7. Core Mission Assets Trend	• Quarterly call report: Core Mission Assets
8. Capital Stock Trend	<ul><li>Monthly call report: Statement of Condition</li><li>Quarterly call report: Excess Capital</li></ul>
9. Retained Earnings Trend	• Monthly call report: Statement of Condition
10. Total Capital Trend	• Monthly call report: Statement of Condition
11. Business Concentration Analysis	<ul><li>Quarterly membership lists</li><li>FHLBank-specific information</li><li>Top 10 lists</li></ul>
12. Net Interest Income Trend and Volatility	Monthly call report: Statement of Income
13. Net Income Trend and Volatility	• Monthly call report: Statement of Income

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14. Sustainability of the Dividend	<ul> <li>Monthly call report: Statement of Income</li> <li>Quarterly call report: Dividends and Statement of Cash Flows</li> </ul>
15. Operating Expense Trend	• Monthly call report: Statement of Income
16. Realized Gains/Losses Trend	• Monthly call report: Statement of Income
17. Net Gains/Losses on Derivatives and Hedging Trend	• Monthly call report: Statement of Income
18. Return on Assets (ROA) Trend	• Trendbook: FHLBank System Quarterly Data
19. Return on Equity (ROE) Trend	• Trendbook: FHLBank System Quarterly Data
20. Net Interest Spread Trend	• Trendbook: FHLBank System Quarterly Data
21. Market Value of Equity (MVE) Trend	• Quarterly call report: Duration and Market Value
22. Duration Trend	• Quarterly call report: Duration and Market Value
23. Convexity	<ul><li>Market value sensitivity report</li></ul>
24. Profitability of Business Lines	• FHLBank-specific information

# <u>Data Analysis</u>

Once financial data is collected, it must be analyzed to determine the financial trends of an FHLBank and to provide context for its financial condition. There are four primary tools to analyze FHLBank financial data: (a) time series, (b) graphs, (c) statistics, and (d) ranking the 12 FHLBanks by a single or series of financial statistics. Note that this is not an all-inclusive list and the examiner should use judgment to determine which methodologies are most applicable to the analysis. A summary is included below:

*Monthly and Quarterly Time Series.* Generating a time series of data is essential to understanding an FHLBank's long-term financial trend and providing context to current FHLBank performance. The time series should be generated in the smallest increments that the data is available (generally monthly or quarterly) in Excel. The time series should include a sufficiently long period (generally five years or one interest rate cycle, whichever is longer) to provide context and adequate degrees of freedom.

The Finance Board's Information Technology environment allows the user to create and update spreadsheets by directly linking to the CRS database. Assembling the data and creating the graphs will be a formidable task the first time it is done. However, these data can be easily extended to other FHLBanks or to other time periods in subsequent analyses.

*Graphs.* It is often difficult to discern trends in data without visual aids. For a data timeseries, a line graph with the time period on the X-axis is often appropriate. For cumulative data, for example, the cumulative net gains/losses on derivatives and hedging over time, a vertical bar chart with the time period on the X-axis is often appropriate.

*Statistics.* The statistic most often used in assessing the financial condition and performance of an FHLBank is a simple growth rate or compounded annual growth rate (Excel function: RATE). It is essential to calculate these statistics for key financial items in the income statement and balance sheet. Regression lines are useful for detecting and confirming short- and long-term trends in a time series and can be calculated in Excel (Excel function: ADD TRENDLINE). Note that polynomial regressions often provide a better data fit than linear regressions. The Pearson Product Moment Correlation Coefficient or R-squared is an important element in determining the fit of a regression line (Excel function: RSQ). T-tests (Excel function: TTEST) and F-tests (Excel function: FTEST) can be useful to determine the probability that the mean and variance of two time series are similar.

**Ranking.** Ranking a single or series of financial statistics of the 12 FHLBanks is important to provide context of an FHLBank's performance and to identify outliers. Special attention should be given to the relative rank of FHLBanks that share similar operating strategies. In particular, rankings of asset yields or costs of funds are likely to be of little use because the funding mix and the associated funding cost are likely to be dependent on the asset mix. An FHLBank with more long-term assets is likely to have more long-term and higher-costing funds.

# Use of Judgment

An examiner/bank analyst must use judgment to distill the primary issues affecting an FHLBank's performance from the myriad of potential financial trends and statistics available. Ultimately, the financial trends of an FHLBank will be used in conjunction with other analyses to assess the future financial performance and risk of an FHLBank. Therefore, the analyses should focus on key issues affecting the FHLBank including, among other things, profitability, sustainability of the FHLBank's franchise, quality of management, and risk. In this process, the examiner/bank analyst should consult with the examiners responsible for the assessment of market, credit and operational risk levels, direction and management, corporate governance, and affordable housing and community investment activities in assessing the condition and performance of the FHLBank.

In judging the overall condition and performance of an FHLBank, there are no absolute

metrics. Rather, the FHLBank's performance needs to be compared with its own past performance and the performance of other FHLBanks with similar operating strategies. The examiner should give more weight in the evaluation to performance measures that are either low or declining. A sample of potential "warning signs" is listed below that could indicate problems at an FHLBank. Note that an examiner must use caution in reading too much into a particular statistic or analyses; rather, the examiner/bank analyst should use a variety of analyses to test a particular initial conclusion.

Issue	Indication of Analysis
1. Profitability	<ul> <li>Negative net income growth, especially in a rising interest-rate environment</li> <li>Decline in ROA, ROE, and/or net interest spread</li> <li>Increase in MBS and agency investments</li> <li>Increase in dividend payout ratio</li> <li>Decline in MVE/BVE ratio</li> <li>Increase in leverage ratio</li> <li>Increase in mortgages</li> </ul>
2. Franchise	<ul> <li>Decline in advance balances</li> <li>Low ratio of mission assets to total assets</li> <li>Concentration of capital stock, advances, and/or mortgage purchases within a few large members</li> </ul>
3. Management	<ul> <li>Large percentage increases in advances, investments, and/or mortgages</li> <li>Increase in operating expenses/operating expense ratio</li> <li>Increase in investments in COs of other FHLBanks</li> <li>Dividend payout ratio of over 100 percent</li> <li>Divergence in financial performance vs. strategic plan</li> </ul>
4. Risk (Note: Risk is analyzed by other examiners who should be consulted in assessing risk factors affecting the FHLBank)	<ul> <li>Decline in MVE/BVE ratio</li> <li>Increase in leverage ratio</li> <li>Increase/decrease in duration</li> <li>Decline in retained earnings</li> <li>Increase in assets with embedded options</li> </ul>

# **Testing Initial Conclusions On-site**

Because senior management of the FHLBank will have the best understanding of the FHLBank's financial performance and the rationale underlying its performance, it is important to test initial conclusions reached in data collection and analysis through

discussions with management. In addition, FHLBank management will likely have additional, non-published information and data such as ALCO reports, which will provide better detail as to a specific aspect of the FHLBank's performance. When on-site, the examiner/FHLBank analyst should take special care to review as much on-site information as possible to test initial conclusions.

As focused as senior management is on the FHLBank's performance, the examiner/FHLBank analyst has more information regarding the other FHLBanks. Therefore, management may lack the context in which to frame its performance relative to the other FHLBanks. When on-site, the examiner/bank analyst should take special care to provide the context of the performance of other FHLBanks in discussions with senior management. The examiner/analyst needs to approach this very carefully and should focus on understanding the differences in strategy, membership composition, etc., among the FHLBanks. This frequently explains much of the differences, before having any discussion with senior FHLBank. Generally, the examiner/analyst should speak with the president, chief financial officer, chief risk officer, controller, and other senior management while discussing initial conclusions. These discussions should take place with the general line of questioning before such meetings.

#### Consistency with the Strategic Plan

Any financial analysis conducted should determine whether the FHLBank's year-to-date performance is consistent with the FHLBank's strategic plan and whether the performance targets specified in the strategic plan will be attained. Therefore, the examiner/bank analyst should consult with the examiner/bank analyst responsible for assessing the quality of the FHLBank's strategic planning process as part of the assessment of the FHLBank's corporate governance. The examiner/bank analyst should highlight any areas in which performance differs substantially from the projections in the strategic plan. In short, the FHLBank's strategic plan should bear a close relationship to actual performance. Financial performance that diverges significantly from the strategic plan will render the strategic plan less than useful.

# **Regulatory** Capital

The Gramm-Leach-Bliley Act of 1999 (GLB Act) substantially amended the provisions of the FHLBank Act relating to the FHLBanks' capital structure. Specifically, the GLB Act directed the Finance Board to develop a more modern capital structure with risk-based and leverage requirements similar to those applicable to depository institutions and other housing GSEs. The new capital structure becomes effective as each FHLBank implements its Finance Board approved "capital plan." The Finance Board's Capital Regulations are found in Subchapter E - Federal Home Loan Bank Risk Management and Capital Standards.

**FHLBank Capital Requirements.** The FHLBanks are required to maintain a minimum ratio of total capital to total assets, and permanent capital in an amount that is sufficient, as determined by Finance Board regulations, to cover the credit risk, market risk, and operational risk to which the FHLBank is subject. The FHLBank Act defines "permanent capital" as the amounts paid for an FHLBank's Class B stock plus the FHLBank's retained earnings as determined in accordance with GAAP. All of the FHLBanks that have implemented their capital plans issue Class B stock.

The FHLBank Act defines "total capital" to include permanent capital, the amounts paid for Class A stock, and any general allowance for losses that are not held against specific assets (as determined in accordance with GAAP and Finance Board regulations), and any other amounts available to absorb losses that the Finance Board determines by regulation to be appropriate to be included in capital. Of the FHLBanks that have converted, only the FHLBanks of Topeka and Seattle issue Class A stock as well as Class B stock. The FHLBank Act lists the specific items to be included in "total capital" and does not include Accumulated Other Comprehensive Income, a GAAP capital item. As a result, an FHLBank's total capital calculated for purposes of compliance with regulatory capital requirements is different than total capital calculated for GAAP purposes.

Finance Board regulations require that "general allowance for loan losses" be consistent with GAAP and not include any amounts held against specific assets or class of assets, such as AMA, of the FHLBank. To date, the Finance Board has not determined "any other amounts available to absorb losses" to be appropriate to be included in capital.

**Total Capital Requirement**. Each FHLBank is required to maintain a ratio of total regulatory capital to total assets of no less than 4 percent. Each FHLBank is also required to maintain a leverage ratio of total regulatory capital to total assets of 5 percent. In calculating this ratio, the amounts paid in for Class B stock and the amounts of retained earnings are multiplied by 1.5 percent and all other items of total regulatory capital are included at face value.

**Risk-Based Capital Requirement**. Each FHLBank is required to maintain permanent capital in an amount that is sufficient, as determined in accordance with Finance Board regulations, to cover the credit risk, market and operational risk to which the FHLBank is subject as set forth below.

*Credit risk capital requirement*. Equal to the sum of the FHLBank's credit risk capital charges for all on-balance sheet assets, off-balance items, and derivatives contracts. Section 932.4 sets forth the specific requirements for calculating the credit risk capital requirement.

*Market risk capital requirement*. Equal to the sum of (1) the market value of the FHLBank's portfolio at risk, estimated by the FHLBank's approved internal risk model and, 2) the amount by which the FHLBank's current market value of total capital is less

than 85 percent of the FHLBank's book value of total capital. Section 932.5 sets forth the specific requirements for calculating the market risk capital requirement.

*Operational risk capital requirement.* Equal to 30 percent of the sum of the FHLBank's credit and market risk capital requirements. Section 932.6 sets forth this requirement and also allows an FHLBank to substitute an alternative methodology for calculating operational risk if such methodology is approved by the Finance Board.

*Target Operating Ratios.* Section 917.3(b)(1) of Finance Board regulations requires the FHLBanks to set target ratios of total regulatory capital/total assets and permanent capital/total assets at which the FHLBank intends to operate. These target ratios should be in excess of the minimum leverage and risk-based capital ratios. The target ratios are to be included in the FHLBank's risk management policy.

*Excess Stock Threshold.* Section 925.3(b) of the Finance Board regulations prohibits any FHLBank with outstanding excess stock greater than 1 percent of its total assets from declaring or paying any stock dividends or otherwise issuing any excess stock. Section 925.3(b) also prohibits any FHLBank from issuing excess stock, if after issuance, its outstanding excess stock would be greater than 1 percent of its total assets.

# Preparation of Memorandum for Report of Examination

The memorandum should include the following: (a) a succinct summary of the issues regarding FHLBank performance and condition, well supported with data and analysis; (b) context of the FHLBank's financial performance with the trends of other FHLBanks, especially FHLBanks with similar operating strategies; and (c) a forward-looking summary of the key issues and trends that may affect the future performance of the FHLBank. Charts and graphs should be used extensively.

# **Regulatory Environment**

The primary authorities governing, or relevant to, financial condition and performance of the FHLBanks are set forth below. The discussion does not address the application of authorities other than the FHLBank Act and the regulations, interpretations and issuances of the Finance Board to the FHLBanks. The examiner should ensure that the application of such authorities to an FHLBank has been considered by the FHLBank and its legal counsel.

# 1) Federal Home Loan Bank Act (FHLBank Act)

Section 6 of the FHLBank Act sets forth the capital structure of the FHLBanks. Specifically, Section 6 establishes the framework for leverage requirements, risk-based capital standards, requirements for FHLBank capital plans and other related matters. Section 6 also provides definitions for "permanent capital" and "total capital."

# 2) Rules and Regulations of the Federal Housing Finance Board, which include the following parts and sections relevant to financial condition and performance:

Part 917 of the Finance Board regulations addresses powers and responsibilities of FHLBank boards of directors and senior management. In particular, Section 917.3, Risk Management, and Section 917.6, Internal Control System, are pertinent.

Section 917.3(b)(1) requires each FHLBank's risk management policy to include the specific steps that the FHLBank will take to comply with its capital plan. This section also requires each FHLBank to include target ratios of total capital/total assets and permanent capital/total assets at which the FHLBank intends to operate, where such ratios are in excess of the minimum leverage and risk-based capital ratios and may be expressed as a range of ratios or a single ratio.

Section 917.5 requires an FHLBank's board of directors to adopt a strategic business plan that describes how the business activities of the FHLBank will assist the institution achieve its mission, consistent with Part 940 (Core Mission Activities).

Section 917.8, requires an FHLBank's board of directors to adopt an annual operating expense budget that takes into account the institution's responsibility to protect both its members and the public interest by keeping its costs to an efficient and effective minimum.

Section 917.9 requires that an FHLBank's board of directors declare and pay a dividend only from previously retained earnings or current net earnings and only if such payment will not result in a projected impairment of the par value of the institution's capital stock. Section 917.9 also prohibits an FHLBank's board of directors from declaring or paying a dividend based on projected or anticipated earnings or if the par value of the FHLBank's stock is impaired or is projected to become impaired after paying such dividend.

Section 925.3(b) prohibits any FHLBank with outstanding excess stock greater than 1 percent of its total assets from declaring or paying any stock dividends or otherwise issuing any excess stock. Section 925.3(b) also prohibits any FHLBank from issuing excess stock, if after issuance, its outstanding excess stock would be greater than 1 percent of its total assets.

Part 933 requires the board of directors of each FHLBank to submit, not later than October 29, 2001, to the Finance Board a plan to implement a new capital structure for the FHLBank, which complies with Part 931 – FHLBank Capital Stock – and which has sufficient total and permanent capital to comply with the regulatory capital requirements of Part 932 - FHLBank Capital Requirements. (All FHLBanks submitted capital plans by October 29, 2001 and the Finance Board approved all capital plans in 2002. As of December 1, 2006 all FHLBanks except the FHLBank of Chicago had implemented their approved capital plans.)

Section 966.9(b)(1) requires that before the end of each calendar quarter, and before declaring or paying any dividend for that quarter, each FHLBank President must certify in writing to the Finance Board that, based on known and current facts and financial information, the FHLBank will remain in compliance with the liquidity requirements set forth in Section 11(g) of the FHLBank Act and the Finance Board's Financial Management Policy (FMP) or any regulation (Section 932.8 Minimum liquidity requirements), and will remain capable of making full and timely payment of all current obligations, including direct obligations, coming due in the next quarter.

Part 980 requires the FHLBanks not to undertake any new business activities, as defined in the regulation, except in accordance with the procedures set forth in this part of the Finance Board's regulations.

Part 989 requires the FHLBanks to obtain annually an independent, external audit of each FHLBank's individual financial statements, and also requires the external auditor to meet at least twice a year with the audit committee of each FHLBank. Section 989.3 addresses the preparation and completion of an FHLBank's financial statements and the distribution of financial information and other information to the Finance Board and the Office of Finance.

Part 998 requires each FHLBank to register a class of its equity securities pursuant to the provisions of section 12(g)(1) of the Securities Exchange Act of 1934 (1934 Act), to comply with the periodic disclosure requirements of the 1934 Act, and to provide to the Finance Board on a concurrent basis copies of all disclosure documents filed with the Securities Exchange Commission (SEC).

3) Advisory Bulletins of the Federal Housing Finance Board that provide supervisory guidance relating to the topic of financial condition and performance are the following:

Advisory Bulletin 01-08, dated October 4, 2001, which provides guidance regarding asset review and classification. FHLBank policies and procedures for the review and classification of assets should outline the standards for and frequency of reviews for various types of assets, identifying the individuals and or committees responsible for the reviews, and establish the minimum reporting standards to the board of directors.

Advisory Bulletin 02-02, dated February 13, 2002, which provides guidance on the annual submission of the FHLBank's strategic plan to the Finance Board.

Advisory Bulletin 02-6, dated April 9, 2002, which provides guidance on the quarterly liquidity certification under Section 966.9(b)(1). The president of each FHLBank must certify that the FHLBank is in compliance with the liquidity requirements of Section 11(g) of the FHLBank Act and Section 966.9(b)(1).

Advisory Bulletin 02-07, dated August 27, 2002, which provides guidance on

unsecured credit reporting requirements. The Advisory Bulletin outlines changes to the unsecured credit reporting system of the Office of Finance and to the Call Report System that eliminate separate reporting of similar information to the Office of Supervision.

Advisory Bulletin 03-01 dated January 3, 2003, which provides guidance on the acceleration of filing dates for the combined financial reports and call reports. Consistent with the acceleration of the SEC disclosure regime, at some point in the future, the Finance Board will move forward the due date for the Call Reports.

Advisory Bulletin 03-03, dated March 6, 2003, which provides guidance as to the permissibility of voluntary expanded disclosure in an FHLBank's financial statements.

Advisory Bulletin 03-04, dated March 18, 2003, which provides guidance on what FHLBanks should include in capital plan amendment submissions for Finance Board approval. The AB also explains the amount of time that will likely be necessary to complete the Office of Supervision's review of the FHLBank's submission.

Advisory Bulletin 03-08, dated August 18, 2003, which requires the board of directors to adopt a retained earnings policy and to review the FHLBank's analysis of the adequacy of its retained earnings.

Advisory Bulletin 03-13, dated December 1, 2003, which provides guidance as to the form, content, and timeliness of the financial reports that are completed by the FHLBanks pursuant to Finance Board regulations.

Advisory Bulletin 04-01, dated March 10, 2004, which provides guidance on the evaluation of a service organization providing services to an FHLBank whose activities could affect the FHLBank's financial condition. This includes the performance of an assessment of the service organization's internal controls, such as the procurement of a service auditor's report in accordance with Statement of Auditing Standards (SAS) 70 or the performance of alternative methods necessary to gain confidence on the service organization's internal controls.

Advisory Bulletin 05-04, dated April 21, 2005, which provides regulatory reporting and calculation guidance in connection with the adoption of SFAS 150 (Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity). Advisory Bulletin 05-05, dated May 18, 2005, which provides guidance on the risk management responsibilities of an FHLBank's board of directors, senior management and risk management.

Advisory Bulletin 05-07, dated August 23, 2005, which provides guidance to FHLBanks that have not completed their registration with the SEC. Such FHLBanks must continue to report weekly to the examiner-in-charge their progress and

communications with their external auditor and the SEC. Additionally, until the FHLBank's registration with the SEC is complete, it should declare a dividend only after consultation with and approval by the Office of Supervision.

- 4) Statements of Financial Accounting Standards (collectively, Statements of Financial Accounting Standards or individually, SFAS) adopted by the Financial Accounting Standards Board (FASB) establish standards of financial accounting and reporting, commonly referred to as "Generally Accepted Accounting Principles" (GAAP), governing the preparation of financial reports and are officially recognized as authoritative by the SEC and American Institute of Certified Public Accountants (AICPA).
- 5) Rules, Regulations and Interpretations of the Securities and Exchange Commission under the Securities Act of 1933, as amended (Securities Act), the Securities Exchange Act of 1934, as amended (Securities Exchange Act), and the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley Act). The SEC is the primary regulator of the United States securities markets and requires public companies to disclose meaningful financial information to the public, as well as enforcing the federal securities laws.

The Securities Act requires that investors receive financial and other significant information concerning securities being offered for public sale and prohibits deceit, misrepresentations, and other fraud in the sale of securities. A primary means of accomplishing these goals is the disclosure of material financial information through the registration of securities with the SEC.

The Securities Exchange Act created the SEC and empowered it, among other matters, to require the periodic reporting of information by companies with publicly-traded securities and the registration, regulation, and oversight of securities brokerage firms, transfer agents, clearing agencies and securities self-regulatory organizations. The Securities Exchange Act also identifies and prohibits certain types of conduct in the securities markets and provides the SEC with disciplinary powers over regulated entities and persons associated with them.

The Sarbanes-Oxley Act was enacted in response to various corporate scandals and addresses various corporate governance requirements that relate to the responsibilities of corporate boards of directors, the external and internal audit function, and the quality of management's attestation of internal controls pertaining to the accuracy of financial reporting. The Sarbanes-Oxley Act also created the Public Company Accounting Oversight Board (PCOAB).

6) American Institute of Certified Public Accountants Professional Standards is the national, professional organization for certified public accountants. Its mission is to provide members with the resources, information and leadership that will enable them to provide professional services to benefit the public as well as employers and clients.

In fulfilling its mission, the AICPA works with state accountants' organizations and gives priority to those areas where public reliance on accounting skills is most significant. The AICPA Auditing Standards Board issues Statements of Auditing Standards (SAS), commonly referred to as "Generally Accepted Auditing Standards," utilized by the auditing profession.

- 7) Rules, Regulations and Interpretations of the Public Company Accounting Oversight Board under the Sarbanes-Oxley Act. The PCAOB is a private-sector, non-profit corporation, created by the Sarbanes-Oxley Act, to oversee the auditors of public companies in order to protect the interests of investors and further the public interest in the preparation of informative, fair, and independent audit reports.
- 10) Report(s) of Independent Auditors, which include opinions of external auditors as to the accuracy and integrity of financial statements, compliance, the strength of internal control over financial reporting and the degree of reliance to be placed on the work of the internal audit function.

To comply with SAS 61 and 91 (Audit Committee Communication), external auditors are required to meet with an FHLBank's audit committee to discuss their evaluation of the quality of FHLBank's accounting practices and essential estimates in its financial statements, as well as other audit-related issues.

## **Examination Guidance**

A work program for Financial Condition and Performance accompanies this narrative. What follows below are illustrative examples of attributes that should be considered by the examiner in completing the analyses required in that work program. In determining the extent of review and testing to be conducted in completing each analysis, the examiner should take into account his or her assessment of the portfolio of the FHLBank and its appetite for risk along with the quality and effectiveness of corporate governance, and risk management as they pertain to financial condition and performance.

#### Preface

The purpose of the financial condition and performance work program is to identify before the start of the on-site portion of the examination those aspects of financial condition and performance that need specific attention during the on-site portion of the examination. The financial condition and performance work program differs from most other work programs in that it is data-intensive and largely can be completed off-site before the commencement of the on-site portion of the examination.

Financial condition and performance is not something that gets attention once each year; the analysis and evaluation of financial condition and performance by the analyst occurs regularly throughout the year. This analysis includes review of monthly financial reports, annual and quarterly reports, board of directors' packages, and publications of the

respective FHLBank. The most recent FHLBank profile should be included as a key work paper as that document represents in the analyst's cumulative assessment, completed no more than six months earlier, of the key financial and operational issues facing the FHLBank.

The principal work paper for this work program will be an Excel spreadsheet. This spreadsheet will have multiple tabs. In general, one tab will have the raw data that pertains to the particular element in this guidance, and the following tab will have that data graphed. Each tab will (1) be dated, (2) include the reference to the particular item in the work program, (3) include the analyst's name, and (4) include the name of the particular FHLBank. Each graph generally will have a text box that indicates the particular conclusion to be drawn from the graph. This Excel spreadsheet will normally need some form of narrative supplementation for the work papers to be considered complete. The examiner may use his or her discretion in determining which portions of this guidance are necessary and which portions are not necessary.

#### **Preliminary Steps**

1) Document Analysis [Note: If the analyst completing this work program was the author of the most recent FHLBank profile report, it is assumed that all steps in "Document Analysis" were completed in the preparation of the profile report and no further documentation is needed.]

# **Objective:** Identify issues that were previously noted and require follow-up during the current examination.

- a) Review the prior report of examination with respect to: (1) financial condition and performance, (2) operating strategy, and (3) strategic planning. Identify issues or concerns that require follow-up or closer review.
- b) Review strategic plan of the FHLBank.
- c) Review the minutes of meetings of the FHLBank's board of directors and of relevant board and management committees.
- d) Review the most recent 10-K and 10-Q reports along with any relevant 8-K reports. Pay particular attention to the management discussion and analysis and notes to the financial reports published by the FHLBank.

#### 2) Risk Analysis

Objective: Identify issues that were previously noted and require follow-up during the current examination with respect to the operations, market and credit risk of the FHLBank. [Note: If the analyst completing this work program was the author of the most recent FHLBank profile report, it is assumed that all steps in "Risk Analysis" were completed in the preparation of the profile report and no further documentation is needed.]

Review prior report of examination with respect to operational, market, and credit risk.

### Analysis

# Based upon the examiner's/bank analyst's document and risk analyses conducted above, determine additional analyses to be conducted below.

[Note: Many of the following steps require the analysis of data from the Call Report System. To generate time series, use the following Excel Steps:

Open a new spreadsheet file Click data Pivot table and pivot report Click the external data source button Click "Next" Click "Get Stored Data" In the query dialogue box, click "CRS Production," and then "OK" Then, for example, click on "Call Report Monthly" Double click on sPeriodm to get the monthly Call Report data Double click on each line item needed, making sure to include district After selecting all needed line items, click "Next" You are then presented with a dialogue box to filter the data After selecting the filters, click "Next" Click the button "Return Data to Microsoft Excel" and then click "Finish" In the next dialogue box click "Finish" Using drag and drop, format the data table In the quantitative analysis, there will be a data table and usually an accompanying graph. In general, it is not necessary to comment on a data table that is the data source for the accompanying graph.]

3) Peer Group Analysis

Objective: Assess the operating strategy of the FHLBank and determine other FHLBanks that have similar operating strategies. The peer group of the FHLBank will help determine the relative financial performance of the FHLBank.

a) For all FHLBanks in the System, determine the percentage of assets in advances, investments, and mortgages for the latest available quarter. Rank the FHLBanks according to advances percentage in Excel. Based upon these rankings, segment the FHLBanks into operating strategy groupings such as advance-oriented, mortgage-oriented, and mixed.

- b) Create a monthly time series of the FHLBank's percentage of assets in advances, investments, and mortgages for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Determine whether the FHLBank has changed its operating strategy over time. Adjust the strategic grouping of the FHLBank, if necessary, based upon the historical trend.
- c) Review the latest strategic plan and the minutes of the board of directors of the FHLBank. Determine whether the FHLBank plans to change its operating strategy. Adjust the strategic grouping of the FHLBank, if necessary, based upon the projected trend.

#### 4) Advances Trend

#### **Objective:** Assess the long-term and recent trend of the level of advances.

- a) Create a monthly time series (end of month) of advances for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Create the following statistic: advances/total assets, for all months in the time series Note the long-and short-term trend.
- b) Rank all FHLBanks by their most recent advances/total assets.
- c) Review the share of advances to the top 10 borrowers. This information is contained in Q:\OS\OS Data\Membership\Top 10 List\TOP10 Borrowers. Note the long- and short-term trends of the top-10 holders of advances, specifically: (1) the type of member (commercial banks, insurance companies, etc.), (2) whether the member is part of a multi-district holding company, (3) whether the top-10 list has remained stable or volatile over time, and (4) whether members within the list have significantly increased or decreased their advances over time. Note particularly any trends for members where an officer also serves as a director of the FHLBank. (The data on top-10 concentration is available in the Top 10 files in the membership area of the local area network.)
- d) From either the materials provided by the FHLBank or from the advances report of the CRS, determine whether the FHLBank's advances are predominantly very short term and subsequently subject to refinancing risk or whether the advances are longer term.
- e) From the materials provided by the FHLBank, determine the target spread on new advances. Spreads of 10 basis points or less may need some additional scrutiny as similar spreads are available on short-term investments. Assess whether advances balances are particularly dependent on very thin pricing margins.

## 5) Investments Trend

#### **Objective:** Assess the long-term and recent trend of investments.

- a) Create a monthly time series (end of month) of non-mortgage backed securities investments including: (1) cash and due from banks, (2) interest bearing deposits in banks, (3) deposits for mortgage loan programs with other FHLBanks, (4) securities purchased under resale agreements, (5) Fed funds sold, (6) U.S. treasury obligations, bankers acceptances, (7) commercial paper, (8) U.S. agency obligations, (9) investments in consolidated obligations of other FHLBanks, and (10) state agency obligations (Section 956.3(a)(4)(iii)) for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Should there be large intra-month volatility, consider comparing end of month to daily average non-mortgage backed securities investments to check for market timing.
- b) Note whether the FHLBank has any significant investments in the consolidated obligations of other FHLBanks and if so, the trend of these investments.
- c) Use information from the monthly unsecured credit report (prepared by the Office of Finance and located on the local area network at Q:\OS\OS Data\Unsecured Credit Reports) to determine that the FHLBank's investment in the debt obligations of Fannie Mae and Freddie Mac individually are less than the FHLBank's total regulatory capital.
- d) Create the following time series: liquidity investments (generally, cash and due from banks, interest bearing deposits in banks, deposits for mortgage loan programs with other FHLBanks, securities purchased under resale agreements, commercial paper, and Fed funds sold)/total assets. Note the long-and short-term trend.
- e) Using the unsecured credit report prepared by the Office of Finance, determine whether the short-term investments are principally foreign or domestic issues.
- f) Create a monthly time series (end of month) of MBS investments including MBS, CMOs, REMICs, and eligible asset-backed securities for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Note the long- and short-term trends of all categories of MBS investments. Should there be large intra-month volatility, consider comparing end of month to daily average MBS investments to check for market timing.
- g) Create the following time series: MBS/total regulatory capital. Note the long-and short-term trend. Note if this metric is greater than 3 for any period.
- h) Create the following time series: sum of all investments/total assets. Note the

long-and short-term trend.

i) Rank all FHLBanks by their most recent all investments/total assets.

#### 6) Mortgages Trend

#### **Objective:** Assess the long-term and recent trend of mortgages.

- a) Create a monthly time series (end of month) of mortgages for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Note the long- and short-term trends of mortgages. Should there be large intramonth volatility, consider comparing end of month to daily average mortgages to check for market timing.
- b) Create the following time series: mortgages/total assets. Note the long- and short-term trend of this metric.
- c) Rank all FHLBanks by their most recent mortgages/total assets.
- d) If mortgages are a significant portion of total assets of the FHLBank (generally 10 percent or greater of total assets), analyze the total amount of loans sold by the largest providers of loans. The FHLBank may have this information readily available. Also, the Risk Modeling Division of the Office of Division has this information readily available. Note if there are large purchases from a member where a member also serves as a director of the FHLBank.

#### 7) Mission Activities Trend

#### **Objective:** Assess the long-term and recent trend of core business activities.

- a) Create a monthly time series of advances plus mortgage loans to consolidated obligations for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Note the long- and short-term trend of this metric.
- b) Rank all FHLBanks by this measure.
- c) Generate "Core Mission Activities" report for the latest period from the CRS. Note any large differences between the FHLBank and the FHLBank System.

#### 8) Capital Stock Trend

#### **Objective:** Assess the long-term and recent trend of capital stock.

- a) Review the FHLBank's current capital plan. Be aware that the date of the FHLBank's conversion to its new capital plan may affect any time series of capital stock, total GAAP Capital, or total regulatory capital as determined in accordance with the FHLBank Act and the regulations and interpretations of the Finance Board (Regulatory Capital).
- b) Determine the effects, if any, of SFAS 150 on the FHLBank's capital stock. Based on the definition of total regulatory capital, the effects of SFAS 150 are excluded from the analysis of any components of total regulatory capital. Note any members that have outstanding redemption/withdrawal requests, particularly large members.

SFAS 150 requires that capital stock subject to a redemption request be categorized as a liability on the balance sheet and that dividends on such capital be categorized as interest expense. Memoranda items on the statement of condition in the CRS detail both the amount of capital stock subject to a redemption request and the dividends paid on that stock. The FHLBanks adopted SFAS 150 on January 1, 2005.

- c) Create a monthly time series of capital stock for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Note the long- and short-term trends of capital stock volatility. Be aware that dividends (and changes in dividend policy) by an FHLBank may affect the volatility of the time series.
- d) From the System combined financial report or the FHLBank's most recent SEC Form 10-K, observe the top holders of capital stock and compare this list with a similar list at several points in the previous five years. Note the top holders of capital stock, specifically: (1) the type of member such as commercial banks, insurance companies, etc.; (2) whether the member is part of a multi-district holding company; (3) whether the list has remained stable or volatile over time; (4) whether members within the list have significantly increased or decreased their capital stock holdings over time; and (5) whether an officer of a large capital stock holding member also serves on the FHLBank's board of directors.
- e) Using the excess capital report in the Call Report System, create a quarterly time series of: (1) the amount of excess capital stock held by all members; and (2) the top-five holders of excess capital stock for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater. The information in the excess capital report should be regulatory capital stock. Create the following time series: total excess capital stock/total regulatory capital stock. Note the long-and short-term trend of this metric.
- f) Note the long- and short-term trends of the top-five holders of excess stock, specifically: (1) the type of member such as commercial banks, insurance

companies, etc.; (2) whether the member is part of a multi-district holding company; (3) whether the top-five list has remain stable or volatile over time; (4) whether members within the list have significantly increased or decreased their excess capital stock holdings over time; (5) whether the member is subject to speculation about a merger or acquisition; and (6) whether an officer of a large excess stock holding member also serves on the FHLBank's board of directors.

- g) Determine the amount of excess stock that the FHLBank has outstanding. If the amount of excess stock outstanding exceeds 1 percent of the FHLBank's total assets, discuss with FHLBank management any plans to reduce the amount of outstanding excess stock to below that level and inform the examiner-in-charge of management's plans. In addition, determine whether, since January 29, 2007, the FHLBank has declared or paid any additional excess stock dividend or otherwise issued any additional excess stock. Where an excess stock dividend has been declared or paid or excess stock has otherwise been issued, notify the examiner-in-charge.
- h) Assess the level of the FHLBank's stock, excluding any effects of SFAS 150, relative to its peers, the financial condition of the FHLBank, and its operational, credit, and market risk levels, direction and management. Confer with examiners responsible for assessing the level, direction and management of the FHLBank's market, credit, and operational risks in making this determination.

## 9) Retained Earnings Trend

#### **Objective:** Assess the long-term and recent trend of retained earnings.

- a) Examine the retained earnings policy of the FHLBank. Determine whether the FHLBank has achieved its retained earnings benchmarks.
- b) Create a quarterly time series of retained earnings for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater. In creating this quarterly time series, the quarterly data point is the minimum retained earnings during the quarter. Using the minimum removes from retained earnings that portion that was paid out in the quarterly dividend. Note the long-and short-term trends of retained earnings volatility.
- c) Create the following time series: retained earnings/total assets. Note the long- and short-term trend.
- d) Assess the level of retained earnings of the FHLBank relative to its peers, the financial condition of the FHLBank, and its operational, credit, and market risk levels, direction and management. Confer with examiners responsible for assessing the level, direction and management of the FHLBank's market, credit, and operational risks in making this determination.

10) Total GAAP and Regulatory Capital Trends [If the FHLBank has little or no stock subject to a pending redemption request, the difference between regulatory and GAAP capital will not be material.]

**Objective:** Assess the long-term and recent trend of total GAAP Capital and total Regulatory Capital.

[Note that the effect of SFAS 150 is included in total GAAP Capital and excluded from total Regulatory Capital.]

- a) Create a monthly time series of total GAAP Capital for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Note the long- and short-term trends of total GAAP capital volatility.
- b) If appropriate, create a monthly time series of total regulatory capital for the period that the FHLBank has been operating under its capital structure plan. Note the long- and short-term trends of Total Regulatory Capital volatility.
- c) Create the following time series: total Regulatory Capital/total assets. Note the long-and short-term trend. Note if this measure is less than 4 percent for any period.
- d) Rank all FHLBanks by their most recent total GAAP Capital/total assets and total Regulatory Capital/total assets.
- e) Assess the levels of total GAAP Capital and total Regulatory Capital of the FHLBank relative to its peers, the financial condition of the FHLBank, and its operational, credit, and market risk levels, direction and management.

#### 11) Business Concentration Analysis

# **Objective:** Assess the long-term and recent trend of the concentration of FHLBank business within large members.

- a) Determine whether one member or a group of members potentially dominates the business activities of the FHLBank, including the advances and mortgage product lines. Determine whether the FHLBank is exposed to any particular image risk because of business concentration with any particular member. Information on member concentration is available in the membership listing at Q:\OS\OS Data\Membership\Quarterly Listing and the top 10 lists available at Q:\OS\OS Data\Membership\Top 10 List\TOP10 Borrowers.
- b) Determine whether any potentially dominant member is currently a member of the FHLBank's board of directors.

- c) Determine whether the FHLBank has any contingency plan should a potential dominant member withdraw its membership from the FHLBank.
- d) Discuss with the FHLBank whether any large member is currently "in play" for a merger or acquisition.
- e) Discuss with the FHLBank whether any member with an affiliate in another district has announced any changes in its strategic plans that might affect its borrowing relationship or membership at the FHLBank.

#### 12) Net Interest Income Trend and Volatility

# **Objective:** Assess the long-term and recent trend and volatility of net interest income.

- a) Create monthly time series of net interest income in Excel for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater.
- b) Create a line chart of the time series in Excel. Note the long-term and short-term trend of the time series and any atypical volatility within the time series.
- c) Consider adding an additional line on the chart illustrating a short-term interest rate such as Fed funds and 3-month LIBOR. Such series can be downloaded from the Federal Reserve Bank of St. Louis web site.

Note the correlation between short-term interest rate movements and net interest income. (Because so much of an FHLBank's net earnings are derived from the earnings on its invested capital, both net income and net interest income should correlate with interest rates.)

d) Create a regression line for the line chart of the time series. In Excel, left click on the line on a line graph, and then left click on "Add Treadline." Then select the type of trendline that best fits the data.

Choose a regression line that creates the best fit for the data such as linear, polynomial, etc. Determine whether the trend lines suggest that net interest income is trending upward or downward. Consider whether the R-squared statistic suggests that the trend line adequately fits the data.

e) Create the following statistic for all time series considered:  $mean_{(time \ series)}/\sigma_{(time \ series)}$ . This metric is the inverse of the coefficient of variation and determines the number of standard deviations to net interest income loss. Assuming a normal distribution, the lower the figure, the greater the likelihood of a net interest income loss. For example, a figure of 3 suggests a 5 percent probability that the FHLBank will suffer a net interest income loss.

# 13) Net Income Trend and Volatility

#### **Objective:** Assess the long-term and recent trend and volatility of net income.

- a) Determine the effect, if any, of SFAS 150 on the accounting of net income for the FHLBank. If SFAS 150 has a significant effect, consider reversing its effect when analyzing net income.
- b) Create a monthly time series of net income in Excel for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater.
- c) Consider adding an additional line on the chart illustrating a short-term interest rate such as Fed funds and 3-month LIBOR. Note the correlation between short-term interest rate movements and net income.
- d) Create a line chart of the time series in Excel. Note the long-term and short-term trend of the time series and any atypical volatility within the time series. Note that volatility in net gains/losses on derivatives and hedging could affect volatility of net income.
- e) Create a regression line for the line chart of the time series. Choose a regression line that creates the best fit for the data such as linear, polynomial, etc. Determine whether the trend lines suggest that net interest income is trending upward or downward.
- f) Create the following statistic for all time series considered:  $mean_{(time \ series)}/\sigma_{(time \ series)}$ . This metric is the inverse of the coefficient of variation and determines the number of standard deviations to net income loss. Assuming a normal distribution, the lower the figure, the greater the likelihood of a net income loss. For example, a figure of 3 suggests a 5 percent probability that the FHLBank will suffer a net income loss.

#### 14) Sustainability of the Dividend

Objective: Determine the sustainability of the FHLBank's quarterly dividend. (Note: some FHLBanks have changed both their dividend declaration dates and dividend payment dates. When they implement these changes, it may appear that no dividend is being paid in a given quarter. The dividend report in the Call Report System details both the declaration month and the payment month. The dividend report also includes SFAS 150 stock and cash dividend adjustments.)

a) Review the FHLBank's current dividend policy from minutes of the board of directors meetings or other source. Note how the quarterly dividend is determined such as LIBOR plus a margin. Note when the quarterly dividend is

declared and when it is paid.

- b) Review the FHLBank's strategic plan to determine if any increase in the FHLBank's dividend is expected.
- c) If the FHLBank's dividend is based on an interest rate statistic such as LIBOR, determine the expected trend of the interest rate statistic.
- d) Create a quarterly time series of: (1) total amount of dividend paid, (2) annualized quarterly dividend yield, and (3) quarterly net income for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater. If SFAS 150 has a significant effect on dividends or net income, consider reversing the effect for this analysis.
- e) Create the following time series: dividend/net income. This metric is the dividend payout ratio and determines whether the net income of the FHLBank can support the dividend. Note if the dividend payout ratio is greater than 1 for any period. Note if the trend of the dividend payout ratio is increasing or decreasing.
- f) Create a line chart of the time series in Excel. Note the long-term and short-term trend of the time series and any atypical volatility within the time series.
- g) Rank all FHLBanks by their most recent: (1) annualized quarterly dividend/total regulatory capital stock and (2) dividend/net income.

#### 15) Operating Expense Trend

# **Objective:** Assess the long-term and recent trend of operating expenses (salaries and benefits, cost of quarters, other).

- a) Create a monthly time series of operating expenses in Excel for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater.
- b) Create a line chart of the time series in Excel. Note the long-term and short-term trend. Note any atypical volatility within the time series.
- c) Create the following time series: operating expenses/net interest income. This metric determines the amount of overhead expenses required to produce one dollar of net interest income. Note the long-term and short-term trend of the time series. Note any atypical volatility within the time series. Consider creating a line chart of the time series in Excel.
- d) Rank all FHLBanks by their most recent operating expenses/net interest income.
- e) Create the following time series: annualized operating expenses/total assets. This

metric determines the amount of overhead expenses required to manage the total assets of the FHLBank. Note the long-term and short-term trend. Note any atypical volatility within the time series. Consider creating a line chart of the time series in Excel.

f) Rank all FHLBanks by their most recent trailing 12 months operating expenses/average assets over the same time period.

#### 16) Realized Gains/Losses Trend

**Objective:** Assess whether realized gains/losses from the sale of held-to-maturity (HTM) securities, available-for-sale (AFS) securities, and sale of securities held at fair value (HFV) are: (a) recurring or non-recurring or (b) timed to manage earnings.

- a) Create a monthly time series of realized gains/losses from the sale of HTM securities, AFS securities, and the sale of securities held at fair value in Excel for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater.
- b) Visually inspect the time series. Note whether the sales happen frequently or infrequently and whether the sales generated a gain or a loss. Note whether any sales for a gain or loss occurred in March, June, September, or December. This could be indicative of timing sale of securities for earnings management.
- c) Should the analysis suggest the potential of earnings management, calculate monthly net income before the gain/loss on the sale of securities. Note if any month or quarter would have produced a net income loss before the gain on the sale of securities.
- d) If the FHLBank recorded gains or losses on the sale of HTM securities, inquire whether all accounting conditions were met to prevent the "tainting" of the HTM portfolio.

#### 17) Net Gains/Losses on Derivatives and Hedging Trend

Objective: Assess the long-term and recent trend of net gains/losses on derivatives and hedging trend. [Note that the net gains/losses on derivatives will be offset to a substantial degree by net losses/gains on securities held at fair value.]

a) Create a monthly time series of net gains/losses on derivatives and hedging in Excel for at least five years (60 observations) or the length of one interest rate cycle, whichever is greater. Calculate the cumulative net gain/loss on derivatives and hedging over the time period.

- b) Note whether the net gains/losses on derivatives and hedging have grown larger or smaller over time and if any long or short-term trends are evident. Note whether the cumulative net gain/loss on derivatives and hedging is currently positive or negative.
- c) Create a bar chart of the cumulative time series in Excel. Note the long-term and short-term trend of the time series and any atypical volatility within the time series.

#### 18) Return on Assets (ROA) Trend

#### **Objective:** Assess the long-term and recent trend of ROA.

- a) Determine the effect, if any, of SFAS 150 on the accounting of net income for the FHLBank. If SFAS 150 has a significant effect on accounting for net income, consider reversing its effect when analyzing ROA.
- b) Create a quarterly time series of ROA in Excel for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater.
- c) Create a line chart of the time series in Excel. Note the long-term and short-term trend of the time series. Note any atypical volatility within the time series.
- d) Create a regression line for the line chart of the time series to assess the ROA trend. Choose a regression line that creates the best fit for the data such as linear, polynomial, etc.
- e) Rank all FHLBanks by their most recent ROA.

#### 19) Return on Equity (ROE) Trend

#### **Objective:** Assess the long-term and recent trend of ROE.

- a) Determine the effect, if any, of SFAS 150 on the accounting of net income for the FHLBank. If SFAS 150 has a significant effect on accounting for net income, consider reversing its effect when analyzing ROE.
- b) Create a quarterly time series of ROE in Excel for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater.
- c) Create a line chart of the time series in Excel. Note the long-term and short-term trend of the time series. Note any atypical volatility within the time series.
- d) Create a regression line for the line chart of the time series. Choose a regression line that creates the best fit for the data such as linear, polynomial, etc.

e) Rank all FHLBanks by their most recent ROE.

#### 20) Net Interest Spread Trend

Objective: Assess the long-term and recent trend of Net Interest Spread. [Note: It is generally not proper to compare asset yields or liability costs across the FHLBanks. FHLBanks with longer-duration assets matched with longerduration liabilities will generally have higher yields and costs that simply reflect the normal upward slope of the yield curve.]

- a) Create a quarterly time series of net interest spread and its components yield on earning assets and cost of interest-bearing liabilities in Excel for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater.
- b) Create a line chart of the net interest spread time series in Excel. Note the longterm and short-term trend of the time series. Note any atypical volatility within the time series.
- c) Create a regression line for the line chart of the time series to assess the trend. Choose a regression line that creates the best fit for the data such as linear, polynomial, etc.

#### 21) Market Value of Equity (MVE) Trend

#### **Objective:** Assess the long-term and recent trend of MVE.

Note: The Duration and Market Value Report in the Call Report System uses Regulatory Capital. That is, the capital subject to a redemption request is added to GAAP Capital to create regulatory capital. In the MVE/BVE analysis, use Regulatory Capital rather than GAAP Capital.

- a) Create a quarterly time series of market value of equity and book value of equity for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater.
- b) Create the following time series: market value of equity/book value of equity. This metric is the MVE/BVE ratio. Note if the MVE/BVE ratio is greater or less than one for any period. Note if the trend of the MVE/BVE ratio is increasing or decreasing.
- c) Rank all FHLBanks by their most recent MVE/BVE ratio.
- d) Should the MVE/BVE ratio of the FHLBank be significantly less than 1 and/or the trend of the MVE/BVE ratio is decreasing, make inquiries as to potential rationale.

## 22) Duration Trend

#### **Objective:** Assess the long-term and recent trend of duration.

- a) Create a quarterly time series of base duration and up- and down-shocked duration for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater.
- b) Note the significance of the duration statistics relative to the current and projected future interest-rate environment. Assess the volatility of duration over time.
- c) Calculate the distance between the up- and down-duration shocks as well as the distance between the up- and down-duration shocks to base duration for all quarterly periods Assess the volatility of this statistic.
- d) Rank all FHLBanks by their most recent base duration, distance between the upand down-duration shocks, and the distance between the up- and down-duration shocks to base duration.
- e) Obtain the most-recent report prepared by the Risk Modeling Division on marketvalue sensitivity. Plot the FHLBank's convexity profile and compare it with the convexity profile of other FHLBanks.

### 23) Profitability of Business Lines

# **Objective:** Assess the contribution of an FHLBank's main business lines (generally advances, investments, and mortgages) to profitability of the FHLBank.

- a) Determine whether the FHLBank calculates net interest spread of its various business lines. If so, create a quarterly time series of the net interest spreads for as far back as the information is available or for at least five years (20 observations) or the length of one interest rate cycle, whichever is greater. Ensure that the weighted average net interest spread of the FHLBank's main business lines equates to the total net interest spread for the FHLBank. If not, the data are corrupted and should not be used.
- b) If the FHLBank does not calculate the net interest spread of its various business lines, the most recent quarterly net interest spread of the business lines can be estimated in Excel using the following technique: (1) segment the daily average quarterly balance sheet of the FHLBank into its business line components, noting several assets are not income generating, (2) determine the total net interest spread of the FHLBank, (3) make an assumption (or ask the examiner-in-charge) of what the likely net interest spread of a FHLBank is for all but one of the main business lines, (4) solve for the net interest spread of the remaining business line.

Note if the net interest spread for any business line is less than zero.

#### 24) Examiner Consultation

# **Objective:** To discuss analysis of the FHLBank's condition and performance with the examiner assigned to review Financial Reporting Operations.

Consult with the examiner responsible for Financial Reporting Operations to discuss the quality of the FHLBank's financial reporting operations and the implications of any financial reporting issues for the financial condition and performance analysis.

#### 25) Assessment of Financial Condition and Performance

# **Objective:** To summarize the results of the review and complete a Memorandum.

Summarize the results of the activity or function examined in a separate memorandum. The memorandum should analyze and discuss the financial condition and performance of the FHLBank (strong, satisfactory, supervisory concern, unacceptable), including the institution's earnings and profitability, operating efficiency, capital, retained earnings, excess stock, balance sheet composition, liquidity, and other relevant factors.

In presenting such analysis, the memorandum should take account of the following considerations: (a) the operating strategy and risk profile of the FHLBank; (b) the FHLBank's financial condition and performance relative to its historic condition and performance and that of other FHLBanks; and (c) the cooperative ownership structure of the FHLBanks and the interplay in a cooperative between product pricing and dividends. A memorandum must be prepared irrespective of whether the examiner's assessment is positive or negative.

#### 26) Items requiring follow-up at the next on-site visitation

# Objective: To identify key issues that require follow-up at the next on-site visitation.

Identify key issues that have been communicated to management or the board of directors (written or oral) that require follow-up during the next on-site visitation.