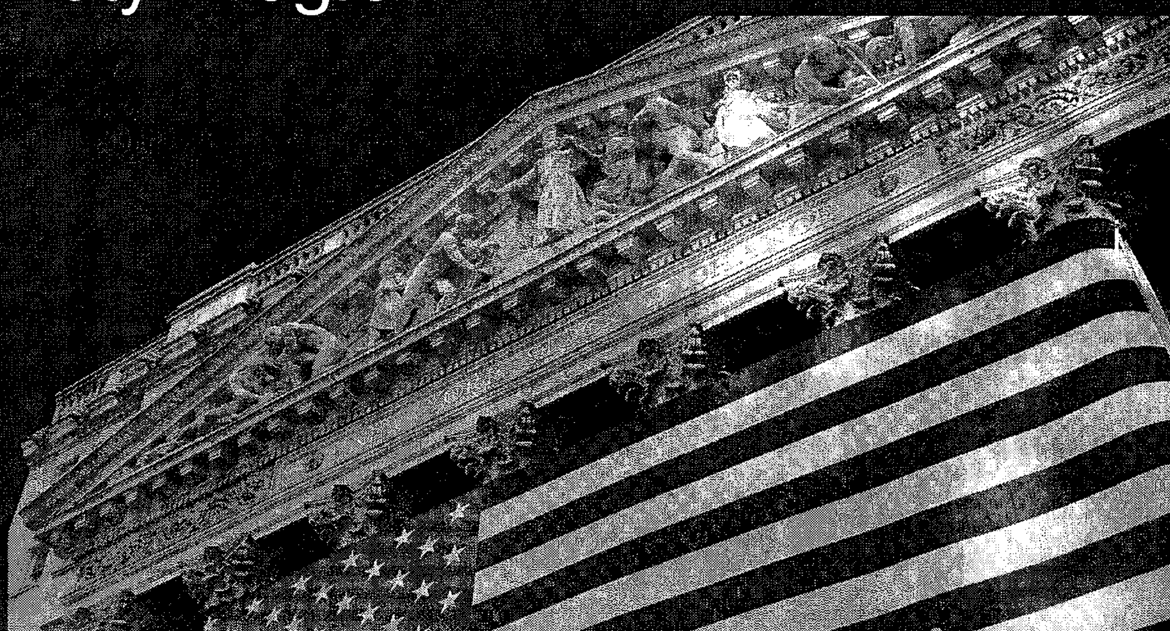
U.S. Securities and Exchange Commission

Office of Inspector General

Office of Audits

SEC's Oversight of Bear Stearns and Related Entities:

The Consolidated Supervised Entity Program



September 25, 2008
Report No. 446-A

The SEC believes this report contains non-public and confidential Information

OFFICE OF
INSPECTOR GENERAL

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

September 25, 2008

To: Chairman Christopher Cox
Erik Sirri, Director, Division of Trading and Markets
Lori Richards, Director, Office of Compliance Inspections and Examinations
John White, Director, Division of Corporation Finance
Jonathan Sokobin, Director, Office of Risk Assessment

From: H. David Kotz, Inspector General

Subject: Audit of *SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program*, Report No. 446-A

This memorandum transmits the Securities and Exchange Commission, Office of Inspector General's (OIG) final report detailing the results of our audit on the SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program. This audit was conducted pursuant to a Congressional request from Ranking Member Charles E. Grassley of the United States Senate Committee on Finance.

The final report consists of 26 recommendations that are addressed primarily to the Division of Trading and Markets (TM). Recommendations 18 and 25 are also addressed to the Office of Compliance Inspections and Examinations (OCIE) and Recommendation 19 is also addressed to the Office of Risk Assessment (ORA). Recommendations 20 and 21 are addressed to the Division of Corporation Finance (CF), Recommendation 17 is addressed to CF and TM, and Recommendation 22 is addressed to Chairman Cox.

In response to the draft report, responsible management officials agreed with 21 out of 26 recommendations. TM concurred with 20 of 23 recommendations addressed to them and disagreed with Recommendations 13, 15, and 16. OCIE concurred with both recommendations addressed to them. CF concurred with Recommendation 17, but disagreed with Recommendations 20 and 21.

Your written responses to the draft report, dated August 18, 2008, are included in their entirety in Appendices VI and VII. In addition, OIG's response to Chairman Cox's and Management's comments are included in Appendix VIII.

Should you have any questions regarding this report, please do not hesitate to contact me. During this audit we appreciate the courtesy and cooperation that you and your staff extended to our auditors.

Attachment

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The CSE Program (Including Reviews Performed on Bear Stearns)

Executive Summary

Background. During the week of March 10, 2008, rumors spread about liquidity problems at The Bear Stearns Companies, Inc. (Bear Stearns).[1] As the rumors spread, Bear Stearns was unable to obtain secured financing from counterparties. This caused severe liquidity problems. As a result, on Friday March 14, 2008, JP Morgan Chase & Co. (JP Morgan) provided Bear Stearns with emergency funding from the Federal Reserve Bank of New York (FRBNY).[2] According to Congressional testimony,[3] after the markets closed on March 14, 2008, it became apparent that the FRBNY's funding could not stop Bear Stearns' downward spiral. As a result, Bear Stearns concluded that it would need to file for bankruptcy protection on March 17, 2008, unless another firm purchased it. On Sunday March 16, 2008, (before the Asian markets opened), Bear Stearns' sale to JP Morgan was announced with financing support from the FRBNY. In May 2008, the sale was completed.

Because Bear Stearns had collapsed, at the time of our fieldwork, there were six holding companies in the Securities and Exchange Commission's (Commission) Consolidated Supervised Entity (CSE) program. In addition to Bear Stearns, these six holding companies include or included Goldman Sachs Group, Inc. (Goldman Sachs), Morgan Stanley, Merrill Lynch & Co. (Merrill Lynch), Lehman Brothers Holdings Inc. (Lehman Brothers), Citigroup Inc. and JP Morgan. On September 15, 2008, Lehman Brothers announced that it would file for bankruptcy protection and Bank of America announced that it agreed to acquire Merrill Lynch.[4] Both firms had experienced serious financial difficulties. Finally, on September 21, 2008, the Board of Governors of the Federal Reserve System (Federal Reserve) approved, pending a statutory five-day antitrust waiting period, applications from Goldman Sachs and Morgan Stanley to become bank holding companies with the Federal Reserve as their new principal regulator. As a result, the future of the CSE program is uncertain.

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1 See Acronyms used in Appendix I.

2 The funding was from the Federal Reserve Bank of New York (FRBNY) through JP Morgan Chase & Co. (JP Morgan) to The Bear Stearns Companies, Inc. (Bear Stearns) because JP Morgan, unlike Bear Stearns, could borrow money from the FRBNY.

3 Timothy Geithner (President and Chief Executive Officer, FRBNY) and Alan Schwartz (President and Chief Executive Officer of Bear Stearns) before U.S. Senate Committee on Banking, Housing and Urban Affairs on Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators dated April 3, 2008.

4 The audit fieldwork was completed prior to these events on September 15, 2008.

Of the seven original CSE firms, the Commission exercised direct oversight over only five firms (Bear Stearns, Goldman Sachs, Morgan Stanley, Merrill Lynch, and Lehman Brothers), which did not have a principal regulator. The Commission does not directly oversee Citigroup Inc. and JP Morgan because these firms have a principal regulator, the Federal Reserve.

The CSE program is a voluntary program that was created in 2004 by the Commission pursuant to rule amendments under the Securities Exchange Act of 1934.[5] This program allows the Commission to supervise these broker-dealer holding companies on a consolidated basis. In this capacity, Commission supervision extends beyond the registered broker-dealer to the unregulated affiliates of the broker-dealer to the holding company itself. The CSE program was designed to allow the Commission to monitor for financial or operational weakness in a CSE holding company or its unregulated affiliates that might place United States regulated broker-dealers and other regulated entities at risk.

A broker-dealer becomes a CSE by applying to the Commission for an exemption from computing capital using the Commission's standard net capital rule, and the broker-dealer's ultimate holding company consenting to group-wide Commission supervision (if it does not already have a principal regulator). By obtaining an exemption from the standard net capital rule, the CSE firms' broker-dealers are permitted to compute net capital using an alternative method. The Commission designed the CSE program to be broadly consistent with the Federal Reserve's oversight of bank holding companies.

Bear Stearns' main activities were investment banking, securities and derivatives sales and trading, clearance, brokerage and asset management. Bear Stearns was highly leveraged with a large exposure (*i.e.,* concentration of assets) in mortgage-backed securities. Bear Stearns had less capital and was less diversified than several of the other CSE firms.

The Commission stated that Bear Stearns' unprecedented collapse was due to a liquidity crisis caused by a lack of confidence. Chairman Christopher Cox described Bear Stearns as a well-capitalized and apparently fully liquid major investment bank that experienced a crisis of confidence, denying it not only unsecured financing, but short-term secured financing, even when the collateral consisted of agency securities with a market value in excess of the funds to be borrowed.[6]

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5 Source: Final Rule: Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities (69 Fed Reg. 34.428). Securities and Exchange Commission (Commission). 21 June 2004. <http://www.sec.gov/rules/final/34-49830.htm>.

6 Source: *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before United states (U.S.) Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (April 3, 2008) (statement of Christopher Cox, Chairman, Commission).

Congressional Request. On April 2, 2008, the Office of Inspector General (OIG) received a letter from Ranking Member Charles E. Grassley of the United States Senate Committee on Finance, requesting that the OIG analyze the Commission's oversight of CSE firms and broker-dealers subject to the Commission's Risk Assessment Program.[7] This letter noted that the Commission's Division of Trading and Markets (TM) was responsible for regulating the largest broker-dealers, and their associated holding companies. The letter requested a review of TM's oversight of the five CSE firms it directly oversees, with a special emphasis on Bear Stearns. The letter requested that the OIG analyze how the CSE program is run, the adequacy of the Commission's monitoring of Bear Stearns, and make recommendations to improve the Commission's CSE program.

The United States Senate Committee on Finance letter also requested that the OIG provide an update of findings made in its previous audit report on the Commission's Broker-Dealer Risk Assessment Program (*Broker-Dealer Risk Assessment Program*, Report no. 354, issued on August 13, 2002).[8]

Audit Objectives. In response to the April 2, 2008 Congressional Request, the OIG conducted two separate audits with regard to the Commission's oversight of Bear Stearns and related entities. This audit's objectives were to evaluate the Commission's CSE program, emphasizing the Commission's oversight of Bear Stearns and to determine whether improvements are needed in the Commission's monitoring of CSE firms and its administration of the CSE program.

The OIG performed a second audit on the Commission's Broker-Dealer Risk Assessment Program to follow up on the current status of recommendations made in the OIG's prior audit report of the Risk Assessment Program (*Broker-Dealer Risk Assessment Program*, Report no. 354, issued on August 13, 2002) and to examine the Broker-Dealer Risk Assessment program to determine whether improvements are needed. The Commission's Risk-Assessment program tracks the filing status of 146 broker-dealers that are part of a holding company structure and have at least $20 million in capital. The Risk Assessment Program report found that TM is not fulfilling its obligations in accordance with the underlying purpose of the Broker-Dealer Risk Assessment program in several respects. TM has failed to update and finalize the rules governing the program, TM has not enforced the filing requirement incumbent on broker-dealers, resulting in the failure of nearly one-third of the required firms to file 17(h) documents, TM has not yet determined whether the two remaining Bear Stearns' broker-dealers are obligated to file Form 17-H, and TM only

[7] A copy of this request letter is attached to this report in full in Appendix II.

[8] The U.S. Senate Committee on Finance letter also requested that the Office of Inspector General (OIG) conduct an investigation into the facts and circumstances surrounding the Commission's decision not to pursue an Enforcement Action against Bear Stearns. This issue will be addressed in an OIG investigative report to be issued on September 30, 2008.

conducts an in-depth review of the filings for six of the 146 filing firms that TM determined are most significant, based on their free credit balances and customer accounts. Audit report number 446-B examining the Commission's Risk Assessment program contains 10 recommendations and was issued on September 25, 2008.

Retention of an Expert. Given the complexity of the subject matter, the OIG retained an expert, Albert S. (Pete) Kyle to provide assistance with this audit. Professor Kyle joined the University of Maryland faculty as the Charles E. Smith Chair Professor of Finance at the Robert H. Smith School of Business in August 2006. He earned a Bachelor of Science degree in Mathematics from Davidson College in 1974, studied Philosophy and Economics at Oxford University as a Rhodes Scholar and completed his Ph.D. in Economics at the University of Chicago in 1981. He was a professor at Princeton University's Woodrow Wilson School from 1981-1987, at the University of California's Haas Business School in Berkeley from 1987-1992, and at Duke University from 1992-2006.

Professor Kyle is a renowned expert on many aspects of capital markets, with a particular focus on market microstructure. He has conducted significant research on such topics as informed speculative trading, market manipulation, price volatility, and the information content of market prices, market liquidity, and contagion. His paper "Continuous Auctions and Insider Trading" (Econometrica, 2005) is one of the mostly highly cited papers in theoretical asset pricing.

Professor Kyle was elected a Fellow of the Econometric Society in 2002. He was also a board member of the American Finance Association from 2004-2006. He served as a staff member of the Presidential Task Force on Market Mechanisms (Brady Commission), after the stock market crash of 1987. During his career, he has worked as a consultant on finance topics for several government agencies, in addition to the Commission, including the Department of Justice, the Internal Revenue Service, the Federal Reserve and the Commodity Futures Trading Commission.

Professor Kyle's Curriculum Vitae appears in Appendix III of this report.

In this audit, Professor Kyle analyzed TM's oversight of the CSE firms, with a particular focus on Bear Stearns. Professor Kyle reviewed TM's internal memoranda on the CSE firms, which documented TM's assessment of the CSE firms' operations and reviewed data in the CSE firms' monthly and quarterly CSE program filings.

From this information, Professor Kyle analyzed the firms' financial data, holdings, risk management strategies, tolerance for risk and assessed the adequacy of the firms' filings. In particular, Professor Kyle analyzed Bear Stearns' capital, liquidity, and leverage ratios, access to secured and unsecured financing, and its compliance with industry and worldwide standards such as the Basel Standards.[9] Professor Kyle analyzed how TM supervised or oversaw Bear Stearns' mortgage-backed securities portfolio, its use of models to measure risk, the adequacy of its models, its model review process, the relationship between its traders and risk management department, and its risk-management scenarios. Professor Kyle also examined how TM supervised Bear Stearns' internal operations, including its funding of two prominent hedge funds that collapsed in the summer of 2007.

Audit Conclusions and Results. The CSE program's mission (goal) provides in pertinent part as follows:

> The regime is intended to allow the Commission to monitor for, and act quickly in response to, financial or operational weakness in a CSE holding company or its unregulated affiliates that might place regulated entities, including US and foreign-registered banks and broker-dealers, *or the broader financial system at risk.*[10] [Emphasis added]

Thus, it is undisputable that the CSE program failed to carry out its mission in its oversight of Bear Stearns because under the Commission and the CSE program's watch, Bear Stearns suffered significant financial weaknesses and the FRBNY needed to intervene during the week of March 10, 2008, to prevent significant harm to the broader financial system.[11]

This audit was not intended to be a complete assessment of the multitude of events that led to Bear Stearns' collapse, and accordingly, does not purport to demonstrate any specific or direct connection between the failure of the CSE Program's oversight of Bear Stearns and Bear Stearns' collapse. However, we have identified serious deficiencies in the CSE program that warrant improvements. Overall, we found that there are significant questions about the adequacy of a number of CSE program requirements, as Bear Stearns was

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9 "The Basel Committee on Banking Supervision (Basel Committee) seeks to improve the quality of banking supervision worldwide, in part by developing broad supervisory standards. The Basel Committee consists of central bank and regulatory officials from 13 member countries: Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, United Kingdom, and United States. The Basel Committee's supervisory standards are also often adopted by nonmember countries." Source: Government Accountability Office. Bank Regulators Need to Improve Transparency and Overcome Impediments to Finalizing the Proposed Basel II Framework. Report No. 07-253, February 15, 2007.

10 Source: SEC [Commission] Consolidated Supervision of Broker-Dealer Holding Companies Program Overview and Assessment Criteria. Commission. 16 Mar 2007. <http://www.sec.gov/divisions/marketreg/cseoverview.htm>.

11 The Commission established criteria (the link is provided below) for measuring the success of the Consolidated Supervised Entity (CSE) program. While the CSE program may have been successful in achieving its established criteria, none of the criteria standards directly related to the failure of a CSE firm and its effect on the broader financial system (as stated in the CSE program's goal statement). Source: SEC [Commission] Consolidated Supervision of Broker-Dealer Holding Companies Program Overview and Assessment Criteria. Commission. 16 Mar 2007.

compliant with several of these requirements, but nonetheless collapsed. In addition, the audit found that TM became aware of numerous potential red flags prior to Bear Stearns' collapse, regarding its concentration of mortgage securities, high leverage, shortcomings of risk management in mortgage-backed securities and lack of compliance with the spirit of certain Basel II standards, but did not take actions to limit these risk factors.

In addition, the audit found that procedures and processes were not strictly adhered to, as for example, the Commission issued an order approving Bear Stearns to become a CSE prior to the completion of the inspection process. Further, the Division of Corporation Finance (CF) did not conduct Bear Stearns' most recent 10-K filing review in a timely manner.

The audit also identified numerous specific concerns with the Commission's oversight of the CSE program, some of which are summarized as follows:[12]

(a) Bear Stearns was compliant with the CSE program's capital and liquidity requirements;[13] however, its collapse raises questions about the adequacy of these requirements;

(b) Although TM was aware, prior to Bear Stearns becoming a CSE firm, that Bear Stearns' concentration of mortgage securities was increasing for several years and was beyond its internal limits, and that a portion of Bear Stearns' mortgage securities (*e.g.,* adjustable rate mortgages) represented a significant concentration of market risk, TM did not make any efforts to limit Bear Stearns' mortgage securities concentration;

(c) Prior to the adoption of the rule amendments which created the CSE program, the broker-dealers affiliated with the CSE firms were required to either maintain:

   - A debt to-net capital ratio of less than 15 to 1(after their first year of operation); or
   - Have net capital not less than the greater of $250,000 or two percent of aggregate debit items computed in accordance with the *Formula for Determination of Reserve Requirements for Broker-Dealers.*

   However, the CSE program did not require a leverage ratio limit for the CSE firms. Furthermore, despite TM being aware that Bear Stearns' leverage was high, TM made no efforts to require Bear

[12] We have no specific evidence indicating whether any of these issues directly contributed to Bear Stearns' collapse since our audit scope did not include a determination of the cause of Bear Stearns' collapse (see Appendix IV).

[13] As discussed in the Scope and Methodology section (see Appendix IV), we did not independently verify (*i.e.,* recalculate and determine the accuracy) Bear Stearns' capital or liquidity amounts.

Stearns to reduce its leverage, despite some authoritative sources describing a linkage between leverage and liquidity risk;

(d) TM became aware that risk management of mortgages at Bear Stearns had numerous shortcomings, including lack of expertise by risk managers in mortgage-backed securities at various times; lack of timely formal review of mortgage models; persistent understaffing; a proximity of risk managers to traders suggesting a lack of independence; turnover of key personnel during times of crisis; and the inability or unwillingness to update models to reflect changing circumstances. Notwithstanding this knowledge, TM missed opportunities to push Bear Stearns aggressively to address these identified concerns;

(e) There was no documentation of discussions between TM and Bear Stearns of scenarios involving a meltdown of mortgage market liquidity, accompanied by a fundamental deterioration of the mortgages themselves. TM appeared to identify the types of risks associated with these mortgages that evolved into the subprime mortgage crisis yet did not require Bear Stearns to reduce its exposure to subprime loans;

(f) Bear Stearns was not compliant with the spirit of certain Basel II standards and we did not find sufficient evidence that TM required Bear Stearns to comply with these standards;

(g) TM took no actions to assess Bear Stearns' Board of Directors' and senior officials' (*e.g.,* the Chief Executive Officer) tolerance for risk although we found that this is a prudent and necessary oversight procedure;

(h) TM authorized (without an appropriate delegation of authority) the CSE firms' internal audit staff to perform critical audit work involving the risk management systems instead of the firms' external auditors as required by the rule that created the CSE program;

(i) In June 2007, two of Bear Stearns' managed hedge funds collapsed. Subsequent to this collapse, significant questions were raised about some of Bear Stearns' senior managements' lack of involvement in handling the crisis. However, TM did not reassess the communication strategy component of Bear Stearns' Contingency Funding Plan (CFP) after the collapse of the hedge funds, and very significant questions were once again raised about some of Bear Stearns' managements' handling of the crisis during the week of March 10, 2008;

(j) The Commission issued four of the five Orders approving firms to use the alternative capital method, and thus become CSEs (including Bear Stearns) before the inspection process was completed; and

(k) CF did not conduct Bear Stearns' most recent 10-K filing review in a timely manner. The effect of this untimely review was that CF deprived investors of material information that they could have used to make well-informed investment decisions (*i.e.,* whether to buy/sell Bear Stearns' securities). In addition, the information (*e.g.,* Bear Stearns' exposure to subprime mortgages) could have been potentially beneficial to dispel the rumors that led to Bear Stearns' collapse.

Recommendations. We identified 26 recommendations (see Appendix V) that should significantly improve the Commission's oversight of CSE firms. Chairman Cox's and Management's comments are attached in Appendix VI and VII, respectively. Our recommendations include:

(a) A reassessment of guidelines and rules regarding the CSE firms' capital and liquidity levels;

(b) Taking appropriate measures to ensure that TM adequately incorporates a firm's concentration of securities into the CSE program's assessment of a firm's risk management systems and more aggressively prompts CSE firms to take appropriate actions to mitigate such risks;

(c) A reassessment of the CSE program's policy regarding leverage ratio limits;

(d) Ensuring that: (1) the CSE firms have specific criteria for reviewing and approving models used for pricing and risk management, (2) the review and approval process conducted by the CSE firms is performed in an independent manner by the CSEs' risk management staff, (3) each CSE firm's model review and approval process takes place in a thorough and timely manner, and (4) limits are imposed on risk taking by firms in areas where TM determines that risk management is not adequate;

(e) Being more skeptical of CSE firms' risk models and working with regulated firms to help them develop additional stress scenarios that have not already been contemplated as part of the prudential regulation process;

(f) Greater involvement on the part of TM in formulating action plans for a variety of stress or disaster scenarios, even if the plans are informal;

(g) Taking steps to ensure that mark disputes do not provide an occasion for CSE firms to inflate the combined capital of two firms by using inconsistent marks;

(h) Encouraging the CSE firms to present Value at Risk and other risk management data in a useful manner, which is consistent with how the CSE firms use the information internally and allows risk factors to be applied consistently to individual desks;

(i) Ensuring (in accordance with Basel II) that the Consolidated Supervised Entities take appropriate capital deductions for illiquid assets and appropriate capital deductions for stressed repos, especially stressed repos where illiquid securities are posted as collateral;

(j) Greater discussion of risk tolerance with the CSE firms' Boards of Directors and senior management to better understand whether the actions of CSE firms' staff are consistent with the desires of the Boards of Directors and senior management;

(k) Requiring compliance with the existing rule that requires external auditors to review the CSE firms' risk management control systems or seek Commission approval in accordance with the Administrative Procedures Act for this deviation from the current rule's requirement;

(l) Ensuring that reviews of a firm's CFP includes an assessment of a CSE firm's internal and external communication strategies;

(m) Developing a formal automated process to track material issues identified by the monitoring staff to ensure they are adequately resolved;

(n) Ensuring that they complete all phases of a firm's inspection process before recommending that the Commission allow any additional CSE firms the authority to use the alternative capital method;

(o) Improving collaboration efforts among TM, CF, the Office of Compliance Inspections and Examination (OCIE), and the Office of Risk Assessment (ORA);

(p) The development by CF of internal guidelines for reviewing filings timely and tracking and monitoring compliance with its internal guidelines; and

(q) The creation of a Task Force led by ORA with staff from TM, the Division of Investment Management, and OCIE to perform an analysis of large firms with customer accounts that hold significant amounts of customer funds and have unregulated entities, to determine the costs and benefits of supervising these firms on a consolidated basis.

The final report consists of 26 recommendations that are addressed primarily to the Division of Trading and Markets (TM). Recommendations 18 and 25 are also addressed to the Office of Compliance Inspections and Examinations (OCIE) and Recommendation 19 is also addressed to the Office of Risk Assessment (ORA). Recommendations 20 and 21 are addressed to the Division of

Corporation Finance (CF), Recommendation 17 is addressed to CF and TM, and Recommendation 22 is addressed to Chairman Cox.

In response to the draft report, responsible management officials agreed with 21 out of 26 recommendations. TM concurred with 20 of 23 recommendations addressed to them and disagreed with Recommendations 13, 15, and 16. OCIE concurred with both recommendations addressed to them. CF concurred with Recommendation 17, but disagreed with Recommendations 20 and 21.

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Background and Objectives

Background

General Background Information. The Division of Trading and Markets (TM)[14] is responsible for regulating broker-dealers, which includes administering the Consolidated Supervised Entity (CSE) and Broker-Dealer Risk Assessment programs. The Office of Compliance Inspections and Examinations (OCIE) has responsibility within the Securities and Exchange Commission (Commission) for conducting the inspections[15] of broker-dealers, including broker-dealers that are affiliated with CSE firms[16] (*i.e.,* investment banks).[17] The following TM offices are directly involved in these programs:

- Office of Financial Responsibility: This office is responsible for administering the financial responsibility regulations (*e.g.,* net capital rule[18]

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[14] See Acronyms used in Appendix I.

[15] The Division of Trading and Markets (TM) uses the term "inspections", however, the Office of Compliance Inspections and Examinations (OCIE) uses the term "examinations". For purposes of this audit report, we use the term "inspections" to refer to both. In addition, for purposes of this audit report, OCIE also includes the Inspection staff in the Commission's regional offices.

[16] During our audit fieldwork, there were four Consolidated Supervised Entity (CSE) firms whose principal regulator (as discussed below) was the Commission: Goldman Sachs Group, Inc., Lehman Brothers Holdings Inc. (Lehman Brothers), Merrill Lynch & Co., Inc., and Morgan Stanley. On September 15, 2008, Lehman Brothers announced that it would file for bankruptcy protection and Bank of America announced that it agreed to acquire Merrill Lynch & Co., Inc. On September 21, 2008, the Federal Reserve approved, pending a statutory five-day antitrust waiting period, applications from Goldman Sachs and Morgan Stanley to become bank holding companies. The Bear Stearns Companies, Inc. (Bear Stearns) was also a CSE firm (approved in November 2005) until its collapse. In addition, JP Morgan Chase & Co. (JP Morgan) and Citigroup Inc. have been approved to use the alternative method for their broker-dealer capital requirements, but the Board of Governors of the Federal Reserve System (Federal Reserve) is their principal regulator (*i.e.,* is responsible for the consolidated entity) but the Commission is responsible for the oversight of their broker-dealers. As a result, the Securities and Exchange Commission (Commission) defers oversight (of the consolidated entity) of JP Morgan and Citigroup to the Federal Reserve to avoid duplicative or inconsistent regulation.

[17] In 2007, in response to a Government Accountability Office (GAO) report Financial Market Regulation: Agencies Engaged in Consolidated Supervision Can Strengthen Performance Measurement and Collaboration. Report 07-154, March 15, 2007 (as discussed in the Prior Audit Coverage section of the Scope and Methodology - see Appendix III); the Chairman (in consultation with the other Commissioners) transferred the responsibility for conducting inspections of the consolidated entity from OCIE to TM. OCIE retained (within the Commission) responsibility for conducting inspections on the CSE's broker-dealers. The Self Regulatory Organizations (SRO) have the primary inspection responsibility for the registered broker-dealers. OCIE has oversight responsibility of these broker-dealers and conducts periodic inspections. The Financial Industry Regulatory Authority (FINRA) is the primary regulator of approximately 5,000 broker-dealers registered in the United States (U.S.).

[18] "The net capital rule focuses on liquidity and is designed to protect securities customers, counterparties, and creditors by requiring that broker-dealers have sufficient liquid resources on hand at all times to satisfy claims promptly". Source: GAO Report Risk-Based Capital Regulatory and Industry Approaches to Capital and Risk, Report No. GGD-98-153, July 20, 1998.

and customer protection[19]). These regulations are intended to protect customers and financial institutions. This office also oversees the Securities Investor Protection Corporation and has approximately nine staff.[20]

- Office of Prudential Supervision and Risk Analysis: The staff (referred to as "monitors") in this office work in teams of three to review each CSE firm. They perform their work mainly through periodic meetings and informal discussions with CSE staff. The staff also review CSE required financial filings. The staff have backgrounds in economics, accounting, and finance and expertise in credit, market, or liquidity risk. Approximately 13 individuals comprise the staff.

- Office of CSE Inspections: This office is responsible for conducting the inspections on the CSE firms. They have seven staff who are located in both Washington D.C. and New York.

CSE Program. In 2004, the Commission adopted rule amendments under the Securities and Exchange Act of 1934,[21] which created the voluntary CSE program. This program allows the Commission to supervise certain broker-dealer holding companies on a consolidated basis. In this capacity, Commission supervision extends beyond the registered broker-dealer to the unregulated affiliates of the broker-dealer and the holding company itself. The CSE program was designed to allow the Commission to monitor for financial or operational weakness in a CSE holding company or its unregulated affiliates that might place United States (U.S.) regulated broker-dealers and other regulated entities at risk.

A broker-dealer becomes a CSE by applying to the Commission for an exemption from the Commission's standard net capital rule,[22] and the broker-dealer's ultimate holding company consenting to group-wide Commission supervision, if it does not already have a principal regulator. By obtaining an exemption from the standard net capital rule, the CSE firms' broker-dealers are permitted to compute net capital using an alternative method.[23]

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[19] The customer protection rule "is designed to ensure that customer property (securities and funds) in the custody of broker-dealers is adequately safeguarded."
Source: GAO Report Risk-Based Capital Regulatory and Industry Approaches to Capital and Risk, Report No. GGD-98-153, July 20, 1998.

[20] The Securities Investor Protection Act of 1970, 15 U.S.C. § 78aaa *et. seq.,* as amended, was enacted to protect customers from losses resulting from a broker-dealers' failure, thereby promoting investor confidence in the securities markets. The Securities Investor Protection Corporation was created by the Act to pay investor claims. (See 15 U.S.C. § 78ccc).

[21] Source: Final Rule: Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities (69 Fed Reg. 34.428). Commission. 21 June 2004. <http://www.sec.gov/rules/final/34-49830.htm>.

[22] See 17 C.F.R. § 24015c3-1.

[23] The alternative capital method is based on mathematical models and scenario testing, while broker-dealers operating under the standard net capital rule must meet certain ratios and maintain minimum net capital levels based on the type of securities activities they conduct. (See 17 C.F.R. 240.15c3-1(a)(7)).

The Commission designed the CSE program to be broadly consistent with the Board of Governors of the Federal Reserve System's (Federal Reserve) oversight of bank holding companies. However, the CSE program "reflects the reliance of securities firms on mark-to-market accounting as a critical risk and governance control. Second, the design of the CSE regime reflects the critical importance of maintaining adequate liquidity in all market environments for holding companies that do not have access to an external liquidity provider." [24]

The CSE application process includes TM reviewing a firm's application[25] (for an exemption from the net capital rule) and makes a recommendation to the Commission. Approval of the firm's application is contingent on the firm agreeing to group-wide Commission supervision of the consolidated entity (including unregulated affiliates), if the firm does not already have a principal regulator. In addition, CSE firms must agree to:

- "Maintain and document an internal risk management control system for the affiliate group;"[26]
- "Calculate a group-wide capital adequacy measure consistent with the international standards adopted by the Basel Committee on Banking Supervision [[27]] ('Basel Standards')."[28] The CSEs are required to maintain an overall Basel capital ratio[29] of not less than the Federal Reserve's 10 percent "well-capitalized" standard for bank holding companies. The CSE must notify the Commission (*e.g.,* file an Early Warning Notice) if the 10 percent capital ratio is or is likely to be violated,[30] or if tentative net capital of the broker-dealer falls below $5 billion;[31]

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[24] Source: *Examining Regulation and Supervision of Industrial Loan Companies* Before US Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (October 4, 2007) (statement of Erik Sirri, Director of TM, Commission).

[25] The application process includes inspections whose purpose is to verify the information the firms provides during the application process and to "assess the adequacy of the implementation of the firm's internal risk management policies and procedures."
Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

[26] Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

[27] "The Basel Committee on Banking Supervision (Basel Committee) seeks to improve the quality of banking supervision worldwide, in part by developing broad supervisory standards. The Basel Committee consists of central bank and regulatory officials from 13 member countries: Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, United Kingdom, and United States. The Basel Committee's supervisory standards are also often adopted by nonmember countries." Source: GAO. Bank Regulators Need to Improve Transparency and Overcome Impediments to Finalizing the Proposed Basel II Framework. Report No. 07-253, February 15, 2007.

[28] Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>. [footnote added]

[29] The Basel capital ratio is capital divided by risk weighted assets.

[30] We are aware of one instance where this occurred. In our opinion, TM acted reasonably.

[31] Sources for the information include:

- *Risk Management and its Implications for Systemic Risk* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (June 19, 2008) (statement of Erik Sirri, Director of TM, Commission); and

- Maintain "sufficient stand-alone liquidity and sufficient financial resources to meet its expected cash outflows in a stressed liquidity environment where access to unsecured funding is not available for a period of at least one year. Another premise of this liquidity planning is that any assets held in a regulated entity are unavailable for use outside of the entity to deal with weakness elsewhere in the holding company structure, based on the assumption that during the stress event, including a tightening of market liquidity, regulators in the U.S. and relevant foreign jurisdictions would not permit a withdrawal of capital;"[32]

- "Consent to Commission examination [inspection] of the books and records of the ultimate holding company [*i.e.*, the consolidated entity] and its affiliates, where those affiliates do not have principal regulators;"[33]

- "Regularly report on the financial and operational condition of the holding company, and make available to the Commission information about the ultimate holding company or any of its material affiliates that is necessary to evaluate financial and operations risks within the ultimate holding company and its material affiliates;"[34] and

- "Make available [examination] inspection reports of principal regulators for those affiliates that are not subject to Commission [examination] inspection."[35]

The firms agreed to consolidated supervision because of the preferential capital treatment under the alternative method and international requirements. The European Union's (EU) Conglomerates Directive required that affiliates of U.S. registered broker-dealers demonstrate that they were subject to consolidated supervision by a U.S. regulator or face significant restrictions on their European operations.[36]

- Final Rule: Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities (69 Fed Reg. 34-428). Commission. 21 June 2004. <http://www.sec.gov/rules/final/34-49830.htm>.

[32] Source: *Risk Management and its Implications for Systemic Risk* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (June 19, 2008) (statement of Erik Sirri, Director of TM, Commission).

[33] Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

[34] Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

[35] Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

[36] According to the CSE final rule, "EU [European Union] 'consolidated supervision' consists of a series of quantitative and qualitative rules, imposed at the level of the ultimate holding company, regarding firms' internal controls, capital adequacy, intra-group transactions, and risk concentration. Without a demonstration of 'equivalent' supervision, U.S. securities firms have expressed concerns that an affiliate institution located in the EU either may be subject to additional capital charges or be required to form a sub-holding company in the EU.' See 'Directive 2002/87/EC of the European Parliament and of the Council of 16 December 2002." Source: Final Rule: Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities (69 Fed Reg. 34.428). Commission. 21 June 2004. <http://www.sec.gov/rules/final/34-49830.htmP42_10820>.

Mortgage Loans. Beginning around late 2004, lenders offered mortgages to individuals who did not meet the normal qualifications (*e.g.,* income or credit history). Many of these loans had teaser rates and/or were interest only. These more risky loans are referred to as "subprime mortgages." The theory behind approving these risky loans was that the homeowner would be able to refinance the loan in a few years because of the increased growth in home values and the individual's improved credit rating. Banks converted these loans into securities and sold the securities to other firms (known as the securitization process).

Once home values began to decrease, mortgage loan defaults started to increase, causing the market value of the mortgage securities to decrease. In the ensuing months, the financial services industry wrote-down billions of dollars in the value of all types of mortgage securities.[37]

Bear Stearns' Collapse.[38] The Bear Stearns Companies, Inc. (Bear Stearns) was a holding company that had two registered broker-dealers. Its main activities were investment banking, securities and derivatives sales and trading, clearance, brokerage and asset management.[39] Bear Stearns was highly leveraged[40] with a large exposure (*i.e.,* concentration of assets) in mortgage-backed securities.[41] Bear Stearns also had less capital and was less diversified than several of the CSE firms.

In June 2007, two of Bear Stearns' managed hedge funds collapsed because of subprime mortgage losses.[42] Nearly a year later, during the week of March 10, 2008, rumors spread about liquidity problems at Bear Stearns. Due to Bear Stearns' lenders not rolling over secured financing, Bear Stearns faced severe liquidity problems on March 14, 2008.[43] As a result, on March 14, 2008, JP Morgan Chase & Co. (JP Morgan) provided Bear Stearns with emergency

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[37] In accordance with Generally Accepted Accounting Principles, the securities must be valued at fair market value (*i.e.,* mark to market accounting).

[38] Sources for this information include:

- *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Congress (April 3, 2008) (statement of Timothy Geithner, President and Chief Executive Officer, Federal Reserve Bank of New York (FRBNY);
- *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Congress (April 3, 2008) (statement of Jamie Dimon (Chairman and Chief Executive Officer, JP Morgan); and
- *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Congress (April 3, 2008) (statement of Alan Schwartz (President and Chief Executive Officer, Bear Stearns).

[39] Source: 2006 Bear Stearns' Annual Report (page 32).

[40] There are many definitions of leverage. A simple definition of leverage is assets divided by capital. Bear Stearns' gross leverage ratio was about 33-1. See Appendix IX.

[41] Depending on the definition used to classify a mortgage as "subprime", Bear Stearns' exposure to subprime mortgages varied. However, it clearly had a large exposure to mortgage securities overall.

[42] Bear Stearns' direct exposure to these hedge funds was minimal.

[43] A pledge of collateral supports secured financing.

funding.[44] According to Congressional testimony,[45] after the markets closed on March 14, 2008, it became apparent that FRBNY's funding could not stop Bear Stearns' downward spiral. As a result, Bear Stearns concluded that it would need to file for bankruptcy protection on March 17, 2008, unless another firm purchased it.[46] On March 16, 2008, Bear Stearns' sale to JP Morgan was announced with financing support from the FRBNY. In May 2008, the sale was completed.

In testimony given before the Senate Committee on Banking, Housing, and Urban Affairs on April 3, 2008, Chairman Christopher Cox stated that Bear Stearns' collapse was due to a liquidity crisis caused by a lack of confidence.[47] Chairman Cox described Bear Stearns' collapse as a "run on the bank"[48] which occurred exceptionally fast and in an already distressed market environment (*i.e.,* the credit crisis). Specifically, Chairman Cox testified as follows:

> What happened to Bear Stearns during the week of March 10th was likewise unprecedented. For the first time, a major investment bank that was well-capitalized and apparently fully liquid experienced a crisis of confidence that denied it not only unsecured financing, but short-term secured financing, even when the collateral consisted of agency securities with a market value in excess of the funds to be borrowed. Counterparties would not provide securities lending services and clearing services. Prime brokerage clients moved their cash balances elsewhere. These decisions by counterparties, clients, and lenders to no longer transact with Bear Stearns in turn influenced other counterparties, clients, and lenders to also reduce their exposure to Bear Stearns.[49]

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[44] The funding was from FRBNY through JP Morgan to Bear Stearns because JP Morgan could borrow money from FRBNY.

[45] Source: *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Congress (April 3, 2008) (statements of Timothy Geithner, President and Chief Executive Officer, FRBNY) and Alan Schwartz, President and Chief Executive Officer, Bear Stearns).

[46] Source: *Turmoil in the U.S. Credit Markets: Examining the Regulation of Investment Banks by the Securities and Exchange Commission* Before the U.S. Senate on Securities, Insurance, and Investment 110th Cong. (May 7, 2008) (statement of Erik Sirri, Director of TM, Commission).

[47] Source: *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before US Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (April 3, 2008) (statement of Christopher Cox, Chairman, Commission).

[48] Source: *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before US.. Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (April 3, 2008) (statement of Christopher Cox, Chairman, Commission).

[49] Source: *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (April 3, 2008) (statement of Christopher Cox, Chairman, Commission).

According to a Commission press release,[50] TM monitored Bear Stearns' capital and liquidity daily since Bear Stearns' hedge funds collapsed. According to data (provided to TM by Bear Stearns), there was adequate capital at the holding company level and at Bear Stearns' two registered broker-dealers prior to and during the week of March 10, 2008. In addition, the Commission stated that Bear Stearns was compliant with the $5 billion liquidity requirement.[51] Furthermore, according to data we reviewed, Bear Stearns had significantly increased its liquidity levels since May 2007.[52]

The Commission stated that neither the CSE program nor any regulatory model (*i.e.,* the Basel Standards)[53] used by commercial or investment banks considered the possibility that secured financing, even when backed by high-quality collateral could become completely unavailable. Instead, the CSE program only considered that a deterioration of secured financing could occur (*e.g.*, that financing terms could become less favorable) and that unsecured funding could be unavailable for at least one year.

The Commission's Response to Bear Stearns' Collapse. In the aftermath of Bear Stearns' collapse, the Commission has:

- Supported the work of the Basel Committee on Banking Supervision regarding their planned updated guidance (*i.e.,* strengthening the standards applicable to liquidity risks) on liquidity management;[54]
- Supported legislation to make the CSE program mandatory.[55] At a recent Congressional hearing before the Committee on Financial Services, House of Representatives, July 24, 2008, Chairman Christopher Cox stated:

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[50] Source: Statement of SEC Division of Trading and Markets Regarding The Bear Stearns Companies. Commission. 14 March 2008. <http://www.sec.gov/news/press/2008/2008-44.htm>. The Chairman also made similar statements in his letter to the Basel Committee regarding liquidity management; and testimony (*Turmoil in U.S. Credit Market: Examining the Recent Actions of Federal Financial Regulators* Before US Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (April 3, 2008) (statement of Christopher Cox, Chairman, Commission)).

[51] As discussed in the Scope and Methodology section (see Appendix IV), we did not independently verify (*i.e.,* recalculate and determine the accuracy) Bear Stearns' capital or liquidity amounts.

[52] According to the Commission, Bear Stearns had a high of $21 billion (in liquidity) in early March 2008, (*i.e.,* before the week of March 10), compared to $7.6 billion in May 2007 according to TM data. Source: Chairman Cox Letter to Basel Committee in Support of New Guidance on Liquidity Management. Commission. 14 March 2008. <http://www.sec.gov/news/press/2008/2008-48.htm>.

[53] The CSE firms operate under the Basel II standards.

[54] Source: Chairman Cox Letter to Basel Committee in Support of New Guidance on Liquidity Management. Commission. 14 March 2008. <http://www.sec.gov/news/press/2008/2008-48.htm>.

[55] Sources of this information include:

- *Risk Management and its Implications for Systemic Risk* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (June 19, 2008) (statement of Erik Sirri, Director of TM, Commission); and
- *Systemic Risk and the Financial Markets* Before U.S. House of Representatives Committee on Financial Services, 110th Cong. (July 24, 2008) (statement of Christopher Cox, Chairman, Commission).

The mandatory consolidated supervision regime for investment banks should provide the SEC [Commission] with several specific authorities. Broadly, with respect to the holding company, these include authority to: set capital and liquidity standards; set recordkeeping and reporting standards; set risk management and internal control standards; apply progressively more significant restrictions on operations if capital or liquidity adequacy falls, including requiring divestiture of lines of business; conduct examinations and generally enforce the rules; and share information with other regulators. Any future legislation should also establish a process for handling extraordinary problems, whether institution-specific or connected with broader market events, to provide needed predictability and certainty.[56]

- Requested dedicated Congressional funding for the CSE program and increased CSE staffing from about 25 to 40 people;[57]
- Consulted with the CSE firms on their liquidity situation (*e.g.,* funding plans). Specifically, the Commission worked with the firms to:
  - increase their liquidity levels;[58]
  - lengthen the terms of their secured and unsecured financing;[59]
  - review their risk practices and models;[60]
  - discuss their long-term funding plans, including plans for raising new capital by accessing the equity and long-term debt markets;[61]
  - increase their public disclosures of their capital and liquidity;[62]

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56 Source: *Systemic Risk and the Financial Markets* Before U.S. House of Representatives Committee on Financial Services, 110th Cong. (July 24, 2008) (statement of Christopher Cox, Chairman, Commission).

57 Source: *Risk Management and its Implications for Systemic Risk* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (June 19, 2008) (statement of Erik Sirri, Director of TM, Chairman, Commission).

58 Source: *Turmoil in U.S. Credit Market: Examining the Recent Actions of Federal Financial* Regulators, Before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, 110th Cong. (April 3, 2008) (statement of Christopher Cox, Chairman, Commission).

59 Source: *Turmoil in the U.S. Credit Markets: Examining the Regulation of Investment Banks by the Securities and Exchange Commission* Before the U.S. Senate on Securities, Insurance, and Investment 110th Cong. (May 7, 2008) (statement of Erik Sirri, Director of TM, Commission).

60 Source: *Turmoil in the U.S. Credit Markets: Examining the Regulation of Investment Banks by the Securities and Exchange Commission* Before the U.S. Senate on Securities, Insurance, and Investment 110th Cong. (May 7, 2008) (statement of Erik Sirri, Director of TM, Commission).

61 Source: *Systemic Risk and the Financial Markets* Before U.S. House of Representatives Committee on Financial Services, 110th Cong. (July 24, 2008) (statement of Christopher Cox, Chairman, Commission).

- Invited FRBNY examiners to review the CSE firms' funding and how the firms are managing their funding;[63] and
- In July 2008, the Commission and the Federal Reserve agreed on a Memorandum of Understanding (MOU) involving coordination and information sharing.[64]

Objectives

As a result of the collapse of Bear Stearns in March 2008, we received a Congressional request to perform this audit of the Commission's CSE Program, in addition to an audit of the Commission's Broker-Dealer Risk Assessment Program (see Appendix II).

The objectives of this audit were to evaluate the Commission's CSE program, emphasizing the Commission's oversight of Bear Stearns and to determine whether improvements are needed in the Commission's monitoring of CSE firms and its administration of the CSE program.

The objectives of the audit on the Commission's Broker-Dealer Risk Assessment Program were to follow up on recommendations made in the Office of Inspector General's (OIG) prior audit report of the Risk Assessment Program (*Broker-Dealer Risk Assessment Program*, Report No. 354, issued on August 13, 2002) and to examine the Broker-Dealer Risk Assessment process to determine whether improvements are needed. Audit report number 446-B discusses the Risk Assessment Program in detail and addresses these objectives.

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62 Source: Speech by SEC [Commission] Chairman: Address to the Security Traders 12th Annual Washington Conference. Commission. 7 May 2008. <http://www.sec.gov/news/speech/2008/spch050708cc.htm>.

63 Source: *Turmoil in U.S. Credit Market: Examining the Recent Actions of Federal Financial Regulators* Before US Senate Committee on Banking, Housing, and Urban Affairs, 110th Cong. (April 3, 2008) (statement of Christopher Cox, Chairman, Commission).

64 SEC [Commission], FRB Sign Agreement to Enhance Collaboration, Coordination and Information Sharing. Commission. 7 July 2008. <http://www.sec.gov/news/press/2008/2008-134.htm>.

Findings and Recommendations

Finding 1: Bear Stearns Was Compliant With The CSE Program's Capital Ratio And Liquidity Requirements, But The Collapse Of Bear Stearns Raises Questions About The Adequacy Of These Requirements [65]

> Bear Stearns was compliant with the capital and liquidity requirements; however, its collapse raises serious questions about the adequacy of these requirements.

Capital [66]

Adequacy of Capital Levels

In 2004, the Commission adopted rule amendments under the Securities and Exchange Act of 1934, which created the CSE program and allowed broker-dealers to apply for an exemption from the net capital rule and instead use the alternative capital method.[67] The Commission designed the CSE program to be broadly consistent with the Federal Reserve's oversight of bank holding companies. However, the CSE program "reflects the reliance of securities firms on mark-to-market accounting [[68]] as a critical risk and governance control. Second, the design of the CSE regime reflects the critical importance of maintaining adequate liquidity in all market environments for holding companies that do not have access to an external liquidity provider." [69]

If approved, a firm must comply with capital requirements at both the holding company and the broker-dealer levels. The CSEs at the holding company level are required to maintain an overall Basel capital ratio of not less than the Federal

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[65] The capital ratio requirement is stipulated by Basel II, which TM incorporated into the CSE program. TM developed the CSE program's liquidity requirements.

[66] Capital is the difference between a firm's assets and liabilities. Source: Answers to Frequently Asked Investor Questions Regarding The Bear Stearns Companies, Inc. Commission. 8 March 2008. <http://www.sec.gov/news/press/2008/2008-46.htm>.

[67] The alternative capital method is based on mathematical models and scenario testing while broker-dealers operating under the standard net capital rule must meet certain ratios and maintain minimum net capital levels based on the type of securities activities they conduct.

[68] Mark-to-market accounting refers to a requirement that the securities must be valued at fair market value in accordance with Generally Accepted Accounting Principles.

[69] Source: *Examining Regulation and Supervision of Industrial Loan Companies* Before U.S. Senate Committee on Banking, Housing and Urban Affairs, 110th Cong. (October 4, 2007) (statement of Erik Sirri, Director of TM, Commission).

Reserve's 10 percent "well-capitalized" standard for bank holding companies.[70] In addition, a broker-dealer calculating its capital using the alternative method must maintain tentative net capital[71] of at least $1 billion and net capital of at least $500 million. If the tentative net capital of a broker-dealer using alternative method falls below $5 billion, it must notify the Commission.[72]

According to Bear Stearns' data, it exceeded the required capital amounts at the holding company and broker-dealer level the entire time it was in the CSE program, including during the week of March 10, 2008.[73] Although Bear Stearns was compliant with the capital requirements, there are serious questions about whether the capital requirement amounts were adequate.[74] For instance, some individuals have speculated that Bear Stearns would not have collapsed if it had more capital than was required by the CSE program. In fact, a former Director of TM has stated:[75]

> The losses incurred by Bear Stearns and other large broker-dealers were not caused by 'rumors' or a 'crisis of confidence,' but rather by inadequate net capital and the lack of constraints on the incurring of debt.

Increased Access to Secured Financing

Notwithstanding the fact that Bear Stearns was compliant with the CSE program's capital requirements, there are serious questions about whether Bear Stearns had enough capital to sustain its business model. As the subprime crisis unfolded, Bear Stearns' cost of unsecured financing tended to increase. For example, by March 2008, a ten-year bond which had recently been issued at a spread of 362 basis points over Treasury rates was trading at 460 basis points over Treasury rates. The high spread indicates that market participants believed that Bear Stearns' creditworthiness was deteriorating in a manner consistent with downgrades by ratings agencies. According to the expert retained by the OIG in connection with this audit,[76] the high cost of financing tended to undermine the

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[70] Source: SEC [Commission] Holding Company Supervision with Respect to Capital Standards and Liquidity Planning. Commission. 7 Mar 2007. <http://www.sec.gov/divisions/marketreg/hcliquidity.htm>.

[71] Tentative capital is net capital before deductions for market and credit risk.

[72] Source: Final Rule: Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities (69 Fed Reg. 34.428). Commission. 21 June 2004. <http://www.sec.gov/rules/final/34-49830.htm>.

[73] Source: Chairman Cox Letter to Basel Committee in Support of New Guidance on Liquidity Management. Commission. 14 March 2008. <http://www.sec.gov/news/press/2008/2008-48.htm>.

[74] It is worth noting that prior to the current mortgage crisis, a main concern surrounding the securities industry was a real/perceived lack of competitiveness with overseas markets. One specific area of concern was that U.S. firms were potentially at a competitive disadvantage because U.S. regulators were requiring excessive capital compared to foreign banks. Source: Sustaining New York's and the US' Global Financial Services Leadership (Recommendation 6, page 24) by McKinsey & Company.

[75] Source: Pickard Lee. "SEC's [Commission] Old Capital Approach Was Tried-and-True." American Banker August 8, 2008.

[76] Professor Albert S. (Pete) Kyle was retained by the Office of Inspector General (OIG) to provide assistance with this audit. See Appendix III for Professor Kyle's Curriculum Vitae and the Methodology section of Appendix IV.

viability of Bear Stearns' business model, which relied heavily on leverage. Therefore, to preserve the viability of its business model, Bear Stearns had a strong incentive to lower its financing costs. One way to lower borrowing costs is to raise new equity capital, thus providing a larger equity cushion to protect unsecured lenders. To the extent that secured financing was cheaper than unsecured financing, another way for Bear Stearns to lower its borrowing costs was to shift its funding model from unsecured to secured financing.

From April 2006 to March 2008, Bear Stearns' Basel capital ratio decreased from 21.4 percent to 11.5 percent.[77] TM memoranda suggest that in March 2008, TM inquired about whether Bear Stearns was contemplating capital infusions, but the memorandum does not suggest that TM exerted influence over Bear Stearns to raise additional capital.[78] The OIG expert was unable to find TM memoranda indicating that TM had formally required or informally pressured Bear Stearns to raise additional equity capital prior to March 2008. In this sense, TM acted as though it did not believe it had a mandate to compel Bear Stearns to raise additional capital as long as its Basel capital ratio was greater than 10%. In fact, Bear Stearns did not raise additional capital during this time in 2007 or 2008.

According to TM's documentation of its meetings with Bear Stearns, in November 2006, Bear Stearns initiated a plan to increase its availability of secured funding at the holding company level.[79] One component of this plan involved a tri-party repurchase agreement[80] with secured lenders, giving Bear Stearns access to $1 to $1.5 billion from each lender.[81] Bear Stearns' secured borrowings were initially for terms of 30 days, with the goal of extending the terms to six months to one year.[82] By May 2007, Bear Stearns' short-term borrowing was 60 percent secured and by September 2007, it was 74 percent secured.[83] Finally, by March 2008, Bear Stearns' short-term borrowing was 83 percent secured.[84] Nevertheless, Bear Stearns was still unable to obtain adequate secured funding to save the firm in March 2008.

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[77] Source: Bear Stearns monthly Commission filings.

[78] "We (Eric Sirri I believe) inquired about any discussions they were having at the moment in terms of capital infusions. Allan [sic] [Schwartz, the President and Chief Executive Officer of Bear Stearns] said there were no 'terribly current discussions'. They had hired Lazard to advise them but that was on "slow burn" and that with the time it would take to get that done it wouldn't help (rumors would cause more damage in the meantime)."
Source: TM internal memorandum (file name: "Bear Stearns March Notes - SMS.doc").

[79] Source: TM's internal quarterly meeting memoranda with Bear Stearns for the 4th quarter 2006, 1st quarter 2007, 2nd quarter 2007, and 3rd quarter 2007.

[80] In a tri-party repo arrangement, a third party (in this case JP Morgan) acts as a custodian for loans between Bear Stearns and other lenders. The custodian holds Bear Stearns assets as collateral for the loans from the other lenders. Bear Stearns used this tri-party repurchase agreement (repo) facility to finance assets which were otherwise difficult to fund.

[81] Source: TM's internal quarterly meeting memorandum with Bear Stearns for the 4th quarter of 2006.

[82] Source: TM's internal quarterly meeting memorandum with Bear Stearns for the 4th quarter of 2006.

[83] Source: TM's internal quarterly meeting memoranda with Bear Stearns for the 2nd quarter 2007 and 3rd quarter 2007.

[84] Source: TM internal memorandum (file name: BS Monthly Liquidity Call_03-06-08.doc).

Bear Stearns' increasing reliance on secured funding indicates that, although it appeared to be compliant with CSE program's capital requirement, the market did not perceive it to be sufficiently capitalized to justify extensive unsecured lending. In this sense, Bear Stearns was not adequately capitalized.

These facts illustrate that although Bear Stearns was compliant with the CSE program's ten percent Basel capital requirement, it was not sufficiently capitalized to attract the funding it needed to support its business model. Although the Commission has maintained that liquidity (not capital) problems caused Bear Stearns' collapse, this audit found that it is entirely possible that Bear Stearns' capital levels could have contributed to its collapse by making lenders unwilling to provide Bear Stearns the funding it needed.

The fact that Bear Stearns collapsed while it was compliant with the CSE program's capital requirements raises serious questions about the adequacy of the CSE program's capital ratio requirements.

The CSE capital requirements are broadly consistent with the Basel II framework. The Basel II framework is based on three pillars: (1) minimum capital requirements, (2) supervisory review, and (3) market discipline in the form of increased public disclosure.[85] CSE firms calculate their capital ratios in a manner consistent with a models-based approach of pillar 1. Under pillar 2, supervisors are required to ensure that banks comply with the minimum capital requirements of pillar 1; address risks not fully captured by pillar 1, including liquidity risk and credit concentration risk; and encourage good risk management practices. Under pillar 2, supervisors should expect banks to operate above the minimum regulatory capital ratios, and should intervene at an early stage to prevent banks from falling below minimum levels required to support the risk characteristics of a particular bank, including requiring banks to raise additional capital immediately.[86] Pillar 3 establishes disclosure requirements that aim to inform market participants about banks' capital adequacy in a consistent framework that enhances comparability.[87] The Basel II framework does not dictate a maximum capital ratio, but instead gives the supervisor the ability to set a high enough capital ratio to be consistent with the characteristics of the banks it regulates.

Recommendation 1:
The Division of Trading and Markets, in consultation with the Board of Governors of the Federal Reserve System and the Basel Committee should: (1) reassess the guidelines and rules regarding the Consolidated Supervised Entity (CSE)

[85] Source: GAO. Bank Regulators Need to Improve Transparency and Overcome Impediments to Finalizing the Proposed Basel II Framework. Report No. 07-253, page 20. February 15, 2007.
[86] Source: Basel Committee on Banking Supervision. International Convergence on Capital Measurement and Capital Standards, June 2006, paragraphs 9 and 756-760. < http://www.bis.org/publ/bcbs128.pdf>.
[87] Source: GAO. Bank Regulators Need to Improve Transparency and Overcome Impediments to Finalizing the Proposed Basel II Framework. Report No. 07-253, page 91. February 15, 2007.

firms' capital levels; and (2) identify instances (*e.g.*, a firm's credit rating is downgraded, or its unsecured debt trades at high spreads over Treasuries) when firms should be required to raise additional capital, even if the firm otherwise appears to be well capitalized according to CSE program requirements.

Liquidity [88]

The Commission designed the CSE program to ensure that, in a stressed environment, a firm could withstand the loss of its unsecured financing for up to one year,[89] under the assumption that secured funding for liquid assets would be available. In addition, the liquidity analysis assumes that any assets held in a regulated entity are unavailable for use outside of the entity to deal with liquidity issues elsewhere in the consolidated entity.[90] The CSE program's guidelines on liquidity implement supervisory principles concerning liquidity in a manner that attempts to be consistent with pillar 2 of Basel II.[91]

According to agreements between the Commission and the United Kingdom's Financial Services Authority entered into in April 2006, each CSE is required to maintain a liquidity portfolio of cash or highly liquid debt and equity securities of $10 billion, with the exception of Bear Stearns, which was required to maintain a liquidity portfolio of $5 billion. The liquidity requirement for Bear Stearns was lower because it was the smallest CSE. Bear Stearns was continuously compliant with this requirement.

Bear Stearns initiated a plan in November 2006 to increase its liquidity levels and in fact (according to TM data), it significantly increased its liquidity levels from

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88 According to the Commission, "[i]t is important to realize capital is not synonymous with liquidity. A firm can be highly capitalized, that is, can have more assets than liabilities, but can have liquidity problems if the assets cannot quickly be sold for cash or alternative sources of liquidity, including credit, obtained to meet other demands. While the ability of a securities firm to withstand market, credit, and other types of stress events is linked to the amount of capital the firm possesses, the firm also needs sufficient liquid assets, such as cash and U.S. Treasury securities, to meet its financial obligations as they arise.

Accordingly, large securities firms must maintain a minimum level of liquidity in the holding company. This liquidity is intended to address pressing needs for funds across the firm. This liquidity consists of cash and highly liquid securities for the parent company to use without restriction."
Source: Answers to Frequently Asked Investor Questions Regarding The Bear Stearns Companies, Inc. Commission. 18 March 2008. <http://www.sec.gov/news/press/2008/2008-46.htm>.

89 Source: Risk Management and its Implications for Systemic Risk Before the U.S. Senate Subcommittee on Securities, Insurance, and Investment Committee on Banking, Housing, and Urban Affairs, 110th Cong. (June 19, 2008) (statement by Erik Sirri, Director of TM, Commission).

90 Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

91 Sources for this information include:

- Basel Committee on Banking Supervision. International Convergence on Capital Measurement and Capital Standards, June 2006, paragraphs 738 and 741. < http://www.bis.org/publ/bcbs128.pdf>; and
- Basel Committee on Banking Supervision. Sound Practices for Managing Liquidity in Banking Organizations, February 2000. <http://www.bis.org/publ/bcbs69.pdf?noframes=1>.

May 2007 until it suddenly collapsed during one week in March 2008.[92] According to the Commission, Bear Stearns collapsed because it experienced a liquidity crisis when it lost its secured financing. The collapse of Bear Stearns thus indicates that the CSE program's liquidity guidelines (implementing the spirit of pillar 2 of Basel II) are inadequate in two respects. First, the time horizon over which a liquidity crisis unfolds is likely to be significantly less than the one-year period. Second, secured lending facilities are not automatically available in times of stress.

Bear Stearns' liquidity planning indicates that Bear Stearns was well aware of these impractical aspects of the CSE program's approach to liquidity more than a year before it failed. At a quarterly meeting with TM in April 2006, Bear Stearns told TM that it had developed a 60-day cash inflow and outflow analysis that it could use to track cash flows on a daily basis.[93] Bear Stearns told TM that the 60-day stress test "provides a detailed cash inflows and outflows analysis during the most critical part of a liquidity crisis."[94] The 60-day analysis, however, did not assume that secured funding was always available. Instead, the analysis assumed the availability of existing credit lines.[95] A 60-day period corresponds more closely than a one-year period to the timeframe over which a liquidity crisis unfolds. A 60-day period also corresponds to a time period over which a firm can raise new equity capital in an orderly manner. In this sense, Bear Stearns realized that the one-year period was not realistic and also recognized that secured funding might not be available in times of stress.

In November 2006, Bear Stearns also undertook efforts to line up *committed* secured lending facilities. The fact that Bear Stearns made a special effort to line up committed secured lending facilities indicates that Bear Stearns did not think that such facilities would automatically be available in a stressed environment. Bear Stearns told TM that the secured funding initiative was improving the firm's performance in the 60-day stress scenarios, because the 60-day stress scenarios did not assume that secured funding would always be available as contemplated by the CSE program's one-year liquidity stress test. Bear Stearns planned to extend its 60-day stress model to one year and to modify its analysis to include unused credit lines only to the extent that they were committed.[96] As part of its secured funding initiative, Bear Stearns planned to use uncommitted lines of credit on an ongoing basis, thus increasing its access

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92 According to the Commission, Bear Stearns had a high liquidity level of $21 billion in early March 2008 (*i.e.*, before the week of March 10) compared to $7.6 billion in May 2007 (according to TM data). Bear Stearns' required liquidity was $5 billion.

93 Source: TM's internal quarterly meeting memorandum with Bear Stearns for the 1st quarter of 2006.

94 Source: TM's internal quarterly meeting memorandum with Bear Stearns for the 2nd quarter of 2006.

95 Source: The Bear Stearns Companies Inc. Financial Review - Quarter ended February 28, 2007 Meeting held April 18, 2007 and Conference call held on April 24, 2007.

96 Source: TM's internal quarterly meeting memoranda with Bear Stearns for the 2nd quarter of 2007 and 3rd quarter of 2007.

to credit in a stressed environment where uncommitted lines might not be available.[97]

Internal TM memoranda indicate that TM believed that the secured funding initiative helped Bear Stearns weather the credit difficulties it faced during the summer of 2007, when two hedge funds sponsored by Bear Stearns' Asset Management (BSAM) failed.[98]

According to internal TM memoranda, Bear Stearns had a goal of arranging committed secured evergreen facilities with terms of six to twelve months. An evergreen facility allows a borrower to lock in funding for a predetermined minimum period of time. For example, in a six-month evergreen facility, the lender must give notice to terminate the facility six months before being entitled to start getting its money back. If Bear Stearns had such facilities, which were terminated, such terminations would have created potential financial stress for Bear Stearns with a known, contractually predetermined time lag. Therefore, it would have been important for TM to know about such terminations, in order for TM to anticipate the potential financial stress. OIG has asked TM for information concerning whether TM knew about terminations of any evergreen facilities providing secured collateralized lending to Bear Stearns, but OIG has been unable to determine what additional information TM had about any such facilities, including terminations.

To summarize, as early as November 2006, Bear Stearns was implementing a more realistic approach to liquidity planning than contemplated by the CSE programs' liquidity stress test. While this more realistic approach may have helped Bear Stearns in the summer of 2007, it was not sufficient to save the firm in March 2008. Bear Stearns' initiative to line up secured funding indicates that the crisis which occurred in March 2008 was not totally unanticipated by Bear Stearns, in that Bear Stearns had been taking specific steps to avoid such a crisis for more than a year before it occurred.

According to the expert retained by OIG in conjunction with this audit, the need for Basel II firms to undertake specific efforts to line up committed secured funding in advance of a stressed environment depends on the extent to which the Basel II firms can rely on secured lending facilities from the central bank

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97 Source: TM's internal quarterly meeting memorandum with Bear Stearns for the 3rd quarter of 2007.

98 "By early summer 2007, the firm had made substantial progress on its [secured funding] initiatives, reducing commercial paper substantially and increasing the pool of liquidity available to the parent company. This progress proved to be very important. In August of 2007 the collapse of two Bear [Bear Stearns] managed hedge funds prompted S&P to change its outlook on Bear Stearns' debt to 'Negative'. This rating agency action and a poorly received investor call that followed led to some creditor anxiety around the Bear Stearns' name. Because of this idiosyncratic news, along with the general stress that began in the funding markets in August, OPSRA began monitoring Bear Stearns' liquidity on a daily basis. Obviously the funding enhancements that began in the earlier part of the year helped the firm in managing throughout these challenging times."
Source: TM internal memorandum with Bear Stearns for the 3rd quarter 2007 (file name: BS_risk iden_qtr3_2007_v2.doc).

during a liquidity crisis. On the one hand, if it is assumed that secured lending facilities will always be available from the central bank, lining up committed secured lending facilities is not necessary. In this case, a liquidity stress test, which assumes that secured lending facilities will automatically be available is appropriate. On the other hand, if it is assumed that collateralized central bank lending facilities might not be available during a time of market stress, Basel II firms have incentives to line up committed secured lending facilities, in advance, from other sources. In the context of CSE firms which are not banks, the policies of the Federal Reserve towards making collateralized loans to non-banks becomes an important element of their liquidity planning process.

Subsequent to the collapse of Bear Stearns, the Basel Committee released a draft set of updated guidelines concerning supervision of liquidity.[99]

Recommendation 2:
The Division of Trading and Markets, in consultation with the Board of Governors of the Federal Reserve System, should reassess pillar 2 of the Basel II framework and the Consolidated Supervised Entity (CSE) program guidelines regarding liquidity and make appropriate changes to the CSE program's liquidity requirements. Changes should describe assumptions CSE firms should be required to make about availability of secured lending in times of stress (including secured lending from the Federal Reserve) and should spell out circumstances in which CSE firms should be required to increase their liquidity beyond levels currently contemplated by CSE program liquidity requirements.

Finding 2: TM Did Not Adequately Address Several Significant Risks That Impact The Overall Effectiveness Of The CSE Program

> TM did not adequately address several significant risks, which affected the overall effectiveness of the CSE program. Notes from TM's meeting with Bear Stearns' management indicate that TM often discussed risks, which turned out to be relevant, but the discussions did not prompt TM to exert sufficient influence over Bear Stearns to make changes as a result of the risks identified.

Concentration of Assets

Bear Stearns had a high concentration of mortgage securities. Prior to Bear Stearns becoming a CSE, TM was aware that its concentration of mortgage securities had been steadily increasing. For instance, TM stated:

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99 Source: Basel Committee on Banking Supervision. Principles for Sound Liquidity Risk Management and Supervision. June 2008 – Draft for Consultation. <http://www.bis.org/publ/bcbs138.pdf?noframes=1>.

> ... [Bear Stearns] continues to push for increased balance sheet and risk taking authority despite six limit increases since 2001. These increases have brought the total permitted balance sheet usage from less than $2 billion to over $6 billion.[100]

TM staff even found that the amount of mortgage securities was occasionally well beyond Bear Stearns' internal limits. For instance, TM stated:

> We [TM staff] will continue to discuss with risk management the size of the Adjustable Rate Mortgage ("ARM") business as it continues to operate *in excess of allocated limits*, reaching new highs with respect to the net market value of its positions.[101] [Emphasis Added]

Furthermore, according to TM's own documentation, a portion of Bear Stearns' mortgage securities (*e.g.,* adjustable rate mortgages) represented a significant concentration of market risk, as was evidenced by Bear Stearns' collapse. Paragraph 777 of Basel II framework states:

> In the course of their activities, supervisors should assess the extent of a bank's credit risk concentrations, how they are managed, and the extent to which the bank considers them in its internal assessment of capital adequacy under Pillar 2. Such assessments should include reviews of the results of a bank's stress tests. Supervisors should take appropriate actions where the risks arising from a bank's credit risk concentrations are not adequately addressed by the bank.[102]

Yet, notwithstanding these "red flags" that TM knew about, and warnings in the Basel standards, TM did not make any efforts to limit Bear Stearns' mortgage securities concentration.

Recommendation 3:
The Division of Trading and Markets should ensure that it adequately incorporates a firm's concentration of securities into the Consolidated Supervised Entity (CSE) program's assessment of a firm's risk management systems (*e.g.,* internal controls, models, etc.) and more aggressively prompts CSE firms to take appropriate actions to mitigate such risks.

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[100] Source: an internal TM memorandum dated November 15, 2004.

[101] Source: an internal TM memorandum dated March 2005. TM stated that it verified that Bear Stearns' senior management had granted temporary authority to exceed these limits.

[102] Source: Basel Committee on Banking Supervision: International Convergence on Capital Measurement and Capital Standards, June 2006, paragraph 777. < http://www.bis.org/publ/bcbs128.pdf>.

Leverage

Prior to the adoption of the rule amendments which created the CSE program, the broker-dealers affiliated with the CSE firms were required to either maintain:

- A debt to net capital ratio of less than 15 to 1(after their first year of operation); or
- Have net capital not less than the greater of $250,000 or two percent of aggregate debit items computed in accordance with the *Formula for Determination of Reserve Requirements for Broker-Dealers.*

However, the CSE program did not require a leverage ratio limit for the CSE firms. As a result, Bear Stearns was highly leveraged, with a gross leverage ratio of approximately 33 to 1 prior to its collapse.[103] Leverage can affect liquidity risk. For instance:

- The Counterparty Risk Management Policy Group (in June 1999)[104] stated:

  > The link between leverage and funding liquidity risk is relatively straightforward: leverage amplifies funding liquidity risk...

- The President's Working Group (PWG) on Financial Markets[105] Report (in April 1999) on Long-Term Capital Management (LTCM) stated:[106]

  > In addition, the liquidity risk of a hedge fund interacts with and is magnified by leverage, most clearly in distressed market circumstances.[107]

Although TM has maintained that leverage is not directly related to liquidity, it is clear that if a firm experiences a lack of confidence, its liquidity can be adversely affected and that leverage can influence confidence levels. Thus, it is entirely

103 There are many definitions of leverage. Other firms also had high gross leverage amounts (*i.e.,* assets divided by stockholders' equity). See Appendix VI.

104 "In January 1999, a group of 12 major, internationally active commercial and investment banks announced the formation of a Counterparty Risk Management Policy Group (CRMPG). The objective of the Policy Group, whose formation was endorsed by Chairman Greenspan [then Federal Reserve Chairman], Chairman Levitt [then Commission Chairman] and Secretary Rubin [then Secretary of the U.S. Department of Treasury], has been to promote enhanced strong practices in counterparty credit and market risk management." *Improving Counterparty Risk Management Policies*, Counterparty Risk Management Policy Group 2 (June 1999).

105 In 1988, Executive Order 12631 established the President's Working Group (PWG). The PWG's purpose is "...enhancing the integrity, efficiency, orderliness, and competitiveness of our nations financial markets and maintaining investor confidence..." The PWG members are: the Chairmen of the Commission, the Commodities Futures Trading Commission, and the Federal Reserve; and the Secretary of the U.S. Department of Treasury.

106 Long-Term Capital Management (LTCM) was a very large U.S. hedge fund that collapsed in 1998. However, apparently some counterparties treated LTCM as an investment bank and not a hedge fund.

107 Although, Bear Stearns was not a hedge fund, we believe that the concept of leverage's relationship to liquidity still applies, especially since apparently some counterparties treated LTCM as an investment bank and not a hedge fund.

possible that Bear Stearns' high leverage contributed to a lack of confidence in the firm (including unsubstantiated rumors) which had an impact on its collapse. In fact, TM believed in early 2006 that Bear Stearns was still managing its balance sheet at quarter end, a practice which suggests that Bear Stearns was aware that its leverage ratios affected market perceptions.[108] Although banking regulators have established a leverage ratio limit, the CSE program has not established a leverage ratio limit.[109] The adoption of leverage limits must be reassessed in light of the circumstances surrounding the Bear Stearns' collapse, especially since some individuals believe that this policy failure directly contributed to the current financial crisis.

Recommendation 4:
The Division of Trading and Markets, in consultation with the Board of Governors of the Federal Reserve System, should reassess the Consolidated Supervised Entity (CSE) program's policy regarding leverage ratio limits and make a determination as to whether, and under what circumstances, to impose leverage ratio limits on the CSEs.

Bear Stearns' Model Review Process and Risk Management Staffing Were Inadequate in the Area of Mortgage Backed Securities

Prior to Bear Stearns' approval as a CSE in November 2005, OCIE found that Bear Stearns did not periodically evaluate its VaR models,[110] nor did it timely update inputs to its VaR models. Further, OCIE found that Bear Stearns used outdated models that were more than ten years old to value mortgage derivatives and had limited documentation on how the models worked.[111] As a result, Bear Stearns' daily VaR amounts could have been based on obsolete data. It was critically imperative for Bear Stearns' risk managers to review mortgage models because its primary business dealt with buying and selling mortgage-backed securities.

During the initial CSE application, TM staff raised concerns about model review scope regarding mortgages and other cash products. TM stated:

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108 "(From a liquidity and funding perspective-it appears that both BS [Bear Stearns] and LB [Lehman Brothers] are still actively managing their balance sheets at quarter end, whereas this practice seems to have been mitigated substantially at MS [Morgan Stanley] and GS [Goldman Sachs Group, Inc.] based on the quarterly discussions with MS and GS Treasury departments)."
Source: TM credit meeting memorandum with Bear Stearns dated December 2005.

109 However, there are some fundamental differences between commercial and investment banks. For instance, unlike investment banks, commercial banks rely on customer deposits.

110 "Value at Risk (VaR) is the maximum loss not exceeded with a given probability defined as the confidence level, over a given period of time." Source: Wikipedia- The Free Encyclopedia. <http://en.wikipedia.org/wiki/Value_at_risk>.

111 OCIE internal memorandum to Jeffrey M. Farber (Bear Stearns, Senior Managing Director), December 2 2005, page 8. Also see Finding 5.

> We believe it would be highly desirable for Independent Model Review to carry out detailed reviews of models in the mortgage area.[112]

At a meeting with TM on September 20, 2006, Bear Stearns' risk managers provided TM with a presentation concerning how its risk managers reviewed Bear Stearns' models to price and hedge various financial instruments. As a result of this presentation, TM concluded that Bear Stearns' model review process lacked coverage of mortgage-backed and other asset-backed securities, in part because the models were not used for pricing and in part because the sensitivities to various risks implied by the models did not reflect risk sensitivities consistent with price fluctuations in the market.[113] According to the OIG expert, this information is consistent with the interpretation that pricing at Bear Stearns was based more on looking at trading levels in the market than on looking at models. This information is also consistent with the interpretation that traders used their own models (perhaps empirically based) for hedging purposes and not the ones that the risk managers were reviewing. When markets are liquid and trading is active, market prices can be used to value assets accurately. In times of market stress, trading dries up and reliable price information is difficult to obtain. Models therefore become relatively more important than market price in times of market stress than in times when markets are liquid and trading actively. Such stressed circumstances force firms to rely more on models and less on markets for pricing and hedging purposes.

TM later learned that spikes in VaR resulted from disagreements between traders and risk managers concerning appropriate hedge ratios.[114] Traders often combine long and short positions together, using the short positions to hedge out some of the risks associated with long positions. For example, a trader might short a government bond to hedge the interest rate risk associated with a mortgage-backed security. To construct an appropriate hedge ratio, traders use information such as the sensitivity of the value of the assets to interest rate changes or interest rate spreads. At Bear Stearns, traders and risk managers sometimes disagreed concerning what these sensitivities were, and processes for handling these disagreements were built into the risk management process at Bear Stearns. A VaR model is intrinsically based on more information than a sensitivity of value to interest rate spread. A VaR model also incorporates an assumption about the ratio of spread changes in one asset to spread changes in another. A VaR model can therefore tell the trader an appropriate hedge ratio to use to reduce risks associated with fluctuations in spreads. At Bear Stearns, traders used hedge ratios that were consistent with the traders' own models even though the risk managers' VaR models indicated that different hedge ratios

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[112] Bear Stearns & Co. Inc. Consolidated Supervised Entity Market Risk Review, October 2005, page 44.
[113] Source: TM's internal Model Review Update memorandum dated September 20, 2006.
[114] Source: TM's internal credit meeting memorandum with Bear Stearns dated December 2006 and follow up notes memorandum dated February 9, 2007 and February 21, 2007.

would have been more appropriate.[115] Since VaR measures of risk reported to TM are based on the risk managers' models and not the traders' models, the reported VaR numbers suggested a risk that was different than the risks the traders thought they were bearing. The fact that VaR spiked as a result of these disagreements also raises the question of whether VaR risk measures were taken seriously enough by Bear Stearns' traders.

The OIG expert believes that interest rate and spread sensitivities were actively used as part of the discussion between risk managers and traders at Bear Stearns, but the OIG expert did not see evidence in TM memoranda that the additional modeling assumptions incorporated into VaR models added much to these discussions.

TM believed that Model Review at Bear Stearns was more of a support function and was less formalized than at other CSE firms.[116] Model validation personnel, modelers, and traders all sat together at the same desk.[117] According to the OIG expert, sitting together at the same desk has the potential advantage of facilitating communication among risk managers and traders but has the potential disadvantage of reducing the independence of the risk management function from the trader function, in both fact and appearance.

In 2006, the expertise of Bear Stearns' risk managers was focused on pricing exotic derivatives and validating derivatives models. At the same time, Bear Stearns' business was becoming increasingly concentrated in mortgage securities, an area in which its model review still needed much work. The OIG expert concluded that, at this time, the risk managers at Bear Stearns did not have the skill sets that best matched Bear Stearns' business model.

For instance, TM's discussions with risk managers in 2005 and 2006 indicated that Bear Stearns' pricing models for mortgages focused heavily on prepayment risks but TM's internal memoranda rarely mentioned how the models dealt with default risks.[118] Given the risk managers' lack of expertise in mortgages, it would have been difficult for risk managers at Bear Stearns to advocate a bigger focus on default risk in its mortgage models.

There was also turnover of Bear Stearns' risk management personnel at critical times. Bear Stearns' head of model validation resigned around March 2007, precisely when the subprime crisis was beginning to hit and the first large write-downs were being taken.[119] At exactly this point in time, Bear Stearns had a tremendous need to rethink its mortgage models and lacked key senior risk

[115] Source: TM's internal credit meeting memorandum with Bear Stearns dated December 2006 and follow up notes memorandum dated February 9, 2007 and February 21, 2007.
[116] Source: TM's internal Model Review Update memorandum dated September 20, 2006.
[117] Source: TM's internal Model Review Update memorandum dated September 20, 2006.
[118] Source: TM's internal credit meeting memoranda with Bear Stearns dated February 2006 and September 2004.
[119] Source: TM's internal credit meeting memorandum with Bear Stearns dated February 2007.

modelers to engage in this process. As a result, mortgage modeling by risk managers floundered for many months.[120] According to the OIG expert, this disarray in risk management tended to give trading desks more power over risk managers. In fact, there are indications (in internal TM memoranda from later monthly meetings between TM and Bear Stearns) that the risk manager who left had difficulty communicating with senior managers in a productive manner.[121] In the opinion of the OIG expert, difficulties in communication are a potential red flag indicating that a risk manager could be telling the traders to take on less risk than they would otherwise choose to do (*i.e.*, information that the traders would presumably not want to hear). This risk manager's eventual replacement was described as having some trading experience and therefore a potentially better skill set for communicating with trading desks.[122]

When a new senior risk manager (with expertise in mortgages) arrived in summer of 2007, TM was aware that there was a great need for risk management to work on mortgage models.[123] Instead, TM learned that the risk management process was operating in crisis mode, dealing with numerous issues related to price verification, markdowns, and disputes over collateral valuations with counterparties.[124] TM was aware that the model review function was typically understaffed at Bear Stearns for much of 2007.[125] As a result, the OIG expert concluded that the reviews of mortgage models that should have taken place before the subprime crisis erupted in February 2007 appears to have never occurred, in the sense that it was still a work in progress when Bear Stearns collapsed in March 2008.

To summarize, TM was aware that risk management of mortgages at Bear Stearns had numerous shortcomings, including lack of expertise by risk managers in mortgage-backed securities at various times; lack of timely formal review of mortgage models; persistent understaffing; a proximity of risk managers to traders suggesting lack of independence; turnover of key personnel during times of crisis; and an inability or unwillingness to update models quickly enough to keep up with changing circumstances. In 2006, TM missed an opportunity to push Bear Stearns aggressively to add expertise in mortgage modeling to the risk management staff, to review mortgage models in a timely manner, to add incorporate default rates into mortgage modeling, and to make sure that mortgage risk management could function efficiently in a stressed environment.

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120 Source: TM's internal credit meeting memorandum with Bear Stearns dated April 2007, and Model Review Update memorandum involving Bear Stearns dated December 19, 2007.
121 Source: TM's internal credit meeting memorandum with Bear Stearns dated March 2007.
122 Source: TM's internal credit meeting memorandum with Bear Stearns dated March 2007.
123 Source: TM's internal credit meeting memorandum with Bear Stearns dated July 2007.
124 Source: TM's internal credit meeting memorandum with Bear Stearns dated July 2007.
125 Source: TM's internal Model Review Update memorandum involving Bear Stearns dated December 19, 2007.

Recommendation 5:
The Division of Trading and Markets (TM) should ensure that: (1) the Consolidated Supervised Entity (CSE) firms have specific criteria for reviewing and approving models used for pricing and risk management, (2) the review and approval process conducted by the CSE firms is performed in an independent manner by the CSEs' risk management staff, (3) each CSE firms' model review and approval process takes place in a thorough and timely manner, and (4) impose limits on risk taking by firms in areas where TM determines that risk management is not adequate.

Risk Scenarios

When Bear Stearns applied to be a CSE, TM reviewed the independent risk management function at Bear Stearns in 2005.[126] In addition to VaR, Bear Stearns used stress scenarios to capture risks associated with history-based and hypothetical scenarios. TM reviewed a sample of a "Bear Stearns Scenario Summary Report." The report contains nine history-based scenarios which had been implemented (including the 1987 stock market crash and the 1998 LTCM crisis), eight hypothetical scenarios which had been implemented (including shocks to interest rates and interest rate spreads), and six additional proposed hypothetical scenarios, which appear not to have been implemented when Bear Stearns became a CSE.[127] Most of these proposed scenarios related to the market for residential mortgages. For example, the proposed scenarios contemplated shocking the credit spreads for both high grade and high yield mortgage-backed securities separately.

Bear Stearns' VaR models did not capture risks associated with credit spread widening of non-agency mortgages that are prime or near-prime (Alt-A).[128] Thus, the residential mortgage stress tests were potentially beneficial in that they quantified potential risks not otherwise captured. The OIG expert did not find documentary evidence indicating that these scenarios were actually implemented or subsequently discussed with TM until 2007. Furthermore, the OIG expert believes that meaningful implementation of high grade and high yield mortgage credit spread scenarios requires both a measure of sensitivity of mortgage values to yield spreads as well as a model of how fundamental mortgage credit risk factors make yield spreads fluctuate. These fundamental factors include housing price appreciation, consumer credit scores, patterns of delinquency rates, and potentially other data. These fundamental factors do not seem to have been incorporated into Bear Stearns' models at the time Bear Stearns became a CSE.

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[126] Source: TM Internal memorandum Bear Stearns & Co. Inc. Consolidated Supervised Entity Market Risk Review, October 2005, Appendix D: Scenario Analysis Summary Report.

[127] The scenario names are "MBS Underp. (Prepay Risk)," "HG MBS/ABS Underp. (Credit Risk)," "HY MBS/ABS Underp. (Credit Risk)," "Volatility Spike," "FNMA Problems," and "FHLMC Problems."

[128] Source: TM Internal memorandum Bear Stearns & Co. Inc. Consolidated Supervised Entity Market Risk Review, October 2005, Appendix D: Scenario Analysis Summary Report.

The presence of the proposed mortgage scenarios in the materials TM reviewed in 2005 indicates that both TM and Bear Stearns knew that incorporating these features into Bear Stearns' risk management was important for effective risk management. The absence of their implementation suggests that Bear Stearns did not have in place in 2005 the risk management technology needed to implement the scenarios in a meaningful manner.

According to internal TM memoranda, TM discussed several different risk scenarios with Bear Stearns' management. The most commonly-discussed stress scenarios mentioned in TM memoranda include the 1987 stock market crash, the 1998 collapse of LTCM and the 9/11 terrorist attacks, because these crisis scenarios resulted in the greatest potential losses. The OIG expert concluded based on a review of internal TM memoranda, that Bear Stearns' risk managers analyzed these risks carefully. Additionally, TM collected a great deal of information on other aspects of risk management, including the organizational structure of the risk management process, model verification, and price verification.

The OIG expert however, also concluded that the internal TM memoranda provide no discussion of the most serious forward-looking risk scenario that Bear Stearns might face, which was a complete meltdown of mortgage market liquidity accompanied by fundamental deterioration in the mortgages themselves, resulting from falling housing prices.

In April 2006 through June 2006, Bear Stearns briefed TM multiple times on problems faced by a United Kingdom mortgage originator subsidiary.[129] As a result of extremely poor performance of collateral, due to weak underwriting standards, Bear Stearns took losses associated with security originations by this subsidiary. In fact, an internal memorandum to TM's Division Director quoted the text of two newspaper articles chronicling this subsidiary's inability to meet its interest payments.[130] At the time of the news articles, Bear Stearns told TM that it was holding $1.5 billion in unsecuritized whole loans and commitments from this subsidiary, and TM believed that Bear Stearns would be unable to sell this commitment due to the negative publicity surrounding this subsidiary.[131] In focusing on Bear Stearns' problems with this subsidiary, the OIG expert believes that in 2006, TM identified precisely the types of risks that evolved into the subprime crisis in the U.S. less than one year later. Yet, TM did not exert influence over Bear Stearns to use this experience to add a meltdown of the subprime market to its risk scenarios. Moreover, TM did not use this event to exert influence on Bear Stearns to reduce its exposure to subprime loans, as previously discussed on page 17.

[129] Source: TM's internal credit meeting memoranda with Bear Stearns dated April 2006, May 2006, and June 2006.
[130] Source: TM's internal credit meeting memorandum with Bear Stearns dated June 2006.
[131] Source: TM's internal credit meeting memorandum with Bear Stearns dated June 2006.

In terms of large drops in market prices and large asset write-downs on mortgage-backed securities, the subprime crisis began to affect the U.S. around December 2006. The drop in prices tended to hit residuals from mortgage securitizations first. When mortgages or other assets are securitized, the tranches, which have the highest certainty of payment, typically receive "AAA" ratings. The tranches with lowest credit quality are called "residuals," and these tranches bear credit losses before the higher rated tranches bear credit losses. In February 2007, Bear Stearns told TM that it had written $300 million of residuals down by $58 million in January 2007, after writing the residuals down by $25 million in December 2006.[132] Additional write-downs the following month brought total losses on second lien inventory to $168 million and total losses on residential mortgage backed securities and structured products to $240 million.[133] The write-downs during this quarter were mostly on residuals backed by second lien loans,[134] Alt-A loans,[135] and subprime mortgages.[136] TM described the residual write-downs as a meltdown that was worse than what Bear Stearns could have predicted over a year before Bear Stearns collapsed.[137]

Prior to these write-downs, in the fall of 2006, TM had focused on the risks associated with residuals and asked for detailed breakdowns of residuals by age and asset type. Bear Stearns' management told TM that it was moving away from holding residuals in its portfolio, was attempting to sell aging residuals, and was aware that its residuals on second lien mortgage securitizations were very risky.[138] In the months prior to Bear Stearns' taking these losses, Bear Stearns briefed TM on the rising delinquencies on subprime mortgages.[139]

The OIG expert believes that the greater risk was that the mortgage market would deteriorate further, with losses spreading from sub-prime loans to Alt-A loans and even to higher rated agency securities.[140] In fact, this scenario did unfold. TM discussed with Bear Stearns the market's heavy reliance on ratings agencies and the risks associated with ratings downgrades.[141] However, TM did not appear to have sufficiently encouraged Bear Stearns to incorporate into its risk management forward-looking risk scenarios based on risks identified and discussed during the regular monthly meetings between TM and Bear Stearns. Such scenarios could have included the consequences of much higher delinquencies on subprime and Alt-A mortgages, the consequences of rating

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132 Source: TM's internal credit meeting memorandum with Bear Stearns dated January 2007.
133 Source: TM's internal credit meeting memorandum with Bear Stearns dated February 2007.
134 Second lien loans are home equity loans.
135 An Alt-A mortgage is considered riskier than a "prime" mortgage, but not as risky as "subprime" mortgage.
136 Source: TM's internal credit meeting memorandum with Bear Stearns dated January 2007.
137 Source: TM's internal credit meeting memorandum with Bear Stearns dated January 2007.
138 Source: TM's internal credit meeting memoranda with Bear Stearns dated August 2006 and September 2006.
139 Source: TM's internal credit meeting memorandum with Bear Stearns dated November 2006.
140 Source: TM's internal credit meeting memoranda with Bear Stearns dated January 2007 and February 2007.
141 Source: TM's internal credit meeting memorandum with Bear Stearns dated December 2006.

downgrades on mortgage-backed securities, contagion and loss of liquidity from losses on mortgage-backed securities. By July 2007, deterioration of mortgages had spread to highly rated securities such as AAA paper backed by Alt-A mortgages, and Bear Stearns reported $570 million in losses for the month.[142]

Towards the end of 2007, Bear Stearns incorporated measures to reflect house price appreciation or depreciation into its mortgage models. It also developed a housing led recession scenario which it could incorporate into risk management and use for hedging purposes. By this time, Bear Stearns had large inventories of mortgage related assets, which had lost both their value and their liquidity. Since it was difficult for Bear Stearns to reduce its inventory by selling assets, this scenario helped Bear Stearns focus its attention on ways to hedge its mortgage risk by using more liquid instruments.

It is not the purpose of this discussion to claim that Bear Stearns' use of scenario analysis was better or worse than other CSE firms. TM asserts that Bear Stearns' use of scenario analysis was consistent with industry practices and the entire banking sector failed to anticipate the magnitude and scope of the housing decline that is still ongoing.

Recommendation 6:
The Division of Trading and Markets should be more skeptical of Consolidated Supervised Entity firms risk models and work with regulated firms to help them develop additional stress scenarios that may or may not have not have been contemplated as part of the prudential regulation process.

Recommendation 7:
The Division of Trading and Markets (TM) should be involved in formulating action plans for a variety of stress or disaster scenarios, even if the plans are informal, including plans for every stress scenario that the Consolidated Supervised Entity (CSE) firms use in risk management, as well as plans for scenarios that TM believes might happen but are not incorporated into CSE firms' risk management.

Non-compliance with Basel II

Mark Disputes
The subprime mortgage crisis began to affect the U.S. economy around December 2006. As the subprime crisis continued into the summer of 2007, TM learned that mark disputes were becoming more common.[143] A mark dispute can occur when two parties to a derivatives transaction, such as a swap, disagree over the value of the derivative. A mark dispute can also occur in a repurchase agreement (repo) transaction, when the borrower and the lender disagree over the value of the collateral. Mark disputes can lead the two parties

142 Source: TM's internal credit meeting memorandum with Bear Stearns dated July 2007.
143 Source: TM's internal credit meeting memorandum with Bear Stearns dated July 2007.

to a swap or financing transaction to each make margin calls on the other. During July 2007, Bear Stearns told TM that there were two large dealers with whom mark disputes were in excess of $100 million each.[144] Bear Stearns had thousands of trades with each of these two dealers. TM says that mark disputes are an unavoidable issue faced by all dealers (particularly when markets for underliers become less liquid), and the total disputed numbers at Bear Stearns are much smaller than at other institutions.

By March 2008, Bear Stearns' mark disputes involved even larger amounts. For example, on March 12, 2008, TM was told that Bear Stearns paid out $1.1 billion in disputes to numerous counterparties in order to squelch rumors that Bear Stearns could not meet its margin calls.[145]

There are indications in the TM memoranda that Bear Stearns tended to use the traders' more generous marks for profit and loss purposes, even when Bear Stearns conceded to the counterparty for collateral valuation purposes.[146] This practice allows two traders at different firms to record a gain at the expense of the other, despite the fact that the zero-sum nature of trading requires the net gain to be zero. One particularly large mark dispute, discussed in multiple meetings, involved Bear Stearns and another CSE. It is inconsistent with the spirit of Basel II for two firms to use a mark dispute as an occasion to increase their combined capital, as would occur when both parties to a trade book profit at the expense of the other simply because they each mark positions favorably for themselves. While TM memoranda indicate that TM had several discussions with Bear Stearns' risk managers about this particular mark dispute, the OIG expert found no evidence from reviewing internal TM memoranda that TM encouraged the CSE firms to adopt mutually consistent marking practices that avoid the use of collateral disputes to create apparent capital in a manner inconsistent with Basel II. Since mark disputes tend to occur on illiquid positions that are hard to value, conservative valuation adjustments consistent with Basel II[147] should theoretically result in a situation where the long side of a trade is carried at a lower value than the short side; i.e., when netted across two firms with offsetting long and short positions, appropriately conservative valuations should appear to reduce capital, not increase it.

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144 Source: TM's internal credit meeting memorandum with Bear Stearns dated July 2007.

145 Source: TM internal memorandum from March 2008 (filename: Bear Stearns March Notes - SMS.doc).

146 Source: TM's credit meeting memorandum with Bear Stearns dated March 2007, states: "We also asked how helpful the counterparty collateral process was for informing the price verification process. Kan said the collateral process does not tend to lead to changes in marks for P/L purposes – suggesting it was not helpful – but Mike Alix [Chief Risk Officer, Bear Stearns] said it could be helpful not sure if the mortgage guys actually gave a straight answer)."

147 Source: Basel Committee on Banking Supervision: International Convergence on Capital Measurement and Capital Standards, June 2006, paragraph 700. < http://www.bis.org/publ/bcbs128.pdf>.

Recommendation 8:
The Division of Trading and Markets should take steps to ensure that mark disputes do not provide an occasion for Consolidated Supervised Entity firms to inflate the combined capital of two firms by using inconsistent marks.

Inconsistent VaR Numbers
According to an internal TM memorandum, there were occasions when Bear Stearns' risk managers had difficulty explaining changes in VaR numbers from one month to the next.[148] For example, when markdowns on assets occurred, Bear Stearns' risk managers had difficulty explaining whether the markdowns were a delayed response to market moves resulting in changes in VaR risk factors or updates based on asset specific information (such as delinquency rates on individual assets).

In some cases, Bear Stearns' risk managers had difficulty explaining how firmwide VaR numbers were related to desk-specific VaR numbers. The OIG expert believes that this occurred because each of Bear Stearns' trading desks evaluated profits and risks individually, as opposed to relying on one overall firm-wide approach. On some occasions, Bear Stearns' several trading desks had opposite positions in various instruments (*e.g.*, some desks were long sub-prime while other desks were short sub-prime), and Bear Stearns used VaR numbers more for regulatory reporting than for internal risk management. This inconsistency between use of VaR for internal and regulatory reporting purposes does not comport with the spirit of Basel II and makes it harder for TM to understand what is going on inside the firm. TM encouraged Bear Stearns to do a better job of presenting risks in a manner that made it easier to understand the relationship between firm-wide desk-level risks. Bear Stearns' risk management was working on improved reporting, perhaps influenced by TM's encouragement.

Recommendation 9:
The Division of Trading and Markets should encourage the Consolidated Supervised Entity (CSE) firms to present VaR and other risk management data in a useful manner, which is consistent with how the CSE firms use the information internally and which allows risk factors to be applied consistently to individual desks.

Bear Stearns' Capital Requirements for Illiquid Assets and Stressed Repos Require Careful Oversight.

As the subprime crisis worsened in June 2007, the market began to freeze up and formerly liquid assets lost much of their liquidity. Bear Stearns told TM that it found it difficult to find ways to establish objective market values for assets as they became more thinly traded and therefore, less liquid. TM stated that, in some instances, TM required a full deduction for certain illiquid assets, such as mortgage residuals. Since the decline in liquidity of many mortgage-related

[148] Source: TM's internal credit meeting memorandum with Bear Stearns dated May 2007.

assets was so unprecedented, and the decline in liquidity increased the difficulties associated with valuing such illiquid assets, it would have been prudent for TM to consider expanding the list of assets that require a full deduction from capital. The OIG expert was unable to find documentary evidence that TM considered expanding the list of assets that required a 100% capital deduction.

When the Basel Standard is operating correctly, firms take markdowns on the value of trading book assets as the value of the assets decline. When market illiquidity increases and assets become more difficult to value, these markdowns should include valuation adjustments which not only take account of declining market values but also add an element of conservatism based on widening bid-ask spreads and the high costs that would be been incurred by a firm to liquidate its assets in a stressed environment.[149] These markdowns result in a decline in Tier 1 capital.

At times of market stress, when banks often need to take large markdowns, raising additional Tier 1 capital is often very expensive, due to factors such as a bank's falling stock price and negative signaling concerns, which could cause a bank's stock price to fall even further. In such circumstances, banks have a perverse incentive (associated with what is called "moral hazard") to postpone taking markdowns that would require the banks to raise additional capital. As an alternative to taking markdowns while continuing to hold assets whose value is questionable, banks have an incentive to consider selling such assets into the market. When selling an asset, Tier 1 capital is reduced by the amount of losses on the sale, but capital requirements are also reduced by removing the asset from the bank's portfolio. A bank looking to improve its Basel capital ratios by selling assets therefore has a perverse incentive not to sell assets that have modest capital requirements relative to the markdowns the banks should have taken but has not yet taken. This perverse incentive tends to amplify the tendency for markets to freeze up and become illiquid by reducing trading volume that would otherwise occur as banks sell losing positions into the market. On the one hand, these perverse incentives are mitigated to the extent that capital requirements on such assets are high and valuations are appropriately conservative. For assets that face a 100% capital haircut, for example, the bank gains no improvement in its capital ratios by avoiding taking a markdown, and the bank increases its capital by the proceeds of any asset sales. On the other hand, these perverse incentives are worsened to the extent that supervisors allow banks to avoid marking assets down quickly enough, to avoid taking appropriate valuation adjustments in a timely manner, or to understate assets' risks.

As the subprime crisis worsened, numerous Bear Stearns' repo counterparties, such as hedge funds with positions in mortgage related assets, suffered losses

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[149] Source: Basel Committee on Banking Supervision: International Convergence on Capital Measurement and Capital Standards, June 2006, paragraph 700. < http://www.bis.org/publ/bcbs128.pdf>.

and demands for redemptions. Some of these hedge funds became financially distressed. This led to discussions between TM and Bear Stearns concerning what deductions from capital were appropriate for a financially stressed hedge fund repo counterparty.[150] Consistency with the spirit of Basel II requires that the capital for a stressed repo counterparty (with no assets other than the collateral it has posted) be at least as great as the capital requirement Bear Stearns would face if it purchased the collateral for the amount owed on the repo transaction. The OIG expert believes that internal TM memoranda suggest that Bear Stearns may have been taking a smaller capital charge than Basel II requires. In addition, internal TM memoranda do not indicate that TM pressured Bear Stearns to take more aggressive capital charges on stressed repos.

Lastly, BSAM's "High Grade" hedge fund became a very large, stressed repo counterparty to Bear Stearns during the summer of 2007.[151] As of June 2007, Bear Stearns loaned $1.6 billion to BSAM's "high grade" fund. The loan was collateralized with assets estimated to be worth $1.7 to $2 billion. By the end of June 2007, asset sales had reduced the amount loaned to the fund down to $1.345 billion, but the value of the remaining collateral had deteriorated to a level very close to the value of the loan.[152] The BSAM "High Grade" hedge fund evidently had no assets other than the collateral Bear Stearns already held. Although the BSAM investors may have benefited to some extent from increases in the value of the collateral, Bear Stearns bore all risks associated with the downside. Since Bear Stearns bore all downside risks, sound risk management (consistent with Basel II) requires that the impact on Bear Stearns' capital associated with these repos should have been at least as great as the impact Bear Stearns would incur if it held the assets in its own trading book at the end of June 2007.

According to the OIG expert, a stressed repo is conceptually similar to a portfolio with a call option written against it, where the portfolio is the repo collateral and the call option is the upside gains to the stressed counterparty. Such a stressed repo is worth less than the portfolio itself, since the call option might have some value. In addition, the value of this stressed repo should have reflected the possibility that Bear Stearns might not benefit fully from potential upside gains in the value of the collateral. Furthermore, to the extent that the $1.345 billion in collateral was illiquid and would take time to liquidate, Bear Stearns should have valued the collateral conservatively, reflecting appropriate valuation adjustments.

TM memoranda summarizing discussions with Bear Stearns' risk managers suggest that the capital charge incurred by Bear Stearns at the end of June 2007 was far less than the capital charge consistent with sound risk management. TM memoranda indicate that by the end of July 2007, "Bear Stearns effectively took

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150 Source: TM's internal credit meeting memorandum with Bear Stearns dated June 2007.

151 Source: TM's internal credit meeting memoranda with Bear Stearns dated May 2007, June 2007, and July 2007.

152 Source: TM's internal credit meeting memorandum with Bear Stearns dated June 2007.

the collateral onto its own balance sheet while putting in place agreements that allow fund investors to enjoy some of the upside should (contrary to expectations) the value of the collateral rise."[153] This arrangement is similar to a portfolio with a call option written against it.

The OIG expert did not find any evidence suggesting that TM exerted influence on Bear Stearns to take significantly larger capital charges in conjunction with the BSAM financing than would have been appropriate if the repo were not stressed. For instance, according to TM internal documentation on July 5, 2007:

> [The] Enhanced [fund] is in the process of liquidating its remaining positions in an orderly manner while Bear Stearns has stepped in to assume the secured funding obligations of other creditors to the High Grade fund. Currently, none of the CSE firms have more than de minimis exposure, net of collateral, to either fund. However, they are reviewing their policies regarding setting "haircuts" on less liquid positions that are financed on a secured basis.[154]

TM staff could have used much tougher language to describe (to senior TM management) the very risky situation in which Bear Stearns had put itself and exerted influence over Bear Stearns accordingly. For example, TM staff could have stated that Bear Stearns' financing of the High Grade fund appeared to have allowed Bear Stearns to delay taking a huge hit to its capital, as required by Basel II.

Bear Stearns' financing of the BSAM funds is conceptually similar to implicit support. According to Basel II, "Implicit support arises when a bank provides support to a securitization in excess of its predetermined contractual obligation."[155] Although the BSAM funds are not themselves, literal securitizations, the funds invested in securitizations, and Bear Stearns' financing of the BSAM funds is a form of support in excess of Bear Stearns' contractual obligations to the funds. The repo structure created the potential for Bear Stearns to overstate the amount of risk borne by BSAM and understate its own exposure; as a result, Bear Stearns' capital calculation would understate its true risk.[156] Basel II also requires that "When a bank has been found to provide implicit support to a securitization, it will be required to hold capital against all of the underlying exposures associated with the structure as if they had not been securitized."[157] In the opinion of the OIG expert, it would have been appropriate

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[153] Source: TM's internal monthly staff memorandum to TM Division Director dated August 3, 2007.

[154] Source: TM's internal monthly staff memorandum to TM Division Director dated July 5, 2007.

[155] Source: Basel Committee on Banking Supervision: International Convergence on Capital Measurement and Capital Standards, June 2006, paragraph 551. < http://www.bis.org/publ/bcbs128.pdf>.

[156] Source: Basel Committee on Banking Supervision: International Convergence on Capital Measurement and Capital Standards, June 2006, paragraph 791. < http://www.bis.org/publ/bcbs128.pdf>.

[157] Source: Basel Committee on Banking Supervision: International Convergence on Capital Measurement and Capital Standards, June 2006, paragraph 792. <http://www.bis.org/publ/bcbs128.pdf>.

for TM to have treated the BSAM financing in a manner parallel to the way in which Basel II mandates that implicit support be treated.

In fact, Bear Stearns eventually acquired much of the remaining portfolio and wrote its value down by $500 million in the fall of 2007.[158]

Recommendation 10:
The Division of Trading and Markets should ensure that the Consolidated Supervised Entity take appropriate valuation deductions for illiquid, hard-to-value assets and appropriate capital deductions for stressed repos, especially stressed repos where illiquid securities are posted as collateral.

Tolerance for Risk

TM's oversight of the CSE firms did not include assessing the risk tolerance (*e.g.,* concentration of assets) of the CSEs' Boards of Directors and other senior management (*e.g.,* CEO). In fact, TM staff never contacted these individuals about any matters relating to risk tolerance at any of the CSE firms, including Bear Stearns prior to its collapse.

We conclude based on our research that discussing risk management practices and risk tolerance with the CSEs' Boards of Directors is a prudent oversight procedure.[159] This type of assessment would assist TM staff to evaluate governance issues in the CSE firms. For example, in the case of Bear Stearns, an assessment could have been useful when there was evidence that the staff kept increasing the firm's exposure to mortgage securities. TM staff could also assess whether firms are inappropriately increasing leverage to help meet a revenue level that is tied to compensation that is provided to the CSEs' senior officers.[160]

Recommendation 11:
The Division of Trading and Markets (TM), in consultation with the Chairman's Office, should discuss risk tolerance with the Board of Directors and senior management of each Consolidated Supervised Entity (CSE) firm to better understand whether the actions of CSE firm staff are consistent with the desires of the Board of Directors and senior management. This information would

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[158] Source: TM's internal credit meeting memorandum with Bear Stearns dated October 2007.
[159] Sources for this information include:

- *Risk Management and its Implications for Systemic Risk* Before the U.S. Senate Subcommittee on Securities, Insurance, and Investment Committee on Banking, Housing, and Urban Affairs, 110th Cong. (June 19, 2008) (statement of Erik Sirri Director of TM, Commission);
- The Comptroller of the Currency. Liquidity and Funds Management Manual, February 2001, page 27; and
- The Counterparty Risk Management Policy Group. Containing Systemic Risk: The Road to Reform. August 6, 2008, page 18.

[160] TM stated that the Chairman and the TM Director have recently begun having discussions with these senior CSE personnel about undertaking this type of assessment.

enable TM to better assess the effectiveness of the firms' risk management systems.

Finding 3: TM, Without Explicit Authority, Allowed The CSE Firms' Internal Auditors To Perform Critical Work

> TM, without explicit authority, allowed the firms' internal auditors to perform critical work involving the risk management control systems. As a result, there are significant questions as to whether the work that TM relied upon in fulfilling its oversight role was as thorough or meaningful as the Commission intended in approving the rule amendments.

The CSE firms are required by the rule amendments which created the CSE program (see 17 CFR §240.15c3-1g(b)(1)(iii)(B)) to have their external auditors report[161] on the firms' risk management control systems. This review is critical because TM designed the CSE program to focus on a firm's risk management systems (*e.g.,* internal controls, models) and their financial condition (*e.g.,* compliance with capital and liquidity requirements), which was to be the focus of the external auditors' work. However, after the Commission approved the rule, TM decided that the firms' internal auditors could perform this critical work, instead of the external auditors.

We reviewed the delegations of authority from the Commission to TM and found no explicit authority for TM to approve this change. In addition to the apparent lack of TM's legal authority, there are serious questions about the wisdom of this decision. The rule's requirement that external auditors perform the risk management work helps to ensure the independence and quality of this critical audit work. The external auditors' work is more strictly regulated as the Public Company Accounting Oversight Board (PCAOB) regulates external auditors.[162]

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[161] The report is referred to in the rule as the "Accountant's Report on Internal Risk Management Control System."

[162] The Sarbanes-Oxley Act of 2002 (SOX), Public Law No. 107-204, was enacted in July 2002 in response to numerous financial statement accounting scandals involving public companies (*e.g.,* Enron and WorldCom) and their auditors (*e.g.,* Arthur Andersen). Among other reforms, SOX established the Public Company Accounting Oversight Board (PCAOB) as a nonprofit corporation. The PCAOB's statutory mission is "to oversee the audits of public companies that are subject to the securities laws, and related matters, in order to protect the interests of investors and further the public interest in the preparation of informative, accurate, and independent audit reports for companies the securities of which are sold to, and held by and for, public investors." (Section 101(a) of SOX, 15 U.S.C §7211(a)). SOX requires that accounting firms be registered with the PCAOB, if they "prepare or issue, or participate in the preparation or issuance of, any audit report with respect to any issuer" as defined in Section 3 of the Securities Exchange Act of 1934.

TM's own internal memorandum dated November 2006 noted significant deficiencies in Bear Stearns internal auditors' work, as follows:

> The audits for Market Risk Management, Credit Risk Management, and Funding/Liquidity Risk Management are completed and the reports are in draft form. At this point it can be noted the [sic] there appears to be significant deficiencies in the coverage for the review of liquidity and funding risk management which will be a focal point of our discussions of scope expansion in the 2007 CSE audits.[163] [Emphasis added]

As a result of TM's decision to allow CSE firm's internal auditors to perform the work, there are significant questions as to whether this work that TM relied upon was as thorough or meaningful as the Commission intended in approving the rule.

Recommendation 12:
The Division of Trading and Markets should require compliance with the existing rule that requires external auditors to review the Consolidated Supervised Entity firms' risk management control systems or seek Commission approval in accordance with the Administrative Procedures Act[164] for this deviation from the current rule's requirement.

Finding 4: TM Did Not Review The Communications Strategy Component Of Bear Stearns' Contingency Funding Plan After The Collapse Of Two Of Its Managed Hedge Funds

> TM did not review the communications strategy component of Bear Stearns' Contingency Funding Plan (CFP) after two of its managed hedge funds collapsed in June 2007. Questions regarding Bear Stearns' effectiveness in communicating with its investors and the public were raised after the collapse of its hedge funds and again after the firm collapsed in March 2008.

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163 Given the scope of our audit, we have no evidence linking these "significant deficiencies" with the cause of Bear Stearns' collapse.

164 The Administrative Procedures Act (5 U.S.C. §500 *et. seq.,*) sets forth the basic procedural requirements for agency rulemaking. It generally requires (1) publication of a notice of proposed rulemaking in the *Federal Register*, (2) opportunity for public participation in rulemaking by submission of written comments, and (3) publication of a final rule and accompanying statement of basis and purpose not less than 30 days before the rule's effective date.

TM reviewed Bear Stearns' CFP during its application process. The review included an assessment of its internal and external communications strategies. According to TM:

> The goal of the contingency funding plan is to manage liquidity risk and communicate effectively with creditors, investors, and customers during a funding crisis.[165]

In June 2007, two of Bear Stearns' managed hedge funds collapsed. After the collapse, questions were raised about the lack of involvement by some of Bear Stearns senior management in handling the crisis. For instance, according to media reports, at an August conference call with investors, the conduct of a senior Bear Stearns official (*i.e.,* their lack of involvement in the telephone call) did not apparently help to restore confidence in the firm (which was the purpose of the meeting).

TM did not reassess the communication strategy component of Bear Stearns' CFP after the collapse of its hedge funds. Although there was contact between TM and Bear Stearns (about many issues) after the June 2007 collapse of its hedge funds, at no point did TM discuss Bear Stearns' communication strategy. This proved particularly problematic as questions were once again raised about some of Bear Stearns' management[166] regarding its handling of the crisis during the week of March 10, 2008.

Conversely, some individuals praised Lehman Brothers Holdings Inc. (Lehman Brothers) management for its handling of a crisis it previously experienced (*e.g.,* Lehman Brothers provided talking points to its traders to use with its trading partners). In fact, some of these individuals credited Lehman Brothers' management with helping to save the firm during/around the week of March 10, 2008, when Bear Stearns collapsed.[167]

It is undisputed that a firm's communication strategy can affect confidence levels in the firm. Bear Stearns' collapse illustrated the importance of confidence for an investment bank's survival.

Recommendation 13:
The Division of Trading and Markets should ensure that reviews of a firm's Contingency Funding Plan include an assessment of a Consolidated Supervised Entity firm's internal and external communication strategies.

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[165] Source: TM's internal Liquidity and Funding Risk Review manual (draft) dated March 3, 2004.

[166] We did not asses the performance of Bear Stearns' management during the collapse of the hedge funds or Bear Stearns.

[167] While Bear Stearns collapsed in March 2008, concerns about Lehman Brothers' survival began to circulate and on September 15, 2008, Lehman Brothers announced that it would file for bankruptcy.

Finding 5: TM's Monitoring Staff Do Not Adequately Track Material Issues

> TM's monitoring staff identify numerous issues involving internal risk management systems (*e.g.,* the adequacy of CSE staffing levels in various departments, the functioning of the internal audit office, and the adequacy of documented policies and procedures) which require action by the CSEs and a resolution. However, TM does not adequately track the issues.

Develop a Formal Automated Tracking Process

TM's monitoring staff does not have a formal process (*e.g.,* automated) to track material issues to ensure that they are adequately resolved. The monitoring staff mainly identify issues through meetings with CSE firm staff. Currently, TM staff document some issues (*e.g.,* the adequacy of the CSE staff levels in various departments, the functioning of the internal audit office and the adequacy of documented policies and procedures) in e-mails and organizes them by firm while other issues are documented in monthly memoranda to senior management (*e.g.,* the Division Director).[168]

However, these current methods are not reliable and do not provide an audit trail. Our review of TM's documentation supports this assertion because we assessed twenty issues[169] that TM and OCIE identified with the CSE firms and we asked TM to explain how the issues were resolved. In some instances, the staff needed to perform detailed research in order to determine how the issues were eventually resolved. For example, OCIE staff found that Bear Stearns' Legal & Compliance group did not have any formal documentation that identified and assessed all of the applicable rules, laws, regulations, requirements and risks pertaining to the entire organization. TM could not readily tell us how and whether this issue was resolved. The follow-up of issues that OCIE identified is further discussed on page 38.

In a somewhat similar recent situation, the Government Accountability Office (GAO) criticized OCIE for its informal method of tracking recommendations regarding its Self Regulatory Organization (SRO) inspections. GAO stated:

> OCIE's informal methods for tracking inspection recommendations contrast with the expectations set by federal internal control standards for ensuring that management has relevant, reliable, and

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[168] These monthly memoranda describe current significant issues that for instance, the staff identified during their meetings with CSE staff. However, the memoranda do not generally discuss the resolution of prior issues, as this is not the purpose of the memoranda. The memoranda are stored on a shared computer network.

[169] As discussed in the Scope and Methodology Section (see Appendix III).

timely information regarding key agency activities. These standards state that key information on agency operations should be recorded and communicated to management and others within the entity and within a time frame that enables management to carry out its internal control and other responsibilities. [170]

Given all the facts discussed above, TM cannot provide reasonable assurance (consistent with internal control standards) that issues are adequately resolved. Furthermore, we believe that the risk of an issue being overlooked (*i.e.,* not adequately resolved by a firm) increases if, the CSE program receives additional staff (as requested by Chairman Cox) because presumably more issues will be identified and require resolution.

Recommendation 14:
The Division of Trading and Markets should develop a formal automated process to track material issues identified by the monitoring staff to ensure that they are adequately resolved. At a minimum, the tracking system should provide the following information:

- The source of the issue;
- When the issue was identified;
- Who identified the issue;
- The current status of the issue (*e.g.,* new developments);
- When the issue was resolved; and
- How the issue was resolved.

Follow-Up on Prior OCIE Findings

Prior to July 2007, OCIE was responsible for conducting inspections of the CSE firms at the holding company level, while TM was responsible for monitoring the CSE firms at the holding company level. In July 2007, Chairman Cox transferred the inspections authority from OCIE to TM, thus consolidating the oversight of the CSEs at the holding company level within TM.[171] OCIE continues to perform inspections of the CSEs' broker-dealers.

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170 Source: GAO. Securities and Exchange Commission: Opportunities Exist to Improve Oversight of Self-Regulatory Organizations, Report 08-33, November 15, 2007.

171 The transfer was in response to a GAO audit report (Financial Market Regulation: Agencies Engaged in Consolidated Supervision Can Strengthen Performance Measurement and Collaboration, Report 07-

While OCIE was responsible for conducting inspections at the holding company level, it identified numerous issues during its inspections performed as part of the CSE firms' application processes. TM stated that after Chairman Cox transferred the inspection authority from OCIE to TM, it decided not to follow-up on issues that OCIE identified because they did not view the OCIE issues as material and they assumed that these issues were OCIE's responsibility. OCIE stated that they did not follow-up (*i.e.,* conduct a new inspection) on the issues because it was no longer their responsibility once Chairman Cox transferred the inspections authority to TM.[172] Although TM stated that it had communicated with Bear Stearns about resolving this issue, TM did not make any efforts to verify Bear Stearns' assertions that it had addressed this issue. Further, OCIE provided TM with a list of eight issues related to Bear Stearns, that OCIE believed were particularly significant.[173] Two of these issues are discussed below.

As discussed in the Scope and Methodology section in Appendix IV, we performed testing on TM's tracking of material issues. Our testing found instances where TM's monitoring staff failed to ensure that issues identified by OCIE were adequately resolved.

We found that OCIE had identified significant issues that could have affected Bear Stearns' approval to become a CSE. One issue involved concerns that Bear Stearns was not sufficiently retaining its internal audit workpapers. Although TM stated that they had spoken to Bear Stearns about resolving this issue, no follow-up work was conducted. This issue raised by OCIE was clearly significant in nature as in fact, according to an internal memorandum, TM and OCIE both agreed that they must reach an agreement with Bear Stearns on this issue prior to its approval as a CSE. In addition, OCIE identified a second significant issue during the application inspection, regarding the adequacy of

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154, March 15, 2007) recommendation. In response to the report Chairman Cox told GAO: "To implement this recommendation, I have carefully considered the question of which organizational structure will best achieve the goal of the CSE program. I have concluded that the success of the CSE program will be best ensured if the supervision of the CSE firms is fully integrated with, rather than merely coordinated with, the detailed onsite testing that is done of the documented controls at CSE firms. As a result, I have decided to transfer responsibility for on-site testing of the CSE holding company controls to the Division of Market Regulation [now called TM]. This will better align the testing and supervision components of the CSE program, will strengthen its prudential character, and will most efficiently utilize the Commission's resources. With the new structure, ongoing supervision activities will be more directly informed by the results of focused testing of controls, and field inspections will be more precisely targeted using information from ongoing supervisory work. In addition, the Commission's expertise related to the prudential supervision of securities firms will be concentrated in the Division of Market Regulation, which will foster improved communication and coordination among the staff responsible for administering various components of the CSE program." The Chairman made his decision after carefully evaluating proposals from TM and OCIE, and after consulting with the four other Commissioners, who unanimously supported the decision to consolidate CSE oversight under TM.

172 After the Orders allowing the firms to use the alternative capital method were issued (from December 2004 to November 2005), OCIE retained the inspection authority up until July 2007.

173 These issues were identified in a memorandum from OCIE to TM dated November 4, 2005.

Bear Stearns' VaR models, as discussed on page 20. The OIG expert found similar problems with Bear Stearns' VaR models, which raised serious questions about TM's oversight of Bear Stearns.

As a result, it is possible that other issues identified by OCIE were significant and were not adequately followed up on by TM.

Recommendation 15:
The Division of Trading and Markets should: (1) reassess all the prior Office of Compliance Inspections and Examinations (OCIE) issues to ensure that no significant issues are unresolved (given the belief that OCIE followed up); and (2) follow up on all significant issues.

Finding 6: The Commission's Orders Allowing Firms (Including Bear Stearns) To Use The Alternative Capital Method Were Generally Approved Before The Inspection Process Was Completed

> The Commission approved firms to use the alternative capital method before OCIE completed its inspection process.

OCIE's and TM's inspections of firms are a significant part of the application process, and are supposed to be completed prior to a firm's approval as a CSE.[174] The purpose of an inspection is to verify the information provided by the firm and to "assess the adequacy of the implementation of the firm's internal risk management policies and procedures."[175] However, four of five Commission Orders approving the firms (those without principal regulators) to use the alternative capital method were issued by the Commission before the inspection process was completed, thereby rendering the application process less meaningful.[176] TM acknowledged that they were aware that OCIE did not complete the inspection process prior to the Commission's approval. Yet, TM recommended to the Commission that the firms be approved to use the alternative capital method without first completely verifying the information it was

174 As a result of the organizational change at the Commission, OCIE would no longer be involved in the application inspection.

175 Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

176 Other than the inspection performed during Bear Stearns' application process, neither TM nor OCIE performed any additional inspections of Bear Stearns involving firm-wide issues (*e.g.*, risk management) prior to its collapse. However, this does not include any inspections (*e.g.,* financial and operational) that FINRA performed of Bear Stearns' broker-dealers.

supposed to be relying upon and without ensuring that the firms had adequately implemented internal risk management policies and procedures.

Specifically, we found that:

- In two instances, the Commission approved the Order before OCIE sent the firms a formal letter (*i.e.,* the deficiency letter) describing the issues that were identified during the inspection. Bear Stearns was one of these two firms. In fact, as previously discussed in Finding 5, during Bear Stearns' inspection, OCIE identified a significant issue involving Bear Stearns not retaining internal audit workpapers. In fact, according to an internal memorandum, TM and OCIE both agreed that they must reach an agreement with Bear Stearns on this issue prior to the approval of its CSE application. While TM believes that Bear Stearns implemented corrective action, TM never verified Bear Stearns' assertions that it had resolved this issue, as TM did not follow up on many of the OCIE issues.
- In two instances, the Commission approved the Order before the firms responded to the deficiency letter.

TM indicated that they discussed the issues orally with the firms and were comfortable with their responses and, as a result, recommended that the Commission issue the Orders. OCIE stated that it was not involved in this decision process at all.

Recommendation 16:
The Division of Trading and Markets should ensure that they complete all phases of a firm's inspection process before recommending that the Securities and Exchange Commission allow any additional Consolidated Supervised Entity firms the authority to use the alternative capital method.

Finding 7: Collaboration Between TM And Other Commission Divisions/Offices Should Be Significantly Improved

> TM should improve its collaboration with the Division of Corporation Finance (CF), OCIE, and the Office of Risk Assessment (ORA) in order to achieve efficiencies and the overall effectiveness of Commission operations.

Collaboration with CF

The CF staff who review company filings (*e.g.,* Form 10-K) are assigned to Industry Groups within CF. CF assigns firms to a particular group based on their

Standardized Industrial Classification code.[177] Periodically, CF management reassigns firms to adjust the staff's workload. During the past two years, CF twice transferred the CSE firms to different Industry Groups.

CF staff stated that they received a briefing from TM regarding how the CSE program operates. However, according to CF, TM did not provide any specifics regarding the information that the CSE program obtains from the CSE firms.

We believe that the information that TM obtains could substantially improve CF's filing review process. For instance, CF could evaluate whether the information in the filing (*e.g.,* mark to market accounting, VaR models, funding sources) is consistent with TM's information. Furthermore, as a result of Bear Stearns' collapse, CSE firms are now required to disclose additional information regarding capital and liquidity. Also, Basel's Pillar 3 standard (when implemented) will require additional disclosures regarding capital, risk exposures, and risk assessment. TM stated that the CSE firms would incorporate all of these new disclosures mainly into their CF filings. These additional disclosures will, therefore, increase the need for collaboration between TM and CF.

Our audit found that CF could not opine on the potential usefulness of TM's information on the filing review process since they are not aware of the information that TM receives on the CSE firms. The effectiveness of CF's filing review is potentially diminished because CF is not incorporating TM's information on the CSEs into its review process.

Recommendation 17:
The Divisions of Corporation Finance (CF) and Trading and Markets (TM) should take concrete steps to improve their collaboration efforts and should determine whether TM's information on the Consolidated Supervised Entity (CSE) firms could be used by CF in its review of the CSE firms.

Collaboration with OCIE

GAO found that TM and OCIE should improve communication (*e.g.,* information sharing) between their offices.[178] Although TM and OCIE informed GAO during its audit in 2007, that they were working on an agreement to improve communication, they never finalized the agreement.

In July 2007, Chairman Cox transferred the responsibility for inspecting the consolidated entities from OCIE to TM. However, despite this organizational

[177] "The Standard Industrial Classification was created by the United States government as a means of classifying industries by the use of a 4-digit coding system to collect economic data on businesses." (Source: http://www.business.com/directory/management/strategic_planning/business_information/industry_research/classification_systems/standard_industrial_classification_sic/.

[178] Source: GAO. Financial Market Regulation, Agencies Engaged in Consolidated Supervision Can Strengthen Performance Measurement and Collaboration, Report No. 07-154. March 15, 2007.

change, TM and OCIE could still improve their collaboration involving the broker-dealers of the CSE firms. OCIE stated that TM does not provide it access to information that TM obtains from meetings with CSE staff, filings submitted by the CSE firms, and other sources of information. OCIE stated that all of this information could improve their risk-based broker-dealer inspections. A senior staff official at a CSE firm stated there is no coordination between TM and OCIE and this creates a challenge. OCIE stated that it believes that it would still be useful to finalize the agreement to improve collaboration and TM has not identified any substantive reasons to oppose finalizing the agreement.

Recommendation 18:
The Division of Trading and Markets (TM) and the Office of Compliance Inspections and Examinations (OCIE) should develop a collaboration agreement (*e.g.,* discussing information sharing) that maintains a clear delineation of responsibilities between TM and OCIE with respect to the Consolidated Supervised Entity program. They should inform the Chairman's Office of any disagreement(s) so that the issue(s) can be resolved.

Collaboration with ORA

The missions of ORA and the CSE programs' have certain similarities. ORA's mission includes identifying emerging issues and market risks[179] while the CSE's program mission states that its purpose is to:

> ... allow the Commission to monitor for, and act quickly in response to, financial or operational weakness in a CSE holding company or its unregulated affiliates that might place regulated entities, including US and foreign-registered banks and broker-dealers, *or the broader financial system at risk.*[180] [Emphasis added]

We believe that a formal understanding between ORA and TM would increase the likelihood that ORA achieves its mission while potentially minimizing duplicative efforts in identifying and analyzing risks.

Recommendation 19:
The Division of Trading and Markets and the Office of Risk Assessment should develop an agreement outlining their roles and responsibilities, as well as methods for information sharing such as communicating project results. These two offices should inform the Chairman's Office of any disagreement(s) so that the issue(s) can be resolved.

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[179] Source: Jonathan Sokobin Named Director of SEC's Office of Risk Assessment. Commission. 28 February 2008. <http://www.sec.gov/news/press/2008/2008-24.htm>.

[180] Source: SEC [Commission] Consolidated Supervision of Broker-Dealer Holding Companies Program Overview and Assessment Criteria. Commission. 16 Mar 2007. <http://www.sec.gov/divisions/marketreg/cseoverview.htm>.

Finding 8: CF's Filing Review Of Bear Stearns' 2006 10-K Was Not Timely

CF is responsible for reviewing filings of all public reporting companies, such as Bear Stearns. However, CF's review of Bear Stearns' 2006 10-K was not timely.

Review of Bear Stearns' 10-K Filing

There are significant issues regarding CF's review of Bear Stearns' 2006 10-K filing dated November 30, 2006. The filing review emphasized Bear Stearns' disclosures involving its exposure to subprime mortgage securities.[181]

Bear Stearns submitted its 2006 10-K filing to the Commission on February 13, 2007. The CF staff accountant completed the initial review of Bear Stearns' 2006 10-K filing on April 30, 2007, approximately 2½ months after Bear Stearns submitted the filing. Another CF staff accountant completed a second level review on September 27, 2007, nearly five months after the initial review. CF could not provide a specific reason as to why the second reviewer did not perform the review in a timely manner.

CF sent a comment letter[182] to Bear Stearns on September 27, 2007, which, among other things, requested additional information on Bear Stearns' exposure to subprime mortgage securities. Thus, it took CF nearly 7½ months, after Bear Stearns' initial filing, to send a letter to Bear Stearns requesting additional information.

CF's policy is to send a comment letter to a firm prior to the firm's next fiscal year-end. In the case of Bear Stearns, its next fiscal year-end was November 30, 2007 and the Commission received its 2007 10-K on February 13, 2007. According to CF's policy, CF needed to provide Bear Stearns with a comment letter before November 30, 2007.[183] In this way, the firm would have an opportunity to incorporate appropriate changes into its next year's 10-K filing. However, other than this policy, CF does not have any internal guidelines regarding timeframes within which to review filings and issue comment letters.[184]

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181 CF staff performed a targeted review that focused on subprime mortgage exposure and revenue recognition.

182 The staff provide firms with a written memorandum (*i.e.*, a "comment letter") describing the staff's filing review comments.

183 In this instance, CF met its policy of issuing a comment letter prior to Bear Stearns' fiscal year end.

184 The Sarbanes Oxley Act of 2002 also requires CF to review each public reporting company at least one time every three years.

We believe that a five-month timeframe to complete a second review coupled with a total time of 7½ months to send a comment letter to Bear Stearns was simply unacceptable in this particular instance, because this filing review focused on the material issue of subprime mortgage securities (which was adversely affecting the securities industry worldwide).

Bear Stearns' response letter (coupled with CF's comment letter) contained material information that investors could have used to make well-informed investment decisions.[185] For example, Bear Stearns' response letter described its criteria for classifying loans as sub-prime, information about its risk management philosophy, how it defines non-performing loans and a quantification of its investments in securities backed by subprime mortgages. The OIG expert believes that all of these criteria would have been helpful to investors.[186]

We did not perform audit work to determine CF's timeliness in reviewing 10-K filings in general. Despite the lack of information about other filings, based upon CF's review of Bear Stearns' 10-K filing, we believe that the filing review process lacks the appropriate internal controls (*i.e.,* timeframes for conducting second level reviews) to ensure timely reviews.

Recommendation 20:
The Division of Corporation Finance should: (1) develop internal guidelines for reviewing filings in a timely manner, and (2) track and monitor compliance with these internal guidelines.

Bear Stearns' Response to CF's Comment Letter

Pursuant to CF policy, firms are supposed to reply within 10 business days to CF comment letters. Thus, Bear Stearns' reply was due on October 12, 2007. Prior to this due date, Bear Stearns asked CF (in writing) and received an extension until early November 2007 to file its response. However, Bear Stearns did not respond by this new due date. Bear Stearns then orally asked for and received additional extensions. Bear Stearns finally submitted its comments to CF on January 31, 2008, nearly 3½ months after the initial due date.[187]

As a result of Bear Stearns' delays, the CF staff accountant did not complete the initial review of Bear Stearns' response until March 4, 2008 and the second

[185] This information was especially material given that Bear Stearns' stock price went from a one-year closing price high of $158 (April 25, 2007) to a closing price high of $77 the week before March 10, 2008. The final price was $10, the sale price that JP Morgan paid.

[186] CF does not consider its public comment letters and firms' response letters as a means of disseminating (*i.e.*, disclosure) information about public companies. Rather, CF believes that changes to a firm's filings, as a result of CF's comment letters, should be the primary disclosure method. In fact, CF does not post its public comment letters and a firm's response letters to the public site of EDGAR until an issue has been fully resolved.

[187] Two other CSE firms did not respond in a timely manner to comments on their 2006 10-K filings. These filing reviews also emphasized subprime mortgages.

reviewer did not complete her review until April 2, 2008, by which time Bear Stearns had already collapsed.

It is our understanding that Bear Stearns' delay in responding to the comment letter was not a unique situation and CF routinely grants extensions to firms to address CF's comment letters. Further, CF informed us that it only requests a firm to contact CF within 10 days of receiving a comment letter and does not require a substantive response to the issues within the 10-day timeframe. Thus, while CF imposes a timeframe for a firm to contact CF, CF does not have a policy prescribing when firms are expected to respond to the issues raised in CF's comment letters.

While there are several consequences that may be imposed on a firm for not responding timely (*e.g.,* the firm may be required to make additional disclosures in future filings regarding the outstanding staff comments or the staff may refer the matter to the Commission's Division of Enforcement for investigation), in the case of Bear Stearns, none of these consequences occurred. Furthermore, by granting repeated extensions, the filing review was rendered less meaningful since the staff completed the filing review after Bear Stearns collapsed. As a result, we believe that investors could have used this material information to make well-informed investment decisions. In addition, the information (*e.g.,* Bear Stearns' exposure to subprime mortgage securities) could have potentially been beneficial to dispel the rumors that led to Bear Stearns' collapse.

Recommendation 21:
The Division of Corporation Finance (CF) should (1) establish a policy outlining when firms are expected to substantively respond to issues raised in CF's comment letters, and (2) track and monitor compliance with this policy.

Finding 9: Certain Firms May Pose A Systemic Risk Because They Are Not Supervised On A Consolidated Basis

> Certain firms may pose a systemic risk because neither the Commission nor any other regulator currently supervises them on a consolidated basis.

Several large firms, other than the CSEs, have many customer accounts, hold large amounts of customer funds, and have unregulated affiliates. The broker-dealer affiliates of these firms are subject to the Risk Assessment program, but neither the Commission nor any other regulator supervises these firms on a consolidated basis.[188] In most cases, these firms would be ineligible to apply for

188 Some of the firms are also subject to the Investment Advisers Act of 1940 and the Investment Company

group-wide supervision under the CSE program. In some cases, these firms could voluntarily elect to be supervised under the Commission's CSE program or under the statutory supervision regime created by Gramm-Leach-Bliley Act,[189] but these firms are not required to elect this supervision.

Several firms both inside and outside the CSE program collapsed or otherwise experienced serious financial difficulties between March and September 2008.[190] As a result, we believe that if one of these other (non-CSE) firms failed or experienced another significant problem, the broader financial system could be adversely affected, thus impacting the Commission's mission of maintaining fair, orderly, and efficient markets. We did not perform an in-depth assessment of the risks that these firms present or the costs/benefits of supervising these firms on a consolidated basis because of resource constraints. However, we believe that in light of the impact of Bear Stearns collapse, it would behoove the Commission to perform such an analysis.

Recommendation 22:
Chairman Cox should create a Task Force led by the Office of Risk Assessment (ORA) with staff from the Divisions of Trading and Markets, and Investment Management, and the Office of Compliance Inspections and Examinations. The Task Force should perform an analysis of large firms with customer accounts that hold significant amounts of customer funds and have unregulated entities, to determine the costs and benefits of supervising these firms on a consolidated basis. If the Task Force ultimately believes that the Securities and Exchange Commission (Commission) should supervise these firms on a consolidated basis, it should make a recommendation to the Commission that involves seeking the necessary statutory authority to oversee these firms on a consolidated basis.

Act of 1940. As a result, OCIE is responsible for inspecting these firms and the Division of Investment Management is responsible for the regulations.

189 "The Gramm-Leach-Bliley Act of 1999 ("Act") will significantly impact the financial services industry. By repealing provisions of the Glass-Steagall Act, the Act facilitates affiliations between banks, securities firms, and insurance companies."
Source: Banking Information: Overview of the Gramm-Leach-Bliley Act. Federal Reserve Bank of San Francisco. < http://www.frbsf.org/publications/banking/gramm/grammpg1.html>.

190 Between March and September 2008, Bear Stearns, Lehman Brothers, Merrill Lynch, mortgage originators Fannie Mae and Freddie Mac and the American International Group, Inc., all experienced major financial difficulties and collapsed, filed for bankruptcy, or were purchased or taken over by another entity.

Finding 10: TM Should Address Organizational Issues Involving The Future Of The CSE Program

We identified several organizational issues involving the future of the CSE Program, which could significantly improve the CSE program.

Changes to the CSE Program

Due to the collapse of Bear Stearns in March 2008, the bankruptcy filing by Lehman Brothers, the purchase of Merrill Lynch by Bank of America, the planned change in status to bank holding companies for Goldman Sachs and Morgan Stanley, [191] and the changing economic environment, the future of the CSE program is uncertain.

Since the collapse of Bear Stearns, several aspects of the CSE program's oversight activities have changed and other changes are being contemplated, as follows:

- The CSE program staff now closely scrutinize the secured funding activities of each CSE firm, with a view to lengthening the average term of secured and unsecured funding arrangements;
- The CSE program staff now obtain more funding and liquidity information for all CSEs;
- TM is in the process of establishing additional scenarios that entail a substantial loss of secured funding. The scenario analyses help TM to determine whether firms could survive in a stressed environment;
- TM is discussing with CSE senior management their long-term funding plans, including plans for raising new capital by accessing the equity and long-term debt markets.
- The Commission plans to request legislative authority to regulate the CSEs at the holding company level as well as the authority to require compliance. Currently, participation in the CSE program is voluntary. TM claims that the voluntary nature of the program does not capture all systemically important broker-dealer holding companies, as companies may not opt for such supervision. Additionally, the ability of a holding company to opt out of supervision creates tension when the Commission wishes to impose more rigorous requirements or mandate CSEs to address specific concerns, according to TM;

[191] On September 21, 2008, the Federal Reserve approved, pending a statutory five-day antitrust waiting period, applications from Goldman Sachs and Morgan Stanley to become bank holding companies.

- Chairman Cox has discussed the CSEs programs' need to have systems in place to systematically unwind or liquidate a failing institution at the holding company level. Currently, regulators are only permitted to intervene in the liquidation of a holding company's subsidiaries, such as broker-dealers and banks.

  According to TM, intervention at the holding company level would allow the Commission to operate a failing institution for a limited period of time and would protect the institution's customers and counterparties. Such holding companies typically have substantial activities outside its U.S. bank or broker-dealer. TM believes that the Commission's lack of authority to intervene at the holding company level could lead to massive liquidations of collateral by counterparties to unregulated or non-U.S. regulated affiliates, which in turn, could cause market dislocations and put severe stress on other systemically important financial institutions; and

- The Commission has contemplated ways to improve the efficient and orderly operation of the tri-party repo market. Financial institutions rely on the repo market to finance proprietary and customer positions. If a repo clearing entity is unable to conduct business in an orderly manner, or if a major firm does not have ready access to the repo market, it could have systemic effects on a large number of financial institutions. Bear Stearns was not able to access the repo market on normal business terms, which, according to some accounts, led to its demise.

Changes to the program will require Chairman Cox, Congress, and TM to re-evaluate the needs and priorities of the CSE program.

Recommendation 23:
The Division of Trading and Markets, in consultation with the Chairman's office, should determine what additional changes need to be made to the Consolidated Supervised Entity (CSE) program in light of the collapse of Bear Stearns and changing economic environment.

Program Staffing

The CSE program consists of a small number of staff, several of whom have worked in the CSE program since its inception in 2004. The Office of CSE Inspections currently has only two staff in Washington, DC and five staff in the New York regional office. It also does not currently have an Assistant Director (*i.e.,* an office head).

In July 2007, TM assumed the responsibility for conducting inspections of the CSE firms. However, as of mid-September 2008, TM staff had not completed any inspections in the 14 months that the office has been operational. Three inspections are in varying stages of completion. These inspections act to "assess the adequacy of the implementation of the firm's internal risk management policies and procedures".[192] No milestones are in place to ensure that inspections are completed in a timely manner.

Furthermore, staff at the CSE firms informed the OIG that the inspections information would be useful to them, especially because it would provide the CSEs with information regarding best practices and where the firms stand in relation to each other. It is imperative to receive this information timely to ensure that the information does not become outdated.

Recommendation 24:
The Division of Trading and Markets (TM) should fill critical existing positions, and consider what any additional staff it believes will be needed to carry out the CSE program's function going forward. TM should also establish milestones for completing each phase of an inspection and implement a procedure to ensure that the milestones are met.

Ethics Manual

In 1997, OCIE developed an ethics manual for its Inspection staff because it wanted to formalize standards of behavior and ensure that inspections are conducted in a fair and impartial manner. This manual has been revised and expanded several times since 1997. We believe that a similar manual would be beneficial for TM's monitoring and inspection staff given their close working relationship with the CSE staff.

Recommendation 25:
The Division of Trading and Markets, in consultation with the Office of Compliance Inspections and Examinations and the Commission's Ethics office, should develop an ethics manual.

Coordination with Other Regulators

The CSE program staff are increasingly working with the Federal Reserve and other Federal regulators in its administration of the CSE program. Increased coordination with the Federal Reserve is particularly important because the Federal Reserve, unlike the Commission, is in a position to provide emergency funding to distressed firms. Improved communication and information sharing among Federal regulators should also reduce overlaps and alleviate the firms' need to produce duplicative information for each entity. The memorandum of understanding that the Commission and the Federal Reserve entered into in July 2008 is a positive step.

Additionally, we believe that the CSE program staff will need to further recognize the interconnectedness between securities firms and banks. A general

[192] Source: SEC [Commission] Holding Company Supervision Program Description. Commission. 5 June 2008. <http://www.sec.gov/divisions/marketreg/hcsupervision.htm>.

perception, as communicated by a staff member at a CSE firm, is that if a broker-dealer fails, the Commission seems to worry only about customer assets, and if a bank fails, the Federal Reserve seems to worry only about depositors' accounts. Neither regulator appears to focus on systemic risk, nor how the interconnectivity among securities firms and banks affects the overall landscape.

Recommendation 26:
The Division of Trading and Markets should continue to seek out ways to increase its communication, coordination, and information sharing with the Federal Reserve and other Federal Regulators