Introduction

The major securities markets in the United States include the government securities market, the corporate equities and bond market, the market for money market instruments, and the municipal bond market. The instruments traded in these markets are generally traded through organized exchanges or through the over-the-counter dealer markets. Major categories of financial instruments commonly traded include U.S. Treasury securities, government agency securities, securities issued by federal government-sponsored enterprises, corporate equities and bonds, money market instruments such as commercial paper, and municipal (state and local) government securities. Participants in these markets include securities issuers; investment companies, non-financial corporations and individuals.

The mechanisms for clearing and settling securities transactions vary by market and type of instrument, and generally involve two types of specialized financial intermediaries: clearing corporations and securities depositories. Clearing corporations provide trade confirmation and comparison services, and multilateral netting of trade obligations; while, securities depositories transfer securities ownership on a gross or net basis against payment via book entry transfers.

Depository institutions play several important roles in securities clearing and settlement. Not only do depository institutions participate in clearing and settlement arrangements for themselves, they also act as custodians, issuing and paying agents, and settling banks for their customers. In addition, depository institutions provide credit to clearing corporations, securities depositories, and clearing participants for routine and contingency purposes.

The primary participants in the securities settlement systems are as follows:

1) U.S. Government Securities Market

The U.S. government securities market encompasses all primary and secondary market transactions in securities issued by the U.S. Treasury (Treasury), certain federal government agencies, and federal government-sponsored enterprises. Trading in government securities is conducted over the counter between brokers, dealers, and investors. In over-the-counter trading, participants trade with one another on a bilateral basis rather than on an organized exchange. Nearly all U.S. government securities are issued and transferred through a book-entry system operated by the Federal Reserve Banks.

In the primary market, Treasury securities are issued through regularly scheduled auctions. The Federal Reserve Banks serve as conduits for the auctions, with the Federal Reserve Bank of New York coordinating much of the auction activity. Individual, corporations and financial institutions may participate in the auctions. Participation in Treasury auctions, however, is typically concentrated among a small number of dealer firms known as primary dealers.

In the secondary market for government securities, trading activity takes place between primary dealers and non-primary dealers. Customers of these dealers are financial institutions, non-financial institutions and individuals. The majority of transactions between primary dealers and other large market participants are conducted through inter-dealer brokers that provide anonymity and price information to market participants. Approximately 2,000 securities brokers and dealers are registered in the U.S. government securities market.

2) Fixed Income Clearing Corporation (FICC)

The FICC started operations at the start of 2003 and was created when the Government Securities Clearing Corporation and the Mortgage-Backed Security Clearing Corporation merged. The agency is divided into two sections, the government securities division (GSD) and the mortgage-backed securities division (MBSD). GSD clears and nets U.S. government securities and agency debt securities. Securities eligible for MBSD clearing are mortgage-backed securities issued by the Government National Association (GNMA), the Federal Home Loan Mortgage Corporation (FHLMC), and the Federal National Mortgage Association (FNMA).

FICC uses real time trade matching: trade details are compared and matched as soon as trade information is submitted. Successfully compared trades result in binding and enforceable obligations for settlement. Unmatched trades may be revised to achieve a trade match.

Successfully matched trades of eligible securities, for FICC netting service participants, are netted against offsetting net-receive or net-deliver obligations of the same security. Once the government securities net positions are determined, GSD interposes itself between the original trading parties and becomes the legal counter-party to FICC members for settlement purposes. Therefore, GSD members' net settlement obligations are delivered to or received from GSD. MBSD, however, engages in multilateral position netting and does not stand in the middle of transactions. Final net settlement obligations of GSD and MBSD participants are settled through the Fedwire Securities Service via participants' settlement bank.

3) Fedwire Securities Service

As fiscal agents of the United States, the Federal Reserve Banks act as the securities depository for all marketable Treasury securities, many federal agency securities, and certain mortgage-backed securities issued by GSEs. U.S. government securities are issued in book-entry form through the Federal Reserve Bank's Fedwire® (Fedwire) Securities Service using either an auction process or dealer syndicate mechanism. The Fedwire Securities Service provides for the safekeeping and transfer of these securities. The safekeeping function involves the records of securities balances, and the transfer and settlement function involves the transfer of securities between parties.

When book-entry securities transfers are processed using Fedwire Security Service, the institution sending the transfer receives immediate credit in its Federal Reserve Bank funds account for the payment associated with the transfer, and its securities account is correspondingly debited. The Federal Reserve Bank funds account of the institution receiving a book-entry securities transfer is debited for the payment amount, and its securities account is credited. There are more than 9,000 participants in the system and they are largely composed of depository institutions.

The Federal Reserve Bank's Fedwire Securities Service is supported by a real-time, delivery-versus-payment (DVP) gross settlement system that provides for the immediate, final, and simultaneous transfer of securities against the settlement of funds. This system, known as the National Book-Entry System (NBES), provides for the safekeeping and transfer of Treasury, government agency, and Government Sponsored Enterprise (GSE) securities as well as securities issued by certain international organizations. The safekeeping function involves the electronic storage of securities records in custody accounts, and the transfer and settlement function involves the transfer of securities between parties.

Financial institutions may access the Fedwire Securities Service via high-speed direct computer interface FedLine, or with off-line telephone connectivity with a Federal Reserve Bank. The Federal Reserve Banks have replaced DOS-based FedLine terminals with its internet product, FedLine Advantage® (FedLine Advantage). This will provide access to the Federal Reserve Banks' payment services in an on-line environment.

On-line participants using either a FedLine PC or internet connection to Fedwire Securities Service require no manual processing by the Federal Reserve Banks. Off-line participants provide funds transfer instructions to their Federal Reserve Bank by telephone, and once authenticated, the Federal Reserve Bank enters the transfer instruction into Fedwire Securities Service system for execution. The manual processing required for off-line requests makes them most costly and suitable only for institutions processing a small number of funds transfer payment orders.

4) <u>Corporate and Municipal Securities</u>

Corporate equities and bonds, commercial paper, and municipal bonds are traded on various established exchanges and on over-the-counter markets. The primary securities exchanges in the United States are the New York Stock Exchange, the American Stock Exchange, and the primary over-the-counter dealer market is the National Association of Securities Dealers Automated Quotations (NASDAQ).

The commercial paper market warrants special mention as it is an important source of short term funding for financial corporations and municipal governments. Commercial paper is a money market instrument issued by prime-rated non-financial and financial companies with maturities ranging from one to 270 days. Commercial paper is issued through dealer placements or direct placements with investors. Although commercial paper is a negotiable instrument, secondary market trading is limited. Disruption in the issuance of commercial paper can cause significant liquidity and credit concerns for issuers, many of whom are depository institutions and other financial companies, and depository institutions that provide issuing and paying agent services to issuers.

5) National Securities Clearing Corporation (NSCC)

NSCC, established in 1976, provides clearing and settlement services for corporate equities, corporate debt, municipal securities, mutual funds, annuities, and unit investment trusts. NSCC is a registered clearing corporation regulated by the Securities and Exchange Commission (SEC). With roughly 250 full-service participants, NSCC handles all aspects of the clearing and settlement of trades between brokers and dealers in securities traded on the over-the-counter markets, the New York Stock Exchange, the American Stock Exchange, and other regional exchanges.

Executed trades are typically reported to NSCC on trade date. Trades are either reported to NSCC by an established exchange as matched (irrevocable) trades or by brokers and dealers as unmatched trades. Trades submitted by brokers and dealers are compared and matched within NSCC's Continuous Net Settlement (CNS) system. Following the comparison process, NSCC becomes the legal central counterparty and guarantees completion of all securities trades following through CNS. CNS functions as an automated book-entry accounting system that centralizes the settlement of compared security transactions and maintains an orderly flow of securities and money balances.

Similar to the FICC netting process, successfully matched trades of eligible securities are netted against offsetting net-receive or net-deliver obligation of the same security. Settlement of securities takes place at the Depository Trust Company (DTC) and funds settlement occur over the Fedwire Funds Service through settlement banks.

6) Depository Trust Company (DTC)

DTC is a New York limited purpose trust company, a member of the Federal Reserve System, and a clearing agency registered with the SEC. DTC, the central securities depository for corporate equity securities and bonds, municipal government securities, and money market instruments, provides safekeeping and transfer of these securities. DTC participants include securities brokers, dealers, institutional investors, and depository institutions acting on their own behalf as well as functioning as custodians, issuing and paying agents, and settling banks for their customers. Like the Fedwire Securities Service, the safekeeping function involves the electronic recordkeeping of securities balances for participants, and the transfer function involves the transfer of securities between parties. DTC transfers securities on a gross basis throughout the day, while settling funds obligations on a net basis at the end of the day.

During the transfer process, DTC will limit its credit exposure through participants' net caps. Any net debit position incurred by the participants must be fully collateralized. End-of-day funds settlements occur over the Fedwire Funds Service through participants' settlement banks.

Financial institutions rely on internal funds transfer systems and networks to send payment instructions to their correspondents for the transfer of correspondent balances or to initiate Fedwire Funds Service or Clearing House Interbank Payments System (CHIPS) payments. Large financial institutions have either developed their own funds transfer systems or relied on off-the-shelf funds transfer systems. In either case, the internal financial institution funds transfer systems interface with Fedwire Funds Service and CHIPS, supporting the interface and transaction format specifications for the transmission of payment orders. Off-the-shelf funds transfer systems typically support a variety of treasury, cash management, and straight-through-processing (STP) modules, which automate payment order processing.

The Federal Reserve Banks provide the Computer Interface Protocol Specifications (CIPS) that funds transfer and book-entry securities systems need to adopt in order to implement a CI connection successfully. The Federal Reserve Banks provides a website with a list of vendors who have completed their protocol certification process. The Federal Reserve Banks do not endorse any specific software vendor or product. The Federal Reserve Banks make no warranties or representations with respect to any of the products offered by these vendors except that communications-level software correctly executes systems network architecture (SNA) commands as specified in the CIPS.

Regulatory Environment

The primary authorities governing, or relevant to, securities safekeeping activities 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) ***Rules and Regulations of the Federal Housing Finance Board, which include the following parts and sections relevant to securities safekeeping activities:***

   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, Section 917.4, Bank Member Products Policy, and Section 917.6, Internal Control System, are pertinent.

2) ***Advisory Bulletins of the Federal Housing Finance Board*** that provide supervisory guidance relating to the topic of securities safekeeping activities are:

Advisory Bulletin 03-2, dated February 10, 2003 and Advisory Bulletin 02-3, dated February 13, 2002, which offer guidance on specific attributes to be considered by FHLBanks in the formulation of their business continuity plans, and the establishment of bilateral agreements with other FHLBanks.

Advisory Bulletin 04-01, dated March 10, 2004, which offers 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 No. 70 (SAS 70) or the performance of alternative methods necessary to gain confidence on the service organization's internal controls.

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

3) Regulation J of the Board of Governors (Board of Governors) of the Federal Reserve System (Regulation J), Collection of Checks and Other Items by Federal Reserve Banks and Funds Transfer through FedWire, Article 4A (Funds Transfer) and Article 9 (Secured Transactions) of the Uniform Commercial Code (UCC).

Regulation J and UCC-4A promote efficient payment systems by establishing the respective responsibilities of sending and receiving banks and establish incentives to ensure appropriate controls against unauthorized transactions. In the process, they allocate liability for failure of transaction participants to comply with their assigned responsibilities under each.

Regulation J and UCC-4A require the FHLBanks to offer their customers a "commercially reasonable security procedure" for funds transfer of securities in order to avoid legal liability for fraud. A commercially reasonable security procedure is one established by agreement of the customer and the FHLBank for the purpose of:

a) Verifying that a payment order or communication amending or canceling a payment order is that of the customer; and

b) Detecting errors in the transmission or the content of the payment order or communication.

To comply with this requirement, the FHLBanks employ various security procedures to ensure the customer authorized the transaction. These include the issuance of personal identification numbers, testcodes, tokens, and the performance of callbacks.

Article 9 of the UCC applies to any transaction which is intended to create a security interest in personal property or fixtures including goods, documents, instruments, general intangibles, chattel paper or accounts, the sale of any accounts or chattel paper, and security interests created by contract including pledge, assignment, chattel mortgage, chattel trust, trust deed, factor's lien, equipment trust, conditional sale, trust receipt, other lien or title contract and lease or consignment intended as security.

Specific requirements that pertain to attachment and perfection of security interests, including the method of perfecting a security interest in specific types of collateral, the contents and filing of financing statements, changes in name and identity of debtors, rights and duties in connection with default, and enforcement, must be complied with in order to create and maintain a priority security interest in the collateral.

The UCC is a uniform nonbinding code which, to be effective in any domestic jurisdiction, must be adopted into law by that jurisdiction. As a result, there are sometimes variations in the Code's provisions in particular jurisdictions.

4) ***Issuances by the Federal Reserve Banks and Federal Financial Institutions Examination Council (FFIEC) that address specific controls and procedures as to Fedwire and privately operated payment systems. Specifically:***

a) Federal Reserve Banks' FedLine Advantage References;
b) FFIEC Information Technology Examination Handbooks such as Information Security, Business Continuity Planning and Wholesale Payment Systems; and
c) FFIEC Guidance-Authentication in an Internet Bank Environment.

5) ***Federal Reserve Bank Operating Circulars and Appendices that set forth the terms for maintaining accounts with and obtaining other services from the Federal Reserve Banks. Specifically:***

a) Operating Circular No. 1-Account Relationships, Agreements and Forms;
b) Operating Circular No. 4-Automated Clearing House Items;
c) Operating Circular No. 5-Electronic Access, Certification Practice Statement, and Password Practice Statement;
d) Operating Circular No. 6-Funds Transfers Through The Fedwire Funds Service;
e) Operating Circular No. 7-Book-Entry Securities Account Maintenance and Transfer Services;
f) Operating Circular No. 8-Collateral; and
g) Operating Circular No. 12-Multilateral Settlement.

6) ***Issuances of the Board of Governors of the Federal Reserve System that address Intraday Liquidity Management and Payment System Risk Policy***

In July 2006, the Board of Governors implemented changes in its daylight overdraft policy for government sponsored enterprises and certain international organizations. The changes will require these organizations to eliminate their daylight overdrafts at the Federal Reserve Banks relating to their interest and redemption payments and to pay a penalty fee and post collateral if daylight overdrafts occur in their accounts as a result of their general corporate payment activity.

7) ***The Bank Secrecy Act (BSA), as amended by the USA Patriot Act, and the regulations and interpretations of the U.S. Department of the Treasury and Financial Crimes Enforcement Network (FinCEN) thereunder.***

   The BSA was enacted to address money laundering and other illegal activity. Specific requirements under the BSA for securities safekeeping services include, but are not limited to, the establishment of a customer identification program that enables the financial institution to form a reasonable belief that it knows the identity of each customer, record retention requirements, and the identification and reporting of suspicious activity to FinCEN.

8) ***Statutes and Regulations administered by the Office of Foreign Asset Control (OFAC).***

   OFAC administers and enforces a series of laws that impose economic sanctions against targeted foreign countries, terrorist sponsoring organizations, and narcotics traffickers. These are described in "Foreign Assets Control Regulations For The Financial Community," a brochure issued by OFAC which is available on its website.

   Financial institutions are prohibited from conducting transactions with businesses or individuals that have been identified by OFAC. Prohibited transactions are defined broadly and include the provision of deposit, lending, letter of credit, wire transfer, securities transactions and ACH services. If a financial institution's counterparty to a banking transaction is identified by OFAC, the financial institution is required to follow specific procedures such as blocking or freezing the counterparty's assets and providing reports to OFAC and the institution's board of directors.

   Failure by an institution to comply with the BSA and OFAC requirements can result in the imposition of severe civil and criminal penalties and damage the institution's reputation in the marketplace.

9) ***State privacy laws that address providing disclosure to customers when conversations are being recorded***. Specific requirements may vary by state jurisdiction.

FHLBank Environment

The FHLBanks provide a secure and convenient method for clearing and safekeeping securities for the FHLBank and their members. Specific legal agreements and forms are developed and reviewed by FHLBank's legal counsel to address the duties, responsibilities and liabilities of the FHLBank, the custodian(s), the member, the member's customer, the applicable transactions that are processed, and compliance with applicable state law and UCC requirements.

Examples of specific services include, but are not limited to the following:

1) Providing securities trade settlement, income collection, maturity and called bond payment process, monthly reporting, online access to securities information, payment inquiries processing, market valuation and bond ratings.

2) Pledging securities to a third party where the FHLBank operates as trustee and custodian for collateral held for repurchase agreements that have been sold by the member to their customer. Under these situations, the FHLBank internally codes these securities as pledged collateral for the repurchase transactions.

3) Pledging securities to a third party where the FHLBank operates as trustee and custodian for collateral held on behalf of various public entities whose deposits that are held by the member exceed the maximum standard insurance amount set by the FDIC. Usually, the secured deposits are public funds. A tri-party agreement is executed among the member, the member's customer and the FHLBank. Under these circumstances, the FHLBank internally codes these securities as pledged collateral for the deposits.

4) Operating as a custodian of securities pledged as collateral by members to protect the FHLBank in the event of default on the repayment of outstanding advances and standby letters of credit. Under these circumstances, the securities safekeeping function coordinates with the credit and collateral functions to ensure that the FHLBank has physical possession of the securities that are pledged as collateral and sufficient in value. The securities are coded internally as pledged collateral for advances and/or standby letters of credit.

In addition, the securities safekeeping function coordinates with the capital markets or treasury functions to facilitate the cash management of repurchase agreement transactions that have been executed on behalf of the FHLBank. Securities that are pledged as collateral are transferred to the counterparty's custodian.

The FHLBanks utilize the appropriate Federal Reserve Bank to process book-entry wireable securities such as Treasuries, FHLMC and FNMA and a correspondent bank custodian relationship to process securities for which DTC is serving as a custodian. Vendor software is utilized to provide current market valuation information.

Dual control that pertains to the review, verification, receipt, input, release, adjustments and reconciliation is required to process all securities safekeeping activity. Examples of specific transactions are as follows:

1) Delivery-versus-payment-a transaction in which the buyer's payment for securities is due at the time of delivery (usually to the FHLBank acting as agent for the buyer) upon receipt of the securities;

2) Receive-versus-payment-an instruction accompanying sell orders that only cash will be accepted in exchange for delivery of the securities;

3) Free delivery-securities are delivered without an offsetting receipt of funds; and

4) Free receive-securities are received without an offsetting receipt of funds.

<u>Risks Associated with the Securities Safekeeping Function</u>

An FHLBank's primary risks relating to the securities safekeeping function are set forth below.

1) Lack of Sound Corporate Governance (Board of Directors and Senior Management Oversight)

a) Key risks and controls are not adequately identified, assessed, and monitored.
b) Information technology is not aligned with the FHLBank's goals and strategies resulting in poorly integrated systems and dependence on manual controls.
c) Duties, responsibilities, and staff expertise, including segregation of operational and control functions, are not adequately defined.
d) Internal control weaknesses potentially affecting financial reporting that have not been adequately identified, assessed and disclosed.
e) Background criminal and credit investigations are not performed on securities safekeeping personnel prior to their retention. Periodic credit investigations are not performed, and mandatory leave policies have not been established.
f) Duties, responsibilities, and liabilities are not adequately addressed with outside service providers and vendors.
g) Losses due to errors and fraud are not effectively mitigated through insurance or other means.
h) A business continuity plan has not been developed and tested.
i) Independent audit coverage and testing is limited; auditors are inexperienced or lack the technical experience to test the control environment.

2) Operational Risk

a) Unauthorized (FHLBank and/or customer) securities transactions are processed.
b) Securities transactions are not properly recorded and reconciled.
c) Securities pledged as collateral may be released without proper authorization.
d) Lack of technical expertise and experience may imperil the continuation of operations in the event of key personnel turnover and absences.
e) Data cannot be readily recreated and/or required tasks readily performed in the

event of a disaster or personnel turnover.

f) Legal documents are incomplete, missing, unenforceable, not in compliance with federal and state requirements or otherwise inadequate to protect the FHLBank's interests, resulting in the failure to provide a perfectible security interest.

g) SAS 70 reviews are not obtained, or alternative methods not performed, to obtain assurances on the outside service provider's internal control environment.

h) Daylight overdrafts are not monitored and minimized resulting in discontinuation of Federal Reserve Bank services.

i) Lack of compliance with internal controls, policies, procedures, and specific requirements of insurance policies, resulting in rejection of claims by insurers and incurrence of losses.

j) UCC-4A, OFAC and BSA requirements are not complied with due to errors and/or deficiencies affecting the vendor software. Fines and/or losses are sustained due to noncompliance with the regulatory requirements.

k) Procedures that pertain to the destruction and retention of records have not been established or followed.

3) Credit Risk

a) Daylight and customer deposit overdrafts are not monitored and minimized.

b) FHLBank advances and standby letters of credit are not adequately secured by securities.

Specific Risk Controls Relating to the Securities Safekeeping Function

An FHLBank's controls relating to the securities safekeeping function are set forth below.

1) Segregation of Duties

Critical access controls and segregation of duties that relate to system access, authorization, processing, recording and reconciliation of transactions must be in place to prevent the processing of erroneous and fraudulent transactions. A material erroneous or fraudulent transaction could have a significant impact on the financial condition of the bank and result in a poor FHLBank image in the marketplace with attendant reputational risk.

2) Recording and Reconciliation

Securities transactions are processed and recorded to applicable general ledger accounts such as the "Federal Reserve Bank" and "correspondent" and to the member's accounts such as the demand deposit account, safekeeping account and pledge account. The responsibility for the review and reconciliation of entries should be segregated from that for the processing of the daily transactions.

On the safekeeping system, the customer's securities should be identifiable where the securities are assigned a unique receipt number and linked to the member's accounts and a distinction is made to segregate securities that are pledged. A reconciliation of securities held at each custodian and pledged as collateral should be completed at least monthly.

Trade activity should be identified by a receipt and confirmation advice that is mailed the following day of the settlement, and detailed in the member's accounts. Periodic statements that pertain to demand deposit, safekeeping portfolio totals and safekeeping transactions are generated and sent to the members.

3) ***Credit and Collateral Administration***

The development and maintenance of sound and effective credit and collateral administration are critical elements in the identification, management and monitoring of the risk exposures associated with securities that are securing advances and standby letters of credit.

4) ***Daylight and Customer Deposit Overdrafts***

The Federal Reserve Banks provide the unsecured intraday credit needed to support clearing of the large transactional volumes. Such credit extensions occur when a Federal Reserve Bank allows institutions to initiate transactions that exceed, at a given moment, the balance in their reserve or clearing accounts, which leaves the institution in a net debit position with the Federal Reserve Bank. These intraday overdrafts of accounts are referred to as "daylight overdrafts."

The amount of credit available to any institution is usually limited by "net debit sender caps," which establish the maximum unsecured exposure that a Federal Reserve Bank is willing to accept. As the FHLBanks do not have any net debit sender caps, they must monitor their position with the Federal Reserve Bank continuously.

Although FHLBanks are not allowed to incur daylight overdrafts, repeated daylight overdrafts may result in discontinuation by the Federal Reserve Bank of services such as wires, ACH, securities, and access to capital markets, which could limit an FHLBank's ability to meet its financial obligations and provide services to its customers.

The responsibility for monitoring the FHLBank's position with a Federal Reserve Bank is usually assigned to cash management/treasury personnel. Such personnel customarily have inquiry access to the wire system, which allows them to monitor large incoming/outgoing wire activity. In addition, the automated wire system has software controls that establish internal dollar limits and mitigate daylight overdraft possibilities. Securities safekeeping personnel will coordinate with wire and cash management/treasury personnel on the current cash position with the relevant Federal Reserve Bank and the correspondent bank relationship, and anticipated purchase and matured securities activity.

Customer deposit overdrafts represent an unsecured credit exposure, and should require the approval of credit personnel and line management.

5) ***Legal***

In connection with securities safekeeping services, FHLBank legal staff reviews applicable regulatory requirements, vendor contracts and other FHLBank documentation to protect the FHLBank's interests. In addition, the business units coordinate a periodic review with legal staff to ensure current operating practices comply with regulatory requirements.

6) ***Business Continuity and Recovery***

The FHLBank should have written procedures for operations at its designated hot-site. Back-up tapes should be stored off-site and be easily retrievable. If the automated wire system is not available at the hot-site, FedLine Advantage terminals, off-line trade settlement processing with the relevant Federal Reserve Bank can be accomplished by telephonic instructions through the wholesale area of the Federal Reserve Bank. Bilateral agreements with one or more FHLBanks and the correspondent bank custodian relationship may need to be used to effectuate the FHLBank's securities requests.

Documentation of business contingency testing performed by the correspondent bank relationship and the market valuation vendor is requested at least annually. Each FHLBank must have at least one back-up system and must test it periodically to ascertain its reliability.

Examination Guidance

A work program for Securities Safekeeping Operations 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 quality and effectiveness of corporate governance, risk management, internal controls and audit coverage relating to the institution's securities safekeeping activities.

1) Organizational structure

a) Functional organization and reporting structure;
b) Identification of key personnel;

c) Primary duties, responsibilities and technical expertise of personnel;
d) Segregation of duties;
e) Cross-training of personnel;
f) Coordination with other departments such as risk management, information technology, treasury and cash management, accounting, credit and human resources; and
g) Significant changes in the foregoing since the last examination.

2) Establishment of risk tolerances and development of key policies and oversight by the board of directors. Evaluate the adequacy of senior management oversight and the risk management function for securities safekeeping activities, which may include the following:

a) Prohibiting or limiting safekeeping services offered;
b) Requiring securities safekeeping agreement(s), addenda and forms that are utilized by the securities safekeeping function. Specific attributes may include:

    (1) Member's corporate resolution;
    (2) Customer authorized contacts (authorized signers acting as agents for the customers) for securities safekeeping services;
    (3) Investment/securities safekeeping service agreement;
    (4) Pledge agreement between the FHLBank and the member and other documents to perfect the FHLBank's security interest in pledged securities;
    (5) Third-party pledge, security and safekeeping agreement (agreement among the FHLBank, the member and the member's customer); and
    (6) Internal FHLBank securities safekeeping transaction form (specific details of the transaction and description of the securities).

c) Requiring agreements between the safekeeping custodian(s) such as the relevant Federal Reserve Bank and the correspondent bank relationship and the FHLBank;
d) Requiring supervisory review of operating exceptions;
e) Restricting system access and functionality;
f) Mitigating risks and liability with the purchase of specific insurance and bond coverage such as directors and officers liability, errors and omissions, computer cyber crime policies and fidelity bond coverage, and establishing compensating procedures and controls to address any exclusion in the policies;
g) Reviewing management reports used to identify, measure, monitor, and control risks within the line of business; and
h) Maintaining ability to restore safekeeping operations under various recovery scenarios.

3) Key FHLBank policies and procedures, which may include those relating to the following:

a) Securities safekeeping operations;
b) Risk management;

c) Information security;
d) Fraud prevention;
e) Whistleblower provisions of SARBOX;
f) Background and credit investigations;
g) Business conduct and ethics;
h) Business continuity and recovery;
i) Member products; and
j) Vendors' risk.

4) Risk assessment under Part 917 and internal control evaluation under SARBOX

a) Evaluate the effectiveness of the annual risk assessment under Part 917 that identifies the key risks arising from and controls established by the institution over securities safekeeping activities and includes quantitative and qualitative evaluations; and
b) Evaluate the effectiveness of evaluations conducted pursuant to SARBOX that identify the key risks and controls pertaining to financial reporting and evaluate potential fraud, and procedures implemented to periodically attest to the adequacy of the control environment.

5) Testing performed by external and internal auditors and outside consultants

a) Evaluate the adequacy of the scope and testing performed by external and internal auditors; and
b) Evaluate the adequacy of the scope and testing performed by outside consultants specific to securities safekeeping activities.

6) Information technology and controls

Identify and assess the automated and manual systems and applicable controls for processing transactions, including:

a) Authorized users;
b) Vendor technical support and access to the automated wire system;
c) Utilization of spreadsheets or other user developed applications;
d) Business continuity and recovery; and
e) Exception tracking, escalation, and reporting.

7) Identification and evaluation of controls and significant changes to the activity or function

a) Evaluate workflow and processes as well as controls, including the level and direction of risk and the quality of risk management; and
b) Evaluate any significant changes that have been implemented since the last examination or are being considered that may affect the FHLBank's risk profile

such as management, systems, key personnel, regulatory requirements and processing.

8) Testing

Conduct testing as appropriate. The scope of testing should be based on the preliminary review of governance, risk management, internal controls and audit coverage. Specific examples include, but are not limited to, the following:

a) Observe that physical security has been established over the securities safekeeping terminals.

b) Verification procedures to ensure proper authorization of securities safekeeping requests. Assess and test the adequacy of the FHLBank's procedures and controls that pertain to authentication such as agreements, personal identification numbers, tokens and callback procedures, processing, recording and confirmation of securities safekeeping requests that are received from the members and FHLBank personnel for the following transactions (if applicable):

   (1) Delivery-versus-payment;
   (2) Receive-versus-payment;
   (3) Free delivery;
   (4) Free receive;
   (5) Member pledges securities as collateral for FHLBank advances and/or standby letters of credit;
   (6) Member pledges securities as collateral for third-party repurchase transactions;
   (7) Member pledges securities as collateral for third-party public deposits in excess of the standard maximum deposit insurance amount set by the FDIC; and
   (8) FHLBank pledges securities as collateral for its repurchase transactions (delivery transaction-securities are transferred to the counter-party's custodian).

c) Review the system controls applicable to the automated securities safekeeping system(s). Specific attributes include, but are not limited to, the following:

   (1) The process for the review and establishment of employees' system capabilities such as the initial review and approval by line management and coordination with the system administrator (if not line management), who establishes access to the automated securities safekeeping system;
   (2) Access and function capabilities (all transactions should require dual control);
   (3) System defaults pertaining to user identifications, password composition and length, number of attempts before being locked-out, expiration and timeout;
   (4) Dollar limitations for securities safekeeping transactions; and

(5) Managerial review and override capabilities.

d) Observe the processing of a securities safekeeping transaction. Assess dual control constraints where the systems prevent a single employee from performing the input and verify/release functions for transactions.

e) Review the securities safekeeping reconciliations that pertain to general ledger, demand deposit account(s), securities held by each custodian, and securities pledged as collateral as of the examination date. In addition, review the adequacy of the following attributes:

(1) Segregation of duties;
(2) Reconciliation of accounts by another employee in the event the assigned employee is absent;
(3) Timely review of applicable accounts by appropriate staff, including the reconciliation of balances and rejected items and the resolution of differences;
(4) Managerial review of reconciliations; and
(5) Periodic reporting of line management's review of the general ledger reconciliations to accounting staff.

f) Adequacy of business continuation plan for this line of business.

9) Assessment of Risks

Summarize the results of the activity or function examined in a separate memorandum. The memorandum must articulate the risks and the management of those risks. It should also clearly and specifically describe the basis and analysis for the assessment. The memorandum should discuss the type(s) of risk (market, credit, operational); the level of the risk (low, moderate, high); the direction of the risk (stable, decreasing, increasing); and the quality of risk management (strong, adequate, weak). A memorandum must be prepared irrespective of whether the examiner's assessment is positive or negative.

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

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