FHFA’s Oversight of Derivative Counterparty Risk
November 20, 2013

TO: Jon Greenlee, Deputy Director, Division of Enterprise Regulation

FROM: David M. Frost, Acting Deputy Inspector General for Evaluations

SUBJECT: FHFA’s Oversight of Derivative Counterparty Risk (ESR-2014-001)

Objective

The purpose of this evaluation is to assess the Federal Housing Finance Agency’s (FHFA) oversight of the Federal National Mortgage Association’s (Fannie Mae) and the Federal Home Loan Mortgage Corporation’s (Freddie Mac) (collectively, the Enterprises) management of counterparty risk associated with their investments in derivatives.

Overview

This report closes the evaluation by the FHFA Office of Inspector General (OIG) of FHFA’s oversight of the Enterprises’ management of derivative counterparty risk. In addition to surveying FHFA’s oversight of the Enterprises’ management of derivative counterparty risk generally, OIG focused on FHFA’s supervision of the Enterprises’ implementation of the central clearing mandate under Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank).

OIG considered FHFA’s oversight of the Enterprises’ management of derivative counterparty risk in conjunction with the mitigation of that risk resulting from the implementation of Dodd-Frank’s central clearing mandate. OIG concluded that FHFA’s oversight of the Enterprises’ management of this risk is such that, although still a concern, no additional study of this topic is needed. However, OIG will continue to monitor the situation and initiate additional work on this topic if necessary.

At the same time, OIG found that FHFA’s oversight of its regulated entities’ implementation of Dodd-Frank was not uniformly applied. In particular, OIG found that, in contrast to its oversight of the Federal Home Loan Banks (FHLBanks), FHFA did not issue to the Enterprises an Advisory Bulletin providing regulatory guidance regarding the implementation of Dodd-Frank.
OIG recommends that FHFA’s Advisory Bulletins that provide guidance regarding implementation of critical regulatory changes be issued to all the impacted regulated entities. This would further regulatory consistency in FHFA’s oversight practices of its safety and soundness mission.

cc: Edward DeMarco, Acting Director  
    Rick Hornsby, Chief Operating Officer  
    John Major, Manager, Internal Controls and Audit Follow-Up
Background

Introduction

On July 30, 2008, the Housing and Economic Recovery Act (HERA) established FHFA as the regulator of the Enterprises and the Federal Home Loan Bank System. As regulator, FHFA is responsible for overseeing the safety and soundness of the regulated entities, supervising their efforts to support housing finance and affordable housing goals, and facilitating a stable and liquid mortgage market. Further, on September 6, 2008, FHFA became the Enterprises’ conservator. As conservator, FHFA has the statutory authority to preserve and conserve assets of the Enterprises and to take necessary action to put them in a safe and sound condition.

The Enterprises’ combined capital markets businesses, which include their funding, hedging, and investment activities, manage more than $1 trillion of mortgage related assets. Their capital markets portfolios have certain characteristics that are similar to those of a hedge fund and, like a hedge fund, they may sustain significant financial losses. Accordingly, although the Enterprises’ capital markets businesses have generally been profitable, certain elements have incurred tens of billions of dollars in losses since the Enterprises entered into conservatorship. For this reason, the OIG initiated a series of evaluations relating to FHFA’s supervision of the Enterprises’ capital markets businesses.

Among the Enterprises’ capital markets activities, the Enterprises enter into a variety of complex financial instruments known as derivatives contracts. A derivative contract is, essentially, an agreement providing parties to the agreement

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with the obligation or the choice to buy, sell, or exchange something at a future date. Among other reasons, the Enterprises employ derivatives to manage the interest rate and prepayment risks associated with their mortgage assets by transferring these risks to their counterparties, such as investment and commercial banks.\(^4\)

For example, to hedge against the risk of rising short-term interest rates, the Enterprises generally use interest rate swaps under which they trade the fixed-rate interest payments characteristic of mortgage loans for floating-rate interest payments that correspond more closely to their short-term borrowing costs. Thus, if an Enterprise’s mortgage portfolio is situated such that an increase in short-term interest rates from 5% to 7% would yield a $1,000,000 loss, then the Enterprise could invest in interest rate swaps that would return a $1,000,000 profit from the same increase in interest rates. By essentially transforming the fixed-rate interest payments received on their mortgage assets into floating-rate interest payments, the Enterprises mitigate the risk that their investment portfolio will lose value as interest rates fluctuate.\(^5\)

### Counterparty Risk

Derivatives are binding contracts between the Enterprises and their counterparties. To effectively manage their financial risks, the Enterprises depend on the ability of their derivatives counterparties to meet their obligations throughout the lifespan of the agreement. However, as with all contractual agreements, the Enterprises bear the risk of their counterparty’s default. The risk of a counterparty default is referred to as counterparty credit risk or, simply, counterparty risk.

For an Enterprise, a derivative counterparty’s default will result in a loss if the Enterprise is unable to find a suitable replacement contract at an optimal price (or the collateral held by the Enterprise cannot be liquidated at a price that is sufficient to cover the full amount of the derivative exposure). For example, the default of a counterparty to an Enterprise interest rate swap exposes the Enterprise to losses stemming from future fluctuations in interest rates. To

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\(^5\) In effect, the purchase of the swap would leave the GSE in a neutral position with respect to the fluctuation in interest rates, minus the cost of the hedge.
cover that exposure, the Enterprise may have to execute a replacement interest rate swap with a third party, if available, at a higher price.  

**Derivative Market Structure**

Derivatives are traded on two markets: exchanges and over-the-counter (OTC).

Exchanges are centralized markets where all the buying and selling interests of standardized derivative instruments (e.g., futures) come together. Trading data is reported throughout the day. To mitigate counterparty risk, trades of these standardized derivatives are settled and **centrally cleared** through, what is often, an exchange-owned or affiliated clearinghouse.

Central features of this market are clearinghouse netting arrangements and collateral requirements. Netting is a method of reducing risk by combining two or more obligations of a clearing member to a net obligation. This allows the clearinghouse to use debt owed to a failed member to repay debts owed by that member. Collateral requirements refer to the obligations of parties to an agreement to deposit collateral (initial margin) as a performance bond when entering into a trade. Additionally, at the end of each trading day, all contracts are re-priced to reflect movements in the parties’ positions. Parties who lose money because prices moved against them must post additional collateral (variation margin) to cover those losses or otherwise close their positions. Depending on the nature of the derivatives, exchanges and clearing entities are overseen by the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission.

Trading of OTC derivatives, on the other hand, is done on a bilateral basis (i.e., directly between a buyer and seller) with customized terms (e.g., collateral requirements) reflecting the needs of the particular buyer and seller. Prior to Dodd-Frank, OTC derivatives users were not required to disclose to regulators the price, terms, or even the existence of an agreement, nor was there a central clearing requirement. The International Swaps and Derivatives Association published best practices standards for the industry, but compliance with those standards is voluntary.

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6 Additionally, the Enterprise may suffer losses if a counterparty becomes insolvent and the Enterprise is unable to recover collateral that it posted or collect any termination payment that may have been due.
Although not the direct cause of the recent financial crisis, the role that OTC derivatives played in exacerbating its effects demonstrated the need for increased regulation of the OTC market. On July 21, 2010, Dodd-Frank was signed into law. Dodd-Frank’s stated purpose is to promote the financial stability of the United States; it represents a comprehensive overhaul of the financial regulatory regime on a scale not seen since the reforms that followed the Great Depression. In particular, Title VII of Dodd-Frank established a statutory framework designed, in part, to reduce risk and increase transparency in the OTC derivatives markets. It does this by, among other things, mandating that many OTC derivatives be centrally cleared with pricing transparent to participants.

Not all OTC derivatives, however, are clearable. For example, presently, certain OTC derivatives used by the Enterprises, such as interest rate “swaptions” (derivatives where the purchaser buys an option to enter into an interest rate swap), fail to meet the eligibility requirements of clearinghouses. To mitigate risk associated with non-cleared OTC derivatives, Dodd-Frank grants financial regulators the authority to impose initial and variation margin requirements on them as well.

The Enterprises’ Management of Derivative Counterparty Risk

The Enterprises’ derivatives include exchange traded and OTC (cleared and non-cleared) instruments with a combined notional value of over $1.6 trillion. The Enterprises derivatives are, mostly, clearable interest rate related swaps.

Case Study: Lehman Brothers was a global financial services firm that failed in Sept. 2008. Lehman’s failure resulted in its default on $9 trillion (notional) of outstanding interest rate swaps (comprising over 66,000 trades) held by LCH.Clearnet (a leading clearinghouse). Within several weeks, LCH.Clearnet successfully closed out its positions without using the entire margin it had available to support the post-default process and at no loss to other market participants.

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7 In 2000, Congress passed the Commodity Futures Modernization Act (CFMA). CFMA, in part, provided the SEC with anti-fraud authority over “security-based swap agreements.” However, CFMA prohibited the SEC from, among other things, imposing reporting, recordkeeping, or disclosure requirements or other prophylactic measures designed to prevent fraud with respect to such agreements.


9 As noted, a clearinghouse replaces the credit risk of individual counterparties with the institutional credit risk of the clearinghouse itself. As the counterparty to all the trades it clears, the failure of a clearinghouse may have systemic implications. Consequently, in Title VIII of Dodd-Frank, Congress recognized that financial market utilities (FMUs), such as qualified clearinghouses, may also concentrate and create new risks. In part to reduce systemic risk and support the broader financial system, Congress enhanced the regulation and supervision of systemically important FMUs. Furthermore, under terms set by the Board of Governors of the Federal Reserve Board and subject to authorization by the Board in consultation with the Secretary of the Treasury, systemically important FMUs could be given access to emergency credit from the Federal Reserve’s discount window.

10 Pursuant to the 2012 Amendments to the Senior Preferred Stock Purchase Agreements (PSPAs), the Enterprises are required to reduce their portfolios of mortgage related assets (retained portfolios) by 15% annually (until they
As noted, the Enterprises are exposed to counterparty risk by their use of derivative instruments. In particular, the Enterprises’ use of uncleared OTC derivatives (e.g., interest rate swaptions) exposes them to the credit risk of their individual OTC counterparties in the event that the counterparty fails to meet its obligations.

To mitigate this risk, the Enterprises typically enter into master netting and collateral agreements with their OTC counterparties. When an Enterprise’s net position in an OTC derivative has a market value above zero, the master agreement requires the counterparty to deliver high-quality, liquid assets, such as cash or short-term Treasury obligations, as collateral in an amount equal to that market value (typically less a small threshold). That collateral is then held for the benefit of the Enterprise and applied against their claims in case of the counterparty’s default.

Pursuant to Dodd-Frank’s clearing mandate, all new clearable swaps since June 10, 2013, are now cleared through central clearinghouses. As users of cleared OTC derivatives, the Enterprises are required to post initial and variation margin with central clearinghouses. Although the posting of this margin exposes the Enterprises to counterparty risk, the counterparty risk associated with these instruments is mitigated by the substitution of the credit risk of individual counterparties with the credit risk of the clearinghouse.

Both Enterprises recognize and monitor their derivative counterparties’ credit risk pursuant to risk management policies and under FHFA guidance and supervision.

For example, the Enterprises have both specific policies and teams of personnel to monitor the creditworthiness of their derivatives counterparties (e.g., clearinghouses). They draw on a variety of data for this purpose including published credit ratings, their own financial models and analyses, and securities pricing (if available). In addition, daily, the Enterprises measure the value of their derivatives exposures and adjust collateral amounts accordingly. In accordance

reach $250 million). See OIG, Analysis of the 2012 Amendments to the Senior Preferred Stock Purchase Agreements, WPR-2013-03 (Mar. 20, 2013) (online at: http://www.fhfaoig.gov/Content/Files/WPR-2013-002_2.pdf). As noted, the Enterprises use derivatives to hedge against risks associated with their mortgage related assets. In a meeting with OIG, FHFA officials stated that as the size (and complexity) of Enterprises’ retained portfolios is reduced pursuant to the PSPAs requirement, the derivatives portfolios will similarly shrink.
with market-standard practice, specific thresholds for posting collateral are impacted by changes to the parties’ credit ratings.

Both Enterprises have detailed procedures for addressing an increase in counterparty risk from individual derivatives counterparties. For example, they may institute increased collateral requirements or curtail business with them. At both Enterprises, proposed exceptions to counterparty risk exposure limits or established procedures must be approved by senior management. In addition, the Enterprises coordinate these existing efforts with FHFA and share their views about derivative market participants that present particular counterparty risk concerns.

**FHFA’s Oversight of the Enterprises**

In its oversight of the Enterprises’ management of derivative counterparty risk, FHFA produces a weekly report on credit risk associated with the Enterprises’ capital markets counterparties and holds monthly meetings with senior members of the Enterprises’ derivatives teams. In addition, FHFA receives daily reports of the Enterprises’ derivative exposures. FHFA reviews these reports for irregularities. Typically, FHFA does not monitor each of the Enterprises’ individual derivative transactions. Rather, FHFA oversees the Enterprises’ derivatives generally and delves into greater detail when circumstances indicate that greater oversight is warranted.

In conjunction with its 2008 examinations of the Enterprises, FHFA directed each Enterprise to develop a strategy to reduce their derivative counterparty exposure and to explore the use of exchanges and central clearinghouses for their derivatives. Subsequently, the Enterprises unwound billions of dollars (notional) of their derivatives and began the process of transitioning their trades through central clearing entities. Indeed, in its 2009 annual report to Congress, FHFA noted that each of the Enterprises had “constructively explored potential interest rate swap clearinghouses” and had “adopted an action plan to centrally clear and settle derivative interest rate swap contracts.” In its 2010 report, FHFA described the Enterprises’ progress in these regards as “significant.”

In June 2011 and March 2012 (for Fannie Mae and Freddie Mac respectively), FHFA notified the Enterprises that, based on the Enterprises’ successful completion of specified milestones, it had concluded that Fannie Mae and Freddie Mac had adequately addressed the respective directives. At the same time, FHFA noted that it would continue to monitor each Enterprise’s efforts to reduce its derivatives exposure and to conform to the central clearing requirements of Dodd-Frank.

**FHFA Advisory Bulletin**

FHFA Advisory Bulletins are staff documents through which FHFA provides guidance to the entities it regulates regarding particular supervisory issues. Although an Advisory Bulletin does not have the force of a regulation or an order, it does reflect the position of FHFA on the particular issue and is followed by supervisory staff. In FHFA’s annual report to Congress, FHFA reports the extent of the regulated entities’ compliance with specific guidance provided in its Advisory Bulletins. FHFA’s Advisory Bulletins are publicly available on FHFA’s website.
As noted, Title VII of Dodd-Frank establishes a statutory framework designed, in part, to reduce risk and increase transparency in the OTC derivatives markets. On March 4, 2011, FHFA issued Advisory Bulletin 2011-AB-01 advising the FHLBanks to immediately begin the development of a comprehensive plan for the implementation of the central clearing requirements as proposed by the CFTC under Dodd-Frank.  

Advisory Bulletin 2011-AB-01 also provides specific guidance regarding the steps the FHLBanks are to include in their implementation plans. For example, the plans are to identify “resources required to comply with CFTC rules, including staff, systems, operating policies and procedures,” and “sources of liquidity to meet all margin requirements that may be required in connection with both its cleared and non-cleared swap transactions.”

In addition to specified steps, Advisory Bulletin 2011-AB-01 instructs each FHLBank to update its policies and procedures in relevant areas and recommends that each FHLBank’s implementation plan be approved by its board of directors no later than May 31, 2011. FHFA stated it would review and assess the FHLBanks planning and operational readiness for complying with Dodd-Frank’s clearing requirement through examinations and other supervisory reviews.

Findings

1. The Enterprises’ implementation of Dodd-Frank’s central clearing mandate mitigates, in part, their counterparty risk.

To reduce risk and increase transparency in the OTC derivatives marketplace, Dodd-Frank established structural changes to that market and overhauled the relevant regulatory regime. OIG concluded that, in light of the mitigation of derivative counterparty risk resulting from the implementation of Dodd-Frank’s central clearing mandate, FHFA’s oversight of the Enterprises’ management of this risk is such that, although still a concern, no additional study of this topic is needed for now. However, OIG will continue to monitor the situation and initiate additional work on this topic if necessary.

2. OIG found that FHFA’s oversight of its regulated entities’ implementation of Dodd-Frank was not uniformly applied.

In particular, in contrast to its oversight of the FHLBanks, FHFA did not issue to the Enterprises an Advisory Bulletin providing regulatory guidance regarding the implementation of Dodd-Frank.

Recommendation

OIG recommends that FHFA’s Advisory Bulletins that provide guidance regarding implementation of critical regulatory changes be issued to all the impacted regulated entities. This recommendation is intended to further regulatory consistency in FHFA’s oversight practices of its safety and soundness mission.

Scope and Methodology

The purpose of this evaluation was to assess FHFA’s oversight of the Enterprises’ management of counterparty risk associated with their investments in derivatives and implementation of Dodd-Frank.

To address these objectives, OIG:

- Reviewed Dodd-Frank, HERA, the Government Performance and Results Modernization Act of 2010,\(^1^\) Federal Reserve Board of Governors regulations, SEC regulations, and CFTC regulations;
- Reviewed Enterprises’ financial disclosures;
- Interviewed senior FHFA officials;
- Interviewed senior Enterprise staff in the capital markets businesses;
- Reviewed relevant documents including FHFA directives, examination reports, and the Enterprises’ policies and procedures pertaining to counterparty risk management and derivative products;
- Conducted due diligence on market practices and methodologies with representatives of the clearing agencies, Nationally Recognized Statistical Rating Organizations, and other market participants; and
- Reviewed relevant academic literature and industry publications.

The preparation for this evaluation closeout report was conducted under the authority of the Inspector General Act and is in accordance with the Quality Standards for Inspection and Evaluation (January 2012), which was promulgated by the Council of the Inspectors General on Integrity and Efficiency. These standards require OIG to plan and perform an evaluation that obtains evidence sufficient to provide reasonable basis to support the findings made herein. OIG believes that the findings discussed in this report meet these standards.

This study was conducted by David P. Bloch, Director, Division of Mortgage, Investments, and Risk Analysis and Ezra Bronstein, Investigative Counsel. OIG appreciates the cooperation of FHFA and Enterprise staff, as well as the assistance of all those who contributed to the

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\(^1^\) Public L. No. 111-352. The Government Performance and Results Modernization Act of 2010 (GPRMA) establishes federal planning standards. The establishment of timelines and benchmarks is critical to assess progress in implementing plans and is consistent with GPRMA planning requirements.
preparation of this report including Jacob Kennedy, Investigative Evaluator and Desiree Yang, Investigative Analyst.

The performance period for this evaluation closeout report was from October 2012 to May 2013.
MEMORANDUM

TO: David M. Frost, Acting Deputy Inspector General for Evaluations
FROM: Jon D. Greenlee, Deputy Director, Division of Enterprise Regulation
SUBJECT: Survey Report: FHFA’s Oversight of Derivative Counterparty Risk (SUR-2012-018)
DATE: November 12, 2013

This memorandum transmits the Federal Housing Finance Agency’s (FHFA) management response to the recommendation in the report prepared by FHFA-OIG, FHFA’s Oversight of Derivative Counterparty Risk (SUR-2012-018).

FHFA appreciates the opportunity to provide feedback on this draft report and the FHFA-OIG findings. As noted in the report, a key supervisory focus of FHFA is Fannie Mae and Freddie Mac’s use of derivatives and compliance with the provisions of the Dodd-Frank Act. FHFA generally agrees with the FHFA-OIG’s recommendation that agency guidance on key regulatory changes should apply to all impacted regulated entities. It is FHFA’s intent to be consistent across all regulated entities; however, there are times when it is appropriate to take into consideration differences in business activities and practices and risk profiles between Fannie Mae and Freddie Mac and the 12 Federal Home Loan Banks. FHFA has processes in place to ensure that such differences are addressed so that guidance is consistent.

Advisory bulletins are prepared by the Division of Supervision Policy and Support’s Examination Standards Branch (ESB) within the Office of Supervision Policy. ESB’s mission statement and principal responsibilities (available on the FHFA intranet) is to develop supervisory guidance “applicable to all FHFA’s regulated entities, with particular differences across the regulated entities identified where practices or standards differ.” In crafting advisory bulletins, ESB staff engages with subject matter experts across FHFA to analyze how risk management standards should apply to the different operations of the regulated entities.

The Supervision Committee, which was reconstituted in 2013, provides senior executive direction and oversight for the exercise of FHFA’s supervision authority. The Committee’s charter states that the Committee’s responsibilities include “develop a coordinated FHFA approach to supervisory issues.” In addition, the Committee reviews and approves all supervision policies, exam procedures and significant supervision initiatives. Where supervisory guidance may appropriately be tailored or released separately, FHFA’s Supervision Committee carefully considers the issue and staff input, and the Committee documents the decision and rationale. In the case of the guidance issued pursuant to the Dodd-Frank...
requirements, the Enterprises, under the supervision of FHFA, had already tested derivatives clearing processes. Written guidance was issued to the FHLBanks, as they were not in a similar state of readiness.

Finally, when issuing guidance that relates to the Federal Home Loan Banks, FHFA prepares a “differences memorandum” to evidence FHFA’s compliance with applicable statutory requirements found in the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended (12 USC 4513(f)). Those requirements provide that the FHFA Director must consider certain differences between the Banks and the Enterprises prior to promulgating any regulation or taking other agency action of general applicability and future effect relating to the Banks. ESB works closely with the Agency’s Office of the General Counsel to ensure that the differences memorandum reflects that FHFA considered the specific statutory components and differences between the Banks and the Enterprises before taking action.

FHFA will continue with this process on an ongoing basis and will provide documentation to the FHFA-OIG by May 31, 2014.

cc: Richard Hornsby, Chief Operating Officer
Mark Kinsey, Chief Financial Officer
John Major, Internal Controls and Audit Follow-Up Manager
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